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Most na Soči

Razprave
Treatises

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Janez Dular
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The Iron Age Settlement at Most na Soči. Treatises

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ŽELEZNODOBNO NASELJE MOST NA SOČI
Razprave

THE IRON AGE SETTLEMENT AT MOST NA SOČI
Treatises

Uredila / Editors:

Janez Dular, Sneža Tecco Hvala

ZALOŽBA ZRC

LJUBLJANA 2018

PREDGOVOR

Most na Soči velja za eno naših najpomembnejših železnodobnih najdišč. Že ob odkritju sredi devetnajstega stoletja je pritegnil zanimanje strokovnjakov, ki so svoj pogled usmerili predvsem v nekropolo. Najaktivnejša med njimi, Carlo Marchesetti iz Trsta in Josef Szombathy z Dunaja, sta med letoma 1884 in 1902 nad sotočjem Idrijce in Soče izkopala več kot 6000 grobov, kar uvršča Most na Soči na sam vrh raziskanih prazgodovinskih grobišč srednje Evrope. Zelo odmevna so bila tudi zaščitna izkopavanja naselja. Čeprav so potekala v neugodnih časih, ko za varovanje arheoloških ostalin še ni bilo pravih normativov, na vse skupaj pa je močno vplivala pospešena gradbena dejavnost ob popotresni obnovi Posočja, so bila izpeljana uspešno in korektno. Še več, pri delu so se v polni meri pokazale dragocene izkušnje vodje izkopavanj Draga Svoljšaka, ki se je kalil pri terenskih raziskovanjih v Stični in brez katerih zanesljivo ne bi dobili tako celovite slike o notranji strukturi naselja, kot jo imamo pred seboj. To omenjamo zato, ker se danes vse prepogosto pozablja, da so bili v Sloveniji temelji modernih izkopavalnih postopkov postavljeni prav v Stični in na Mostu na Soči ter da so današnji standardi v dobršni meri tudi rezultat takratnih dosežkov in prizadevanj!

Druga knjiga o železnodobnem naselju Most na Soči prinaša ovrednotenje terenskih izvidov in najdb. Gre za zaključno fazo triletnega projekta z naslovom *Železnodobna naselbina na Mostu na Soči – začetki urbanizma v jugovzhodnih Alpah* (J6-6835), ki ga je financirala Javna agencija za raziskovalno dejavnost Republike Slovenije iz državnega proračuna, vodila pa sva ga spodaj podpisana urednika. Zaradi kompleksnosti problematike so bili vanj vključeni številni sodelavci, ne le arheologi, tudi naravoslovci in tehniki, saj smo želeli podati o naselju čimbolj kompleksno sliko.

V prvem tematskem sklopu monografije je predstavljena kronologija naselja, ki sloni na kovinskem in keramičnem gradivu. Sledi poglavje o posoškem stavbarstvu, se pravi o gradnji hiš in njihovi umestitvi v prostor. Ta del je zaradi dobro dokumentiranih ostalin zelo pomemben, saj predstavlja prvi resnejši vpogled v železnodobno gradbeno dejavnost na območju jugovzhodnih Alp. V naslednjih dveh razpravah je analizirano drobno gradivo. Omeniti moramo kovinske najdbe, med katerimi prevladuje nakit, ter orodja in druge pripomočke, ki so jih prebivalci naselja uporabljali pri vsakdanjih opravilih. Obsežna je predstavitev lončenine. Analizirana je sestava lončarskih glin, narejena tipologija form in ugotovljeni so časovni razponi posameznih oblik.

V drugem sklopu razprav so predstavljeni rezultati analize surovin, ki so jih prebivalci Mosta na Soči uporabljali za izdelavo svojih izdelkov. Najprej glinenih pustil, nato pa še brona, železa in kamna. Podana je sestava predmetov in določena so območja, s katerih so dobivali surovine. V bližnji okolici Mosta na Soči namreč ni pomembnejših rudišč.

Tretji sklop zaobjema razprave o organskih ostankih. Najprej o lesu, ki so ga prebivalci Mosta na Soči uporabili za gradnjo hiš. Analiziranih je bilo več sto vzorcev, kar je doslej največja zbirka zoglenelega lesa na območju Slovenije. Predstavljene so tudi kulturne rastline, predvsem žita, ki so jih gojili, ter sadeži, ki so jih nabirali oziroma uvažali iz južnih krajev. V posebni študiji so bili analizirani skromni ostanki tekstila. Sklop zaključuje obsežna razprava o kosteh živali, ki so jih redili in uživali v tem delu Posočja v železni dobi.

Spodaj podpisana sva v uvodni študiji ugotovitve avtorjev povzela in jih vpela v širši kulturnozgodovinski kontekst. Tako je dobil železnodobni Most na Soči celovitejšo podobo, ki si jo kot eno najpomembnejših središč jugovzhodnoalpske halštatske kulture nedvomno zasluži.

Na koncu bi se rada le še zahvalila. Najprej vsem avtorjem, ki so s svojimi tehtnimi prispevki soustvarili monografijo o Mostu na Soči; nekateri so svoje prispevke tudi sami prevedli (Horvat, Lamut, Šmit in Laharnar, Tolar, Toškan). Za prevod iz italijanščine v slovenščino se zahvaljujeva Dragu Svoljšaku in Eleni Leghissa, za preostale prevode v angleščino Andreji Maver, za jezikovni pregled slovenskih besedil pa Špeli Križ. Hvala tudi sodelavkama Goriškega muzeja dr. Teji Gerbec in Ani Kruh ter kustosu Tolminskega muzeja mag. Mihi Mlinarju, ki so nam bili vedno pripravljeni odpreti depoje in zbirke muzejev, da smo lahko preverjali dokumentacijo in gradivo. Nepogrešljiva je bila pomoč sodelavcev Inštituta za arheologijo, Mateje Belak, ki je opravila oblikovanje in prelom besedila, in Tamare Korošec, ki je oblikovala naslovnico knjige in rekonstrukcije hiš. Nekateri načrti, slike in fotografije so delo Draga Valoha, nekaj posnetkov je prispeval tudi Tomaž Lauko. Sezname literature je skrbno pregledala Andreja Dolenc Vičič. Vsem skupaj še enkrat prisrčna hvala!

Urednika Janez Dular in Sneža Tecco Hvala
V Ljubljani, maja 2018

PREFACE

Most na Soči is among the most prominent Iron Age sites in Slovenia. Already upon its discovery in the mid-19th century, it attracted the attention of scholars who, mainly focused on the cemetery. The two most active were Carlo Marchesetti from Trieste and Josef Szombathy from Vienna. Between 1884 and 1902, they excavated more than 6000 graves above the confluence of the Rivers Idrijca and Soča, which ranks Most na Soči at the very top of the investigated prehistoric cemeteries in central Europe. The later rescue excavations of the settlement also raised much interest. They were conducted in a very precise and efficient manner in spite of the fact that there were no proper standards for archaeological heritage protection at that time and the investigation was under great pressure by the reconstruction activities following a massive earthquake that had hit the Posočje region. The results of these successful excavations offer a unique and comprehensive glimpse into the interior structure of the settlement, which would certainly not be possible were it not for the experienced head of the excavations, Drago Svoljšak, whose previous work included fieldwork at Stična. It is important to remember that the foundations of modern excavation procedures in Slovenia were laid at these very two sites, Stična and Most na Soči, but also that the standards in place today result in a considerable measure in the achievements and efforts from that period!

The second volume on the Iron Age settlement at Most na Soči evaluates the structures and small finds. It is the culmination of a three-year project, titled *Iron Age settlement at Most na Soči – the beginnings of urbanism in the southeastern Alps* (J6-6835), which was finacially supported by the Slovenian Research Agency. The project was managed by Janez Dular and Sneža Tecco Hvala. The multifariousness of the site's structures and small finds required the expertise of several archaeologists and other collaborators to present the settlement as comprehensively as possible**.**

The first section of the book opens with the chronology of the settlement based on the metal and ceramic finds. This is followed by a chapter on the architecture in Posočje, more precisely on the construction techniques and the careful choice of building locations. These results discuss the remains that are very well preserved and therefore of great importance as they offer a good insight into the Iron Age constructions in the south-eastern Alpine region. The following chapter present the small finds. These include metal artefacts that mainly consist of jewellery, but also tools and other objects that the inhabitants of Most na Soči used in their everyday activities. Pottery is also numerously represented and presented here as to the composition of the fabrics, the typology of forms and their chronological spans.

The second section presents the analyses of some of the raw materials that the artisans used in their work: clay temper, bronze, iron and stone. The results reveal their composition and the origin of the raw materials, which is significant as there are no major ore deposits in the area of Most na Soči.

The third section presents the organic remains. Firstly, there are the remains of the structural wood used in house construction. Over a hundred samples of wood were analysed, which is the largest collection of charred wood in Slovenia to date. The settlement also yielded crop plants, mainly cereals, but also fruit that they either gathered locally or imported from areas with a warmer climate. A special study presents the scarce remains of textile. This section is rounded off with the discussion on the remains of animals that were reared and consumed in this part of Posočje during the Iron Age.

The results and findings of these expertise are brought together in the introductory study that also provides a broader cultural and historical context of the site and underlines its place among the most important centres of the south-eastern Alpine Hallstatt culture.

It is an important contribution that would not be possible without the involvement of a group of dedicated collaborators. Firstly, there are all the authors whose expertise has helped us to illuminate different facets of the site; some also translated their contributions into English (Horvat, Lamut, Šmit and Laharnar, Tolar, Toškan). Drago Svoljšak and Elena Leghissa translated the Italian contribution into Slovenian, Andreja Maver translated the Slovenian articles into English and Špela Križ copyedited the Slovenian texts. We would also like to thank dr. Teja Gerbec and Ana Kruh from the Goriški muzej, as well as mag. Miha Mlinar, curator at the Tolminski muzej, who allowed us free access to their storage facilities and collections in order to examine the excavation records and small finds. At the Institute of Archaeology, Mateja Belak was the desktop publisher, Tamara Korošec designed the book cover and drew the house reconstructions, Drago Valoh contributed several plans, drawings and photographs, Tomaž Lauko contributed several photographs and Andreja Dolenc Vičič carefully checked the references. Sincere thanks to all!

Janez Dular and Sneža Tecco Hvala, editors
Ljubljana, May 2018

VSEBINA

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MOST NA SOČI V ŽELEZNI DOBI

MOST NA SOČI IN THE IRON AGE

Janez DULAR, Sneža TECCO HVALA

Most na Soči je postal znan po železnodobni nekropoli, ki sodi med največje, kar so jih doslej raziskali v Evropi.[1] K njegovi slavi je pripomoglo tudi naselje, katerega ostanke je v sedemdesetih in osemdesetih letih prejšnjega stoletja izkopaval Goriški muzej.[2] Da je bil Most poseljen že v prazgodovini, ni presenečenje. Ljudje so namreč hitro prepoznali naravne danosti kraja, ki leži na jugu Tolminske kotline v sovodnji Soče, Idrijce in Bače. Ob rekah so od nekdaj tekle pomembne poti. Prva je vodila po dolini Idrijce oziroma čez Šentviško planoto do Cerknega ter od tu naprej preko Škofje Loke v Ljubljansko kotlino. Druga komunikacija je vijugala po Baški grapi proti severovzhodu. Ko je prečkala preval na Petrovem Brdu in Soriško planino, se je spustila v Bohinj, ki je bil znan po bogatih nahajališčih železove rude. Tretja pot je šla ob Soči proti severu. Pri Kobaridu, se je razcepila v dva kraka: prvi je šel proti Bovcu in čez Predel na Koroško, drugi ob Nadiži na zahod v Benečijo in Furlansko ravnino. Končno moramo omeniti še pot proti jugu. Najverjetneje ni tekla ob Soči. Iz karte najdišč posoške (svetolucijske) železnodobne skupnosti je moč razbrati, da je prečkala Banjško planoto (*sl. 1*). Pri Gorici je dosegla Vipavsko dolino, še naprej pa Kras in Tržaški zaliv z Jadranskim morjem.

Razen tega, da je bil Most na Soči naravno vozlišče poti, se odlikuje kraj tudi po svoji legi. Poselitev se je lahko širila po širokem pomolu nad sotočjem Idrijce in Soče, ki sta si na tem mestu v skalno osnovo vrezali čez dvajset metrov globoki debri. Danes sta zaliti z akumulacijskim jezerom doblarske elektrarne. Severno stran pomola dodatno varujejo tri vzpetine (Munihov in Cungov kuk ter Teza oziroma Kuk sv. Mavra), pri čemer je z zadnjega (232 m) odličen razgled po soški dolini. Dostop na pomol je razmeroma lahek le z vzhoda, kjer se proti zaselku Stopec širijo za poljedelstvo primerne površine. Rodovitna polja so tudi na prostrani terasi severno od naselja v smeri proti Modreju.

Danes je območje Mosta na Soči skoraj v celoti pozidano in zato močno preoblikovano. Milan Šifrer je

[1] Marchesetti 1893; Gabrovec, Svoljšak 1983; Teržan, Lo Schiavo, Trampuž 1984–1985.

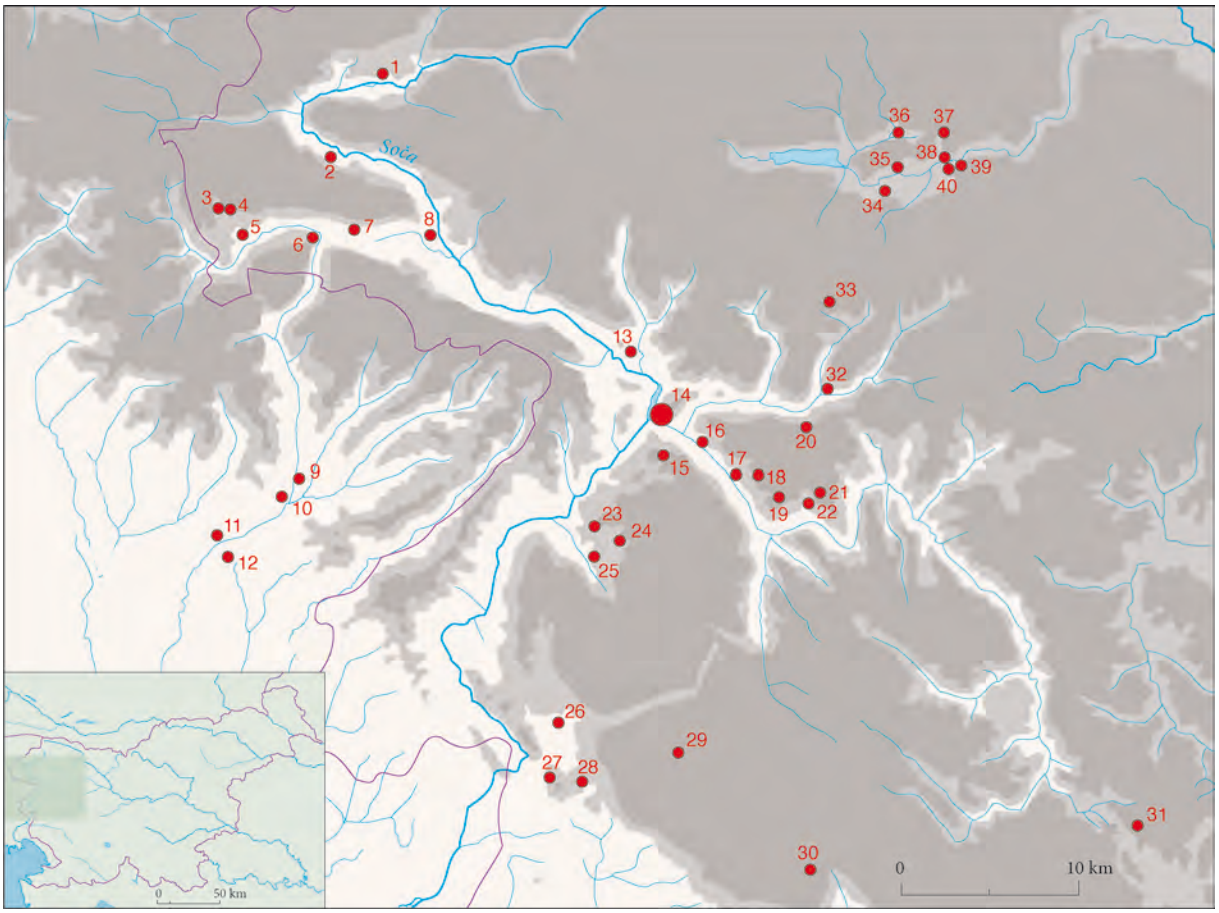
[2] Svoljšak, Dular 2016.

Most na Soči first became known for the Iron Age cemetery that ranks among the largest necropoleis ever excavated in Europe.[1] Later, its renown became even greater with the investigations of the settlement that the Goriški muzej conducted in the 1970s and 80s.[2] The investigations showed that Most was already inhabited in prehistory. This is not surprising; people recognised the advantageous natural conditions of its location very early on, lying at the southern edge of the Tolmin Basin and at the confluence of the Soča, Idrijca and Bača. Rivers have always represented important lines of communication. One such line led along the valley of the Idrijca or across the plateau of Šentviška planota to Cerkno and further on via Škofja Loka to the Ljubljana Basin. The second line of communication meandered along the valley of the River Bača towards the north-east; it crossed the mountain pass at Petrovo Brdo and the alp of Soriška planina, and descended to Bohinj, an area known for its rich iron ore deposits. The third line followed the River Soča northwards and forked at Kobarid: one line continued towards Bovec and across the Predel Pass to Carinthia, the other followed the River Nadiža/Natisone westwards towards Veneto and the Friuli Plain. We should also mention the route that led southwards; the map of the sites of the Sveta Lucija Iron Age community (*Fig. 1*) suggests that it probably did not lead along the Soča, but rather crossed the plateau of Banjška planota, reached the Vipava Valley at Gorica and continued further southwards to the Kras and the Bay of Trieste in the Adriatic.

The geography at Most na Soči made it a natural junction of different routes, though it offered other advantages as well. The Idrijca and Soča cut their beds so as to form a wide promontory that was both suitable for habitation and naturally well protected. The made over 20 metres deep gorges that are flooded today with the dam for the Doblar hydropower station. While the two rivers formed a natural defence on the west and the south, the north side of the promontory was protected by

[1] Marchesetti 1893; Gabrovec, Svoljšak 1983; Teržan, Lo Schiavo, Trampuž 1984–1985.

[2] Svoljšak, Dular 2016.



Sl. 1: Karta najdišč posoške (svetolucijske) železnodobne skupnosti.
Fig. 1: Map of sites of the Posočje (Sveta Lucija) Iron Age community.
1 Bovec; **2** Srpenica; **3** Sedlo; **4** Homec; **5** Podbela; **6** Robič; **7** Staro selo; **8** Kobarid (Gradič, V logu, Tonovcov grad); **9** S. Peitro al Natisone / Špeter Slovenov; **10** S. Quirino; **11** Čedad / Cividale; **12** Darnazzacco; **13** Tolmin; **14** Most na Soči; **15** Kal nad Tolminskim Lomom; **16** Idrija pri Bači; **17** Slap ob Idrijci; **18** Pečine (Vrh gradu); **19** Šentviška Gora (Berlotov rob); **20** Gorski Vrh (Jerovica); **21** Šentviška Gora; **22** Polje (Gradišče); **23** Levpa (Grad); **24** Kal nad Kanalom (Vrh gradca); **25** Kal nad Kanalom (Na gradu); **26** Grgar (Grašišče); **27** Solkan (Sv. Katarina); **28** Loke (Kolenovca); **29** Trnovo (Kamni breg); **30** Lokavec (Kovačevše); **31** Godovič (Jelenšek); **32** Koritnica; **33** Nemški Rut; **34** Žlan; **35** Brod; **36** Srednja vas v Bohinju; **37** Jereka; **38** Bitnje; **39** Lepence; **40** Bitnje (Ajdovski gradec).

še prepoznal dve terasi, zgornjo na višini okoli 195 m in spodnjo na 180 m nadmorske višine.[3] Sestavlja ju morensko gradivo in slabo sortiran fluvioglacialni prod, ki se je mestoma sprijel v čvrst konglomerat. Na nižji terasi je nasutje debelo le še 0,5 do 2,0 m. Pod njim se nadaljuje proti Soči in Idrijci nagnjena živoskalnata podlaga.

Do kod se je širilo naselje in če je sploh imelo obzidje, brez načrtnih raziskav ne moremo zanesljivo ugotoviti (*sl. 2: 1*). Drago Svoljšak je pred časom postavil tezo, da Most na Soči ni potreboval fortifikacij, saj so ga dovolj dobro ščitile že naravne danosti terena. Obramba naj bi bila prepuščena gradiščem, ki so stala na najbolj nevralgičnih mestih ob glavnih prometnicah daleč stran od središča posoške železnodobne skupnosti (Ravelnik pri Bovcu, Gradišče pri Robiču, Jelenšek nad

[3] Šifrer 1983, 68.

three peaks: Munihov kuk, Cungov kuk and Teza/Kuk sv. Mavra, the last of which (232 m) affords a clear view over the Soča Valley. The promontory was only relatively easily accessible from the east, where arable land extends towards the present-day hamlet of Stopec. Arable land can also be found on a vast terrace of the Soča in the direction of the Modrej village, north of Most na Soči.

The area of Most na Soči is almost entirely built-up today and therefore greatly altered. In the early 1980s, geographer Milan Šifrer could still identify two terraces, the upper one at an altitude of around 195 m and the lower one at 180 m asl.[3] The two terraces are composed of moraine till and poorly sorted fluvioglacial gravel that in places forms a compact conglomerate. This deposit is only 0.5–2.0 m thick on the lower terrace; under it

[3] Šifrer 1983, 68.

Sl. 2: Topografska karta Mosta na Soči z vrisanimi najdišči: naselje (*1*), grobišči (*2, 3*). M. = 1:5000.
Fig. 2: Topographic map of Most na Soči with marked sites: settlement (*1*), cemeteries (*2, 3*). Scale = 1:5000.

Godovičem, Sv. Katarina nad Solkanom).[4] Pri razlagi obrambne strategije je sledil mnenju G. Fogolari, ki je za venetske naselbine v njihovem teritorialnem jedru ugotovila, da niso bile obzidane, ampak so zanje izbrali naravno zavarovana območja ob vodah in na vzpetinah.[5]

Zanimivo je, da je Carlo Marchesetti, ta še vedno neprekosljiv poznavalec prazgodovinskih kaštelirjev, v svoji publikaciji o svetolucijskem grobišču zapisal, da je bilo naselje sicer dobro varovano že z rekama in hribovjem, vendar pa so ga še dodatno utrdili z obzidjem, ki je grič obdajalo z vseh strani.[6] Šlo naj bi za pravi kaštelir. Poleg obodnega obzidja je predvideval še ožji notranji zid, kar bi dokazovale velike groblje kamenja, ki se podaljšujejo proti vrhu vzpetine. Kaj je s tem mislil ni povsem jasno, saj je danes pomol skoraj v celoti pozidan, zato o kakem krožnem obzidju ni sledu. Na južni in zahodni strani niti ni bilo potrebno, saj so naselje dovolj dobro varovale skoraj navpične stene čez dvajset metrov globokih debri Idrijce in Soče.

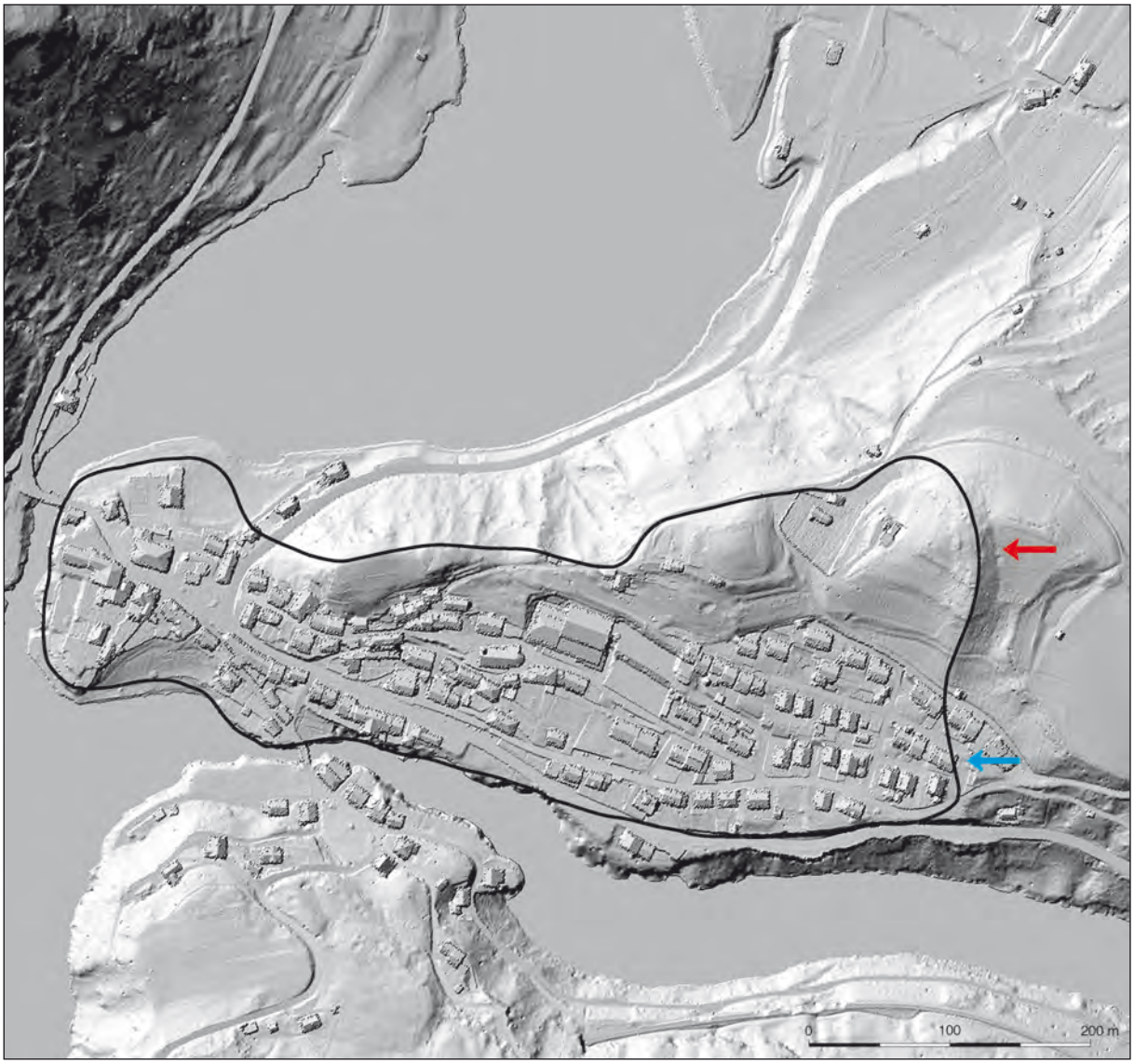
[4] Svoljšak 1984a; Svoljšak 1986.
[5] Svoljšak 2001, 131.
[6] Marchesetti 1893, 316 s.

is the bedrock that inclines slightly towards the Soča and Idrijca.

Without systematic investigations, it is not possible to reliably determine the limits of the prehistoric settlement and whether it had defensive walls (*Fig. 2: 1*). Some time ago, Drago Svoljšak put forward the hypothesis that the settlement itself did not need such fortifications, as it was protected by the natural features of the terrain and additionally by the hillforts located at strategic points along the main routes and at some distance from the centre of this Iron Age community (Ravelnik near Bovec, Gradišče near Robič, Jelenšek above Godovič, Sv. Katarina above Solkan).[4] In his interpretation of the defensive strategy, he followed the opinion voiced by Giulia Fogolari who established that settlements in Veneto were not enclosed within defensive walls, but rather located on naturally protected spots along waterways and elevations.[5]

It is interesting that Carlo Marchesetti, who remains the foremost authority on prehistoric hillforts in

[4] Svoljšak 1984a; Svoljšak 1986.
[5] Svoljšak 2001, 131.



Sl. 3: Most na Soči. Lidarski posnetek z vrisanim obodom železnodobnega naselja. M. = 1:5000.
Fig. 3: Most na Soči. Lidar-derived image with a marked perimeter of the Iron Age settlement. Scale = 1:5000.
(Izdelava / Elaborated by: E. Lozić)

Nekoliko drugačna je bila situacija na severu. Tu je potek oboda manj jasen, vendar pa so morale biti vanj že zaradi strateške lege vključene vse tri vzpetine – kuki. Dokaz so tudi skromne najdbe, ki so jih našli na njihovih pobočjih ob raznih zemeljskih delih.[7] Zelo dobro pa je bilo naselje zamejeno proti vzhodu, od koder je vodila na pomol najlažja pot. Segalo je do velike kamnite groblje, ki se v smeri sever-jug vleče prav čez vrh najvišjega kuka (Teze). Na lidarskem posnetku je odlično vidna, vendar smo jo vseeno označili z rdečo puščico (*sl. 3*). Morda je imel Marchesetti v mislih prav ta del naselja, ko govori o zidovju, ki se podaljšuje proti vrhu vzpetine. Ali se v

[7] V Kroniki fare Sv. Lucije na Mostu jih je zabeležil župnik Alojzij Carli (Svoljšak, Dular 2016, 20 ss); glej tudi Mlinar, Klasinc, Knavs 2008, 192 s.

the region, noted in his 1893 publication of the cemetery at Most na Soči that the settlement was well protected with the rivers and the elevations, but was additionally fortified with defensive walls that surrounded the elevated part from all sides;[6] he believed it to be a proper hillfort. Apart from the main fortification walls, he also observed large formations of stones running up the slope that he interpreted as the remains of a narrower interior wall. Neither the remains nor the interpretation are clear today, because the promontory is completely built up with no visible traces of a circular enclosure. It is certain that a defensive wall in the south and the west would have been unnecessary, as the almost vertical cliffs

[6] Marchesetti 1893, 316 f.

groblji res skriva obzidje, bi pokazala sondaža.[8] Groblja se tik nad cesto proti pokopališki cerkvi sv. Mavra sicer konča, vendar pa je bila v isti liniji, le nekoliko južneje, ob izkopavanjih Goriškega muzeja odkrita močna, do 1,5 m debela suhozidna ograda, ki zanesljivo predstavlja vzhodno mejo naselja (pozicija ograde je označena z modro puščico).[9] Onkraj nje se je namreč širilo poznolatensko in zgodnjerimsko grobišče, na katerem so našli tudi tri domnevno halštatske grobove.[10] Naselje je bilo torej branjeno vsaj z vzhodne, najbolj ranljive strani, kar ni v tem času nobena posebnost. Podobne, v okljuke ali sotočja rek umeščene železnodobne naselbine poznamo tudi iz osrednje in jugovzhodne Slovenije.[11]

Dosedanja izkopavanja so pokazala, da je bil pomol, ki ga oblivata Idrijca in Soča poseljen že v mlajši bronasti dobi.[12] Za tem obdobjem opažamo v poselitveni zgodovini Mosta na Soči precejšnjo vrzel, saj v celoti manjkajo ostaline iz starohalštatskega obdobja. Kod se je v tem času širilo naselje torej ni znano, pričakovati bi ga smeli pod temelji hiš najstarejšega dela vasi. To bodo dokazala ali ovrgla prihodnja raziskovanja. Obsežni ostanki naselja na Merišču, ki so ga med letoma 1971 in 1984 izkopali sodelavci Goriškega muzeja, sodijo šele v mladohalštatski čas (6.–4. stoletje pr. Kr.; stopnje Sv. Lucija IIa, IIb in IIc).[13] Prostor je bil nato v skromnejšem obsegu obljuden še v poznolatenskem obdobju (konec 2. st. in 1. st. pr. Kr.; stopnja Sv. Lucija IV), odkrite pa so bile tudi stavbe iz rimskega časa. Zadnje obdobje seveda ni več predmet naše razprave.

Naselju pripadajoča nekropola se je raztezala na prostrani terasi na levem bregu Idrijce, zato je morala biti čez globoko deber na njenem najožjem delu postavljena lesena brv (*sl. 2: 2*). Tu sta Carlo Marchesetti in Josef Szombathy na ledinah Ograjnica, Žvanovo polje in Na bleku ob koncu devetnajstega stoletja za tržaški in dunajski muzej izkopala čez 6400 grobov, kar uvršča Most na Soči med največja raziskana grobišča prazgodovinske Evrope.[14] Grobovi so prihajali na dan tudi pri raziskavah v dvajsetem stoletju.[15] Da je bilo grobišče res veliko in se je širilo vse do najnižje terase levega brega Idrijce, kažejo najnovejša zaščitna izkopavanja Tolminskega muzeja. Na ledinah Repelc in Pucarjev rob so odkrili nadaljnjih

[8] Na Tezi je leta 1891 kopal Enrico Maionica in našel močno zidovje, kaj več pa ni znanega (zapis A. Carlija v Kroniki fare Sv. Lucije na Mostu za leto 1891).

[9] Glej Svoljšak, Dular 2016, 202 s.

[10] Omenjeno zgolj v kratkih poročilih; Gabrovec, Svoljšak 1983, 35; Svoljšak 1984b, 237; Svoljšak 1985, 232.

[11] Npr. Kranj, Novo mesto, Metlika in Črnomelj; glej Dular, Tecco Hvala 2007, 77.

[12] Svoljšak 1988–1989, 371 ss, t. 4–8. Glej tudi Teržan 1995, 330.

[13] Za podrobnejšo kronologijo naselja glej tu Dular, 147 ss.

[14] Glavni objavi: Marchesetti 1893; Teržan, Lo Schiavo, Trampuž Orel 1984–1985.

[15] Za podrobno zgodovino raziskovanj glej Gabrovec, Svoljšak 1983, 29 ss.

above the more than 20 m deep beds of the Idrijca and Soča offered sufficient protection.

The situation in the north is different. The perimeter here is less clear, but the settlement area must have included all three peaks (locally named *kuki*) that would have been of strategic importance. Scarce finds that came to light on the slopes during different earthworks lend some support to this hypothesis.[7] To the contrary, the eastern perimeter is clear; in the area where access to the promontory is easiest the settlement extended to the belt of stones running north-south and across the highest of the three peaks (Teza). The belt is clearly visible on the lidar image, marked with a red arrow (*Fig. 3*). Perhaps Marchesetti had this particular part of the settlement in mind when writing about defensive walls that continued towards the top of the hill. Whether the belt of stones actually represents a rampart may be revealed by trial trenching.[8] The detectable belt ends just above the road leading towards the cemetery church of St. Maurus. In its line further to the south, the Goriški muzej excavated an up to 1.5 m thick drywall enclosure (marked with a blue arrow on the lidar image) that certainly represents the eastern perimeter of the settlement.[9] East of the line of this enclosure is the Late La Tène and Early Roman cemetery that also yielded three burials presumably from the Hallstatt period.[10] The settlement must therefore have been fortified at least in the east where access was easiest, which was a rather common fortification strategy of the period; similar Iron Age settlements, located in the river bends or at river confluences, are also known from central and south-eastern Slovenia.[11]

Excavations have shown that the promontory was already inhabited in the Younger Bronze Age.[12] After this period, there is a gap in habitation traces that lasts to the Late Hallstatt period. The settlement from the Early Hallstatt period has not yet been discovered, it may lie buried under the foundations of the earliest part of the modern village. The extensive remains of the settlement excavated between 1971 and 1984 at Merišče all date to the Late Hallstatt period (6^{th}–4^{th} centuries BC; the Sv. Lucija IIa, IIb and IIc phases).[13] Albeit in a more limited

[7] The priest Alojzij Carli noted the small finds in Kronika fare Sv. Lucije na Mostu (Svoljšak, Dular 2016, 20 ff); also see Mlinar, Klasinc, Knavs 2008, 192 f.

[8] Enrico Maionica dug at Teza in 1891 and reportedly found thick walls (note by Alojzij Carli in Kronika fare Sv. Lucije na Mostu, 1891), but nothing more is known of his findings.

[9] See Svoljšak, Dular 2016, 202 f.

[10] Only mentioned in short reports; Gabrovec, Svoljšak 1983, 35; Svoljšak 1984b, 237; Svoljšak 1985, 232.

[11] E.g. Kranj, Novo mesto, Metlika and Črnomelj; see Dular, Tecco Hvala 2007, 77.

[12] Svoljšak 1988–1989, 371 ff, Pls. 4–8. See also Teržan 1995, 330.

[13] For a more detailed chronology of the settlement see here Dular, 147 ff.

šestdeset žganih grobov, ki so vsebovali dragocene, tudi uvožene predmete.[16]

Drugo, vendar veliko manjše grobišče, se je raztezalo na desnem bregu Idrijce onkraj že omenjene ograde na skrajnem vzhodnem koncu naselbinskega kompleksa (*sl. 2: 3*). Tu so med letoma 1978 in 1984 pri zaščitnih izkopavanjih odkrili čez 160 grobov, ki sodijo v halštatski, poznolatenski in zgodnjerimski čas.[17]

STAVBIŠČA, GRADNJA HIŠ, INFRASTRUKTURA NASELJA

Bistvene značilnosti železnodobnega naselja na Mostu na Soči je v svojih objavah pojasnil že Drago Svoljšak. Tako je bila komaj leto po odkritju v prvem zvezku Goriškega letnika predstavljena hiša 1, ki je zaradi načina gradnje in dobre ohranjenosti v strokovnih krogih vzbudila precejšnje zanimanje.[18] Podrobno so bili opisani njeni sestavni deli in objavljen izbor najdb, ki so postavile objekt v mladohalštatski čas. Nedaleč stran so bili odkriti ostanki z malto zidane stavbe, s čimer je bila potrjena stara ugotovitev, da je bilo območje Mosta na Soči poseljeno tudi v rimskem obdobju. Na ostaline iz tega časa sta namreč ob koncu devetnajstega stoletja naletela že A. Carli in E. Maionica.[19]

Z nadaljnjimi izkopavanji se je poznavanje prazgodovinske arhitekture še poglobilo.[20] Nove stavbe, zlasti odlično ohranjena hiša 11, so omogočile rekonstrukcijo nadgradnje, ki je bila iz lesa in narejena s pomočjo soh. Hiše na Mostu na Soči so bile po konstrukcijskih detajlih podobne prazgodovinskim stavbam iz alpskega in predalpskega sveta, ker pa so imele številne posebnosti, jih je Svoljšak upravičeno označil kot "posoški tip hiše".[21] Zelo pomembna so bila tudi njegova dognanja o notranji urejenosti naselja.[22] To je bilo skrbno načrtovano z bolj ali manj stalnim rastrom hiš, ki se skozi čas ni veliko spreminjal. Gre torej za naselje, v katerem že lahko slutimo zametke urbanega središča.

Celovita objava gradbenih izvidov in najdb z Mosta na Soči omogoča nadaljnji študij posoškega stavbarstva.[23] Številni konstrukcijski detajli sten, bogati ostanki notranje opreme hiš in pomembni podatki o infrastrukturnih objektih ponujajo dobro osnovo, da si pobližje ogledamo, kakšna sta bila tehnično znanje in sposobnost posoških železnodobnih gradbincev.

[16] Mlinar 2002, 21 ss.

[17] Neobjavljeno, glej še opombo 10.

[18] Svoljšak 1974.

[19] Svoljšak, Dular 2016, 20 s.

[20] Svoljšak 1979a; Svoljšak 1979b; Svoljšak 1980; Svoljšak 1983.

[21] Svoljšak 1998 (1999).

[22] Svoljšak 2001.

[23] Svoljšak, Dular 2016; glej še tu Svoljšak, 167 ss.

extent, the area was populated in the Late La Tène period (late 2nd and 1st centuries BC; the Sv. Lucija IV phase), but also in the Roman period. These habitation traces are not treated here.

The cemetery associated with the settlement was located on a vast terrace on the opposite, left bank of the Idrijca. It was presumably connected with the settlement via a wooden footbridge in the narrowest part of the deep river gorge (*Fig. 2: 2*). Carlo Marchesetti and Josef Szombathy investigated the cemetery towards the end of the 19th century at the sites of Ograjnica, Žvanovo polje and Na bleku. Working for the museums in Trieste and Vienna, respectively, they dug up more than 6400 graves, which rank the necropolis among the largest excavated cemeteries in Europe.[14] Further burials were unearthed during the investigations in the 20th century.[15] The vastness of the cemetery that reached onto the lowest terrace of the Idrijca on the left bank has also been proven by the most recent rescue excavation by the Tolminski muzej, conducted at Repelc and Pucarjev rob, where additional sixty cremations have been found that contained precious items including imports.[16]

A second, much smaller cemetery is located on the right bank of the Idrijca east of the above-mentioned enclosure that marked the eastern perimeter of the settlement complex (*Fig. 2: 3*). The rescue excavations that took place here between 1978 and 1984 unearthed more than 160 graves dating to the Hallstatt, Late La Tène and Early Roman periods.[17]

HOUSE CONSTRUCTION AND SETTLEMENT INFRASTRUCTURE

The main characteristics of the Iron Age settlement at Most na Soči have been discussed by Svoljšak in several publications. The remains of House 1 were first published in the opening volume of Goriški letnik not even a year after their discovery and attracted considerable interest because of the construction technique and good state of preservation.[18] The publication included a detailed description of the recovered constructional elements and a selection of small finds, which dated the house to the Late Hallstatt period. In the vicinity, another house was found that was constructed of mortar-bound stones and confirmed the earlier hypothesis of the area also being occupied in the Roman period. This hypoth-

[14] Main publications: Marchesetti 1893; Teržan, Lo Schiavo, Trampuž Orel 1984–1985.

[15] For a more detailed history of research see Gabrovec, Svoljšak 1983, 29 ff.

[16] Mlinar 2002, 21 ff.

[17] Unpublished, see also Fn. 10.

[18] Svoljšak 1974.

UREDITEV STAVBIŠČ

Proti jugu nagnjen teren je zahteval predhodne zemeljske posege, saj je bilo treba pred gradnjo prostore bodočih stavbišč poravnati in pravilno usmeriti. Vkopi gradbenih jam so bili različno globoki, odvisno od nagnjenosti terena in velikosti objektov. Čeprav so bili večinoma le delno ohranjeni, je bilo moč kljub temu prepoznati glavne značilnosti posegov (*sl. 5*).[24] Večina gradbenih jam je bila z enim kotom zasukana proti severu (*sl. 4*). Tako usmeritev so verjetno narekovale lokalne klimatske razmere (zaščita pred severnim vetrom), stavbišča pa so prilagodili tudi oblikovanosti zemljišča. Vkopi so bili potrebni le s treh strani, četrta, jugozahodna stran se je iztekla v pobočje. Od tega principa odstopata le gradbeni jami hiš 11 in 29, ki sta bili vkopani z vseh štirih strani.

Gradbene jame so bile vkopane v geološko osnovo. Ta je bila od hiše do hiše različna, vendar je šlo v večini primerov za morensko gradivo in fluvioglacialni prod različnih granulacij. Skoraj tretjino jam so morali vsaj deloma vsekati v trd konglomerat. Stene so bile največkrat poševne, pojavljali pa so se tudi navpični in stopničasti vkopi. Kombinacije enih in drugih so bile razmeroma redke.

Ob prenovah hiš (gradbena faza 2), ki so jih postavljali na istih mestih, so ruševine zgolj poravnali in tako pripravili stavbišče. Večji vkopi so bili redki, in sicer v primerih, ko je bil nov tloris premaknjen in je segal izven območja starega (npr. hiše 2, 6, 16).

DRENAŽNI ZIDOVI

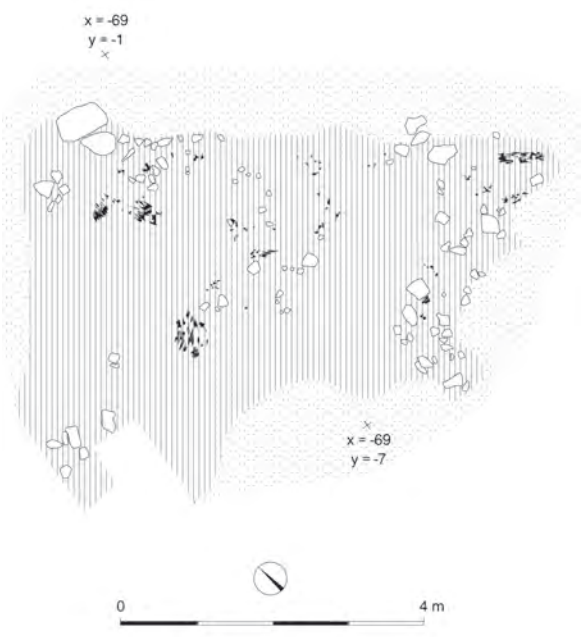
Pomembna značilnost posoškega stavbarstva je gradnja drenažnih zidov. Lesene stavbe je bilo treba zaščititi pred vlago, ki je poleg ognja najhujši sovražnik lesenih konstrukcij. Zidove so postavljali ob vkope gradbenih jam in s tem preprečili, da bi prišla zemljina v neposreden stik s stenami hiš. Za gradnjo so uporabili lokalni kamen, torej material, ki ga je bilo najti na območju naselja ali v njegovi bližnji okolici.

Gradbeni kamen

Med gradivom, ki je bilo najbolj prikladno za izdelavo drenažnih zidov, je tako imenovani volčanski apnenec.[25] Gre za kamenino, bogato z roženci, ki se običajno pojavlja v plasteh, debelih od 5 do 20 cm, zato jo je moč brez velikega truda lomiti v lepih ploščah. Prazgodovinski prebivalci Mosta na Soči so volčanski apnenec veliko uporabljali pri gradnji svojih hiš, z njim

[24] Sledi gradbenih jam ni bilo mogoče ugotoviti le pri hišah 21, 32 in 34.

[25] Ogorelec, Šribar, Buser 1976; Verbič 2002, 103.



Sl. 4: Obris severnega dela gradbene jame za hišo 33. M. = 1:100.
Fig. 4: House 33. Outline of the northern part of the construction pit. Scale = 1:100.

esis was based on the traces that Alojzij Carli and Enrico Maionica found at the end of the 19th century.[19]

The knowledge of the prehistoric architecture advanced with further investigations.[20] New buildings, particularly the well-preserved House 11, also allowed a reconstruction of the superstructure supported by wooden posts. In construction, the houses from Most na Soči were comparable with other prehistoric buildings from the Alpine and Subalpine areas, but showed a number of specific features that led Svoljšak to rightly coin the term the 'Posočje type house'.[21] Also of importance were his observations as to the layout of the settlement,[22] which was carefully planned with a more or less uniform grid of houses that did not change much through time. In short, the settlement shows the beginnings of an urban centre.

The integral publication of all the houses and small finds from the settlement presented in this and the first volume enables a further study of the architecture in Posočje.[23] The numerous constructional details, the rich remains of interior furnishings and the important data on the infrastructure offer us an insight into the technical know-how and capabilities of the Iron Age builders in Posočje.

[19] Svoljšak, Dular 2016, 20 f.

[20] Svoljšak 1979a; id. 1979b; id. 1980; id. 1983.

[21] Svoljšak 1998 (1999).

[22] Svoljšak 2001.

[23] Svoljšak, Dular 2016; also see here Svoljšak, 167 ff.

HIŠA / HOUSE	vkop delno ohranjen / pit (partially survived)	vkopana s 3 strani / dug in from 3 sides	vkopana s 4 strani / dug in from 4 sides	navpične stene / vertical walls	poševne stene / inclined walls	stopničaste stene / stepped walls
1/1		x				
2/2	x					
3/1		x				
4	x					
5		x				
6/1	x					
7	x					
8/1		x			x	
9	x					
10/1		x				
11/2			x		x	x
12/2	x					
13	x			x	x	
14/1		x				
15/1		x				
15A/1		x			x	
16/1		x				
16/2		x			x	
17/1	x				x	
17/2	x					
18	x					
19	x					
20		x			x	
22/1	x				x	
22A/1		x				
23/1		x				x
24/1	x			x	x	x
24/2		x		x	x	
25/1	x					
25/2	x					
26/1		x			x	
26/2	x					
27/1	x			x		
27/2	x					
28	x					
29/1			x	x	x	
30/2	x					
31/1	x					
31/2	x					
33	x					
35/1	x					
36	x					

Sl. 5: Značilnosti gradbenih jam.
Fig. 5: Characteristics of the construction pits.

CONSTRUCTION PITS

The terrain in the settlement inclines slightly towards the south, which required earthworks prior to construction. These earthworks consisted of excavating a properly oriented construction pit with a levelled ground. The pits varied in depth, depending on the incline of the slope and the size of the houses. They survived in parts only, but nevertheless revealed the main characteristics (*Fig. 5*).[24] Most had one corner that faced north (*Fig. 4*). This orientation was probably an adaptation to the local weather conditions (protection against the north wind), in part also to the terrain. Most pits were only dug in from three sides, with the fourth one in the southwest levelled with the existing terrain. Only the construction pits for Houses 11 and 29 deviate from this practice; they were dug on all four sides.

The construction pits were dug into the natural deposit that differed slightly from house to house. It mainly consisted of moraine till and fluvioglacial gravel of different grain sizes, while almost a third of the pits had to be, at least in part, hewn into the hard conglomerate. The walls of the pits were predominantly dug at an angle, while some were stepped and some vertical; only rare pits revealed a combination of these forms.

During renovations (Construction Phase 2), in most cases the same construction pits were reused and the debris of the first construction phase levelled so as to prepare the ground. Only rare houses revealed extensions to the construction pits, made when the new house was moved slightly (e.g. Houses 2, 6, 16).

DRAINAGE WALLS

A prominent feature of the Posočje type houses is the construction of drainage walls. Wooden houses needed to be protected against moisture, which is the greatest threat to wooden constructions apart from fire. Drainage walls were erected along the walls of the construction pit to prevent the earth from coming into direct contact with the walls of the house. The drainage walls were made of locally available stone collected either in the area of the settlement or in its close proximity.

Construction material

The materials most suitable for the construction of drainage walls include Volče limestone.[25] This is a rock rich in cherts that usually occurs in 5–20 cm thick layers and allows cleaving into usable slabs without much effort. The prehistoric inhabitants at Most na Soči used Volče

[24] Only the construction pits of Houses 21, 32 and 34 could not be positively identified.

[25] Ogorelec, Šribar, Buser 1976; Verbič 2002, 103.

so pokrivali tudi grobne jame na pokopališču. Najbližje nahajališče volčanskega apnenca je pri vasi Modrej, poldrugi kilometer severno od Mosta na Soči, kjer je soški ledenik obrusil in razgalil okoli 200 m visoko prepadno steno z nagubanimi skladi. Tu so kamen lomili in nato transportirali do naselja.

Še izdatneje so pri gradnji uporabljali gradivo iz čelne morene, ki jo je prav pri Mostu na Soči ustvaril ledenik. V njej je obilica nesortiranega materiala (različno velikih apnenčastih lomljencev in oblic), ki pa zaradi nepravilnih oblik za gradnjo zidov niso bili tako pripravni kot ploščati volčanski apnenec. Isto lahko rečemo za sicer redkeje uporabljene kose konglomerata. Enkrat (hiša 24) so v drenažni zid vgradili celo kos žrmelj.

Pomemben segment drenaž so bile tudi kamnite obloge. Zanje so izbrali trdi lapor, največkrat sive ali zelenkasto-sive barve, pojavljajo pa se tudi nekoliko mehkejši rdeči primerki. Bistvena značilnost laporja je skrilavost, zaradi katere se lepo kolje v plošče.[26] Lapor je na Mostu na Soči povsem lokalen. Najdemo ga južno od sotočja z Idrijco na obeh bregovih reke, kjer dosežejo skladi debelino okoli 400 metrov.[27]

Brez dvoma je uporaba različnih kamnin pogojena z njihovo kvaliteto in dostopnostjo. Zanimiva je ugotovitev, da se razmerja med kamninami, ki so jih vgradili v drenažne zidove, dobro ujemajo s pestrostjo plošč, s katerimi so železnodobni prebivalci Mosta na Soči pokrivali grobne jame na svojem pokopališču. C. Marchesetti je za 2950 grobov, ki jih je vključil v analizo, natančno izračunal deleže. Podobno kot v naselju prednjači običajen apnenec (49,05 %), temu sledijo plošče iz običajnega laporja (24,71 %), volčanskega apnenca (10,51 %), konglomerata (1,73 %) in rdečega laporja (0,71 %). Kar 392 (13,29 %) grobov ni bilo pokritih oziroma se zaradi obdelovanja polj plošče niso ohranile.[28]

Način gradnje

Način gradnje drenažnih zidov smo lahko opazovali pri sedemindvajsetih hišah (*sl. 6*). V ostalih primerih drenaže niso bile več ohranjene, hiše 3, 4 in 6 so bile celo brez nje. Drenažnega zidu ni imela niti hiša 22A, saj so odvodnjavanje uredili z jarkom.

Zidove so postavili na poravnana tla ob stene gradbenih jam. Narejeni so bili v tehniki suhega zidu, torej brez vsakršne vezave iz ene vrste kamnov, ki so jih zložili v več leg.[29] Zidovi so bili običajno rahlo nagnjeni, vmesne prostore do sten gradbenih jam so zapolnili z zemljo, kamnitim drobirjem in manjšimi lomljenci (*sl. 7* in *8: D,E*). Kar nekaj zidov je dajalo videz površne

[26] Verbič 2002, 104.

[27] Buser 1986, 56 s.

[28] Marchesetti 1893, 135 s.

[29] Za princip gradnje suhih zidov glej Orbanič, Zupančič, Benčič Mohar 2012; Zupančič, Vinazza 2015.

limestone in their houses, but also to cover the grave pits in the cemetery. The closest outcrops of this limestone are at Modrej, a village located roughly 1.5 km north of Most na Soči, where the Soča glacier abraded and exposed a roughly 200 m high rock face with highly folded strata. Stone was quarried here and transported to the settlement.

Even more common were the stones of the terminal moraine that the glacier created at Most na Soči. The moraine is composed of an abundance of unsorted material, i.e. variously large rough pieces or cobbles of limestone, though their irregular shape makes them less suitable for construction purposes in comparison with the slabs of Volče limestone. The same can be said of the conglomerate pieces, which were only rarely used. Excavations also documented a piece of a quern reused in a drainage wall (of House 24).

Stone lining was also an important part of the drainage. The material used for lining the walls was grey or greenish-grey hard marl, sometimes also slightly softer red marl. The main characteristic of marl is its slaty cleavage.[26] Marl is locally available at Most na Soči, south of the confluence of the Soča and Idrijca on both banks, where marl strata reach the thickness of around 400 metres.[27]

The use of different materials is certainly connected with their quality and availability. What is noteworthy is that the ratios of different rocks used to construct the drainage walls corresponds closely with the ratios of the rocks used as cover slabs in the Iron Age cemetery. Marchesetti precisely calculated these ratios for the 2950 graves he had included into his analysis: the most common was limestone (49.05%), followed by marl (24.71%), Volče limestone (10.51%), conglomerate (1.73%) and red marl (0.71%). As many as 392 graves (13.29%) were either not covered or the cover slabs did not survive as a consequence of land cultivation in the area.[28]

Construction technique

The drainage walls of twenty-seven houses survived to a sufficient degree to allow us to observe the construction technique (*Fig. 6*). Those of the other houses were either not preserved or, in the case of Houses 3, 4, 6 and 22A, non-existent; the last of these had a drainage ditch that served the same function.

The walls were erected on the levelled ground of the construction pit along its walls. They were constructed in the drywall technique, i.e. without the use of a binder; laid in a line and in several courses.[29] The walls were usually slightly inclined towards the exterior and the space between the drainage wall and the wall of the construction

[26] Verbič 2002, 104.

[27] Buser 1986, 56 f.

[28] Marchesetti 1893, 135 f.

[29] On the drywall technique see Orbanič, Zupančič, Benčič Mohar 2012; Zupančič, Vinazza 2015.

HIŠA / HOUSE	število ohranjenih leg / survived courses of stones	neurejeno zidanje / irregular construction	vodoravne lege / horizontal courses	stebriči / columns	obložne plošče / lining slabs
1/1	6		x	x	
2/2	1				x
5	2	x			x
7	4		x	x	
8/1	9	x	x		x
9	1	x			x
10/1	2	x			x
11/2	9		x		
12/2	1	x			
13	4	x			
14/1	1	x			x
15/2	7		x	x	x
15A/1	3	x			x
16/1	1	x			x
17/1	7	x		x	x
18	1	x			x
19	4		x		
20	9		x	x	
22/1	8			x	
23/1	5		x	x	x
24/2	3		x		x
25/1	3		x		
26/1	4		x		
29/2	10		x	x	
30/2	1		x		x
31/1	3		x		x
36	1				x

Sl. 6: Značilnosti drenažnih zidov.
Fig. 6: Characteristics of the drainage walls.

Sl. 7: Hiša 15/1. Profil severnega drenažnega zidu; pogled z vzhoda.
Fig. 7: House 15/1. Cross section of the north drainage wall; view from the east.

zidave oziroma popravil. Vzrok za neurejeno zidanje je bilo predvsem gradivo različnih dimenzij, ki se ga ni dalo zložiti v pravilne lege. Pri gradnji so namreč večkrat uporabili tako velike bloke kot tudi manjše lomljence (*sl. 8: B,C*).

Stabilnejši so bili seveda drenažni zidovi, kjer so kamne iz volčanskega apnenca zložili v vodoravne lege (*sl. 8: A,D*). Trdnost se je še povečala, če so se kamni posameznih leg med seboj izmenično prekrivali (*sl. 9*). Razmeroma stabilni so bili – vsaj po ohranjenosti sodeč – tudi zidovi iz stebričev (*sl. 10*), oziroma če so te kombinirali z vodoravnimi legami.

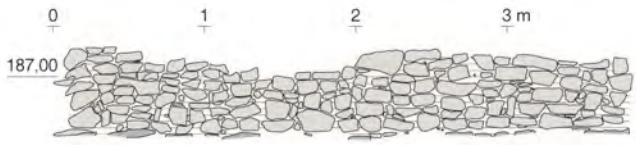
Drenažne zidove so velikokrat obložili z laporna-timi ploščami, ki pa so se le redko ohranile na svojih prvotnih mestih. Zaradi neobstojnosti materiala so preperele ali pa so ležale prevrnjene in razlomljene na manjše kose v ruševinah hiš. Lep primer obložnih plošč

pit filled with earth and stone rubble (*Figs. 7* and *8: D,E*). The appearance of a number of drainage walls suggested either shoddy construction or repair. However, the cause of such an appearance should more likely be sought in the material used in construction, which was irregular in both shape and size, and could not be neatly assembled; these walls regularly include both large blocks and small unworked pieces of stone (*Fig. 8: B,C*).

The drainage walls with pieces of Volče limestone laid in courses were more stable (*Fig. 8: A,D*). Stability also increased if the stones of individual courses overlapped (*Fig. 9*). Considering their state of preservation, the walls of stones vertically stacked into irregular columns were also relatively stable (*Fig. 10*), as were the walls where columns were combined with horizontal courses.

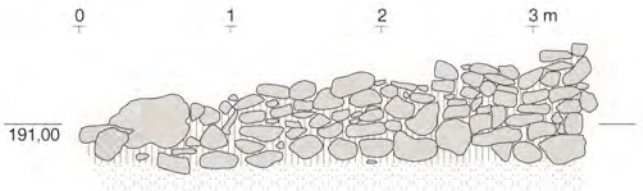
The drainage walls were often lined with marl slabs, which only rarely survived in their original positions. The limited durability of the material caused the slabs to either weather away or fall down and break into smaller pieces to form part of the house debris. A good example of lining slabs survived at House 15, where the dividing wall between the construction sites of Houses 15 and

A: hiša 1 (SV drenaža)

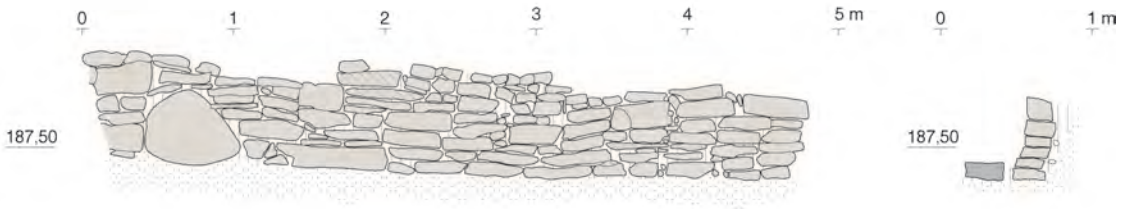


B: hiša 7 (SV drenaža)

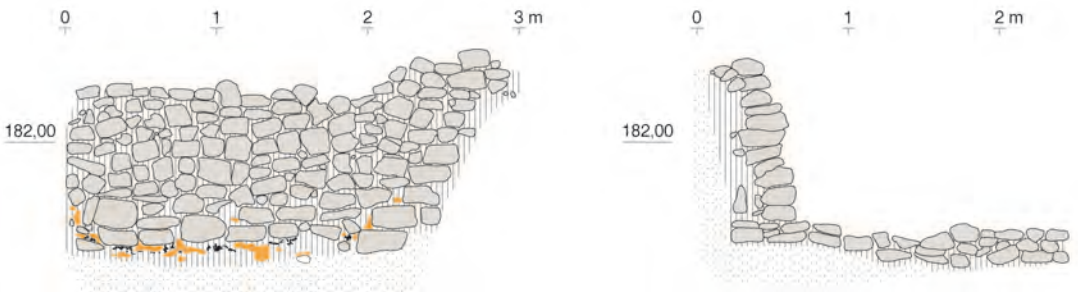
C: hiša 8 (SZ drenaža)



D: hiša 20 (SV drenaža)



E: hiša 29 (S drenaža)



Sl. 8: Drenažni zidovi. M. = 1:50.
Fig. 8: Drainage walls. Scale = 1:50.

Sl. 9: Hiša 11/2. Jugozahodni drenažni zid.
Fig. 9: House 11/2. Southwest drainage wall.

Sl. 11: Hiša 15/2. Obloga iz lapornih plošč ob pregradnem zidu.
Fig. 11: House 15/2. Dividing wall with a lining of marl slabs.

Sl. 10: Hiša 22/1. Detajl severovzhodnega drenažnega zidu.
Fig. 10: House 22/1. Detail of the northeast drainage wall.

Sl. 12: Hiša 8/1. Niša v drenažnem zidu.
Fig. 12: House 8/1. Hole in the drainage wall.

se je ohranil v hiši 15, ko so tako imenovani pregradni zid, ki je ločeval stavbišči hiš 15 in 15A, z ene strani obložili z velikimi ploščami laporja.[30] Na srečo so ostale na svojih mestih, tako da lahko vidimo, kako je obloženi zid izgledal (*sl. 11*).

Povsem unikatna je tudi niša v drenažnem zidu hiše 8. Naredili so jo iz lepo zloženih kamnov, tako da je imela kvadratno obliko (*sl. 12*). Njena odprtina je merila 23 x 22 cm, globoka je bila 17 cm. Narejena je bila sočasno z drenažnim zidom, kar je lepo razvidno iz oblike sten in preklade. V nišo je segal konec temeljnega praga predelne stene, katerega zoglenele ostanke so našli v njeni notranjosti.[31]

15A was lined on one side with large slabs of marl.[30] These slabs remained *in situ* and show the original appearance of the marl lining (*Fig. 11*).

A unique feature is also the hole in the drainage wall of House 8. It was made by neatly laying stones so as to obtain a square hole (*Fig. 12*). The 23 x 22 cm large opening was 17 cm deep. It was made contemporaneously with the rest of the wall, as shown by the way that stones were neatly stacked at the sides and a slab placed on top to span the opening. The hole received the sleeper beam of the partition wall, the charred remains of which were found in the house interior.[31]

[30] Prim. Svoljšak, Dular 2016, 115, sl. 105.
[31] Ib., 79 in 84.

[30] Cf. Svoljšak, Dular 2016, 115, Fig. 105.
[31] Ib., 79 and 84.

TEMELJI HIŠ

Tudi za temelje hiš so večinoma uporabili volčanski apnenec, saj je bilo ploščate kamne zlahka poravnati v isti nivo. Vendar najdemo v temeljih tudi gradivo iz morene, ki je bilo različnih dimenzij in oblik. Ti kamni so bili na dosegu rok, zato ni bil potreben zamudni transport. Temelji iz morenskega materiala so imeli to slabost, da so bili veliko bolj vegasti, kar je lepo videti pri nekaterih obnovljenih stavbah druge gradbene faze (npr. hiše 22, 22A, 23, 26).

Glavne značilnosti temeljev so predstavljene na *sl. 13*. Teren so pred gradnjo poravnali, pri čemer je bilo treba na predelih, kjer so bila tla iz trdega konglomerata, ležišča za kamne vsekati v geološko osnovo. Temelji so bili večinoma zgrajeni iz ene vrste kamnov. Višinske razlike med njimi so bile majhne, običajno so znašale le nekaj centimetrov. Poravnava je bila seveda nujna, saj je na kamnih počival lesen temeljni prag. Primerov, ko je bil temelj narejen iz dveh vzporednih vrst kamnov, je bilo razmeroma malo (*sl. 13*), pa tudi sicer se dvovrstni princip ni uveljavil dosledno (*sl. 14A*). Temelji iz dveh vrst kamnov so bili nekoliko širši, s čimer se je povečala njihova nosilnost. Iz več kot dveh vrst kamnov (3–4) je bil zgrajen le temelj hiše 26. Ker pa je bil razmeroma slabo ohranjen, pravzaprav ne vemo, kakšna je bila njegova oblika.[32]

Podobno kot v širino so bili temelji hiš grajeni tudi v višino. Kamne so namreč zložili zgolj v eno lego, kar je bilo očitno dovolj, da so bile lesene stene zaščitene pred vlago (*sl. 15, 16*). Več kot eno lego kamnov zasledimo le pri hišah 3, 11 in 34. Za vse je značilno, da niso imele drenažnih zidov. Verjetno je prav to vzrok, da so bili temelji nekoliko višji, saj je morala biti ob deževju lesena nadgradnja dovolj visoko od vlažnih tal (*sl. 17*).

Pri hišah na Mostu na Soči je treba omeniti še eno posebnost. Železnodobni graditelji so v vogale stavb, kjer so se temelji stikali, praviloma vgradili večje plošče, s čimer je bila izboljšana stabilnost celotnega temeljnega venca (*sl. 18*). Večje plošče oziroma kamni so pogosto povezovali tudi temelje obodnih in predelnih sten (*sl. 14A*), vendar pa ta princip gradnje ni bil dosledno uporabljen.

Na povsem svojski način je bil narejen temelj druge faze hiše 10. Za podlago leseni nadgradnji so namreč uporabili osem velikih neobdelanih plošč iz apnenca, ki so stale v vogalih in na sredini stranic (*sl. 14B*). Dve se nista ohranili, ker je južni vogal stavbe uničila eksplozija granate v prvi svetovni vojni. Podlaga iz posameznih plošč ni bila tako stabilna kot sklenjena vrsta kamnov, zato je bila primerna le za gradnjo manjših objektov. To dokazuje tudi objekt v levi polovici preddverja hiše 11, ki je imel za podlago prav tako štiri vogalne kamnite plošče. Razdalje med njimi so znašale

[32] Ib., 185, sl. 179A.

HOUSE FOUNDATIONS

The foundations were mainly constructed of Volče limestone as well, as the flat pieces of this stone could easily be used to produce the levelled surface needed to adequately support the superstructure. Apart from Volče limestone, the foundations also contained stones from the moraine till that were of different shapes and sizes. The advantage of these stones is that they were readily available and did not need to be transported from elsewhere. Their drawback was that the foundations constructed of them were irregular, as is clearly visible in some of the renovated houses of the second construction phases (e.g. Houses 22, 22A, 23, 26).

The main features of the foundations are presented on *Fig. 13*. Prior to construction, the ground was levelled, which involved hewing into the bedrock in areas of hard conglomerate. The foundations were mainly constructed of a single line of stones with small, up to a few centimetres large differences in altitude. The stones needed to be level to make solid bedding for the sleeper beams. Examples of a double line of stones are rare (*Fig. 13*) and did not present a rule (*Fig. 14A*). The double-line foundations were slightly broader and were consequently able to carry heavier loads. Only the foundations of House 26 were constructed of more than two (3–4) lines of stones; their poor state of preservation, however, does not allow us to establish the original appearance.[32]

As already mentioned, the foundations were usually composed of a single course of stones, which apparently sufficed to protect the wooden walls from moisture (*Figs. 15, 16*). Exceptions to this rule were only observed in Houses 3, 11 and 34, none of which had drainage walls. To compensate for the lack of drainage features, the foundations were built higher to avoid the wooden superstructure coming into contact with moist ground in periods of heavy precipitations (*Fig. 17*).

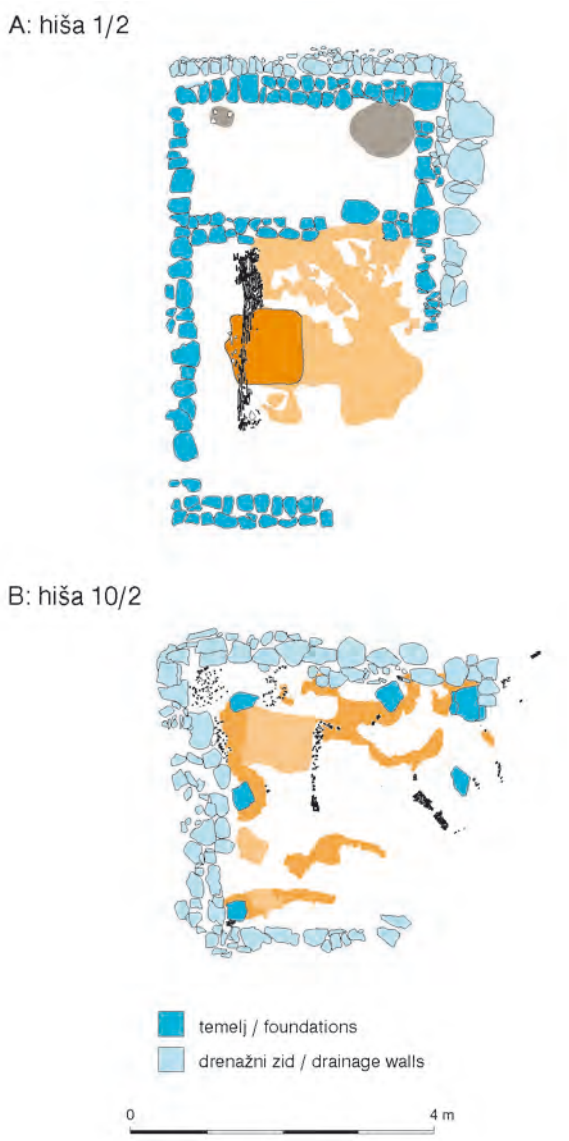
In most houses, the foundations included large slabs in the corners designed to improve stability of the foundations as a whole (*Fig. 18*). Large slabs or stones were sometimes, but not consistently also placed at the junctions of exterior and partition walls (*Fig. 14A*).

An exception in the construction of foundations is House 10 (second phase), where the wooden superstructure rested on only eight large unworked slabs of limestone placed at the corners and at mid-point of each side (*Fig. 14B*). Two of the slabs did not survive; they were destroyed by a grenade explosion in World War I. These foundations were not as solid as those of a continuous line of stones and could only support a smaller building. This observation is supported by the structure in the left half of the anteroom of House

[32] Ib., 185, Fig. 179A.

HIŠA / HOUSE	število kamnitih vrst / lines of stone foundation	število kamnitih leg / courses of stone foundation	vogalne plošče / corner slabs	plošče na stikih sten / slabs at wall junctions
1/1	1-2	1	x	x
2/2	1	1	x	
3/1	1-2	4	x	x
4	1	1	x	
5	1	1	x	x
6/1	1	1		
7			x	
8/1	1	1	x	x
9	1	1		
10/1	1	1	x	
11/2	1	3	x	
12/2	1	1		
13	1	1		
14/1	1	1	x	
15/2	1-2	1	x	x
15A/1	1	1	x	x
16/2	1-2	1	x	
17/1	1-2	1		x
18			x	
19	1	1		
20	1	1		
21	1	1		
22/2	1	1	x	
22A/2	1	1		
23/1	1	1	x	
24/2	1	1	x	
25/1	1	1	x	
26/1	3-4	1	x	
29/2	1	3	x	
30/2	1	1	x	
34	1	1-3		

Sl. 13: Značilnosti temeljev.
Fig. 13: Characteristics of the foundations.



Sl. 14: Temelji in temeljne plošče. M. = 1:100.
Fig. 14: Foundations and foundation slabs. Scale = 1:100.

natančno 1,5 m, tako da je imel prostor 2,25 m² velik tloris. Temeljni pragovi se niso ohranili, zato ne vemo, kakšna je bila vrhnja konstrukcija.[33]

11 with four corner slabs as foundations, which were placed exactly 1.5 m apart and enclosed a 2.25 m² large room. The sleeper beams did not survive and the superstructure is unknown.[33]

[33] Ib., 100.

[33] Ib., 100.

Sl. 15: Hiša 2/2. Temelja severovzhodne in jugovzhodne stene.
Fig. 15: House 2/2. Foundations of the northeast and southeast walls.

Sl. 16: Hiša 15A/1. Temelji zahodnega prostora.
Fig. 16: House 15A/1. Foundations of the west room.

Sl. 17: Hiša 3/1. Tri lege kamnov v severnem vogalu hiše.
Fig. 17: House 3/1. Three courses of stones in the north corner.

Sl. 18: Hiša 5. Vogalna plošča.
Fig. 18: House 5. Corner slab.

LESENA NADGRADNJA HIŠ

Nadgradnja posoških železnodobnih hiš je bila iz lesa. Tega je bilo ob Soči in v sosednjih dolinah dovolj, zato ga je človek s pridom uporabil za gradnjo svojih hiš. Les je namreč material, ki ga je razmeroma lahko obdelovati, posamezne nosilne elemente pa povezati v čvrsto konstrukcijo.

Gradbeni les

Rezultate analiz oglja, ki je bilo najdeno v ruševinah hiš z Mosta na Soči, je predstavila Sila Motella De Carlo.[34] Na tem mestu bomo iz njene razprave povzeli tiste ugotovitve, ki so pomembne za razumevanje prazgodovinskih gradbenih tehnik. Te so v srednji Evropi razmeroma dobro raziskane,[35] pri nas pa imamo o železnodobnem tesarstvu bolj malo podatkov.[36] Do novih spoznanj se je moč dokopati le z odpiranjem velikih površin, ko pridejo na dan celotni tlorisi objektov, in prav takšen primer imamo na Mostu na Soči. Čeprav je bilo vzorčenje zoglenelega lesa naključno, saj je na izbor v veliki meri vplivala ohranjenost, pa je seznam vendarle izpoveden (*sl. 19*).[37] Izkazalo se je, da je po zastopanosti lesnih vrst na prvem mestu hrast (*Quercus robur/petraea*), ki slovi po trdoti in obstojnosti. Le nekaj manjši je delež jelke (*Abies alba*), nato pa si s precejšnjim zaostankom sledijo bor (*Pinus sylvestris/montana*), bukev (*Fagus sylvatica*) in smreka (*Picea abies*). Preostale vrste so zastopane zgolj simbolično (skupaj nekaj več kot 8 %). Leske (*Corylus avellana*), jelše (*Alnus glutinosa/incana*) in gabra (*Carpinus betulus*) z repa diagrama ne kaže interpretirati kot gradbeni material. Očitno so njihov les uporabljali za druge namene oziroma so z njim le kurili. Dokaz je pestra zastopanost lesnih vrst v hiši 6 (druga gradbena faza), ki je bila interpretirana kot kultno žgalno mesto.[38]

Kje so dobili prebivalci Mosta na Soči les za svoje hiše, ne vemo. Za kaj takega bi potrebovali pelodne diagrame, ki bi nam odstrli vegetacijsko sliko tega dela Posočja v železni dobi. Po mnenju strokovnjakov je potencialna naravna vegetacija okolice Mosta na Soči predvsem bukov gozd.[39] Ta je ponekod še ohranjen, veliko pa je pionirskih gozdov, ki so nastali na nekdanjih kmetijskih površinah ali pa so posledica prve svetovne

[34] Glej tu Motella De Carlo, 361 ss. Les iz prvih dveh hiš je analiziral Alojz Šercelj.

[35] Zimmermann 1998; Gerner 2000.

[36] Črešnar 2007.

[37] V grafikon je vključenih 480 vzorcev zoglenelega lesa.

[38] Svoljšak, Dular 2016, 73. Glej še tu Motella De Carlo, 389 ss, in Laharnar, 224 ss.

[39] Podatke nama je ljubeznivo posredoval dr. Igor Dakskobler (Biološki inštitut Jovana Hadžija ZRC SAZU), za kar se mu najlepše zahvaljujeva.

WOODEN SUPERSTRUCTURE

The Iron Age houses in the Posočje region had a superstructure made of wood. This material was abundant along the Soča and in the neighbouring valleys, and people used it to construct their homes as a material that is relatively easy to work and connect individual elements into a solid construction.

Tree species used as structural wood

The results of the analyses of the charcoal found in the debris of the houses at Most na Soči are presented by Sila Motella De Carlo.[34] For the purposes of the discussion at hand, we will only reiterate those of her observations that help us better understand the prehistoric construction techniques employed at the site. These techniques have been fairly well researched in central Europe,[35] while there is little available data on the Iron Age carpentry in Slovenia.[36] The best source of such knowledge is investigating larger areas, where a complete ground plan can be studied, such as was the case at Most na Soči. Although sampling of the wooden remains was done in a haphazard manner, mainly influenced by the good state of preservation of a particular piece of wood, the resulting list of the tree species is nevertheless illuminating (*Fig. 19*).[37] The most commonly used tree species was oak (*Quercus robur/petraea*), which is known for its hardness and durability. Only slightly lower is the share of silver fir (*Abies alba*), while Scots pine (*Pinus sylvestris/montana*), common beech (*Fagus sylvatica*) and Norway spruce (*Picea abies*) are less common. Other trees species are represented in modest shares (more than 8% altogether). The remains of common hazel (*Corylus avellana*), alder (*Alnus glutinosa/incana*) and common hornbeam (*Carpinus betulus*) from the end of the list should not be interpreted as structural elements. Their wood must have been used for other purposes, possibly as fuel. The evidence of the latter may be seen in the wide variety of species documented in House 6 (Construction Phase 2), which has been interpreted as a cult burning place.[38]

The current state of knowledge does not allow us to speculate on where the population at Most na Soči acquired the wood they needed. We most importantly lack the pollen diagrams that would reveal the vegetation of this part of Posočje in the Iron Age. For the present

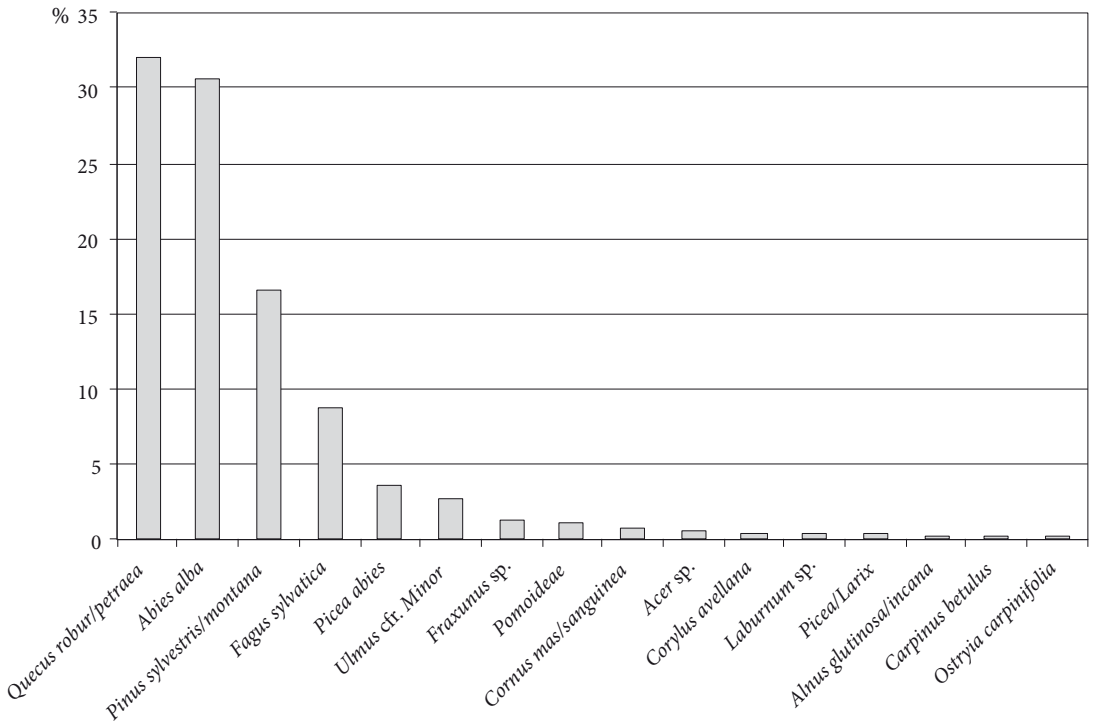
[34] See here Sila Motella De Carlo, 361 ff. The remains of wood from the first two houses has been analysed by Alojz Šercelj.

[35] Zimmermann 1998; Gerner 2000.

[36] Črešnar 2007.

[37] The bar chart comprises 480 samples of charred wood.

[38] Svoljšak, Dular 2016, 73. Also see here Motella De Carlo, 389 ff, and Laharnar, 224 ff.



Sl. 19: Vrste gradbenega lesa.
Fig. 19: Tree species used as structural wood.

vojne, ko je bila marsikje vegetacija povsem uničena. Hrast še dobimo ponekod, več ga je v dolini Idrijce. Gotovo je rasel tudi na obrečnih terasah pri Tolminu in Modreju, zato ga ni bilo treba iskati prav daleč.

Jelka ima naravna nahajališča v Trnovskem gozdu (kar ni tako daleč, blizu pa tudi ne) ter v dolinah Kneže in zgornje Bače. Presenetljivo je njeno uspevanje na hribu Senica nad Modrejem (torej blizu Mosta na Soči), ki pa ostaja nepojasnjeno.

V bližini Mosta ni niti pravih borovih rastišč, morda bi bila najbližja v okolici Podmelca v Baški grapi. Isto velja za smreko. Ta raste danes predvsem v Trnovskem gozdu ter v zatrepih stranskih dolin Kneže, Bače in na Bovškem.

Analiza vzorcev oglja z Mosta na Soči torej kaže, da so železnodobni prebivalci Mosta na Soči za svoje hiše uporabili les, ki je bil za gradnjo najbolj primeren, vendar ne vedno pri roki. Verjetno so ga morali vsaj delno transportirati tudi iz odročnih stranskih dolin, dokončen odgovor na to vprašanje pa bi seveda dale le natančne palinološke analize.

climate, experts estimate that the natural vegetation in the area of Most na Soči mainly consists of beech forests.[39] Such forests still survive in places, but there is also a great amount of secondary succession forests with pioneer tree species that grew on formerly cultivated land or in areas that had been completely devastated in World War I. Oak still grows in places, more frequently in the valley of the Idrijca. It must once also have grown along the river terraces near Tolmin and Modrej, and the population did not need to look far to obtain it.

Silver fir grows naturally on the plateau of Trnovski gozd (which is relatively close to Most na Soči), in the valley of the River Kneža and along the upper reaches of the Bača. It also grows on the hill of Senica above Modrej (i.e. in close proximity to Most na Soči).

There are no known habitats of Scots pine in the Most na Soči area, the closest are documented in the vicinity of Podmelec in the valley of Baška grapa. The same is true of Norway spruce, which today mainly grows on Trnovski gozd and in the upper parts of the side valleys of the Kneža and Bača, as well as in the Bovec area.

Pending more detailed archaeobotanical analyses, we can tentatively conclude that the Iron Age population at Most na Soči used the wood that was most suitable

[39] Dr. Igor Dakskobler (Biološki inštitut Jovana Hadžija ZRC SAZU) kindly provided this information.

HIŠA / HOUSE	TEMELJNI PRAG / SLEEPER BEAM	SOHA / WOODEN POST	STENSKI OPAŽ / WOODEN WALLS	LESNE ZVEZE / WOODEN JOINTS			ILOVNAT OMET / LOAM DAUB		
				križna zveza / cross-lapped	včepljena zveza / mortise-and-tenon	ročica / brace	omet z odtisi deske / with plank impression	omet z odtisi protja / with wattle impressions	mašila za špranje / loam caulking
1/1							x		x
2/2									x
3/1	*Abies alba*	*Abies alba*					x		
5	*Ulmus* cfr. *minor; Pinus sylv./m.*								
7							x	x	
8/1	*Quercus robur/petraea*						x		x
8/2	*Quercus robur/petraea*			x			x		x
9	*Abies alba*								
11/2	*Quercus robur/petraea*	*Quercus robur/petraea*	*Quercus rob./petr.*	x	x	x			
12/2	*Quercus rob./petr.; Abies alba*			x				x	
13		Abies alba							
14/1	*Pinus sylvestris/montana*								
15/2	*Quercus rob./petr.; Abies alba*	*Abies alba*	*Abies alba*	x	x	x	x		
15A/1	*Abies alba; Pinus sylv./m.*						x		
16/2	*Quercus robur/petraea*			x			x	x	
18							x		
20	*Quercus robur/petraea*	*Quercus robur/petraea*	*Fraxinus sp.*		x	x			
22A/2							x		x
23/1	*Abies alba*	*Abies alba; Picea abies*					x		x
24/2	*Pinus sylvestris/montana*	*Pinus sylvestris/montana*					x		
27/2	*Quercus robur/petraea*								
29/1							x		x
30/2	*Quercus robur/petraea*						x	x	x
31/1	*Quercus robur/petraea*								
33	*Quercus robur/petraea*								

Sl. 20: Značilnosti lesene nadgradnje hiš.
Fig. 20: Characteristics of the wooden superstructure.

Temeljni pragovi

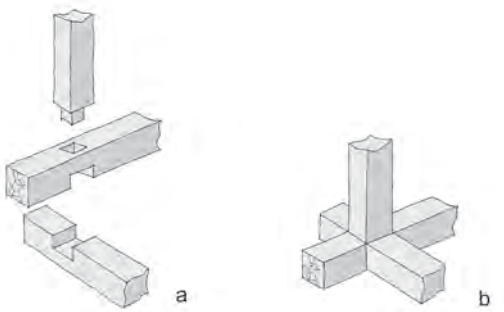
Osnova lesenih sten so temeljni pragovi (*sl. 20*). Na Mostu na Soči so se večinoma ohranili v skromnih ostankih, nekaj pa je bilo tudi večjih, čez dva metra dolgih kosov. Med bolje ohranjenimi primerki kaže omeniti pragove iz hiš 11/2, 15/2, 16/2 in 23/1, v katerih smo tudi sicer zbrali največ podatkov o posoškem železnodobnem tesarstvu. Veliko temeljnih pragov je bilo narejenih iz hrasta (*Quercus robur/petraea*). To je seveda razumljivo, saj gre za trd, proti vlagi odporen les. Vendar pa so tesarji z Mosta na Soči za temeljne pragove uporabili tudi jelko (*Abies alba*) in bor (*Pinus sylvestris/montana*). Dokaz so temeljni pragovi hiš 12/2 in 15/2, ki so bili narejeni s kombiniranjem hrasta in jelke.[40] Iz dveh vrst lesa – brest

[40] Svoljšak, Dular 2016, 104 in 122.

for construction purposes rather than limit themselves to the tree species that were most readily available, and that they presumably transported the wood they needed even from more remote valleys.

Sleeper beams

The walls of the houses rested on wooden sleeper beams (*Fig. 20*). The excavations did unearth the remains of these, but only rarely as longer pieces, measuring over 2 m in length at most. The longest and best surviving pieces were documented in Houses 11/2, 15/2, 16/2 and 23/1. These were the houses that yielded most data on the carpentry in Posočje. A number of sleeper beams was made of pedunculate oak. This is understandable, as the wood is hard and resistant to moisture. Silver fir and



Sl. 21: Princip spajanja temeljnih pragov v vogalih hiš.
Fig. 21: Wooden joints in the corners of houses.

(*Ulmus* cfr. *minor*) in bor (*Pinus sylvestris/montana*) – sta bila tudi temeljna pragova v hiši 5.[41]

Za temeljne pragove so oblice posekanih dreves obtesali. To je bilo nujno, saj so le ravne površine gred omogočale dober stik s kamnito podlago in postavitev zgornje konstrukcije. Če prag ni dobro nalegal, so temeljne kamne prevlekli s plastjo ilovice. Ta pomemben detajl se je ohranil v severovzhodni steni hiše 11/2, kjer je bila ilovnata izravnava med pragom in temeljem zaradi požara rdeče prežgana.[42] Dimenzije temeljnih pragov so bile različne. Iz bolje ohranjenih kosov lahko sklepamo, da so bile grede pravokotnega ali kvadratnega preseka s stranicami, dolgimi od 10 do 26 cm.

Stabilnost lesene nadgradnje so zagotovili s spajanjem temeljnih pragov v vogalih hiš in na stikih s predelnimi stenami. Čeprav ohranjenost zoglenelih kosov ni bila najboljša, je bilo vsaj v petih primerih jasno, kakšno lesno zvezo so uporabili. Gre za tako imenovani križni spah, ki ga najlažje prepoznamo po tem, da segata križajoča se gradbena elementa s svojima koncema čez linijo hišnih sten.[43] Običajno je bil narejen tako, da so v vsakega od pragov vsekali zarezo, ki je omogočila dobro naleganje gred (*sl. 21*). Pomagali so si tudi s prilagajanjem višine kamnitih temeljev. Detajli križanja temeljnih pragov so bili dokumentirani v hišah 8/2, 11/2, 12/2, 15/2 in 16/2.[44] V hiši 8 so za podaljšani konec grede predelne stene naredili v drenažnem zidu celo posebno nišo (glej *sl. 12*). S križno zvezo, ki je zelo zanesljiva na pritisk in pomik, je bila zagotovljena čvrsta osnova celotne konstrukcije.

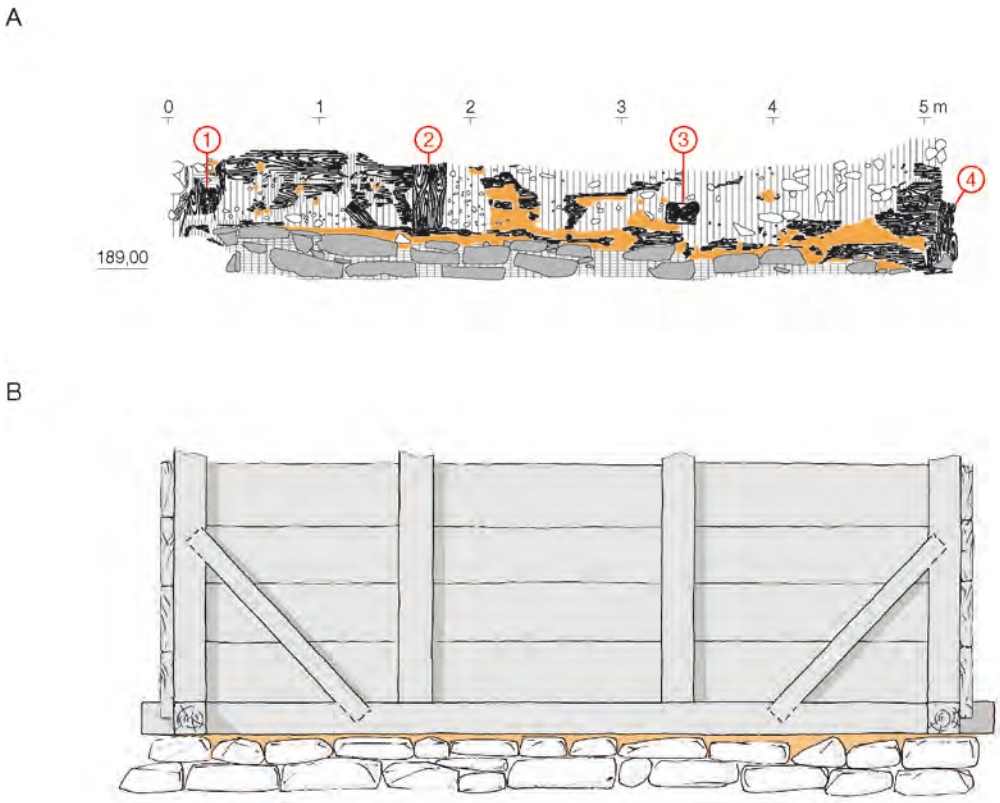
Scots pine were also used for sleeper beams. In Houses 12/2 and 15/2, the beams were made in a combination of pedunculate oak and silver fir.[40] The two surviving pieces in House 5 were also made in a combination of woods: Field elm and Scots pine.[41]

The sleeper beams were made from round trunks hewn to obtain flat surfaces that ensured a tight fit with both the foundations below and the wooden superstructure above. In the cases where the beam did not fit snugly onto the foundations, the latter were covered with a layer of loam so as to obtain a levelled surface. This important detail survived in the northeast wall of House 11/2, where the loam levelling between the foundations and the sleeper beam turned red in a fire.[42] The sleeper beams differed in size. The better preserved pieces indicate that the beams were either square or rectangular in cross section with sides measuring from 10 to 26 cm.

The stability of the walls was ensured by joining the sleeper beams at the corners and the junctions of exterior and partition walls. Poor preservation of the charred wood notwithstanding, there are at least five pieces that clearly show the type of joint. It was a cross-lapped joint, with the two crossing beams projecting beyond the line of the wall on both sides.[43] This joint was usually made by cutting corresponding notches in the beams to provide a tight fit (*Fig. 21*), to which end the builders also previously adapted the height of the foundations. Details of such a joint and adaptation were documented in Houses 8/2, 11/2, 12/2, 15/2 and 16/2.[44] In House 8, a special hole was made in the drainage wall (described above) to receive the projecting end of one of the beams (see *Fig. 12*). The cross-lapped joints provided a sturdier frame for the whole construction.

[41] Ib., 70.
[42] Ib., 96.
[43] Dular 2008, 339.
[44] Svoljšak, Dular 2016, 80, sl. 65A; 92, sl. 80A; 103, sl. 93A; pril 2A; 135, sl. 123B.

[40] Svoljšak, Dular 2016, 104 and 122.
[41] Ib., 70.
[42] Ib., 96.
[43] Dular 2008, 339.
[44] Svoljšak, Dular 2016, 80, Fig. 65A; 92, Fig. 80A; 103, Fig. 93A; App. 2A; 135, Fig. 123B.



Sl. 22: Hiša 11/2. A: profil severovzhodne stene; B: rekonstrukcija severovzhodne stene. M. = 1:50.
Fig. 22: House 11/2. A: remains of the northeast wall in cross section; B: reconstruction of the northeast wall. Scale = 1:50.

Stene

Stene posoških hiš so bile zgrajene s pomočjo soh. Gre za nosilni element, katerega glavna značilnost je v tem, da ni zabit v tla, ampak stoji samostojno na čvrsti podlagi iz kamna ali lesa.[45] Zdi se, da so na Mostu na Soči poznali obe vrsti podlag. To lahko sklepamo po ostanku okrogle sohe iz jelka (*Abies alba*), ki se je ohranila v severnem vogalu hiše 13, stala pa je neposredno na kamniti plošči.[46] Vendar je hiša 13 izjema. V večini drugih stavb je za podlago vogalnim in vmesnim soham zanesljivo služil temeljni prag. Sohe so bile dokumentirane v sedmih objektih (*sl. 20*), najbolje v severovzhodnem profilu hiše 11/2, ki si ga bomo podrobneje ogledali (*sl. 22*).[47]

Stenska konstrukcija je stala na temeljnem zidu, ki je imel zaradi izravnave vrhnjo ploskev prevlečeno s plastjo ilovice. Ker je hišo uničil požar, je bila rdeče prežgana. Na njej je ležal zoglenel temeljni prag iz hrastovega lesa, ki ni bil več v celoti ohranjen, imel pa je prepoznavno strukturo, v kateri so bili vidni nekateri pomembni konstrukcijski detajli. Na pragu so stale sohe. Dve v vogalih hiše (št. 1 v severnem, št. 4 v vzhodnem)

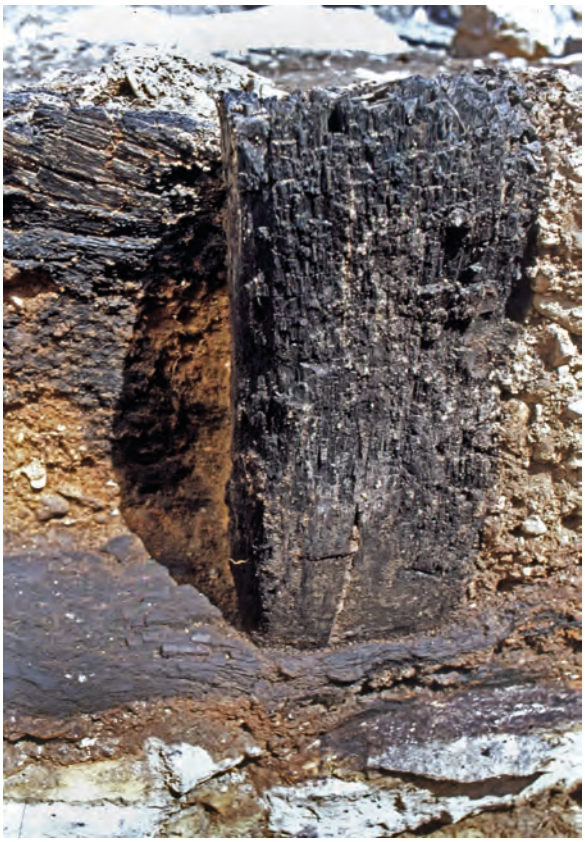
[45] Zimmermann 1998, 43 ss; Dular 2008, 340.
[46] Svoljšak, Dular 2016, 105, sl. 94A.
[47] Ib., 95 ss.

Walls

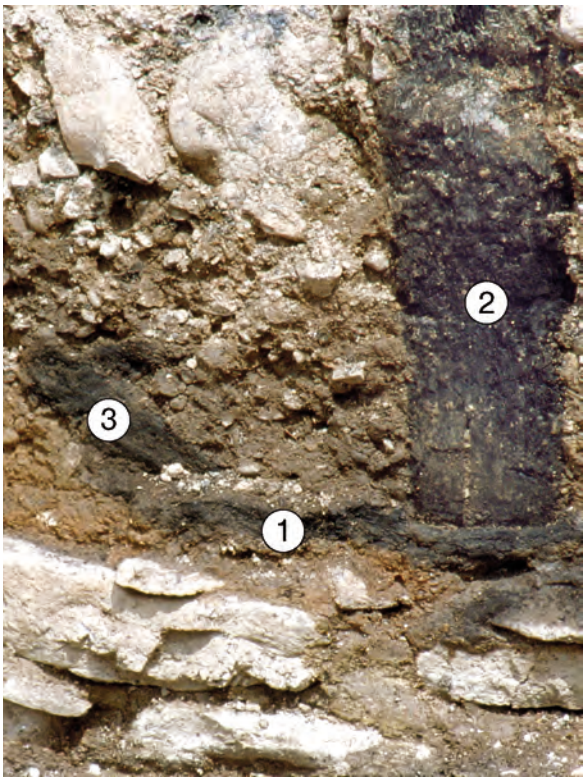
The walls of the Posočje type houses were supported by wooden posts. These are load-bearing members, the main characteristic of which is that they were not driven into the ground, but rested on solid bedding of either stone or wood.[45] Some houses at Most na Soči also had earthfast posts, while House 13 revealed the remains of a round-sectioned post of silver fir in the north corner, which rested directly on a stone slab.[46] It should be noted, however, that House 13 is an exception and other houses revealed a sleeper beam between the posts and the stone foundations. Corner and intermediary posts were documented in seven houses (*Fig. 20*) and survived best in the northeast cross section of House 11/2, which will be presented in more detail below (*Fig. 22*).[47]

The wall of House 11 rested on stone foundations with the bedding surface levelled with a layer of loam. This layer turned red in a fire that destroyed the house. Found on top of this layer was a charred sleeper beam of oak. The beam did not survive complete, but did reveal a number of constructional details. It held four posts,

[45] Zimmermann 1998, 43 ff; Dular 2008, 340.
[46] Svoljšak, Dular 2016, 105, Fig. 94A.
[47] Ib., 95 ff.



Sl. 23: Hiša 11/2. Vmesna soha št. 2 v severovzhodni steni hiše.
Fig. 23: House 11/2. Intermediary Post 2 in the northeast wall.



Sl. 24: Hiša 11/2. Temeljni prag (*1*), vmesna soha (*2*) in spodnja ročica (*3*) v severovzhodni steni hiše.
Fig. 24: House 11/2. Sleeper beam (*1*), intermediary post (*2*) and bottom brace (*3*) in the northeast wall.

in dve vmes (*sl. 23*). Razdalje med njimi so bile različne: 1,25 m (med prvo in drugo), 1,47 m (med drugo in tretjo) ter 1,57 m (med tretjo in četrto). Od omenjenih soh so na svojih mestih ostale tri, ena (št. 3) pa je bila prelomljena in prevrnjena, tako da je iz profila molela le njena prečna ploskev (velikost 23 x 13 cm). Preostale tri sohe so imele kvadratni presek z 20 x 20 cm oziroma 22 x 22 cm dolgimi stranicami.

Sohe so imele v temeljni prag vsekana ležišča. Za povezovanje horizontalnih in vertikalnih delov konstrukcije so torej uporabili včepljen spah, ki je zelo zanesljiv na pritisk in pomik. Dokončno stabilnost stene so zagotavljale ročice. Ostanek ene je bil prav tako dokumentiran v severovzhodnem profilu (*sl. 24*). Z njo so povezali temeljni prag in soho v severnem vogalu (prim. *sl. 22A* in *22B*). Ostanki ročic – sicer v sekundarnih legah – so bili odkriti tudi v hišah 15/2 in 20,[48] zato lahko rečemo, da so bili osnovni principi sohaste gradnje posoškim tesarjem znani in da so jih s pridom uporabljali (*sl. 25*).

Vmesne predele med sohami so zaprli z lesenim opažem. Tudi ta se je kolikor toliko ohranil le v severovzhodni steni hiše 11/2 (*sl. 22A*). Narejen je bil iz obtesanih plohov, debelih do 6 cm. Med severno vogalno

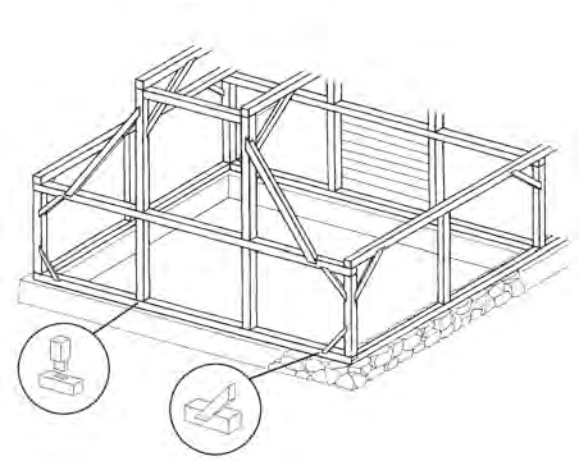
[48] Ib., 121 s; 153.

two in the corners (Posts 1 and 4 in the north and east corners, respectively) and two in between (*Fig. 23*). The distance between them varied: 1.25 m (between Posts 1 and 2), 1.47 m (between Posts 2 and 3) and 1.57 m (between Posts 3 and 4). Three of the posts survived *in situ*, while Post 3 fell down and broke so that only its lower end with the standing surface (measuring 23 x 13 cm) jutted from the cross section. The other three posts were square-sectioned, with sides measuring 20 x 20 cm or 22 x 22 cm.

The posts were connected with the sleeper beam with a mortise-and-tenon joint, making the construction more stable. Additional stability of the construction was provided by braces. The remains of one of them were also documented in the northeast cross section (*Fig. 24*) and connected the sleeper beam to the north corner post (cf. *Figs. 22A* and *22B*). Remains of braces in secondary positions were found in Houses 15/2 and 20,[48] which shows that the carpenters in Posočje were familiar with the basic principles of the postpad construction and applied them extensively (*Fig. 25*).

The spaces between the posts were closed off with wooden planks. Some of these survived of the northeast wall of House 11/2 (*Fig. 22A*). It was made of up to 6 cm

[48] Ib., 121 f; 153.



Sl. 25: Principi sohaste gradnje na Mostu na Soči.
Fig. 25: Characteristics of postpad construction at Most na Soči.

Sl. 26: Hiša 11/2. Vogalna soha št. 4 in opaž v vzhodnem vogalu.
Fig. 26: House 11/2. Corner Post 4 and wooden planks in the east corner.

soho (št. 1) in prvo sosednjo (št. 2) sta bila ohranjena dva. Odsek med vmesnima sohama 2 in 3 je bil skoraj povsem uničen, boljša je bila situacija v vzhodnem vogalu, kjer so na svojih mestih ostali trije plohi (*sl. 26*). Segali so za vogalno soho, kako so bili nanjo pritrjeni, pa ni bilo moč ugotoviti. Verjetno so uporabili lesene kline. Dva ploha stenskega opaža sta se ohranila tudi ob severozahodni strani sohe 1. Spodnji je imel na koncu narejeno zarezo, da se je lepo prilegal ob temeljni prag.[49]

Skromni ostanki stenskih opažev so bili odkriti še v dveh hišah, vendar ne na prvotnih mestih, temveč v ruševinah stavb (*sl. 20*). Drugačen je opaž iz hiše 16 (gradbena faza 1). Zanj niso uporabili tesanih plohov, temveč okrogla bruna iglavcev.[50] Iz pozicije v ruševinah je bilo razbrati, da so bila bruna pritrjena na notranji strani soh. Stenski opaž iz okroglic je na območjih, kjer prevladujejo iglasti gozdovi, nekaj običajnega, na Mostu na Soči pa je izjema.

thick planks. Two of these survived between Post 1 in the north corner and the adjacent Post 2. The section between Posts 2 and 3 was almost completely destroyed, while three planks were found *in situ* at the east corner (*Fig. 26*). They were fastened to the exterior of the corner post. The exact manner of fastening cannot be positively identified, though it probably involved the use of wooden tenons. The remains of two planks also survived on the northwest side of Post 1; the lower of the planks had a groove to fit neatly against the sleeper beam.[49]

Scarce remains of wooden planks also came to light in two other houses, in secondary positions in house debris (*Fig. 20*). Of those, the walls of House 16 (Construction Phase 1) differ from the others in that they were made not of planks, but rather of round logs of coniferous trees.[50] Their positions within the debris layer suggest that the logs were attached to the interior side of the posts. Round logs are commonly used in this way in areas of predominantly coniferous forests, while they are an exception at Most na Soči.

[49] Ib., sl. 83 in sl. 90.
[50] Ib., 138.

[49] Ib., Fig. 83 and Fig. 90.
[50] Ib., 138.

Sl. 27: Hiša 30/2. S kamnitimi ploščami obdana luknja za stojko.
Fig. 27: House 30/2. Stone slabs lining a posthole.

Stojke

Ker so bile hiše na Mostu na Soči praviloma narejene v tehniki sohaste gradnje, so bile stojke ugotovljene le v nekaj primerih. Gre za navpičen gradbeni element, ki je bil vkopan ali zabit v tla, zato proti delovanju vlage ni bil tako zaščiten kot na kamnih ležeči temeljni prag.[51] Ostanek zoglenele stojke se je ohranil le enkrat,[52] sicer pa so dokaz za njihovo uporabo okrogle in kvadratne luknje, v katerih so bile nekoč zasidrane.

Hiša 22A/1 (najverjetneje enokapna lopa) je bila v celoti zgrajena s pomočjo stojk, ki so nosile strešno konstrukcijo. Njihove pozicije je bilo moč ugotoviti s pomočjo lukenj, ohranilo se jih je pet. Vse so bile vkopane v peščeno geološko osnovo: tri ob severovzhodni steni gradbene jame ter po ena na sredini krajših stranic. Večinoma so imele na dnu lomljence iz laporja in apnenca, ena pa je bila z dveh strani obložena s kamnitimi ploščami.[53]

Na stojkah je počival tudi nadstrešek nad jamo v preddverju hiše 23/1. Dokaz so štiri luknje, ki so bile prav tako vkopane v peščeno geološko podlago. Njihova dna so bila ravna, kar kaže na to, da stojke niso bile ošiljene.[54]

Zelo zanimiva je bila konstrukcija hiše 30/2. Na treh straneh je imela kamnit temelj, le zahodna stran je bila brez njega. Tu so bile odkrite tri s kamnitimi ploščami obložene luknje, nedvomno stojišča za pokončne stojke, ki so podpirale strešno konstrukcijo.[55] Morda so bile iz tesanega lesa, za kar bi govorile kvadratne oblike lukenj (*sl. 27*).

Earthfast posts

The buildings at Most na Soči were predominantly postpad constructions and excavations only documented a handful of earthfast posts. These were vertical members dug or driven into the earth and hence less protected against moisture in comparison with the posts resting on sleeper beams with stone foundations.[51] Only one piece of a charred earthfast post survived,[52] but the existence of others is suggested by the round or square postholes.

House 22A/1 (most probably a shed with a single-pitch roof) was constructed entirely of earthfast posts that carried the roof construction. Their positions are clear from the postholes. Five of them survived, all dug into the sandy natural deposit: three along the northeast wall of the construction pit and one at midpoint of each of the two shorter sides. Most had unworked pieces of marl and limestone on the bottom, while one had a lining of stone slabs on two sides.[53]

Earthfast posts also supported a projecting roof over the pit in the anteroom of House 23/1. This is indicated by the four postholes dug into the sandy natural deposit. They had flat bottoms, which suggests that the posts were not pointed.[54]

Also of interest in this respect is the construction of House 30/2. It had stone foundations on three of its sides, while the course of the fourth side was indicated by three holes lined with stone slabs, which held the posts that supported the roof.[55] The square holes may suggest that the posts were hewn to a square cross section (*Fig. 27*).

[51] Zimmermann 1998, 24 ss. in 60 ss; Dular 2008, 340.
[52] Hiša 30/1; Svoljšak, Dular 2016, 204, sl. 203.
[53] Ib., 162, sl. 156A.
[54] Ib., 167, sl. 160A.
[55] Ib., 206 ss, sl. 211 in pril. 5.

[51] Zimmermann 1998, 24 ff and 60 ff; Dular 2008, 340.
[52] House 30/1; Svoljšak, Dular 2016, 204, Fig. 203.
[53] Ib., 162, Fig. 156A.
[54] Ib., 167, Fig. 160A.
[55] Ib., 206 ff, Fig. 211 and App. 5.

Ilovnat omet

Ostankov prežgane ilovice, ki bi jih lahko interpretirali kot stenski omet, na Mostu na Soči ni bilo prav veliko, so pa nanje naleteli v skoraj polovici hiš (*sl. 20*). Gre za nekaj centimetrov debele kose, ki so imeli na eni strani zglajeno površino, na drugi pa odtise lesa (*sl. 28*). Glede na dejstvo, da so bile stene posoških hiš iz kalanih oziroma tesanih plohov, niso odtisi nikakršno presenečenje. Težje je pojasniti maloštevilnost fragmentov, iz česar bi lahko sklepali, da so bili z ilovico prevlečeni le nekateri predeli sten. Najverjetneje pri dnu ob temeljnih pragovih, saj se drugod zaradi gladkih površin ilovnat nanos ne bi mogel obdržati. Na ometu so namreč vidni zgolj odtisi plohov, ne pa tudi letvic ali drugih oprimkov, ki bi nudili naneseni ilovnati oblogi zanesljivo oporo.

Na Mostu na Soči so bili najdeni tudi ostanki ometa z odtisi protja (*sl. 29*). Ker pa so bili zelo redki, lahko z zanesljivostjo trdimo, da stene iz prepleta v posoškem stavbarstvu niso imele vidnejše vloge. Še največ fragmentov ometa z odtisi protja je bilo najdenih v hiši 30/2, in sicer vzdolž njene severovzhodne stene.

Na koncu moramo omeniti še eno vrsto oblog, ki prav tako niso bile pogoste. Gre za ostanke ilovnatih mašil, s katerimi so zadelali špranje med lesenimi deli sten (*sl. 31*); tam, kjer je bilo pač potrebno oziroma kjer so bile večje reže. Prežgani fragmenti imajo različne profile, vendar prevladujejo trikotne oblike. Večinoma je na njih razbrati odtise kalanega lesa in oblic manjših premerov (*sl. 30*).

Loam daub

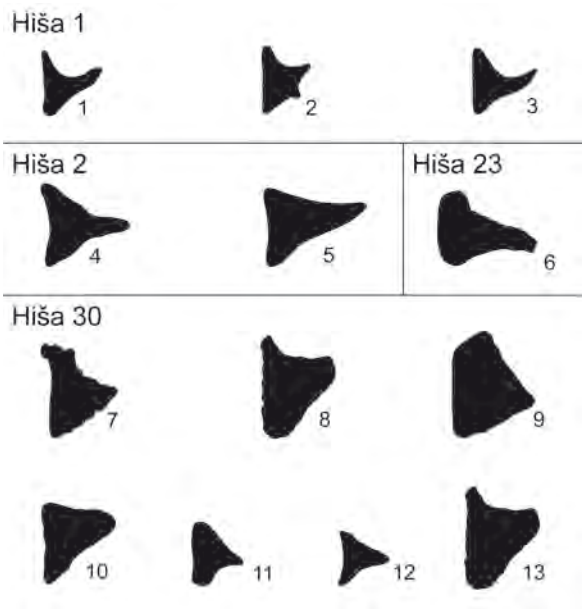
Most na Soči did not yield much burnt loam that could be interpreted as the remains of house daub, though such remains were found in nearly half of all houses (*Fig. 20*). The loam pieces are a few centimetres thick, with one side smoothed and the other bearing wood impressions (*Fig. 28*). Considering that the walls of the houses at Most na Soči were made of wooden planks, such impressions are an expected find. What is less expected is the paucity of the recovered daub pieces, which suggests that only parts of walls were covered in loam, most likely at the base along the sleeper beams where adhesion was best. The daub pieces only bear the impressions of boards and not of laths or other elements that would ensure that daub adhered to the wall.

Excavations at Most na Soči also yielded the remains of daub bearing wattle impressions (*Fig. 29*). These, however, were very rare, suggesting that wattle-and-daub walls were not the rule. The greatest number of such pieces was found in House 30/2, along its northeast wall.

We should also mention the rare remains of loam caulking (*Fig. 31*) used to seal the joints between individual wooden members of the walls wherever necessary. The burnt pieces differ in cross section, but most are triangular. Most also bear impressions of cleft wood or thin round logs (*Fig. 30*).

Sl. 28: Fragment prežganega stenskega ometa z odtisom ploha iz hiše 15/2 (hrbtna in sprednja stran).
Fig. 28: Fragment of burnt house daub (back and front sides) from House 15/2 with an impression of a wooden plank.
(Foto / Photo: T. Lauko)

Sl. 29: Fragment prežganega stenskega ometa z odtisi protja iz hiše 30/2. (Foto: T. Lauko)
Fig. 29: Fragment of burnt house daub with wattle impressions from House 30/2. (Photo: T. Lauko)



Sl. 30: Profili mašil za špranje iz hiš 1, 2, 23 in 30. M. = 1:3.
Fig. 30: Cross sections of caulking fragments from Houses 1, 2, 23 and 30. Scale = 1:3.

Sl. 31: Fragment prežganega ilovnatega mašila za špranje iz hiše 30/2. (Foto: T. Lauko)
Fig. 31 Fragment of burnt loam caulking from House 30/2. (Photo: T. Lauko)

Strehe

O videzu streh mostarskih hiš nimamo nikakršnih neposrednih dokazov, vendar lahko o tipu ostrešij sklepamo iz tlorisov stavb in konstrukcijskih detajlov sten. V poštev prideta tako eno- kot tudi dvokapna zasnova. Stavbe kvadratnih tlorisov (npr. hiše 1/1, 11/2, 20) so imele skoraj zanesljivo dvokapne strehe. Zanje vemo, da počivajo špirovci na slemenskih legah, ki so podprte s slemenskimi sohami. Spahi so narejeni s čepi in luknjami. Sohe segajo največkrat do temeljnega praga, lahko pa so včepljene tudi v poveznik. Trdnost celotnemu ostrešju dajejo ročice, opirače in razpirače, s katerimi je na več mestih povezana celotna strešna konstrukcija.[56] Verjetno so imele dvokapne strehe tudi nekatere hiše podolgovatih tlorisov (npr. 15/2, 15A/1), saj gre za bivalne objekte. Drugače so bile zasnovane strehe stavb, v katerih se je odvijala obrtniška dejavnost (npr. 22A/1, 23/1). Glede na način gradnje, pri kateri so za nosilce uporabili tudi v tla vkopane stojke, imamo skoraj gotovo opraviti z enokapnima lopama. Vsekakor pa so morale imeti strehe dovolj široke napušče, da deževnica ni zatekala v območje drenaže. Za uporabo žlebov nimamo namreč nobenega dokaza.

Iz česa je bila kritina, ne vemo. Analize zoglenelega lesa niso dale oprijemljivejših podatkov, glede na alpsko okolje, v katerega je bilo umeščeno naselje, bi smeli predpostavljati predvsem les (skodle). V poštev bi prišla tudi slama, saj so poznali in gojili žita. Ker pa je v ruševinah hiš 3 in 8 ležalo precej lapornatih plošč, ne gre povsem izključiti še ene možnosti: kritina nekaterih hiš bi lahko bila tudi kamnita.

NOTRANJOST HIŠ

Pomemben del posoškega stavbarstva je notranja oprema hiš, zato moramo nekaj besed nameniti tudi temu, kako so bila narejena tla, kje so stala ognjišča ter kakšne so bile shrambne in delovne jame (*sl. 32*). Most na Soči je znan tudi po ploščah iz žgane gline, ki so krasile notranjost nekaterih hiš.

Tla

Hodne nivoje v hišah so v grobem poravnali že ob pripravi stavbišč, kasneje so jih prevlekli s plastjo ilovice in površino skrbno zgladili. Tla brez prevleke so bila ugotovljena le v dveh primerih: v manjšem prostoru (domnevni shrambi) hiše 1, kjer je bila za hodno površino uporabljena okoli 5 cm debela, ravna in zelo trda skorja geološke osnove, ter v hiši 31/1, kjer je za pod služila obklesana površina konglomerata.

[56] Dular 2008, 340.

Roofs

We have no direct evidence as to the appearance of the roofs that covered the houses at Most na Soči. However, the type of roof truss can be inferred from the ground plans of houses and construction details of the walls. Evidence suggests the existence of both single-pitch and gabled roofs. The buildings of a square plan (e.g. Houses 1/1, 11/2, 20) almost certainly all had gabled roofs. Their rafters rested on the ridge purlin supported by king posts and fastened together with mortise-and-tenon joints. Most posts were anchored in the sleeper beams, while some only reached to the tie beam. Braces, struts and straining beams spread across the truss provided the necessary stability of the roof.[56] Some houses of a rectangular plan probably also had gabled roofs (e.g. Houses 15/2, 15A/1), as they were residential units. The buildings serving as workshops (Houses 22A/1, 23/1) probably had differently designed roofs. Given their construction of earthfast posts, they were almost certainly sheds with a single-pitch roof. They must have had broad enough eaves to stop the rainwater from reaching the drainage ditch; we have no evidence of the use of rain gutters.

We also have no evidence as to the type of roof cover. The charred wood analyses gave no results on this subject, though the alpine environment of Most na Soči may indicate the use of wood (shingles). Thatch may also have been used, because we know that the inhabitants knew and grew cereals. There is another possibility, however; the debris of Houses 3 and 8 included a number of marl slabs that may represent the remains of a stone roof covering.

HOUSE INTERIORS

Interior furnishings form an important part of the architecture in Posočje and the text below will offer an insight into the floors, the hearths and their locations, as well as the storage and work pits (*Fig. 32*). Among other things, the settlement at Most na Soči is also known for the recovered ceramic plaques that decorated the interiors of some of the houses.

Floors

The ground in the interior of the houses was roughly levelled already during the preparation of the construction pit. Later, when the walls already stood, it was covered with a layer of loam and the surface carefully smoothed. Only two houses had floors without the loam surface: the small room (presumably for storage) in House 1 had the roughly 5 cm thick, flat and very hard crust of the natural deposit serving as the floor, while

[56] Dular 2008, 340.

HIŠA / HOUSE	TLA / FLOORS				OGNJIŠČA / HEARTHS							
	phana ilovica / beaten loam	kamnite plošče / stone slabs	geološka osnova / natural deposit	lesene podnice / wooden boards	dvignjeno / raised	v ravnini tal / at ground level	poglobljeno / sunken	kamnita podlaga / stone bedding	pravokotna oblika / rectangular shaped	okrogla oblika / round shaped	sredi prostora / centrally placed	ob steni / along wall
1/1	x		x		x			x	x			x
1/2	x		x		x				x		x	
2/2	x											
3/1	x											
5	x	x										
8/1	x											
8/2	x											
9	x											
10/2	x											
11/2	x			*Quercus robur/petraea*								
14/1	x						x	x	x			x
15/2	x			*Abies alba*								
15A/1	x					x		x		x	x	
16/1				*Abies alba; Picea/Larix; Pinus sylv./m.*	x			x		x	x	
16/2	x											
21						x		x	x			x
24/1	x					x		x	x			x
30/1					x			x	x			
30/2	x				x			x	x			x
31/1			x		x				x			x

Sl. 32: Notranje strukture hiš.
Fig. 32: Interior structures of houses.

Tla iz phane ilovice, ki je po požaru postala rjavo-rumene oziroma opečnate barve, so bila različno ohranjena. Najbolje v hiši 15/2 (*sl. 33*), v drugih objektih so ostale na prvotnih mestih le posamične zaplate. V nekaterih hišah je bil ilovnat nanos v celoti uničen. Na iztrganih kosih so se razmeroma dobro videli odtisi geološke podlage (*sl. 34*). Debelina nabite ilovice je znašala nekaj centimetrov. Nanos je bil ob stenah nekoliko močnejši (npr. v hiši 15 med 4,5 in 9 cm), saj so z ilovico oblekli tudi temeljne kamne. Da je bila ilovnata prevleka dvignjena ob temelj, s čimer so bile zapolnjene špranje med kamni, je bilo ugotovljeno še v hišah 1/1, 2/2, 11/2 in 15A/1.

V treh primerih (hiše 11/2, 15/2, 16/1) so bila ugotovljena tla iz lesa. Gre za ostanke zoglenelih plohov, ki so bili tesno drug ob drugem položeni na peščeno osnovo, le v hiši 15/2 so ležali na poravnanih ruševinah prve gradbene faze (*sl. 35*). Podložne lege niso bile ugotovljene. Analize oglja so pokazale, da so za podnice uporabili les hrasta in iglavcev (*sl. 32*).

Zanimiva so bila tla v hiši 5, ki je imela dva prostora. V zahodnem so na geološko osnovo nabili ilovico, vzhodnega pa tlakovali z velikimi neobdelanimi ploščami iz volčanskega apnenca (*sl. 36*). Tla iz kamnitih plošč so na Mostu na Soči izjema, saj jih v drugih stavbah niso zasledili.

House 31/1 had a worked surface of conglomerate that was used as the floor.

The floors of beaten loam that turned brown-yellow or brick coloured after a fire survived to different degrees in different houses. The floor in House 15 survived best (*Fig. 33*), other buildings only revealed small patches and some had the loam layer completely destroyed. The loose pieces of loam floor show relatively clear impressions of the underlying natural deposits (*Fig. 34*). The loam was beaten to a thickness of a few centimetres across most of the interior and slightly thicker along the walls (in House 15, for example, between 4.5 and 9 cm), where the loam even covered the foundations. The loam along the edges also served to fill the holes between individual stones of the foundations, as was observed in Houses 1/1, 2/2, 11/2 and 15A/1.

Three houses (11/2, 15/2, 16/1) had a wooden floor. Excavations revealed the charred remains of floor boards laid very close to one another on the sandy natural deposit in most cases, only in House 15/2 on the levelled debris of the first construction phase (*Fig. 35*), without the use of wooden subfloor elements. Charcoal analyses have shown that oak and coniferous wood was used for the floor boards (*Fig. 32*).

Sl. 33: Hiša 15/2. Tla iz phane ilovice v vzhodnem prostoru; pogled z juga.
Fig. 33: House 15/2. Floor of beaten loam in the east room; view from the south.

Sl. 34: Fragment prežganih tal z odtisi geološke podlage iz hiše 2/2 (spodnja in zgornja stran).
Fig. 34: Fragment of burnt floor (underside and top surface) with impressions of the natural deposit from House 2/2.
(Foto / Photo: T. Lauko)

Sl. 35: Hiša 15/2. Ostanki zoglenelih podnic v zahodnem prostoru; pogled z zahoda.
Fig. 35: House 15/2. Remains of charred floor boards in the west room; view from the west.

The floors of the two-room House 5 are also of interest. While the west room had beaten loam applied onto the natural deposit, the east room was paved with large unworked slabs of Volče limestone (*Fig. 36*). Stone slab flooring was not documented in any other building at Most na Soči.

Sl. 36: Hiša 5. Kamnite plošče v vzhodnem prostoru; pogled s severozahoda.
Fig. 36: House 5. Stone slabs in the east room; view from the northwest.

Sl. 37: Ognjišče v hiši 14/1; pogled z jugovzhoda.
Fig. 37: House 14/1. Hearth; view from the southeast.

Ognjišča in peč

Glavne značilnosti ognjišč so zbrane na *sl. 32*. Večina jih je bila postavljenih v ravnino tal ali pa so bila od hodne površine rahlo dvignjena. Poglobljeno (za slabih 10 cm) je bilo le ognjišče v hiši 14/1. Čeprav so imela ognjišča v glavnem uničene robove, lahko iz nekaj bolje ohranjenih primerov ugotovimo, da so bile v uporabi tako pravokotne (npr. hiši 1/1, 1/2, 30/1, 30/2) kot tudi okrogle kurilne površine (hiša 15A/1). Tudi pri umeščanju ognjišč ni bilo zaznati enotnega pravila. Najdemo jih tako sredi prostorov kot v bližini sten. Požarno varnost so v takih primerih zagotavljali manjši zidci oziroma okvirji iz kamnitih plošč, ki so preprečevali, da bi plameni segali do sten (npr. v hišah 14/1 in 24/1).

Ognjišča so bila narejena tako, da so najprej pripravili podlago iz drobnih oblic in kamnov, ki so jih v enem sloju zložili na geološko osnovo. Kamne so nato prevlekli s plastjo ilovice (debelina do 10 cm), površino pa zgladili. Zaradi stalnega kurjenja je bila ilovica močno prežgana, površina pa skoraj po pravilu razpokana (*sl. 37*). K ognjiščem so sodile tudi odlagalne površine. Najbolje je dokumentirana tista iz hiše 30/2, narejena iz ploščatih kamnov. Temu namenu je očitno služil tudi večji močno obrušen kvader, ki je bil za slabih dvajset centimetrov višji od nivoja okoliških tal.[57]

V hiši 30/2 je ob ognjišču stala peč, edina odkrita v naselju. Imela je iz lapornatih plošč narejen okvir (krovna plošča se ni ohranila), ki je bil z zunanje strani na debelo obložen z ilovico (*sl. 38*). Debelina obloge je

[57] Glej Svoljšak, Dular 2016, 210, pril. 5.

Sl. 38: Peč v hiši 30/2; pogled z jugozahoda.
Fig. 38: House 30/2. Built-in oven; view from the southwest.

Hearths and an oven

The main characteristics of the hearths are presented on *Fig. 32*. Most were level with the ground slightly raised above it, only the hearth in House 14/1 was sunken (roughly 10 cm). Although their edges were largely destroyed, some of the well-preserved hearths reveal that they had either rectangular (e.g. in Houses 1/1, 1/2, 30/1, 30/2) or round top surfaces (House 15A/1). They also occupied different positions in the house interiors: in the centre or along one of the walls. In the latter cases, they were fitted with a protection of stone slabs so that the flames would not come into contact with the wooden wall (e.g. in Houses 14/1 and 24/1).

The bedding for the hearths consisted of cobbles and other stones placed in a single layer onto the natural deposit. This was covered by a layer of loam (up to 10 cm thick) and the surface smoothed. The constant use of fire caused the loam to be burnt through and the surface was usually cracked (*Fig. 37*). Hearths were also associated with features interpreted as worktops. The best documented worktop, made of flat stones, was found in House 30/2. It stood next to a large and heavily worn cuboid rock of the moraine till, which was probably also a worktop, raised almost 20 cm above the loam floor.[57]

[57] See Svoljšak, Dular 2016, 210, App. 5.

znašala do 11 cm. Notranjost peči je merila 70 x 35 cm, odprtina za kurjenje je bila na zahodni strani. Peč je služila za peko: verjetno kruha in mesa, kar bi dokazovale nedogorele živalske kosti, najdene v pepelu v peči in na prostoru pred njo.

Jame

K notranji opremi hiš sodijo tudi jame, ki jih je bilo na Mostu na Soči dokumentiranih 40. Glede na obliko, ki ji je očitno botrovala namembnost, jih je moč razvrstiti v dve skupini. V prvo (*sl. 39A*) smo združili okrogle ali rahlo ovalne oblike s premerom do 1 m. Vkopane so bile v geološko osnovo. Njihove globine niso presegle 60 cm, vendar so bile nekatere od njih prvotno nekoliko globlje, saj meritev večkrat ni bila zanesljiva zaradi uničenih tal. Prečni profili so pokazali, da so imele jame kotanjasta ali banjasta dna. Konična oblika je bila dokumentirana le v enem primeru (jama 3 v hiši 1/1). Praviloma so bile umeščene ob zidove oziroma v kote hiš. To je razumljivo, saj bi sicer ovirale gibanje po prostoru. Izjema je pravzaprav le jama v hiši 16/2, ki je bila vkopana sredi manjšega prostora.[58] Bila je odlično ohranjena, njene robove pa so ojačali z nanosom ilovice in jih skrbno zgladili z okoliškimi tlemi.

Polnila jam so bila sicer različna, vendar se v njih vedno znova (v različnih kombinacijah in razmerjih) pojavljajo peščena zemlja, mivka, pesek, kamnit drobir, oglje in koščki prežgane ilovice. Gre torej za podobno sestavo, ki jo najdemo tudi v ruševinah stavb. V nekaterih jamah so bili še fragmenti posod ali drugih keramičnih predmetov (svitek, ognjiščna kozica), cel lonec se je ohranil le v hiši 3/1.[59] V dveh primerih so bili med polnilom jam najdeni kosi kovine: v hiši 7 kvader železa in v hiši 13 kupček razlomljenih bronastih ingotov in pogač.[60] Omeniti moramo še organske ostanke. V glavnem gre za posamezne živalske kosti, žitna zrna so bila odkrita le v jami 2 v hiši 7. To je verjetno zgolj slučaj, saj polnila niso bila pregledana s flotacijskim postopkom. Iz povedanega lahko zaključimo, da na podlagi strukture polnil namembnosti jam sicer ni moč zanesljivo ugotoviti, verjetno pa ne bomo daleč od resnice, če rečemo, da so služile predvsem za shranjevanje dobrin.

Druga skupina jam se od prve razlikuje že po velikosti (*sl. 39B*). Gre za velike pravokotne ali ovalne vkope s stranicami oziroma premeri prek enega metra. V skupino smo vključili tudi tri manjše okrogle jame iz hiše 4 in tri okrogle jame iz hiše 22/1. Razlog za takšno odločitev je lega objektov, saj so razporejeni v gručo oziroma jih jarek povezuje v funkcionalno enoto.[61] Polnila jam so podobna tistim iz prve skupine. Prevladujejo

[58] Svoljšak, Dular 2016, 135, sl. 123B.
[59] Ib., 61.
[60] Ib., 75 in 106.
[61] Ib., 66, sl. 47A, in 157, sl. 150A.

House 30/2 also revealed the only built-in oven in the settlement; it stood next to the hearth. The oven walls consisted of marl slabs (the cover did not survive) lined with an up to 11 cm thick layer of loam on the exterior (*Fig. 38*). The oven interior measured 70 x 35 cm and the opening was located on the west side. The oven probably served to prepare bread and meat, the latter suggested by the unburnt animal bones found in the ash of the oven and in front of it.

Pits

Excavation documented forty pits in the interiors of houses at Most na Soči. We can distinguish between two groups based on the shape of the pit, which presumably indicates different functions. The first group (*Fig. 39A*) consists of round or slightly oval pits with a diameter of up to a metre. They were dug into the natural deposit. Their depth did not exceed 60 cm, though some may originally have been deeper, as the damaged ground surface often prevented reliable measurements. The pits were predominantly rounded in cross section, only one was conical (Pit 3 in House 1/1). They were located along the walls or in the corners so as not to hinder the movement around the house, only the pit in House 16/2 was dug in the centre of the smaller room.[58] This pit was very well preserved; its edged were strengthened with a strip of loam carefully levelled with the surrounding floor.

The pits were filled with a variety of materials, which comprise sandy earth, sand, stone rubble, charcoal and pieces of burnt loam in different combinations and ratios. This is similar to the composition of the house debris. Some pits also contained fragments of pottery or other ceramic artefacts (ring, firedog), while a complete jar survived in the pit of House 3/1.[59] The fill in two pits included pieces of metal: a block of iron in House 7 and a heap of broken bronze ingots in House 13.[60] The fills also contained organic remains, mostly individual animal bones, while cereal grains were only found in Pit 2 of House 7. This, however, is probably not an accurate picture as the material from the pits was not water-sieved. The available data on the structure of the fills does not allow us to reliably identify the function of these pits, but we may nevertheless presume that they were mainly used for storage.

The pits of the second group (*Fig. 39B*) are rectangular or oval in plan and larger, measuring more than a metre across. The group also includes three round pits from House 4 and three round pits from House 22/1 because the pits form a functional whole. They were joined or connected with a ditch.[61] The fills of the pits

[58] Svoljšak, Dular 2016, 135, Fig. 123B.
[59] Ib., 61.
[60] Ib., 75 and 106.
[61] Ib., 66, Fig. 47A, 157, Fig. 150A.

A

HIŠA / HOUSE	jama / pit	premer / diameter	globina / depth	najdbe / small finds	organski ostanki / organic remains
1/1	jama / pit 1	77 cm	48 cm	svitek / ceramic ring	
	jama / pit 2	85 cm	60 cm	frg. keramike / ceramic sherds	
	jama / pit 3	72 cm	48 cm	kozica / firedog	živalske kosti / animal bones
2/2	jama / pit 1	65 cm	30 cm		
3/1	jama / pit 1	55 cm	?	lonec / ceramic jar	
5	jama / pit 1	60 cm	24 cm		živalske kosti / animal bones
	jama / pit 2	37 cm	10 cm		
7	jama / pit 1	80 cm	26 cm	železen ingot / iron block	
	jama / pit 2	85 cm	25 cm	frg. bronaste posode / frg. of bronze vessel	žitna zrna / wheat grains
8/1	jama / pit 1	90 cm	25 cm		
12/1	jama / pit 2	35 cm	22 cm		
13	jama / pit 1	85 cm	36 cm		
	jama / pit 2	80 cm	10 cm	bronasti ingoti / bronze ingots	
15A/1	jama / pit 1	95 cm	20 cm	žlindra, igla, brus / slag, pin, whetstone	živalske kosti / animal bones
16/1	jama / pit 1	55 cm	?		
16/2	jama / pit 1	52 cm	19 cm		
17/1	jama / pit 1	65 cm	15 cm	frg. keramike / ceramic sherds	živalske kosti / animal bones
	jama / pit 2	65 cm	15 cm	frg. keramike / ceramic sherds	
23/1	jama / pit 2	55 cm	38 cm		
27/1	jama / pit 1	70 cm	33 cm		živalske kosti / animal bones
30/2	jama / pit 2	75 cm	60 cm		

B

HIŠA / HOUSE	jama / pit	velikost / size	globina / depth	najdbe / small finds	organski ostanki / organic remains
4	jama / pit 1	50 cm	6 cm	kalup / mould	
	jama / pit 2	35 cm	30 cm		
	jama / pit 3	85 cm	48 cm	kalup, bronasta talina, zajemalka / mould, pieces of molten bronze, casting ladle	frg. obdelane rogovine / worked pieces of antlers
12/1	jama / pit 1	170 × 370 cm	32 cm	frg. fibule / frg. of fibula	živalske kosti / animal bones
21	jama / pit 1	110 × 140 cm	30 cm	svitek, okrašena plošča, utež / ceramic ring, decorated plaque, clay weight	
22/1	jama / pit 1	50 cm	15 cm		
	jama / pit 2	50 cm	11 cm		živalske kosti / animal bones
	jama / pit 3	50 cm	12 cm	frg. keramike / ceramic sherd	živalske kosti / animal bones
	jama / pit 4	170 × 230 cm	37 cm		živalske kosti / animal bones
22A/1	jama / pit 1	120 × 160 cm	23 cm	frg. keramike, prstan / ceramic sherds, finger ring	živalske kosti / animal bones
	jama / pit 2	140 × 160 cm	27 cm	frg. keramike, brus / ceramic sherds, whetstone	živalske kosti / animal bones
22A/2	jama / pit 1	70 × 150 cm	46 cm	svitek, okrašena plošča / ceramic ring, decorated plaque	
23/1	jama / pit 1	130 × 180 cm	35 cm	frg. keramike, svitki / ceramic sherds, ceramic ring	
29/1	jama / pit 1	180 × 300 cm	40 cm	bronasta talina, železno orodje / pieces of molten bronze, iron tools	
	jama / pit 2	70 × 150 cm	28 cm	bronasta talina, brus, črepinje / pieces of molten bronze, whetstone, pottery	
30/1	jama / pit 1	? × 130 cm	52 cm		
	jama / pit 2	200 × 300 cm	30 cm		
	jama / pit 4	? × 130 cm	?		
30/2	jama / pit 1	80 × 180 cm	25 cm		

Sl. 39: Značilnosti jam. A: shrambene jame; B: delovne jame.
Fig. 39: Characteristics of pits. A: storage pits; B: work pits.

peščena zemlja, mivka, pesek, kamnit drobir, oglje in koščki prežgane ilovice. Razmeroma pogosto srečamo tudi črepinje posod in živalske kosti. Bistvena značilnost jam druge skupine pa je, da imajo ožgane stene. Večkrat so bile v njih tudi plasti oglja oziroma pepela. Gre torej za objekte, kjer je imel ogenj pomembno vlogo, čemu so dejansko služili, pa ni lahko ugotoviti. Izjeme so morda le jame v hišah 4 in 29/1. V njih so bili namreč najdeni ostanki bronaste taline, poleg tega pa še kalupa, talilna zajemalka, brus in železna orodja, kar vse kaže na kovinarsko dejavnost. Namembnost ostalih objektov je težje opredeljiva. Če si ogledamo le tri najbolj zanimive (jame v hišah 22/1, 22A/1 in 23/1), vidimo, da obstajajo že pri konstrukcijah stavb, v katerih so bile, določene podobnosti (*sl. 40*). Hiša 22A/1 je bila pravzaprav na stojkah sloneča lopa, pri hiši 22/1 je bila ugotovljena zgolj ena na temelju postavljena stena, medtem ko je imela hiša 23/1 dva dela: zidanega z jamo in morda lopo pred njim. Stavbe so bile torej bolj ali manj odprte, kar je verjetno zahteval delovni proces, pri katerem je bil prisoten ogenj.

Drugih podatkov, ki bi natančneje pojasnili, za kakšne dejavnosti gre, žal nimamo. V veliki jami št. 4 v hiši 22/1 (*sl. 40A*) je bila na dnu 15 cm debela plast zdrobljenega oglja in z njim pomešane zemlje, vmes so ležale živalske kosti. Kot kurivo so uporabili les bukve in hrasta.[62]

Nič bolj povedni nista bili niti polnili jam v hiši 22A/1 (*sl. 40B*). Profil čez prvo je pokazal, da je bila prvotno zapolnjena s sivorjavo zemljo in drobci oglja. V to plast je bila nato vkopana nova, nekoliko manjša kotanja, katere polnilo je imelo od spodaj navzgor naslednjo strukturo: tenka plast oglja, plast čistega peska, plast prežganega peska, tenka plast oglja, plast mivke. Vmes so bili tudi živalske kosti, lončene črepinje, zdrobljena prežgana ilovica in bronast prstan. Podobno strukturo je imelo tudi polnilo druge jame.[63]

Na koncu si oglejmo še jamo v hiši 23/1. Vkopana je bila v neprepustno plast konglomerata, in sicer v vzhodnem delu stavbe, ki je imel na treh straneh kamnite temelje (*sl. 40C*). Jama je bila pravokotne oblike. Iz nje sta bila pod temeljem južne stene speljana dva kanala. Usmerjena sta bila proti jugu, kjer sta se po dobrih štirih metrih poteka spojila z odvodnim jarkom. Prečni presek čez polnilo jame je pokazal, da je bila na dnu do 16 cm debela plast mivke in drobnozrnatega peska. V njej ni bilo najdb. Na mivki oziroma pesku je ležal zoglenel les. Gre za ostanke navzkriž položenih plohov, vsi so bili iz rdečega bora. Preostali del jame (neposredno nad zoglenelimi plohi) je polnila mešanica zemlje in zdrobljene prežgane ilovice. Vmes so bili tudi večji kosi, glinasti svitki ter fragmenti keramike. Svitki (celi in razbiti) so ležali v različnih položajih. Za tiste ob vzhodnem temelju je bilo dobro videti, da so bili naloženi drug vrh drugega, medtem ko so ležali v sredini jame bodisi pošev bodisi

[62] Ib., 160; glej tu Motella De Carlo, 429 s.

[63] Ib., 164.

of the second group are similar to those of the first one, mainly comprising sandy earth, sand, stone rubble, charcoal and pieces of burnt loam, relatively frequently also pottery shards and animal bones. The main common characteristics of these pits are burnt walls and fills that often contained layers of charcoal or ash. This reveals the houses as places where fire played an important role, but their exact function remains for the most part uncertain. The pits in Houses 4 and 29/1 are most revealing; they contained pieces of molten bronze, as well as a mould, casting ladle, whetstone and iron tools, which suggests that they were probably associated with metalworking activities. As for the other houses, we should mention three most intriguing examples (Houses 22/1, 22A/1 and 23/1) that share certain construction similarities (*Fig. 40*): House 22A/1 was actually a shed supported by earthfast posts, House 22/1 had only one of its walls resting on stone foundations, while House 23/1 had two parts, one larger with stone foundations and the other smaller, possibly a shed in front of it. The buildings were more or less open, such as would be necessary when working with open fire.

The small finds from these houses do not shed light onto the activities taking place there. We can only mention the large Pit 4 in House 22/1 (*Fig. 40A*), which contained a 15 cm thick layer of crushed charcoal mixed with earth and the odd animal bone on the bottom. Analyses have shown beech and oak wood to have been used as fuel.[62]

The fills in the pits of House 22A/1 (*Fig. 40B*) are hardly more telling. The cross section of the first pit shows that it was originally filled with grey-brown earth mixed with bits of charcoal. A new smaller pit was dug into this fill and the second fill revealed the following stratigraphy from the bottom up: a thin layer of charcoal, a layer of pure sand, a layer of burnt sand, a thin layer of charcoal, a layer of fine-grained sand. The fill also yielded animal bones, ceramic shards, pieces of crushed burnt loam and a bronze finger ring. A similar stratigraphy was also documented in the second pit.[63]

The pit in House 23/1 was dug into the impermeable conglomerate in the eastern part of the house with stone foundations on three of the four sides (*Fig. 40C*). The pit was rectangular. It had two canals running from it and under the south foundations to join the drainage ditch some four metres further south. The cross section of the pit shows an up to 16 cm thick layer of fine- and medium-grained sand at the bottom without any small finds. Lying on top of the sand was charred wood or the remains of boards laid parallel and perpendicular to one another, all of Scots pine. The rest of the pit (directly on top of the wooden boards) was filled with earth mixed with large and small pieces of crushed burnt loam, ceramic rings and pottery shards. The rings (complete

[62] Ib., 160; also see here Motella De Carlo, 429 f.

[63] Ib., 164.

←

Sl. 40: Delovne jame. M. = 1:100.
Fig. 40: Work pits. Scale = 1:100.

pokonci. Ob njih so bili najdeni deli večjega lonca, v celoti ohranjen manjši lonček pa tudi kakšen kamen. Vse skupaj je prekrivala obsežna ploskev trdo prežgane ilovice, ki se ni širila le nad delovno jamo, ampak tudi po večjem delu zahodne polovice stavbe. To zanesljivo ni bil stenski omet, temveč amorfna, prežgana in otrdela ilovnata gmota, očitno povezana s funkcijo delovne jame (obloga?).[64]

[64] Ib., 171 s.

and broken) were lying in different positions: those along the east foundations were clearly stacked one on top of the other, while those in the centre of the pit were either upright or in an oblique position. Found beside the rings were parts of a large jar, a completely preserved beaker and the odd stone. All were covered by a vast layer of burnt loam that spread beyond the pit across most of the western half of the building. The loam certainly did not represent the remains of wall daub; it was rather an amorphous burnt and hardened mass of loam presumably associated with the function of the work pit (as lining?).[64]

In one of his publications, Svoljšak identified House 23/1 as a workshop where pottery making alternated with metalworking. The numerous ceramic rings and pottery shards suggest the first activity, while the other is indicated by the recovered pieces of iron slag and a piece of a bronze ingot found in the debris in the area of the shed (anteroom) in the west half of the building. He presumed that a kiln stood above the large rectangular pit, in which pottery was fired and occasionally metal was smelted. The last activity before the destruction of the building was that of a potter.[65]

Such an interpretation is certainly interesting, but does leave certain questions unanswered. The first is connected with the form of the pit, which was rectangular and reached on three sides to the foundations of the building. A kiln of a rectangular plan and large size (1.3 x 1.8 m) that would touch wooden walls has no parallels among the documented prehistoric kilns. Also questionable is the interpretation of the pine boards that lay on a layer of sand on the bottom of the pit. The fact that they were tightly laid parallel to one another does not suggest a pile of fuel wood, but more likely the remains of wooden floor boards that covered the pit. It should also be noted that the sand under the boards was not burnt and that water accumulated at the bottom of the pit even during the archaeological excavations. Finally there are the two canals that lead from the pit towards the drainage ditch running along the east side of the house. There are no known parallels for pottery kilns with canals leading from them. The interpretation of this house destroyed in a fire is therefore problematic. To sum up the data from the field documentation, the pit was filled with sand and covered by parallel and perpendicular boards, on top of which was a heap of ceramic rings and pottery, all covered by a burnt and hardened mass of loam; it is not clear whether the loam represented lining or some other structure. The loam certainly did not bear wattle

[64] Ib., 171 f.
[65] Svoljšak 2014, 290 ff.

Drago Svoljšak je v eni svojih objav hišo 23/1 označil za delavnico, v kateri sta se izmenično odvijali lončarska in kovinarska dejavnost. Prvo dokazujejo številni svitki in lončenina, drugo pa ostanki železove žlindre in kos bronaste pogače, najdeni v ruševinah na območju lope (preddverja) v zahodni polovici objekta. Nad veliko pravokotno jamo naj bi stala peč, v kateri so žgali lončenino, po potrebi pa tudi talili kovino. Zadnje proizvodno dejanje je pred uničenjem hiše pripadalo lončarju.[65]

Takšna interpretacija objekta je vsekakor zanimiva, postavlja pa nekaj vprašanj. Prvo je povezano z obliko jame, ta je bila pravokotna in je s treh strani segala vse do temeljev hiše. Lončarske peči, ki bi bile pravokotnega tlorisa in takih dimenzij (1,3 x 1,8 m), povrhu pa bi se še dotikale lesenih sten, med doslej odkritimi prazgodovinskimi pečmi ne poznamo. Vprašljiva je tudi interpretacija zoglenelih borovih plohov, ki so prekrižani ležali na plasti mivke in drobnozrnatega peska na dnu jame. Glede na to, da so bili položeni vzporedno in tesno drug ob drugem, ne dajejo videza grmade, ampak jih kaže interpretirati kot ostanek lesenih podnic, ki so prekrivale jamo. Pomenljivo je tudi dejstvo, da pesek pod plohi ni bil ožgan, na dnu jame pa se je še ob času izkopavanj nabirala voda. In končno sta tu oba odtočna kanala, s katerima je bila jama povezana z jarkom ob vzhodni strani hiše. Tudi lončarskih peči z odtočnimi kanali ne poznamo, to pa interpretacijo objekta, ki je propadel v ognju, le še bolj zapleta. Na osnovi terenske dokumentacije je moč zanesljivo reči le to, da je bila v spodnjem delu s peskom zapolnjena jama, ki so jo prekrivali navzkriž postavljeni leseni plohi. Na njih je ležal kup svitkov in lončenine, vse pa je prekrivala prežgana in otrdela ilovnata gmota. Ali gre za neke vrste oblogo ali kaj drugega, ne vemo. V ostankih ni bilo najti odtisov protja, brez armature pa morebitna obloga ne bi imela zadovoljive stabilnosti. Vse kaže, da je jama s kanaloma služila zbiranju in odvajanju vode. Druge interpretacije so manj verjetne, sicer pa bo treba z razlago počakati na nova odkritja, ki bodo dala več podatkov o funkcionalnosti podobno konstruiranih objektov.[66]

Vhodi in prehodi

Vhodi v stavbe so bili z juga, saj so bila stavbišča na preostalih treh straneh vkopana v pobočje, stene gradbenih jam pa obložene z drenažnimi zidovi. Kolikor toliko se je ohranilo pet vhodov, ki smo jih podrobneje že opisali, zato bo na tem mestu dovolj, če ponovimo nekatere podatke.[67]

[65] Svoljšak 2014, 290 ss.

[66] Glej še tu Svoljšak, 187 s spremenjeno interpretacijo jame. Namenjena naj bi bila zbiranju zalednih padavinskih voda, ki so se vanjo stekale po površju konglomeratne skale.

[67] Hiše 1/1, 11/2, 15/2, 15A/1 in 16/2. Glej Svoljšak, Dular 2016, 47, 94, 116, 128, 140.

impressions and without some sort of support, the lining would not be sufficiently stable. Rather than a work pit, the most plausible interpretation is that the pit served to collect and drain water away from the house. Other interpretations are less plausible, though new discoveries of similar structures may provide the parallels we now lack.[66]

Entrances and passages

All houses had their entrance in the south, as all other sides were lined with drainage walls erected along the walls of the construction pits. Five of the entrances survived to a sufficient degree and their characteristics will be summarised below.[67]

The entrance to House 1 in its Construction Phase 1/1 was in the southwest wall at the west corner (*Fig. 41A*). This position is indicated by a large slab with three slabs in front of it, while eighty centimetres further to the south was another large slab. The slabs are believed to have served as a footing for the wooden support of a projecting roof in front of the entrance, while the slab in the line of the foundations represents the surviving part of the threshold.

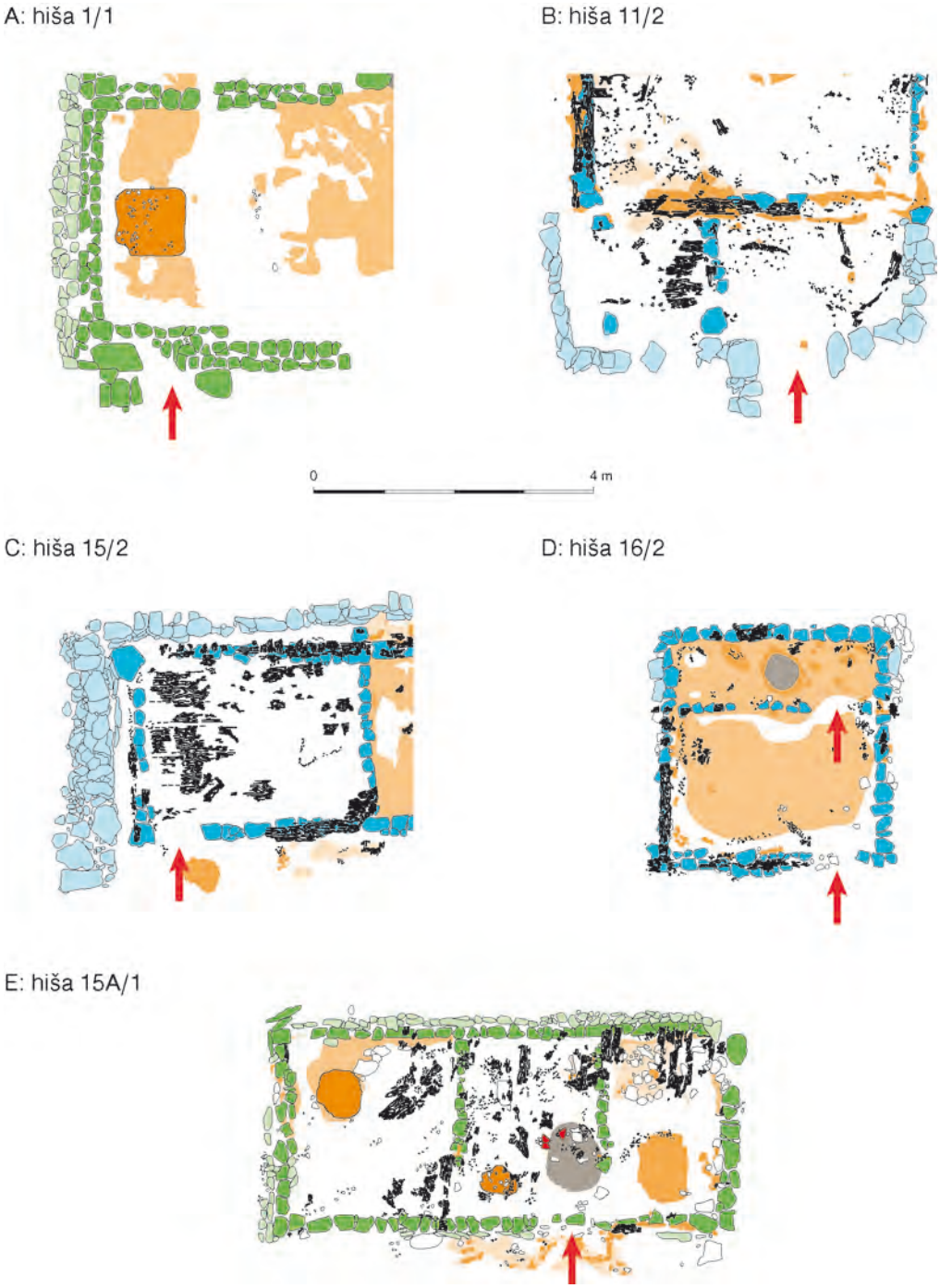
The entrance to the anteroom of House 11/2 (*Fig. 41B*) was also relatively well preserved. It was delimited by a pair of low walls, one on each side. The left wall was constructed of four courses of stones to the height of 60 cm. On the right, only a small upright rock remained *in situ*. It reached the same height as the top stone of the left wall. As in the case of House 1, the low walls here are believed to have served as a footing for the wooden support of a projecting roof.

The gaps in the line of the foundations of Houses 15/2, 16/2 and 15A/1 have been identified as entrances with a fair amount of certainty given their positions. The entrances of Houses 15/2 and 16/2 (*Fig. 41C-D*) were located near the corners, in House 15A/1 it was located at midpoint of the wall (*Fig. 41E*). The only fairly clear passage within a house has been identified in the partition wall of House 16/2 (*Fig. 41D*); it was located in axis with the entrance and measured 70 cm in width.

Missing stones in the foundations are not yet proof of an entrance or a passage. As a rule, the post-pad construction does not involve the sleeper beams to be interrupted, as this would reduce the stability of the superstructure. Even examples from vernacular architecture show that wooden houses had continuous

[66] Also see Svoljšak in this publication (187) with a new interpretation of the pit. It was presumably intended to collect the rainwater coming down the conglomerate rock on the slope behind the house.

[67] Houses 1/1, 11/2, 15/2, 15A/1 and 16/2. See Svoljšak, Dular 2016, 47, 94, 116, 128, 140.



Sl. 41: Vhodi in prehodi. M. = 1:100.
Fig. 41: Entrances and passages. Scale = 1:100.

Vhod v hišo 1/1 je bil v prvi gradbeni fazi v jugozahodni steni tik ob zahodnem vogalu stavbe (*sl. 41A*). To lahko razberemo iz lege večje plošče, pred katero so bili položeni trije ploščati kamni. Osemdeset centimetrov stran je bila ob temelju še ena večja plošča. Kamni so očitno služili za podlago lesenim stebrom nadstreška

sleeper beams that were raised above ground and had to be crossed when entering a house.[68]

[68] Good examples of this are the wooden huts in the alps of the Bohinj and Posočje areas, which share a number of other features with the Iron Age architecture in Most na Soči; see Cevc 1984, 138 ff.

pred vhodom v hišo, plošča v temelju pa je ohranjeni del praga.

Razmeroma dobro je bil ohranjen tudi vhod v preddverje hiše 11/2 (*sl. 41B*). Zamejevala sta ga dva zidca. Levi je bil narejen iz štirih leg kamnov, tako da je znašala njegova višina 60 cm. Na desni strani vhoda je na svojem mestu ostala manjša, pokonci postavljena skala. Po višini je bila poravnana z vrhnjo ploščo levega zidca. Tudi v tem primeru sta na podstavkih najverjetneje stala lesena stebra vhodnega nadstreška.

Za vhode smo z dokajšnjo mero previdnosti označili tudi vrzeli v temeljih hiš 15/2, 16/2 in 15A/1. Pri prvih dveh hišah (*sl. 41C-D*) sta bila vhoda pomaknjena k vogalom, v hišo 15A/1 pa so vstopali v sredini stavbe (*sl. 41E*). Edini kolikor toliko jasen prehod se je ohranil v predelni steni hiše 16/2 (*sl. 41D*). Njegova širina je znašala 70 cm, postavljen pa je bil natanko v osi vhoda.

Manjkajoči kamni v temeljih še niso zanesljiv dokaz, da so bili na teh mestih vhodi oziroma prehodi. Pri gradnji s sohami temeljni pragovi praviloma niso prekinjeni, saj bi bila s tem zmanjšana stabilnost sten. Tudi primeri iz ljudskega stavbarstva kažejo, da so imele lesene stavbe na vhodih skoraj vedno sklenjene temeljne pragove, ki so bili dvignjeni, zato jih je bilo treba prestopiti.[68]

OBLIKE TLORISOV

Zasnove tlorisov hiš, njihova velikost in notranja členitev so bile na Mostu na Soči dokaj pestre, čeprav smo lahko v analizo vključili le devetnajst bolje ohranjenih struktur obeh gradbenih faz (*sl. 42*). Glede na obliko in notranjo členitev smo jih razvrstili v pet skupin. V prvo sodijo enoprostorni objekti kvadratne ali pravokotne zasnove s kvadraturami okoli 10 m^2. Natančnejši izračuni niso možni, saj gre večinoma za delno ohranjene objekte (*sl. 42A*).

Tudi za drugo skupino hiš je značilna pravokotna ali kvadratna zasnova, vendar z notranjo členitvijo na dva dela (*sl. 42B*). Spredaj je bil večji prostor, za njim pa še manjša pravokotna kamra. Tej skupini smo dodali še tloris hiše 3/1, čeprav vanjo pravzaprav ne sodi. Zasnovan je v obliki črke L, ima pa prav tako dva prostora. Glede na obliko je v naselju edinstven. Hiše druge skupine so se med seboj po velikosti precej razlikovale. Njihove kvadrature so se gibale od 11 do 30 m^2.

Dvoprostorna je bila tudi tretja skupina hiš, vendar z izrazito težnjo po pravokotni zasnovi (*sl. 42C*). Kolikor je moč sklepati iz delno ohranjenih tlorisov, so imele hiše različno velika prostora. Njihova skupna površina je bila med 12 in 17 m^2.

[68] Dober primer so lesene stavbe na bohinjskih in posoških planinah, ki imajo z železnodobno arhitekturo Mosta na Soči še vrsto drugih stičnih točk; glej Cevc 1984, 138 ss.

HOUSE PLANS

The houses at Most na Soči varied in plan, size and interior layout. The analysis of these characteristics is based on nineteen of the best surviving buildings in both construction phases (*Fig. 42*). They have been divided into five groups according to their shape and interior layout. The first group comprises houses with a single room, of a square or rectangular plan and roughly 10 m^2 of interior surface. More precise measurements were not possible, as the houses were only partially preserved (*Fig. 42A*).

The houses of the second group are also of a rectangular or square plan, but their interiors were divided into two rooms (*Fig. 42B*): a larger one in front and a smaller rectangular room at the back. House 3/1 has also been placed into this group, although the only common characteristic is the bipartite division; it is, in fact, unlike any other house at Most na Soči and has an L-shaped plan. The houses of the second group varied greatly in size, from 11 to 30 m^2.

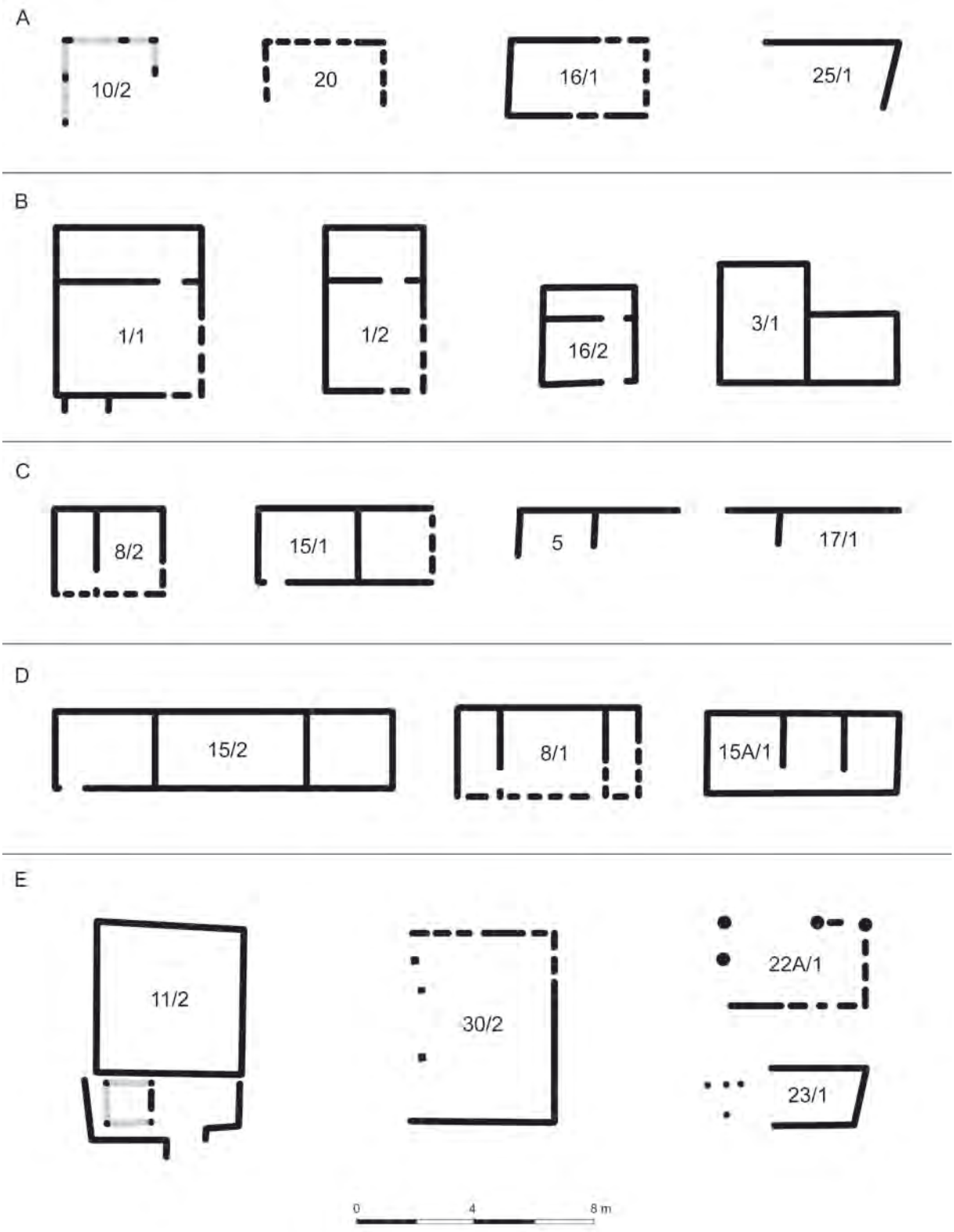
The houses of the third group also had two rooms, but these succeeded each other along a different axis (*Fig. 42C*), which produced an elongated house plan. Inasmuch as can be gleamed from the surviving remains, the two rooms were of different sizes. The houses were between 12 and 17 m^2 large.

The houses of the fourth group had three rooms (*Fig. 42D*). They were rectangular in plan and varied in internal layout. The rooms could either be equally large, but could also have a larger central room flanked by smaller rooms on both sides. The houses also varied in size, but most were quite large and measured from 19 to 32 m^2.

The houses of the fifth group have varied plans. Each of them is unique and the plan and layout was probably dictated by their function (*Fig. 42E*). One of them is House 11/2, which had an anteroom without foundations, delimited by the drainage wall, in front of the main room. On the right it had an entrance space and on the left a small square structure with wooden floor boards. Its size can be determined from the four corner slabs (2.25 m^2), which suggests that it may have served as a granary.

The other three buildings of this group were constructed in a combination of postpad and earthfast post construction techniques so that they were open on the side supported by earthfast posts. Their layout and construction was probably dictated by the activities taking place in them; House 30/2 had a hearth, an oven and two pits, House 22A/1 contained two large work pits and House 23/1 had a large pit with two drainage canals.

Some of the houses saw a change in plan with the renovation (Construction phase 2). Unfortunately, the houses of the second construction phase were predominantly less well preserved and it is therefore difficult to



Sl. 42: Tlorisi hiš. M. = 1:200.
Fig. 42: House plans. Scale = 1:200.

V četrto skupino smo uvrstili hiše s tremi prostori (*sl. 42D*). Njihova zasnova je zato pravokotna, notranja členitev pa ne kaže čvrstega pravila. Prostori so lahko skoraj enake kvadrature, možna pa je tudi drugačna zasnova, ko je bil sredi stavbe velik prostor, levo in desno od njega pa še dva manjša. Kvadrature hiš so bile seveda različne, vendar gre večinoma za večje objekte. Njihova skupna površina je znašala od 19 do 32 m^2.

V peto skupino smo uvrstili objekte, ki v svoji tlorisni zasnovi ne kažejo nekega pravila. Gre torej za unikatne stavbe, zgrajene na povsem svojski način, čemur je očitno botrovala njihova namembnost (*sl. 42E*). To lahko opazimo že pri hiši 11/2, ki je imela pred osrednjim prostorom preddverje, vendar brez temeljev. Omejili so ga kar z drenažnim zidom. Na desni strani je bil vhodni prostor oziroma veža, levo od njega pa manjši kvadraten objekt z lesenimi podnicami. Njegovo velikost so določale štiri vogalne plošče. Glede na velikost (2,25 m^2) je verjetno služil za kaščo.

Posebno zasnovo kažejo tudi preostali trije objekti. Zgrajeni so bili s kombinacijo sohaste in stojkaste gradnje, tako da so bili na tisti strani, kjer so streho nosile stojke, odprti. Takšno zasnovo stavb so verjetno zahtevali delovni procesi. V hiši 30/2 so bili namreč odkriti ognjišče, peč in dve jami, v hiši 22A/1 prav tako dve veliki delovni jami in v hiši 23/1 velika jama z odtočnima kanaloma.

Na koncu si oglejmo še to, ali so se ob obnavljanju hiš spremenile tlorisne zasnove. Žal so objekti druge gradbene faze večinoma slabo ohranjeni, kar otežuje primerjave. V treh primerih je vzporejanje vendarle mogoče. Tako vidimo, da so pri obnovi hiše 1/2 obdržali staro tlorisno zasnovo, vendar z znatno manjšo kvadraturo.[69] Podobno se je zgodilo s hišo 8/2. Namesto stavbe s tremi prostori je nastal manjši dvoprostoren objekt.[70] Bile pa so tudi nasprotne težnje. Dokaz je hiša 15, ki je imela v prvi fazi dva prostora. Ob prenovi so jo povečali in ji na vzhodni strani dodali še en prostor. S tem je postala največja in hkrati tudi najbolj reprezentančna stavba celotnega naselja.[71]

INFRASTRUKTURA NASELJA

V železnodobnem naselju na Mostu na Soči so bili odkriti tudi zanimivi infrastrukturni objekti, med katere uvrščamo odtočne kanale, jarek in pot. Ker smo jih izčrpno že opisali, bo na tem mestu dovolj, da povzamemo njihove glavne značilnosti.

Odtočni kanali so bili ugotovljeni na območju treh hiš. Najbolj kompliciran sistem odvodnjavanja je imela stavba 26/1 (*sl. 43*). Vzdolž drenažnega zidu je bil v konglomeratno podlago vsekan plitev žleb, od katerega

[69] Svoljšak, Dular 2016, 46, sl. 22.
[70] Ib., 81, sl. 66.
[71] Ib., 114, sl. 102.

make reliable comparisons for all. We do have three houses, however, that enable such an observation. When renovated, House 1/2 retained its plan except for the northwest side, which was pushed towards the southeast, considerably reducing the interior space.[69] A similar reduction occurred in House 8/2, which was turned from a three-room to a smaller two-room building.[70] To the contrary, House 15 was extended. It had two rooms in the first phase, while in the second phase another room was added in the east, becoming the largest and also the most prominent house of the entire settlement.[71]

INFRASTRUCTURE OF THE SETTLEMENT

The Iron Age settlement at Most na Soči revealed interesting infrastructural features that comprise drainage canals, a drainage ditch and a path through the settlement. They have already been described in detail in the first volume, we will therefore only summarise their characteristics here.

Drainage canals have been identified in the areas of three houses. Of those, House 26/1 had the most complex drainage system (*Fig. 43*). A shallow groove was cut into the conglomerate along the drainage wall, from which canals ran under the foundations and under the house floor. This drained the water coming down the north slope behind the house. The walls of the canals were lined and covered with stone slabs. The same construction was documented for the canal in House 22/1 (*Fig. 44*). The two canals in House 23/1 also served to drain water.[72] They began at the large (work) pit in the house and ran into the drainage ditch east of the house that led down the slope and past Houses 36, 23 and 25.[73] The two canals that were lined and covered with stone slabs, as well as the large drainage ditch reveal a settlement with a rather sophisticated infrastructure. The same is indicated by the path that led through the settlement. Although only unearthed in short segments, its construction is clear and involved an up to 20 cm thick bedding of medium-grained gravel laid onto the levelled natural deposit. In front of House 23, where it covered the two drainage canals, there were even two layers. The path was around 1.4 m wide and provided access to the houses via narrow courtyards.[74]

[69] Svoljšak, Dular 2016, 46, Fig. 22.
[70] Ib., 81, Fig. 66.
[71] Ib., 114, Fig. 102.
[72] Ib., 167, Fig. 160A.
[73] Ib., 221, Fig. 223.
[74] Ib., 223, Fig. 224.

Sl. 43: Hiša 26/1. Odvodni kanal. M. = 1:100.
Fig. 43: House 26/1. Drainage canals. Scale = 1:100.

so bili pod temeljem in hodno površino hiše speljani kanali. S tem je bilo urejeno odvajanje meteorne vode, ki se je scejala s severnega pobočja. Stene kanalov so bile obložene in prekrite s kamnitimi ploščami. Enako je bil zgrajen kanal v hiši 22/1 (*sl. 44*). Odvajanju vode sta služila tudi kanala v hiši 23/1.[72] Povezana sta bila z veliko delovno jamo, iztekla pa sta se v bližnji jarek, ki je bil speljan po pobočju ob hišah 36, 23 in 25.[73] Oba s kamnitimi ploščami obložena in pokrita kanala ter velik jarek so odraz visoke infrastrukturne opremljenosti naselja. Isto lahko rečemo za pot. Čeprav je bila odkrita le na nekaj krajših odsekih, je njena zgradba jasna. Na poravnano geološko osnovo so nasuli tampon iz drobnozrnatega proda, debel do 20 cm. Pred hišo 23, kjer je pokrival oba kanala, je bil nasut celo v dveh plasteh. Pot je bila široka okoli 1,4 m, z nje pa se je prek ozkih dvorišč vstopalo v hiše.[74]

POSOŠKO ŽELEZNODOBNO STAVBARSTVO KOT DEL KULTURNE KRAJINE PREDALPSKEGA IN ALPSKEGA SVETA

Proučevanje prazgodovinskega stavbarstva in tesarskih tehnik v Sloveniji nima kdove kakšne tradicije, saj so se prve možnosti za takšne raziskave pokazale šele ob zaključku zaščitnih izkopavanj, ki jih je na Mostu na Soči opravil Drago Svoljšak. Drugače je bilo v srednji in severni Evropi. Tam so že ob koncu devetnajstega stoletja stekla izkopavanja velikih površin, ki so omogočila zanesljive rekonstrukcije hiš.[75] Velike naselbinske projekte so nadaljevali tudi med obema vojnama,[76] še močnejši pospešek pa so dobile raziskave v drugi polovici dvaj-

[72] Ib., 167, sl. 160A.
[73] Ib., 221, sl. 223.
[74] Ib., 223, sl. 224.
[75] Schuchardt 1909; Kiekebusch 1910.
[76] van Giffen 1936; van Giffen 1940; Parzinger 1998, 9 ss.

Sl. 44: Hiša 22/1. Odvodni kanal.
Fig. 44: House 22/1. Drainage canal.

IRON AGE ARCHITECTURE IN POSOČJE AS PART OF THE CULTURAL LANDSCAPE IN SUBALPINE AND ALPINE REGIONS

The study of the prehistoric construction and carpentry techniques does not enjoy a very long history in Slovenia, as the first pieces of evidence on the subject really only came to light towards the end of the rescue excavations at Most na Soči. To the contrary, central and northern Europe witnessed excavations of large areas of human habitation already at the end of the 19th century, the results of which enabled fairly reliable reconstructions of the prehistoric houses.[75] The large projects within settlements continued in the period between the two world wars,[76] though they gained even greater impetus in the second half of the 20th century with a number of long-term projects specifically aimed

[75] Schuchardt 1909; Kiekebusch 1910.
[76] van Giffen 1936; van Giffen 1940; Parzinger, 1998, 9 ff.

setega stoletja, ko je bilo zastavljenih več dolgoročnih programov, usmerjenih v proučevanje naselbinskih struktur. Med njimi naj omenimo raziskave naselij na obalah Severnega morja,[77] večdesetletna izkopavanja Heuneburga ob zgornji Donavi[78] ter raziskave kolišč ob jezerih in močvirjih predalpskega sveta.[79] Obsežne raziskave poselitvenih struktur in kulturnih krajin v tem delu Evrope potekajo tudi danes in so lahko zgled odlične organiziranosti arheološkega dela.[80]

Največ podatkov o prazgodovinskem stavbarstvu so dale raziskave naselij na mokrih tleh. V vlagi se je les, ki je bil najbolj razširjen gradbeni material prazgodovinske Evrope, odlično ohranil, številni podatki o njegovi obdelavi pa so omogočili pravilno prepoznavanje tesarskih tehnik.[81] Veliki novi projekti so znanje še poglobili. Odločilen je bil razmah eksperimentalne arheologije in z njo povezanih muzejev na prostem, od katerih so nekateri postali pomembni studijski centri za proučevanje prazgodovinskega stavbarstva in gradbenih tehnik.[82] Vse to je omogočilo nove sinteze, ki so bile usmerjene tako v problematiko poselitvenih struktur kot tudi k vprašanjem oblikovnega in funkcionalnega razvoja hiš.[83] Hkrati so nove raziskave spodbudile poglobljeno analizo prazgodovinskih gradbenih tehnik. Rezultate terenskih raziskav, eksperimentalne arheologije in podatke, ki so jih zbrale druge vede (npr. zgodovina in etnologija), je pred dvema desetletjema povezal Haio Zimmermann. Razpravo lahko brez zadržkov označimo za temeljni priročnik o prazgodovinskem stavbarstvu v srednji Evropi.[84] Pa si oglejmo, kam lahko na podlagi dosedanjega vedenja in primerjav uvrstimo dosežke posoških gradbincev.

Povsem razumljivo je, da se moramo najprej ozreti po bližnjem furlanskem in venetskem prostoru, ki sta Posočju najbližja. Pričakovali bi, da so od tu poleg drugih dobrin prihajale v predalpski svet tudi novosti pri gradnji hiš ter da so jih posoški stavbarji s pridom sprejeli. Bežen sprehod skozi objave je pokazal, da je bilo stičnih točk razmeroma malo. Če si namreč ogledamo naselbinske komplekse velikih središč, kot sta bili Padova in Este, vidimo, da so se že v 6. stoletju pr. Kr. v njunih zasnovah uveljavili zelo napredni urbanistični in gradbeni principi.[85] Isto lahko rečemo za nekoliko bližja središča v rav-

[77] Kossack, Behre, Schmid 1986.

[78] Gersbach 1997; Gersbach 2006.

[79] Schlichtherle 1990; Schlichtherle 1997a. Glej tudi Perini 1984; Schlichtherle 1997b; Pillonel 2007.

[80] Krausse, Steffen 2008; Krausse, Beilharz 2010.

[81] Zippelius 1954.

[82] Coles 1979; Hansen 1985; Ahrens 1990; Weiner 1991; Andraschko 1995, 29 ss.

[83] Hampel 1989; Zimmermann 1992; Luley 1992; Luley 1999; Schefzik 2001.

[84] Zimmermann 1998.

[85] Na tem mestu navajamo zgolj novejše objave, ki imajo obsežne sezname starejše literature. Gamba, Gambacurta, Sainati 2005 (Padova); Balista, Gambacurta, Ruta Serafini 2002 (Este).

at settlement structures. These projects include the research of the settlements along the coast of the North Sea,[77] decades-long excavations at Heuneburg along the upper reaches of the Danube[78] and investigations of the pile-dwelling settlements along the lakes and marshes of the Subalpine regions.[79] Extensive investigations of the settlement structures and cultural landscapes in this part of Europe continue to this day and serve as a model of well-organised archaeological work.[80]

Most data on prehistoric architecture comes from the investigations conducted at water-logged sites. Extensively used as building material across prehistoric Europe, wood survives well in water-logged conditions to reveal numerous details of the woodworking process and carpentry techniques.[81] The recent large-scale projects only enhance our knowledge on the topic. A decisive moment was also the rise of experimental archaeology and connected with it a rise in the number of open-air museums, some of which have become important centres for the research of prehistoric architecture and construction techniques.[82] All of this brought about new synthetic publications aimed both at identifying the types of settlement structures and at tackling questions pertaining to the formal and functional development of prehistoric housing.[83] New investigations have also encouraged a detailed analysis of the construction techniques. Two decades ago, Haio Zimmermann jointly presented the results of the fieldwork, experimental archaeology and data gathered by other disciplines (such as history and ethnology); his discussion can safely be called a manual on prehistoric architecture in central Europe.[84] The text below examines the practices of the builders in Posočje in comparison with the findings of the above mentioned research.

We would expect to find close parallels in the neighbouring areas in Friuli and Veneto not only for goods, but also for the construction techniques. However, a brief examination reveals only few common points in the architecture and settlement structures. The settlement complexes of the large centres such as at Padua and Este show highly advanced urban layout and constructional features that were adopted as early as the 6th century BC.[85] The same is true of the closer-lying centres along

[77] Kossack, Behre, Schmid 1986.

[78] Gersbach 1997; id. 2006.

[79] Schlichtherle 1990; id. 1997a. See also Perini 1984; Schlichtherle 1997b; Pillonel 2007.

[80] Krausse, Steffen 2008; Krausse, Beilharz 2010.

[81] Zippelius 1954.

[82] Coles 1979; Hansen 1985; Ahrens 1990; Weiner 1991; Andraschko 1995, 29 ff.

[83] Hampel 1989; Zimmermann 1992; Luley 1992; Luley 1999; Schefzik 2001.

[84] Zimmermann 1998.

[85] We only cite the recent publications with comprehensive lists of earlier references. Gamba, Gambacurta, Sainati 2005 (Padua); Balista, Gambacurta, Ruta Serafini 2002 (Este).

nici vzhodno od reke Brenta, saj tudi v Altinu, Oderzu ali Concordii ni takšnih naselbinskih struktur, za katere bi lahko trdili, da so bile neposreden vzor posoškim gradbincem.[86] To je do neke mere razumljivo. Ne gre namreč prezreti dejstva, da imamo opraviti z naselji, ki so po svoji zasnovi že dosegla stopnjo urbanih središč z izdelano ulično mrežo, sistemi odvodnjavanja in vnaprej določeno funkcionalnostjo prostora (bivalna območja, proizvodni predeli, svetišča itd.).[87] Naprednejša je bila tudi gradnja stavb, ki so imele pogosto kamnite temelje, nadgradnja pa je bila narejena bodisi iz opeke ali lesa, pri čemer predvidevajo predvsem uporabo tehnike tako imenovanih predalčnih sten.[88]

Precej drugačno arhitekturo srečamo v naseljih alpskega in predalpskega sveta. Tu se je že v pozni bronasti dobi uveljavil poseben tip stavb, ki je bil dobro prilagojen tamkajšnjim geomorfološkim in klimatskim razmeram. Gre za tako imenovani retijski tip hiše,[89] ki je bil razširjen zlasti v Zgornjem Poadižju in Trentinu, poznale pa so ga tudi sosednje pokrajine.[90] Intenzivna izkopavanja na tem območju so spravila na svetlo številne ostanke stavb, od katerih so bile nekatere zelo dobro ohranjene, tako da je bil omogočen tudi študij tesarskih in gradbenih tehnik. Rezultate izkopavalcev je pred več kot dvema desetletjema povzela Mara Migliavacca, ki je v pregledni študiji vsestransko osvetlila problematiko retijskega železnodobnega stavbarstva.[91] Kasnejše raziskave in ponovne interpretacije nekaterih objektov so poznavanje konstrukcijskih detajlov še razširile in dopolnile.[92] Tip retijske hiše je torej bolj ali manj znan, zato si oglejmo njegove glavne značilnosti.

Stavbe, večinoma pravokotnih ali kvadratnih tlorisov (nekaj primerov je prikazanih na *sl. 45*), so bile praviloma vkopane. Globino in obliko gradbenih jam je narekoval teren. Če je bil prostor raven, je bila poglobitev enakomerna, na pobočjih pa je moral biti vkop v smeri hriba globlji, saj so le tako ustvarili ravno podlago.

Po končanem izkopu so ob stene gradbene jame postavili zidove. Zgrajeni so bili v suhozidni tehniki, v njihovem poteku so se v bolj ali manj pravilnih razmakih ohranile pokončne reže, v katerih so stale lesene sohe (*sl. 45: 1, 2*). Reže za sohe so bile tudi v vogalih hiše. Pri dnu so bila zanje narejena posebna ležišča iz ploščatih kamnov. Sohe so brez dvoma ojačale stabilnost obodnih zidov, hkrati so bili na njih pritrjeni plohi oziroma oblice,

[86] Capuis 1996; Capuis 1999; Capuis, Gambacurta, Tirelli 2009 (Altino); Balista, Ruta Serafini 1996; Ruta Serafuni, Balista 1999 (Oderzo); Sainati, Salerno 1996 (Concordia Sagittaria).

[87] Balista, Gamba 2013.

[88] Merlo 1989 (1990).

[89] Prim. Perini 1967.

[90] Migliavacca 1991 (1994).

[91] Migliavacca 1993 (1996).

[92] Npr. Dal Ri, Rizzi, Tecchiati 1998 (1999); Marzatico, Stelzer 1998 (1999); Tecchiati, Rizzi 2014; Tecchiati et al. 2010 (2011); Dal Ri 2010; Leonardi, Facchi, Migliavacca 2011; Staudt 2011; Pöll 2014.

the plain east of the River Brenta, at Altino, Oderzo and Concordia, none of which revealed settlement structures that could be seen as direct models for the constructions in Posočje.[86] This is understandable to a certain extent, as these settlements already reached the stage of urban centres with a street grid, a drainage system and a pre-planned functional division (areas intended for housing, for production processes, sanctuaries and so forth).[87] Also more advanced was the construction of the houses, often with stone foundations and a superstructure of brick or wood, presumably mainly timber-framed constructions with different infills.[88]

The settlements of the Alpine and Subalpine regions revealed a different architectural practice. The type of buildings constructed here was in use from the Bronze Age onwards and was well adapted to the existing geomorphological and climatic conditions. It is the type known as a Raetian house type (*casa retica*),[89] widely used in Trentino-Alto Adige, but also known in neighbouring areas.[90] Intensive excavations in the two regions revealed the remains of numerous buildings, some of them very well preserved, that allow for a study of the carpentry and construction techniques. The excavation results have been presented in a comprehensive overview of the Raetian architecture in the Iron Age written more than two decades ago by Mara Migliavacca.[91] Later investigations and reinterpretations of some of the already excavated buildings have advanced our knowledge of the details of construction.[92] The main characteristics of the Raetian type houses are therefore known and will briefly be presented below.

The buildings were mainly rectangular or square in plan (some examples are shown on *Fig. 45*), and were usually sunken into the ground. The depth and shape of the construction pit varied depending on the configuration of the terrain; if the ground was flat, the construction pit was evenly sunken, while on slopes the sides of the pit differed so as to create levelled ground for construction.

The next step was to construct walls that lined the construction pit. The walls were made in the drywall technique and included vertical recesses for wooden posts at more or less regular intervals (*Fig. 45: 1, 2*). Recesses were also left for corner posts. At the bottom, the posts rested on a bedding of flat stones. The posts certainly

[86] Capuis 1996; Capuis 1999; Capuis, Gambacurta, Tirelli 2009 (Altino); Balista, Ruta Serafini 1996; Ruta Serafuni, Balista 1999 (Oderzo); Sainati, Salerno 1996 (Concordia Sagittaria).

[87] Balista, Gamba 2013.

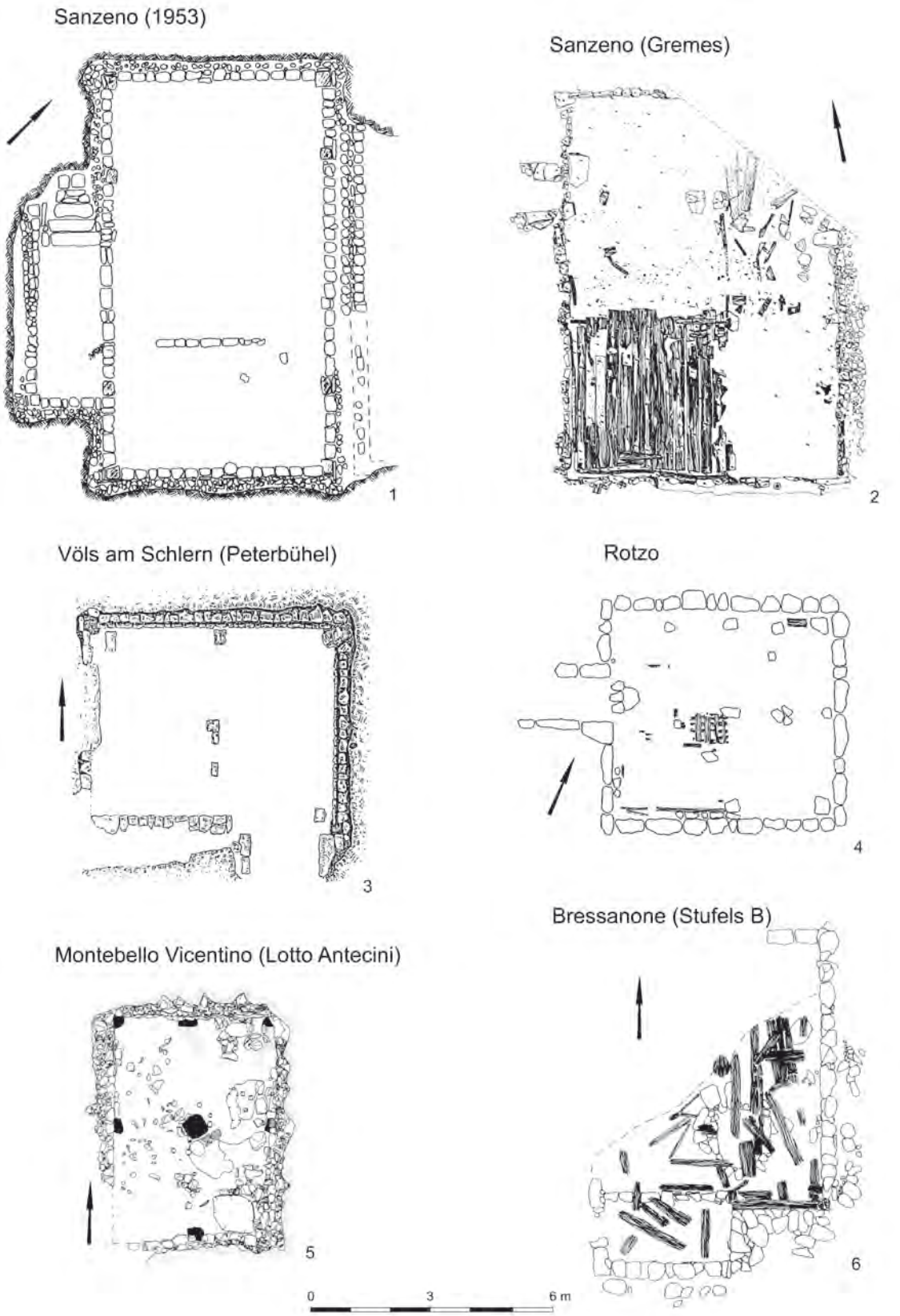
[88] Merlo 1989 (1990).

[89] Cf. Perini 1967.

[90] Migliavacca 1991 (1994).

[91] Migliavacca 1993 (1996).

[92] E.g. Dal Ri, Rizzi, Tecchiati 1998 (1999); Marzatico, Stelzer 1998 (1999); Tecchiati, Rizzi 2014; Tecchiati et al. 2010; Dal Ri 2010 (2011); Leonardi, Facchi, Migliavacca 2011; Staudt 2011; Pöll 2014.



Sl. 45: Tlorisi "retijskih hiš". Po: Migliavacca 1993 (1996) (*1*); Marzatico, Stelzer 1998 (1999) (*2*); Sölder 1992 (*3*); Leonardi, Ruta Serafini 1981 (*4*); Leonardi et al. 2011 (*5*); Migliavacca 1993 (1996) (*6*).
Fig. 45: Plans of "Raetian houses". From: Migliavacca 1993 (1996) (*1*); Marzatico, Stelzer 1998 (1999) (*2*); Sölder 1992 (*3*); Leonardi, Ruta Serafini 1981 (*4*); Leonardi et al. 2011 (*5*); Migliavacca 1993 (1996) (*6*).

iz katerih so bile narejene stene objekta. V nekaterih hišah so bile za podlago leseni konstrukciji vzdolž obodnih zidov narejene posebne police (cokli), na njih so se tu in tam še ohranili ostanki temeljnih pragov (*sl. 45: 3, 4, 6*). Namesto polic so za podlago velikokrat uporabili kamnite plošče (*sl. 45: 5*). Kot se lahko poučimo iz nekaterih odlično ohranjenih ostalin (npr. Rosslauf v Brixnu), je bil lahko z lesom oblečen celoten prostor, torej tudi tla in strop.[93]

V hiše so vstopali skozi koridorje. Ti so bili ravni, večinoma pa vsaj enkrat ali tudi večkrat zaviti. Vhodni koridorji so posebnost retijskih hiš. Njihovo uporabo povezujejo s težkimi klimatskimi razmerami alpskega sveta.[94]

Večina raziskovalcev meni, da so imele retijske hiše poleg vkopanega dela, ki je očitno služil za klet, še vrhnji bivalni del.[95] Kakšna je bila njegova oblika, lahko le ugibamo, saj so se od zgornjih konstrukcij ohranili borni ostanki. Kolikor je moč razbrati iz gradbenih izvidov, so imele nekatere hiše dejansko dvignjen nadzemni del (nadstropje), pri drugih bi lahko govorili zgolj o neki vrsti dvignjenih podstrešij.

Na najdiščih alpskega in predalpskega sveta najdemo primerjave tudi za infrastrukturne objekte, kot so kanali in odtočni jarki. Gradili so jih že v bronasti dobi, poznala pa so jih tudi železnodobna naselja.[96]

Če se sedaj vrnemo na Most na Soči, je že na prvi pogled jasno, da je med železnodobnim stavbarstvom Posočja, Trentina in Južne Tirolske vrsta stičnih točk, vendar moramo opozoriti tudi na razlike. Podobna je na primer priprava stavbišč. Tudi na Mostu na Soči so bile gradbene jame vkopane v pobočje, vendar veliko bolj plitvo, zato o kletnih prostorih ne moremo govoriti. Nekoliko drugačna je tudi gradnja kamnitih zidov, s katerimi so obložili stene gradbenih jam. Čeprav so bili narejeni podobno, torej v suhozidni tehniki, pa na Mostu na Soči v njih ni bilo rež za pokončne sohe.[97] To seveda pomeni, da zidovi niso bili vključeni v stavbno telo. Njihov glavni namen je bila zaščita lesenih sten pred vlago, opravljali so zgolj funkcijo drenaže.

Temeljni pragovi lesenih sten so na Mostu na Soči počivali na kamnitih temeljih, ločenih od drenažnih zidov. Na pragove so bile s pomočjo včepljenih zvez postavljene sohe, na katere so z zunanje strani pritrdili plohe. Vsi ti gradbeni detajli so se odlično ohranili v severovzhodni steni hiše 11/2 (prim. *sl. 22*), ki je ključna

[93] Tecchiati, Rizzi 2014, 77 ss.

[94] Migliavacca 1993 (1996), 74 ss; Migliavacca 1998 (1999).

[95] Sölder 1992.

[96] Npr. S. Ambroglio di Valpolicella: Salzani 2004, sl. 2 in 3; Ganglegg: Steiner 2007, 92; Löhningen: Jahrbuch der Schweizerischen Gesellschaft für Ur- und Frühgeschichte 78, 1995, 200 s.

[97] Izjema so reže za stojke v podpornem zidu hiše 19; glej Svoljšak, Dular 2016, 148, pril. 3A in 3B.

reinforced the exterior walls, but were also the element to which the wooden planks or round logs were attached that made up the walls. Some houses had double or stepped stone foundations for the wooden superstructure, the exterior step of which sometimes revealed the remains of sleeper beams (*Fig. 45: 3, 4, 6*). Often stone slabs were used instead of lines of smaller stones (*Fig. 45: 5*). Some of the well-preserved houses (e.g. at Rosslauf in Brixen) also show that wood was used to line not only the walls, but also the floor and the ceiling.[93]

The houses were entered via an entranceway. These led either straight into the house or, more frequently, made one or more turns. The entranceways are a feature typical of the Raetian house and their function is believed to have been connected with the severe Alpine climate.[94]

Most researches believes that, apart from the sunken level that was presumably used as a cellar, the Raetian house also had an upper, residential level.[95] The shape of the latter is largely unknown because only very little survived of this part of the house. The excavation results do suggest that some houses really did have a raised level (storey), while others only had a sort of an attic.

The sites in the Alpine and Subalpine regions also offer parallels for the infrastructural features such as canals and drainage ditches. Such structures were already known in the Bronze Age, but also documented in Iron Age settlements.[96]

The Iron Age architecture in Posočje, Trentino and South Tyrol clearly have a number of points in common, but we should also points out certain differences. The construction pits at Most na Soči were also dug into the ground as part of the preparations prior to construction itself, but to much shallower depths that preclude the existence of cellars. The technique for constructing the stone walls that lined the construction pit also differs slightly; all are made as drywalls, but those at Most na Soči did not include recesses for posts,[97] as such, these walls were not really part of the house proper and only intended to protect the wooden walls of the house against moisture, merely as drainage.

The sleeper beams of the houses at Most na Soči rested on stone foundations, separate from the drainage walls. Using mortise-and-tenon joints, sleeper beams supported wooden posts, with wooden planks fastened to the exterior sides of the posts. All these constructional details have survived in a good condition in the north-

[93] Tecchiati, Rizzi 2014, 77 ff.

[94] Migliavacca 1993 (1996), 74 ff; Migliavacca 1998 (1999).

[95] Sölder 1992.

[96] E.g. S. Ambroglio di Valpolicella: Salzani 2004, Figs. 2 and 3; Ganglegg: Steiner 2007, 92; Löhningen: Jahrbuch der Schweizerischen Gesellschaft für Ur- und Frühgeschichte 78, 1995, 200 f.

[97] The only exceptions are the recesses for earthfast posts in the retaining wall of House 19; see Svoljšak, Dular 2016, 148, Apps. 3A and 3B.

za razumevanje posoškega tesarstva. Streha je počivala na slemenski in kapnih legah, ki se seveda niso ohranile. Zanimiva je ugotovitev, da na Mostu na Soči niso odkrili jasnih dokazov za uporabo vmesnih slemenskih soh. Po tem detajlu se stavbe v Posočju razlikujejo od nekaterih retijskih hiš, kjer so bili kamniti podstavki za slemenske sohe tudi sredi prostora (prim. *sl. 45: 2–5*). Seveda pa je glavna razlika v tem, da hiše na Mostu na Soči niso imele nadstropij, ampak kvečjemu za bivanje urejena podstrešja.

Posoške hiše se razlikujejo tudi od stavbe, ki so jo pred desetletji raziskali v kraju Montereale Valcellina pri Pordenonu.[98] Posebej jo omenjamo zaradi tega, ker leži najdišče v Furlaniji, torej razmeroma blizu Mosta na Soči. Stavba je bila vkopana 2 m globoko v prodnato osnovo (imela je kletni del), od hiš v Posočju pa se je razlikovala tudi po tem, da je bil objekt brez drenažnih zidov. Več podobnosti je opaziti v izvedbi lesenih sten. Na kamnitih temeljih so namreč ležali temeljni pragovi, vanje pa so bile včepljene vertikalne sohe, na katere so z zunanje strani pričvrstili lesene plohe.

Ne glede na omenjene razlike sodi Most na Soči v krog alpskega stavbarstva.[99] Objekti kažejo vse bistvene značilnosti hiš, kot so jih v železni dobi gradili na širšem območju vzhodnih Alp. Seveda z določenimi posebnostmi, ki jih je izoblikoval posoški kulturni prostor. Zdi se, da je razvoj dosegel zavidljiv tehnološki nivo. Dokaz je trdoživost nekaterih prazgodovinskih tesarskih tehnik, ki so se v planšarski arhitekturi zahodne Slovenije ohranile do konca dvajsetega stoletja.[100]

FUNKCIONALNOST STAVB IN BIVALNA KULTURA

O bivalni kulturi v železni dobi na Mostu na Soči je poleg kakovosti gradnje in velikosti stavb ter delitve prostorov mogoče presojati še po notranji opremi, premičnem hišnem inventarju in prehranskih ostankih (*sl. 46, 47*). O tem imamo sicer na voljo bolj skromne podatke, saj v danih naravnih razmerah organske snovi (tekstilije, kože, les, protje, slama, živež) hitro propadejo oziroma se ohranijo samo v izjemnih primerih. Na ohranjenost so poleg naravnih procesov vplivali tudi človekovi posegi. Hiše so večkrat prenavljali oziroma na istem mestu postavljali nove, pri čemer so ruševine starejših stavb poravnali, odstranili ali pa deloma ponovno uporabili kot gradbeni material. Povrh tega je bilo to območje po propadu železnodobne naselbine poseljeno v rimski dobi.

[98] Vitri 1996, 399 ss, sl. 5 in 7.
[99] Prim. Migliavacca, Ruta Serafini 1992.
[100] Cevc 1984; Cevc 1995.

east wall of House 11/2 (cf. *Fig. 22*), which is therefore of crucial importance for understanding the carpentry techniques practised in Posočje. The roof rested on the ridge and foot purlins, but none of these survived. Interestingly, the excavations at Most na Soči yielded no clear evidence of posts that supported the roof ridge in the interiors of rooms or houses, the stone footings for which have been found in some of the Raetian houses (cf. *Fig. 45: 2–5*). The main difference between the houses at Most na Soči and the Raetian houses is that the former did not have multiple storeys, at most they had habitable attics.

The houses in Posočje also differ from the house investigated some decades ago at Montereale Valcellina near Pordenone.[98] This house is of importance because of its location in Friuli, i.e. in relative proximity to Most na Soči. It was sunken 2 m deep into the natural deposit of gravel (it had a cellar) and had no drainage walls, but was similar in the stone foundations that held sleeper beams and posts above them, fastened together with mortise-and-tenon joints, with wooden planks attached to the exterior faces of the posts.

Differences notwithstanding, the buildings at Most na Soči form part of the Alpine architectural circle.[99] They show all the main features common across a wide area of the eastern Alps in the Iron Age. They also have certain specific features, created within the Posočje cultural circle that attained a high level of technical development. Some of the prehistoric carpentry techniques have proven to be very durable and could be observed in the alpine architecture of western Slovenia up to the end of the 20th century.[100]

FUNCTION OF BUILDINGS AND THE STANDARD OF LIVING

The standard of living in the settlement at Most na Soči can be assessed by observing a number of features: quality of construction, size of the buildings and their interior layout, interior furnishing, household items and the remains of foodstuffs (*Figs. 46, 47*). The settlement revealed only few of these features in organic materials, as the natural conditions only allowed such items to survive in a highly limited degree. Apart from the natural processes, the preservation of the settlement remains is also influenced by human activities: throughout the Iron Age and in the Roman period, houses were being repaired and new ones constructed on the same spots, levelling the debris of the earlier houses or reusing as building material.

The function of the houses and of individual rooms, hence the activities taking place in them can be inferred from the nature, structure and position of the small finds

[98] Vitri 1996, 399 ff, Figs. 5 and 7.
[99] Cf. Migliavacca, Ruta Serafini 1992.
[100] Cevc 1984; Cevc 1995.

HIŠA / HOUSE	Velikost tlorisa (m^2) Size of ground plan	Št. prostorov (m^2) No. of rooms	Glavni prostor (m^2) Main room	Stranski prostor (m^2) Side room	Stranski prostor (m^2) Side room	Ognjišče Hearth	Jame Pits	Silos Storage container	Okrasne plošče Decorative plaques
1/1	26,5	2	17,5	9		▮	●●●		x
1/2	19,0	2	13,0	6,0		▮	●●	x	x
2/2	?	?	?				●		
3/1	16,5	2	10,0	6,5			●	x	x
4	?	?	?				●●●		
5	?	2	?	?			●●		
7	?	?	?				●●		
8/1	18,0	3	11,0	4,0	3,0		●		
8/2	10,5	2	6,0	4,5			●		x
10/2	10,0	1	10,0						
11/2	28,5	3	21,5	4,5	2,5				x
12/1	?	?	?				▮●		
13	?	?	?				●●		
14/1	?	?	?			●			
14/2	?	?	?			▮?			x
14/3	?	2	?	?					
15/1	13,0	2	7,5	5,5					
15/2	25,0	3	11,5	7,5	6,0				x
15A/1	15,0	3	6,0	4,5	4,5	●●	●	x	x
15A/2	15,0	1	15,0						
16/1	10,0	1	10,0			●	●		
16/2	9,0	2	6,0	3,0			●		x
17/1	?	2	?	?			●●		
21	?	?	?			▮	▮		x
22/1	?	?	?				▮●●●		
22A/1	12,0	1	12,0				▮●		x
22A/2	9,0	1	9,0				▮		x
23/1	6,0	1	6,0				▮●		x
23/2	?	?	?						x
24/1	?	?	?			●			
29/1	?	?	?				▮●		
29/2	?	2?	9,0	?				x	
30/2	25,5	1	25,5			▮▮	▮●		

naravna osnova ali kamnite plošče / natural deposit or stone slabs

phana ilovica / beaten loam

lesene podnice / wooden floorboards

▮ ● pravokotno oz. okroglo ognjišče / rectangular or round hearth

▮ ● pravokotna oz. okrogla jama / rectangular or round pit

Sl. 46: Velikost in notranja oprema hiš v železnodobni naselbini na Mostu na Soči.
Fig. 46: Size and interior furnishings of the Iron Age buildings at Most na Soči.

HIŠA / HOUSE	ognjišče kozе / firedogs	prenosne pečke / portable ovens	pekve / baking lids	pladnji / platters	pitosi / pithoi	lonci / jars	sklede / dishes	lončki / beakers	situle / situlae	kelihi / goblets	svitki / ceramic rings	motki, vretenca / bobbins, spindle whorls	orodje, orožje / tools, weapon	livarski pripomočki / casting utensils	ingoti / ingots	deli noše / pieces of costume
1/1		x				x					x					
1/2	x	x	x		x	x	x	x	x		x		x		x	x
2/2						x	x		x		x					x
3/1					x	x	x	x		x	x		x			
4													x	x		x
5								*					x			
7			x			x	x	x	x				x		x	x
8/1						x									x	
8/2		x		x	x	x	x				x					x
10/2			x		x		x				x		x			x
11/2						x					x		x			x
12/1																x
13					x	x	x	x			x				x	
14/1			x	x		x	x	x	x	x	x		x			
14/2	x	x	x			x	x	x			x		x			x
14/3						x	x	x			x					
15/1																
15/2		x	x		x	x	x	x			x	x		x	x	x
15A/1					x	x		x			x		x		x	x
15A/2					x	x			x				x			x
16/1						x	x	x			x		x		x	x
16/2		x		x	x	x	x				x					x
17/1						x	x									
21						x	x				x					
22/1						x		x			x				x	x
22A/1						x							x			x
22A/2		x		x		x	x	x			x		x	x		x
23/1	x	x				x	x	x	x		x	x			x	x
23/2		x				x	x				x	x		?		
24/1						x					x	x				
29/1			x			x	x	x	x		x		x			
29/2		x			x	x	x				x		x	x		x
30/2		x	x			x	x	x			x		x	x		

Sl. 47: Struktura najdb iz hiš v železnodobni naselbini na Mostu na Soči (* = skyphos).
Fig. 47: Structure of small finds from the Iron Age buildings at Most na Soči (* = skyphos).

Kljub vsemu lahko o namembnosti železnodobnih stavb in uporabnosti prostorov ter dejavnostih, ki so se odvijale v njih, sklepamo na podlagi značaja, strukture in lege najdb. V analizo smo vključili izbor ilustrativnih primerov. Iz bolje ohranjenih tlorisov (glej *sl. 42*) je razvidno, da so bile stavbe različno velike, od približno 6 do 28 m^2 (*sl. 46*). Imele so enega ali več prostorov, največkrat dva – eden je bil običajno večji, drugi za polovico ali tretjino manjši in sem ter tja komaj kaj širši od enega metra. Večji prostor (označujemo ga kot glavnega) je bil ločen s pregradno steno od manjšega, ta je navadno zavzemal severni, vzhodni ali zahodni del stavbe, ki je bil vsaj z dveh strani vkopan v pobočje. Vanj se je vstopalo iz glavnega prostora (npr. hiše 1/1, 1/2, 8/2, 15/1, 16/2), morebiti je imel celo strop (prim. tu Svoljšak, 179, sl. 10). V trodelnih stavbah sta bila manjša prostora umeščena zahodno in vzhodno ob glavnem (hiši 8/1, 15/2) ali pa drug zraven drugega v vzhodnem delu stavbe (hiša 15A/1). Izjema je hiša 11/2, ki je imela preddverje razdeljeno na dva dela in skozi katerega se je prišlo v glavni prostor. Stavbe so imele povečini vhode v glavni prostor na južni oziroma jugozahodni strani (glej *sl. 41*). Pri hiši 15/2 je možno, da se je s ceste vstopalo tudi v druga dva prostora, morda je svoj vhod imel vzhodni prostor hiše 3/1, medtem ko sta bili stavbi 23/1 in 30/2 odprti proti zahodu.

NOTRANJA OPREMA

V večdelnih stavbah so bila tla v glavnih prostorih večinoma iz phane ilovice (*sl. 46*; prim. *sl. 32*), izjema je hiša 5, v kateri so bila tlakovana z apnenčastimi ploščami. Tudi dodatni prostori so imeli pogosto ilovnata tla, le v severnem prostoru hiše 1/1 je bila poravnana zgolj morenska osnova, tla v zahodnem prostoru hiše 15/2 pa prekrita z lesenimi podnicami. Hiša 11/2 je imela v zahodnem delu preddverja postavljeno leseno konstrukcijo, ki je počivala na vogalnih kamnitih ploščah. V enoprostornih hišah je bila za hodno površino uporabljena poravnana peščena ali morenska osnova (npr. hiše 21, 22/1, 22A/1) ali ruševine starejše stavbe (npr. hiše 14/3, 22A/2, 29/2). Nekaj jih je imelo ilovnata tla (npr. hiše 10/2, 15A/2, 30/2), hiša 16/1 pa v jugozahodnem delu lesene podnice.

Skoraj tretjina stavb je bilo opremljenih z ognjišči pravokotne ali okrogle oblike (glej *sl. 32*), postavljena so bila na različnih koncih v glavnih prostorih, medtem ko je imela hiša 15A/1 eno ognjišče v večjem, zahodnemin drugo v malce manjšem srednjem prostoru. V stavbi 30/2 je poleg velikega ognjišča stala še kalotasta peč.[101]

Drugačna je lega jam. Tiste v večdelnih stavbah so bile praviloma okroglega tlorisa s premerom od 35 do 95 cm ter različno globoke (glej *sl. 39*); vkopane so bile pretežno v stranskih prostorih – v severni in/ali vzhodni

[101] Svoljšak, Dular 2016, sl. 114, pril. 5.

recovered in the interiors. A functional analysis was performed on a selection of the most illustrative examples. The houses with fairly well-preserved ground plans (see *Fig. 42*) show a variation in building size, ranging roughly from 6 to 28 m^2 (*Fig. 46*). They had one or more rooms, most frequently two, one of them usually smaller, half or a third the size of the larger one and in some cases barely a metre wide. The large room (determined as the main room) was separated by a partition wall from the small room located in the northern, eastern or western part of the house and dug into the slope on at least two sides. The small room was predominantly accessed from the main room (e.g. Houses 1/1, 1/2, 8/2, 15/1, 16/2) and may have been roofed (cf. here Svoljšak, 179, Fig. 10). The smaller rooms in the three-room buildings were located either east and west of the main room (Houses 8/1, 15/2) or next to one another in the eastern part of the building (House 15A/1). House 11/2 is an exception in this respect, as it had an anteroom divided into two parts through which one could access the main room. Most buildings had the entrances to the main room located in the south or south-west sides (see *Fig. 41*). House 15/2 may have had three entrances directly from the path running through the settlement, to the main and both side rooms, the east room of House 3/1 may also have had a separate entrance, while Houses 23/1 and 30/2 were open towards the west.

INTERIOR FURNISHING

The buildings with two or three rooms had the floor in the main room made of beaten loam (*Fig. 46*; cf. *Fig. 32*) with the exception of House 5, where the main room was paved with limestone slabs. The floors in the side rooms were also usually made of beaten loam with the exception of the north room of House 1/1, where the natural deposit of moraine till was simply levelled, and the west room of House 15/2, which had wooden floorboards. House 11/2 had a wooden construction in the western part of the anteroom, which rested on stone slabs in each of the corners. The floors in the single-room buildings were made of levelled natural deposits of sand or moraine till (e.g. Houses 21, 22/1, 22A/1), or of the levelled debris of the earlier house (e.g. Houses 14/3, 22A/2, 29/2), some also had beaten loam (e.g. Houses 10/2, 15A/2, 30/2), while House 16/1 had wooden floorboards in the south-western part.

Almost a third of all investigated buildings was furnished with rectangular or round hearths (see *Fig. 32*). They were located in different parts of the main room, while House 15A/1 had one hearth in the main west room and another one in the smaller room in the centre. In addition to a hearth, House 30/2 had a domed oven.[101]

[101] Svoljšak, Dular 2016, Fig. 114, App. 5.

kot ali ob predelno steno (npr. hiše 1/1, 1/2, 5, 8/1, 8/2, 16/2).[102] Izjeme so hiša 3/1, ki je imela okroglo jamo z loncem v jugozahodnem kotu večjega prostora, hiša 15A/1 ob vzhodni predelni steni srednjega prostora, hiša 17/1 pa dve jami v severnem kotu glavnega prostora.[103] Jame v enoprostornih stavbah so se razlikovale po obliki in velikosti. Okrogel tloris so imele jama ob severovzhodni steni v hiši 2/2, tri v severnem kotu stavbe 4, na enakem mestu in podobne oblike sta bili dve v hiši 13, hiša 7 je imela eno v severnem kotu in drugo ob jugovzhodni steni, v hiši 16/1 pa je bila jama odkrita v jugovzhodnem kotu.[104] Več stavb z enim samim prostorom je bilo opremljenih z manjšimi okroglimi in velikimi pravokotnimi ali ovalnimi jamami (npr. hiše 12/1, 21, 22/1, 22A/1, 22A/2, 23/1, 29/1, 30/2).[105] Te so bile največkrat vkopane v vzhodnem delu stavbe, medtem ko sta jami v stavbi 22A/1 zavzemali večji del uporabnega prostora, ki je bil na severni in zahodni strani obdan še s plitvim kanalom. V stavbi 22/1 so bile v severovzhodnem delu tri med seboj povezane okrogle jame in v zahodnem delu še velika ovalna jama; v hiši 30/2 sta bili umeščeni pravokotna jama ob južni steni in okrogla ob severni, v primeru stavbe 23/1 je okrogla jama ležala zunaj njenega tlorisa.

V ruševinah hiš so se ponekod pojavljali kompaktnejši kosi ožgane gline, ki jih na osnovi natančnejšega opazovanja njihove oblike, sestave, načina izdelave in žganja ločimo na glinaste plošče in na dele velikih shrambnih posod oziroma silosov, kot jih nekateri označujejo,[106] pripišemo pa jih lahko k nepremični notranji opremi (*sl. 46*).

O glinastih ploščah

Sploščeni kosi ožgane gline z okrasom so že med izkopavanji pritegnili veliko pozornosti, saj česa podobnega v naselbinah jugovzhodnoalpskega prostora dotlej še niso zasledili. Ugibalo se je, kaj bi te debele glinaste plošče lahko bile in čemu so služile. Ponujala se je razlaga, da gre za dekorativne stenske obloge.[107]

Plošče so debele od 5 do 7,5 cm in različno široke, od 10 do 33 cm (*sl. 48–50*), medtem ko njihove dolžine zaradi fragmentarnosti ni mogoče rekonstruirati. Nekateri kosi imajo skozi sredico narejene vzdolžne kanale,[108] drugi prečne predrtine v širšo ploskev.[109]

[102] Ib., sl. 22, 50, 66, 123.
[103] Ib., sl. 36, 115, 134.
[104] Ib., sl. 30, 47, 61, 94, 124.
[105] Ib., sl. 93, 148, 151, 157, 161, 195, pril. 5.
[106] Glej Tasca 1998, 322; Vinazza 2016, 9 ss.
[107] Svoljšak 2014, 292 ss; Vinazza 2016, 15 ss.
[108] Glej še Svoljšak, Dular 2016, t. 36: 17, 46: 1, 77: 16,18,19,21, 85: 10, 87: 1-3, 98: 2.
[109] Ib., t. 5: 1,2, 6: 8, 19: 1, 49: 1.

The building interiors also had pits that were of different shapes, sizes and positions. Most pits in the houses with two or three rooms were round in plan, variously deep and measured between 35 and 95 cm in diameter (see *Fig. 39*). They were mainly located in the side rooms, in the north and/or east corners or beside partition walls (e.g. Houses 1/1, 1/2, 5, 8/1, 8/2, 16/2).[102] The exceptions to this general rule are House 3/1, which had a round pit containing a jar in the southwest corner of the larger room, House 15A/1 that had a pit beside the east partition wall of the central room and House 17/1 that had two pits in the north corner of the main room.[103] Pits in the single-room buildings differed in shape and size. Some were fairly large and round: one beside the northeast wall of House 2/2, three in the north corner of House 4, two in the same position in House 13, one in the north corner and one along the southeast wall of House 7, while House 16/1 had one round pit in the southeast corner.[104] Other pits were round, but small, as well as large rectangular or oval (e.g. Houses 12/1, 21, 22/1, 22A/1, 22A/2, 23/1, 29/1, 30/2).[105] These were predominantly dug in the eastern part of the buildings with a few exceptions. House 22A/1 had two pits that took up a large part of the usable space and opened in the north and west to a shallow canal. House 22/1 had three round and interconnected pits in the north-eastern and a large oval pit in the western part. House 30/2 had a rectangular pit beside the south wall and a round pit at the north wall. House 23/1 had a round pit just outside its ground plan.

The debris of some of the houses yielded fragments of fired clay that belonged to objects other than pottery. A careful analysis of their shape, composition, production manner and firing technique has allowed us to differentiate between ceramic plaques and parts of large storage containers or silos, as some term them,[106] all forming part of the immovable interior furnishings (*Fig. 46*).

Ceramic plaques

Already during excavations, the flat and decorated pieces of fired clay attracted much attention as such finds had been unknown in the settlements of the south-eastern Alpine region until then. There was some speculation as to what these thick plaques were and what purpose they served; one of the proposed interpretations was that of decorative wall lining.[107]

The plaques measure between 5 and 7.5 cm in thickness and from 10 to 33 cm in width (*Figs. 48–50*), while their length cannot be reconstructed because of

[102] Ib., Figs. 22, 50, 66, 123.
[103] Ib., Figs. 36, 115, 134.
[104] Ib., Figs. 30, 47, 61, 94, 124.
[105] Ib., Figs. 93, 148, 151, 157, 161, 195, App. 5.
[106] See Tasca 1998, 322; Vinazza 2016, 9 ff.
[107] Svoljšak 2014, 295; Vinazza 2016, 15 ff.

Sl. 48: Hiša 23/2. Deli glinastih plošč. M. = 1:4. (Foto: T. Lauko).
Fig. 48: House 23/2. Fragments of decorative plaques. Scale = 1:4. (Photo: T. Lauko).

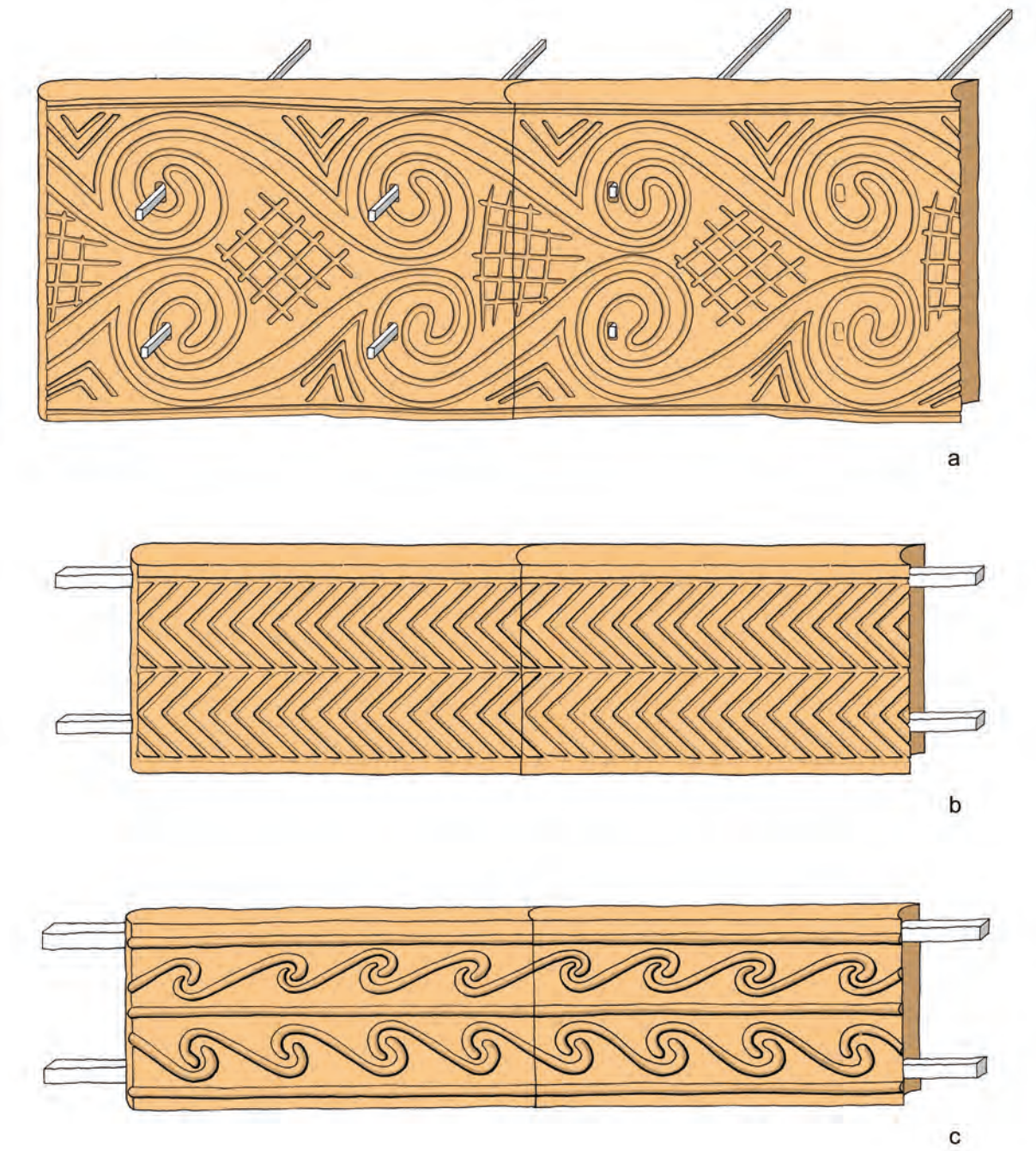
Izdelane so bile iz svaljkov vlažne zgnetene gline s primesmi grobega peska in travja. Svaljki so bili sestavljeni v ploščo tako, da so nalegali drug na drugega (*sl. 49*). Širši prednja in hrbtna stran sta bili sploščeni morebiti s pomočjo deske, robni stranici pa ravno odrezani. V še mehko glino sta bila skozi sredico narejena vzdolžna kanala, odtisi lesa na stenah kanalov pa kažejo na uporabo oglatih palic (*sl. 48: 1, 3*). Robni stranici in čelna stran plošče so bile nato zglajene, hrbtna stran je bolj grobo obdelana s potegi prstov, zamazali so tudi stike. Sledila je izdelava dekorja na čelni ploskvi (*sl. 50*). Okras je bil v mehko glino vrezan z ostrim predmetom (*sl. 48: 2; 49*) ali modeliran iz drobnih nalepljenih svaljkov

the highly fragmented state of preservation. Some of the pieces have lengthwise holes through the core,[108] others are pierced perpendicularly.[109]

The plaques were made of coils of wet kneaded clay with inclusions of coarse-grained sand and grass. The coils were assembled to form a block by placing one on top of the other (*Fig. 49*). The wider front side and the back were flattened, possibly with the help of a board, and the edges cut straight. The channels were impressed into the clay when still wet and the impressions of wood

[108] Also see Svoljšak, Dular 2016, Pls. 36: 17, 46: 1, 77: 16,18,19,21, 85: 10, 87: 1-3, 98: 2.
[109] Ib., Pls. 5: 1,2, 6: 8, 19: 1, 49: 1.

Sl. 49: Hiša 15A/1. Čelna in hrbtna stran glinaste plošče. M. = 1:3. (Foto: T. Lauko).
Fig. 49: House 15A/1. Front and back of a decorative plaque. Scale. = 1:3. (Photo: T. Lauko).



Sl. 50: Hipotetična rekonstrukcija poteka in postavitve glinastih plošč; *a* – pritrditev z zatiči; *b, c* – fiksiranje z vzdolžnimi letvami.
Fig. 50: Proposed reconstruction of the succession and position of the decorative plaques; *a* – attached with tenons; *b, c* – attached with lengthwise rods.
(Risba / Drawing: T. Korošec).

(*sl. 48: 1, 3–5*), ti so sem ter tja še poševno narezani.[110] Ali je bila okrasna ploskev tudi pobarvana, ne moremo reči, saj sledov barvnih nanosov nismo opazili, čeprav te možnosti ne izključujemo (prim. npr. *sl. 52: e*).

Gre za najbolj bogato okrašene glinene izdelke iz te naselbine (prim. tu Grahek, 291, sl. 19). Motivika je

[110] Ib., t. 5: 4,7, 6: 1,4,6,7, 39: 5,6, 44: 10,11, 45: 2, 46: 4-8.

inside the channel indicate the use of rectangular-sectioned rods (*Fig. 48: 1, 3*). Both edges and the front were then smoothed, while the back was coarsely finished by hand (visible lines made by fingers) and the coil joints sealed. This was followed by decorating the front (*Fig. 50*), either by incising into the soft clay (*Figs. 48: 2; 49*) or by applying thin cordons (*Fig. 48: 1, 3–5*) that were

geometrijska, ornamenti pa raznoliki; sestavljeni so iz enojnih ali dvojnih spiral, valovnic, meandrov, četverokotnikov, trikotnikov ali pa poševnih črt v obliki ribje kosti (*sl. 50, 51*). Ornament pogosto sestavljajo nizi zrcalno simetričnih motivov, ki jih ločujejo in obrobljajo ravne linije, v nekaterih primerih je vmesni prostor zapolnjen še z mrežastim motivom in trikotniki. Redkeje so zastopani izmenično ponavljajoči se motivi, denimo koncentrični pravokotniki v kombinaciji s trikotniki.[111]

Kako so plošče žgali, ni najbolj jasno. Po rumenkasto oranžnih in rdečkasto rjavih odtenkih površine ter sivkasti sredici je mogoče sklepati, da so bile neenakomerno in nepopolno oksidacijsko žgane. Lončarski glini primešani kamenčki in rastlinje niso popolnoma zgoreli oziroma spremenili sestave, kar pomeni, da je bila temperatura žganja nizka. Ker plošče niso bile skoz in skoz prežgane, so precej drobljive in slabo obstojne.

Kje in kako so bile nameščene (ali pokončno ali vodoravno), je težko ugotoviti, saj so bili fragmenti razpršeni v stavbnih ruševinah. Največ delov glinastih plošč je bilo odkritih v hišah 1/1, 3/1, 15A/1, 23/1 in 23/2, posamični kosi so dokumentirani še v stavbah 2/1, 8/2, 11/2, 14/2, 15/2, 16/2, 21, 22A/1, 22A/2 in 32 (*sl. 46, 51*), vendar ti ne prispevajo prav veliko uporabnih podatkov za rekonstrukcijo.[112] Na orientacijo plošč ne moremo sklepati niti iz ornamentike, saj je ta geometrijska. V prid pokončni postavitvi bi govoril le fragment s shematično upodobljenim konjenikom, najden sredi jame ob jugovzhodni steni objekta 22A/2 (*sl. 51: desno spodaj*).

Po zabeleženih podatkih je večina glinastih plošč v hiši 1/1 ležala v vzhodnem delu glavnega prostora tik nad tlemi ob severni predelni steni,[113] kar bi pomenilo, da so spadale k notranji opremi, ne pa denimo na pročelje oziroma zunanjo steno hiše. Da bi bile nameščene zgolj na lesen stenski opaž brez opore ali nekakšne konzole, je zaradi njihove masivnosti in teže malo verjetno. Tem opažanjem pritrjuje njihova lega v hiši 3/1, tu so bile zgoščene v osrednjem delu manjšega, tj. vzhodnega prostora, kjer so ležale tik nad tlemi.[114] V trodelnih stavbah 15/2 in 15A/1 so se okrašeni fragmenti glinastih plošč znova pojavljali v vzhodnem prostoru. Večja količina je bila odkrita še v enoprostorni in proti zahodu odprti stavbi 23/1, v njej se je vzdolž vzhodne stene raztezala pravokotna jama, z natančno analizo terenske dokumentacije pa je bilo ugotovljeno, da je bila jama deloma prekrita z lesenimi podnicami, nanje so bili zloženi glineni svitki ter drugi lončeni izdelki, med njimi okrašene glinaste plošče (prim. tu Svoljšak, 186, sl. 14). V hiši 14/2 je kos okrašene plošče ležal v vzhod-

[111] Ib., t. 17: 2,3, 18, 22.

[112] Ib., t. 1: 7, 5, 6, 8: 13, 16–22, 31: 1-3,5-7, 32: 22, 36: 17, 39: 1-6, 44: 10,11, 45, 46, 47: 3-8, 48–52, 57: 9,11, 59: 20, 60: 22, 61: 5, 65: 4, 77: 16-21, 78, 85: 7-10, 86, 87, 98: 2.

[113] Ib., 51, t. 5, 6.

[114] Ib., 61, sl. 41, 42, t. 16–22.

obliquely notched in some cases, possibly also by painting, though no traces of paint have been observed.[110]

The remains of these plaques are the most lavishly decorated ceramic finds from the Most na Soči settlement (cf. here Grahek, 291, Fig. 19). Most motifs are geometric and comprise single or double spirals, wavy lines, meanders, lozenges, squares/rectangles, triangles and chevrons (*Figs. 50, 51*). The design is usually composed of series of symmetrically arranged motifs separated and surrounded by straight lines, in some cases the space between individual motifs is filled with reticular and/or chevron motifs. Rare fragments revealed series of alternating motifs, for example concentric rectangles combined with triangles.[111]

It is not completely clear how the plaques were fired. The yellowish-orange and reddish-brown hues on the surface and a greyish core suggest they were fired unevenly in an incomplete oxidising atmosphere. The tiny stones and plant inclusions did not change in composition or became burnt through, indicating a low firing temperature; this made them brittle and not very durable.

The plaque fragments were found scattered in the house debris, hence it is not entirely clear where and how the plaques were positioned. Greater numbers of fragments were recovered from Houses 1/1, 3/1, 15A/1 and 23/1 and 23, while Houses 2/1, 8/2, 11/2, 14/2, 15/2, 16/2, 21, 22A/1, 22A/2 and 32 revealed individual pieces (*Figs. 46, 51*); none have yielded much information of use in reconstructions.[112] Neither does the geometric decoration offer clues as to the orientation (vertical or horizontal) of the plaques. The only fragment that indicates a vertical position is one that bears a schematically rendered horseman, found in the middle of the pit beside the southeast wall of House 22A/2 (*Fig. 51: bottom right*).

The excavation records for House 1/1 show that most fragments came to light in the eastern part of the main room just above the floor and beside the north partition wall,[113] suggesting that they formed part of interior furnishings rather than exterior decoration on the front of the house. Given their considerable size and weight, it is not very likely that the plaques were placed onto a wooden board lining without some sort of a support or bracket. This is corroborated by the position of the plaques in House 3/1, where they were concentrated on the floor in the central part of the smaller east room.[114] The three-room Houses 15/2 and 15A/1 revealed decora-

[110] Ib., Pls. 5: 4,7, 6: 1,4,6,7, 39: 5,6, 44: 10,11, 45: 2, 46: 4-8. However, we do not rule out painting options, cf. e.g. *Fig. 52: e*.

[111] Ib., Pls. 17: 2,3, 18, 22.

[112] Ib., Pls. 1: 7, 5, 6, 8: 13, 16–22, 31: 1-3,5-7, 32: 22, 36: 17, 39: 1-6, 44: 10,11, 45, 46, 47: 3-8, 48–52, 57: 9,11, 59: 20, 60: 22, 61: 5, 65: 4, 77: 16-21, 78, 85: 7-10, 86, 87, 98: 2.

[113] Ib., 51, Pls. 5, 6.

[114] Ib., 61, Figs. 41, 42, Pls. 16–22.

HIŠA / HOUSE					
1/1	x				
1/2	x	x			x
3/1		x		x	
8/2			x		x
15/2			x	x	
15A/1			x	x	x
22A/1			x		
22A/2			x		
23/1			x	x	
23/2			x		

HIŠA / HOUSE					
2/1			x		
3/1	x	x			
15A/1			x	x	x
16/2			x		
21				x	
32				x	

HIŠA / HOUSE				
3/1		x		
11/2		x		
14/2		x		
15A/1	x	x		
16/2		x		
23/1			x	
23/2			x	

22A/2

Sl. 51: Vrste okrasov na glinastih ploščah po posameznih stavbah.
Fig. 51: Decorative motifs on the ceramic plaques according to buildings.

nem delu, na vrhu s kamni obdane prežgane površine (ognjišča?), fragmenti v hiši 22A/2 pa so ležali v zasutju jame ob vzhodni steni. Četudi podatki kažejo navezavo glinastih plošč na vzhodno stran stavb, vseeno nimamo dovolj elementov za rekonstrukcijo postavitve.

Pri tem nam niso kaj dosti v pomoč niti redke omembe tovrstnih najdb s sočasnih severnoitalskih najdišč.[115] Na venetskem območju se podobni kosi z vrezanimi geometrijskimi ornamenti omenjajo npr. v Santorso in Montereale Valcellina, kjer naj bi pripadali hišam s kamnitimi temelji in leseno nadgradnjo; v Montereale

tive plaque fragments in the east rooms. Several pieces were also found in the single-room House 23/1 that was open towards the west. This building had a rectangular pit along the east wall, which the detailed desk-top analyses revealed to have been partially covered with wooden floorboards that held rings and other ceramic items including plaques, i.e. the products of a potter's workshop (cf. here Svoljšak, 186, Fig. 14). In House 14/2, a piece of a decorated plaque was lying in the eastern part, on top of a burnt surface enclosed with stones (hearth?), while the fragments in House 22A/2 were found in the fill of a pit beside the east wall. Although these data do reveal an association of the plaques with

[115] Prim. Vinazza 2016, 15 ss.

Valcellina so bili najdeni s spiralnim motivom okrašeni fragmenti denimo v jami v bližini tako imenovane hiše z doliji.[116] Na veronskem območju so v eni od bivalnih struktur na najdišču Archi di Castelrotto odkrili kos glinastega ometa z ohranjenimi sledovi rdeče barve, na njem je v reliefu upodobljena žival, najverjetneje konj.[117] Več podatkov je znanih v zvezi z najdbami iz Lovare, kjer je bila odkrita precejšnja količina glinastih oblog in ostankov silosov v jarkih, ki so obdajali neko stavbo, veliko jih je bilo tudi v jami blizu nje.[118] Največji ohranjeni fragmenti plošč so merili v širino do 30 cm, v dolžino do pol metra in so bili debeli od 3 do 9 cm; domneva se, da gre za plošče, pritrjene na leseno ogrodje oziroma da so bile z njimi zapolnjene predalčne stene.[119] Glinaste plošče se prav tako omenjajo med naselbinskimi najdbami v Este in Oderzo; na območju severnega svetišča v Este je bil najden fragment z reliefno voluto, ki je opredeljen kot antefix; taki okrasni arhitekturni členi so v času 5. st. pr. Kr. izpričani še v Adrii in Marzabottu.[120] Ker je v objavah najdišč iz sosednjih pokrajin predstavljen le skromen zbir tovrstnih najdb in so podatki o kontekstih precej skopi, navajamo nekatere primere iz bolj oddaljenih krajev v Etruriji, na Siciliji in v Grčiji, od koder bi lahko bila posredovana ideja arhitekturnih dekoracij v zaledje Caput Adriae.

Morebiti gre za posnemanje arhitekturnih terakotnih členov, ki so se na etruščanskem teritoriju in Siciliji pojavili v arhajskem obdobju, povezujejo pa jih z vplivi iz jonske Grčije.[121] Terakotne plošče interpretirajo kot dekoracijo pročelij zgradb, ki so imele lahko opečnate strehe in druge okrasne elemente (antefixes, timpanone), iz plošč sestavljeni frizi naj bi potekali vodoravno pod napuščem. Te terakotne plošče so modelirane v kalupu in trdo opečnato rdeče žgane, debele so od 6,5 do 7,5 cm, v širino merijo od 24 do 50 cm, v dolžino pa od 50 do 75 cm, medtem ko je zgornji rob pogosto konkavno ukrivljen.[122] Čelne ploskve so običajno okrašene s figuralnimi prizori v plitvem reliefu in z borduro v obliki pletenice, meandra, palmet in raznih drugih orientalizirajočih motivov; lahko so tudi poslikane, navadno z belo na rdečo podlago. Zgradbe na etruščanskem teritoriju, h katerim naj bi spadali arhitekturni terakotni členi,

[116] Ruta Serafini 1984, 770, 774: slika levo zgoraj; Vitri 2013, 114, kat. št. 11.2.9.1.

[117] Salzani 1984, 795 ss, 797: slika desno spodaj; Bianchin Citton 2002, 89 ss, sl. 17: 9; Gamba et al. 2013, 221, 247, 392 ss, kat. št. 2.3.18, 4.1.4, 11.2.4.1.

[118] Moffa 2002, 172 ss.

[119] Ib., sl. 1: 1.

[120] Gambacurta, Zaghetto 2002, 285 s, sl. 123, 128: 31; Vitali, Brizzolara, Lippolis 2001, 59 ss, sl. 31, 33.

[121] Prim. npr. Brendel 1978, 134 ss; Nicosia 1992, 57; Rystedt, Wikander, Wikander 1993.

[122] Glej prispevke v Rystedt, Wikander, Wikander 1993; Brendel 1978, 134 ss, sl. 87–89; *Les Etrusques et l'Europe* 1992, 128: kat. št. 96–100, 140: kat. št. 163–165; Torelli 2000, 127, 129, 204, 208, 209, 590 ss, kat. št. 147, 166–169; Donati 2000, 323 ss; Malnati 2011, 249, sl. 7, 8; Locatelli 2011, 271, sl. 4.

the east walls of houses, we still lack sufficient evidence for a reconstruction of their placement.

Neither can much information be gained from the rare parallels from contemporary north Italian sites.[115] In the Venetic area, similar pieces with incised geometric decoration are known from Santorso and Montereale Valcellina, where they presumably belonged to houses with stone foundations and a wooden superstructure; the pieces decorated with a spiral motif from Montereale Valcellina were found in the vicinity of the 'Casa dei dolii'.[116] In the area of Verona, a fragment of such a plaque found in one of the dwellings at Archi di Castelrotto bore traces of red paint, but also a relief of an animal, probably a horse.[117] More is known of the finds from Lovara, where a large quantity of ceramic plaques and remains of storage containers was found in the ditches around a building, numerous such remains were also unearthed in a pit near the building.[118] The largest surviving of these plaque fragments measured up to 30 cm in width, up to 50 cm in length and 3–9 cm in thickness; they were presumably served as the infill of timber-framed walls.[119] Ceramic plaques are mentioned in the settlements at Este and Oderzo. The area of the north sanctuary at Este yielded a fragment with a relief volute interpreted as an antefix. Such decorative architectural elements from the 5th century have also been documented at Adria and Marzabotto.[120] The publications of the sites from the neighbouring regions only include a small selection of these finds and the data on their contexts are scant; we therefore present several examples from more distant areas (Etruria, Sicily, Ionian Greece) that could have conveyed the idea of such architectural decoration to the hinterland of Caput Adriae.

These plaques presumably imitate the architectural terracotta elements that appeared in the Etruscan territory and Sicily in the Archaic period under the influences coming from Ionian Greece.[121] The plaques are interpreted as the frieze decoration of the front of buildings that possibly had roofs with brick tiles and other decorative elements (antefixes, tympana), with friezes composed of several plaques running horizontally below the eaves. These plaques were shaped in moulds and fired hard to a brick red colour, measure 6.5–7.5 cm in thickness, 24–50 cm in width, 50–75 cm in length, and commonly have one of the longer edges

[115] Cf. Vinazza 2016, 15 ff.

[116] Ruta Serafini 1984, 770, 774: fig. top left; Vitri 2013, 114, Cat. No. 11.2.9.1.

[117] Salzani 1984, 795 ff, 797: fig. bottom right; Bianchin Citton 2002, 89 ff, Fig. 17: 9; Gamba et al. 2013, 221, 247, 392 ff, Cat. Nos. 2.3.18, 4.1.4, 11.2.4.1.

[118] Moffa 2002, 172 ff.

[119] Ib., Fig. 1: 1.

[120] Gambacurta, Zaghetto 2002, 285 f, Figs. 123, 128: 31; Vitali, Brizzolara, Lippolis 2001, 59 ff, Figs. 31, 33.

[121] Cf. e.g. Brendel 1978, 134 ff; Nicosia 1992, 57; Rystedt, Wikander, Wikander 1993.

so imele kamnite temelje in leseno nadgradnjo, ki je propadla, zato tudi tam ni vedno lahko rekonstruirati prvotne lege ohranjenih fragmentov. Po ugotovitvah se take dekoracije ne pojavljajo zgolj na svetiščih, temveč še na raznih drugih stavbah z bolj profano funkcijo – javno ali zasebno. V Murlu in Cerveteriju so bile med drugim odkrite v delavnicah, v Acquarossi in Marzabottu so krasile rezidenčne zgradbe, v Laviniu so pripadale manjši stavbi v neposredni soseščini trinajstih oltarjev, ki je bila z njimi domnevno funkcionalno povezana; v mestih, kot so Velletri, Veio, Tarquinia in Sirakuze, se navezujejo na tempeljske zgradbe.[123] Kljub drugačni izdelavi in motiviki jih je z najdbami z Mosta na Soči mogoče primerjati po dimenzijah ter podobnih prečnih luknjicah skozi širše ploskve za pritrditev. Podobnosti bi nemara lahko videli celo v nekaterih vzorcih in kompozicijah z zrcalno postavljenimi pletenicami oziroma spiralami, če primerjamo fragment plošče iz hiše 15A/1 na Mostu na Soči in npr. friz na tempeljski zgradbi v Sirakuzah na Siciliji, ki ima dobre analogije na kikladskem otoku Naksos (prim. *sl. 50: a* in *52: b*).[124] Enak vrezan spiralni okras kot na Mostu na Soči zasledimo v egejskem prostoru npr. na terakotnih opekah iz pristaniške naselbine Dardanele-Maydos Kilisetepe Höyöğü, kjer so pripadale centralni stavbi iz pozne bronaste dobe, zgrajeni na kamnitih temeljih z opečnatimi zidovi; te so bile belo in rdeče pobarvane (*sl. 52: c*).[125] Da bi te primerjave lahko bile dokaj umestne, ne nazadnje nakazujejo še razne druge najdbe, ki pričajo o razvejeni mreži povezav in prenosu idej med vzhodnim Sredozemljem, Apeninskim polotokom in Caput Adriae, v katerega orbito je spadal Most na Soči (prim. npr. *sl. 74, 75: a, b; 79: a*).[126]

Sočasno s terakotnimi dekoracijami zunanjih delov stavb so se v etruščanskem prostoru pojavile poslikave na notranjih stenah grobnic, kjer vodoravni frizi z orientalizirajočimi motivi obrobljajo figuralne prizore, umeščene na zgornjo polovico sten.[127] Podobnost mo-

[123] Andersen 1993, 71 ss, in drugi prispevki v Rystedt, Wikander, Wikander 1993.

[124] Ciurcina 1993, 29 ss, sl. 5, 12, 14.

[125] Sazci 2013, 35, sl. 8, 10. Vplivi iz vzhodnega Sredozemlja so se širili tudi po donavski poti v panonsko-karpatski prostor, o čemer bi pričali s spiralnim motivom okrašeni fragmenti glinastih oblog z najdišč pozne bronaste dobe in zgodnje železne dobe na Madžarskem (Patek 1968, 133, t. 111: 7), v spodnji Avstriji (Smolnik 1996, 96, sl. 15: 3; Kultus 2014, 224, sl. 21), severovzhodni Sloveniji (Lamut 1988–1989, 240, t. 19: 1; Dular, Tomanič Jevremov 2010, t. 120: 8; Kerman 2011, 108 s, 631) in Hrvaški (Kovačević 2008, 63, t. 9: 3, 10: 5); prim. še Vinazza 2016, 15.

[126] Glej tu poglavje o blagovni menjavi in kulturnih stikih. Prim. še Braccesi, Veronese 2013, 138 ss; Vallicelli 2013, 260 ss. Na zgodnje stike kažejo tudi najdbe iz bronastodobne naselbine Monkodonja v Istri (Hänsel, Mihovilić, Teržan 2015, 499 ss; Hellmuth 2017, 379 ss).

[127] Bianchi Bandinelli 1939, 8 ss, sl. 9, 12; Brendel 1978, 120 ss; Roncalli 2000, 345 ss; Torelli 2000, 132, 133, 263.

that is concave.[122] Their front surfaces are usually decorated with figural scenes in low relief with guilloche, meander, palmette and other borders of Orientalising motifs; they can also be painted, usually white-on-red. The buildings in the Etruscan territory furnished with such architectural terracottas had stone foundations and wooden superstructures that have not survived and it is not always possible to reconstruct the original positions of the surviving terracotta fragments. They are associated not only with sanctuaries, but also a variety of other buildings of a more profane function, both public and private. At Murlo and Cerveteri, for example, such plaques were found in workshops, at Acquarossa and Marzabotto they decorated residential buildings, at Lavinio they belonged to a small building in the vicinity of and probably in connection with thirteen altars, in Velletri, Veii, Tarquinia and Syracuse the terracotta plaques are associated with temples.[123] In spite of the differences in production and decorative motifs, they are comparable with the plaques from Most na Soči in size and the manner of attachment. We may even see similarities in some of the decorative compositions, for example the symmetric guilloches or spirals present on a fragment from House 15A at Most na Soči and on the frieze of a temple at Syracuse in Sicily, the latter with close parallels in eastern Greece, for example the Cycladic island of Naxos (cf. *Figs. sl. 50: a* and *52: b*).[124] The same incised motifs as documented at Most na Soči are also known from the Aegean, for example on the terracotta bricks from the port at Dardanele-Maydos Kilisetepe Höyöğü, associated with the central building dated to the Late Bronze Age and constructed with stone foundations and brick walls; these plaques were also painted white-on-red (*Fig. 52: c*).[125] The validity of these parallels is supported by other finds that point to a wide network of connections and the transfer of ideas between the eastern Mediterranean, the Apennine Peninsula and

[122] See contributions in Rystedt, Wikander, Wikander 1993; Brendel 1978, 134 ff, Figs. 87–89; *Les Etrusques et l'Europe* 1992, 128: Cat. Nos. 96–100, 140: Cat. Nos. 163–165; Torelli 2000, 127, 129, 204, 208, 209, 590 ff, Cat. Nos. 147, 166–169; Donati 2000, 323 ff; Malnati 2011, 249, Figs. 7, 8; Locatelli 2011, 271, Fig. 4.

[123] Andersen 1993, 71 ff and other contributions in Rystedt, Wikander, Wikander 1993.

[124] Ciurcina 1993, 29 ff, Figs. 5, 12, 14.

[125] Sazci 2013, 35, Figs. 8, 10. Influences from the eastern Mediterranean also spread up the Danube into the Pannonian-Carpathian area, the evidence of which can be seen in the spirally decorated ceramic fragments excavated at the Late Bronze Age and Early Iron Age sites in Hungary (Patek 1968, 133, Pl. 111: 7), Lower Austria (Smolnik 1996, 96, Fig. 15: 3; Kultus 2014, 224, Fig. 21), north-eastern Slovenia (Lamut 1988–1989, 240, Pl. 19: 1; Dular, Tomanič Jevremov 2010, Pl. 120: 8; Kerman 2011, 108 f, 631) and Croatia (Kovačević 2008, 63, Pls. 9: 3, 10: 5); also cf. Vinazza 2016, 15.

Sl. 52: Izbor podobnih motivov kot na glinastih ploščah z Mosta na Soči. *a* – Marzabotto, fragmenti poslikanih arhitekturnih členov iz akropole (po Vitali, Brizzolara, Lippolis 2001, sl. 33); *b* – Naksos, terakotni okrasni friz iz svetišča B (po Ciurcina 1993, sl. 14); *c* – Dardanele-Maydos Kilisetepe Höyöğü, fragmenti terakotnih opek iz centralne zgradbe (po Sazci 2013, sl. 8); *d* – Tarquinia, detajl poslikave v Tomba degli Scudi (po Torelli 2000, 132, 133); *e* – Most na Soči, fragmenti glinastih plošč iz hiše 3/1 (foto: T. Lauko).

Fig. 52: Select motifs similar to decorations on the ceramic plaques from Most na Soči. *a* – Marzabotto, fragments of painted architectural terracotta from Acropolis (from Vitali, Brizzolara, Lippolis 2001, Fig. 33); *b* – Naxos, decorative terracotta frieze from Temple B (from Ciurcina 1993, Fig. 14); *c* – Dardanele-Maydos Kilisetepe Höyöğü, fragments of terracotta bricks from the central building (from Sazci 2013, Fig. 8); *d* – Tarquinia, detail of the wall painting in Tomba degli Scudi (from Torelli 2000, 132, 133); *e* – Most na Soči, fragments of the decorative plaques from House 3/1 (Photo: T. Lauko).

tivov bi bilo mogoče videti npr. v kombiniranem vzorcu koncentričnih pravokotnikov in trikotnikov na ploščah iz hiše 3/1 na Mostu na Soči (*sl. 52: e*)[128] in na stenski poslikavi grobnice v Tarquinii – Tomba degli Scudi (prim. *sl. 52: d*).[129] Prav tako bi jih bilo mogoče primerjati z rdeče-črno-belo poslikanimi arhitekturnimi členi z akropole v Marzabottu, kjer naj bi šlo za strešnike oz. dekoracijo napušča templja C (prim. *sl. 51* in *sl. 52: a*).[130]

Z geometrijskimi ornamenti so pogosto bogato okrašene tudi keramične ognjiščne koze z najdišč v severovzhodni Italiji, ki imajo obliko ploščice pravokotnega ali trapezastega preseka (*alari a mattonella*); te so prav tako izdelane prostoročno iz grobozrnate gline, v višino merijo do 15 cm, v dolžino do 25 cm, debele pa so od 4 do 9 cm.[131] Ločevanje med njimi in ploščami je težavno, kadar gre za manjše fragmente, ki nimajo ohranjenih obeh širših ploskev, saj sta ti pri ognjiščnih kozah običajno okrašeni, prav tako stranske ploskve, medtem ko je zgornji rob lahko stanjšan in zaobljen. Nekaj fragmentov ognjiščnih koz je bilo odkritih tudi v naselbini na Mostu na Soči, vendar so vsi brez okrasa, razen primerka iz stavbe 23/1, ki ima trikoten presek in zaključek oblikovan v stilizirano živalsko glavico (glej tu Grahek, 279, sl. 15: Ok).[132] Glede na to, da ploščati glinasti kosi na Mostu na Soči niso bili najdeni v bližini ognjišč ali v povezavi z njimi (razen pri hiši 14/2), bi to lahko bil dodaten argument, da gre za okrasne arhitekturne člene in ne za ognjiščno opremo.

O silosih

Velikim shrambnim posodam ali silosom so pripadali približno enako debeli kosi kot glinaste plošče (od 5 do 8 cm), le da imajo izražene krivine, ki nakazujejo premere med 70 in 90 cm (*sl. 53, 54*). Prav tolikšna je najbrž bila njihova višina, če presojamo po razponu globin, na katerih so se ti fragmenti pojavljali v ruševinah hiš. Kaže, da so imeli silosi bolj ali manj valjasto ali sodčasto obliko, njihova prostornina bi potemtakem znašala med 250 in 450 litri.

Fragmenti silosov so bili odkriti v hišah 1/2, 3/1, 15A/1 in 29/2 (*sl. 53–55*). Po zabeleženih prostorskih podatkih je bil silos v hiši 1/2 postavljen v vzhodnem kotu glavnega prostora, v hiši 3/1 sredi vzhodnega prostora, v hiši 15A/1 v južnem delu vzhodnega prostora,

[128] Svoljšak, Dular 2016, t. 17: 2,3, 18, 22.

[129] Torelli 2000, 132, 133.

[130] Vitali, Brizzolara, Lippolis 2001, 59 ss, sl. 33.

[131] Salzani 1976, 170, kat. št. 10, sl. 28: 10 (Coazze); Bianchin Citton, Panella, Panozzo 1998, 363 ss, sl. 213–216; Taglioni 1999, 20, 55 ss, sl. 8, 26–34; Bianchin Citton 2002, 89 ss, sl. 19: 4,5; Pirazzini 2013, 246 s; Gamba et al. 2013, 396 ss, kat. št. 11.2.7.3.

[132] Svoljšak 2014, 239, sl. 9; Svoljšak, Dular 2016, t. 74: 1,2.

Caput Adriae with Most na Soči in its hinterland (cf. e.g. *Figs. 74, 75: a, b; 79: a*).[126]

Concurrently with the terracotta decoration of building exteriors, the tombs in the Etruscan territory also began to receive painted decoration on the interior walls, where figural scenes adorned the upper half of the walls and were associated with horizontal borders of Orientalising motifs.[127] A parallel may be drawn between the plaques from House 3/1 at Most na Soči (*Fig. 52: e*)[128] and a wall painting in the Tomba degli Scudi in Tarquinia (cf. *Fig. 52: d*),[129] both decorated with a combined pattern of concentric rectangles and triangles. They may also be paralleled with the red-black-white painted architectural members from the acropolis at Marzabotto, interpreted as acroteria of Temple C (cf. *Fig. 51* and *Fig. 52: a*).[130]

Also richly adorned with geometric motifs are the ceramic firedogs unearthed at sites in north-eastern Italy that have the form of a rectangular- or lozenge-sectioned plaque (*alari a mattonella*). They are also hand-built of coarse-grained clay and measure up to 15 cm in height, up to 25 cm in length and 4–9 cm in thickness.[131] It is difficult to distinguish between these firedogs and decorative plaques, particularly when dealing with small fragments without surviving surfaces, which in firedogs are usually decorated on all sides. The upper edges of firedogs can also be thinned and rounded. The settlement at Most na Soči yielded fragments of firedogs, but they are not decorated with the exception of the triangular-sectioned firedog from House 23/1 with a finial in the shape of a stylised animal head (see here Grahek, 279, Fig. 15: Ok).[132] The flat ceramic pieces from Most na Soči were not found in proximity to or association with hearths (with the exception of that from House 14/2), which is additional evidence in support of decorative architectural elements rather than hearth utensils.

[126] See the chapter on the Exchange of goods and cultural contacts. The finds from the Bronze Age settlement at Monkodonja in Istria also indicate such early contacts (Hänsel, Mihovilić, Teržan 2015, 499 ff; Hellmuth 2017, 379 ff). Also cf. Braccesi, Veronese 2013, 138 ff; Vallicelli 2013, 260 ff.

[127] Bianchi Bandinelli 1939, 8 ff, Figs. 9, 12; Brendel 1978, 120 ff; Roncalli 2000, 345 ff; Torelli 2000, 132, 133, 263.

[128] Svoljšak, Dular 2016, Pls. 17: 2,3, 18, 22.

[129] Torelli 2000, 132, 133.

[130] Vitali, Brizzolara, Lippolis 2001, 59 ff, Fig. 33.

[131] Salzani 1976, 170, Cat. No. 10, Fig. 28: 10 (Coazze); Bianchin Citton, Panella, Panozzo 1998, 363 ff, Figs. 213–216; Taglioni 1999, 20, 55 ff, Figs. 8, 26–34; Bianchin Citton 2002, 89 ff, Fig. 19: 4,5; Pirazzini 2013, 246 f; Gamba et al. 2013, 396 ff, Cat No. 11.2.7.3.

[132] Svoljšak 2014, 239, Fig. 9; Svoljšak, Dular 2016, Pl. 74: 1,2.

Sl. 53: Hiša 15A/1. Obod silosa iz naključno sestavljenih fragmentov. M. = 1:5. (Foto: T. Lauko).
Fig. 53: House 15A/1. Perimeter of a storage container composed of randomly selected sherds. Scale = 1:5. (Photo: T. Lauko).

Sl. 54: Fragmenti silosov iz hiše 15A/1 (*1, 2*) in hiše 3/1 (*3–5*). M. = 1:4. (Foto: T. Lauko).
Fig. 54: Storage container fragments from House 15A/1 (*1, 2*) and House 3/1 (*3–5*). Scale = 1:4. (Photo: T. Lauko).

Sl. 55: Fragmenti silosa iz hiše 29/2. M. = 1:4. (Foto: T. Lauko).
Fig. 55: Fragments of a storage container from House 29/2. Scale = 1:4. (Photo: T. Lauko).

medtem ko so fragmenti silosa v stavbi 29/2 ležali v severozahodnem delu ohranjenega tlorisa.[133]

Tehnika izdelave in sestava lončarske zmesi sta enaki kot pri ploščah, se pravi, da so bili narejeni iz svaljkov vlažne zgnetene gline, ki so ji primešali rastlinje, grobi pesek in grog za pustilo (*sl. 54, 55*). Za izdelavo tako velikih posod je bilo potrebne po grobi oceni od 250 do 350 kg gline v mokrem stanju, ki ji je bilo dodanega od 5 do 7 kg rastlinskega pustila in okoli 10 kg peska in groga.[134] Svaljek so verjetno morali vsaj deloma osušiti, da bi postal kompaktnejši, preden so nanj nanesli naslednjo gmoto gline, saj bi se sicer posoda zaradi teže sesedla in razlezla. Na nekaterih fragmentih so vidni vtisi lesenih zatičev za fiksiranje. Glede na višino in obseg posode je postopek izdelave terjal kar precej časa. Zunanjo steno so nazadnje zgladili in okrasili z vrezanim motivom ali nalepljenimi rebri, notranjo pa le grobo zamazali, prav tako stike med svaljki. Ustje silosov je ravno odrezano ali malce zaobljeno, medtem ko je dno težje razpoznavno, morda so mu pripadali bolj ploski fragmenti, ki so ležali najgloblje in imajo obdelano in ožgano samo eno stran.

Zaradi teže in krhkosti bi bilo premikanje tako velikih posod težavno in tvegano, zato predpostavljamo, da so jih izdelali ali na kraju samem ali nedaleč stran od končne postavitve. Tudi v suhem stanju je morala biti njihova teža precejšnja (okoli 200 kg). Ohranjeni kosi imajo največkrat ožgane samo stene, domnevno dno pa le notranjo stran, kar bi pomenilo, da so bili ali slabo pečeni ali pa izpostavljeni ognju ob požaru, slednja možnost se zdi verjetnejša.

Oprijemljivih indicev, kaj so prebivalci Mosta na Soči v njih hranili, nimamo. Za shranjevanje tekočine zaradi vpojnosti niso bili najbolj primerni. Lahko bi se uporabljali za skladiščenje živeža.

Podatke o pojavu tovrstnih shrambnih posod v severnoitalskem in jugovzhodnoalpskem prostoru je zbrala in o njih razpravljala Manca Vinazza.[135] V vzhodnem delu Padske nižine so silosi znani iz naselbin pozne bronaste in železne dobe, kjer so pogosto pripadali shrambnemu delu hiš (Oderzo, Padova, Adria, Verona).[136] Mostu na Soči bližja najdišča silosov, datirana na konec bronaste in začetek železne dobe, so Pozzuolo pri Vidmu v Furlaniji ter Tabor pri Vrabčah in morda Debela griža na Krasu. V železno dobo so opredeljeni fragmenti npr. s Stramare di Muggia, Sermina in Kaštelirja nad Kortami v priobalnem pasu ter Štanjela

[133] Svoljšak, Dular 2016, 51, 61, 130, 202, t. 7: 6, 20: 3,4,6, 21: 2, 47: 1, 52: 4, 93: 4.

[134] Oceno je na podlagi avtopsije fragmentov iz hiše 15A/1 izdelal Igor Bahor, Lončarski center Bahor, Topolšica, za kar se mu najlepše zahvaljujeva.

[135] Vinazza 2016, 7 ss, sl. 1 s seznamom najdišč in zbrano literaturo.

[136] Groppo 2013, 227.

Storage containers

The fragments ascribed to large storage containers or silos are roughly as thick as those of ceramic plaques (between 5 and 8 cm), but distinguishable in their curved shape that suggests diameters ranging from 70 to 90 cm (*Figs. 53, 54*). This was also the range of their height if judging from the range of depths at which their fragments were documented within house debris. The containers were presumably roughly cylindrical or barrel-shaped, with a volume ranging from 250 to 450 litres.

Their fragments were unearthed in Houses 1/2, 3/1, 15A/1 and 29/2 (*Figs. 53–55*). According to the documented spatial data, the container in House 1/2 was placed in the east corner of the main room, in House 3/1 in the centre of the east room, in House 15A/1 in the southern part of the east room, while the sherds in House 29/2 lay in the north-western part of the surviving ground plan.[133]

The production manner and fabric composition were the same as for the plaques, i.e. made of coils of moist kneaded clay with inclusions of plant material, coarse-grained sand and grog (*Figs. 54, 55*). It is roughly estimated that 250–350 kg of wet clay was required to produce one such container, as well as 5–7 kg of plant temper and around 10 kg of sand and grog.[134] A coil presumably had to be at least partially dry and thereby more compact before applying another coil, otherwise the container would collapse in on itself due to great weight. Some sherds show impressions of wooden tenons used to stabilise the container walls. The height and diameter indicate a lengthy process of production that finished with smoothing the exterior surface and decorating it with incised motifs or applied cordons, while the interior surface was only roughly finished and the joints between individual coils sealed. The containers have a flat or only slightly rounded rim. Base sherds are not easily identifiable and possibly include the flat fragments found deepest, of which only one side was smoothed and fired.

The weight (estimated around 200 kg once dried) and fragility of the silos made moving them very difficult and risky; we therefore presume they were made either on the spot of subsequent use or in its close proximity. The surviving pieces show firing marks on the body, both inside and outside, while the presumed base sherds only show them on the interior, suggesting that the containers were either insufficiently fired or exposed to a fire, of which the latter possibility seems more plausible.

There is no clear evidence as to the kind of material the inhabitants of Most na Soči stored in their containers. They had rather absorbent walls and therefore not suited for storing liquids, but may have held dry foodstuffs.

[133] Svoljšak, Dular 2016, 51, 61, 130, 202, Pls. 7: 6, 20: 3,4,6, 21: 2, 47: 1, 52: 4, 93: 4.

[134] Igor Bahor from the Bahor pottery centre in Topolšica has kindly provided this estimate upon inspecting the fragments from House 15A/1.

na Krasu;[137] pričakovati jih je mogoče na istrskih in notranjskih kašteliriih, medtem ko v naseljih dolenjske halštatske skupnosti doslej niso bili odkriti. V zaledju severnega Jadrana so bili razširjeni zlasti v razviti železni dobi (6.–4. st. pr. Kr.), kamor sodijo tudi najdbe iz hiš 1/2, 3/1, 15A/1 in 29/2 z Mosta na Soči, kjer jih uvrščamo k nepremični notranji opremi, saj zaradi krhkosti in teže niso bili prikladni za premikanje.

PREMIČNI INVENTAR IN DRUGE NAJDBE

V ruševinah hiš so se ohranili še drugi predmeti, ki so povedni z vidika bivalne kulture in za opredeljevanje funkcije stavb in prostorov (*sl. 47*). Za pripravo pečene in kuhane hrane so železnodobni prebivalci Mosta na Soči poleg ognjišč (ta so jim služila tudi za ogrevanje) uporabljali prenosne pečke, pekve, pladnje in lonce (prim. tu Grahek, 298 ss, sl. 23 in 26). Z naštetim so bile opremljene hiše 1/1, 1/2, 14/1, 14/2 in 30/2 (prim. *sl. 46* in *sl. 47*), v preostalih stavbah z ognjišči (15A/1, 16/1, 21 in 24/1) prenosnih naprav za pripravo jedi ni bilo. Pekve in pečke, ki so priročne za prenašanje in kuho na prostem,[138] so bile večkrat najdene v stavbah brez ognjišč (7, 8/2, 10/2, 15/2, 16/2, 22A/2, 23/1, 23/2 in 29/2).

Za shranjevanje živeža so poleg silosov uporabljali pitose, najbrž tudi lesene posode in pletene košare.[139] Kolikor je mogoče razbrati iz zabeleženih podatkov o legi, so bili fragmenti pitosov najdeni v stranskih prostorih v hišah 8/2, 16/2 in 15A/1, v slednji so ležali v severnem delu vzhodnega prostora, v hiši 29/2 pa na kupu v severozahodnem delu. Nekje ob južni steni so bili odkriti v hiši 15/2, v hiši 3/1 v vzhodnem kotu večjega prostora, nekaj jih je bilo še v njenem vzhodnem prostoru, kjer je stal tudi silos. V jugovzhodnem delu hiše 16/1 je bil v bližini ognjišča in jame postavljen lesen čeber, ki je edina lesena posoda iz tega naselja, medtem ko je v vzhodni jami hiše 7 ležala bronasta posoda z ohranjenim žitnim zrnjem in plodovi.[140]

K jedilnim posodam lahko prištejemo sklede, k pivskemu servisu pa lončke raznih oblik in fino posodje, kot so situle, kelihi in uvoženi skyphoi (prim. tu Grahek, 299, sl. 24). Največ tega je bilo v hiši 14/1 in stavbi 23/1, situle so bile odkrite še v hišah 1/2, 2/2, 7, 15A/2 in 29/1, kelih je dokumentiran v hiši 3/1, skyphos pa v hiši 5 (*sl. 47*), kjer je ležal ob zahodni steni stranskega prostora.[141] Iz grobišča so znane še

[137] Betic, Bernardini, Montagnari Kokelj 2007, 28 ss, sl. 5; Sakara Sučević 2007, 48, t. 2: 21; Vinazza 2016, 8 ss, sl. 1 in 4.

[138] Prim. npr. Scheffer 1981, II/1, 96 ss.

[139] V nekaterih grobovih so se ohranili ostanki prepletenega protja: glej npr. Marchesetti 1893, t. 27: 13; Vitri 2004, 285, sl. 1.

[140] Svoljšak, Dular 2016, 75 s, 138, sl. 123, 126, 128.

[141] Ib., sl. 50, 56.

Manca Vinazza has gathered and discussed the known data on such storage containers in northern Italy and south-eastern Alpine region.[135] In the eastern Po Plain, they were mainly found in the Late Bronze and Iron Age settlements, often in the storage parts of buildings (Oderzo, Padua, Adria, Verona).[136] The finds closest to Most na Soči and dating from the end of the Bronze to the beginning of the Iron Age are known from Pozzuolo near Udine in Friuli, Tabor near Vrabče and possibly Debela griža in the Kras region. Attributed to the Iron Age are the fragments from Stramare di Muggia, Sermin and Kaštelir above Korte in the littoral, as well as Štanjel in the Kras in the hinterland,[137] further finds can be expected in the hillforts of the Istria and Notranjska regions, while none have as yet been documented at the sites of the Dolenjska Hallstatt community. In the Caput Adriae, ceramic containers were particularly widespread in the late phases of the Early Iron Age (6th–4th century BC), which include the containers from Houses 1/2, 3/1, 15A/1, 29/2 at Most na Soči. Here, they are seen as part of interior furnishings, as their weight made them unsuitable for moving.

MOVABLE FURNISHINGS AND OTHER FINDS

Apart from the plaques and containers, the house debris at Most na Soči yielded other objects that tell of the living standard and of the function of individual buildings and rooms (*Fig. 47*). They show that people cooked their food on hearths (which also provided heat), but also used portable ovens, baking lids, platters and jars (cf. here Grahek, 298 ff, Figs. 23 and 26). All of these items were found in Houses 1/1, 1/2, 14/1, 14/2 and 30/2 (cf. *Fig. 46* and *Fig. 47*), while other buildings furnished with hearths (15A/1, 16/1, 21, 24/1) revealed no portable devices for food preparation. Baking lids and portable ovens, suitable for transporting and cooking in the open,[138] were often found in buildings without hearths (7, 8/2, 10/2, 15/2, 16/2, 22A/2, 23/1, 23/2, 29/2).

Apart from the large storage containers, food was stored in pithoi and probably wooden vessels and wicker baskets as well.[139] The recorded locations for pithos fragments show that these were placed in the side rooms of Houses 8/2, 16/2 and 15A/1 (in the last house more precisely in the northern part of the east room), while in House 29/2 they were found in a heap in the

[135] Vinazza 2016, 7 ff, Fig. 1, with a list of sites and references.

[136] Groppo 2013, 227.

[137] Betic, Bernardini, Montagnari Kokelj 2007, 28 ff, Fig. 5; Sakara Sučević 2007, 48, Pl. 2: 21; Vinazza 2016, 8 ff, Fig. 1 and Fig. 4.

[138] Cf. e.g. Scheffer 1981, II/1, 96 ff.

[139] Remains of wickerwork have survived in some of the graves, see e.g. Marchesetti 1893, Pl. 27: 13; Vitri 204, 285, Fig. 1.

lončene, lesene in celo steklene skodele, pa tudi vrči in bronasto posodje.[142]

Pri pripravi hrane so za drobljenje žita uporabljali žrmlje. Te so spadale k inventarju hiš 1/1, 3/1, 5, 7, 8/2, 12/1, 15/2, 15A/1 in 16/1 (prim. tu Horvat, 350, tab. 1). V hiši 15A/1 so ležale v srednjem prostoru, v hiši 16/1 ob severni steni.[143] Uporabljale so se lahko tudi pri lončarjenju za drobljenje peska, ki so ga dodajali glini kot pustilo.

Funkcija keramičnih svitkov prav tako ni enoznačna, uporabni so bili kot podstavki za posodje ali kot uteži za statve (prim. tu Grahek, 300, sl. 25).[144] V hišah 1/1, 13, 21 in 22A/2 jih posamično zasledimo v jamah (prim. *sl. 39*), v stavbi 21 so ležali okoli ognjišča, v hiši 16/2 pa v severnem kotu stranskega prostora. Ti svitki so najbrž služili kot podstavki za odlaganje posod. Morda bi kot kuhinjske podstavke lahko interpretirali še nekatere fragmente iz hiš 1/2, 22/2 in 29/2, ki so opredeljeni kot glinaste obloge s krožnim obodom premera 17 do 23 cm.[145] Zdaleč največ svitkov je premogla stavba 23/1, kjer so bili zloženi na lesene podnice, ki so prekrivale jamo; zanje domnevamo, da so bili tam v izdelavi. V hiši 16/1 so ležali v osrednjem delu prostora, ob njih pa prevrnjen lonček, v katerem je bila modra steklena jagoda. V hiši 1/1 so bili najdeni v stranskem prostoru, ob svitku v zahodnem kotu sta ležali še dve piramidalni uteži, medtem ko je bil v hiši 3/1 odkrit kup svitkov v plitvi kotanji v vzhodnem prostoru, ti so morebiti služili kot uteži za statve, ki so potemtakem stale v vzhodnem kotu.[146] Z izdelavo tkanin in pripravo preje so povezani še šivanka (v hiši 11/2) ter motki in vretenca (v hišah 15/2, 23/1, 23/2 in 24/1; prim. tu Grahek, 301, sl. 26).[147]

Drugačno dejavnost nakazujejo livarski pripomočki (*sl. 47*).[148] V stavbi 4 sta v medsebojno povezanih jamah ležala dva kalupa skupaj z livarsko zajemalko in predmeti iz rogovja (prim. *sl. 39*), dva pa v ruševini; po en kalup je bil odkrit v hišah 15A/3 in 29/2 (glej tu Horvat, 350, tab. 1), medtem ko sta bila v stavbi 22A/2 najdena livarska žlička in nedodelan bronast prstan. Talilni posodici sta dokumentirani v hišah 15/2 in 30/2 (glej tu Grahek, 287, sl. 17: Liv), v slednji je ležala zunaj

[142] Za grobno lončenino glej Dular 1982, 92 ss, sl. 10; za bronasto posodje pa Jereb 2016, 14 ss, tab. 2; za lesene in steklene skodele npr. Marchesetti 1893, t. 8: 1,2, 9: 1,2, 27: 13 in Teržan, Lo Schiavo, Trampuž-Orel 1984–1985, t. 91: 10, 104: 12, 146C: 8, 149A: 7; 260: 11, 264: 7.

[143] Svoljšak, Dular 2016, 130, 138, sl. 120, 128.

[144] Prim. še Bianchin Citton, Panozzo, Tasca 1998, 349 ss, sl. 205, 206; Bianchin Citton, Panella, Panozzo 1998, 371 ss, sl. 218, 219; Groppo 2013, 228.

[145] Svoljšak, Dular 2016, t. 7: 1,3,4, 65: 5, 93: 2; prim. Scheffer 1981, II/2, 105–107, 110.

[146] Svoljšak, Dular 2016, 50, 61, 138, 171, sl. 36, 40, 123, 127, 160, 165.

[147] Ib., t. 32: 7, 38: 16, 69: 1, 74: 3-7, 85: 5, 88: 6.

[148] Glej še tu Grahek, 287, sl. 17: Liv. in Horvat, 350, tab. 1.

north-western part. House 15/2 revealed pithos sherds beside the south wall, House 3/1 in the east corner of the large room and some sherds in the smaller east room that also held a storage container. House 16/1 revealed a wooden bucket in the south-eastern part, in the vicinity of a hearth and a pit, which is the only surviving wooden vessel from the site. The east pit in House 7 contained a bronze vessel, cereal grains and fruits.[140]

The inhabitants ate from dishes and drank from an array of beakers, as well as fineware vessels such as situlae, goblets and imported skyphoi (cf. here Grahek, 299, Fig. 24). Most such vessels were recovered in Houses 14/1 and 23/1, situlae were also found in Houses 1/2, 2/2, 7, 15A/2 and 29/1, one goblet in House 3/1, one skyphos beside the west wall in the side room of House 5 (*Fig. 47*).[141] The associated cemetery also revealed ceramic, wooden and even glass bowls, as well as jugs and bronze vessels.[142]

The Most na Soči diet included cereals, which were ground with quernstones. Pieces of these were found in Houses 1/1, 3/1, 5, 7, 8/2, 12/1, 15/2, 15A/1 and 16/1 (cf. here Horvat, 350, Tab. 1). In House 15A/1, a quern was unearthed in the central room, in House 16/1 beside the north wall.[143] Querns may also have been used by potters to grind sand added to the clay as temper.

Ceramic rings may also have served more than one purpose, either as pot stands or as loom weights (cf. here Grahek, 300, Fig. 25).[144] Individual ceramic rings were found in the pits of Houses 1/1, 13, 21, 22A/2 (cf. *Fig. 39*), in House 21 they lay around the hearth and in House 16/2 in the north corner of the side room; these rings were probably used as pot stands. A similar use may be ascribed to several fragments from Houses 1/2, 22/2 and 29/2, otherwise determined as round pieces of clay daub measuring 17–23 cm across.[145] By far the greatest number of ceramic rings was found in House 23/1, where they were stacked on wooden floorboards over a pit; these are believed to be the products of the workshop operating in the building. In House 16/1, ceramic rings were lying in the central part of the room beside an overturned beaker containing a blue glass bead. In House 1/1 they were found in the side room, of which the one in the west corner was lying next to

[140] Svoljšak, Dular 2016, 75 f, 138, Figs. 123, 126, 128.

[141] Ib., Figs. 50, 56.

[142] For the pottery from burial contexts see Dular 1982, 92 ff, Fig. 10; for the bronze vessels see Jereb 2016, 14 ff, Tab. 2; for the wooden and glass bowls see e.g. Marchesetti 1893, Pls. 8: 1,2, 9: 1,2, 27: 13 and Teržan, Lo Schiavo, Trampuž-Orel 1984–1985, Pls. 91: 10, 104: 12, 146C: 8, 149A: 7; 260: 11, 264: 7.

[143] Svoljšak, Dular 2016, 130, 138, Figs. 120, 128.

[144] Also cf. Bianchin Citton, Panozzo, Tasca 1998, 349 ff, Figs. 205, 206; Bianchin Citton, Panella, Panozzo 1998, 371 ff, Figs. 218, 219; Groppo 2013, 228.

[145] Svoljšak, Dular 2016, Pls. 7: 1,3,4, 65: 5, 93: 2; cf. e.g. Scheffer 1981, II/2, Figs. 5, 105–107, 110.

njenega tlorisa blizu južne stene.[149] Glede na to, da v teh stavbah z izjemo 30/2 ni bilo ognjišč, je mogoče sklepati, da se je taljenje kovin dogajalo na prostem. Predelavo kovin dokazujejo še ostanki strjene taline, kovaška žlindra in ingoti. Ostanki strjene taline so bili najdeni v jamah stavb 4 in 29/1 ter v ruševinah hiš 8/2, 10/2 in 22A/2 (glej *sl. 68*). Večja količina železove žlindre je zabeležena v stavbah 14/3, 15/3 in 22A/2 ter v preddverju objekta 23/1 in ob drenaži hiše 16/3, znatno manj je je bilo v drugih hišah, kjer se je sem ter tja pojavljala v polnilu jam (prim. *sl. 73*). Fragmenti bronastih ingotov so zastopani v hišah 15/2, 22/1 in 15A/1, iz slednje izhaja fragment v obliki uhate sekire. V hiši 8/1 je bil bronast ingot odkrit v vzhodnem prostoru, v hiši 13 jih je ležalo cel kup v severni jami (prim. *sl. 39*), medtem ko je železen kvader ležal v jami v severnem kotu hiše 7 (prim. tu Lamut, 340 ss); iz hiš 1/1 in 16/1 pa sta se ohranila amforna kosa svinca.[150] Ker so bili ingoti tudi predmet blagovne menjave – označuje se jih celo kot prazgodovinsko predmonetarno sredstvo, zlasti tiste v obliki uhatih sekir in tako imenovanega tipa ramo secco (glej tu Laharnar, 222 in Laharnar, Šmit, 328)[151] –, niti ni presenetljivo, da jih zasledimo v dobro opremljenih hišah, kot so 1/2, 7, 8/1, 13, 15A/1, 16/1, in samo v 15/2 skupaj s talilno posodico.

V mnogih hišah se je ohranilo še razno drugo orodje (prim. *sl. 67*), od katerega so najpogosteje zastopani železni noži in brusi (glej tu Laharnar, 220, in Horvat, 350, tab. 1); v hišah 1/2, 14/2 in 15A/2 so bili najdeni tudi kosi orožja, in sicer fragmentirane sulične osti, med deli noše pa je največ fibul in prstanov.

NAMEMBNOST STAVB IN PROSTOROV

Ker so bile na Mostu na Soči raziskane razmeroma velike površine in je bilo dokumentiranih kar šestinšestdeset hiš, se kar samo postavlja vprašanje, kakšna je bila njihova namembnost. Seveda so v gornjem številu zajete vse gradbene faze, tudi take, od katerih so se ohranili le borni ostanki. V analizo smo vključili zgolj polovico objektov, ki so bili ohranjeni do te mere, da njihova oblika ni bila sporna. Kot prvi in hkrati najpomembnejši kriterij pri ugotavljanju funkcionalnosti smo postavili prav tlorisno zasnovo stavb, pri čemer smo izhajali iz predpostavke, da so tiste zaprtega tipa najverjetneje služile bivanju, one z eno ali dvema stenama in nadstreškom pa gospodarskim dejavnostim. Seveda obstaja

[149] Svoljšak, Dular 2016, t. 24: 5-9, 38: 6, 54: 9, 62: 5, 64: 8, 92: 6, 96: 7.

[150] Ib., 75 s, 104 ss, sl. 96, t. 2: 1, 33: 18-20, t. 29: 2, 37: 5,6, 40: 9, 60: 4.

[151] Za uhate sekire glej še Trampuž Orel, Heath 1998, 237 ss, sl. 4, 5; Teržan 2008, 296 ss, sl. 48; Pavlin, Turk 2014, 44 ss, sl. 10; za ingote tipa ramo secco pa Panvini Rosati 1988, 20 ss; Pellegrini, Macellari 2002.

a pair of pyramidal weights. House 3/1 yielded a heap of rings in a shallow depression in the east room; these may have been used as loom weights, with the loom standing in the east corner.[146] Other objects connected with sewing, weaving and spinning are a needle (House 11/2), bobbins and spindle whorls (Houses 15/2, 23/1, 23/2 and 24/1; cf. here Grahek, 301, Fig. 26).[147]

Quite a different activity is indicated by the finds of casting utensils (*Fig. 47*).[148] House 4 yielded two moulds in two interconnected pits together with a casting ladle and objects of horn (cf. *Fig. 39*), and two other moulds in the debris. One mould was found in House 15A/3 and one in House 29/2 (see here Horvat, 350, Tab. 1), while House 22A/2 yielded a casting spoon and an unfinished bronze finger ring. Two melting pots were documented in Houses 15/2 and 30/2 (see here Grahek, 287, Fig. 17: Liv), respectively, in the latter close to the south wall but already outside the ground plan.[149] With the exception of House 30/2, these buildings had no hearths, which suggests that melting at Most na Soči was an open-air activity. Metalworking is further evidenced by the remains of hardened melt, smithing slag and ingots. The remains of melt were recovered from the pits of Houses 4 and 29/1, as well as in the debris of Houses 8/2, 10/2, 22A/2 (see *Fig. 68*). A large quantity of iron slag was recorded in Houses 14/3, 15/3, 22A/2, in the anteroom of House 23/1 and beside the drainage wall of House 16/3, in considerably smaller quantities in other buildings, in the fills of their pits (cf. *Fig. 73*). Fragments of bronze ingots were unearthed in Houses 15/2, 22/1 and 15A/1, the last of which yielded a fragment of an ingot in the shape of a shaft-hole axe. The bronze ingot from House 8/1 was found in the east room. In House 13 a heap of ingots was found in the north pit (cf. *Fig. 39*). An iron block was unearthed in the pit in the north corner of House 7 (cf. here Lamut, 340 ff), while Houses 1/1 and 16/1 each yielded an amorphous piece of lead.[150] Ingots were goods of exchange – they are even interpreted as pre-monetary currency, particularly the shaft-hole axes and *ramo secco* bars (see here Laharnar, 222 and Laharnar, Šmit, 328)[151] – and it is not surprising that they were unearthed in well-furnished buildings such as Houses 1/2, 7, 8/1, 13, 15A/1, 16/1, and only in House 15/2 in association with a melting pot.

[146] Svoljšak, Dular 2016, 50, 61, 138, 171, Figs. 36, 40, 123, 127, 160, 165.

[147] Ib., Pls. 32: 7, 38: 16, 69: 1, 74: 3-7, 85: 5, 88: 6.

[148] Also see here Grahek, 287, Fig. 17: Liv.; and Horvat, 350, Tab. 1.

[149] Svoljšak, Dular 2016, Pls. 24: 5-9, 38: 6, 54: 9, 62: 5, 64: 8, 92: 6, 96: 7.

[150] Ib., 75 f, 104 ff, Fig. 96, Pls. 2: 1, 33: 18-20, t. 29: 2, 37: 5,6, 40: 9, 60: 4.

[151] For shaft-holes axes also see Trampuž Orel, Heath 1998, 237 ff, Figs. 4, 5; Teržan 2008, 296 ff, Fig. 48; Pavlin, Turk 2014, 64 ff, Fig. 10; for the *ramo secco* ingots see Panvini Rosati 1988, 20 ff; Pellegrini, Macellari 2002.

možnost, da so se v bivalnih hišah ukvarjali tudi z rokodelstvom, a so bili za zahtevnejše delovne procese, npr. livarstvo, kovaštvo in lončarstvo, že zaradi varnosti pred požarom nujni samostojni objekti. Kot dodaten kriterij smo upoštevali jame: najprej delovne z jasnimi sledmi ognja oziroma kurjenja ter preostale, ki so najverjetneje služile za shranjevanje dobrin (glej *sl. 39*). Ognjišča so bila maloštevilna, z ozirom na to, kako so bila narejena (podlaga iz prodnikov, ilovnat premaz), so služila predvsem za pripravo hrane. Prisotnost skromnih ostankov strjenih bronastih talin je za določanje funkcionalnosti hiš manj odločujoča. Gre namreč za posamezne koščke, ki so ležali v ruševinah, zato jih večinoma ni bilo mogoče zanesljivo povezati z objekti. Izjemi sta hiši 4 in 29/1, kjer so ostanki bronaste taline ležali v delovnih jamah. V hiši 4 so bila najdena tudi specifična rokodelska orodja (kalupi, livarska zajemalka, brusna koluta), zato je na dlani, da gre za livarski obrat.

Takšno delitev na delavnice in stanovanjske stavbe potrjujejo tudi analize hišnega inventarja in strukture najdb. Poleg stavb 4 in 29/1 so za opravljanje gospodarskih dejavnosti verjetno služile še 12/1, 22/1, 22A/1, 22A/2 in 23/1 (*sl. 46*). Gre za manjše enoprostorne objekte z enokapnimi strehami, ki so povečini slabše ohranjeni, kar je deloma lahko tudi posledica slabe gradnje; v glavnem so brez drenažnih zidov in večkrat brez solidnih temeljev, stavba 23/1 jih je sicer imela, a je bila odprta proti zahodu.[152] Za hodno površino je bila v njih uporabljena kar poravnana naravna osnova, velik del funkcionalne površine so zavzemale jame različnih oblik in velikosti – malodane v vseh so bile odkrite velike pravokotne jame, ki smo jih opredelili za delovne. V nobeni od naštetih stavb ni bilo ognjišča niti shrambnih posod (silosov, pitosov). Razlike, izražene v drugih najdbah (*sl. 47*), pa nakazujejo, da sta bili stavbi 4 in 22A/1 namenjeni predelavi kovin, medtem ko je stavba 23/1 služila predvsem lončarjenju, občasno tudi kovaštvu. V prid tej domnevi govorijo na eni strani ostanki metalurške dejavnosti in na drugi širok asortiment lončarskih izdelkov, v katerem je zastopan velik del keramičnih tipov, ki jih zasledimo tudi po drugih hišah (prim. tu Grahek, 251, sl. 2, 23–26). Iz tega bi lahko zaključili, da je bila stavba 23/1 lončarska delavnica,[153] ki je pokrivala pretežen del potreb tamkajšnjih gospodinjstev, in da metalurška dejavnost, ki je zahtevala posebna tehnična znanja in veščine, ni bila del samooskrbnega hišnega gospodarstva. Težje je prepoznati naravo dejavnosti v preostalih sorodnih objektih, saj najdbe niso dovolj indikativne. Stavba 12/1 je denimo imela veliko pravokotno jamo z ožganimi stenami, zapolnjeno z ruševinami, v katerih je bilo le nekaj nerazpoznavnih bronastih fragmentov.[154] Po drugi strani je vsebovala večjo količino živalskih kosti; precej jih je bilo sežganih, na nekaterih so vidne

[152] Svoljšak, Dular 2016, sl. 47, 93, 150, 156, 160, 194.
[153] Prim. Svoljšak 2014, 287 ss.
[154] Svoljšak, Dular 2016, 102.

Many buildings revealed a variety of other tools and implements (cf. *Fig. 67*), most frequently iron knives and whetstones (see here Laharnar, 220 and Horvat, 350,Tab. 1); Houses 1/2, 14/2 and 15A/2 also yielded pieces of weaponry, more precisely fragmented spearheads, as well as pieces of the costume that mainly consisted of fibulae and finger rings.

FUNCTION OF BUILDINGS AND THEIR ROOMS

The excavations at Most na Soči unearthed fairly large portions of the settlement and documented as many as sixty-six buildings. This high number, which comprises all the construction phases including those of which very little survived, prompted the question of their function. The functional analysis was only performed on half of the buildings, preserved to the degree that left no doubt as to their design. The first and main criterion in determining the function was in fact the ground plan: the buildings closed off on all four sides were interpreted as residential units and those with one or more sides open as workshops. It is, of course, possible that certain crafts or production activities also took place in the residential buildings, but the more demanding work processes such as metal casting, metal working and pottery making are believed to have been conducted in separate buildings, also for safety reasons to minimise fire hazard. The second criterion was the presence of pits, distinguishing between work pits with clear traces of fire or burning and other pits presumably used for storage (see *Fig. 39*). The settlement did not reveal many hearths and their construction (cobble bedding, loam top surface) suggests they were mainly used for preparing food. The finds of small pieces of bronze melt were in most cases not considered as indicative of the building function, being small pieces found in the debris and impossible to reliably connect with the buildings. Houses 4 and 29/1 are exceptions in this sense, yielding remains of bronze melt inside work pits. In addition, House 4 revealed craft-specific tools (moulds, casting ladle, grinding wheels) that clearly show the building as a foundry.

The distinction between residential units and workshops is supported by the analyses of the interior furnishings and movable items, as well as the structure of the finds. Apart from the above-mentioned Houses 4 and 29/1, other buildings are interpreted as workshops: Houses 12/1, 22/1, 22A/1, 22A/2, 23/1 (*Fig. 46*). All are single-room buildings probably covered with single-pitch roofs. Most are poorly preserved, which may in part be the consequence of a poorer quality of construction; they lack drainage walls and often also solid foundations. House 23/1 did have solid foundations, but was open to the west.[152] Their floors were made by simply levelling

[152] Svoljšak, Dular 2016, Figs. 47, 93, 150, 156, 160, 194.

vreznine. Gre tudi za zelo pester zbir živalskih vrst (glej tu Toškan, 487 s, tab. 5) – od drobnice, domačega prašiča in goveda do obdelanega kosa jelenjega rogovja, konjske nožne kosti in zoba ter edino najdbo kokošje kosti iz tega naselja. In ne le to, kar nekaj kostnih ostankov pripada bolj mesnatim delom drobnice in goveda (glej tu Toškan, tab. 2 in 4). Podobno sliko razkrivajo najdbe iz stavbe 22/1, kjer so večidel prostora zavzemale jame; večina živalskih kosti je bila odkrita v veliki ovalni jami št. 4 (glej tu Toškan, tab. 8), ki je imela na dnu debelo plast zdrobljenega oglja, medtem ko so bili kovinski predmeti in lončenina razpršeni v plasti ruševine.[155] Kako razumeti arheozološki vzorec v stavbah 12/1 in 22/1, ostaja odprto.

Skupnim potrebam je morebiti služila proti zahodu odprta stavba 30/2, ki je imela ob južni steni veliko pravokotno jamo, kar smo prepoznali kot značilnost delavnic, a je v nasprotju z njimi spadala med večje in bolje grajene objekte. Stala je na vzhodnem obrobju naselbine in je bila pokrita z dvokapno streho, tla pa z zbito ilovico; opremljena je bila z velikim ognjiščem in kalotasto pečjo, v kateri so se ohranile nedogorele živalske kosti. Po zabeleženih podatkih so v območju ognjišča ležali še kosi pekev in prenosne pečke, ob njem se je raztezala tlakovana ploskev iz kamnov, ki bi jo lahko interpretirali kot odlagalno površino.[156]

Med hišami, opremljenimi z ognjišči, izstopata po količini in številnih keramičnih tipih stavbi 14/1 in 14/2 (*sl. 46, 47*; prim. tu Grahek, 251, sl. 2, 23–26) pa tudi po živalskih ostankih (prim. tu Toškan, 488 ss, tab. 5, 9, 10), kar je presenetljivo, saj se je od arhitekturnih ostalin ohranilo bore malo.[157] Postavljeni sta bili v vzhodnem delu naselbine, dobrih 20 m proč od stavbe 30, vendar sta od nje starejši (glej tu Dular, 163, sl. 2). Bili sta dobro založeni z najraznovrstnejšim kuhinjskim, servirnim in pivskim posodjem (lonci, pladnji, skledami, lončki, situlami in kelihi). Po drugi strani nista imeli jam niti shrambnih posod, denimo pitosov ali silosov. Kakšna je bila njuna namembnost, lahko samo ugibamo. Morda je šlo za poseben prostor, namenjen druženju, kjer so potekali skupni posveti, dogodki in pojedine, ki so bili pomembni v družbenem in političnem življenju skupnosti. Skupnemu religioznemu obredju pa je bil posvečen kultni prostor, tako imenovana hiša 6/2, v severovzhodnem delu naselbine.[158]

Zrcalno sliko temu kaže dvodelna stavba 15/1, ki je bila dobro grajena. V obeh skoraj enako velikih prostorih je imela tla iz phane ilovice, toda nobene druge opreme ali najdb. Razlog je morebiti v tem, da notranjost ni bila v celoti raziskana (zaradi prezentacije na kraju samem)[159] in da so na istem mestu pozneje postavili veliko novo

[155] Ib., 156 ss.
[156] Ib., 210 s, sl. 211–213, pril. 5.
[157] Ib., sl. 97–100.
[158] Ib., pril. 1.
[159] Ib., 35, sl. 18.

the natural deposit and a large portion of the functional surfaces was taken up by pits of different shapes and sizes – almost all of these buildings had large rectangular pits interpreted as work pits. None of them had either a hearth or storage vessels (large containers, pithoi). Other small finds (*Fig. 47*) point to differences in the work processes taking place there. Houses 4 and 22A/1 were mainly intended for metalworking, while House 23/1 was mainly a potter's workshop occasionally used for metalworking.[153] A wide variety of pottery types found in this workshop with similar finds from numerous residential buildings (cf. here Grahek, 251, Figs. 2, 23–26) suggest that House 23/1 supplied a large portion of the need of the local households. It can also be surmised that the metallurgic activities, which certainly required special technical knowledge and skills, were not part of a self-sufficient household economy. It is much more difficult to identify the nature of activities taking place in other workshops, as the associated small finds are not sufficiently indicative. House 12/1, for example, had a large rectangular pit with burnt walls and a debris fill that only included a few amorphous fragments of bronze.[154] The building did, however, yield a fairly numerous and also diverse assemblage of animal bones, many of them burnt and some showing cut- and chop-marks (see here Toškan, 486 f, Tab. 5). The bones belong to sheep/goats, domestic pigs and cattle, but also include a worked piece of red deer horn, a metacarpal bone and a tooth of a horse, as well as the only hen bone in the settlement. Moreover, a fair share of the animal remains belongs to more meaty parts of sheep/goats and cattle (see here Toškan, Tabs. 2 and 4). A similar picture can be gained from the finds recovered from House 22/1, in which pits took up most of the interior surface. Most of the animal bones were found in the large oval Pit 4 (see here Toškan, Tab. 8), which held a thick layer of crushed charcoal at the bottom and debris higher up interspersed with metal objects and pottery.[155] The interpretation of the archaeozoological assemblage from Houses 12/1 and 22/1 remains unclear.

House 30/2 may also have had a special function. It was open to the west and had a large rectangular pit beside the south wall, which has been identified as a feature of workshops. However, contrary to other workshops, House 30/2 was a large and well-built structure. It was located at the eastern edge of the settlement, its floor was of beaten loam, it was covered with a gabled roof and furnished with a large hearth and a domed oven that contained incompletely burnt animal bones. The excavation records also show that pieces of baking lids and portable ovens were found in the area of the hearth, next to which was a stone-paved surface that may be interpreted as a worktop or shelf.[156]

[153] Cf. Svoljšak 2014, 294 f.
[154] Svoljšak, Dular 2016, 102.
[155] Ib., 156 ff.
[156] Ib., 210 f, Figs. 211–213, App. 5.

hišo s tremi prostori (15/2).[160] Ta je bila ena največjih in najbolje grajenih železnodobnih stavb na Mostu na Soči; imela je močne drenažne in temeljne zidove ter verjetno dvokapno streho, tla v srednjem in vzhodnem prostoru je prekrivala zbita ilovica, v zahodnem pa lesene podnice. Čeprav v njej ni bilo jam niti ognjišč, jo lahko po drugem imetju uvrščamo med bogatejše in za bivanje primerne stavbe. V vzhodnem prostoru so bili odkriti fragmenti okrasnih glinastih plošč, prenosnih pečk in pekev, ob južni steni je stal pitos; med lončenino v ruševini je bilo več vrst loncev, nekaj skled in lončkov, svitkov, motkov, pa tudi bronasti ingoti, talilna posodica in žrmlje. Hiša je stala na zahodnem delu raziskanega območja blizu niza delavnic (prim. tu Dular, 164, sl. 3B), o njeni namembnosti je možnih več razlag, a so vse hipotetične. Po velikosti in opremi bi bili vsi trije prostori primerni za bivanje, morda so celo imeli vsak svoj vhod s ceste. Lahko bi jo opredelili kot hišo mogočnejše razširjene družine, lahko bi v njej stalno prebivalo več družin – vsaka v svojem prostoru ali pa so nemara v njih občasno stanovali potujoči rokodelci in obiskovalci.

V tem nizu je bila postavljena tudi tridelna hiša 15A/1, ki je po stratigrafskih odnosih in najdbah starejša od hiše 15/2 v njeni neposredni bližini (glej tu Dular, 163 s, sl. 2, 3), po kvadraturi pa precej manjša. V vseh treh prostorih je tla prekrivala zbita ilovica. V zahodnem prostoru, malce večjem od drugih dveh, je v severozahodnem kotu stalo ognjišče, v tem delu so ležali še fragmenti pitosa. V srednjem prostoru je bila v jugovzhodnem kotu vkopana večja ovalna jama (v njenem polnilu so bili odkriti kosi žlindre, bronasta igla in brus), zraven jame je stalo manjše ognjišče, v severozahodnem delu so ležale žrmlje. V vzhodnem prostoru je stal silos, in sicer v južnem delu, kjer je bilo tudi veliko okrašenih glinastih plošč, medtem ko so se v severnem delu tega prostora grupirale črepinje pitosov, ki kažejo, da so bile tja postavljene shrambne posode. V tem delu je bilo tudi največ živalskih kosti (glej tu Toškan, 498, sl. 8). Med najdbami iz ruševin je nekaj bronastih, steklenih in železnih predmetov ter veliko lončenine, večinoma loncev in svitki (prim. tu Grahek, 251, sl. 2).[161] Zahodni prostor stavbe 15A/1 bi lahko interpretirali kot bivalnega, vzhodnega kot shrambo, srednjega pa morda kot delovnega. Svoljšak je ta objekt interpretiral kot delavnico,[162] čeprav je po načinu gradnje, velikosti in opremi pa tudi po živalskih ostankih povsem primerljiv s stavbami, opredeljenimi za stanovanjske (1, 3, 8, 11, 15, 16).

Velika hiša 1/1 in njena manjša naslednica 1/2 sta stali bolj na samem v jugovzhodnem delu naselbine. Notranjost obeh je bila razdeljena na dva prostora z različnima hodnima površinama, v večjem je ob zahodni steni stalo ognjišče, v vzhodnem kotu hiše 1/2 pa še pitos,

[160] Ib., 113 ss, sl. 102, pril. 2.
[161] Ib., 125 ss, sl. 114, t. 40–52.
[162] Svoljšak 2014, 288 s; glej tudi tu, 183.

Standing apart in the number and diversity of pottery finds among the buildings furnished with hearths are Houses 14/1 and 14/2 (*Figs. 46, 47*; cf. here Grahek, 251, Figs. 2, 23–26), that also stand apart in the documented animal remains (cf. here Toškan, 486 ff, Tabs. 5, 9, 10); this is surprising as very little survived of their architecture.[157] They were located in the east part of the settlement, at a distance of some 20 m from House 30, but earlier in date (see here Dular, 163, Fig. 2). They revealed numerous and diverse cooking, serving and drinking vessels (jars, platters, dishes, beakers, situlae and goblets). They did not, however, have any pits or storage vessels such as pithoi or large containers, hence their function is unclear. It is possible that it was, in both phases, a special building where social gatherings took place, where the inhabitants discussed common matters and enjoyed common meals or drinking symposia of political and social significance. The settlement also revealed a cult place, in House 6 located in the north-eastern part of the settlement, where common religious practices took place.[158]

At the other end of the scale in terms of the preservation of architectural remains and small finds is House 15/1, which was well built and had two rooms. The rooms were almost equally large and had floors of beaten loam, but almost no small finds or traces of interior furnishings. This may be the consequence of incomplete excavation (due to a presentation *in situ*)[159] and of a large new house with three rooms (15/2) later erected on the same spot.[160] This second house was among the largest and best constructed Iron Age buildings at Most na Soči; it had thick drainage walls and foundations, probably a gabled roof and floors of beaten loam in the central and east rooms, while the west room had wooden floorboards. It had no pits or hearths, but other furnishings and finds rank it among the wealthy residential units. The east room yielded fragments of decorative plaques, portable ovens and baking lids, beside the south wall also a pithos; the pottery recovered from its debris consisted of several types of jars, several dishes and beakers, ceramic rings, bobbins, but also bronze ingots, a melting pot and a quernstone. The house was located in the western part of the investigated settlement, close to the row of workshops (cf. here Dular, 164, Fig. 3B). There are several possible interpretations of its use. In size and interior furnishings, all three of its rooms were suitable for habitation and possibly had separate entrances directly from the path. The house may be seen as the dwelling of an important extended family, or possibly the dwelling of several families, each in its own room, though it may also have been intended to lodge travelling artisans or visitors.

Next to this house (15/2) and also along the path was the much smaller House 15A/1 with three rooms,

[157] Ib., Figs. 97–100.
[158] Ib., App. 1.
[159] Ib., 35, Fig. 18.
[160] Ib., 113 ff, Fig. 102, App. 2.

silos in okrasne glinaste plošče, v kote manjšega prostora so bile vkopane okrogle (shrambne) jame. K imetju stanovalcev hiše 1/1 so spadale žrmlje, svitki in uteži za statve, od dobrin v hiši 1/2 so se ohranili raznovrstna lončenina, brusna kamna, železna sulična ost in nož ter amorfen kos svinca (*sl. 46, 47*).[163] Podobno prostorsko ureditev in inventar so imele hiše 5, 8/2 in 16/2, le da v njih ni bilo ognjišč.

Brez ognjišča je bila tudi hiša 3/1 s tlorisom L-oblike in dvema prostoroma, morda celo z dvema ločenima vhodoma. V večjem, tj. zahodnem prostoru, je bila v jugovzhodni kot vkopana jama, v njej je stal lonec, v severovzhodnem kotu pa pitos. Malce manjši vzhodni prostor je premogel več opreme – v osrednjem delu je bil nameščen silos, tam so ležali tudi kosi pitosa in okrašenih glinastih plošč, medtem ko so bile, sodeč po svitkih, v severovzhodnem kotu postavljene statve. Oba prostora sta imela ilovnata tla, zahodni bi lahko bil namenjen bivanju, vzhodnega so nemara uporabljali za hranjenje stvari in za delovna opravila.[164] Posebnost te hiše so tudi v njej najdene kosti psa (glej tu Toškan, 493, tab. 5 in 12); ta verjetno ni spadal na jedilnik, temveč bi lahko bil domači ljubljenček, ki mu je še po poginu pripadalo mesto v hiši. Kost psa je bila odkrita še v hiši 15A/1.

Največja stavba v naselbini prav tako ni imela ognjišča niti jam, celo drenaže ne in je po tej plati primerljiva s hišo 3/1. To je hiša 11/2 s preddverjem, obdanim z zidcem. Stala je v osrednjem delu naselbine blizu drugih stavb, od katerih sta z njo sočasni hiši 8 in morda 9 (glej Dular, 163, sl. 2). Njeni arhitekturni ostanki so se dokaj dobro ohranili, v zahodnem delu preddverja je imela leseno kaščo (za shranjevanje poljščin?), v vzhodnem delu ilovnata tla in najbrž nadstrešek, v 21 m^2 velikem bivalnem prostoru v hiši pa se je ohranilo bore malo premičnega inventarja (nekaj delov železnega orodja in noše, loncev, svitkov in fragment okrasne plošče).[165]

Na osnovi analize notranje ureditve in opreme stavb ter ohranjenega hišnega inventarja ugotavljamo, da so imele večje stavbe ločene bivalne, shrambne in delovne prostore. Lahko bi jih označili za imenitnejše stanovanjske hiše (1/1, 1/2, 3/1, 5, 8/1, 8/2, 11/2, 15/1, 15/2, 15A/1 in 16/2), ki niso vse sočasne; med starejšimi sta 1/1 in 15A/1 (iz stopnje Sv. Lucija IIa – glej tu Dular, 163, sl. 2), med mlajšimi pa 5 in 16/2 (Sv. Lucija IIc). Stale so na različnih koncih naselbine, najbolj na samem sta bili hiši 1/1 in 3/1, ki sta imeli tudi pester repertoar najdb; precej imetja se je ohranilo še v hišah 15/2 in 15A/1, postavljenih v bližino niza delavnic. Posebna je hiša 5 v soseščini svetega prostora (6/2), saj je edina imela s kamnitimi ploščami obložena tla in uvoženo posodo.

Kot skromnejše lahko opredelimo manjše hiše (npr. 2/2, 7, 10/2, 15A/2 in 16/1), v katerih so bile vse

[163] Svoljšak, Dular 2016, 44 ss, sl. 22, t. 1–7.
[164] Ib., 57 ss, sl. 36–39, t. 11–22.
[165] Ib., 93 ss, sl. 81, t. 32.

which stratigraphy and small find reveal to be earlier than House 15/2 (see here Dular, 163 f, Figs. 2, 3). The floors in all three rooms were made of beaten loam. The slightly larger west room had a hearth in the northwest corner, in the vicinity also the sherds of a pithos. The central room had a large oval pit (with pieces of slag, a bronze pin and a whetstone in its fill) dug in the southeast corner next to a small hearth, while a quernstone was found in the northwest corner. The east room had a large storage container in its southern part that also yielded numerous decorative plaques, while the northern part of the room revealed a concentration of pithos sherds that show a spot reserved for storage vessels. In this part there were also a large quantity of animal bones (see Toškan, 498, Fig. 8). The finds recovered from the debris of the house include several bronze, glass and iron artefacts, as well as numerous ceramic fragments, mainly belonging to jars and rings (cf. here Grahek, 251, Fig. 2).[161] The west room of House 15A/1 may be interpreted as residential, the east room as pantry and the central room possibly a work place. Svoljšak interpreted the building as a workshop,[162] though the construction manner, size, furnishings and animal bone remains make it more closely comparable with the buildings interpreted as residential units (1, 3, 8, 11, 15, 16).

The large House 1/1 and its smaller successor 1/2 had a more isolated location in the south-eastern part of the settlement. The interior of both houses was divided into two rooms with different floors. The large one had a hearth beside the west wall, in the second phase (House 1/2) also a pithos, a large storage container and decorative plaques in the east corner, while the smaller room had round (storage) pits dug in the corners. The movable furnishings of House 1/1 included a quernstone, ceramic rings and loom weights, those of House 1/2 included a variety of pottery, two whetstones, an iron spearhead and knife, as well as an amorphous lump of lead (*Figs. 46, 47*).[163] A similar interior layout and furnishings have been documented in Houses 5, 8/2 and 16/2, though these had no hearths.

Also devoid of a hearth was House 3/1 with an L-shaped ground plan and two rooms, possibly with two separate entrances. The larger west room had a pit dug in the southeast corner that held a jar, while the northeast corner revealed a pithos. The slightly smaller east room was better furnished: a large container was found in the centre together with fragments of a pithos and decorative plaques, while the presence of ceramic rings in the northeast corner suggests the location of a loom. Both rooms had a loam floor. The west room may have been residential, while the east room may have been used for storing and working.[164] The house also stands apart in that

[161] Ib., 125 ff, Fig. 114, Pls. 40–52.
[162] Svoljšak 2014, 288 f. Also see here, 183.
[163] Svoljšak, Dular 2016, 44 ff, Fig. 22, Pls. 1–7.
[164] Ib., 57 ff, Figs. 36–39, Pls. 11–22.

te funkcije združene v enem samem prostoru (bivanje, delovna opravila, shranjevanje stvari). Kronološko jih lahko opredelimo v stopnjo Sv. Lucija IIb, mlajša je le hiša 7, razpršene pa so bile po vsem naselju. Resda je izkopavanje zajelo le del v mladohalštatskem času poseljenega prostora in da je ta slika deloma odsev različne ohranjenosti stavb ter da zelo očitnih razlik v strukturi najdb med njimi ni videti. Kljub temu bi kot najimenitnejše lahko opredelili hiše 1/1, 3/1 in 15A/1 s silosi in okrašenimi glinastimi ploščami, ki spominjajo na arhitekturne terakotne dekoracije v sredozemskih deželah. Tam so ponekod z arhitekturnimi terakotnimi členi okrašene tudi manjše hiše v bližini svetišč. Interpretirajo jih kot zakladnice (thesauroi) ali kot sakralnemu prostoru pripadajoče objekte za hranjenje dragocenih oziroma votivnih predmetov, ali pa kot domovanje svečenika/svečenice.[166] V tem oziru bi lahko bila pomenljiva lega hiše 5 v naselbini na Mostu na Soči, ki je stala v soseščini kultnega mesta; v bližini je bila sicer še livarska delavnica 4, a je starejša od nje (prim. tu Dular, 163, sl. 2). Glede na to, da je imela hiša 5 zelo malo najdb in nobene dekorativne glinaste plošče,[167] bi je ne mogli opredeliti za zakladnico. Morda pa bi v pripadajoči najdbi atiškega skyphosa lahko videli kultno posodo, ki se je uporabljala pri religioznem obredju.

V gradnji in opremi je jasneje izražena ločnica med stanovanjskimi stavbami in delavnicami (prim. *sl. 46* in *47*), ki kaže na delitev dela v tej skupnosti oziroma na to, da sta vsaj metalurška in deloma lončarska proizvodnja že pomenili specializirano obrtno dejavnost. Kolektivno delo je morebiti predstavljala gradnja infrastrukture, kot so jarki za odvodnjavanje, pot in nemara vzhodno obzidje, ki je zaznavno v konfiguraciji terena, a še ni bilo arheološko raziskano. Javne prostore, ki so imeli povezovalno vlogo in poseben družbeni pomen, pa bi lahko videli v kultnem mestu dolgega trajanja (6/2) ter v stavbah 14/1, 14/2 (v stopnji Sv. Lucija IIa) in 30/2 (v stopnji Sv. Lucija IIb/c).

[166] Andersen 1993, 77, op. 38 (v antičnih pisnih virih se v severnojadranskem prostoru omenja thesauros v Spini).

[167] Svoljšak, Dular 2016, t. 25.

it yielded the bones of a dog (see here Toškan, 493, Tabs. 5 and 12) that probably did not end its life as food, but can rather be seen as a pet that remained at the household even after its death. A dog bone was also found in House 15A/1.

The largest building of the settlement is House 11/2 that also had neither hearth nor pits, not even drainage walls, which makes it similar to House 3/1. It did have an anteroom enclosed with a low wall. It was located in the central part of the settlement close to other buildings, contemporary with House 8 and possibly also 9 (see here Dular, 163, Fig. 2). Its architecture is well preserved and shows a wooden structure in the west part of the anteroom (granary for storing crops?), while the east part had a loam floor and probably a projecting roof. The 21 m^2 large room revealed very scarce movable furnishings (several pieces of iron tools and items of costume, jars, ceramic rings and a decorative plaque fragment).[165]

The analysis of the interior layout, furnishings and small finds suggests that large houses had separate rooms intended for habitation, storage and work. These may be seen as wealthier residential units (1/1, 1/2, 3/1, 5, 8/1, 8/2, 11/2, 15/1, 15/2, 15A/1, 16/2), not all of which were contemporaneous; Houses 1/1 and 15A/1 were among the early ones (the Sv. Lucija IIa phase – see here Dular, 163, Fig. 2), Houses 5 and 16/2 among the later ones (Sv. Lucija IIc). They were located in different parts of the settlement, with Houses 1/1 and 3/1 most isolated, but yielding a varied range of small finds. Numerous small finds also survived in Houses 15/2 and 15A/1, located in the vicinity of the row of workshops. House 5, located close to the cult place (House 6/2) stands apart in that it was the only one to have a stone-paved floor and imported pottery.

Smaller houses (e.g. 2/2, 7, 10/2, 15A/2, 16/1) are more modest and combined all these functions (habitation, storage, work) in a single room. Chronologically, they are attributable to the Sv. Lucija IIb phase with the exception of later House 7, and spread across the whole of the investigated settlement. It is true that only a portion of the area inhabited in the Late Hallstatt period was excavated, that the buildings and structures differ in the state of preservation and show no major differences in the structure of the small finds. However, it is possible to distinguish Houses 1/1, 3/1 and 15A/1 as the richest, with large storage containers and decorative plaques reminiscent of the architectural terracottas known from the Mediterranean. There, smaller houses near temples were also decorated with terracotta architectural elements, interpreted as treasuries (*thesauroi*) or buildings associated with the sacred space that either stored precious/votive objects or served as the dwelling of a priest/priestess.[166] Of interest in this sense is the location of House 5 at Most na Soči, which stood close to the cult place (the adjacent foundry or House 4 was of an earlier date; cf. here Du-

[165] Ib., 93 ff, Fig. 81, Pl. 32.

[166] Andersen 1993, 77, Fn. 38 (for northern Adriatic, ancient written sources mention a *thesauros* at Spina).

KULTNO MESTO

Močna plast temnorjave zemlje, pomešane z žganino, ožganim kamnitim drobirjem in kosi zoglenelega lesa, predvsem pa ostanki semen, živalskih kosti ter spekter drobnih najdb kažejo, da imamo na območju hiše 6, v njeni drugi fazi opraviti s kultnim mestom, na katerem so se odvijali žgalno-daritveni obredi.[168] Lokacija je nekoliko nenavadna, saj leži sredi drugih objektov na skrajnem severnem delu raziskanega predela, kjer se začne pobočje strmeje dvigati proti severu.[169] Lega je dominantna, čeprav je res, da so bili lahko pozidani tudi višji deli pobočja vse do sedla s pokopališko cerkvijo sv. Mavra.

Od objekta – gre za vkop, ki je presekal in odstranil ostanke starejše hiše, segal pa je tudi v geološko osnovo – se je ohranilo malo ostankov. V rimskem času je bila namreč na istem mestu postavljena z malto zidana stavba, ki je uničila večino jame in polnila. Kolikor toliko nedotaknjeni sta ostali le obe stranici ob severnem kotu. Vzdolž severozahodne stene se je pri dnu vlekel pas kamenja, ki je dajal videz suhega zidu. Ob predpostavki, da je imel vkop kvadraten tloris, je znašala njegova površina približno 25 m². Do 75 cm debela plast z dobro vidnimi sledmi delovanja ognja je bila enovite strukture, v njej ni bilo mogoče razbrati nikakršnih stratifikacij. Največ najdb je ležalo pod rimskimi zidovi v severnem kotu vkopa, pojavljale pa so se tudi drugod.

Najdbe iz kovine, stekla, koral in keramike

Ker so drobne najdbe izčrpno predstavljene v posebnem članku, bo na tem mestu dovolj, če navedemo nekaj osnovnih podatkov.[170] V nasutju je bilo odkritih čez dvesto drobnih najdb, v glavnem bronastega nakita, ki je bil večinoma razkosan in izpostavljen ognju. Površine predmetov so namreč hrapave in ožgane. Poleg tega je bilo najdenih precej majhnih obročastih steklenih jagod, nekaj ploščic in obeskov iz rdečih koral ter kosi bronaste pločevine, ki so pripadali različnim kovinskim posodam. Tudi večina teh predmetov – izjema so steklene jagode – je ožgana. Keramičnih izdelkov je bilo za vzorec. Omenimo lahko le nekaj ostenj loncev in kos svitka. V severnem kotu so ležali trije veliki noriški srebrniki brez sledi ožganosti. Sodeč po skromnih znakih obrabe, niso bili dolgo v obtoku.

Čeprav je bil objekt večinoma uničen, najdbe pa zbrane povsem naključno, si je vseeno vredno ogledati razmerja med posameznimi vrstami predmetov (*sl. 56*). Na prvem mestu so z nekaj čez 40 % zastopani bronasti gumbi z zanko, za katere velja, da so bili kot okras naj-

[168] Ib., 2016, 73 s.
[169] Ib., pril. 1.
[170] Glej tu Laharnar, 224 ss, sl. 7–9.

lar, 163, Fig. 2). House 5 yielded very few finds and no decorative plaques,[167] hence it cannot be interpreted as a treasury; while the Attic skyphos from the house may represent a cult vessel used in religious ceremonies.

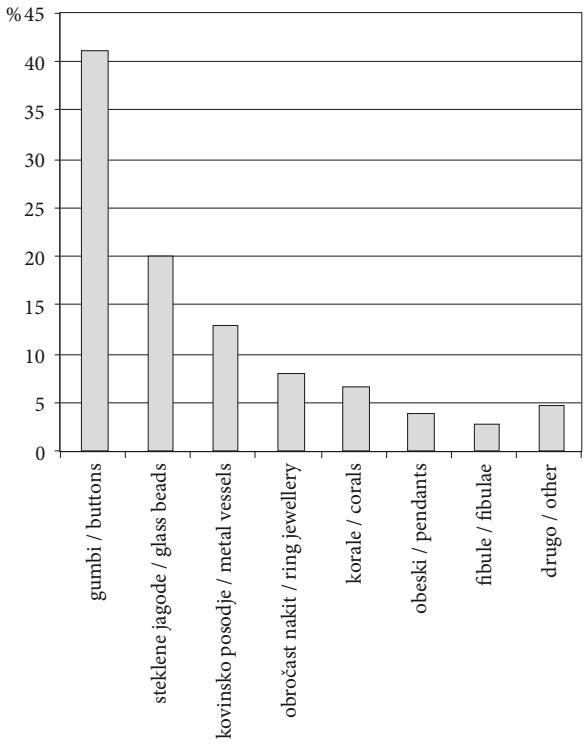
A much clearer distinction can be made between residential units and workshops (cf. *Figs. 46* and *47*), which indicates a division of labour within the community in which at least metalworking and partially pottery making represented specialised crafts. The construction of the settlement's infrastructure, such as drainage ditches, path and possibly the eastern rampart detectable in the configuration of the terrain but as yet not investigated, may be seen as a common effort of the community. The cult place (House 6/2) in use over a long period, as well as Houses 14/1, 14/2 (the Sv. Lucija IIa phase) and 30/2 (Sv. Lucija IIb/c) may be seen as public spaces with a consolidating function and a special social significance within the community.

CULT PLACE

The thick layer of dark brown earth mixed with burnt remains, burnt stone rubble and pieces of charred wood, but also remains of grains, animal bones and the array of small finds unearthed in the second construction phase of House 6 point to the existence of a cult place, where ritual burning and offering took place.[168] The location of the cult place is somewhat unusual, as it is surrounded by other houses in the northern part of the investigated settlement, where the slope begins to rise more steeply towards the north.[169] It is a dominant location, though houses were also constructed above it all to the saddle where the church of St Maurus stands today.

Very little survives of the cult structure, only the contours of the pit that was dug into the remains of the previous building down to the natural deposits. A building of mortar-bound stones was constructed on the same spot in the Roman period, which destroyed most of the pit and its fill. Surviving best of the cult structure is the two sides adjoining the north corner. At the bottom along the northwest wall of the pit lay a row of stones that resembled a drystone wall. Assuming a square ground plan, the structure would have occupied roughly 25 m². Its remains consisted of an up to 75 cm thick unstratified layer with clearly discernible traces of fire. Small finds were most numerous under the Roman walls in the north corner, but also occurred elsewhere.

[167] Svoljšak, Dular 2016, Pl. 25.
[168] Ib., 73 f.
[169] Ib., App. 1.



Sl. 56: Kultno mesto, deleži drobnih najdb (n = 210).
Fig. 56: Cult place, shares of small finds (n = 210).

verjetneje prišiti na oblačila in pasove.[171] Istemu namenu so lahko služile drobne obročaste jagode iz rumenega, belega in modrega stekla, ki zasedajo z 20 % na diagramu drugo mesto. Razmeroma številni so tudi fragmenti kovinskih posod in obročastega nakita, medtem ko so deleži fibul ter obeskov iz brona in koral skromnejši, saj ne presegajo meje 5 %.

Najdbe, ki imajo številne paralele v posoških grobiščih, kažejo, da so predmete odlagali skozi celo mladohalštatsko obdobje (6.–4. st. pr. Kr.), nato pa še v poznem latenu (zadnja četrtina 2. st. in 1. st. pr. Kr.).[172] Ugotovitev se ujema s poselitveno dinamiko naselja, preseneča pa dejstvo, da so bile aktivnosti odlaganja predmetov obnovljene na istem mestu po več kot stoletje in pol dolgem premoru. Lokacija kultnega mesta je torej morala ostati v zavesti oziroma izročilu takratnih ljudi.

Zoglenel les

V zasutju je ležalo precej kosov zoglenelega lesa, ostankov kurjave. Naključno odbranih je bilo 29 vzorcev, na katerih je bilo nato narejenih 80 analiz.[173] Izkazalo

[171] Ib., 231 ss.

[172] Za podrobnejšo datacijo predmetov glej tu Dular, 150 s in Laharnar, 224 ss.

[173] Glej tu Motella De Carlo, 364, tab. 1.

Small finds of metal, glass, coral and pottery

The small finds are discussed in detail in another chapter and will only briefly be presented here so as to offer a complete picture.[170] The fill contained over 200 objects, mainly bronze pieces of jewellery that were broken into fragments and had a rough and burnt surface that indicated exposure to fire. The finds also included many small annular beads, several plaques and pendants of red coral, as well as pieces of sheet bronze that originally formed different metal vessels. Most of these were also burnt, with the exception of the glass beads. There was only a handful of pottery goods, comprising body sherds of jars and a piece of a ceramic ring. The north corner yielded three large Norican silver coins without traces of fire; they also showed little wear and could only have been in circulation for a brief period of time.

Even though the structure was for the most part destroyed and the finds gathered randomly, we should nevertheless take a look at the ratio between individual types of objects (*Fig. 56*). Most numerously represented (just over 40%) are bronze buttons, which are believed to have been sewn onto garments and belts as adornments.[171] The same can be supposed for the small annular beads of yellow, white and blue glass; they constitute 20% of all finds and rank second. Also relatively numerous are fragments of metal vessels and ring jewellery, while fibulae and pendants of bronze and coral are fewer in number and constitute less than 5% of all recovered artefacts.

The finds have numerous parallels from the graves in Posočje and reveal long-term deposition at the cult place that took place throughout the Late Hallstatt period (6th–4th century BC) and again in the late La Tène period (last quarter of the 2nd and the 1st century BC).[172] This observation corresponds with the chronological sequence of the settlement, though it is surprising that offerings resumed on the same spot after a break lasting more than a century and a half. It seems that the local population retained the memory of the location of the cult place.

Charred wood

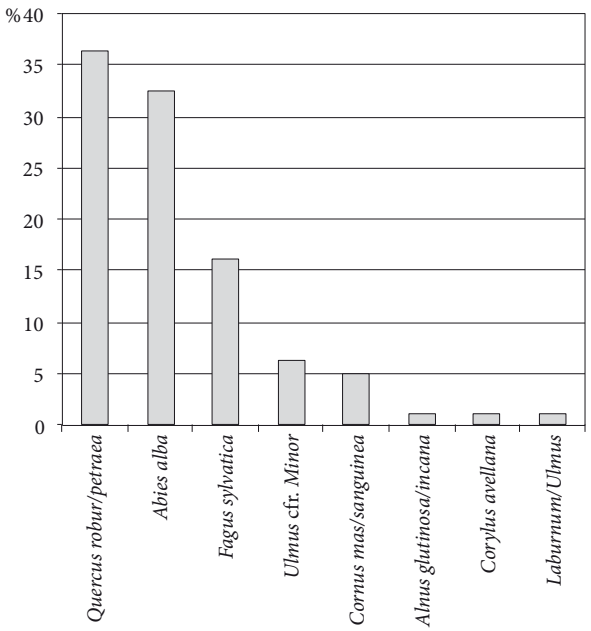
The fill also revealed numerous pieces of charred wood that was used as fuel. The randomly selected 29 samples were subjected to 80 analyses.[173] The results have shown eight tree species: most frequently oak, followed by fir and beech (*Fig. 57*). The ratios are comparable with those revealed by the analysis of structural

[170] See Laharnar in this publication, 224 ff, Figs. 7–9.

[171] Ib., 231 ff.

[172] For a detailed dating of the artefacts see here Dular, 150 f and Laharnar, 224 ff.

[173] See Motella De Carlo in this publication, 364, Tab. 1.



Sl. 57: Kultno mesto, deleži drevesnih vrst (n = 80).
Fig. 57: Cult place, shares of tree species (n = 80).

se je, da so vzorci pripadali osmim drevesnim vrstam. Najštevilčnejše je bil zastopan hrast, sledita mu jelka in bukev (*sl. 57*). Razmerja so podobna, kot jih je dala analiza gradbenega lesa. Manjka le bor, ki je bil razmeroma pogost gradbeni material. Deleži preostalih vrst (npr. dren, brest, jelša, leska) so majhni, kažejo pa, kaj vse so uporabili za kurjavo.

Na nekaterih kosih so sledi obdelave. Večinoma gre za iveri oziroma dele tramov in desk.[174] Še najbolj zanimiv je okrogel, na stružnici izdelan predmet, najverjetneje ostanek predilnega vretena.[175]

Semena in plodovi

V zasutju jame so bili identificirani ostanki zoglenelih semen v obliki raztresenega zrnja ali sprijetih kep. Prevladujeta proso (*Panicum miliaceum*) in oves ali rž (*Avena/Secale*), vmes je bilo nekaj laškega muhviča (*Setaria italica*) in zrno grašice (*Vicia ervilia*). Nekatere kepe porozne strukture so imele videz strjene in ožgane organske snovi, podobne kruhu ali pogači. Zanesljiva identifikacija ni bila mogoča.[176] Poleg semen je bilo odkritih tudi nekaj koščkov plodov lešnikov in orehov.

[174] Ib., 389 ss.
[175] Glej tu Tolar, 446, sl. 1b.
[176] Glej tu Motella De Carlo, 379; Tolar, 448.

wood, only pine is missing, which was relatively often used in construction. The shares of other species (e.g. dogwood, elm, alder, hazel) are low and reveal the range of trees used as firewood.

Some of the pieces show traces of woodworking. Most were parts of beams,[174] while one was a piece of turned wood that presumably represents the remains of a spindle.[175]

Grains and fruits

The charred plant remains in the fill survived as individual grains or in lumps. The predominant cereals are millet (*Panicum miliaceum*) and either oat or rye (*Avena/Secale*), some grains also belonged to foxtail millet (*Setaria italica*) and one to bitter vetch (*Vicia ervilia*). Some of the lumps were hardened and burnt organic remains of a porous structure resembling bread or cake; it was not possible to positively identify the remains.[176] The fill also yielded several pieces of hazelnuts and walnuts.

Textile

Three pieces of charred textile survived, bound together with earth. They were poorly preserved, which posed quite a challenge for the subsequent analysis. They most likely formed part of the same piece of canvas woven of flax or hemp fibres.[177] A thread was identified and hence a seam in one of the textile pieces, which suggests that the offering was a garment.[178]

Animal bones

The assemblage of the animal remains from the cult place closely corresponds with such assemblages from other burnt-offering places in the Alpine regions. It consists almost exclusively of cranial and feet skeletal elements of domestic animals, i.e. the elements with least meat. Most belong to sheep/goats, followed by cattle and pigs. The cut marks observable in some of the bones may have occurred during the ritual activity. Interestingly, a single bone fragment shows traces of fire.[179]

[174] Ib., 389 ff.
[175] See Tolar in this publication, 446, Fig. 1b.
[176] See Motella De Carlo in this publication, 379; Tolar, 449.
[177] See Grömer et al. in this publication, 453 ff.
[178] Ib., 459.
[179] See Toškan in this publication, 490 f.

Tekstil

Trije vzorci zoglenelega tekstila so se ohranili skupaj z zemljino. Bili so v slabem stanju, kar je oteževalo analizo. Najverjetneje so pripadali istemu kosu platna, stkanega iz lanu ali konoplje.[177] V enem od vzorcev je bila odkrita nit, ki je bila prepoznana za sukanec, torej del šiva v tkanini. Ugotovitev je zanimiva, saj kaže, da niso darovali zgolj platna, ampak del oblačila.[178]

Živalske kosti

Zbir živalskih kosti se dobro ujema s sliko z drugih žgalno-daritvenih mest v alpskem prostoru. V njem so zastopani malodane izključno zobje ter drobci lobanjskih kosti in stopal, torej nemesnati deli domačih živali. Največ jih pripada drobnici, sledijo ostanki goveda in prašičev. Vreznine, ki so opazne na nekaterih kosteh, bi lahko bile zadane pri obredni dejavnosti. Ob tem je zanimivo, da je od kostnih ostankov ožgan samo en fragment.[179]

O kultnih praksah

V spektru darovanih predmetov z Mosta na Soči se odsevajo prvine ženske noše. Prevladuje nakit (fibule, obročki, prstani, zapestnice, obeski in okrasni našitki), zato je zelo verjetno, da je bil pri ritualih v ospredju ženski spol. Nanj se vežejo tudi ostanki darovanega tekstila in fragment lesenega predilnega vretena, vsekakor redki najdbi, ki bi ju kazalo simbolno povezati s predicami človeških usod. Kostni ostanki drobnice, goveda in svinj govore o žrtvovanju živali in kultnih pojedinah. Zanimiva je prisotnost žit in plodov, morda celo kruha oziroma pogače. V zaobljubnih darovih prehrambnih rastlin in živali se zrcali kult plodnosti in rodovitnosti. Presenetljiva je odsotnost elementov moške noše, kar pa se dobro ujema s pogrebnimi rituali posoške skupnosti, ki vse do konca starejše železne dobe v grobove ni polagala orožja. Vse kaže, da so se marcialni obredi odvijali drugod. Najverjetneje ob rekah in potokih, o čemer govorita najdbi železnih sulicnih osti v strugi Soče severno od Napoleonovega mostu v Kobaridu in pod vasjo Mlinsko.[180]

Iz spektra darovanih predmetov in lokacije kultnega mesta, ki je bilo v območju naselja, bi lahko sklepali, da imamo na Mostu na Soči opraviti s čaščenjem lokalnega ženskega božanstva. Za lokalnost govori dejstvo, da poznamo v Posočju in bližnji soseščini še druga kultna mesta, ki pa večinoma niso bila načrtno

[177] Glej tu Grömer et al., 453 ss.

[178] Ib., 459.

[179] Glej tu Toškan, 491 s.

[180] Mlinar, Gerbec 2011, 17.

Cult practice

The offerings at Most na Soči mainly comprises elements of the female dress. The predominant objects are pieces of jewellery (fibulae, rings, finger rings, bracelets, pendants and adornments sewn onto textile) that suggest rituals connected with the female sphere. Also connected with this sphere are the remains of textile and a spindle, which are certainly rare finds that may symbolically be associated with women spinning the threads of human destiny. The remains of animal bones, mainly caprovids, pigs and cattle, suggest animal sacrifice and feasting. Of interest in connection with this is the presence of grains and fruits, possibly even bread or cake. The votive offerings of foodstuff and animals mirror the cult of fertility. What is striking is the absence of the elements of the male outfit, though this is in congruence with the funerary rituals of the Posočje community that did not practise offering of weapons into graves all to the end of the Early Iron Age. It would appear that the martial rituals took place elsewhere, possibly along streams as suggested by two iron spearheads found in the riverbed of the Soča north of the Napoleon Bridge at Kobarid and below the village of Mlinsko, respectively.[180]

The range of offerings and the location within the settlement indicate that the cult place may have been connected with the worship of a local female divinity. The local character is discernible from the fact that there are other known cult places in Posočje and the surrounding areas, though most have not yet been systematically investigated and it is not even clear whether they were located within a settlement or stood isolated. Dragan Božič collected the known data on these places (*Fig. 58*). He identified them as cult places on the basis of the characteristic assemblages of finds in which intentionally fragmented objects predominate (fibulae, bracelets, rings, pendants and so forth).[181] Four of such sites (Tonovcov grad, Gradič, Vrh gradu and Berlotov rob) have also revealed votive plaques dating to the last two centuries BC.[182] The plaque from Berlotov, with impressions symbolising the phases of the moon, points to the knowledge of astronomical phenomena that apparently formed part of the religious and cult rituals.[183] As opposed to Most na Soči, some of the cult places have also revealed weapons and armour dating exclusively to the end of the Early and even more to the Late Iron Age.[184] This indicates changes in the cult sphere that

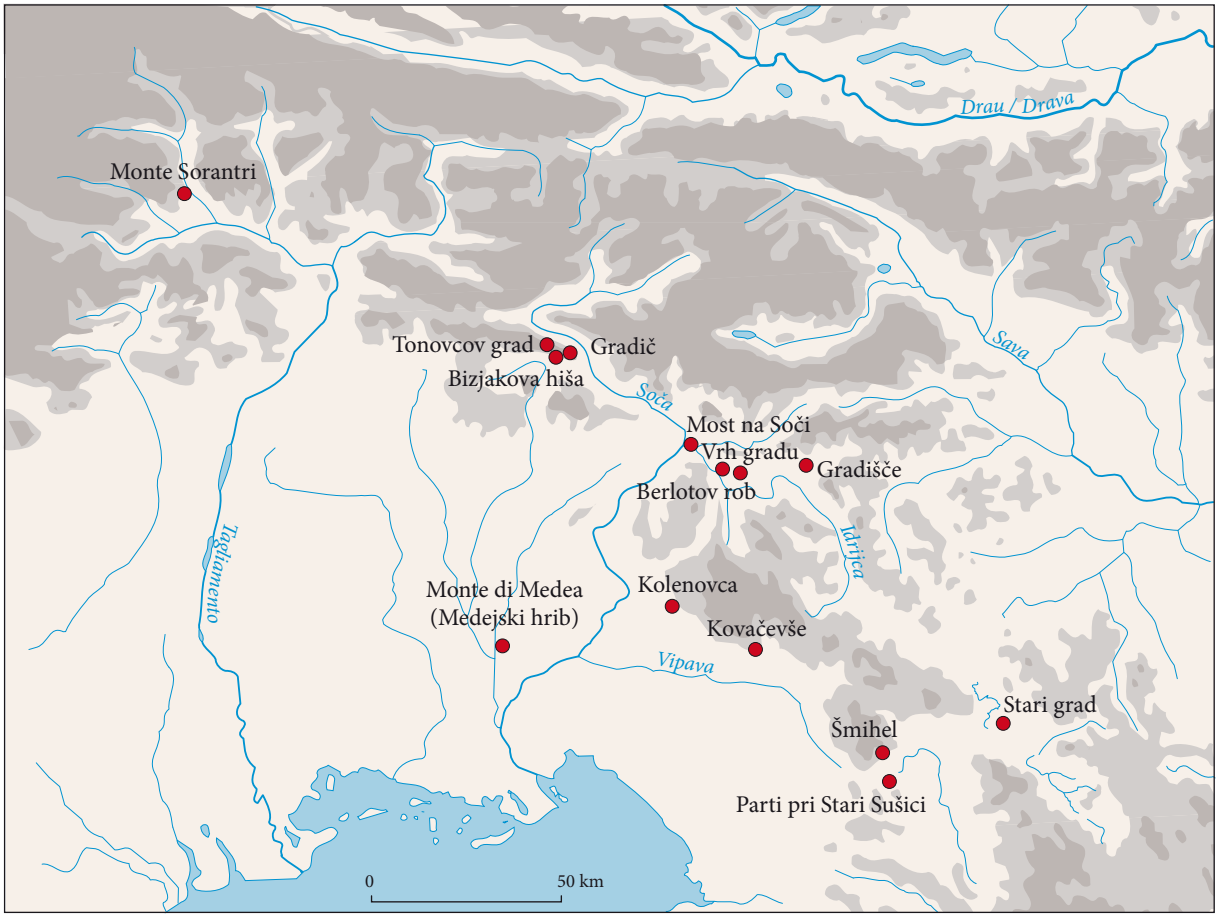
[180] Mlinar, Gerbec 2011, 17.

[181] Božič 2011, 260 ff. The list can be extended by adding Most na Soči, Kobarid (Bizjakova hiša), Gradišče in Cerkno, Šmihel pod Nanosom and Parti at Stara Sušica near Košana. Guštin 1979, Pl. 64; Horvat 1995, 178 ff; Mlinar, Gerbec 2011; Mlinar 2016.

[182] Božič 2011, 256 ff.

[183] Laharnar, Mlinar 2014, 12 ff.

[184] Tonovcov grad, Kovačevše, Kolenovca, Stari grad,



Sl. 58: Kultna mesta v Posočju in sosednjih pokrajinah. Dopolnjeno po Božič 2011.
Fig. 58: Cult places in Posočje and the neighbouring regions. Adapted after Božič 2011.

raziskana. Znano ni niti to, ali so bila v naseljih ali zunaj njih. Podatke o njih je zbral Dragan Božič (*sl. 58*). Kultna mesta je prepoznal s pomočjo značilnih najdbenih skupkov, v katerih prav tako prevladuje namerno razkosan nakit (fibule, zapestnice, obročki, obeski itd.).[181] S štirih najdišč (Tonovcov grad, Gradič, Vrh gradu in Berlotov rob) so znane tudi daritvene ploščice, vse iz zadnjih dveh stoletij pr. Kr.[182] Tista z Berlotovega roba, na kateri so vtisnjeni simboli luninih men, kaže na poznavanje astronomskih pojavov, ki so bili očitno del religiozno-kultnih obredov.[183] Vendar se v nasprotju z Mostom na Soči na nekaterih kultnih mestih pojavljata tudi orožje in obrambna oprema, ki sodita brez izjeme na konec starejše in zlasti v mlajšo železno dobo.[184] To

[181] Božič 2011, 260 ss. Seznamu lahko poleg Mosta na Soči dodamo še Kobarid (Bizjakova hiša), Gradišče v Cerknem, Šmihel pod Nanosom in Parti pri Stari Sušici pri Košani. Guštin 1979, t. 64; Horvat 1995, 178 ss; Mlinar, Gerbec 2011; Mlinar 2016.

[182] Božič 2011, 256 ss.

[183] Laharnar, Mlinar 2014, 12 ss.

[184] Tonovcov grad, Kovačevše, Kolenovca, Stari grad,

occurred at this time, with warrior elements coming to the forefront. A parallel process has been noted in the necropoleis of Posočje.[185]

The scope of the changes taking place at the transition from the Early to the Late Iron Age can best be observed in the cult place at Bizjakova hiša in Kobarid.[186] The site revealed a single event of sacrificing horses and military equipment such as swords, spears, two-piece shield bosses and belts. Apart from those of predominant horses, the recovered animal bones also belonged to caprovids, cattle, pigs, there was also a chamois horn.[187] Items from the male sphere absolutely predominate; only a decorated hollow bracelet of bronze and an iron sickle may be connected with women.

Kobarid continued to be an important cult centre in the following centuries, when an Iron Age – Roman period sanctuary flourished on the northwest slopes of

Monte Sorantri; Božič 2011, Figs. 6.2: 6,8,10; 6.21: 17,18; 6.22: 2; 6.25: 1-7,9-12.

[185] Teržan, Trampuž 1973, 434; Guštin 1991, 75 ff.

[186] Mlinar, Gerbec 2011.

[187] Toškan 2011, 49 f, Fig. 25.

pomeni, da so se v tem času zgodile spremembe tudi v kultni sferi, saj so postali v ritualnih praksah bistveno bolj prisotni vojaški elementi noše. Podoben proces je bil dokumentiran v posoških nekropolah.[185]

Kako velike so bile spremembe na prehodu iz starejše v mlajšo železno dobo, najbolje ponazarja kultno mesto Bizjakova hiša v Kobaridu.[186] Gre za enkratni akt žrtvovanja konj in vojaške opreme, kot so meči, sulične osti, dvodelne ščitne grbe ter pasovi. Poleg konjskih so bile, sicer v manjšem številu, najdene kosti drobnice, goveda, prašiča in rog gamsa.[187] Predmeti iz moškega življenjskega področja so skoraj v absolutni večini, z žensko nošo in opravili lahko povežemo le okrašeno votlo bronasto zapestnico in železen srp.

Pomembnost Kobarida kot kultnega središča se je ohranila tudi v naslednjih stoletjih, ko je zacvetelo na severozahodni strani Gradiča, torej tik ob utrjenem naselju, železnodobno-rimsko svetišče. Večletna izkopavanja Zavoda za varstvo kulturne dediščine iz Nove Gorice so odkrila ostanke arhitekture in bogat spekter darovanih predmetov: bronaste votivne ploščice, prstane, zapestnice, ogrlice, obeske in kose posodja.[188] Dolg je seznam bronastih kipcev bogov, med katerimi so na primer Venera, Diana, Minerva, Merkur, Jupiter in Mars.[189] Večkrat sta upodobljena tudi Apolon in Herkul; prvi kot bog svetlobe, pomladi in umetnosti, drugi kot zavetnik popotnikov in trgovcev. Posebej kaže omeniti še novce in iz Italije uvoženo posodje. Ker so bila doslej o Gradiču objavljena le skopa poročila, temeljna objava pa je šele v pripravi, težko razpravljamo o spremembah, ki jih je v tradicionalne kultne prakse prinesla romanizacija. Svetišče je namreč največji razcvet doživelo v 1. stoletju pred Kr. in v prvi polovici 1. stoletja po Kr. Označiti ga smemo za osrednje svetišče posoške regije ob pomembni poti iz Italije proti srednji Evropi.

Preden zaključimo, moramo besedo ali dve nameniti še žgalno-daritvenim mestom (Brandopferplätze) na območju vzhodnih Alp.[190] Ne le, da so bila nekatera načrtno izkopana (npr. Rungger Egg, Piller Höhe, Ganglegg),[191] temveč so bili analizirani tudi njihovi vsebinski in prostorski konteksti. Pojavljajo se na različnih nadmorskih višinah, od visokogorja do nižin. Najdemo jih na vrhovih, pobočjih in v jamah, pa tudi v bližini jezer, barij in izvirov. Gre torej za naravna kultna

Monte Sorantri; Božič 2011, sl. 6.2: 6,8,10; 6.21: 17,18; 6.22: 2; 6.25: 1-7,9-12.

[185] Teržan, Trampuž 1973, 434; Guštin 1991, 75 ss.

[186] Mlinar, Gerbec 2011.

[187] Toškan 2011, 49 s, sl. 25.

[188] Osmuk 1984; Osmuk 1998; Mlinar 2011.

[189] Doslej objavljenih je le devet; Osmuk 1987.

[190] Weiss 1997; Gleirscher 2002a; Gleirscher 2002b; Endrizzi, Degasperi, Marzatico 2009.

[191] Greirscher, Northdurfter, Schubert 2002; Steiner 2007, 259 ss; Stefan 2010.

Gradič, in close proximity to the fortified settlement. The Zavod za varstvo kulturne dediščine from Nova Gorica conducted archaeological excavations there in several campaigns, unearthing the remains of buildings and a rich array of offerings: bronze votive plaques, finger rings, bracelets, necklaces, pendants and fragments of vessels.[188] The site also revealed numerous statuettes of gods and goddesses that include Venus, Diana, Minerva, Mercury, Jupiter and Mars.[189] Apollo and Hercules are represented with several statuettes; the former as the god of light, spring and art, the latter as the protector of travellers and merchants. The offerings also include coins and vessels imported from Italy. The site has not yet been comprehensively published and the data available from brief excavation reports does not allow us to speculate on the changes to the traditional cult practice brought about by the advancing Romanisation. It is clear, however, that the sanctuary reached its peak in the 1st century BC and the first half of the 1st century AD. It may be seen as the central sanctuary of the Posočje region located along an important road leading from Italy towards central Europe.

We should also mention the burnt-offering places or *Brandopferplätze* in the eastern Alpine area.[190] Some of them have been systematically investigated (e.g. Rungger Egg, Piller Höhe, Ganglegg)[191] and also analysed as to their contents and spatial context. They are located at different altitudes, from high mountains to the lowland, and in different settings, from peaks, slopes, caves, but also near lakes, marshes and springs. These are all natural settings, though there are also some, albeit rare, within settlements.[192]

The sanctuaries of the Veneti were located outside settlements, on the outskirts of urban agglomerations or at the edge of territories associated with individual centres or ethnic communities.[193] The best known divinity worshipped in their sanctuaries is Reitia, whose name appears on the votive plaques from the sanctuary at Baratella in Este.[194] She is a goddess associated with fertility, health, afterlife and even war.

The lack of investigations into the cult places in Posočje – with the exception of Gradič at Kobarid – hinders a comparison with the burnt-offering places and sanctuaries in the wider hinterland of Caput Adriae.[195] We have observed, however, offering of intentionally broken pieces of jewellery, cereals and bread(?) both at Most and Soči and at the Venetic sanctuaries.[196] Furthermore, two

[188] Osmuk 1984; Osmuk 1998; Mlinar 2011.

[189] Only nine have been published thus far; Osmuk 1987.

[190] Weiss 1997; Gleirscher 2002a; Gleirscher 2002b; Endrizzi, Degasperi, Marzatico 2009.

[191] Gleirscher, Northdurfter, Schubert 2002; Steiner 2007, 259 ff; Stefan 2010.

[192] Gleirscher 2002b, 191 ff.

[193] Capuis 2002, 239 f; also see Ruta Serafini 2002.

[194] Calzavara Capuis, Chieco Bianchi 2010.

[195] For the near Friuli, see Adam 1991.

[196] Motella De Carlo 2002; Rottoli 2009.

mesta. Še najredkejša so v naseljih, čeprav so znani tudi takšni primeri.[192]

Zunaj naselij so stala svetišča Venetov. Locirana so bila na obrobja urbanih aglomeracij oziroma na meje teritorijev središč in etničnih skupnosti.[193] Od božanstev, ki so jih častili, je verjetno najbolj znana Reitia, katere ime se pojavlja na votivnih ploščicah iz svetišča Baratela v Este.[194] Gre za boginjo, ki jo povezujejo z rodovitnostjo, zdravjem, posmrtnim življenjem in celo vojno.

Neraziskanost kultnih mest v Posočju – izjema je Gradič v Kobaridu – otežuje primerjavo z žgalno-daritvenimi mesti in svetišči širšega zaledja Caput Adriae.[195] Pa vendar, nekateri vzorci, na primer darovanje razkosanega nakita, žit in kruha(?), poznajo tako Most na Soči kot venetska svetišča.[196] Nenazadnje imata tudi daritveni ploščici z Vrh gradu pri Pečinah in Gradiča v Kobaridu napisa v venetski pisavi.[197] Stiki so torej bili, vprašanje je le, kdaj smemo govoriti o enotnem religioznem prostoru. Razlike v zaobljubnih formah kažejo, da v starejši železni dobi še ni prišlo do splošno sprejetih kultnih praks.[198]

MORFOLOGIJA NASELJA

Tako kot danes je tudi v prazgodovini na zgradbo in obliko naselij vplivalo veliko dejavnikov, zato bomo skušali v nadaljevanju prepoznati tiste elemente, ki so bili odločilni pri formiranju železnodobnega Mosta na Soči. Zanima nas, kako so bili med seboj povezani in kakšen je bil notranji red naselja.

Naravne determinante

Med najbolj odločujoče naravne determinante sodi gotovo relief. Teren na Mostu na Soči se spušča od severa proti jugu, tako da znaša višinska razlika med najnižjo in najvišjo točko raziskanega območja več kot 25 m. Naklon je velik, zato so se morali pri umeščanju hiš zateči k terasasti ureditvi. Stavbe so razvrščene v treh nizih: najvišje ležeča skupina (hiše 3–6, 10) je nad izohipso 195 m, srednja dobrih pet metrov niže (npr. hiše 7–9, 11, 13, 17, 18, 21), tretja pa nad ali pod plastnico 185 m (npr. hiše 1, 12, 15, 15A, 22, 22A). Najnižji objekt je hiša 2 na višini 175,5 m.[199]

Proti jugu nagnjen relief je ponujal ugodne mikroklimatske razmere. Tu mislimo na osončenost, ki igra v

[192] Gleirscher 2002b, 191 ss.

[193] Capuis 2002, 239 s; glej tudi Ruta Serafini 2002.

[194] Calzavara Capuis, Chieco Bianchi 2010.

[195] Za bližnjo Furlanijo glej Adam 1991.

[196] Motella De Carlo 2002; Rottoli 2009.

[197] Eichner, Nedoma 2009, 73; Turk et. al. 2009, 60; Mlinar, Crevatin 2012.

[198] Prim. Capuis 2002, 248.

[199] Glej Svoljšak, Dular 2016, pril. 1.

of the votive plaques from Vrh gradu near Pečine and Gradič at Kobarid, respectively, bear Venetic inscriptions.[197] There is no doubt as to contacts between the two areas, but the question of whether there was a common religious identity remains open. The differences in the votive formulas speak against the existence of generally accepted cult practices in the Early Iron Age.[198]

SETTLEMENT MORPHOLOGY

In prehistory as today, many factors influence the construction techniques and the layout of settlements. The text below focuses on identifying the factors that most prominently shaped Most na Soči in the Iron Age, how they interacted and what interior order they helped to create.

Environmental factors

One of the key environmental factors is certainly the terrain. At Most na Soči, the terrain gradually descends southwards with the difference in attitude between the highest and lowest point of the investigated area exceeding 25 m. The slope required the buildings to be arranged in terraces. The investigated area revealed three rows of buildings: the highest row (Houses 3–6, 10) above the 195-m contour line, the middle one five metres lower down (e.g. Houses 7–9, 11, 13, 17, 18, 21) and the third row around the 185-m contour line (e.g. Houses 1, 12, 15, 15A, 22, 22A). House 2 lies at the lowest altitude, at 175.5 m.[199]

The inclined terrain also created favourable microclimatic conditions. One is certainly solar exposure, which is very important in the alpine environment. The three elevations (Cungov kuk, Munihov kuk, Kuk sv. Mavra-Teza) sheltered houses from the north winds. This protection, however, was not equally effective across the whole of the settlement, as suggested by the fact that the houses located behind the saddle separating Munihov kuk and Teza differ slightly in orientation and have one of the corners facing north (e.g. Houses 1, 3–6, 7–11).[200] In this manner, they would have been much better protected against the wind than if exposed to the north with one of their sides. The same orientation, with one corner to the north, has also been observed at the west end of the settlement, but the shift is not as apparent.

Water supply was another important factor. There was an abundance of water at Most na Soči, as the set-

[197] Eichner, Nedoma 2009, 73; Turk et. al. 2009, 60; Mlinar, Crevatin 2012.

[198] Cf. Capuis 2002, 248.

[199] See Svoljšak, Dular 2016, App. 1.

[200] Ib.

Sl. 59: Most na Soči po izpraznitvi akumulacijskega jezera, januarja 2018. Zadaj je kanjon Idrijce, spredaj so ostanki rečnih nanosov; pogled z zahoda.
Fig. 59: Most na Soči after the dam for the hydropower station had been emptied in January 2018; the gorge of the River Idrijca is in the back and the river deposits in the foreground; view from the west.

alpskem svetu pomembno vlogo, tri vzpetine – kuki pa so s severne strani ščitile naselje pred vetrom. Kot kaže, ne povsod dovolj učinkovito. To je mogoče razbrati iz umeščenosti stavb, ki so stale na prepišnem pobočju pod sedlom med Munihovim kukom in Tezo. Prav vse, brez izjeme, so bile z enim od vogalov obrnjene proti severu (npr. hiše 1, 3–6, 7–11).[200] Tako so jih veliko bolje zaščitili, kot če bi bile vetru in dežju izpostavljene s celimi stenami. Vogalno usmerjenost proti severu je opaziti tudi na zahodnem koncu naselja, vendar zasuk ni tako izrazit.

Preskrba z vodo na Mostu na Soči ni pomenila večjega problema, saj je bilo naselje umeščeno nad sotočje rek. Vendar dostop do vode ni bil enostaven. Soča in Idrijca sta si prav na tem mestu vrezali zelo globoki in tesni debri, zato je bilo po skoraj navpičnih stenah težko speljati varne steze. Vse kaže, da je bil najugodnejši dostop do vode na sotočju rek, čeprav to domnevo težko preverimo. Območje je namreč zalito z akumulacijskim jezerom, če pa ga občasno izpraznijo, prekrivajo nekdanji relief debeli nanosi rečnih usedlin (*sl. 59*).

Funkcionalne determinante

Že med izkopavanji, še bolj pa po prvih analizah, je postalo jasno, da imamo na Mostu na Soči opraviti z dvema vrstama stavb, in sicer z bivalnimi hišami ter delavnicami. Stavb, ki bi služile shranjevanju dobrin, na območju raziskanega dela naselja niso odkrili. Izjema je manjši objekt kvadratnega tlorisa, inkorporiran v preddverje hiše 11/2, ki bi lahko bil kašča.[201] Ob takšni klasifikaciji, ki jo je potrdila tudi naša analiza funkcionalnosti (glej zgoraj), se seveda postavlja vprašanje, v kolikšni meri je različna namembnost stavb vplivala na morfologijo naselja. V dosedanjih objavah Mosta na Soči je bil večkrat govor o grupiranju funkcionalno sorodnih objektov znotraj določenega območja. Povedano drugače, v naselju naj bi bila razmeroma dobro ločena bivalni in delavniški del. Če projiciramo rezultate, ki smo jih dobili z analizo funkcionalnosti stavb, na tloris naselja, vidimo, da slika ni tako jasna. Že v vzhodnem, razmeroma redko pozidanem delu delavniški objekti niso skoncentrirani zgolj na enem mestu, ampak ležijo

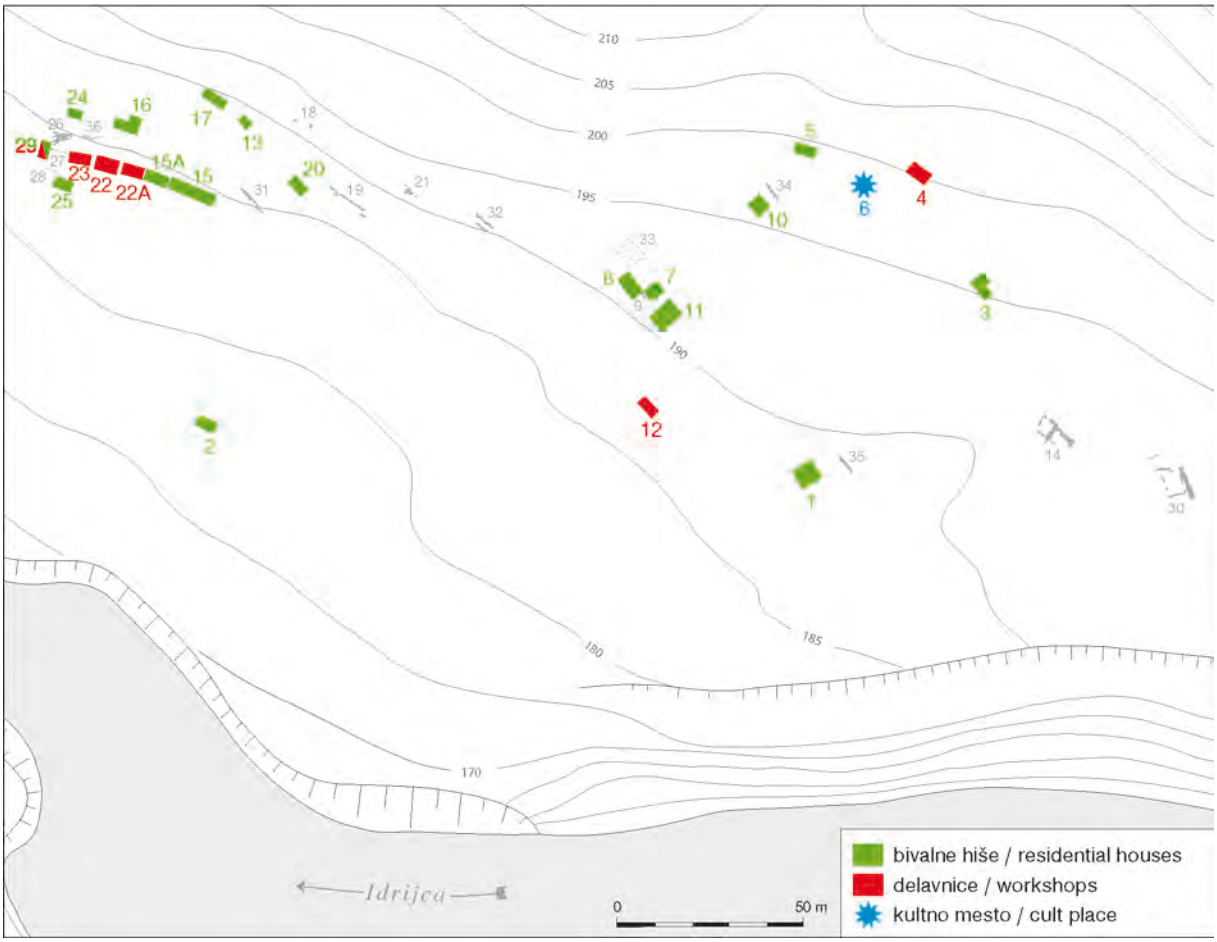
[200] Ib.
[201] Ib., 100 s.

tlement was located above the confluence of two rivers. Having said that, accessing water was not so easy, because both rivers carved deep and narrow gorges with near vertical sides and it would have been difficult to make safe paths to reach the water level. We therefore presume that access was easiest where the two rivers actually met, but it is a hypothesis impossible to verify as the area is flooded with the dam for the hydropower station and, even when it is being cleared, the ancient relief is covered with thick alluvial deposits (*Fig. 59*).

Functional factors

It was already clear during excavation and even more so after the first desktop analyses that the settlement at Most na Soči had two types of buildings: houses and workshops. The excavated area revealed no buildings only intended for storage, with the exception of the small square structure incorporated into the anteroom of House 11/2, which may have functioned as a granary.[201] The distinction between residential buildings and workshops, also confirmed by the functional analysis (see above), begs the question of the measure in which the differences in function influenced the morphology of the settlement. The publications on the Most na Soči settlement thus far noted functionally similar buildings grouped in certain areas. In other words, there was an assumed division of the residential and production parts. However, when

[201] Ib., 100 f.



Sl. 60: Prostorska umeščenost bivalnih hiš, delavnic in kultnega mesta.
Fig. 60: Locations of houses, workshops and the cult place at Most na Soči.

daleč vsaksebi (*sl. 60*). Še več, hiša 4, ki je bila prepoznana za delavnico livarja, je stala v neposredni soseščini kultnega mesta, kar je s sedanjega vidika prostorskega načrtovanja težko razumljiv primer. Nekoliko boljšo strukturiranost je opaziti na zahodni strani naselja, kjer so bili v vrsti nanizani kar štirje delavniški objekti. Toda tudi tu so jih obkrožale bivalne hiše, med njimi take, ki bi jih lahko zaradi dovršene gradnje uvrstili v kategorijo višjega kakovostnega razreda (npr. hiši 15/2 in 15A/1). Zanimiva situacija je bila ugotovljena pri hiši 29. Izkazalo se je, da je tu najprej stala livarska delavnica, po njeni opustitvi pa so na istem mestu zgradili bivalno hišo.[202] Iz povedanega lahko zaključimo, da namembnost objektov ni bistveno vplivala na notranjo ureditev naselja.

O poteku komunikacij, ki so pomemben del naselbinske infrastrukture, nimamo veliko podatkov. Odkriti so bili zgolj štirje krajši odseki poti, široke okoli 1,4 m, ki je tekla vzdolž niza delavnic in hiš na skrajnem zahodnem koncu raziskanega dela naselja.[203] Narejena

[202] Ib., 195 ss.
[203] Ib., 222 s, sl. 224.

applying the results of our functional analysis onto the plan of the site, the picture is not so clear. The eastern part with relatively few buildings shows that the workshops are not concentrated, but rather widely dispersed (*Fig. 60*). Moreover, House 4 identified as a foundry, is located in close proximity to the cult place, which is not easy to understand from the point of view of modern spatial planning practices. A slightly clearer division is in the western part of the settlement, where four workshops stand together in a row. But even here, the workshops are surrounded by residential houses, some of which show a higher quality of construction and hence a higher living standard (e.g. Houses 15/2 and 15A/1). A particularly interesting case is House 29, which was a casting workshop in Phase 1 rebuilt as a residential building in Phase 2.[202] This proves that the function of the buildings did not greatly affect the interior layout of the settlement and that it is not possible to talk of separate production and residential areas at Most na Soči.

[202] Ib., 195 ff.

je bila iz 10–20 cm debelega nasutja drobnozrnatega proda. Njen potek se dobro ujema z oblikovanostjo pobočja, saj sledi tamkajšnjim plastnicam, zato med ohranjenimi odseki ni omembe vrednih višinskih razlik. Stavbe so bile obrnjene k poti z daljšimi stranicami, v katerih so bili vhodi. V pozidavi območja je slutiti prvine načrtnega planiranja, saj so se vsi elementi – namreč komunikacija kot glavna prostorska determinanta in objekti ob njej – zlili v funkcionalno celoto. O poteku poti na drugih delih naselja nimamo podatkov. Drago Svoljšak je v eni od svojih razprav začrtal možne smeri, ki v glavnem sledijo oblikovanosti pobočja.[204] Predlog se zdi sprejemljiv, nimamo pa zanj materialnih dokazov.

Med pomembne dejavnike, ki so vplivali na morfologijo naselij, sodijo obrambni sistemi. Za Most na Soči se je že pred desetletji uveljavilo mnenje, da ni bil utrjen, saj ga je dovolj dobro ščitila voda. Obramba naj bi bila prepuščena manjšim gradiščem, ki so v precejšnji oddaljenosti od središča skupnosti varovala dostopne poti.[205] Vendar pa Most na Soči ni bil brez lastne zaščite. Kot smo dovolj nazorno pokazali v uvodnem poglavju, je ob prepadnih stenah Idrijce in Soče niti ni potreboval, zato pa je bila toliko bolj utrjena njegova vzhodna, najlažje dostopna stran, kjer so v obod naselja učinkovito vključili ostanek kamnite groblje (*sl. 61*). To je na skrajnem južnem delu nadomestil čez meter debel zid, ki se je vlekel ob hiši 30.[206] Most na Soči se torej ni razlikoval od drugih naselij, saj je za svojo varnost najprej poskrbel sam. Podobno opažamo na Gradiču nad Kobaridom, ki leži v isti poselitveni niši in ima prav tako ohranjene ostanke fortifikacijskih sistemov.[207] Obe naselji seveda ne izključujeta možnosti obstoja obrambnega obroča, kot ga je zarisal Svoljšak.[208] Za potrditev teze potrebujemo le več dokazov, saj zahteva sistem varovanja celotnega teritorija skupnosti z zgolj enim mestom odločanja visoko organizirano družbo. Če je posoška železnodobna skupnost dosegla tak nivo, ne vemo. Vprašanje je vsekakor zanimivo, presega pa stanje trenutne raziskanosti in tudi okvir naše razprave.

Naselju z jasno začrtanim obodom lahko izračunamo površino. Ta je na Mostu na Soči znašala nekaj čez 13 hektarjev, kar je seveda malo, če ga primerjamo s sočasnimi venetskimi središči.[209] Drugače je na jugovzhodnoalpskem območju, kjer sodi med večje aglomeracije.[210] Gre torej za naselje, v katerem je lahko

[204] Svoljšak 2001, 133, sl. 3.

[205] Svoljšak 1984a; Svoljšak 1986; Mlinar 2018.

[206] Svoljšak, Dular 2016, 202 s.

[207] Laharnar, Štular, Mlinar 2015; da bi bil Gradič utrjen šele v poznorepublikanskem času, kot menijo avtorji, je malo verjetno, seveda bo odgovor dalo le izkopavanje.

[208] Svoljšak 1984a, 117, fig. 1.

[209] Npr. Padova in Este 100 ha, Oderzo in Oppeano 65 ha, Concordia 40 ha; Malnati, Gamba 2003, 34.

[210] Žal je primerjava možna le z nekaterimi kaštelirji na Krasu (glej Slapšak 1995, 24, sl. 1) in zlasti z gradišči jugo-

Not much is known of the communications through the settlement, which form an important part of its infrastructure. Excavations only unearthed four short sections of a roughly 1.4 m wide path that ran along the row of workshops and houses in the westernmost part of the investigated settlement.[203] The path was surfaced with a 10–20 cm thick layer of gravel. Its course traces the configuration of the terrain and runs roughly along the same altitude throughout. The buildings faced the path with their longer sides that had the entrances. This built environment has all the elements of spatial planning – communication as the main spatial determinant and buildings that line it – coming together to form a functional whole. We have no evidence on communications in other parts of the settlement. In one of his publications, Drago Svoljšak outlined possible other paths, which mainly trace the configuration of the sloping terrain;[204] his proposition is certainly plausible, but can as yet not be supported by any material evidence.

An important factor that determined settlement morphology is the fortification system. For Most na Soči, it has long been believed that the settlement was devoid of additional fortifications, as the two rivers provided protection that functioned together with a series of smaller hillforts, located at some distance to the centre and controlling the points of access.[205] However, later research has revealed that the centre was not without its proper defences, which are described in detail in the introduction. The banks of the Rivers Idrijca and Soča were precipitous and the settlement hence inaccessible on those sides, while the readily accessible eastern side was fortified by including a moraine heap into its perimeter (*Fig. 61*). This eastern fortification continued southwards as a wall over a metre thick that ran along House 30.[206] In providing for its own protection close at hand, Most na Soči thus did not differ from other settlements. A similar observation has been made for the hillfort on Gradič near Kobarid, which lies in the same settlement niche and also revealed remains of a fortification system.[207] This does not exclude the possibility of a defence ring of outposts as outlined by Svoljšak.[208] It is certainly an intriguing hypothesis, but one that requires further evidence to confirm it, as such a large-scale defence system covering the whole of the community's territory with a central command requires a highly organised society and it is not clear whether the Posočje Iron Age community reached such a level.

[203] Ib., 222 f, Fig. 224.

[204] Svoljšak 2001, 133, Fig. 3.

[205] Svoljšak 1984a; Svoljšak 1986; Mlinar 2018.

[206] Svoljšak, Dular 2016, 202 f.

[207] Laharnar, Štular, Mlinar 2015; it is not likely that Gradič was only fortified in the Late Republican period as suggested by the authors.

[208] Svoljšak 1984a, 117, Fig. 1.

Sl. 61: Most na Soči. Vzhodni obod naselja: rdeča puščica označuje kamnito grobljo, modra pozicijo zidu ob hiši 30.
Fig. 61: The eastern periphery of the settlement at Most na Soči: the red arrow marks the moraine heap, the blue arrow the location of the wall at House 30.

živelo, delalo ali pa se vanj zateklo veliko ljudi. Poselitev najverjetneje ni bila osredotočena zgolj na pomol. Podobno kot na Dolenjskem moramo tudi v Posočju računati z izvengradiščno poselitvijo. Doslej še ni bila odkrita. Iskanje zaselkov in posameznih kmetij je ena od nalog prihodnjih raziskav.

Socialne determinante

Vplive družbenih dejavnikov je v naselbinskem rastru najtežje prepoznati, posebno v primerih, če so bila raziskana majhna območja. To velja tudi za Most na Soči, kjer so z dolgoletnimi zaščitnimi izkopavanji sicer odprli zavidljive površine, a te kljub temu ne dosegajo 20 % nekdanjega naselja. Pri interpretaciji moramo biti zato previdni. Na pasti prenaglega sklepanja je že pred časom opozoril Hermann Parzinger, ki je s temeljito analizo terenskih izvidov nekaterih bolje raziskanih gradišč v srednji Evropi ugotovil, da s pomočjo notranje strukturiranosti naselij pravzaprav ni mogoče zanesljivo dokazati obstoja dvorov in bivalnih predelov takratnih elit.[211] Zdi se, da imamo podobno situacijo tudi na Mostu na Soči. Na raziskanem območju, kjer sta vidni dve izraziti grupaciji stavb, gostejša na zahodu in precej redkejša na vzhodu, ne moremo prepoznati objekta, ki bi stal na izpostavljenem mestu in bil celo obdan z ograjo. Pa vendar, tudi na Mostu na Soči hiše niso bile enake. Kot je pokazala analiza stavbnih ostalin, notranje opreme in inventarja, se nakazuje možnost delitve na premožnejše in skromnejše stanovanjske hiše, specializirane delavnice in javne prostore, namenjene skupnemu druženju ali religioznemu obredju.

Podoben rezultat je dala analiza ostankov živalskih kosti.[212] Čeprav v prehrani prebivalcev premožnejših ali skromnejših hiš ni videti izrazite socialne diferenciacije glede pestrosti in starosti živali ob zakolu ter zastopanosti bolj ali manj kakovostnih kosov mesa, pa so bili ostanki divjadi (z izjemo rogovja) ugotovljeni zgolj v premožnejših hišah. To bi lahko pomenilo, da je bil lov povezan z družbenim statusom. Kosti srne in divjega prašiča so bile odkrite tudi v stavbah 14 in 30, ki smo jim pripisali posebno funkcijo. V stavbah 14/1 in 14/2,

With a known perimeter, we can calculate that the settlement at Most na Soči stretched across the surface area of just over 13 hectares. This is not much in comparison with the contemporary Venetic centres,[209] but it does rank among the large agglomerations in the south-eastern Alpine area.[210] It is a settlement where a large number of people lived, worked or took shelter. Habitations were probably not limited to the area of the promontory. Similarly as in Dolenjska, people in Posočje probably also lived outside the hillforts, though traces of hamlets and individual farmsteads have not yet been detected.

vzhodne Slovenije, ki imajo natančno izračunane površine; Dular, Tecco Hvala 2007, 192, sl. 110.

[211] Parzinger 1991, 26; Parzinger 1992, 83 ss.

[212] Glej tu Toškan, 479 ss.

[209] E.g. Padua and Este 100 ha, Oderzo and Oppeano 65 ha, Concordia 40 ha; Malnati, Gamba 2003, 34.

[210] Unfortunately, the number of possible comparisons is limited as size has only been precisely calculated for some of the hillforts in the Kras (see Slapšak 1995, 24, Fig. 1) and several more in south-eastern Slovenia; Dular, Tecco Hvala 2007, 192, Fig. 110.

opredeljenih kot javni prostor za druženje, posvete in druge pomembne dogodke v življenju skupnosti, je bilo zdaleč največ kosti domačih živali. Med njimi so zastopani anatomski deli trupa govedi, ki so bolj mesnati. Na osnovi arheozoološke analize bi dejavnost, ki se je tam odvijala, lahko povezovali z zakolom oz. razkosavanjem in pripravo mesa. Povsem drugačen vzorec razkrivajo kostni ostanki s kultnega mesta, kjer prevladujejo zobje, delci čeljustnic in stopal, torej neužitni kosi; ta vzorec je primerljiv z drugimi žgalno-daritvenimi mesti v alpskem svetu.

Po drugi plati raster raziskanega dela naselja ne kaže stroge ločenosti med stanovanjskimi in obrtniškimi četrtmi, saj so bile delavnice umeščene v bližino stanovanjskih stavb (*sl. 60*). Prav tako ni vidna ostra prostorska segregacija med premožnejšimi in skromnejšimi hišami, zato bi težko govorili o izrazitejše razslojeni skupnosti, ki je v železni dobi živela na Mostu na Soči.

Vaško ali protourbano naselje

Urbanizacijski procesi so že dolgo predmet intenzivnih razprav, ki se vrtijo zlasti okoli kriterijev, s katerimi želi arheološka stroka čim bolj natančno definirati poselitvene strukture. Kdaj ima neko naselje urbani značaj, je stvar definicij, ki pa nimajo univerzalnega učinka in se jih običajno ne da aplicirati na vse strukture. Od tod tudi zagate arheologov, ki se v nejasnih situacijah radi zatekajo k izrazom, kot so "protourbani centri" ali "nepopolno urbanizirani kraji", pri čemer sploh ni jasno, kaj je s tem mišljeno.

Michael E. Smith, ki se je v enem svojih zadnjih člankov izčrpno ukvarjal s to problematiko, je zato namesto ozko začrtanih definicij, ki omejujejo fleksibilnost analiz, predlagal alternativno metodo, temelječo na vrsti "arheoloških urbanih atributov". Skupaj jih je nanizal enaindvajset, kar je precej več, kot sta jih pred njim uporabila Flannery in Renfrew.[213] Gre za štiri skupine podatkov, od katerih večino najdemo v arheološkem zapisu: velikost naselja, socialni vpliv (urbane funkcije), pozidanost ter socialne in ekonomske značilnosti. Toda tudi ob tolikšnem naboru atributov Smith svari pred prenagljenim sklepanjem. Kar je v nekaterih poselitvenih okoljih odločujoče, drugod ne igra nobene vloge. Zato meni, da so ponujeni atributi uporabni predvsem za analizo stopnje urbaniziranosti, manj pa za ugotavljanje, kateri kraji so bili urbani in kateri ne. Atribute je preskusil na dveh južnonemških železnodobnih naseljih, in sicer Heuneburgu in Manchingu, ki sta imeli vsaj v nekaterih razvojnih fazah že urbani značaj.[214] Izkazalo se je, da je treba atribute uporabljati fleksibilno, saj na primer odsotnost kraljevih palač v obeh naseljih pri

[213] Smith 2016, 158 s, t. 10.1.

[214] Sievers 2007; Fernández-Götz, Krausse 2012; Fernández-Götz 2013; Fernández-Götz 2016.

Social factors

These are the most difficult to identify in the layout of a settlement, particularly when only limited areas have been investigated. The long years of excavation at Most na Soči have unearthed fairly large areas, but they do not exceed 20% of the total surface of the ancient settlement. We should therefore be careful when drawing conclusions. Some time ago, Hermann Parzinger clearly demonstrated the dangers of hasty conclusions by conducting a thorough analysis of the excavation results for some of the better investigated hillforts in central Europe to show that their interior structures do not allow us to convincingly argue the existence of courts and areas reserved for the elite residences.[211] We seem to have a similar situation at Most na Soči. The investigated area reveals two noticeable groupings of buildings, a denser one in the west and one of more dispersed buildings in the east, but none of them include a building with a prominent location or even separated from the rest by an enclosure. And yet, the houses at Most na Soči are not all the same. The analysis of the building remains, interior furnishings and small finds in individual buildings has indicated the possible differentiation between wealthier and more modest residential houses, specialised workshops, as well as public spaces intended either for community matters and gatherings or for religious practices.

The analysis of the animal bone remains shows similar results.[212] The diet of the people living in the wealthier houses did not differ from those of the poorer households in terms of variety and age of animals at death, as well as the share of more or less meaty body parts. However, only the well-off households revealed the remains of game (with the exception of horn), which may indicate that hunting was an activity connected with the social status. Roe deer and wild boar bones were also recovered from Houses 14 and 30 that are believed to have been of a special function. By far the highest number of domestic animal bones was found in Houses 14/1 and 14/2, interpreted as public spaces for social gatherings, for discussing matters of common interest and other important events in the life of the community. These bone remains include meaty body parts of cattle, indicating slaughtering or dismemberment, as well as meat preparation. A very different bone assemblage is that from the cult place that mainly yielded teeth, but also fragments of jaw and feet skeletal elements, i.e. least meaty body parts; this assemblage is comparable with those from other burnt-offering place in the Alpine regions.

The layout of the investigated part of the settlement shows neither a strict organisation of space nor a division between residential and artisan's quarters, with workshops rather intermingled among the houses (*Fig. 60*). The available data also reveals no clear spatial

[211] Parzinger 1991, 26; Parzinger 1992, 83 ff.

[212] See here Toškan, 479 ff.

Attribute	Type of Variable	Heuneburg	Manching	Most na Soči
Settlement Size				
population	M	5000	5000-10000	420
area (ha)	M	100	380	13
density	M	50	13-26	32
Social Impact (urban functions)				
royal palace	P/A	–	–	–
royal or high aristocratic burials	P/A	X	–	–
large (high-order) temples	P/A	–	X	–
civic architecture	S	1	1	1
craft production	S	2	3	1
market or shops	S	?	?	?
Built Environment				
fortifications	P/A	X	X	X
gates	P/A	X	X	?
connective infrastructure	P/A	X	X	X
intermediate-order temples	P/A	–	X	X
residences, lower elite	P/A	X	X	X
formal public space	P/A	–	X	–
planning of epicenter	P/A	X	X	X
Social & Economic Features				
burials, lower elite	P/A	X	X	X
social diversity (nonclass)	P/A	X	X	X
neighborhoods	P/A	X	X	?
agriculture within settlement	P/A	X	X	X
imports	S	2	2	1

Notes:
Type of variable
M: quantitative measurement;
P/A: presence/absence;
S: measurement scale (1: low; 2: moderate; 3: high).

Sl. 62: Tabela arheoloških urbanih atributov, apliciranih na Heuneburg in Manching (po Smith 2016); dodani so podatki za Most na Soči.
Fig. 62: Table of archaeological urban attributes applied to Heuneburg and Manching (from Smith 2016) with added data for Most na Soči.

določanju njunega urbanega statusa ni imela nobene vloge.[215] Ob takšnih pogledih smo si dovolili na Smithovo tabelo dodati podatke o Mostu na Soči (*sl. 62*). Čeprav gre po površini in številu prebivalstva za bistveno manjšo aglomeracijo, je ujemanje presenetljivo.[216] Vrsto atributov premore tudi Most na Soči, ki se s tega stališča kaže kot pomembno naselje. Ali ga potemtakem že lahko označimo za protourbano? Mislimo, da ne, saj nas od take interpretacije odvrača problematičnost samega izraza, hkrati pa še vedno zelo slabo poznamo družbeno strukturo tamkajšnje skupnosti. Zadnje razprave o tej problematiki so stare skoraj štiri desetletja.[217] Zdi se, da so na Mostu na Soči dobro prepoznavne predvsem tiste funkcije, s katerimi je pred časom Gringmuth-Dallmer

[215] Smith 2016, 163, t. 10.3.

[216] Za izračun živeče populacije, ki je seveda zgolj informativen, smo uporabili formulo P = n/(t/30); P = število živeče populacije, n = število pokopov (7000), t = trajanje pokopavanja (500 let), 30 = trajanje generacije. Glej Nikulka 2016, 139 ss.

[217] Bergonzi et al. 1981.

segregation between the wealthy and the modest houses, hence no clear social stratification of the people inhabiting Most na Soči in the Iron Age.

Village or proto-urban settlement

The processes of urbanisation have been the subject of ongoing and intense discussions mainly focused on the criteria for defining settlement structures as precisely as possible. The question of whether a settlement has an urban character or not is a matter of defining its structures, but these are not universal definitions and can usually not be applied to all structures. Hence the difficulties that many archaeologists face when attempting to make sense of unclear situations, resorting to the use of vague terms such as 'proto-urban centre' or 'incompletely urbanised site'.

Michael E. Smith examined this topic exhaustively in one of his recent articles and proposed an alternative method to tackling the problem, one that is based on a series of archaeological urban attributes and replaces the

skušal definirati centralnost naselij.[218] Te funkcije so oblast, zaščita, obrt, trgovina in kult. Glede Mosta na Soči ostajamo zato pri nevtralnem terminu: središče posoške skupnosti.

GOSPODARSKE OSNOVE

Da se je Most na Soči lahko razvil v veliko in pomembno središče, ni bila dovolj zgolj njegova strateška lega v sovodnji treh rek, temveč je moral imeti tudi primerno zaledje. Tu mislimo zlasti na bližino polj, saj sta bila poljedelstvo in živinoreja, kljub razmahu nekaterih novih panog, osnova za preživetje.

POLJEDELSTVO

Ker za neposredno okolico Mosta na Soči nimamo pelodnih profilov, vemo o vegetacijskem pokrovu tega dela Soške doline v železni dobi zelo malo. Vse kaže, da je prevladoval listnat gozd. To je mogoče sklepati na podlagi analiz zoglenelega lesa iz naselja, ki pa ne daje odgovora na vprašanje, kako velike so bile izkrčene in v polja spremenjene površine. O njihovi legi in velikosti lahko govorimo zgolj hipotetično, pri čemer izhajamo iz predpostavke, da je bila rodovitnost odvisna predvsem od sestave tal, oblikovanosti površja ter hidroloških in klimatskih razmer.

Če se torej opremo na današnjo situacijo, vidimo, da se neposredno ob naselju – na severni strani proti vasi Modrej ter na vzhodu do zaselka Stopec – širi za poljedelstvo zelo primerno območje, veliko okoli 60 hektarjev. Gre za plodne njive in sočne travnike. Površina se znatno poveča, če razširimo polje opazovanja na radij štirih kilometrov od naselja, kar ustreza približno uri hoda, ki je ekonomsko še upravičena za prazgodovinske skupnosti.[219] V tem primeru pridejo v poštev tudi polja in travniki na desnem in levem bregu Soče pri vaseh Modrejce (40 ha), Čiginj-Kozaršče (100 ha), Podljubinj-Prapretno (550 ha), pa tudi obdelane površine na obeh bregovih Idrijce med vasjo Bača pri Modreju in zaselkom Hotešk (90 ha). Vsota razpoložljivih površin znaša skoraj 9 km^2, kar je dovolj tudi za veliko večje aglomeracije, kot je bil v železni dobi Most na Soči.

Glede na upodobitev rala na cisti iz Montebellune v bližnjem Venetu[220] lahko s precejšnjo verjetnostjo domnevamo, da so to pripravo poznali tudi v Posočju in da je bilo obdelovanje zemlje že na ravni ornega poljedelstva. V naselju o tem niso našli neposrednih dokazov. Od poljedelskih orodij lahko omenimo le dva srpa, od katerih sodi prvi (iz hiše 30/2) na konec halštatskega

[218] Gringmuth-Dallmer 1996; Gringmuth-Dallmer 1999.

[219] Higs, Vita-Finzi 1972. Dular, Tecco Hvala 2007, 198 ss.

[220] Capuis, Ruta Serafini 1996, Fig. 6.

narrow definitions that reduce analytical flexibility. He lists twenty-one attributes, which is considerably more than previously used by Flannery and Renfrew.[213] They form four groups of data, most of which can be gained from the archaeological record: settlement size, social impact (urban functions), built environment, as well as social and economic features. But the attributes do not lead to clear definitions; what is a decisive factor in one area may be irrelevant in another. He notes that the attributes are mainly useful in conducting a comparative analysis of the nature and scale of urbanism rather than establishing which sites were urban and which were not. He applied his attributes on two Iron Age settlements in southern Germany, Heuneburg and Manching, both of which exhibited an urban character at least in some of the phases.[214] It turned out that the attributes should be used in a flexible manner, as the absence of royal palaces in both settlements played no role in determining their urban character.[215] In view of that, we used Smith's table and added the data for Most na Soči (*Fig. 62*). Although a considerably smaller agglomeration in terms of settlement and population size, the data is surprisingly closely comparable.[216] The great number of corresponding attributes shows that Most na Soči was an important settlement. Can we define it as proto-urban? We think not, firstly because we believe the term itself to be problematic and secondly because of the lack of knowledge on the social structure. Moreover, the last discussion on the social structure of this community is already forty years old.[217] It seems that the functions most readily identifiable at Most na Soči are primarily those that Gringmuth-Dallmer used to define the central character of a settlement,[218] namely authority, protection, crafts and cult. The definition we therefore propose for Most na Soči is a neutral one: centre of the Posočje community.

ECONOMIC BASE

The development of the Most na Soči settlement into a large and important centre in the region was fostered not only by its strategic location at the confluence of three rivers, but also by favourable economic conditions. Particularly important among these is the presence of arable land that enabled crops to be grown and animals to be

[213] Smith 2016, 158 f, Pl. 10.1.

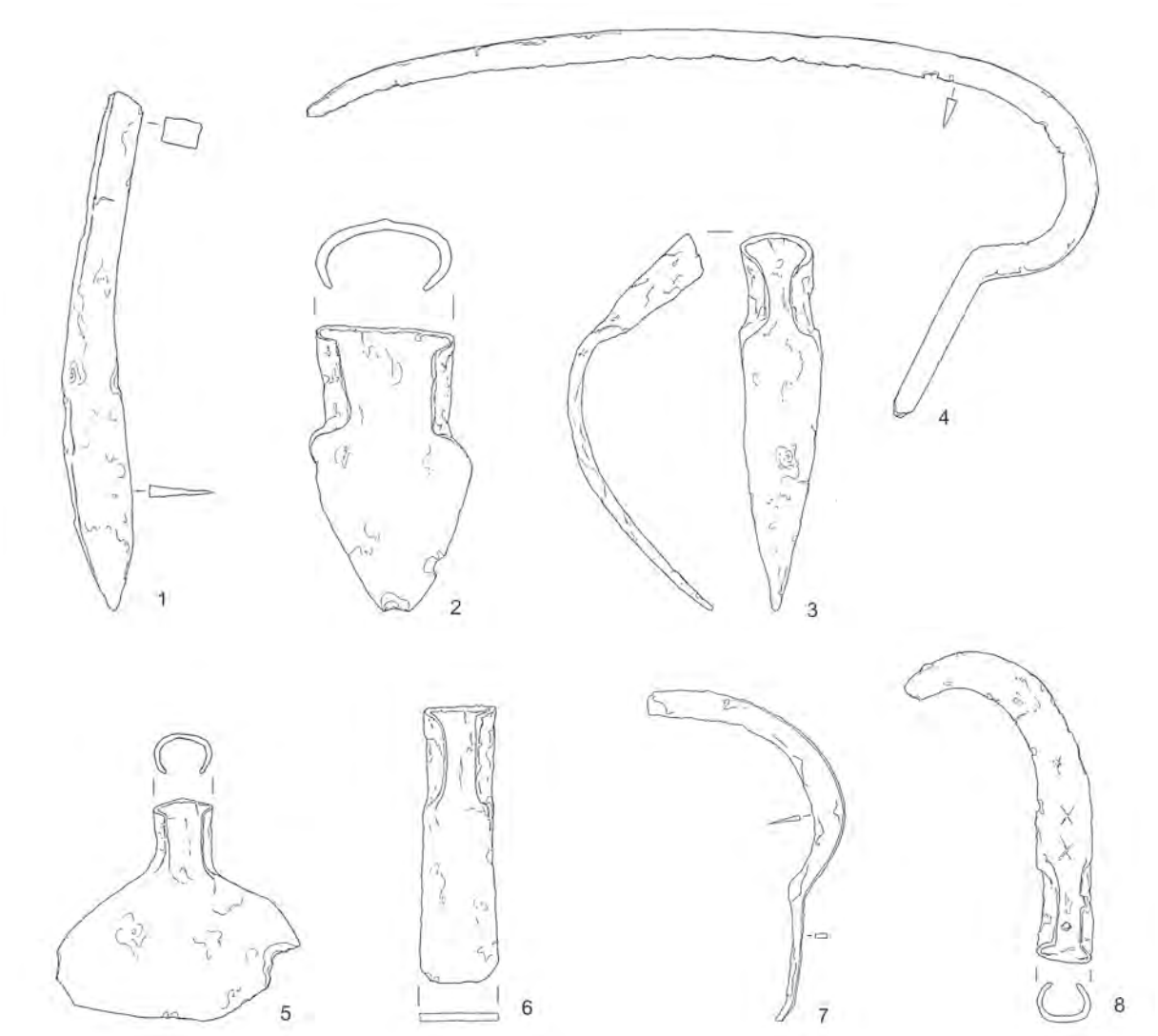
[214] Sievers 2007; Fernández-Götz, Krausse 2012; Fernández-Götz 2013; Fernández-Götz 2016.

[215] Smith 2016, 163, Pl. 10.3.

[216] To estimate the number of people living in the settlement, we used the formula P = n/(t/30); P = population, n = number of burials (7000), t = duration of burial (500 years), 30 = duration of a generation. See Nikulka 2016, 139 ff.

[217] Bergonzi et al. 1981.

[218] Gringmuth-Dallmer 1996; Gringmuth-Dallmer 1999.



Sl. 63: Poljedelsko orodje iz Idrije pri Bači (gr. 1, 18), Modreja in Mosta na Soči (gr. 1817B) (po Guštin 1991). M. = 1:6.
Fig. 63: Farming tools and implements from Idrija pri Bači (Gr. 1, 18), Modrej and Most na Soči (Gr. 1817B) (from Guštin 1991). Scale = 1:6.

obdobja, drugi (iz hiše 35/2) pa v poznolatenski čas.[221] Tretji je bil najden v rimskih stavbnih ruševinah.[222] Trije primerki so znani tudi iz grobišča (Repelc, gr. 14; gr. Sz. 1817B), vendar pa zadnja grobna celota ni zanesljiva.[223]

Bogat spekter poljedeljskega orodja je bil odkrit v depojih in grobiščih idrijske skupnosti. Njeni pripadniki so v Posočju živeli v mlajši železni dobi, tezavriranje in pridajanje orodja v grobove pa kaže na njihov poseben odnos do narave/zemlje kot glavnega vira življenja in preživetja. V depojih in grobiščih poznolatenskega ob-

reared; this formed the mainstay of subsistence even when other economic activities were on the rise.

CROP CULTIVATION

There are no pollen diagrams available for the area of Most na Soči and we know very little about the vegetation of this part of the Soča Valley in the Iron Age. The analyses of the charred wood unearthed at the settlement have revealed a predominance of deciduous forests, but not the extent to which forests were cleared to gain fields for crop cultivation. The position and size of the fields can only be inferred from the supposition that the fertility of the soil mainly depended on the soil

[221] Svoljšak, Dular 2016, t. 95: 3, 98: 15. Glej tudi tu Laharnar, 216 ss.

[222] Svoljšak 1974, 25, t. 14: 7.

[223] Mlinar 2002, 26–27, sl. 19; Teržan, Lo Schiavo, Trampuž-Orel 1984–1985, 293, t. 173: B 17–18.

Sl. 64: Most na Soči. Žrmlje iz kremenovega konglomerata.
Fig. 64: Most na Soči. Quernstone of quartz conglomerates.
(Foto / Photo: D. Svoljšak)

dobja najdemo pravzaprav vse: lemeže, črtala, ukrivljene in ravne kopače, lopate, vejnike, srpe in kose (*sl. 63*).[224] Obdelovanje polj je doseglo z uporabo pluga, ki je imel železen lemež in pred njim črtalo za rezanje brazd, naprednejšo raven. Isto lahko rečemo za koso, ki je dokaz, da so se ukvarjali tudi s spravilom sena, s katerim so ohranili stalež živali skozi zimske mesece. Seveda velja povedano zgolj za latensko obdobje. Ali so takšno poljedelsko orodje poznali že prej, torej tudi v starejši železni dobi, ostaja odprto vprašanje.

S poljedelstvom je povezano mletje žita. V naselju so žrmlje našli v dvanajstih hišah, nekaj kosov pa je ležalo tudi zunaj stavbišč.[225] Večinoma imamo opraviti z različno velikimi fragmenti, ki so prepoznavni po ravnih površinah (*sl. 64*). Celih kosov je bilo malo. Žrmlje so bile sestavljene iz dveh polovic: masivnejšega spodnjaka, ki je stal na mestu in premikajočega se vrhnjaka, s katerim so drobili žito. Petrološka analiza je pokazala, da je bila večina žrmelj (85 %) izdelanih iz kremenovih konglomeratov, za preostali del so kot material uporabili kremenov peščenjak. Različno zrnatost surovine je morda zahtevala priprava različnih prehranskih izdelkov; jedi iz fino zmlete moke bi bile potemtakem v manjšini. Seveda so lahko žrmlje uporabljali tudi za druge namene, na primer drobljenje kalcita, ki so ga lončarji kot pustilo dodajali glini. Najbližja ležišča karbonskih in permskih klastitov, iz katerih so izdelane žrmlje, so v okolici Cerknega ter v Poljanski in Selški dolini. Prebivalci Mosta na Soči so morali po kamenino v 20–30 km oddaljene kraje.[226]

[224] Guštin 1991, 60 ss; glej tudi Božič 2007.
[225] Glej tu Horvat, tab. 2.
[226] Ib., sl. 2.

composition, configuration of the terrain, as well as hydrologic conditions and climate.

Today, there is roughly 60 ha of land that is very suitable for cultivation in the immediate vicinity of the settlement to the north, in the direction towards Modrej, and to the east, to Stopec. Both areas are now used as fields and pastures. This potential arable surface increases if extending the radius of cultivation to 4 km from the settlement, which corresponds with an hour's walk that is still considered economically viable for prehistoric communities.[219] The resulting arable surface thus includes the fields and pastures on the right and left banks of the Soča at the villages of Modrejce (40 ha), Čiginj-Kozaršče (100 ha), Podljubinj-Prapretno (550 ha), as well as the arable land on both banks of the Idrijca between the village of Bača pri Modreju and the Hotešk hamlet (90 ha). The sum of all available arable surface is almost 9 km^2, which is sufficient even for much larger agglomerations than the Iron Age settlement at Most na Soči.

The depiction of an ard plough on a cist from Montebelluna in nearby Veneto[220] indicates that the people living in Posočje may also have been familiar with this implement and consequently that they already practised plough agriculture. The settlement at Most na Soči yielded no direct evidence of this; the recovered farming tools only include two sickles, one dating to the end of the Hallstatt period (House 30/2) and the other to the Late La Tène period (House 35/2).[221] The third sickle was found among Roman building debris.[222] Three sickles have also been found in two graves of the associated cemetery (Repelc, Grave 14; Grave Sz 1817B), though the grave group of the latter is unreliable.[223]

A rich array of farming tools and implements has come to light within the Idrija community, the members of which inhabited Posočje in the Late Iron Age. Hoarding and depositing such items in graves reveals their special relationship with nature/land as a source of life and subsistence. The hoards and cemeteries of the Late La Tène period have revealed a near complete set of tools: ploughshares, coulters, curved and flat hoes, spades, billhooks, sickles and scythes (*Fig. 63*).[224] Ploughing became more advanced with the use of a plough equipped with an iron ploughshare preceded by a coulter for cutting furrows. The same can be said of the scythe, which is evidence of haymaking to provide for the animals during winter months. Whether such farming tools had already been used earlier, in the Early Iron Age, remains an open question.

[219] Higs, Vita-Finzi 1972. Dular, Tecco Hvala 2007, 198 ff.
[220] Capuis, Ruta Serafini 1996, Fig. 6.
[221] Svoljšak, Dular 2016, Pls. 95: 3, 98: 15. Also see here Laharnar, 216 ff.
[222] Svoljšak 1974, 25, Pl. 14: 7.
[223] Mlinar 2002, 26–27, Fig. 19; Teržan, Lo Schiavo, Trampuž-Orel 1984–1985, 293, Pl. 173: B 17–18.
[224] Guštin 1991, 60 ff; also see Božič 2007.

Pridelke so verjetno hranili v jamah. Vsebine teh niso bile pregledane s flotacijskim postopkom, zato iz njih, razen živalskih kosti, ne poznamo organskih ostankov. Izjema je bila jama 2 v hiši 7. Zapolnjevali so jo kamnit drobir, koščki prežgane ilovice, deli bronaste posode in žganina s številnimi zoglenelimi zrni. Karpološka analiza polnila je pokazala, da je bila v jami prava "semenska banka" kulturnih rastlin, ki so jih za prehrano gojili železnodobni prebivalci Mosta na Soči.[227] Med njimi naj omenimo več vrst pšenice (navadna, enozrna, dvozrna, sevka), dve vrsti ječmena (navadni in dvorednik), rž in proso. Slednjega je bilo največ, medtem ko so bile druge vrste, razen rži, zastopane le z nekaj zrni. Poleg žit je bilo v jami še nekaj lečnate grašice, lešnikove luščine in – kar je še posebej zanimivo – več deset fragmentov jedrc oreha ter zoglenel kos navadnega smokvovca. Vsaj nekateri od teh sadežev (oreh in figa) so prišli v Posočje najverjetneje iz južnih krajev, podobno kot redki kosi uvoženega posodja. Kot kaže, so prebivalci Mosta na Soči gojili tudi bob, vendar ta ugotovitev zaradi zelo fragmentarno ohranjenih semen, najdenih v hiši 15A, ni povsem zanesljiva.[228]

ŽIVINOREJA, LOV IN RIBOLOV

Kmetijstvo je bilo v Zgornjem Posočju do nedavnega in je pravzaprav še danes tradicionalno usmerjeno v ovčerejo in govedorejo ter pridobivanje lesa, za kar so naravne danosti tod najprimernejše. Gre za alpsko pokrajino z globokimi rečnimi dolinami in velikimi razlikami v nadmorski višini ter strmimi nakloni. Različne so tudi podnebne razmere, ugodnejše za poselitev in kmetovanje so v rečnih dolinah, po katerih se širi sredozemski vpliv, medtem ko vladajo v hribovitem zaledju in visokogorju ostrejši pogoji s krajšimi vegetacijskimi cikli, ki so bolj primerni za sezonske dejavnosti, kot je pašništvo.[229]

Arheozoološki vzorec iz železnodobnega naselja na Mostu na Soči, ki je po številčnosti najdb (n = 11.767) največji iz tega časa v jugovzhodnoalpskem prostoru, kaže na veliko prevlado drobnice (51,1 %) in goveda (37 %) ter manjši delež domačega prašiča (10 %), prisotni so še skromni ostanki psa, konja in kokoši.[230] Med določljivimi najdbami pripada kar 98,5 % domačim živalim, medtem ko je divjad zastopana le z 1,5-odstotnim deležem, od tega je največ jelenjadi (1 %) in divjega prašiča (0,3 %), najdenih je bilo še nekaj fragmentov kosti srnjadi, tura, poljskega zajca, medveda, lisice in kune zlatice (*sl. 65*).

Živalski ostanki iz naselbine razkrivajo predvsem ekonomski vidik človekovega odnosa do živali.

[227] Glej tu Motella De Carlo, tab. 7.
[228] Glej tu Tolar, 450.
[229] Perko, Orožen Adamič 2001, 34 ss.
[230] Glej tu Toškan, 470 ss, tab. 1.

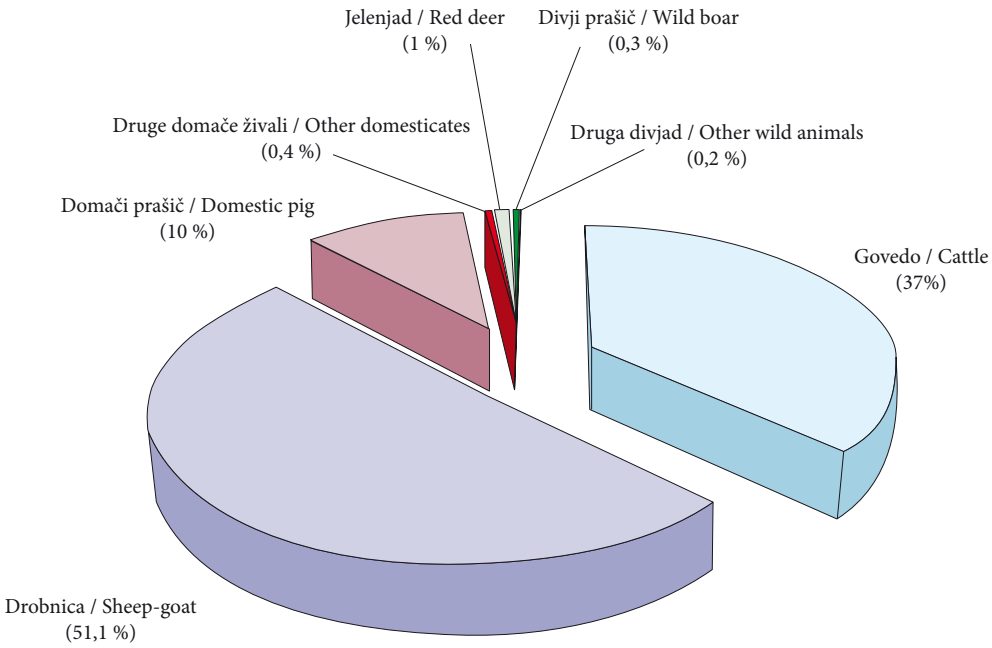
Connected with crop cultivation is the grinding of crops – cereals. The Early Iron Age settlement at Most na Soči has revealed the remains of querns inside twelve houses and some also outside them.[225] They are mostly variously large fragments identifiable as querns by their flat surfaces (*Fig. 64*); very few querns have been unearthed complete. The quern was composed of two quernstones: the larger lower stone that was stationary and the movable upper stone. Petrological analysis has shown that most querns (85%) were made of quartz conglomerates, the rest of quartz sandstone. It is possible that the preparation of different foods dictated the cereals to be ground to varying degrees; the type of stone thus suggests that foods of finely ground flour were seldom prepared. Querns could also be used for other purposes, for example for grinding calcite to be used as temper in pottery making. The closest deposits of Carboniferous and Permian clastics, used to make the querns, are located in the area of Cerkno, as well as in the valleys of the Poljanska dolina and Selška dolina. The people living at Most na Soči had to travel 20–30 km to obtain this raw material.[226]

They probably stored produce in pits. Their contents were not wet-sieved and the only recorded organic remains are fragments of animal bones. An exception is Pit 2 in House 7, the fill of which consisted of stone rubble, pieces of burnt loam, parts of a bronze vessel and burnt remains with numerous charred grains. The carpological analysis of the grains has revealed a proper 'seed bank' of crops.[227] They include several types of wheat (common, einkorn, emmer, spelt), two types of barley (common and two-row), rye and millet. The greatest number of grains belongs to millet, followed by rye, while other species are only represented with a few grains. Apart from cereals, the pit also contained several grains of bitter vetch, hazelnut shells and – particularly interesting – several tens of fragments of walnut kernels and a charred piece of the common fig. At least some of these fruits (walnut and fig) came to Posočje from the south, similarly as the rare pieces of imported pottery. It is possible that the inhabitants of Most na Soči also grew broad beans, though the grains in question found in House 15A are highly fragmented.[228]

ANIMAL HUSBANDRY, HUNTING AND FISHING

Agriculture in the upper Posočje region has been until recently, and largely still is, oriented towards rearing sheep and cattle, as well as wood production. These are the activities most suitable to the natural conditions in this alpine region with deep ravines, steep slopes and great differences in altitude. Its undulating terrain causes differences in the climate, with Mediterranean

[225] See here Horvat, Table 2.
[226] Ib., Fig. 2.
[227] See here Motella De Carlo, Table 7.
[228] See here Tolar, 450.



Sl. 65: Razmerje med posameznimi vrstami živali, zastopanih v železnodobni naselbini na Mostu na Soči. Skupno število določljivih ostankov kosti in zob je 5546 (glej tu Toškan, tab. 1).
Fig. 65: Shares of animal species as revealed by the bone and teeth remains from the Iron Age settlement at Most na Soči. The total number of identifiable specimens is 5546 (see here Toškan, Tab. 1).

Drobnico, govedo in prašiče so vzrejali za prehrano, za pridobivanje volne in kož, govedo tudi kot delovno živino. Videti je, da so s čredami smotrno gospodarili. Sodeč po starostnem profilu živali ob zakolu, jim je bila poleg mesa in maščob pomembna pridelava mleka in volne, saj so denimo ovce pogosto redili tri do pet let, ko je imelo njihovo meso še vedno kulinarično vrednost, ob tem so lahko več sezon od njih pridobivali volno in mleko. V populaciji goveda prav tako prevladujejo odrasle živali, te so jim lahko dajale več mleka, poleg tega so bile uporabne za vleko in transport, kar je vidno po deformacijah na nožnih kosteh starejših živali. Drugačen starostni profil je bil ugotovljen pri prašičih, iz katerega je mogoče razbrati, da so jih namenili za zakol že v prvih treh letih starosti. Reja kokoši je imela v hišnem gospodarstvu, sodeč po eni samcati najdbi, zanemarljivo vlogo oziroma se še ni razmahnila.[231] Glede na majhno zastopanost konja je mogoče domnevati, da ta ni bil prehranski vir. Metrični podatki kažejo, da so nekatere kosti konja iz naselbine primerljive denimo z jezdnimi konji z Magdalenske gore na Dolenjskem, kjer so bili pokopani skupaj s konjeniki in so pomenili prestiž.[232] Da so jih tudi na Mostu na Soči uporabljali

[231] Ib., 477 ss, tab. 4 in 7.
[232] Ib., 471 ss, tab. 2.

influences spreading up the river valleys, making them most suitable for both habitation and crop cultivation, while the climate in their alpine hinterland is harsher and vegetation cycles shorter, which are conditions that favour seasonal activities such as pastoral farming.[229]

The archaeozoological assemblage from the Iron Age settlement at Most na Soči is the largest (n = 11.767) of its period from the south-eastern Alpine area. It shows a predominance of sheep/goats (51.1%) and cattle (37%), a smaller share of domestic pigs (10%) and scarce remains of dogs, horses and hens.[230] The identifiable finds comprise as much as 98.5% of domestic animals and 1.5% of wild species, of the latter mainly red deer (1%) and wild boar (0.3%), but also a few bone fragments of roe deer, aurochs, hare, brown bear, fox and European pine marten (*Fig. 65*).

The animal remains from the Most na Soči settlement mainly illuminate the economic aspect of the human-animal relationships. They show efficient animal husbandry in which sheep/goats, cattle and pigs were reared for their meat, wool and hides, cattle also as draught animals. The age-at-death analysis shows that milk and wool were as important as meat and fats. Sheep, for example, were slaughtered at the age of three to five

[229] Perko, Orožen Adamič 2001, 34 ff.
[230] See here Toškan, 470 ff, Tab. 1.

za ježo, govorijo z brzdami opremljeni konjski skeleti, odkriti v grobišču.[233]

Zagotavljanje krme za živino za tamkajšnjo skupnost ni pomenilo večjih težav, saj je v neposredni okolici Mosta na Soči dovolj travniških površin, možnosti za sezonsko pašo pa ponuja tudi hribovito zaledje. Domnevno so gorsko pašništvo oziroma transhumanco prakticirali že v železni dobi, vendar je gospodarsko izkoriščanje planin iz tistih časov še slabo poznano in arheološko raziskano.[234] Kako so železnodobni prebivalci Mosta na Soči vzdrževali stalež živali čez zimo, ni jasno, saj znotraj naselbinskega rastra staje ali ograde niso bile ugotovljene niti prostori za skladiščenje krme. Prav tako nimamo jasnih indicev o načinih konzerviranja mesa.

Prehrano so si morda občasno dopolnjevali z divjačino, ki so jo lovili v okoliških gozdovih – jelenjadjo in srnjadjo, divjim prašičem, turom, medvedom in zajcem, ali pa so jo lovili zaradi kož in krzna, slednja možnost je verjetnejša predvsem za lisico in kuno zlatico. Ostanki lovnih živali so bili odkriti v hišah, ki smo jih prepoznali kot nekoliko premožnejše, medtem ko je jelenje rogovje zastopano tudi v objektih, namenjenih rokodelskim dejavnostim; na nekaterih kosih so vidni znaki obdelave, torej so ga uporabljali kot surovino.[235]

Čeprav v naselju ni bilo najdenih ostankov rib, je vendarle mogoče predpostavljati, da so se kdaj pa kdaj znašle na jedilniku tamkajšnjih prebivalcev, saj so navsezadnje živeli v objemu dveh rek. Dokaz za ribolov je bronast trnek iz jarka, ki je prečil pobočje na zahodnem delu naselbine.[236] In kaj bi z njim lahko ulovili? Soča je v zgornjem toku hudourniška reka, ki teče do Furlanske nižine po ozkih koritih in beli prodnati strugi proti Jadranskemu morju. Gre za mrzlo alpsko reko s snežnodežnim režimom, ki dosega višek pretoka spomladi ob taljenju snega v visokogorju in drugega ob jesenskem deževju, dolvodno pa se režim postopoma spremeni v dežno-snežnega. Celo v najtoplejših mesecih v zgornjem toku komaj kdaj doseže temperaturo 15 °C. V njej uspevajo salmonidne vrste rib, med avtohtone sodita soška postrv (*Salmo trutta marmoratus*), ki je danes cenjena lokalna specialiteta, in lipan (*Thymallus thymallus*) ter še nekatere druge vrste.[237]

O posebnem odnosu, ki ga je tedanji človek gojil do živali, govorijo najdbe s kultnega mesta (hiša 6/2), kjer so zastopani izključno nemesnati deli domačih živalih v podobnih razmerjih, kot kaže slika najdb iz

[233] Marchesetti 1893, 95, t. 30 (gr. M 2141), 123 s (gr. M 2788); Teržan, Lo Schiavo, Trampuž-Orel 1984–1985, 120 s, t. 51–52A (gr. Sz 592). Oznaka Sz je dodana številkam grobov, ki so bili odkriti med Szombathyjevimi izkopavanji na Mostu na Soči, tisti z Marchesettijevih izkopavanj so označeni z M.

[234] Glej npr. Horvat 2006, 21 ss; Cevc 2006, 113 ss.

[235] Svoljšak, Dular 2016, t. 24: 14-19, in še tu Toškan, tab. 6.

[236] Svoljšak, Dular 2016, 221 s, t. 100: 1.

[237] Povž, Sket 1990, 369; Rojšek 1991, 36 ss.

years, when their meat still had a culinary value, but had provided wool and milk for several seasons. The cattle population also mainly consisted of adult individuals, which could provide more milk and were also useful as draught and pack animals, which is indicated by the deformations on the extremities of older individuals. Quite a different age-at-death profile has been established for pigs, which were slaughtered in the first three years of their life. The single hen bone shows that poultry rearing was not (yet) significant in the household economy.[231] The low share of horse bones suggests that the animal was not a food source. The metric data show that some of the horse bones are comparable with the riding horses excavated at Magdalenska gora in Dolenjska, where they were buried together with their owners and served as symbols of social status.[232] The horses from Most na Soči were also used for riding, as suggested by horse skeletons buried complete with bridle bits in the associated cemetery.[233]

The community presumably had a plentiful supply of fodder, with vast meadows in the immediate vicinity and seasonal pastures in the mountainous hinterland. Transhumance would also have been practised in the Iron Age, though the economic exploitation of the alpine areas of the period is still very poorly known, with few archaeological investigations carried out thus far.[234] It is not clear how the Iron Age inhabitants of Most na Soči maintained their stock during winter, as no pens or enclosures, as well as no structures for fodder storage were documented within the settlement. We also have no clear indications as to how they preserved their meat.

The diet may occasionally have been supplemented with game hunted in the surrounding forests: red and roe deer, wild boars, aurochs, bears and hares. Wild animals may also have been hunted for their fur; this is particularly likely for foxes and pine martens. The remains of hunted animals were recovered from houses identified as slightly wealthier, while red deer antlers were also found in buildings intended for crafts; some of the antler pieces bear traces of being worked and suggest their use as raw material.[235]

The settlement yielded no fish remains, but the proximity of two rivers suggests that fish were on the menu from time to time, there is also material evidence of fishing in the shape of a fishhook, which was unearthed in the ditch that ran down the slope in the western part of the settlement.[236] We may even speculate as to the kinds

[231] Ib., 477 ff, Tabs. 4 and 7.

[232] Ib., 471 ff, Tab. 2.

[233] Marchesetti 1893, 95, Pl. 30 (Gr. M 2141), 123 f (Gr. M 2788); Teržan, Lo Schiavo, Trampuž-Orel 1984–1985, 120 f, Pls. 51–52A (Gr. Sz 592). The letters Sz mark the graves excavated during Szombathy's campaigns at Most na Soči, the letter M the graves excavated by Marchesetti.

[234] See e.g. Horvat 2006, 21 ff; Cevc 2006, 113 ff.

[235] Svoljšak, Dular 2016, Pl. 24: 14–19, and here Toškan, Tab. 6.

[236] Svoljšak, Dular 2016, 221 f, Pl. 100: 1.

celotnega naselja (50,5 % drobnice, 34 % goveda in 15,5% prašiča).[238] To le še potrjuje, kako pomembno vlogo so imele te živali za preživetje skupnosti. Prav tako jih zasledimo med pridatki v grobovih nekdanjih prebivalcev.[239] Na osnovi odkritij v grobišču lahko sklepamo, da so žrtvovali tudi konje.[240] Bolj oseben ali intimen odnos pa bi lahko videli v kostnih ostankih psa znotraj tlorisov hiš 3/1 in 15A/1, ki je nemara pomenil zvestega spremljevalca gospodarju pri lovu ali varovanju črede ali pa čuvaja hiše.[241]

ROKODELSTVO

Verjetno ne bomo daleč od resnice, če rečemo, da se je v železni dobi precej dejavnosti odvijalo v krogu samooskrbnega gospodarstva, saj so se z obdelovanjem lesa, pletarstvom, tkalstvom in deloma tudi lončarstvom lahko ukvarjali doma, oziroma za to niso bili potrebni samostojni poklici. Dosti večjo izurjenost je zahtevalo obdelovanje kovin. Potrebna so bila specialna znanja, ki so jih do podrobnosti obvladali le izurjeni mojstri. Pa si oglejmo, kaj nam o rokodelstvu povedo terenski izvidi in najdbe z Mosta na Soči.

Lončarstvo

Izdelki lončarjev, bodisi celi ali v črepinjah, so tudi na Mostu na Soči najpogostejše najdbe. Spekter predmetov je izredno širok, od posodja za kuho in vsakdanjo rabo pa vse do velikih silosov, v katerih so morda shranjevali živež in druge dobrine. Oblikovno pestra je tudi lončenina, izdelana za kultne namene. Ob posodju kaže omeniti številne glinene plošče, okrašene z najrazličnejšimi plastičnimi in vrezanimi ornamenti, ki so bile inventar nekaterih hiš.

Analiza keramičnega gradiva iz naselja – upoštevano je bilo okoli 19 % vseh najdb – je pokazala vrsto oblikovnih in tehnoloških značilnosti, ki si jih je vredno podrobneje ogledati.[242] Če se najprej ustavimo pri surovini, iz katere je bilo posodje narejeno, vidimo, da so lončarji glino pripravljali po preizkušeni recepturi. Praviloma so ji dodali pustilo iz kalcitnega peska različnih granulacij, ki ga zasledimo v večini izdelkov. Brez njega so redki kosi, predvsem uvoženo posodje

[238] Glej tu Toškan, 480 ss, tab. 5.

[239] Npr. gr. M 325, 411, 614, 863, 869, 880 itd. in Sz 248, 1149, 1354, 1819: Marchesetti 1893, 12, 17, 27, 39 ss itd.; Teržan, Lo Schiavo, Trampuž-Orel 1984–1985, 77, 206, 229, 293 s.

[240] Glej spodaj poglavje o blagovni menjavi in kulturnih stikih.

[241] Glej tu Toškan, 493, tab. 12.

[242] Glej tu Grahek, 250 ss.

of fish would have been fished. The Soča is a torrential river in the upper reaches, then flowing along a narrow bed to the Friuli plain and along a wide bed of white gravel further towards the Adriatic. It is a cold Alpine river with a nivo-pluvial regime that has one discharge peak in spring, from the snow melting in the mountains, and the other in autumn during the autumn rains, while further down it gradually changes to a pluvio-nival regime. Even in the warmest months, it barely reaches 15°C in the upper stretch. It is host to fish of the Salmonidae family, among them the autochthonous marble trout (*Salmo trutta marmoratus*), today a local delicacy, grayling (*Thymallus thymallus*) and several other species.[237]

The animal remains unearthed at the cult place (House 6/2) tell of the special relationship towards the animals. The cult structure only yielded least meaty body parts of domesticates in similar ratios as documented for the settlement as a whole (50.5% sheep/goat, 34% cattle and 15.5% pig).[238] This confirms the great significance of animals in the subsistence strategy of the community. Animal remains were also found in the graves of the community.[239] These show horse sacrifice as part of the burial ritual.[240] A more intimate relationship may be supposed for the bones of dogs recovered in Houses 3/1 and 15A/1, which may have accompanied their masters during hunting or herding, or may have guarded the house.[241]

CRAFTS

Evidence suggests that the Iron Age inhabitants at Most na Soči mainly practised subsistence economy; wood working, wickerwork, weaving and partly also pottery making took place within individual households and did not require specially trained craftsmen. Much greater skills were required for metal working; with specialised knowledge only possessed by trained masters. The text below will examine individual crafts at Most na Soči in greater detail.

Pottery making

The products of potters, be it complete or in shards, are the commonest small finds at Most na Soči. The array of everyday pottery is very wide, from cooking pots to large containers that presumably held foodstuffs

[237] Povž, Sket 1990, 369; Rojšek 1991, 36 ff.

[238] See here Toškan, 479 ff, Tab. 5.

[239] E.g. Grs. M 325, 411, 614, 863, 869, 880 and others, as well as Sz 248, 1149, 1354, 1819: Marchesetti 1893, 12, 17, 27, 39 ff etc.; Teržan, Lo Schiavo, Trampuž-Orel 1984–1985, 77, 206, 229, 293 f.

[240] See below, in the chapter on Exchange of goods and cultural contacts.

[241] See here Toškan, 492 f, Tab. 12.

iz finozrnate gline in grafitna keramika, ki večinoma izvirajo iz latenskodobnih hiš.[243]

Lončenino so oblikovali prostoročno. Ta tehnika izdelave je bila v starejši železni dobi običajna in jo srečamo tudi na drugih območjih jugovzhodnih Alp. Na počasnem lončarskem vretenu je bilo namreč izdelanih manj kot 3 % posod. Kdaj natančno se je uporaba ročnega vretena uveljavila, ni čisto jasno, sklepajoč iz časovne opredelitve gradiva, se je to najverjetneje zgodilo na začetku mladohalštatskega obdobja. Ker je bil Most na Soči poseljen tudi v mlajši železni dobi, ne preseneča, da je bilo nekaj posod narejenih na hitrem lončarskem vretenu. Njihovo število pa je majhno in ne dosega pol odstotka analiziranih fragmentov.

Večina keramičnih izdelkov je bila oksidacijsko žganih. Posod, narejenih v redukcijski atmosferi, je bilo manj kot 18 %, še skromnejši pa je delež reoksidacijsko žgane lončenine, ki dosega okoli 11 %. Prisotnost reoksidacijsko žganega posodja je pomembna predvsem s tehnološkega vidika. Kaže namreč, da so mostarski lončarji pri svojem delu uporabljali peči, saj je bilo mogoče le v njih doseči nadzorovano atmosfero. Keramika z Mosta na Soči je večinoma trda in čvrsta. Kvaliteta je vsekakor rezultat skrbne priprave lončarske gline, k temu pa je treba dodati dobro obvladovanje postopkov sušenja in žganja.

Največji delež posodja iz naselja pripada loncem in pitosom, ki po številu skoraj za petkrat presegajo ostale oblike.[244] Gre za lončarske izdelke namenjene shranjevanju živil in pripravi hrane. Glede na priljubljenost loncev bi lahko rekli, da so na ognjiščih pripravljali zlasti kašaste jedi. Med kuhinjskim inventarjem je treba omeniti še redke pekve in prenosne pečke, ki so služile za peko kruha in mesa.[245] Številnejši so bili v hišah glinasti svitki, za katere pa ni nujno, da so jih kot podstavke uporabljali zgolj na ognjiščih.[246] Ob skoraj popolni odsotnosti piramidalnih uteži je zelo verjetno, da so z njimi napenjali tudi niti na statvah.

Zanimiva je primerjava naselbinske lončenine s posodjem, ki so ga našli v grobišču. Čeprav gre za izdelke istih lončarjev, prevladujejo v grobovih povsem drugačne forme. Izjema so zgolj pitosi in situle, ki so razmeroma številni tako v naselju kot grobišču. Največji razkorak je opaziti pri latvicah in loncih z nogo, ki sta v grobovih najpogostejši obliki, medtem ko jih v naselju skorajda ni. Vzrok tiči morda v dejstvu, da gre v obeh primerih za posodje, ki mu je priljubljenost v mladohalštatskem obdobju, torej v času, kamor sodi raziskan predel naselja, vidno upadla.[247] Bodi kakorkoli že, grobiščna keramika se od naselbinske bistveno razlikuje. To ne preseneča, saj je posodje služilo različnim namenom.

[243] Grahek, Košir v tej knjigi, 309 ss.
[244] Grahek v tej knjigi, sl. 23 in 24.
[245] Ib., sl. 26.
[246] Ib., sl. 25.
[247] Dular 1982, 92 ss, sl. 9 in 10.

and other goods. Also formally varied is the pottery produced for cult purposes. There are even numerous ceramic plaques decorated with different applied and incised motifs found inside several of the houses.

The analysis of the settlement pottery (performed on roughly 19% of all ceramic finds) has revealed a number of common formal and technological features.[242] One of these is the raw material. Clay was prepared according to a tested recipe, generally with added temper of calcite sand of various grain sizes, and used to make the majority of products. The rare products without such temper are mainly imported vessels of fine fabric and graphite ware predominantly from the La Tène houses.[243]

The pottery was hand-built. This was the technique generally employed in the Early Iron Age and has been recorded in other areas of the south-eastern Alps as well. Less than 3% of vessels was thrown on the slow wheel. It is not clear exactly when the potters began using the hand-driven wheel on a regular basis, though the chronological attribution of pottery suggests it must have occurred at the beginning of the Late Hallstatt period. As Most na Soči was also inhabited in the Late Iron Age, it is not surprising that several vessels were also made on the fast wheel; their number is small though and does not exceed 0.5% of the analysed shards.

Most of the pottery was fired in an oxidising atmosphere. Less than 18% of the analysed pieces reveal firing in a reducing and even less, roughly 11%, in a reoxidising atmosphere. The presence of pottery fired in a reoxidising atmosphere is significant from the technological standpoint, because it shows that potters at Most na Soči used pottery kilns, as this is the only way to achieve the controlled atmosphere needed. The pottery from Most na Soči is predominantly hard and resistant. Its quality is certainly the result of careful preparation of the clay, but also of mastering the drying and firing process.

The commonest forms of vessels are jars and pithoi, which are five times more numerous than other forms.[244] These were products intended for storing and preparing food. The high number of jars suggests that mainly porridge and stews were prepared on the hearths. The cooking utensils also include rare baking lids and portable ovens, which would have been used for making bread and preparing meat.[245] Found in the houses in greater numbers were ceramic rings, which could have been used as cooking stands.[246] The almost complete absence of loom weights, however, indicates that they may also have been used in looms, for keeping the threads taught.

The pottery from the settlement differs from that found in the associated cemetery. Although products of the same potters, the cemetery revealed a very different

[242] See here Grahek, 250 ff.
[243] Grahek, Košir here, 309 ff.
[244] Grahek in this publication, Figs. 23 and 24.
[245] Ib., Fig. 26.
[246] Ib., Fig. 25.

Lončenina iz grobov je velikokrat bogato okrašena. Omenimo lahko nalepljena rebra in bradavice, barvanje z rdečo in črno barvo ter apliciranje bronastih žebljičkov, s katerimi so narejeni najrazličnejši ornamenti. Vreze so večkrat zapolnili z belo pasto in s tem dosegli pestrejši videz. Nekatere posode so bile okrašene z nalepljenimi lističi iz svinca ali kositra.[248] Vse kaže, da je imela okrašena lončenina precejšnjo vrednost, sicer je ne bi, če se je razbila, skušali popraviti. Marchesetti nam je o tem posredoval pomembna opažanja. Odlomljene dele so zlepili s smolo, nato pa so spoje povezali z objemkami iz svinca in kositra, ki so jih vstavili v prej izvrtane luknjice.[249] Zanimiv je podatek o reparaturi žare iz groba M 1203. Razmeroma široko luknjo so zalili z zlitino 45,60 % kositra in 33,47 % svinca, za kar so porabili kar 576 gramov zmesi.[250] Iz podatka je mogoče sklepati dvoje: da svinec in kositer nista bili kdove kako cenjeni kovini – kar je seveda malo verjetno – ali pa je imelo nekatero posodje v pogrebnih ritualih zelo pomembno mesto. S svinčenimi čepi zakrpane pitose omenja namreč v svojih terenskih dnevnikih tudi Szombathy.[251]

Razgibane oblike, pestra ornamentika in dovršena izdelava posodja kažejo na to, da se je lončarstvo na Mostu na Soči v mlajšem halštatskem obdobju večinoma že izvilo iz objema hišnega gospodarstva. Od objektov, ki bi jih lahko prepoznali kot lončarski obrat, je edino hiša 23/1.[252] V njej je bila večja jama, na njenem dnu pa je na zoglenelih deskah ležal velik kup svitkov, okrašenih plošč in lončenine. Vse skupaj je prekrivala prežgana in otrdela ilovnata gmota. Svitki so bili v različnih položajih. Ob vzhodnem robu so bili naloženi drug vrh drugega, v sredini pa so ležali bodisi pošev ali pokonci. Iz njihovih leg je mogoče razbrati, da so bili zloženi na lesen podest, ki je prekrival jamo. Očitno zaradi sušenja. Ker je delavnico zajel uničujoči požar, je ogenj neenakomerno prežgal tudi izdelke. Kje so stale lončarske peči, izkopavanja niso odkrila. Gotovo na prostem in zaradi požarne varnosti tudi v primerni oddaljenosti od hiš.

Obdelava lesa

Čeprav je bila v železni dobi večina predmetov najverjetneje iz lesa, imamo o tem pravzaprav malo dokazov, saj gre za neobstojen material, ki se je ohranil le v redkih primerih. Če namreč odmislimo ostanke lesene arhitekture in z njo povezanega tesarstva – to smo izčrpno obravnavali v poglavju o gradnji hiš – lahko omenimo iz naselja zgolj tri predmete. Najprej zoglenele

[248] Marchesetti 1893, 140 ss, t. 4–7.

[249] Ib., 150, t. 4: 3, 11.

[250] Ib., opomba 1 in 2.

[251] Npr. gr. Sz 73, 221, 642, 651. Teržan, Lo Schiavo, Trampuž-Orel 1984–1985, 55, t. 10C: 16; 74, t. 22C: 3; 126 s, t. 55B: 4; 129, t. 60B: 2-4.

[252] Svoljšak, Dular 2016, 166 ss.

array of forms with the exception of pithoi and situlae that are relatively frequent everywhere. The largest difference is in the dishes with an inturned rim and pedestal jars, which are the commonest forms in graves, but almost absent in the settlement. The cause of this difference may be in the fact that both forms drastically dropped in popularity in the Late Hallstatt period, which is the date of the investigated part of the settlement.[247] Having said this, differences are to be expected as the pottery served different purposes.

The pottery from the graves is often richly decorated with cordons and knobs, red and black painting, bronze studs to form a variety of motifs. Incisions were frequently filled with white paste to achieve a more colourful appearance. Some vessels are also adorned with leaves of lead or tin.[248] This shows a higher value of the decorated pottery, which was repaired when broken. Marchesetti offered important observations on this topic. He noted that the broken off pieces were reattached using resin and the fractures reinforced with clamps of lead and tin set into previously drilled holes.[249] An interesting example is also the urn from Grave M 1203, which was repaired by filling a relatively large crack with an alloy of tin (45.60%) and lead (33.7%) that weighed as much as 576 grams.[250] This information reveals that either lead and tin were not especially precious metals – which is not very likely – or that some of the pottery involved in the burial rituals was of particular importance. Szombathy makes similar references in his field diaries, mentioning pithoi repaired with lead plugs.[251]

The diversity of form and decoration, as well as the skillful execution show that pottery making in the Late Hallstatt period at Most na Soči was no longer a household activity. The only one of the buildings in the settlement that may have functioned as a potter's workshops is House 23/1.[252] It had a large pit that contained charred wooden boards and on them a large heap of ceramic rings, decorated plaques and pottery, all covered by a burnt and hardened mass of loam. The rings were lying in different positions; at the eastern edge they were found stacked on top of one another, in the centre they were positioned either at an angle or upright. This suggests they were placed onto a wooden floor that covered the pit, apparently for drying. At one point, the workshop suffered a devastating fire that caused the ceramic products to become unevenly fired. Excavations did not establish the location of the pottery kilns; they were certainly located in the open and, to avoid fire hazard, also at a safe distance from the houses.

[247] Dular 1982, 92 ff, Figs. 9 and 10.

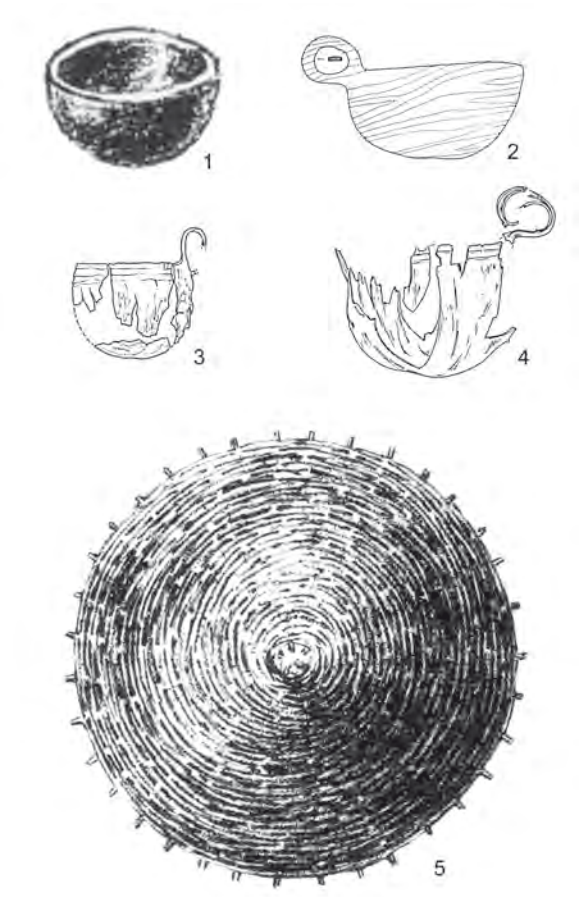
[248] Marchesetti 1893, 140 ff, Pls. 4–7.

[249] Ib., 150, Pl. 4: 3,11.

[250] Ib., Fns. 1 and 2.

[251] E.g. Graves Sz 73, 221, 642, 651. Teržan, Lo Schiavo, Trampuž-Orel 1984–1985, 55, Pl. 10C: 16; 74, Pl. 22C: 3; 126 f, Pl. 55B: 4; 129, Pl. 60B: 2–4.

[252] Svoljšak, Dular 2016, 166 ff.



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Sl. 66: Lesene posode iz grobov M 2672, Sz 908, Sz 1586, Sz 1563; pokrov iz protja iz groba M 2151; (po Marchesetti 1893 in Teržan, Lo Schiavo, Trampuž-Orel 1984–1985). M. = 1:3.
Fig. 66: Wooden cups from Graves M 2672, Sz 908, Sz 1586, Sz 1563 and wicker lid from Grave M 2151; (from Marchesetti 1893 and Teržan, Lo Schiavo, Trampuž-Orel 1984–1985). Scale = 1:3.

ostanke manjše kadi oziroma čebra, ki so ležali na podu blizu ognjišča v hiši 16/1.[253] Antrakološka analiza je pokazala, da so za izdelavo dog uporabili les rožnic in bukve, medtem ko je bil obroč iz leske.[254] Ostala dva predmeta sta bila najdena na območju kultnega mesta (druga faza hiše 6).[255] Prvi je odlomek z obeh strani obdelanega in zglajenega lesa, ki bi lahko bil prav tako del lesene posode. Drugi kos je zanimivejši, verjetno gre za del predilnega vretena. Predmet je okrogle oblike, na njem so sledi vzporednih raz, kar je dokaz, da je bil narejen na stružnici.[256] Vrste lesa, iz katerega sta bila predmeta narejena, zaradi neustreznih konservacijskih posegov ni bilo mogoče določiti.

Z Mosta na Soči je znanih tudi nekaj lesenih posod. Najdene so bile v grobovih (*sl. 66: 1–4*).[257] Gre za skodele oziroma sklede manjših dimenzij, ki so služile za zajemanje pijače, saj so ležale v notranjosti bronastih posod. Po oblikah so podobne lončenim izdelkom.

[253] Ib., 137, sl. 126.

[254] Glej tu Motella De Carlo, 419, sl. 49 (vzorci 36, 38–41).

[255] Tolar v tej knjigi, 446, sl. 1.

[256] O struženju v železni dobi glej Drescher 1980, 58 ss.

[257] Gr. M 2672, M 2694, Sz 908, Sz 955, Sz 1563, Sz 1586. Marchesetti 1893, 118, t. 2: 3; 119. Teržan, Lo Schiavo, Trampuž-Orel 1984–1985, 171, t. 91: 10; 180; 258, t. 146C: 8; 262, t. 149A: 7.

Woodworking

Most artefacts used in the Iron Age were probably made of wood, though this is an assumption not well supported by material evidence given that wood as an organic material rarely survives through the ages. The Iron Age settlement at Most na Soči has revealed remains of wood, most of which is structural and discussed in detail in the chapter on the Iron Age architecture in Posočje. It also revealed three smaller objects of wood. One is a tub or tank, the charred remains of which were found on the floor near the hearth in House 16/1.[253] Wood analysis has shown that the staves were made of rose and beech wood, while the hoop was made of hazelwood.[254] The other two artefacts were recovered in the area of the cult place (second phase of House 6).[255] One is a fragment of wood worked and smoothed from both sides that may also have formed part of a wooden vessel. The other piece is probably part of a spindle; it is round and bears parallel incisions indicating turning.[256] The last two items have been subjected to inappropriate conservation procedures and the wood species cannot be determined.

The cemetery at Most na Soči revealed several wooden vessels offered in graves (*Fig. 66: 1–4*).[257] They are small bowls or dishes that served as ladles, as indicated by their positions inside larger bronze vessels. They are similar in form to the ceramic vessels.

Tools provide indirect evidence of woodworking. A number of them have been found at Most na Soči and are jointly presented on *Fig. 67*.[258] They include tools only used in woodworking, namely a drawknife and spoon auger from House 29/1.[259] Knives, chisels, punches, choppers and awls could also have been used to work other materials, such as metal, leather and bone. Drawknives, which continued to be used in similar

[253] Ib., 2016, 137, Fig. 126.

[254] See here Motella De Carlo, 419, Fig. 49 (Samples 36, 38–41).

[255] Tolar in this publication, 446, Fig. 1.

[256] On turning in the Iron Age see Drescher 1980, 58 ff.

[257] Graves M 2672, M 2694, Sz 908, Sz 955, Sz 1563, Sz 1586. Marchesetti 1893, 118, Pl. 2: 3; 119. Teržan, Lo Schiavo, Trampuž-Orel 1984–1985, 171, Pl. 91: 10; 180; 258, Pl. 146C: 8; 262, Pl. 149A: 7.

[258] Also see Laharnar in this publication, 219 ff.

[259] Svoljšak, Dular 2016, Pl. 90: 5,8.

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Sl. 67: Seznam rokodelskih orodij iz naselbine Most na Soči.
Fig. 67: List of tools found in the settlement at Most na Soči.

HIŠA / HOUSE	nož / knife	puncirno orodje / punching tool	dleto /chisel	sekač / flat chisel	prebijač / punch	sveder / auger	rezilnik / drawknife	šilo / awl	šivanka / needle
1/2	x								
3/1	2x								
7				x					
10			x						
11/1			x						
11/2		x							x
14/1	2x								
15A/1	x								
15A/2		4x							
16								x	
29/1			x			x	x		
30/1					x			x	
31/1		x							x

Posredni dokaz za obdelavo lesa so tudi rokodelska orodja. Na Mostu na Soči jih ni bilo veliko, zato smo jih združili na eni preglednici (*sl. 67*).[258] Med njimi sta značilni orodji za les zgolj polkrožen rezilnik in žličast sveder iz hiše 29/1.[259] Z noži, dleti, puncirnimi orodji, sekači in šili je bilo moč obdelovati tudi druge materiale, na primer kovino, usnje in kost. Rezilnik, ki se je kot značilno orodje kolarjev in sodarjev v podobnih oblikah ohranil vse do današnjih dni, najdemo v grobovih na Mostu na Soči, Idriji pri Bači in Reki pri Cerknem.[260]

Pletarstvo

Maloštevilni so pletarski izdelki, čeprav so jih, podobno kot keramiko, verjetno množično izdelovali. Poznamo jih zgolj iz grobov. Gre za nekakšne pokrove, spletene iz vrbja, s katerimi so zaščitili bronaste situle (*sl. 66: 5*).[261] Posode so pred tem praviloma zavili v platno, večkrat so jih obdali tudi z drevesno skorjo.[262]

Obdelava rogovine, kosti in koral

V hiši 4, ki je bila zanesljivo delavnica, je bilo v eni od jam odkritih šest delno obdelanih kosov rogovine. Gre za polizdelke, zato ne vemo, čemu so bili namenjeni.[263] Sicer pa je bilo tudi končnih izdelkov malo. Iz hiše 31/1 lahko omenimo fragment koščene igle,[264] valj, iglo in lepo okrašeni platišči nožev iz kosti pa poznamo tudi iz grobišča.[265] Okrogle ploščice in obeske iz rdečih koral so odkrili na območju kultnega mesta.[266] Seveda ni nujno, da so bili izdelani v naselju; v Posočje bi lahko prišli po trgovskih poteh.

[258] Glej tu Laharnar, 218 ss.
[259] Svoljšak, Dular 2016, t. 90: 5, 8.
[260] Guštin 1991, t. 2:7, 33: 2, 43: 12.
[261] Npr. gr. M 2151, M 2672, M 2694. Marchesetti 1893, 95, t. 27: 13; 118 s.
[262] Ib., gr. M 356, M 1377, M 2792 itd. Marchesetti 1893, 14, 63, 124.
[263] Svoljšak, Dular 2016, t. 24: 14–19.
[264] Ib., t. 97: 5.
[265] Gr. M 19, M 1527, M 2683, M 2695. Marchesetti 1885, 101. Marchesetti 1893, 70, t. 7: 17; 118, t. 27: 17; 119, t. 27: 16.
[266] Laharnar v tej knjigi, 224.

forms to this day as the typical tool of cartwrights and coopers, have also been found in the graves at Most na Soči, Idrija pri Bači and Reka near Cerkno.[260]

Wickerwork production

Very few wickerwork objects survive, even though they must have been produced in great numbers similarly as pottery. Remains of such objects were found in graves, in the form of covers made of interwoven willow branches that protected bronze situlae (*Fig. 66: 5*).[261] Before covering them, the vessels were usually wrapped in a cloth, often also surrounded by tree bark.[262]

Working horn, bone and coral

House 4 has been positively identified as a workshop and revealed, among other finds, six partially worked pieces of horn in one of its pits. These are semi-finished products of unknown function.[263] The settlement yielded very few finished products of either horn, bone or coral. House 31/1 revealed a fragment of a bone needle,[264] while a cylinder, a pin and beautifully decorated bone grips of knives were found in graves.[265] Discs

[260] Guštin 1991, Pls. 2:7, 33: 2, 43: 12.
[261] E.g. Graves M 2151, M 2672, M 2694. Marchesetti 1893, 95, Pl. 27: 13; 118 f.
[262] Ib., Graves M 356, M 1377, M 2792 etc. Marchesetti 1893, 14, 63, 124.
[263] Svoljšak, Dular 2016, Pl. 24: 14–19.
[264] Ib., Pl. 97: 5.
[265] Graves M 19, M 1527, M 2683, M 2695. Marchesetti

Tkalstvo

S prejo in tkanjem običajno povezujejo glinaste vijčke in uteži, ki so v naseljih pogoste najdbe. Situacija na Mostu na Soči je nekoliko drugačna.[267] Čeprav so bile raziskane razmeroma velike površine, so našli v naselju zgolj tri vijčke (v hišah 3/2, 19 in 31/1).[268] Ker so takšni predmeti na Mostu na Soči zelo redki tudi v grobovih,[269] je zelo verjetno, da so za prejo uporabljali predvsem vretena iz lesa z odebeljenim spodnjim delom, s čimer je bil palici zagotovljen vztrajnostni moment. Del takšnega vretena je že večkrat omenjeni zogleneli izstruženi kos, ki so ga našli na območju kultnega mesta (druga faza hiše 6).

Prav tako presenečа maloštevilnost piramidalnih uteži. Našli so jih pet, od teh pa je bila ena tako slabo žgana, da je razpadla že ob izkopu.[270] Uteži so običajno služile za napenjanje niti na statvah, o čemer se lahko poučimo iz primerov, ko so jih našli v funkcionalnih legah.[271] Izostanek piramidalnih uteži kaže na to, da so na Mostu na Soči za napenjanje niti uporabljali druge predmete, najverjetneje glinaste svitke.[272] Našli so jih v več kot polovici hiš, največ (čez sto) v hiši 23/1, kjer so jih očitno izdelovali. S predenjem in tkanjem lahko povežemo tudi glinaste motke.[273]

Poleg predilnih in tkalskih pripomočkov poznamo z Mosta na Soči tudi ostanke tekstila. Več kot dvajsetkrat sta jih v grobovih dokumentirala Marchesetti in Szombathy. Gre za fino, redkeje tudi grobo tkano platno, v katerega so zavili bronaste situle in ciste, preden so jih pridali v grobove.[274] Trije manjši zogleneli vzorci tkanine so bili najdeni tudi v naselju, in sicer na območju kultnega mesta (druga faza hiše 6). Natančna analiza je pokazala, da so pri tkanju uporabili vezavo platno, vlakna pa so bila iz lanu ali konoplje.[275] To je vsekakor zanimivo, saj med analiziranimi semeni z Mosta na Soči ni bilo teh dveh kulturnih rastlin. Vzrok tiči verjetno v dejstvu, da vsebine shrambnih jam niso bile preiskane s flotacijskim postopkom.[276] Visok delež ovac med domačimi živalmi dovoljuje sklep, da so uporabljali tudi volno. Verjetno ne bomo daleč od resnice, če rečemo, da so se s prejo in tkanjem ukvarjale predvsem žene v okviru hišnih gospodarstev. Isto velja za šivanje, kar

[267] Grahek v tej knjigi, 285 s.

[268] Svoljšak, Dular 2016, t. 23: 12, 59: 9, 97: 4.

[269] Marchesetti 1893, 141.

[270] Svoljšak, Dular 2016, 155 in t. 1: 9, 11, 10: 10, 65: 3.

[271] Glej npr. Dobiat 1990, 50 ss; Slonek 1990.

[272] Glej tu Grahek, 280 ss.

[273] Svoljšak, Dular 2016, t. 69: 1, 74: 3-7, 85: 5, 100: 17-19.

[274] Npr. gr. M 256, M 356, M 1349; Sz. 1563; Sz 1586 itd. Marchesetti 1893, 8, 14, 62. Teržan, Lo Schiavo, Trampuž-Orel 1984–1985, 258, 262.

[275] Gromer et al. v tej knjigi.

[276] Lan je na primer znan s sočasnega gradišča Cvinger pri Dolenjskih Toplicah; Dular, Tecco Hvala 2007, 209, sl. 119.

and pendants of red coral were recovered in the area of the cult place.[266] The last items may have been produced elsewhere and arrived in Posočje as trade goods.

Weaving

The items usually associated with spinning and weaving are clay spindle whorls and weights, which are common finds in settlements. Most na Soči is somewhat of an exception in this sense;[267] even though a relatively large area has been investigated, archaeologists only recovered three spindle whorls (in Houses 3/2, 19 and 31/1).[268] They are also rare in graves,[269] which suggests that the inhabitants mainly spun their yarn by using spindles with a thickened lower part that provided the weight to keep the spin going. Part of such a spindle is the already mentioned charred piece of turned wood found at the cult place (second phase of House 6).

Also surprising is the paucity of pyramidal weights. Only five have been found in the settlement, one of which was so poorly fired that it disintegrated upon discovery.[270] Weights were used to keep the threads on the loom taught, as indicated by the examples found in functional positions.[271] This low number suggests that other objects were used for this purpose at Most na Soči, most probably ceramic rings.[272] These have been found in more than half of all houses, most numerously (over a hundred rings) in House 23/1, where they were presumably produced. Also connected with spinning and weaving are clay bobbins.[273]

Most na Soči has even yielded remains of textile. Marchesetti and Szombathy documented textile remains in more than twenty graves. They are the remains of mainly finely, rarely coarsely woven fabrics used to wrap bronze situlae and cists before placing them in graves.[274] Three smaller pieces of charred cloth have also been recovered in the settlement, at the cult place (second phase of House 6). Detailed analysis has shown a plain-woven fabric or canvas of either flax or hemp fibres.[275] This is significant because the analysed seeds from Most na Soči did not include these two plants, though this is probably

1885, 101. Marchesetti 1893, 70, Pl. 7: 17; 118, Pl. 27: 17; 119, Pl. 27: 16.

[266] Laharnar in this publication, 225.

[267] Grahek in this publication, 285 f.

[268] Svoljšak, Dular 2016, Pls. 23: 12, 59: 9, 97: 4.

[269] Marchesetti 1893, 141.

[270] Svoljšak, Dular 2016, 155, Pls. 1: 9,11, 10: 10, 65: 3.

[271] See e.g. Dobiat 1990, 50 ff; Slonek 1990.

[272] Grahek in this publication, 280 ff.

[273] Svoljšak, Dular 2016, Pls. 69: 1, 74: 3-7, 85: 5, 100: 17-19.

[274] E.g. Graves M 256, M 356, M 1349; Sz 1563; Sz 1586 etc. Marchesetti 1893, 8, 14, 62. Teržan, Lo Schiavo, Trampuž-Orel 1984–1985, 258, 262.

[275] Gromer et al. in this publication.

kaže fragment bronaste šivanke iz hiše 11/2.[277] Nekaj so jih našli tudi v grobovih.[278] Seveda ob tem ne smemo izključiti možnosti, da so tkanje platna in šivanje zahtevnejših krojev lahko zaupali tudi za to dejavnost posebej izurjenim rokodelcem.

Livarstvo

Zaradi bližine bakrovih rudišč, ki so razširjena v grödenskih plasteh na območju Cerkljanskega in Škofjeloških hribov, bi lahko predpostavljali, da so se prebivalci Posočja s to pomembno kovino oskrbovali tudi s tega območja.[279] Od Mosta na Soči je namreč oddaljeno 20–30 km. Vendar so to zgolj predpostavke, ki jim manjkajo trdni dokazi. Že zdaj je jasno, da so se v naselju ukvarjali s sekundarno proizvodnjo, torej z izdelovanjem bronastega nakita in posod, kar dokazujejo številne lokalne oblike, značilne le za posoško železnodobno skupnost. Ena najprepoznavnejših je svetolucijska ločna fibula, ovešena s številnimi obeski, unikatna pa je tudi zasnova velikih žar iz bronaste pločevine, za katere je že Marchesetti ugotovil, da imajo obliko na Mostu zelo priljubljenih keramičnih pitosov.[280]

Vendar imamo v naselju o livarstvu tudi neposredne dokaze. To so ostanki bronaste taline, ki je med vlivanjem mimo kalupa stekla na tla in nato skrepenela v različne oblike. Našli so jih v sedmih hišah. Gre za majhne količine, kar kaže na to, da so s surovino varčno ravnali (*sl. 68*).[281] Ostanki taline so večinoma ležali v ruševinah objektov, ki niso imeli drugih, za livarstvo značilnih struktur in orodij (velja za hiše 8/2, 10/2, 22A/2, 31/1). Nekoliko drugačna je bila situacija v hiši 29/1.[282] Drobci strjene bronaste taline so namreč ležali v polnilu jam, ki sta bili vkopani v geološko osnovo iz rumenkaste ilovice in peska. Večja jama je imela pravokoten tloris (1,8 x 3,0 m), njena prvotna globina je znašala vsaj 40 cm. Stene so bile prežgane, močna plast pepela in drobcev lepa se je vlekla tudi po njenem dnu. Ker so podobne ostanke odkrili tudi v drugi, manjši jami, je na dlani, da se je v obeh odvijal proces povezan z ognjem. Žal razen fragmenta brusa, železnega svedra in rezilnika v jamah niso našli drugih orodij, je pa bil fragment dvodelnega kalupa za vlivanje obročkov najden nekoliko višje v ruševinah njene druge gradbene faze.[283] Hišo 29/1 lahko kljub temu označimo za delavnico, v kateri so se zanesljivo ukvarjali tudi z livarstvom.

[277] Svoljšak, Dular 2016, t. 32: 7.

[278] Gr. M 2175, Sz 519, Sz 1015. Marchesetti 1893, 97, t. 23: 26. Teržan, Lo Schiavo, Trampuž-Orel 1984–1985, 111, t. 44F: 10; 189, t. 102E: 2.

[279] Drovenik, Pleničar; Drovenik 1980, 46.

[280] Marchesetti 1893, 139 s, 184; glej še Bravar 1984, 137.

[281] Količine iz hiše 10 ni bilo mogoče izmeriti, ker so fragmenti izgubljeni.

[282] Svoljšak, Dular 2016, 196 ss.

[283] Ib., t. 90: 5, 7, 8; 92: 6.

the result of the fills in storage pits not being wet-sieved.[276] The high share of sheep bones among the domestic animals allows us to infer the production of wool. We may propose that spinning and weaving was the domain of women as part of their household activities. The same goes for sewing, as indicated by the fragment of a bronze needle found in House 11/2.[277] Several needles were also found in graves.[278] Having said that, we should not exclude the possibility that weaving canvas and sewing more intricate costumes was entrusted to specially trained tailors.

Metal casting and metalworking

The proximity of copper ore deposits, widespread in the Gröden formations in the Cerkno area and the Škofja Loka Hills, indicate that the inhabitants of Posočje may have extracted this important metal here,[279] at a distance of 20–30 km from Most na Soči. We have thus far not been able to support this hypothesis with material evidence. It is certain that they did engage in secondary production of bronze, making jewellery and vessels; this is proven by numerous local forms characteristic of the Posočje Iron Age community. Among the most characteristic local products is the Sveta Lucija arch fibula adorned with numerous pendants hanging from it, but also the design of the large urns of sheet bronze that share the form of ceramic pithoi so popular at Most na Soči, as Marchesetti already observed.[280]

We also have direct evidence of the casting process at Most na Soči. The settlement revealed pieces of bronze melt that represent the liquid metal that ran outside the casting mould and ended on the floor, where it solidified into amorphous pieces. Such finds have been documented in seven houses. Together they make up a small amount of metal, which indicates economical handling of the raw material (*Fig. 68*).[281] The pieces of bronze melt were mainly found in houses that revealed no other structures or tools characteristic of casting (e.g. Houses 8/2, 10/2, 22A/2, 31/1). The situation in House 29/1 is slightly different:[282] the pieces of bronze melt were found in the fill of the pits dug into the natural deposit of loam and sand. The larger of the two pits was rectangular in plan (1.8 x 3.0 m) and its original depth measured at least 40 cm. Its walls were burnt and

[276] Flax has been documented at the contemporary hillfort on Cvinger near Dolenjske Toplice; Dular, Tecco Hvala 2007, 209, Fig. 119.

[277] Svoljšak, Dular 2016, Pl. 32: 7.

[278] Graves M 2175, Sz 519, Sz 1015. Marchesetti 1893, 97, Pl. 23: 26. Teržan, Lo Schiavo, Trampuž-Orel 1984–1985, 111, Pl. 44F: 10; 189, Pl. 102E: 2.

[279] Drovenik, Pleničar; Drovenik 1980, 46.

[280] Marchesetti 1893, 139 f, 184; also see Bravar 1984, 137.

[281] The bronze melt from House 10 has not been weighed because the fragments are lost.

[282] Svoljšak, Dular 2016, 196 ff.

HIŠA / HOUSE	ŠT. KOSOV / NO. OF PIECES	TEŽA (dkg) / WEIGHT (dag)	LEGA / POSITION
4	2	9,2	jama / pit 3
8/2	8	11,8	v ruševinah / in debris
10/2	?	?	v ruševinah / in debris
22A/2	1	5,0	v ruševinah / in debris
29/1	23	15,0	jama / pit 1
29/1	15	8,3	jama / pit 2
31/1	4	22,3	v ruševinah / in debris

Sl. 68: Ostanki strjene bronaste taline iz naselbine Most na Soči.
Fig. 3: Remains of solidified bronze melt from the settlement at Most na Soči.

Sl. 69: Hiša 4; dvodelni kalupi. (Foto: T. Lauko)
Fig. 69: Two-piece moulds from House 4. (Photo: T. Lauko)

Še prepričljivejši dokazi za livarsko dejavnost so bili odkriti v hiši 4. Stala je na pobočju na skrajnem severovzhodnem koncu raziskanega območja, zato so se od nje ohranili borni ostanki.[284] Na svojih mestih je namreč ostalo le nekaj kamnov severovzhodnega temelja. Veliko pomembnejše je bilo odkritje treh okroglih jam v severnem kotu objekta, ki so bile tesno druga ob drugi vkopane v geološko osnovo. Največja (jama 3) je bila globoka 48 cm, v njenem zasipu so poleg močno prežganih predmetov iz rogovine ležali še ostanki strjene bronaste taline, dvodelni kalup za vlivanje obročkov in livarska zajemalka (*sl. 69: c; 70*). Del kalupa za vlivanje

[284] Ib., 65 ss.

Sl. 70: Hiša 4; livarska zajemalka z dulcem. (Foto: T. Lauko)
Fig. 70: Casting ladle with a spout from House 4. (Photo: T. Lauko)

the bottom covered with a thick layer of ash and bits of loam daub. A similar fill was also recorded in the second, smaller pit, which suggests that a process involving fire took place in both. The tools found in the pits comprise a fragment of a whetstone, an iron auger and a drawknife, while a fragment of a two-piece mould for casting rings lay higher up in the debris of the second construction phase.[283] In spite of this, House 29/1 can be interpreted as a workshop where casting was one of the activities being conducted.

Even clearer evidence for casting was unearthed in House 4. The building stood on the slope, at the north-eastern edge of the investigated area.[284] Its scarce remains include few stones of the northeast foundations *in situ*, but also three round pits in the north corner dug into the natural deposit close to one another. The largest, Pit 3 was 48 cm deep and its fill included heavily burnt objects of horn, pieces of solidified bronze melt, a two-piece mould for casting rings and a casting ladle (*Figs. 69: c; 70*). Part of a mould for casting spearheads was found in the fill of Pit 1, but it must have been in secondary use as both ends are missing, but have smoothly rounded sides (*Fig. 69: b*). The remains of casting and metalworking tools were also found in the debris of the house, i.e. two other moulds, two whetstones and two

[283] Ib., Pls. 90: 5,7 8, 92: 6.
[284] Ib., 65 ff.

←

Sl. 71: Hiša 4; brusna koluta in brusni kamen. (Foto: T. Lauko)
Fig. 71: Grinding wheels and whetstone from House 4. (Photo: T. Lauko)

grinding wheels. The last two items show that rotating abrasive wheels were used to finish metal objects (*Figs. 69: a,d; 71*). House 4 can therefore reliably be identified as a casting-metalworking workshop.

The settlement at Most na Soči yielded another, fragmented two-piece mould intended for casting buttons. It was found among the remains of the third construction phase of House 15A, which was so poorly preserved that it is not possible to determine its function.[285]

The petrologic analysis has revealed that only flysch sandstone and marlstone was used to make the moulds at Most na Soči.[286] This is understandable because these rocks can be readily worked, can withstand high temperatures and their deposits are known in the immediate vicinity of the settlement.

The settlement also yielded two casting ladles. The first has already been mentioned in connection with House 4. It is a miniature ladle only measuring 6 cm across. It has a grip at one side and a small spout in front

[285] Ib., 133, Pl. 54: 9.
[286] See here Horvat, 349 ff, Tables 1 and 2.

Sl. 72: Hiša 15/2; livarska posodica z dulcem. (Foto: D. Svoljšak)
Fig. 72: Casting pot with a spout from House 15/2. (Photo: D. Svoljšak)

suličnih osti je bil najden tudi v polnilu jame 1, vendar je moral služiti drugemu namenu, saj je imel na obeh manjkajočih koncih lepo zaobljene stranice (*sl. 69: b*). Ostanki livarskih in kovinarskih orodij so ležali tudi v ruševinah hiše. Gre za nadaljnja dva kalupa, brusna kamna in – kar je še posebno zanimivo – brusna koluta, ki kažeta, da so pri finalni obdelavi kovinskih predmetov uporabljali tudi rotacijske brusilnike (*sl. 69: a,d; 71*). Hiša 4 je bila torej zanesljivo livarsko-kovinarska delavnica.

Poleg naštetih orodij poznamo iz naselja na Mostu na Soči še en fragmentiran dvodelni kalup, namenjen vlivanju gumbov. Najden je bil med ostanki tretje gradbene faze hiše 15A, ki pa so bili tako slabo ohranjeni, da ni bilo jasno niti to, za kakšen objekt pravzaprav gre.[285]

Petrološka analiza kamenin je pokazala, da so za izdelavo kalupov uporabili izključno flišne peščenjake in laporovce.[286] To je razumljivo, saj gre za kamenino, ki jo je lahko obdelovati, dobro prenaša temperaturne spremembe, njena nahajališča pa so v neposredni bližini naselja.

Poleg kalupov sta bili odkriti dve livarski zajemalki. Prvo iz hiše 4 smo že omenili. Gre za miniaturen izdelek, velik komaj šest centimetrov. Ob strani ima držaj, spredaj pa majhen dulec (*sl. 70*). Če ne bi bila najdena skupaj s kalupom, je verjetno niti ne bi opredelili kot livarsko orodje. Vendar takšno funkcijo potrjuje rezultat meritev z metodo protonsko vzbujenih rentgenskih žarkov (PIXE).[287] Izkazalo se je, da je bila v njej talina, sestavljena iz približno 82 % kositra, 13 % svinca in 5 % bakra. Druga zajemalka ali bolje posodica je bila najdena v hiši 15/2. Bila je precej večja, spredaj je imela prav tako dulec (*sl. 72*). Tudi v tej posodici so bili ugotovljeni ostanki kovine, vendar drugačne sestave. Gre namreč za zlitino iz približno 60 % bakra in 40 % svinca. Iz podobne zlitine so bili narejeni surovci, ki jih bomo podrobneje obravnavali v enem od naslednjih poglavij. Morda so v livarstvu uporabljali tudi posodici z izlivom in žlico iz hiš 22A/2, 23/2 in 30/2, ker pa njihove vsebine niso bile analizirane, jih za zdaj puščamo ob strani.[288]

Zelo zanimiva je tudi sestava ostankov strjenih talin.[289] Analiza je pokazala, da imamo na Mostu na Soči opraviti z dvema vrstama bakrovih zlitin: takšno z veliko svinca in malo kositra in obrnjeno. Iz prve je bila narejena večina surovcev in fragmentov uhatih sekir, medtem ko so za izdelavo uporabnih predmetov, na primer nakita, uporabljali zlitino z največ 20 % svinca. Zanimivo je, da so v enem koščku strjene taline iz hiše 31/1 ugotovili razmeroma visok odstotek cinka, kar kaže na namerno izdelavo medenine. To ni nikakršno presenečenje, saj sodi objekt v konec 1. stoletja pr. Kr. Zanimiv rezultat je dala tudi diskriminantna analiza.

[285] Ib., 133, t. 54: 9.

[286] Glej tu Horvat, 349 ss, tab 1 in 2.

[287] Šmit, Laharnar v tej knjigi, 330 s.

[288] Svoljšak, Dular 2016, t. 64: 8; 96: 7. Glej še tu Grahek, 287.

[289] Šmit, Laharnar v tej knjigi, 323 s, tab. 1 in 2.

(*Fig. 70*). It would probably not even have been identified as a casting implement had it not been found next to a mould. In addition to the mould, its function has later been proven by the results of PIXE (particle-induced X-ray emission) measurements.[287] These revealed that the ladle contained melt composed of roughly 82% tin, 13% lead and 5% copper. The second casting ladle or rather pot was found in House 15/2. It is much larger and also had a spout in front (*Fig. 72*). This pot also contained the remains of melt, which was an alloy of roughly 60% copper and 40% lead. A similar alloy was established for the raw bronze that will be discussed below. It is possible that the two spouted pots and a spoon from Houses 22A/2, 23/2 and 30/2 were also used in casting, but their contents have not been analysed and we cannot confirm their function.[288]

The composition of the solidified pieces of melt has also been analysed.[289] The results have shown two types of copper alloy at Most na Soči: one with a high lead and a low tin content, the other with a low lead and a high tin content. The former composes the raw bronze and fragments of shaft-hole axes, while finished products such as jewellery were made of an alloy with a maximum of 20% lead. One piece of solidified melt from House 31/1 revealed a relatively high zinc content indicative of intentional production of brass. This is not surprising given the dating of the house to the late 1st century BC. The discriminant analysis also provided an important result in that the trace amounts of cobalt, nickel, arsenic, silver and antimony revealed a great heterogeneity of raw copper, which indicates that the founders from Most na Soči came into contact or used copper from a larger number of different ore deposits.[290]

The profession of a founder was also reflected in the funerary cult. One of the graves excavated by Szombathy contained a fragment of a stone mould among the grave goods.[291]

Blacksmithing

The inhabitants of Posočje were familiar with iron from the turn of the 2nd millennium onwards, as suggested by the blade of a small knife found in Grave 417 of the Tolmin cemetery.[292] However, these early items of the new metal that appeared across a wider area of the Adriatic hinterland do not yet herald the beginning of a new age, i.e. the Iron Age and with it the production of iron. The latter first requires the technological

[287] Šmit, Laharnar in this publication, 330 f.

[288] Svoljšak, Dular 2016, Pls. 64: 8; 96: 7. Also see here Grahek, 287.

[289] Šmit, Laharnar in this publication, 323, Tables 1 and 2.

[290] Ib., 328.

[291] Teržan, Lo Schiavo, Trampuž-Orel 1984–1985, Pl. 265A: 1.

[292] Svoljšak, Pogačnik 2001, Pl. 82: 2; Teržan 2002, 86 f.

→

Sl. 73: Ostanki železove žlindre iz naselbine Most na Soči.
Fig. 73: Remains of iron slag from the settlement at Most na Soči.

HIŠA / HOUSE	TEŽA (kg) / WEIGHT (kg)	LEGA / POSITION
3/1	0,09	JV kot večjega prostora / SE corner of the larger room
6/?	0,18	
7	0,50	
8/2	0,03	zahodni prostor / west room
10/2	0,24	
11/2	0,56	na tlaku glavnega prostora / on the floor of the main room
12/?	0,43	
14/3	2,10	v ruševinah / in debris
15/3	3,10	v ruševinah / in debris
15/?	0,22	na poti ob hiši / on the path along the house
15A/1	1,35	jama v srednjem prostoru / pit in the middle room
15A/1	0,17	srednji prostor / middle room
16/1	0,08	
16/3	7,50	ob drenaži / along the drainage walls
22/?	0,21	
22A/1	0,07	jama / pit 1
22A/1	0,17	
22A/2	11,80	v ruševinah / in debris
23/1	5,28	preddverje / anteroom
23/1	0,03	manipulativni prostor / manipulative space
23/2	0,44	v ruševinah / in debris
24/2	0,41	ob pokončni sohi v SZ kotu along the post in NW corner
24/2	0,35	
27	0,28	
30/?	0,53	
31/1	0,15	
32	0,62	

Po primeseh kobalta, niklja, arzena, srebra in antimona je bila ugotovljena velika raznolikost surovega bakra, kar kaže na to, da so livarji z Mosta na Soči uporabljali surovino iz različnih rudišč.[290]

Poklic livarja je našel svoj odsev tudi v grobnem kultu. V enem od grobov, ki jih je izkopal Szombathy, je bil najden fragment kamnitega kalupa.[291]

Kovaštvo

Prebivalci Posočja so se z železom seznanili že na prelomu iz drugega v prvo tisočletje pr. Kr., kar dokazuje rezilo manjšega noža, ki so ga našli v grobu 417 na grobišču v Tolminu.[292] Toda prvi predmeti iz nove kovine, ki so se približno v istem času pojavili tudi drugod v zaledju Jadrana, še ne pomenijo začetka železne dobe oziroma železarske proizvodnje. Za kaj takega je bilo treba osvojiti tehnološko znanje. V naše kraje je prišlo postopoma s trgovskimi stiki čez Italijo oziroma Jadran. O železni dobi lahko govorimo šele takrat, ko se je železo na široko uveljavilo. Proces je na Mostu na Soči dobro dokumentiran s številnimi predmeti iz grobov. Opraviti imamo s tako imenovanim železnim horizontom, ki ga poznamo tudi z drugih območij jugovzhodnih Alp, definira pa ga predvsem nakit: fibule, ovratnice in zapestnice, narejene iz nove kovine.[293] Novosti so se uveljavile v zadnjih desetletjih 9. in zlasti v 8. stoletju pr. Kr.[294] Pojav železa je dodobra pretresel takratni svet: spremenila se je poselitvena slika, uveljavile so se novosti v gospodarstvu in na novo se je izoblikovala družbena struktura.[295]

Dokaz, da so se na Mostu na Soči ukvarjali z obdelovanjem železa, so ostanki žlinder, ki so jih našli v triindvajsetih hišah (*sl. 73*). Večinoma gre za posamezne kose. Količine, večje od kilograma so bile ugotovljene na območju šestih objektov, največ v ruševinah druge faze hiše 22A v skupni teži 11,80 kg. Žal ni bilo v bližini odkritih nikakršnih kurišč ali drugih struktur, iz katerih bi izvedeli kaj več o železarski dejavnosti. Izjema je hiša

knowhow. This was gradually introduced in the region through trade connections with Italy and the Adriatic. We can only speak of the Iron Age when iron is widely used. This process is well documented at Most na Soči through numerous grave goods that constitute the Iron Horizon, which has been observed in other areas of the south-eastern Alps as well and is mainly defined by iron jewellery such as fibulae, torques and bracelets.[293] These novelties appear in greater numbers in the final decades of the 9th and even more so in the 8th century BC.[294] The appearance of iron brought about significant changes: a new settlement pattern, economic innovations and a different social structure.[295]

Pieces of slag recovered from twenty-three houses prove that the inhabitants at Most na Soči practised iron-

[290] Ib., 328.

[291] Teržan, Lo Schiavo, Trampuž-Orel 1984–1985, t. 265A: 1.

[292] Svoljšak, Pogačnik 2001, t. 82: 2; Teržan 2002, 86 s.

[293] Na Mostu na Soči je bil železen nakit odkrit predvsem v grobovih, ki jih je izkopal Marchesetti. Glej Marchesetti 1893, 141.

[294] Teržan, Črešnar 2014, 706 ss, sl. 37 in 38.

[295] Dular, Tecco Hvala 2007, 250 s.

[293] Iron jewellery at Most na Soči mainly came to light in the graves excavated by Marchesetti. See Marchesetti 1893, 141.

[294] Teržan, Črešnar 2014, 706 ff, Figs. 37 and 38.

[295] Dular, Tecco Hvala 2007, 250 f.

23/1, v kateri je bila lončarska delavnica, kosi žlindre iz preddverja (skupna teža 5,28 kg) pa morda kažejo na to, da so se tu občasno ukvarjali tudi s kovaštvom.

Analiza žlindre iz hiše 22A/2 je pokazala, da ne gre za stranski produkt pri primarni proizvodnji (redukciji železove rude), temveč za odpadek, ki je nastal med segrevanjem volka oziroma železa na kovaškem ognjišču.[296] To ne preseneča, saj so bili obrati s talilnimi pečmi običajno zunaj naselij.[297] Najbližja ležišča železove rude se omenjajo v bližini Idrije pri Bači in na Šentviški planoti.[298] Posoška skupnost je dragoceno kovino zanesljivo dobivala tudi iz Bohinjskega kota, ki ga je prav zaradi bogatih nahajališč kvalitetnega bobovca zgodaj kolonizirala.[299] Železnodobna najdišča Bohinja imajo namreč vse značilnosti posoške (svetolucijske) skupine: enaki so način pokopa, noša in materialna kultura.[300] Verjetno ne bomo daleč od resnice, če rečemo, da se je zaradi kvalitetne rude primarna proizvodnja železa odvijala predvsem v Bohinju, v dolino Soče pa so prihajali polizdelki.[301] Čez gorske prelaze – najugodnejša sta Vrh Bače (1273 m) in Bohinjsko sedlo (1277 m) – so tovorili železo v obliki volka ali kovanih kvadrov. Enega so našli v hiši 7.[302] Gre za manjši blok heterogene strukture s številnimi vključki žlindre, kar kaže na to, da je bila redukcija prekinjena oziroma da blok še ni bil stisnjen v dovolj kompaktno celoto. Vsebnost ogljika je na posameznih mestih nihala od 0,2 do 0,58 mas. %. Jeklo takšne sestave je bilo primerno za izdelavo orodja in orožja.[303]

BLAGOVNA MENJAVA IN KULTURNI STIKI

Čeprav skrita v dolini med visokimi hribi, pa naselbina na Mostu na Soči vseeno ni bila odmaknjena od blagovno menjalnih tokov med sredozemskimi deželami in srednjo Evropo, za kar najdemo neposredne dokaze med naselbinskimi najdbami in še več v grobišču.[304] Gre za redke predmete, ki odstopajo od lokalne proizvodnje, noše ali običajev.

[296] Lamut v tej knjigi, 333 ss.

[297] Kot primer lahko navedemo talilniški kompleks z več sto pečmi na Branževcu nad Seli pri Dolenjskih Toplicah; glej Mušič, Orengo 1998; Dular, Križ 2004, 228 ss.

[298] Müllner 1909, 631 s; Laharnar, Mlinar 2008, 476; Laharnar, Mlinar 2011 (2013), 18.

[299] Rjazancev 1963a, 1963b.

[300] Gabrovec 1974, 299 ss.

[301] Trampuž Orel 2012, 26 s; za bohinjsko železarstvo glej Cundrič 2002.

[302] Svoljšak, Dular 2016, t. 28: 14.

[303] Lamut v tej knjigi, 346.

[304] Najdbe iz naselbine so celovito predstavljene v Svoljšak, Dular 2016, Szombathyjeva izkopavanja grobišča v Teržan, Lo Schiavo, Trampuž-Orel 1984–1985, medtem ko je Marchesetti rezultate svojih izkopavanj z opisi grobov in risbami izbranih predmetov objavil v več razpravah (Marchesetti 1885; 1893; 1899).

working (*Fig. 73*). These pieces predominantly occurred singly and quantities exceeding a kilogram only came to light in the areas of six houses, the largest amount (11.80 kg) in the debris of the second phase of House 22A. The settlement revealed no fireplaces or other structures next to the recovered pieces of slag that would indicate the type of ironworking activity that took place there, with the exception of House 23/1. This building was a potter's workshop, while the pieces of slag found in the anteroom (in the total weight of 5.28 kg) may indicate the occasional blacksmithing.

The analysis of the slag from House 22A/2 revealed that it is not a by-product of the primary production (reduction of iron ore), but rather the slag extruded while heating iron lumps on the smith's hearth.[296] This is hardly surprising as the production facilities with smelting furnaces were usually located outside inhabited areas.[297] The closest deposits of iron ore have been mentioned in the vicinity of Idrija pri Bači and on the plateau of Šentviška planota.[298] The Posočje community is known to have obtained the precious metal from the Bohinj area as well, which it colonised very early on because of the rich deposits of high-quality pisolitic iron ore.[299] The Iron Age sites in Bohinj show the burial rite, costume and material culture characteristic of the Posočje (Sveta Lucija) group.[300] We may even go as far as to say that the high-quality iron ore led to the primary production of iron mainly taking place in Bohinj, whence semi-finished products were transported to the valley of the Soča.[301] Iron was transported across mountain passes – the two most suitable are Vrh Bače (1273 m) and Bohinjsko sedlo (1277 m) – in the form of bloom or blocks. One iron block was actually found in House 7.[302] It is a small block of a heterogeneous structure with numerous inclusions of slag, which indicates either that reduction was cut short or that the block was not yet compressed into a compact piece. The carbon content of the block was measured in several places and varied from 0.2 to 0.58 mass %. The steel of this composition was suitable for making tools and weapons.[303]

[296] Lamut in this publication, 333 ff.

[297] An example of this is the smelting complex with several hundred of furnaces at Branževec above Sela pri Dolenjskih Toplicah; see Mušič, Orengo 1998; Dular, Križ 2004, 228 ff.

[298] Müllner 1909, 631 f; Laharnar, Mlinar 2008, 476; Laharnar, Mlinar 2011 (2013), 18.

[299] Rjazancev 1963a, 1963b.

[300] Gabrovec 1974, 299 ff.

[301] Trampuž Orel 2012, 26 f; for ironworking in the Bohinj area see Cundrič 2002.

[302] Svoljšak, Dular 2016, Pl. 28: 14.

[303] Lamut in this publication, 346.

Trahit, korale, jantar, južni sadeži

O blagovni menjavi na dolge razdalje govorijo izdelki iz tujerodne snovi. Oddaljen izvor lahko pripišemo kamnitima kroglama iz trahita s premerom okoli 7 cm, ki sta bili odkriti v hišah 8/2 in 16/1.[305] Najbližje ležišče te vulkanske kamnine je v Evganejskih gričih,[306] kjer so trahit izkoriščali že v pozni bronasti dobi.[307] Pričevanja o njegovi uporabi v železni dobi najdemo v Este in širši okolici, uporabljali pa so ga za različne namene, denimo kot mejne kamne kultnega mesta ali za označevanje grobiščnega prostora ali za vsakdanje potrebe kot drobilnike skupaj s spodnjim delom žrmelj.[308]

V naselbini na Mostu na Soči so bili med darovi s kultnega mesta najdeni koralni obeski.[309] O njihovem magičnem pomenu za odganjanje zla poročajo že antični literarni viri. Najbližja rastišča koral so v priobalnem pasu Tirenskega morja, na estenskem območju se predmeti iz te tvarine pojavljajo kot obeski ali kot inkrustacija na bronastih izdelkih v grobovih 7. st. in pogosteje v 6. in 5. st. V latensko-keltski kulturi so bile priljubljene kot okrasni dodatek na železnih predmetih.[310]

Jantar prav tako ni lokalnega izvora, ta je na Mostu na Soči zastopan v manj kot enem odstotku grobov, kar gre nemara pripisati običaju sežiganja. Da je bila trgovina z jantarjem med Baltikom in Sredozemljem široko razvejena in sega že v bronasto dobo, je splošno znano dejstvo; o smereh širjenja pričajo najdbe jantarnih predmetov, ki nakazujejo, da so nekatere poti do severnega Jadrana vodile prek alpskih dolin in prelazov.[311] O jantarju govorijo tudi antične legende; posebno slikovita je tista o Faetontu, sinu boga sonca, ki naj bi si pri očetu izprosil, da sme popeljati sončni voz po nebesnem svodu; ker temu ni bil kos, ga je zadela božja strela in je zgrmel v reko Eridan (= Pad), njegove žalujoče sestre pa naj bi za njim točile solze v obliki jantarja, ki ga je mogoče nabirati na rečnem nabrežju.[312] V Padski nižini so jantar obdelovali in oblikovali v končne izdelke, iz tamkajšnjih delavnic so verjetno izšle fibule z jantarjevo oblogo, najdene na Mostu na Soči v grobovih s konca 7.

[305] Svoljšak, Dular 2016, 83 s, 138, sl. 128.

[306] Glej tu Horvat, 354.

[307] Bianchin Citton, Bietti Sestieri 2013, 36.

[308] Balista, Ruta Serafini 1998, 18 ss, sl. 1–3; Panozzo 1998, 378 ss; Crivellari 1998, 387 ss, sl. 225–227; Ruta Serafini 2002, 216, 214 s, sl. 94; Zanco 2004, 64, sl. 1; Gamba et al. 2013, 213 s, 231, kat. št. 2.2.12, 2.2.13, 3.1.2.

[309] Svoljšak, Dular 2016, 73 (hiša 6/faza 2), t. 27: 1-10; glej še tu Laharnar, 224.

[310] Cherici 1999, 170 s, 181 ss; De Marinis 1997, 153 ss.

[311] Glej npr. Nava 2011, 162 ss, sl. 1; za pojavljanje jantarja v širšem zaledju vzhodnega Jadrana in na Balkanu glej Teržan 1984; Palavestra 1993; Križ, Turk 2003.

[312] Glej npr. Grilli 1991, 17 ss; Malnati 2003, 13; Braccesi 2013, 51 ss.

EXCHANGE OF GOODS AND CULTURAL CONTACTS

Although tucked away in a valley and surrounded by hills and mountains, the settlement at Most na Soči was not removed from the trading and exchange routes that connected the Mediterranean and central Europe. Direct evidence of these connections has been recovered at the settlement and even more numerously at the cemetery;[304] it is the rare objects that stand apart from the artefacts of local production, costume and customs.

Trachyte, coral, amber, exotic fruit

The long-distance exchange of goods is mirrored in objects of foreign origin. These include two balls of trachyte measuring roughly 7 cm in diameter and found in Houses 8/2 and 16/1, respectively.[305] The closest trachyte deposits are in the Euganean Hills (Colli Euganei), south of Padua,[306] which were already exploited in the Late Bronze Age.[307] Evidence of its use in the Iron Age can be found at nearby Este and its wider surroundings, where this volcanic rock was made into a variety of products, such as boundary stones in cult places and cemeteries, as well as grinders together with quernstones.[308]

Also foreign is coral, which the ancient texts mention as possessing the power to ward off evil. The Most na Soči settlement yielded coral pendants as offerings at the cult place.[309] The closest coral reefs are in the coastal waters of the Tyrrhenian Sea. In the Este area, artefacts of coral have been found in the graves from the 7th, but more commonly from the 6th and 5th centuries BC, either in the shape of pendants or as inlay in bronzework. In the La Tène Celtic culture, coral objects were popular as decorations on products of iron.[310]

Amber was also not a local commodity. At Most na Soči, amber goods were found in less than one percent of all unearthed graves, which may be attributable to the practice of cremation. Amber trade between the Baltic

[304] The finds from the settlement are comprehensively published in Svoljšak, Dular 2016, those from Szombathy's excavations of the cemetery in Teržan, Lo Schiavo, Trampuž-Orel 1984–1985, while Marchesetti published his excavation results together with descriptions of graves and drawings of select grave goods in several articles (Marchesetti 1885; 1893; 1899).

[305] Svoljšak, Dular 2016, 83 f, 138, Fig. 128.

[306] See Horvat in this publication, 354.

[307] Bianchin Citton, Bietti Sestieri 2013, 36.

[308] Balista, Ruta Serafini, 18 ff, Figs. 1–3; Panozzo 1998, 378 ff; Crivellari 1998, 387 ff, Figs. 225–227; Ruta Serafini 2002, 216, 214 f, Fig. 94; Zanco 2004, 64, Fig. 1; Gamba et al. 2013, 213 f, 231, Cat. Nos. 2.2.12, 2.2.13, 3.1.2.

[309] Svoljšak, Dular 2016, 73 (House 6/Phase 2), Pl. 27: 1–10; also see Laharnar in this publication, 224.

[310] Cherici 1999, 170 f, 181 ff; De Marinis 1997, 153 ff.

in 6. st. (stopnji Sv. Lucija Ic2 in IIa),[313] ki imajo najboljše analogije v estenskem prostoru.[314]

V hiši 7 na Mostu na Soči, datirani v stopnjo Sv. Lucija IIc, so bili med drugim najdeni ostanki fige in oreha; gre za gojena plodova, ki sta najbrž prišla iz severnojadranskega zaledja.[315]

Bronasti ingoti

Neposreden dokaz za trgovanje je mogoče videti v bronastih ingotih, ki so se domnevno uporabljali kot predmonetarno menjalno sredstvo. V obliki uhatih sekir se pojavljajo na Apeninskem polotoku od 10. st. najprej, v starejši železni dobi so se uporabljali tudi na območju zahodne Slovenije vse do zgornjega toka Save.[316] Na Mostu na Soči je bil najden kos uhate sekire v hiši 15A/1,[317] medtem ko je bilo v hišah 3/2 in 13 ter na grobišču Repelc odkritih nekaj fragmentov ingotov tipa *ramo secco*,[318] ti so bili v obtoku v 6. in 5 st. predvsem na etruščanskem teritoriju. Oba tipa sta kot depojski najdbi znana z bližjega najdišča Šempeter pri Gorici.[319]

Uvožena keramika

Med keramičnimi najdbami izstopajo posode grških oblik. V naselbini je bil v hiši 5 najden skyphos (*sl. 74: a*)[320] z značilnim okrasom za keramiko tipa Saint Valentin atiške proizvodnje iz druge polovice 5. st.[321]

[313] Gr. M 1377, Sz 29, 249, 1002, 365, 2414: Marchesetti 1893, 63, t. 15: 24; Teržan, Lo Schiavo, Trampuž-Orel 1984–1985, 48, 78, 187, 372, 378, t. 5D: 1, 24A: 1, 102A: 1, 251A: 3, 257: 4. Za kronološko opredelitev uporabljamo delitev na stopnje po Teržan, Trampuž 1973, 416 ss, in Gabrovec 1987, 120 ss.

[314] prim. von Eles Masi 1986, 144 ss, t. 111–114.

[315] Za datacijo hiš na Mostu na Soči glej tu Dular, 147 ss; za makrobotanične ostanke pa Sila Motella, 379 ss, sl. 22, 24, 25. Gre za prva znana primerka iz predrimskega časa na območju jugovzhodnih Alp. V severnojadranskem zaledju je najdba fige dokumentirana npr. v Montereale Valcellina v naselbinski strukturi, datirani v 5. st. (Castiglioni, Motella, Rottoli 1996, 462, 465 s, tab. 2), najdba oreha pa je npr. znana z začetka železne dobe v Trevisu (Bianchin Citton 2004, 55, sl. 7).

[316] Glej npr. Trampuž Orel, Heath 1998, 237 ss, sl. 2, 3; Teržan 2008, 299, sl. 48; Pavlin, Turk 2014, 44 ss, sl. 10.

[317] Svoljšak, Dular 2016, t. 40: 9.

[318] Ib., t. 23: 7, 33: 20. Glej tu Laharnar, 221 s in Šmit, Laharnar, 328 ss in tudi Mlinar 2014, 611 ss, Fig. 41.4.

[319] Panvini Rosati 1988, 20 ss, t. 1; Pellegrini, Macellari 2002; Teržan 2008, 296 ss, sl. 48; Sassatelli 2013, 126; Pavlin, Turk 2014, 48 s, 53.

[320] Svoljšak, Dular 2016, 67 ss, sl. 50B, 56, t. 25: 1.

[321] prim. Baldelli, Landolfi, Lollini 1982, 91; De Marinis 1988, 158, sl. 75; Govi 1999, 46, op. 59; Maccellari 2002, vol. I, 129 s, 180, 247, vol. II, t. 80, 109, 237.

and the Mediterranean was a widespread activity dating back to the Bronze Age, with amber products indicating the different routes that included those that led across the Alps towards the Adriatic.[311] Amber also appears in ancient legends; a particularly vivid one tells of Phaeton, the son of the Sun god Helios, who insisted on driving the sun chariot but was unable to control the horses on the journey across the sky. Zeus eventually struck him with a lightning bolt and caused him to plunge into the River Eridanos (= Po). Grief-stricken, Phaeton's sisters Heliades shed tears in the shape amber that could be collected on the riverbank.[312] Finds from the Po Plain show that amber was worked and shaped here into finished products. It is presumably these workshops that designed the fibulae with an amber overlay, such as were also found at Most na Soči, in graves from the late 7th and the 6th century BC (the Sv. Lucija Ic2 and IIa phases),[313] with closest parallels in the Este cultural area.[314]

Last but not least, the remains of a fig and a walnut have been unearthed at Most na Soči, in House 7 dated to Sv. Lucija IIc. These are both cultivated fruits and probably came here from the hinterland of the northern Adriatic.[315]

Bronze ingots

These items are direct evidence of trading and were probably used as pre-monetary currency. Ingots in the shape of shaft-holes axes occured on the Apennine Peninsula from the 10th century BC onwards; in the Early Iron Age they were also in use in western Slovenia all to the upper reaches of the River Sava.[316] At Most na Soči, one such ingot was found in House 15A/1,[317]

[311] See e.g. Nava 2011, 162 ff, Fig. 1; for the amber finds in the wider hinterland of the eastern Adriatic and in the Balkans see Teržan 1984; Palavestra 1993; Križ, Turk 2003.

[312] See e.g. Grilli 1991, 17 ff; Malnati 2003, 13; Braccesi 2013, 51 ff.

[313] Grs. M 1377, Sz 29, 249, 1002, 365, 2414: Marchesetti 1893, 63, Pl. 15: 24; Teržan, Lo Schiavo, Trampuž-Orel 1984–1985, 48, 78, 187, 372, 378, Pls. 5D: 1, 24A: 1, 102A: 1, 251A: 3, 257: 4. The chronological division is taken from Teržan, Trampuž 1973, 416 ff, and Gabrovec 1987, 120 ff.

[314] Cf. von Eles Masi 1986, 144 ff, Pls. 111–114.

[315] For the dating of the houses at Most na Soči see here Dular, 147 ff; for the macrobotanical remains see Sila Motella 380 ff, Figs. 22, 24, 25. Until now, no other fig or walnut remains from the pre-Roman period have been documented in the south-eastern Alpine area. In the hinterland of the northern Adriatic, fig remains are known e.g. at Montereale Valcellina, from a settlement structure dated to the 5th century BC (Castiglioni, Motella, Rottoli 1996, 462, 465 f, Tab. 2), while a walnut was found e.g. at Treviso in a context dating to the beginning of the Iron Age (Bianchin Citton 2004, 55, Fig. 7).

[316] See e. g. Trampuž Orel, Heath 1998, 237 ff, Figs. 2, 3; Teržan 2008, 299, Fig. 48; Pavlin, Turk 2014, 64 ff, Fig. 10.

[317] Svoljšak, Dular 2016, Pl. 40: 9.

Sl. 74: Skyphos tipa Saint Valentin iz hiše 5 (*a*) in sovji skyphos oz. Glaux iz grobišča Most na Soči – Pucarjev rob, grob 3 (*b*); (po Svoljšak, Dular 2016, t. 25: 1; Mlinar 2002, sl. 25). M. = 1:2.
Fig. 74: Skyphos of the Saint Valentin class from House 5 (*a*) and owl skyphos or glaux from the cemetery Most na Soči – Pucarjev rob, Grave 3 (*b*); (from Svoljšak, Dular 2016, Pl. 25: 1; Mlinar 2002, Fig. 25). Scale = 1:2.

K atiški keramiki iz tega časa sodi še sovji skyphos, imenovan tudi Glaux (*sl. 74: b*),[322] ki je pripadal inventarju žarnega groba 3 z območja Pucarjevega roba blizu sotočja Idrijce in Soče[323] skupaj z najmlajšima različicama kačastih in certoških fibul (stopnja Sv. Lucija IIb/c).[324]

Iz jonskega delavniškega kroga domnevno izhajata kylikes iz žarnih grobov M 2850 (*sl. 75: a*)[325] in Sz 1008 (*sl. 75: b*).[326] Podobna posodica v grobu M 2151 z bronastim pitosom je opredeljena kot posnetek jonskega

[322] De Marinis 1988, 158 s, sl. 76; Govi 1999, 72.

[323] Mlinar 2002, 28 ss, sl. 22–25.

[324] Certoška fibula pripada različici VIIa: Teržan 1976, 326, 357 s, sl. 3a, 26; kačasta pa tipu Fraore oz. različici VIIe: Tecco Hvala 2014, 136 s, 157 s, sl. 7: 12, karta 12, t. 13.

[325] Marchesetti 1893, 127 s, t. 6: 9; Gabrovec 1992, 215 s, sl. 13: 3.

[326] Teržan, Lo Schiavo, Trampuž-Orel 1984–1985, 188, t. 104: 13.

while Houses 3/2 and 13, as well as the Repelc cemetery, yielded several fragments of *ramo secco* ingots,[318] such as were in circulation in the 6th and 5th centuries BC mainly on Etruscan territory. The two ingot types were found together in a hoard at nearby Šempeter pri Gorici.[319]

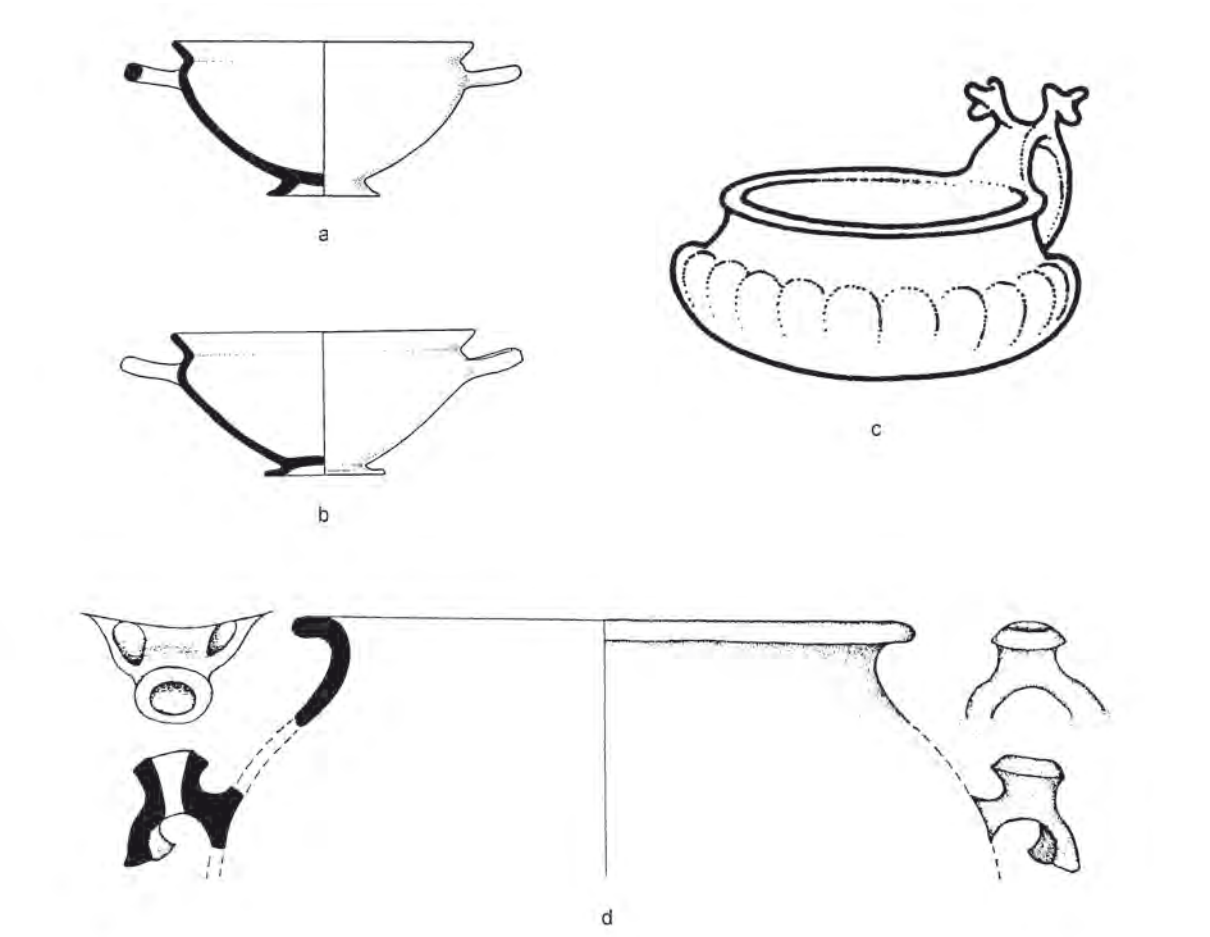
Imported pottery

The pottery assemblage from Most na Soči includes several Greek forms. House 5 yielded a skyphos (*Fig. 74: a*)[320] with the decoration characteristic of the Saint

[318] Ib., Pls. 23: 7, 33: 20. Also see Laharnar, 221 f, and Šmit, Laharnar 328 ff, in this publication, as well as Mlinar 2014, 611 ff, Fig. 41.4.

[319] Panvini Rosati 1988, 20 ff, Pl. 1; Pellegrini, Macellari 2002; Teržan 2008, 296 ff, Fig. 48; Sassatelli 2013, 126; Pavlin, Turk 2014, 65, 70.

[320] Svoljšak, Dular 2016, 67 ff, Figs. 50B, 56, Pl. 25: 1.



Sl. 75: Kylikes iz grobov M 2850 in Sz 1008 (*a, b*), nagubana skodela iz groba M 2711 (*c*) in pitos iz groba Sz 325 (*d*); (po Gabrovec 1992, 50, sl. 13: 3,6; Dular 1982, sl. 24: 9; Teržan, Lo Schiavo, Trampuž 1984–1985, t. 29 F: 2). Vse keramika. M. = 1:4.
Fig. 75: Kylikes from Graves M 2850 and Sz 1008 (*a, b*); embossed bowl from Grave M 2711 (*c*); pithos from Grave Sz 325 (*d*); (from Gabrovec 1992, 50, Fig. 13: 3,6; Dular 1982, Fig. 24: 9; Teržan, Lo Schiavo, Trampuž 1984–1985, Pl. 29 F: 2). All ceramic. Scale = 1:4.

kylixa,[327] k tovrstni obliki pripada verjetno še fragment iz prav tako žarnega groba Sz 1002,[328] najden skupaj s paroma trakastih ter kačastih fibul z jantarnimi okraski. Kylix iz groba M 2850 naj bi sodil k tipu A2 po Vallet-Villard, datiranem v čas 620–600, tisti iz groba Sz 1008 pa k tipu B2, take naj bi izdelovali v času med 580–540.[329] Spremljajoči grobni pridatki tem datacijam (v stopnje Sv. Lucija Ic2 do IIb) ne nasprotujejo.

Med Marchesettijevimi izkopavanji grobišča sta bili odkriti še oinochoai, ki sta danes izgubljeni – ena je pripadala grobu 1026 skupaj s kačastimi fibulami, druga grobu 3227 z narebrenim pitosom,[330] ki je vseboval še dve svetolucijski ločni fibuli s trikotnimi in košarastimi obeski ter po eno očalasto, trortasto in pijavkasto fibulo,

Valentin class of the Attic pottery production in the second half of the 5th century BC.[321] Another product of Attic workshops came to light in the cemetery; it is an owl skyphos or glaux (*Fig. 74: b*),[322] found in cremation Grave 3 at Pucarjev rob, near the confluence of the Rivers Idrijca and Soča,[323] together with the last variants of serpentine and Certosa fibulae (Sv. Lucija IIb/c).[324]

Ionian workshops are presumably to be credited with the production of the two kylikes recovered from

[327] Vitri 2004, sl. 1; Crismani 2004, 647 s.

[328] Teržan, Lo Schiavo, Trampuž-Orel 1984–1985, 187, t. 102A: 9.

[329] Gabrovec 1992, 215; Cassola Guida, Vitri 2002, 184.

[330] Marchesetti 1893, 47, t. 6: 10; Boiardi 1983, 184, sl. 49.

[321] Cf. Baldelli, Landolfi, Lollini 1982, 91; De Marinis 1988, 158, Fig. 75; Govi 1999, 46, Fn. 59; Maccellari 2002, Vol. I, 129 f, 180, 247, Vol. II, Pls. 80, 109, 237.

[322] De Marinis 1988, 158 f, Fig. 76; Govi 1999, 72.

[323] Mlinar 2002, 28 ff, Figs. 22–25.

[324] The Certosa fibula is of Variant VIIa: Teržan 1976, 326, 357 f, Figs. 3a, 26; the serpentine fibula is of the Fraore type or Variant VIIe: Tecco Hvala 2014, 171 f, Fig. 7: 12, Map 12, Pl. 13.

delce kačastih fibul s krilci in obročast nakit. Glede na spremljajoče pridatke ju lahko datiramo v 6. st. (stopnja Sv. Lucija IIa), izdelani sta bili verjetno v kaki jonski delavnici.[331]

Kylikes, skyphoi in oinochoai so najbolj razširjene vrste grškega posodja, glavna distributerja za severnoitalski in osrednji alpski prostor pa sta bila emporija v delti reke Pad, to sta Adria in Spina.[332]

Importa z območja dolenjske halštatske skupnosti bi lahko videli v nagubanih skodelah z apliciranima živalskima glavicama na ročaju (*sl. 75: c*), ki ju omenja Marchesetti med pridatki groba 2711.[333] Šlo naj bi za povsem običajen pokop s sežganimi ostanki na dnu jame in s pridanimi tremi kačastimi fibulami ter še eno majhno lončeno skodelico, okrašeno z bronastimi žebljički. Zoomorfni protomi so značilne okrasne prvine na lončenini z obrobja vzhodnih Alp in zahodne Panonije, od Donavskega kolena do območja Dolenjske, na slednjem je bilo od konca 6. in zlasti v 5. st. priljubljeno tudi posodje z nagubanim ostenjem.[334] Ob tem bi si drznili pomisliti, da je primerka takih skodel na Most na Soči morda prinesla nevesta iz Dolenjske za doto, tako kot bi recipročno lahko domnevali za najdbe svetolucijske provenience in žgane pokope v narebrene pitose v dolenjskih gomilah, kjer so običajnejši skeletni grobovi.[335]

Bronasta oinochoe

Import predstavlja tudi bronasta oinochoe (*sl. 76: a*)[336] iz žarnega groba M 3145, ki jo je že podrobneje obravnavala Serena Vitri, zato na tem mestu na kratko povzemamo njene ugotovitve.[337] Grobni pridatki pričajo, da je bila v njem pokopana ženska nekje v sredini 6. st. (stopnja Sv. Lucija IIa). Bronast vrč je bil položen v lončen pitos (žaro) skupaj z uhanom in fibulami, med katerimi se omenjajo svetolucijska z obeski, čolničasta, kačasta in tri pijavkaste, okrašene s snopi vrezov in luknjicami na loku.[338]

[331] Gabrovec 1992, 215 s; Cassola Guida, Vitri 2002, 184.

[332] Govi 1999, 157 ss, sl. 79, 81–84; Sassatelli 2013, 127 s; Braccesi, Veronese 2013, 140 s, sl. 1.

[333] Marchesetti 1893, 120, t. 6: 16.

[334] Dular A. 1978, 85 ss; Dular 1982, 135, sl. 24: 9; Tankó 2005, 153 ss, sl. 1 (tip Be), 2, 5 (tip Be).

[335] Dular, Tecco Hvala 2007, 235 s; Tecco Hvala 2012, 62 ss, 383.

[336] Marchesetti 1903, t. 17: 7; Vitri 1980, 267 ss, sl. 1: 3, 2; Boiardi 1983, 182 s, t. 44; Boiardi 1984, 112, sl. 1; Jereb 2016, 121, t. 145: 338.

[337] Frey 1969, 84, sl. 49; Vitri 1980, sl. 2, 273 ss.

[338] Pijavkaste fibule te vrste so najpogostejše na območju kulture Golasecca in v dolini reke Piave ter južno od reke Pad v širši okolici etruščanske Felsine (Bologna), več primerkov je znanih tudi z Mosta na Soči; datirane so v drugo polovico 6. in na začetek 5. st. (Nascimbene 2009, 130 ss, sl. 31, 32, tab. 13).

urn Graves M 2850 (*Fig. 75: a*)[325] and Sz 1008 (*Fig. 75: b*), respectively.[326] A similar vessel from Grave M 2151, found together with a bronze pithos, is interpreted as an imitation of an Ionian kylix;[327] while a fragment from Grave Sz 1002,[328] also containing a cremation burial in urn, probably belongs to such a vessel as well and was unearthed together with two pairs of band bow and dragon fibulae with amber decorations. The kylix from Grave M 2850 is ascribed to Type A2 after Vallet-Villard, dated to 620–600 BC, while the kylix from Sz 1008 belongs to Type B2 presumably produced in 580–540 BC.[329] The goods associated with the kylikes do not oppose such dating (Sv. Lucija Ic2–IIb).

Marchesetti's excavations also unearthed two oinochoai, which are now lost. One was found in Grave 1026 together with serpentine fibulae, the other in Grave 3227 with a cordoned pithos[330] that held two Sveta Lucija arch fibulae with triangular and basket-shaped pendants, one spectacle fibula, one fibula with three knobs on the bow (*Dreiknopffibel*) and one leech fibula, pieces of serpentine fibulae with wings and ring jewellery. Given the associated goods, the oinochoai can be dated to the 6th century BC (Sv. Lucija IIa) and attributed to an Ionian workshop.[331]

Kylikes, skyphoi and oinochoai rank among the most widely spread forms of Greek pottery, with the emporia in the Po delta, namely Adria and Spina, serving as the main centres of distribution to the north Italian and central Alpine areas.[332]

The embossed bowls with animal heads applied to the handle (*Fig. 75: c*), which Marchesetti mentions among the goods of Grave 2711,[333] are believed to be imports from the Dolenjska Hallstatt community. The grave revealed a burial common for Most na Soči, with cremated remains strewn across the bottom of the pit, and grave goods comprising three serpentine fibulae and a small ceramic cup decorated with bronze studs. The zoomorphic protomes on the bowls are decorative elements characteristic of the pottery produced at the fringes of the eastern Alps and western Pannonia, from the Danube knee to Dolenjska; also popular in the latter region towards the end of the 6th and even more so in

[325] Marchesetti 1893, 127 f, Pl. 6: 9; Gabrovec 1992, 215 f, Fig. 13: 3.

[326] Teržan, Lo Schiavo, Trampuž-Orel 1984–1985, 188, Pl. 104: 13.

[327] Vitri 2004, Fig. 1; Crismani 2004, 647 f.

[328] Teržan, Lo Schiavo, Trampuž-Orel 1984–1985, 187, Pl. 102A: 9.

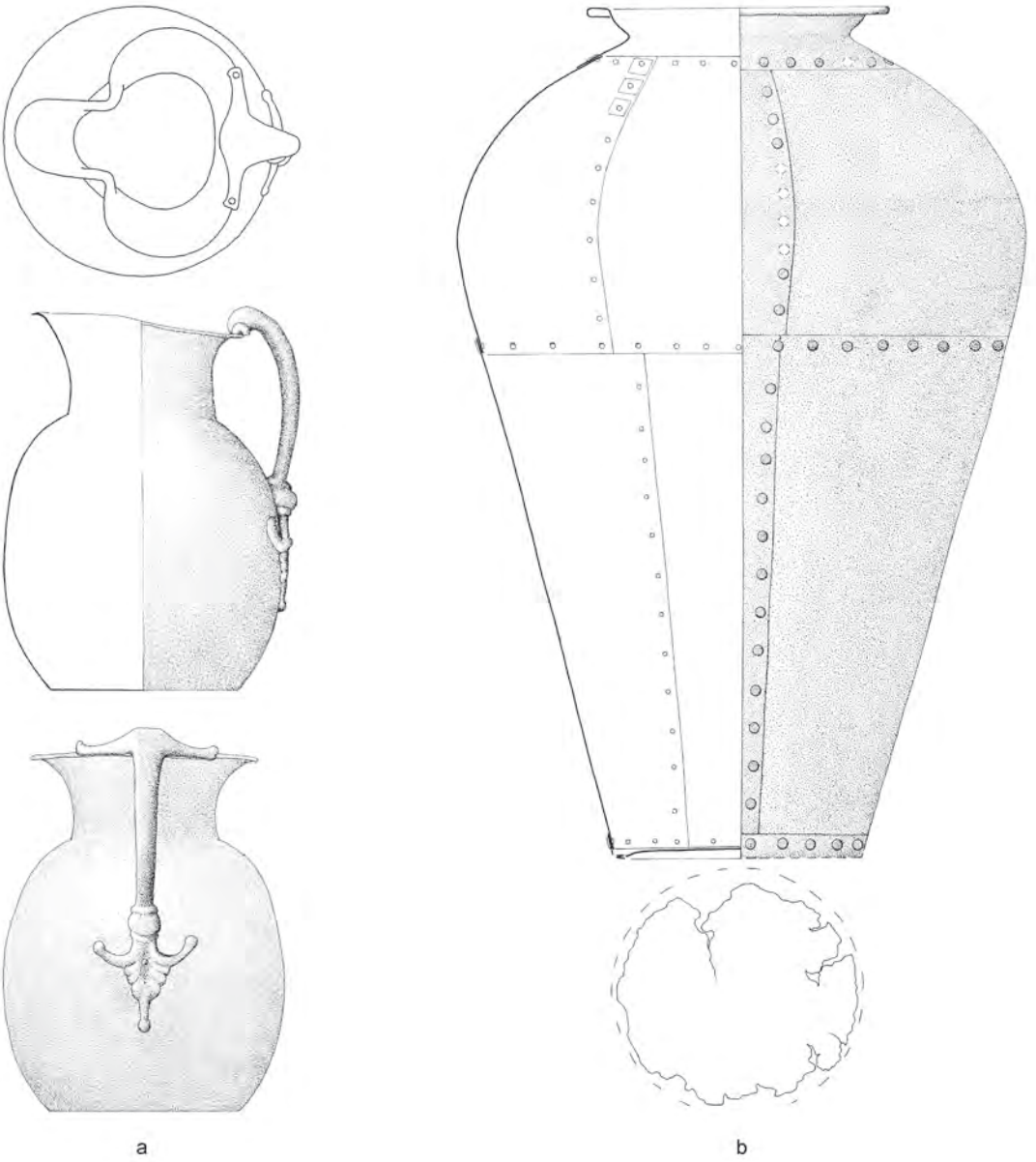
[329] Gabrovec 1992, 215; Cassola Guida, Vitri 2002, 184.

[330] Marchesetti 1893, 47, Pl. 6: 10; Boiardi 1983, 184, Fig. 49.

[331] Gabrovec 1992, 215 f; Cassola Guida, Vitri 2002, 184.

[332] Govi 1999, 157 ff, Figs. 79, 81–84; Sassatelli 2013, 127 f; Braccesi, Veronese 2013, 140 f, Fig. 1.

[333] Marchesetti 1893, 120, Pl. 6: 16.



Sl. 76: Oinochoe iz groba M 3145 (*a*) in pitos iz groba M 2038 (*b*); (po Jereb 2016, t. 19, 145). Vse bron. M. = 1:4 (*a*) in 1:8 (*b*).
Fig. 76: Oinochoe from Grave M 3145 (*a*) and pithos from Grave M 2038 (*b*); (from Jereb 2016, Pls. 19, 145). All bronze. Scale = 1:4 (*a*) and 1:8 (*b*).

Bronasta oinochoe se uvršča med maloštevilne primerke t. i. plumpe Kannen etruščanske proizvodnje, ki naj bi predstavljale vmesni člen med starejšimi rodoškimi oinochoai in mlajšimi t. i. Schnabelkannen. Prve se pojavijo na območju srednje in južne Italije v grobovih proti koncu 8. st.,[339] druge spadajo med najbolj razširjene etruščanske izdelke, ki so bili priljubljeni pri eliti severnoitalskega in srednjeevropskega prostora v zgodnjem latenskem obdobju. Mostarski najdbi je oblikovno najbližji primerek z južnoetruščanskega najdišča

[339] Pare 1989, 445 ss, sl. 16; Frey 1998, 307 s, sl. 12.

the 5th century BC was embossed ware.[334] It is possible to imagine that the two bowls came to Most na Soči together with a bride from Dolenjska, as dowry. We can imagine a similar scenario in the opposite direction, for the goods of a Sveta Lucija origin, as well as burials in cordoned pithoi under tumuli in Dolenjska, where inhumation burial was the usual practice.[335]

[334] Dular A. 1978, 89 ff; Dular 1982, 218 f, Fig. 24: 9; Tankó 2005, 153 ff, Figs. 1 (Type Be), 2, 5 (Type Be).

[335] Dular, Tecco Hvala 2007, 235 f; Tecco Hvala 2012, 62 ff, 383.

Trevignano Romano ob jezeru Bolsena, datiran v prvo polovico 6. st.; lahko bi celo izhajala iz iste delavnice, ki je bila morebiti v kraju Vulci.[340] Podoben vrč je bil odkrit v Dürrnbergu na Solnograškem v nekoliko mlajšem skeletnem grobu 59 in je domnevno lokalna imitacija.[341]

Vrči so spadali k pivskemu servisu in se povezujejo z banketom, ki ima vzhodnosredozemske korenine in pri katerem so sodelovale ženske;[342] primerek z Mosta na Soči bi tako kazal na prodor grško-etruščanske ideologije v jugovzhodnoalpski svet.

Bronasta situla s figuralno okrašenim pokrovom

Tujo provenienco med bronastimi izdelki smemo pripisati figuralno okrašenemu pokrovu (*sl. 77*) iz groba M 3580.[343] Po eni strani je izdelek izjemen zato, ker sta bila na Mostu na Soči odkrita samo dva bronasta pokrova,[344] a tudi lončenih ni prav dosti.[345] Po drugi strani je to eden od dveh do zdaj objavljenih primerov situlske umetnosti v Zgornjem Posočju, druga najdba je fragmentirana bronasta situla iz Kobarida z upodobljenimi živalskimi in človeškimi figurami v klasičnem stilu.[346] Videti je, da se je posoška skupnost v ornamentiki strogo držala tradicionalnega ikonografskega programa žarnogrobiščne kulture in je nemara imela ideološki zadržek do upodabljanja človeka. Z živalsko motiviko okrašen bronast pokrov z Mosta na Soči se uvršča med podobne najdbe iz Este in picenske Numane na jugu, Hallstatta na severu, Stične na vzhodu in Grandate pri Como na zahodu.[347]

K inventarju groba M 3580 je poleg pokrova spadala bronasta situla, v njej so bile skupaj z žganino najdene tri fibule (velika očalasta in par dvozankastih vozlastih)

[340] Vitri 1980, 274 s; Pare 1989, 460 s, sl. 25.

[341] Moosleitner, Pauli, Penninger 1974, 21 s, t. 123: 14; Pauli 1978, 348.

[342] Vitri 1980, 275 s; prim. še Frey 1969, t. 28: 15; Metzger 2002, 113 ss, sl. 11.

[343] Marchesetti 1900, 26; Marchesetti 1903, 164; Frey 1969, 53, 103, sl. 29, t. 60–61; Boiardi 1983, 179, sl. XVII; Boiardi 1984, 113; Turk 2005, 70, sl. 104; Gambacurta 2011, 317, kat. št. 4.65; Jereb 2016, 93, t. 112: 231. Grob je v nekaterih objavah označen s številko 3767.

[344] Podoben bronast pokrov, vendar neornamentiran, je bil najden še v moškem grobu M 2820 skupaj s situlo drugačnega tipa (Marchesetti 1893, 125, t. 2: 6; Jereb 2016, 35, t. 20: 36).

[345] V grobovih M 907, 2151, 2672, 2694, 2785, 2837, Sz 1670 se pojavljajo pokrovi iz protja: Marchesetti 1893, 41, 95, 118, 119, 123, 127, t. 27: 13; Teržan, Lo Schiavo, Trampuž-Orel 1984–1985, 274; včasih so bile kot pokrov uporabljene tudi lončene latvice. Za naselbinske keramične najdbe glej tu Grahek, 274, sl. 13: Po.

[346] Gabrovec 1976–1977, 48, t. 11; Ruaro Loseri 1983, sl. 64; Turk 2005, 70, sl. 105; Jereb 2016, 69, t. 90: 157.

[347] Frey 1969, t. 11: 11, 14: 7, 40–43: 146, 54–57, 59–61; Turk 2005, 18, sl. 14.

Bronze oinochoe

The bronze oinochoe (*Fig. 76: a*)[336] found in Grave M 3145 was also an import and has been presented in detail by Serena Vitri, whose conclusions are summarised below.[337] The associated goods reveal the burial of woman who died roughly in the mid-6th century BC (Sv. Lucija IIa). The jug was laid in a ceramic pithos (urn) together with an earring and fibulae that included a Sveta Lucija arch fibula with pendants, a boat, a serpentine and three leech fibulae decorated with stripes of incisions and holes on the bow.[338]

The bronze oinochoe is among the few examples of *plumpe Kannen* of Etruscan production that are believed to have represented an intermediary form between the earlier Rhodian oinochoai and the later *Schnabelkannen*. The former occur in central and southern Italy, in the graves from the late 8th century BC,[339] while the latter rank among the most widespread Etruscan products popular among the Early La Tène elites in northern Italy and central Europe. The object formally closest to the example from Most na Soči has been found at Trevignano Romano, a southern Etruscan site at Lake Bolsena, and dates to the first half of the 6th century BC; the two objects may even have been the products of the same workshop active at Vulci.[340] Another similar jug has been unearthed at Dürrnberg, in the Salzburg area, in a slightly later inhumation Grave 59 and presumably represents a local imitation.[341]

Jugs formed part of drinking sets and are connected with banquets that have roots in the eastern Mediterranean and with female participants;[342] the example from Most na Soči may therefore reflect the introduction of Graeco-Etruscan ideology in the south-eastern Alpine area.

[336] Marchesetti 1903, Pl. 17: 7; Vitri 1980, 267 ff, Figs. 1: 3, 2; Boiardi 1983, 182 f, Pl. 44; Boiardi 1984, 112, Fig. 1; Jereb 2016, 121, Pl. 145: 338.

[337] Frey 1969, 84, Fig. 49; Vitri 1980, Fig. 2, 273 ff.

[338] This type of leech fibulae is most common in the area of the Golasecca culture, the valley of the River Piave and south of the Po in the wider surroundings of Etruscan Felsina (Bologna), several examples are also known from Most na Soči; this fibula type was worn in the second half of the 6th and the early 5th century BC (Nascimbene 2009, 130 ff, Figs. 31, 32, Tab. 13).

[339] Pare 1989, 445 ff, Fig. 16; Frey 1998, 307 f, Fig. 12.

[340] Vitri 1980, 274 f; Pare 1989, 460 f, Fig. 25.

[341] Moosleitner, Pauli, Penninger 1974, 21 f, Pl. 123: 14; Pauli 1978, 348.

[342] Vitri 1980, 275 f; also cf. Frey 1969, Pl. 28: 15; Metzger 2002, 113 ff, Fig. 11.

Sl. 77: Bronasta situla in figuralno okrašen pokrov iz groba M 3580 (po Gambacurta 2011, 317, sl. 4.65). M. = 1:4.
Fig. 77: Bronze situla and figurally decorated lid from Grave M 3580 (from Gambacurta 2011, 317, Fig. 4.65). Scale = 1:4.

ter skodela iz fine gline s presegajočim ročajem, druga lončena skodela je ležala ob situli. Po pridatkih sodeč gre za ženski pokop s konca 7. st. Fibule predstavljajo značilno lokalno nošo v stopnji Sv. Lucija Ic, medtem ko sta bronast pokrov in situla, imenovana tudi tip Prà d'Este, verjetno importa iz estenske delavnice (*sl. 77*).[348] Med več kot sto primerki bronastih situl z grobišča na Mostu na Soči ni nobene (morda z izjemo situle v grobu M 2806[349]), ki bi imela na enak način pritrjeno in obli-

[348] Frey 1969, 53, sl. 29; Gabrovec 1992, 215; Jereb 2016, 122, t. 147: 341.

[349] Marchesetti 1893, 124 s, t. 2: 4.

Bronze situla with figural decoration on the lid

The lid with figural decoration (*Fig. 77*), found in Grave M 3580,[343] is another bronze product of foreign provenance. The item is exceptional firstly because only two bronze lids have been unearthed at Most na Soči,[344] where even ceramic lids were uncommon.[345] Secondly, it is one of only two examples of situla art from the upper Posočje region published thus far, the other one being a fragmented bronze situla from Kobarid, which is decorated with animal and human figures in the classic style.[346] It seems that the Posočje community retained its traditional iconographic programme rooted in the Urnfield culture and may even had ideological scruples about depicting the human figure. The animal procession ranks the bronze lid from Most na Soči among similar items known from Este and Picene Numana in the south, Hallstatt in the north, Stična in the east and Grandate near Como in the west.[347]

Apart from the lid, Grave M 3580 also contained a bronze situla, which held the cremated remains, as well as three fibulae (one large spectacle fibula and a pair of two-looped knobbed fibulae) and a fineware bowl with a high handle, while another ceramic bowl was found next to the situla. The grave goods reveal the burial of a woman from the late 7th century BC. The fibulae form part of the local costume characteristic of the Sv. Lucija Ic phase, while the bronze lid and the situla of the Prà d'Este type probably represent imports from an Este workshop (*Fig. 77*).[348] The cemetery at Most na Soči yielded over a hundred bronze situlae, but no other (with a possible exception of the situla from Grave M 2806[349]) had the pedestal shaped and attached in the way seen on the situla from Grave M 3580;[350] such situlae are known

[343] Marchesetti 1900, 26; Marchesetti 1903, 164; Frey 1969, 53, 103, Fig. 29, Pls. 60–61; Boiardi 1983, 179, Fig. XVII; Boiardi 1984, 113; Turk 2005, 70, Fig. 104; Gambacurta 2011, 317, Cat. No. 4.65; Jereb 2016, 93, Pl. 112: 231. The grave was marked as No. 3767 in some publications.

[344] A similar lid, but undecorated, was found alongside a situla of a different type in the male Grave M 2820 (Marchesetti 1893, 125, Pl. 2: 6; Jereb 2016, 35, Pl. 20: 36).

[345] Grs. M 907, 2151, 2672, 2694, 2785, 2837, Sz 1670 revealed wicker lids: Marchesetti 1893, 41, 95, 118, 119, 123, 127, Pl. 27: 13; Teržan, Lo Schiavo, Trampuž-Orel 1984–1985, 274; ceramic dishes with an inturned rim were also used as lids in some cases. For the ceramic finds in the settlement see Grahek in this publication, 273, Fig. 13: Po.

[346] Gabrovec 1976–1977, 48, Pl. 11; Ruaro Loseri 1983, Fig. 64; Turk 2005, 70, Fig. 105; Jereb 2016, 69, Pl. 90: 157.

[347] Frey 1969, Pls. 11: 11, 14: 7, 40–43: 146, 54–57, 59–61; Turk 2005, 18, Fig. 14.

[348] Frey 1969, 53, Fig. 29; Gabrovec 1992, 215; Jereb 2016, 122, Pl. 147: 341.

[349] Marchesetti 1893, 124 f, Pl. 2: 4.

[350] Cf. Jereb 2016, Pls. 20–22, 30–39, 66–80, 82, 86, 87.

kovano nogo,[350] so pa znane v venetskem prostoru od konca 7. do začetka 5. st.[351]

Bronasta pitosa

Brez primere sta dva ogromna bronasta pitosa (*sl. 76: b*), ki ju je podrobneje že opisala Grazia Bravar.[352] Služila sta kot žari v grobovih M 2038 in M 2151.[353] Pitos iz groba M 2038 je visok kar 93 cm, vseboval je v tkanino zavito bronasto situlo, stekleno skodelico (*sl. 78: c*), dva prstana in štirinajst kačastih fibul, med njimi več primerkov s krilci ter dve z rozeto in pestiči iz jantarja, slednji imata najboljše primerjave v etruščanskem Verucchiu ob zahodnojadranski obali.[354] Izven pitosa je ležala še pasna spona, kar bi kazalo na dvojni pokop v sredini 6. st. (stopnja Sv. Lucija IIa).

Podobne pridatke je vseboval grob M 2151, enak je bil tudi način pokopa. V pitos je bil poleg bronaste situle in steklene skodelice (*sl. 78: a*) pridan nakit, ki je bil v modi v poznem 6. in na začetku 5. st. (svetolucijska ločna fibula z obeski in certoška fibula domnevno različice Ia). Na dnu pitosa je bila smola, izven njega so ležali še ena steklena skodela (*sl. 78: b*) in druga iz fine prečiščene gline, ki posnema jonski kylix, ter majhna pravokotna pasna spona, dva prstana, uhan in trakasta fibula,[355] iz česar je mogoče sklepati na malce mlajši dvojni pokop (stopnja Sv. Lucija IIb).

Bravarjeva ugotavlja, da sta bronasta pitosa po obliki, dimenzijah in proporcih podobna kakovostnim in povečini reliefno okrašenim keramičnim etruščanskim izdelkom iz 7. in 6. st.[356] V tem času se bolj grobo izdelani lončeni pitosi pojavijo tudi v grobovih na Mostu na Soči,[357] ti so bolj kot z etruščanskimi primerljivi z izdelki na območju estenske kulture.[358] Očitne povezave z vzhodnim delom Padske nižine nakazujejo zlasti primerki z ročaji, ki imajo votel čašast zaključek na vrhu in

[350] prim. Jereb 2016, t. 20–22, 30–39, 66–80, 82, 86, 87.

[351] Frey 1969, t. 21: 5,6, 25: 13, 51, 72: 28,29; Gambacurta, Ruta Serafini 1998, 142, sl. 71; Nascimbene 1999, 135, t. 2: 323; Chieco Bianchi, Calzavara Capuis 1985, t. 179: 70, 184: 14, 185: 18, 212 B: 1, 264: 9, 265: 25; Manessi, Nascimbene 2003, 185 ss, sl. 56, t. 52: 1; Capuis, Chieco Bianchi 2006, t. 43: 1, 162: 9,10; Gamba et al. 2013, 402 ss, kat. št. 11.3.3; Egg, Kramer 2013, 241 ss, sl. 100.

[352] Bravar 1984, 136 ss, sl. 1: 1,2; Jereb 2016, 32 s, t. 18, 19.

[353] Marchesetti 1893, 90 s, 95 s, t. 1: 1,2, 2, 6: 11, 8: 2, 9: 1,2, 17: 13, 26: 12, 27: 1,13, 29: 11; Boiardi 1983, 173 ss, sl. 39, 40; Boiardi 1984, 112, sl. 4A, 4B; Crismani 2004, 284: sl. 1; 647 s, kat. št. 6.9.

[354] von Eles Masi 1995, 46, sl. 27; Bermond Montanari 2004, 605 s, kat. št. 5.6.

[355] Vitri 2004, sl. 1; Crismani 2004, 647 s.

[356] Bravar 1984, 137, sl. 2a; prim. še Torelli 2000, 83, 119, 545: kat. št. 20, 569: kat. št. 81.33; 570: kat. št. 81.35.

[357] Dular 1982, 93 (tip 1), 101 ss, sl. 6: 1, 10.

[358] Glej npr. Gamba et al. 2013, 373 ss, 399, kat. št. 10.3.2, 10.3.3, 10.3.6, 10.3.7, 11.2.8.1.

across the Venetic area and date from the late 7th to the early 5th centuries BC.[351]

Bronze pithoi

The cemetery also yielded two large bronze pithoi without known parallels (*Fig. 76: b*); they have been described in more detail by Grazia Bravar.[352] They were used as urns in Graves M 2038 and M 2151.[353] The pithos from Grave M 2038 measures as much as 93 cm in height and contained a bronze situla wrapped in fabric, a glass cup (*Fig. 78: c*), two finger rings and fourteen serpentine fibulae, among them several examples with wings and two dragon fibulae with an amber overlay, the latter with formally closest parallels in Etruscan Verucchio on the west Adriatic coast.[354] A belt plate was found outside the pithos, which suggests a double burial dating to the mid-6th century BC (Sv. Lucija IIa).

Grave M 2151 contained similar goods and showed the same burial rite. The pithos held a bronze situla, a glass cup (*Fig. 78: a*) and jewellery fashionable in the late 6th and early 5th centuries BC (Sveta Lucija arch fibula with pendants and a Certosa fibula presumably of Variant Ia). Resin was found at the bottom of the pithos. Another glass cup (*Fig. 78: b*) was laid outside the pithos next to a cup of refined clay imitating an Ionian kylix and a small rectangular belt plate, two finger rings, an earring and a band bow fibula,[355] which suggests a slightly later double burial (Sv. Lucija IIb).

Bravar notes that the two bronze pithoi resemble the high-quality and mostly relief decorated Etruscan pottery of the 7th and 6th centuries BC in form, size and proportions.[356] At this time, coarser ceramic pithoi also appear in the graves at Most na Soči,[357] which are closer to the products of the Este culture than to those of the Etruscans.[358] Particularly clear parallels with the

[351] Frey 1969, Pls. 21: 5,6, 25: 13, 51, 72: 28,29; Gambacurta, Ruta Serafini 1998, 142, Fig. 71; Nascimbene 1999, 135, Pl. 2: 323; Chieco Bianchi, Calzavara Capuis 1985, Pls. 179: 70, 184: 14, 185: 18, 212 B: 1, 264: 9, 265: 25; Manessi, Nascimbene 2003, 185 ff, Fig. 56, Pl. 52: 1; Capuis, Chieco Bianchi 2006, Pls. 43: 1, 162: 9,10; Gamba et al. 2013, 402 ff, Cat. No. 11.3.3; Egg, Kramer 2013, 241 ff, Fig. 100.

[352] Bravar 1984, 136 ff, Fig. 1: 1,2; Jereb 2016, 32 f, Pls. 18, 19.

[353] Marchesetti 1893, 90 f, 95 f, Pls. 1: 1,2, 2, 6: 11, 8: 2, 9: 1,2, 17: 13, 26: 12, 27: 1,13, 29: 11; Boiardi 1983, 173 ff, Figs. 39, 40; Boiardi 1984, 112, Figs. 4A, 4B; Crismani 2004, 284: Fig. 1; 647 f, Cat. No. 6.9.

[354] von Eles Masi 1995, 46, Fig. 27; Bermond Montanari 2004, 605 f, Cat. No. 5.6.

[355] Vitri 2004, Fig. 1; Crismani 2004, 647 f.

[356] Bravar 1984, 137, Fig. 2a; also cf. Torelli 2000, 83, 119, 545: Cat. No. 20, 569: Cat. No. 81.33; 570: Cat. No. 81.35.

[357] Dular 1982, 200 ff (Type 1), Figs. 6: 1, 10.

[358] See e.g. Gamba et al. 2013, 373 ff, 399, Cat. Nos. 10.3.2, 10.3.3, 10.3.6, 10.3.7, 11.2.8.1.

razcepljeno bazo v dva kraka (*sl. 75: d*);[359] take zasledimo na najdiščih, kot so Este, Padova, Oderzo, Concordia Sagittaria, Posmon pri Montebelluni, Montebello, Monrupino, Elleri.[360] Dlje proti vzhodu pa nenarebreni lončeni pitosi niso prodrli; uporabljali so jih le še na Notranjskem,[361] od koder za zdaj ni znan noben ročaj s čašastim zaključkom in razcepljeno bazo. Iz Posočja in estenskega prostora so se na vzhod – na Gorenjsko in Dolenjsko – razširili le narebreni pitosi z rdeče-črno barvanimi pasovi.[362]

Po načinu izdelave sta bronasta pitosa sorodna vedrom brez držajev ali z njimi (t. i. tip Kurd), ki odsevajo staro podonavsko tradicijo izdelovanja bronastih posod iz časov kulture žarnih grobišč. V železni dobi so se razširila na zahod, njihova široka razprostranjenost od srednje Italije do severnega morja pa kaže na več delavniških krogov.[363] Kar nekaj takih veder je bilo odkritih v grobovih na Mostu na Soči; datirana so v čas od druge polovice 7. do začetka 5. st. (od stopnje Sv. Lucija Ib do IIb),[364] nekatera med njimi so tudi po prostornini primerljiva z bronastima pitosoma.[365] Zanje bi lahko domnevali, da so lokalni izdelki, tako kot glavnina bronastih situl.

Steklene skodelice

Nekateri premožni pripadniki skupnosti na Mostu na Soči so imeli v lasti steklene skodelice (*sl. 78*), ki so pravcata rariteta. Enobarvni stekleni skodelici medeno-rjavega ali zelenkastega odtenka z narebrenim ostenjem (*sl. 78: d,f*)[366] sta bili pridani v žarna grobova Sz 2439 in Sz 2446, ki ju lahko časovno opredelimo na prehod iz 7. v 6. st. (stopnja Sv. Lucija Ic2/IIa).[367] Oba sta vsebovala bronaste situle in kačaste fibule z rozetami in pestiči, grob 2439 pa še različice s sedlastim lokom ali z zanko ter večglavi igli, železen okov in kos okre,

[359] Marchesetti 1893, 21, t. 2: 1; Teržan, Lo Schiavo, Trampuž-Orel 1984–1985, t. 29 F: 2, 229 D, 265 A: 2.

[360] Cardarelli 1983, 88, 100, t. 16: 114 (predzadnji stolpec), 21: 114; Lora, Ruta Serafini 1992, 259, sl. 8: 1; Albertini et al. 1996, kat. št. 12, 139, 225, sl. 7: 12, 20: 139, 61: 252; Manessi, Nascimbene 2003, 123 s, t. 26: 1; Capuis, Chieco Bianchi 2006, t. 2: 1, 3: 1.

[361] Urleb 1974, t. 1: 2; Guštin 1979, t. 37: 1, 39: 1, 40: 11 itd.

[362] Dular 1982, 93 (svetolucijski tip 2), 101 ss, 135 s, sl. 6: 2, 10; prim. ib., 21 s (dolenjski tip 4), t. 3: 10,11.

[363] Egg 1985, 368 ss, sl. 37; Egg, Kramer 2013, 178 ss, 192 ss, sl. 69, 75.

[364] Marchesetti 1893, 79, 122, 124, 139, t. 1: 3; Bravar 1984, 136 ss, sl. 1: 4–6; Teržan, Lo Schiavo, Trampuž-Orel 1984–1985, t. 115E: 5, 138C: 8, 215: 10, 260: 5; Jereb 2016, 32.

[365] Jereb 2016, 21 ss, t. 3, 4, 7–10, 13–15.

[366] Haevernick 1981, 43, t. 1: 4; Teržan, Lo Schiavo, Trampuž-Orel 1984–1985, 42.

[367] Teržan, Lo Schiavo, Trampuž-Orel 1984–1985, 382 s, t. 260–262, 264, 265A.

eastern Po Plain can be seen in the examples that bear grips with a hollow cup-like top and a forked base (*Fig. 75: d*);[359] such vessels are known from sites such as Este, Padua, Oderzo, Concordia Sagittaria, Posmon near Montebelluna, Montebello, Monrupino and Elleri.[360] Ceramic pithoi without cordons are not known east of there with the exception of Notranjska,[361] where none of the pithoi have grips with a hollow cup-like top and a forked base. Only the cordoned pithoi with black-on-red painted bands spread east of Posočje and the Este cultural area – to Gorenjska and Dolenjska.[362]

In production technique, the two bronze pithoi are similar to buckets with or without grips (the Kurd type) that mirror the old Danubian tradition of bronze vessels dating back to the Urnfield culture period. In the Iron Age, such vessels spread westwards and their broad distribution stretching from central Italy to the North Sea suggests several production circles.[363] A number of such buckets has been unearthed in the graves at Most na Soči; they date from the second half of the 7th to the early 5th century BC (Sv. Lucija Ib–IIb).[364] Some of these buckets are comparable in volume to the two bronze pithoi.[365] They may be seen as local products.

Glass cups

Some of the more affluent members of the community at Most na Soči were buried with glass cups (*Fig. 78*), which are quite rare finds. The two monochrome ribbed cups of honey-brown or greenish glass (*Fig. 78: d,f*)[366] were placed into the urn Graves Sz 2439 and Sz 2446, respectively, and are attributable to the transition from the 7th to the 6th century BC (Sv. Lucija Ic2/IIa).[367] Both graves contained bronze situlae and dragon fibulae, Grave 2439 also serpentine fibulae with a saddle-shaped bow or a

[359] Marchesetti 1893, 21, Pl. 2: 1; Teržan, Lo Schiavo, Trampuž-Orel 1984–1985, Pls. 29 F: 2, 229 D, 265 A: 2.

[360] Cardarelli 1983, 88, 100, Pl. 16: 114 (penultimate column), 21: 114; Lora, Ruta Serafini 1992, 259, Fig. 8: 1; Albertini et al. 1996, Cat. Nos. 12, 139, 225, Figs. 7: 12, 20: 139, 61: 252; Manessi, Nascimbene 2003, 123 f, Pl. 26: 1; Capuis, Chieco Bianchi 2006, Pls. 2: 1, 3: 1.

[361] Urleb 1974, Pl. 1: 2; Guštin 1979, Pls. 37: 1, 39: 1, 40: 11 etc.

[362] Dular 1982, 200 ff (Sveta Lucija Type 2), Figs. 6: 2, 10; cf. ib., 21 f (Dolenjska Type 4), Pl. 3: 10,11.

[363] Egg 1985, 368 ff, Fig. 37; Egg, Kramer 2013, 178 ff, 192 ff, Figs. 69, 75.

[364] Marchesetti 1893, 79, 122, 124, 139, Pl. 1: 3; Bravar 1984, 136 ff, Fig. 1: 4–6; Teržan, Lo Schiavo, Trampuž-Orel 1984–1985, Pls. 115E: 5, 138C: 8, 215: 10, 260: 5; Jereb 2016, 32.

[365] Jereb 2016, 21 ff, Pls. 3, 4, 7–10, 13–15.

[366] Haevernick 1981, 43, Pl. 1: 4; Teržan, Lo Schiavo, Trampuž-Orel 1984–1985, 42.

[367] Teržan, Lo Schiavo, Trampuž-Orel 1984–1985, 382 f, Pls. 260–262, 264, 265A.

Sl. 78: Steklene skodelice iz grobov M 2151 (*a, b*) in M 2038 (*c*) (po Boiardi 1983, sl. XIII; Crismani 2004, 647, kat. št. 6.9) ter grobov Sz 2439, Sz 1008, Sz 2446 (*d–f*) (Foto: A. Schumacher, Naturhistorisches Museum Wien). M. = 1:2.
Fig. 78: Glass bowls from Graves M 2151 (*a, b*) and M 2038 (*c*) (from Boiardi 1983, Fig. XIII; Crismani 2004, 647, Cat. No. 6.9), and from Graves Sz 2439, Sz 1008, Sz 2446 (*d–f*) (Photo: A. Schumacher, Naturhistorisches Museum Wien). Scale = 1:2.

medtem ko sta k pridatkom groba 2446 sodila očalasta fibula in kamnit kalup. Primerljive steklene skodelice so znane iz Hallstatta ter njemu bližnjih najdišč Uttendorf in Hellbrunner Berg na severnoalpskem obrobju, a ni dokazov, da bi jih tam tudi izdelovali. Narejene so bile v kalupu, na način, ki je po izvoru vzhodnosredozemski.[368] Na etruščanskem teritoriju zasledimo narebreno skodelico brez ročaja iz modrega prosojnega stekla v Artimino-Comeana med pridatki groba A v kupolasti grobnici Montefortini, ki je datiran v sredino 7. st., tj. v orientalizirajoče obdobje.[369] Ali bi potemtakem v njih lahko videli odsev orientalskega vpliva in po kateri poti naj bi ta dosegel alpski prostor? Po obliki nekoliko spominjajo na bronaste narebrene skodelice (phialae), ki imajo prav tako korenine v vzhodnem Sredozemlju in se v srednji Italiji pojavljajo v bogatih grobovih iz druge polovice 8. in v 7. st.; posamični primerki so znani tudi na območju Padske nižine (Bologna, Padova, Como) in v Porenju.[370]

loop, two multi-knobbed pins, an iron mount and a piece of ochre, while Grave 2446 included a spectacle fibula and a stone mould. Similar glass cups have been found at Hallstatt and nearby sites at Uttendorf and Hellbrunner Berg along the northern fringes of the Alps, but there is no evidence to suggest they were produced in this area. They were made in a mould using a technique that originates in the eastern Mediterranean.[368] On Etruscan territory, a handleless ribbed cup of blue translucent glass was found at Artimino-Comeana, among the goods of Grave A in the domed Montefortini Tomb dated to the mid-7th century BC, i.e. the Orientalising period.[369] Should we therefore see the cups as a reflection of Orientalising influences and which was the route the influences took to reach the Alpine areas? In form, they are reminiscent of ribbed bronze cups or phialae, which is also an essentially eastern form and appears in rich graves in central Italy from the second half of the 8th and throughout the 7th century BC; individual examples have also been found in the Po Plain (Bologna, Padua, Como) and the Rhineland.[370]

[368] Haevernick 1981, 47; Egg 1985, 342 ss, sl. 11: 2, 15, 16.
[369] Nicosia 1992, 58.
[370] von Hase 1992, 73, sl. 18, 20; von Hase 1995, 273 s, sl. 29, 30.

[368] Haevernick 1981, 47; Egg 1985, 342 ff, Figs. 11: 2, 15, 16.
[369] Nicosia 1992, 58.
[370] von Hase 1992, 73, Figs. 18, 20; von Hase 1995, 273 f, Figs. 29, 30.

Sl. 79: Steklen amulet iz groba M 2942 (*a*) in zlata ogrlica iz groba M 3383 (*b*) (po Vitri 1997, kat. št. 4-144, 193, sl. 5, 7). M. = 1:1.
Fig. 79: Glass amulet from Grave M 2942 (*a*) and gold necklace from Grave M 3383 (*b*) (from Vitri 1997, Cat. No. 4-144, 193, Figs. 5, 7). Scale = 1:1.

Enako vprašanje izvora se postavlja v zvezi s polihromnimi steklenimi skodelicami (*sl. 78: a–c,e*)[371] iz bogatih žarnih grobov M 1765, 2038, 2151, 2607, 3383 in Sz 1008,[372] datiranih v 6. in na začetek 5. st. (stopnji Sv. Lucija IIa in IIb). Med grobnimi pridatki je zastopano prestižno bronasto in keramično posodje; veliko je bilo v njih tudi nakita, zlasti fibul, med njimi zasledimo redke oblike kačastih fibul z rozetami in pestiči, ki so drugačne od lokalnih izvedb (M 2038, M 2607).[373] Posebno dragoceno okrasje je imela pokojnica v grobu M 3383, sestavljeno iz množice obročastih steklenih jagod, koščenih (morda koralnih?[374]) diskov z luknjicami, več bronastih spiralnih členov (saltaleone) in obeskov (košarastih, stiliziranih antropomorfnih in dvodelnih

[371] Haevernick 1981, 43 ss, t. 1: 5, 2: 1-2,3-4,5-6, 3: 1-2,4-5.

[372] Marchesetti 1893, 79, 304, t. 1: 3, 2: 5, 8: 1, 24: 8, 35 (gr. 1765); ib. 90 s, t. 1: 1, 8: 2, 17: 13, 26: 12 (gr. 2038); ib., 95 s, t. 1: 2, 6: 11, 9: 1,2, 27: 1,13, 29: 11 (gr. 2151); ib., 114 s, t. 1: 4, 6: 7, 17: 8,10 (gr. 2607); Marchesetti 1899, 155, 157; Boiardi 1983, 173 ss, sl. 39, 40, t. XI (gr. 3383); Boiardi 1984, 112 s, sl. 4A, 4B; Teržan, Lo Schiavo, Trampuž-Orel 1984–1985, 188, t. 104, 105A (gr. 1008).

[373] Marchesetti 1893, t. 17: 8,10,13; Boiardi 1984, sl. 4A, 4B; prim. Tecco Hvala 2014, 126 ss, sl. 3a: 7,12.

[374] Starodobne korale je s prostim očesom včasih težko ločiti od kosti, glej Cherici 1999, 170, op. 9.

The same question pertains to the polychrome glass cups (*Fig. 78: a–c,e*)[371] from rich urn Graves M 1765, 2038, 2151, 2607, 3383 and Sz 1008,[372] dated to the 6th and the early 5th centuries BC (Sv. Lucija IIa and IIb). The goods associated with them include prestige vessels of bronze and clay, numerous pieces of jewellery, particularly fibulae and among them rare forms of dragon fibulae that differ from those of local variants (M 2038, M 2607).[373] Particularly precious were the adornments of the woman in Grave M 3383 that consisted of a multitude of annular glass beads, perforated bone (possibly coral?[374]) discs, several bronze saltaleoni and pendants (basket-shaped, stylised anthropomorphic and two-piece spherical pen-

[371] Haevernick 1981, 43 ff, Pls. 1: 5, 2: 1-2,3-4,5-6, 3: 1-2,4-5.

[372] Marchesetti 1893, 79, 304, Pls. 1: 3, 2: 5, 8: 1, 24: 8, 35 (Gr. 1765); ib. 90 f, Pls. 1: 1, 8: 2, 17: 13, 26: 12 (Gr. 2038); ib., 95 f, Pls. 1: 2, 6: 11, 9: 1,2, 27: 1,13, 29: 11 (Gr. 2151); ib., 114 f, Pls. 1: 4, 6: 7, 17: 8,10 (Gr. 2607); Marchesetti 1899, 155, 157; Boiardi 1983, 173 ff, Figs. 39, 40, Pl. XI (Gr. 3383); Boiardi 1984, 112 f, Figs. 4A, 4B; Teržan, Lo Schiavo, Trampuž-Orel 1984–1985, 188, Pls. 104, 105A (Gr. 1008).

[373] Marchesetti 1893, Pl. 17: 8,10,13; Boiardi 1984, Figs. 4A, 4B; cf. Tecco Hvala 2014, 166 ff, Fig. 3a: 7,12.

[374] Ancient corals can be indistinguishable from bones with the naked eye, see Cherici 1999, 170, Fn. 9.

kroglastih) ter edinstveno ogrlico iz sodčastih jagod, prevlečenih z zlato folijo (*sl. 79: b*).[375] Zlata pena se omenja tudi v grobu Sz 1008.[376]

Skodelice iz polihromnega neprosojnega stekla z Mosta na Soči spominjajo po barvi, načinu okrasa in izdelavi s peščenim jedrom na majhne posodice grških oblik (aryballoi, alabastra, amphoriskoi, oinochoai, hydriai); zanje se domneva, da izhajajo iz delavnic v vzhodnem Sredozemlju, morda na Rodosu.[377] V severnem Jadranu in Padski nižini jim lahko sledimo po poteh etruščanske trgovske mreže od emporijev Adria in Spina do Coma in zgornjega Poadižja (Mechel) ter na avstrijsko Koroško (Führholz),[378] pojavljajo se tudi na Dolenjskem, denimo na Velikem Vinjem vrhu (Šmarjeti) in v Stični.[379] Vendar so po obliki in velikosti drugačne od skodelic z Mosta na Soči. Glede na to, da so izdelki iz stekla v Posočju precej redki v primerjavi denimo s steklenim okrasjem bogato dolenjsko nošo,[380] je malo verjetno, da bi steklene skodelice nastale v lokalni delavnici. Tu so pogoste lončene skodelice s presegajočim ročajem, zlasti v starejših fazah,[381] v mlajših tudi lesene. Ali bi to pomenilo, da je steklene primerke izdelal po naročilu in željah lokalne elite potujoči rokodelec ali pa so bile narejene v kaki severnoitalski delavnici? Prepričljiv dokaz, da so v Padski nižini to steklarsko tehniko poznali že v pozni bronasti dobi, so najdbe iz Frattesine in še nekaterih drugih najdišč.[382]

Steklen amulet

Prav tako nenavadna najdba je fragmentiran steklen obesek v obliki bradate moške glave (*sl. 79: a*) iz menda poškodovanega groba M 2942.[383] Sodil naj bi k ogrlici skupaj s 33 steklenimi polihromnimi jagodami, med njimi so ene precej velike z očesci v sredini ter bunčicami ob robovih. Drugi spremljajoči pridatki, kot so prstan, zapestnica, kačasta fibula in fibula z nogo v obliki nazaj gledajoče konjske glavice ter enojno peresovino, na katero je pripet stiliziran antropomorfni obesek, kažejo na pokop ženske nekje v 5. st. (stopnja Sv. Lucija IIb).

[375] Boiardi 1983, 106, t. XI, 179, 186; Vitri 1997, 312, 568, kat. št. 4-144, sl. 5.

[376] Teržan, Lo Schiavo, Trampuž-Orel 1984–1985, 188.

[377] Prim. Haevernick 1981, 150 ss; glej Frontini 1988, 236 s.

[378] Endrizzi 1999, 198 ss, sl. 3; Wedenig 2005, 28, sl. 19.

[379] Dular A. 1991, t. 29: 26-28; Gabrovec et al. 2006, t. 153: 1; Laharnar, Turk 2017, 127, sl. 144.

[380] Križ, Turk 2003.

[381] Marchesetti 1885, t. 3: 5-12,15-18; Marchesetti 1893, t. 7; Dular 1982, 99 ss, sl. 8: 21-23, 9: 21-23, 10: 21-23.

[382] Bianchin Citton 1988, 48; Bellintani 1997, 121 ss, sl. 5; Zanini 1999, 327 ss; Bianchin Citton, Bietti Sestieri 2013, 41.

[383] Marchesetti 1893, 132, 304, t. 29: 4,8,9; Vitri 1997, 314, kat. št. 193, sl. 7, 568; Simeoni, Corazza 2011, 109, sl. 13.

dants), as well as a unique necklace of beads covered in gold foil (*Fig. 79: b*).[375] There is also a mention of gold foam in Grave Sz 1008.[376]

In colour, manner of decoration and production using a friable core, the cups of opaque polychrome glass from Most na Soči are reminiscent of the small Greek vessels (aryballoi, alabastra, amphoriskoi, oinochoai, hydriai); these are believed to have been produced by workshops in the eastern Mediterranean, possibly on Rhodes.[377] In the northern Adriatic and the Po Plain, they can be traced along the routes of the Etruscan trading network from the emporia of Adria and Spina to Como, Alto Adige (Mechel) and Kärnten in Austria (Führholz),[378] but they have also been found in Dolenjska (for example at Veliki Vinji vrh (Šmarjeta) and Stična).[379] However, these differ in form and in size from the cups found at Most na Soči. Considering the paucity of glass items in Posočje as opposed to the Dolenjska costume that was rich in glass adornments,[380] it is not very likely that the said glass cups were made in local Posočje workshops, which commonly produced ceramic cups in the earlier phases,[381] later even versions in wood. Does this signify that they were made by a travelling master on the order and wish of the local elite, or were they made in a northern Italian workshop? The artisans of the Po Plain certainly knew the technology already in the Late Bronze Age, as shown by glass finds from Frattesina and several other sites.[382]

Glass amulet

Another unusual find is a fragmented glass bead in the shape of a bearded male head (*Fig. 79: a*) from the presumably damaged Grave M 2942.[383] It reportedly formed a necklace together with 33 polychrome glass beads that include examples with rather large eyes in the centre and dots along the edges. Other associated goods, such as a finger ring, a serpentine fibula and a fibula with the foot in the shape of a rear-facing horse head and a single-coil spring hung with a stylised anthropomorphic

[375] Boiardi 1983, 106, Pl. XI, 179, 186; Vitri 1997, 312, 568, Cat. No. 4-144, Fig. 5.

[376] Teržan, Lo Schiavo, Trampuž-Orel 1984–1985, 188.

[377] Cf. Haevernick 1981, 150 ff; see Frontini 1988, 236 f.

[378] Endrizzi 1999, 198 ff, Fig. 3; Wedenig 2005, 28, Fig. 19.

[379] Dular A. 1991, Pl. 29: 26–28; Gabrovec et al. 2006, Pl. 153: 1; Laharnar, Turk 2017, 127, Fig. 144.

[380] Križ, Turk 2003.

[381] Marchesetti 1885, Pl. 3: 5–12,15–18; Marchesetti 1893, Pl. 7; Dular 1982, 201, 204, Figs. 8: 21–23, 9: 21–23, 10: 21–23.

[382] Bianchin Citton 1988, 48; Bellintani 1997, 121 ff, Fig. 5; Zanini 1999, 327 ff; Bianchin Citton, Bietti Sestieri 2013, 41.

[383] Marchesetti 1893, 132, 304, Pl. 29: 4,8,9; Vitri 1997, 314, Cat. No. 193, Fig. 7, 568; Simeoni, Corazza 2011, 109, Fig. 13.

Steklene obeske oz. amulete z upodobljenimi človeškimi obrazi je obravnavala Thea Elisabeth Haevernick; predvidevala je, da izvirajo iz feničansko-punsko-kartažanskega kroga, primerek z Mosta na Soči je opredelila v skupino 8.[384] Največ obeskov v obliki bradatih moških glav iz časa 5. in 4. st. je znanih s črnomorskih in vzhodnosredozemskih najdišč ter Sicilije in Sardinije. Od Mosta na Soči manj oddaljeno je najdišče St. Sulpice v švicarskih Alpah, tam sta bila podobna primerka odkrita v zgodnjelatenskem grobu.[385] A najboljše analogije bi lahko videli v najdbah iz Picena, kjer so taki amuleti spadali k ogrlicam iz steklenih jagod z očesci ali iz jantarja in koral, ki so jih nosile izključno deklice.[386] Te amulete z ozirom na domnevno izvorno območje interpretirajo kot upodobitve feničansko-kartažanskega moškega božanstva rodovitnosti Baal Hammon ali boginje Astarte-Tanit, ki je ženski pendant, kajti znani so tudi stekleni obeski z upodobljenim ženskim obrazom. Tak primerek omenja Haevernickova z Magdalenske gore na Dolenjskem, ki je danes izgubljen,[387] tudi ta je spadal k dekliškemu nakitu in bi lahko bil po opisu sodeč primerljiv z najdbo iz picenskega Campovalana.[388]

Omenili smo že, da je bilo upodabljanje človeka posoški skupnosti tuje. Podoba s človeškim obrazom se pojavlja še na predrtem bronastem obesku iz groba M 3383 z ogrlico iz zlatih jagod. Obesek je trikotne sheme, spodnji del ima obliko polmesečaste sončeve ladje s ptičjima protomoma na zaključkih, enaki so izpričani na najdiščih Misincinis di Paularo, Padova ter na Vačah in v Stični na Dolenjskem.[389] Od fibul kaže omeniti primerek z orientalskim motivom sfinge, ki izvira iz žarnega groba M 590,[390] pokritega z apnenčasto ploščo in obdanega s kopico kamenja; v žari je bilo poleg bronaste situle veliko bogatega okrasja, od svetolucijske ločne, trortaste, certoške in samostrelne fibule v obliki konjička do uhana ter na desetine bronastih gumbkov in tisočero steklenih jagodic.

Dve fibuli prikazujeta moško figurico na vozu s konjsko trovprego (t. i. Kriegerwagenfibel),[391] ki morebiti ponazarja Faetonta.[392] Marchesetti poroča še o

[384] Haevernick 1981, 310 (skupina 8), sl. 5: 468.

[385] Ib. 315 ss, St. Sulpice, Švica (kat. št. 52, 53, barvna tabla 3); glej še ib. 399 ss, sl. 4.

[386] Martellone 2011, 531, Kat. št. 4.97.

[387] Haevernick 1981, 306, 351, kat. št. 663; Tecco Hvala 2012, 289.

[388] Martellone 2011, 530, kat. št. 4.96.

[389] Marchesetti 1900, 27; Wells 1981, 73, sl. 137a; Teržan 2003, t. 6: 1; Nascimbene 2009, 187 ss, sl. 54, 56, tab. 25.

[390] Marchesetti 1893, 26, t. 9: 3,6, 20: 11; Nascimbene 2009, 166 s; Teržan 2012, 187 s, sl. 15: 2.

[391] Ena je naključna najdba, ki jo je pridobil Rutar, druga izvira iz žarnega groba 2999: Marchesetti 1885, 124, t. 7: 5; Marchesetti 1903, t. 17: 20; Nascimbene 2009, 168 ss (tip I.20, varianta B); Vitri 1997, 314, kat. št. 196, sl. 8.

[392] Tecco Hvala 2012, 262, op. 1084; Bilić 2016.

pendant, indicate the burial of a woman sometime in the 5th century BC (Sv. Lucija IIb).

Thea Elisabeth Haevernick studied glass beads or amulets with human faces and sought their origin in the Phoenician-Punic-Carthaginian circle. She classified the example from Most na Soči into her Group 8.[384] Most pendants in the shape of bearded male heads from the 5th and 4th centuries BC have come to light at the Black Sea and eastern Mediterranean sites, as well as in Sicily and Sardinia. Two similar examples have also been found at a site close to Most na Soči, St. Sulpice in the Swiss Alps, as goods in an Early La Tène grave.[385] The parallels closest in form, however, are those from Picenum, where such amulets formed parts of necklaces made up of glass beads with eyes, of amber and coral beads, and only worn by girls.[386] Considering the suggested place of origin, the amulets have been interpreted as images of Baal Hammon, the Phoenician-Carthaginian male god of fertility, and as his female counterpart Astarte-Tanit for the pendants depicting a female face. Haevernick mentions a female face pendant among the finds from Magdalenska gora in Dolenjska, which is now lost,[387] but formed part of the jewellery adorning a girl and may be comparable, judging from the description, to a pendant from Campovalano in Picenum.[388]

Other rare human depictions from Most na Soči include a bronze openwork pendant with a human face from Grave M 3383 that formed a necklace together with gold beads. The pendant is triangular with the lower part shaped as a sun ship with bird protomes at both ends. Such pendants are known from Misincinis di Paularo, Padua, as well as Vače and Stična in Dolenjska.[389] There is also a fibula bearing an oriental motif of a sphinx, unearthed in urn Grave M 590.[390] Its pit was lined with stones and covered with a limestone slab. The urn held a bronze situla and rich adornments comprising a Sveta Lucija arch fibula, a Certosa fibula and a horse-shaped fibula with a crossbow spring, an earring, tens of bronze buttons and thousands of small glass beads.

Two fibulae show a male figure on a chariot drawn by three horses (*Kriegerwagenfibel*),[391] possibly repre-

[384] Haevernick 1981, 310 (Group 8), Fig. 5: 468.

[385] Ib. 315 ff, St. Sulpice, Switzerland (Cat. Nos. 52, 53, colour Pl. 3); also see ib. 399 ff, Fig. 4.

[386] Martellone 2011, 531, Cat. No. 4.97.

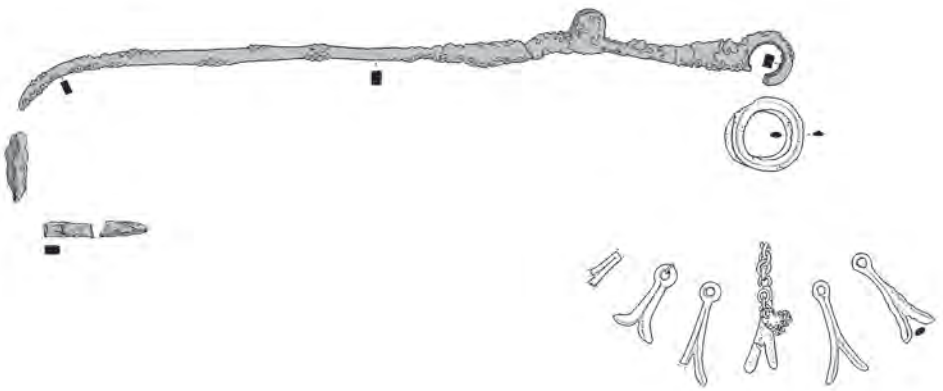
[387] Haevernick 1981, 306, 351, Cat. No. 663; Tecco Hvala 2012, 289.

[388] Martellone 2011, 530, Cat. No. 4.96.

[389] Marchesetti 1900, 27; Wells 1981, 73, Fig. 137a; Teržan 2003, Pl. 6: 1; Nascimbene 2009, 187 ff, Figs. 54, 56, Tab. 25.

[390] Marchesetti 1893, 26, Pls. 9: 3,6, 20: 11; Nascimbene 2009, 166 f; Teržan 2012, 187 f, Fig. 15: 2.

[391] One is a stray find acquired by Rutar, the other was found in urn Grave 2999: Marchesetti 1885, 124, Pl. 7: 5; Marchesetti 1903, Pl. 17: 20; Nascimbene 2009, 168 ff (Type I.20, Variant B); Vitri 1997, 314, Cat. No. 196, Fig. 8.



Sl. 80: Železen ključ z bronastimi obeski iz groba Sz 1229 (po Teržan, Lo Schiavo, Trampuž-Orel, t. 118: 19,20,10,14). M. = 1:4.
Fig. 80: Iron key with bronze pendants from Grave Sz 1229 (from Teržan, Lo Schiavo, Trampuž-Orel, Pl. 118: 19,20,10,14). Scale = 1:4.

svinčeni figurici konjenika,[393] ta bi lahko prišla z območja Fröga/Brega na avstrijskem Koroškem, od koder so znane številne figurice iz svinca.[394] Na Mostu na Soči je v geometrijskem slogu upodobljen konjenik še na glinasti plošči iz hiše 22A,[395] ki bi ga lahko primerjali s stilno podobnimi figurami na fragmentu pitosa iz Frattesine.[396] S tem je mostarski repertoar človeške figuralike bolj ali manj izčrpan.

Železen ključ

Zanimiva najdba je tudi železen ključ (*sl. 80*), ki je unikat v tem nadvse velikem grobišču. Pridan je bil v ženski grob Sz 1229[397] iz sredine 7. st. (stopnja Sv. Lucija Ib/Ic), ki je vseboval dele lokalne noše (bronaste očalaste fibule tipa Sv. Lucija, polmesečasto tipa Tolmin in čolničasto fibulo ter vozlasto ovratnico, prstana, železen obročast nakit in lončen vrč).[398] Tudi sam način pokopa je povsem običajen za to skupnost, ki je svoje pokojne sežigala, kosti in pepel z ostanki grmade pa polagala v grobno jamo ter prekrila s kamnom.[399] Edino ključ je nekaj posebnega.

[393] Marchesetti 1900, 27.

[394] Tomedi 2002, 246 ss, t. 1D: 1, 2: 8-11, 4B: 4, 7B: 3, 9B: 4, 10B: 1-4 itd.; Gleirscher 2004, 637 s, kat. št. 5.51.

[395] Svoljšak, Dular 2016, 165 s (faza 2), t. 65: 4.

[396] Malnati 2001, 159 s, sl. 1a, 2: 1.

[397] Teržan, Lo Schiavo, Trampuž-Orel, 215 s, t. 118: 19,20,10,14; Teržan 2004, 223 ff, sl. 3.

[398] Prim. Teržan, Trampuž 1973, 422 ss; Teržan 1990a, 59, 77, sl. 6: 2, seznam 12; Teržan 2002, 90 s, 95 ss; za keramiko glej Dular 1982, 98 ss, sl. 7: 19.

[399] Teržan, Trampuž 1973, 418 s; Gabrovec 1987, 138 ss; Gabrovec 1999, 179 s.

senting Phaeton.[392] Marchesetti also reports of a lead figurine of a horseman,[393] possibly imported from the Frög area in Kärnten that has yielded numerous lead figurines.[394] At Most na Soči, a geometric-style depiction of a horseman appears on a ceramic plaque from House 22A,[395] which is stylistically similar to the figures on a pithos fragment from Frattesina.[396] This exhausts the list of human depictions at Most na Soči.

Iron key

The vast cemetery at Most na Soči yielded another unique find: an iron key (*Fig. 80*). It is a single find of its kind here and was recovered from Grave Sz 1229[397] of a woman buried in the mid-7th century BC (Sv. Lucija Ib/Ic). Other grave goods are pieces of the local costume: bronze spectacle fibulae of the Sv. Lucija type, a semi-lunate fibula of the Tolmin type, a boat fibula, a knobbed torque, two finger rings, iron ring jewellery and a ceramic jar.[398] The burial rite is also characteristic of the local community that cremated their dead and placed the bones and ash directly into the grave pit covered with stone slabs.[399] Only the key stands apart.

[392] Tecco Hvala 2012, 262, Fn. 1084; Bilić 2016.

[393] Marchesetti 1900, 27.

[394] Tomedi 2002, 246 ff, Pls. 1D: 1, 2: 8–11, 4B: 4, 7B: 3, 9B: 4, 10B: 1–4 etc.; Gleirscher 2004, 637 f, Cat. No. 5.51.

[395] Svoljšak, Dular 2016, 165 f (Phase 2), Pl. 65: 4.

[396] Malnati 2001, 159 f, Figs. 1a, 2: 1.

[397] Teržan, Lo Schiavo, Trampuž-Orel, 215 f, Pl. 118: 19,20,10,14; Teržan 2004, 223 ff, Fig. 3.

[398] Cf. Teržan, Trampuž 1973, 437 ff; Teržan 1990a, 59, 77, Fig. 6: 2, List 12; Teržan 2002, 90 f, 95 ff; for the pottery see Dular 1982, 201 ff, Fig. 7: 19.

[399] Teržan, Trampuž 1973, 437 ff; Gabrovec 1987, 138 ff; Gabrovec 1999, 154 f.

Z uporabnega vidika je ta predmet del mehanizma za zapiranje in odpiranje vrat.[400] Najbližji prototipi tega posebnega mehanizma so bronasti ključi iz švicarskih kolišč in iz depojev na severnem in vzhodnem delu alpskega loka, datirani so v čas pozne bronaste dobe.[401] Podobne primerke srečamo na začetku železne dobe na južnem obrobju Alp v grobovih, mednje se uvrščata tudi najdbi ključev iz Tolmina (gr. 346)[402] in z Mosta na Soči. Tolminski grob je datiran v drugo polovico 8. st. (stopnja Sv. Lucija Ib),[403] tako kot grob Este-Benvenuti 277,[404] oba sta vsebovala bronast ključ. Nekoliko mlajši je grob Sz 1229 z Mosta na Soči, v njem najden ključ pa je železen, verjetno so mu pripadali še bronasti dvokraki obeski na verižici in obročka, ti so nemara viseli na obročastem zaključku ročaja, kot bi lahko sklepali po analogijah z bronastima primerkoma iz Este in Trichiane pri Bellunu (naključna najdba z Monte Nenz).[405] Podoben železen ključ je bil pridan v skeletni grob 68/2 z Dürrnberga pri Halleinu na Solnograškem,[406] ki je sicer mlajši od groba z Mosta na Soči. V osrčju alpskega sveta se taki ključi pojavljajo v naseljih še v latenski dobi.[407]

V grobovih je imel ta predmet zagotovo simbolno vlogo in kaže na neki skupen imaginarij in magično-ritualen pomen. Ker so v vseh teh grobovih s ključi prisotni povečini elementi ženske noše, je dobil simbolno oznako Penelopin ključ z aluzijo na homersko epiko. Na semantični ravni označuje ločevanje med zasebno in javno sfero, med profanim in sakralnim, povezuje se ga z nadzorovanjem in varovanjem prehodov, dostopov, zakladov in z atributom svečenic ter hišnih gospodaric oz. dominae.[408]

Železno bodalo

V arheološki zapuščini z Mosta na Soči izstopa tudi železno bodalo (*sl. 81: a*) iz žganega groba Sz 593,[409] v njem sta bili še nogi certoških fibul, ki najverjetneje pripadata različici Ia. Pojav tovrstnih fibul je časovno

[400] Jacobi 1974, 153 ss, sl. 37; Speck 1981, 237, sl. 10.

[401] Müller-Karpe 1959, t. 142B: 7, 175C: 7; Jacobi 1974, 171; Speck 1981; Teržan 2002, 87 s, karta 3 (na karti je označen tudi depo Mušja jama pri Škocjanu, vendar je ključ vprašljiv, morda gre za fragment žval, prim. Teržan, Borgna, Turk 2016, 671, t. 67: 14, 85: 18).

[402] Svoljšak, Pogačnik 2001, 140 s, t. 67: 11,15.

[403] Teržan 2002, 97 s.

[404] Müller-Karpe 1959, t. 100: 2; Ruta Serafini 1996, sl. 2.

[405] Bonomi, Ruta Serafini 1994, sl. 1; Ruta Serafini 1996, 37 s, sl. 1; Capuis, Chieco Bianchi 2013, 61 ss, sl. 5.

[406] Moosleitner, Pauli, Penninger 1974, t. 133: 11.

[407] Jacobi 1974, 172, t. 43–45; Nothdurfter 2002; Marzatico 2013, 151.

[408] Guaitoli 1996, 19 ss; Teržan 2004, 223 ss; Capuis, Chieco Bianchi 2013, 61 ss.

[409] Teržan, Lo Schiavo, Trampuž-Orel 1984–1985, 120, t. 52B: 3.

The key is part of a mechanism for opening and closing a door.[400] The closest prototypes are the bronze keys from Swiss pile-dwellings and hoards from the northern and eastern parts of the Alpine arch, dated to the Late Bronze Age.[401] Similar examples appeared at the beginning of the Iron Age in graves on the southern fringes of the Alps, including the keys from Tolmin (Grave 346)[402] and Most na Soči. The grave from Tolmin dates to the second half of the 8th century BC (Sv. Lucija Ib),[403] same as Grave Este-Benvenuti 277,[404] both of which contained a bronze key. Grave Sz 1229 from Most na Soči is slightly later and revealed the iron key presumably together bronze pendants on a chain and two rings that may have been hanging from the ring terminal of the key as suggested by comparable bronze examples from Este and Trichiana near Belluno (stray find from Monte Nenz).[405] A similar iron key was found in inhumation Grave 68/2 from Dürrnberg near Hallein, in the Salzburg area,[406] which is later than the grave from Most na Soči. In the Alpine heartland, such keys continue to occur in settlements into the La Tène period.[407]

As a grave good, this object certainly played a symbolic role and indicates a magical-ritual significance common to the areas mentioned above. All the graves with keys also contained parts of the female costume, which led scholars to mark them as Penelope's keys in allusion to Homer's epic. Semantically, keys mark the boundary between the private and the public sphere, between the profane and the sacred, and are linked to the control and protection of passages, gates and treasures, but are also seen as attributes of priestesses and mistresses of the household or dominae.[408]

Iron dagger

The archaeological heritage of Most na Soči includes another special object – an iron dagger (*Fig. 81*: *a*). It was unearthed in cremation Grave Sz 593,[409]

[400] Jacobi 1974, 153 ff, Fig. 37; Speck 1981, 237, Fig. 10.

[401] Müller-Karpe 1959, Pls. 142B: 7, 175C: 7; Jacobi 1974, 171; Speck 1981; Teržan 2002, 87 f, Map 3 (the Mušja jama hoard near Škocjan is also marked on the map, but the key from this hoard is questionable as it may represent a bridle bit fragment, cf. Teržan, Borgna, Turk 2016, 671, Pls. 67: 14, 85: 18).

[402] Svoljšak, Pogačnik 2001, 140 f, Pl. 67: 11,15.

[403] Teržan 2002, 97 f.

[404] Müller-Karpe 1959, Pl. 100: 2; Ruta Serafini 1996, Fig. 2.

[405] Bonomi, Ruta Serafini 1994, Fig. 1; Ruta Serafini 1996, 37 f, Fig. 1; Capuis, Chieco Bianchi 2013, 61 ff, Fig. 5.

[406] Moosleitner, Pauli, Penninger 1974, Pl. 133: 11.

[407] Jacobi 1974, 172, Pls. 43–45; Nothdurfter 2002; Marzatico 2013, 151.

[408] Guaitoli 1996, 19 ff; Teržan 2004, 223 ff; Capuis, Chieco Bianchi 2013, 61 ff.

[409] Teržan, Lo Schiavo, Trampuž-Orel 1984–1985, 120, Pl. 52B: 3.

Sl. 81: Železno bodalo iz groba Sz 593 (*a*) (po Teržan, Lo Schiavo, Trampuž-Orel 1984–1985, t. 52 B: 3) in nož z železnim rezilom in bronastima ročajem in nožnico iz groba M 3299 (*b*) (po Sievers 1982, t. 39: 1). M. = 1:4.
Fig. 81: Iron dagger from Grave Sz 593 (*a*) (from Teržan, Lo Schiavo, Trampuž-Orel 1984–1985, Pl. 52 B: 3) and knife with an iron blade and a bronze grip and sheath from Grave M 3299 (*b*) (from Sievers 1982, Pl. 39: 1). Scale = 1:4.

omejen na drugo polovico 6. st. (stopnja Sv. Lucija IIb1), geografsko pa na Padsko nižino in južne obronke Alp z Mostom na Soči kot najvzhodnejšim najdiščem.[410] Od bodala sta ohranjena konica železnega dvoreznega rezila in del železne nožnice z zaključkom v obliki dveh okroglih simetričnih izrastkov oz. očes. Najboljše tipološko-kronološke primerjave ima v nožnicah iz Caverzana-Limade pri Bellunu ter južneje iz Trevigiana, Montebellune-Posmon in Padove-Vicolo Ognissanti,[411] na severu pa v Hallstattu.[412] Različne izpeljanke velikih nožev z železno nožnico so bile na območju retijske kulture v uporabi kot bojno ali lovsko orožje še v zgodnjelatenskem obdobju.[413]

Bimetalen nož

Podobno oblikovan zaključek nožnice kot bodalo ima bimetalen nož (*sl. 81: b*), najden v žarnem grobu M 3299 s konca 6. ali začetka 5. st. (stopnja Sv. Lucija IIb).[414] V narebren lončen pitos, uporabljen za žaro, so

which also yielded two feet of Certosa fibulae, most probably of Variant Ia, the occurrence of which is limited chronologically to the second half of the 6th century BC (Sv. Lucija IIb1) and geographically to the Po Plain and the southern fringes of the Alps with Most na Soči as the easternmost site.[410] Only two rather small fragments survive of the dagger, one is the tip of the iron double-edged blade and the other a piece of the iron sheath in the shape of a double disc terminal. The closest typological and chronological parallels are the sheaths from Caverzano-Limada near Belluno, further south from Trevigiano, Montebelluna-Posmon and Padua-Vicolo Ognissanti,[411] in the north from Hallstatt.[412] Similar versions of large knives in an iron sheath were used either in combat or in hunting in the area of the Rhaetian culture even into the Early la Tène period.[413]

Bimetal knife

A similar sheath terminal as the above-discussed dagger can be seen on the bimetal knife (*Fig. 81: b*) from urn Grave M 3299 dating to the late 6th or early 5th centuries BC (Sv. Lucija IIb).[414] A cordoned ceramic pithos was used as the urn in this grave and also contained a bronze situla with cordons and concentric circles, a band handle of sheet bronze that was probably attached to a wooden bowl, as well as three fibulae (Sveta Lucija arch fibula with ring pendants, two leech fibulae with incisions and holes on the bow hung with a triangular pendant[415]). The cremated and burnt remains outside

[410] Teržan 1976, 319, 348, karta 13.

[411] Frey 1969, 55, sl. 32, t. 35 (spodaj); Bianco Peroni 1976, 42, t. 20: 158; Nascimbene 1999, 155 ss, sl. 32: 384; Manessi, Nascimbene 2003, 225 ss, t. 73: 33; Gamba et al. 2013, 404, 407, sl. 11.3.5, 11.3.9.

[412] Kromer 1959, t. 133: 1; Sievers 1982, t. 23: 125; glej še Frey 1969, 15, sl. 27.

[413] Nothdurfter 1979, 17 ss, sl. 7: 4; Egg 1992, 146 ss, sl. 7–10; Marzatico 2013, 148 s.

[414] Marchesetti 1903, t. 17: 23; Sievers 1982, t. 39: 1; Boiardi 1983, 104: IX, 185, sl. 52; Boiardi 1984, 99: sl. 2, 113.

[410] Teržan 1976, 319, 427 f, Map 13.

[411] Frey 1969, 55, Fig. 32, Pl. 35 (bottom); Bianco Peroni 1976, 42, Pl. 20: 158; Nascimbene 1999, 155 ff, Fig. 32: 384; Manessi, Nascimbene 2003, 225 ff, Pl. 73: 33; Gamba et al. 2013, 404, 407, Figs. 11.3.5, 11.3.9.

[412] Kromer 1959, Pl. 133: 1; Sievers 1982, Pl. 23: 125; also see Frey 1969, 15, Fig. 27.

[413] Nothdurfter 1979, 17 ff, Fig. 7: 4; Egg 1992, 146 ff, Figs. 7–10; Marzatico 2013, 148 f.

[414] Marchesetti 1903, Pl. 17: 23; Sievers 1982, Pl. 39: 1; Boiardi 1983, 104: IX, 185, Fig. 52; Boiardi 1984, 99: Figs. 2, 113.

[415] Fibulae of this type frequently occur in combination with a triangular pendant with a loop (Nascimbene 2009, 192 ff, Fig. 58, 249 f, Fig. 82).

bili pridani z rebri in koncentričnimi krožci okrašena bronasta situla, trakast ročaj iz bronaste pločevine, ta je bil verjetno pritrjen na leseno skodelo, in tri fibule (svetolucijska ločna z obročastimi obeski ter pijavkasti z vrezi in luknjicami na loku in trikotnim obeskom[415]). V žganini izven pitosa so ležali železen vejnik,[416] certoški fibuli II. vrste ter deli kačaste fibule s krilci. Ob pitos sta bila položena na eni strani plavutasta sekira[417] in na drugi velik nož z bronastim ročajem in železnim rezilom v bronasti nožnici.

Železni noži in tudi bodala, ki imajo bronast ročaj s podobno oblikovanim antenskim zaključkom kot primerek z Mosta na Soči, so razširjeni v osrednjem delu Alp, od zgornjega toka Rena in Donave do Padske nižine, njihovo vzhodno mejo zarisujejo najdišča Hallstatt, Most na Soči in najdba iz okolice Vidma/Udine.[418] Med starejše primerke spada bimetalno bodalo iz Sesto Calende, iz bojevniškega groba B, datiranega v Ha C2, med mlajše pa nož iz skeletnega groba 33 v Hallstattu iz časa Ha D2/3.[419]

A najboljše analogije za nož z Mosta na Soči so grobne najdbe iz Este, ki so mu podobne tako po obliki ročaja kot tudi nožnice in celo po legi v grobu;[420] te so izdelane iz bronaste pločevine in imajo razcepljeno konico v dva simetrična izrastka. Na zgornjem delu nožnice je z zakovicami pritrjena zanka v obliki ploščice, ki je v sredinskem delu izbočena. Te nožnice so običajno okrašene v tehniki tolčenja in vrezov, vendar z različnimi motivi. Estenske imajo pogosto figuralen okras v maniri situlske umetnosti,[421] medtem ko je nožnica z Mosta na Soči okrašena z iztolčenimi bunčicami in koncentričnimi krožci (*sl. 81: b*).

Žarni grob M 3299 spada med redkejše primere pokopov z orožjem na Mostu na Soči, kjer je bilo žarnih okoli 8 odstotkov, z orožjem pa le dobra 2 odstotka.

[415] Fibule te vrste večkrat nastopajo v kombinaciji s trikotnim obeskom z ušescem (Nascimbene 2009, 192 ss, sl. 58, 249 s, sl. 82).

[416] Prim. Nothdurfter 1979, 40 ss, sl. 11: 9, t. 19: 303-305. V Posočju je več železnih vejnikov znanih iz latenske dobe, prim. Guštin 1991, t. 2: 1, 10: 14, 11: 8 itd.

[417] Teržan 1990b, 227, karta 24 (t. i. tip Most na Soči); prim. še Neubauer, Stöllner 1996, 108 ss, sl. 9.

[418] Sievers 1982, 33 ss, t. 22: 117-119, 23: 121-123,126,127, 24: 128,129, 42: B (varianti Neuenegg in Hoffenheim).

[419] Ib., 35 s, t. 24: 128; Egg 2004, 48 ss, sl. 13: 3.

[420] Drexler-Woldirch 1980,12 s, t. 1, 2; Gambacurta, Ruta Serafini 1998, 71 ss, 140 ss, sl. 27, 35b, 36, 74: 33, 84: 30.

[421] Frey 1969, t. 27: 11, 67: 15, 81: 42; Bianco Peroni 1976, 42–44, t. 20: 159, 21: 165, 22: 167, 63 D; Nascimbene 1999: 148 s, sl. 29, 35; Chieco Bianchi, Calzavara Capuis 1985, t. 175: 20.

the pithos included an iron billhook,[416] two Certosa fibulae of Type II and parts of a serpentine fibula with wings. Also laid next to the pithos was a winged axe on one side[417] and a large knife with a bronze handle and an iron blade inside a bronze sheath on the other side.

The handle with an antennae terminal on the example from Most na Soči is similar to those on the iron knives and daggers widespread in the central Alps, from the upper reaches of the Rhine and Danube to the Po Plain, with their eastern edge of distribution marked by finds from Hallstatt, Most na Soči and the vicinity of Udine.[418] One of the earliest such items is the bimetal dagger from Sesto Calende, from Warrior Grave B dated to Ha C2, while the knife from the inhumation Grave 33 of a Ha D2/3 date from Hallstatt ranks among the last ones.[419]

The closest parallels for the knife from Most na Soči come from the graves at Este, which are comparable in the form of both the handle and the sheath, and even in its position in the grave.[420] The Italian sheaths identical to the example from Most na Soči are made of sheet bronze and have a terminal split into two symmetrical prongs. They have a broad loop riveted to the upper part of the sheath. Such sheaths are usually decorated by embossing and incising to form different designs or motifs. The examples from Este often bear figural decoration executed in the situla art style,[421] while the Most na Soči sheath bears embossed dots and concentric circles (*Fig. 81: b*).

Grave M 3299 from Most na Soči is also of interest in terms of the burial rite, as it held an inurned burial with a weapon. Such burials are rare in the cemeteries of the Posočje community; roughly 8% of all burials at Most na Soči were inurned and only roughly 2% had weapons.

[416] Cf. Nothdurfter 1979, 40 ff, Fig. 11: 9, Pl. 19: 303–305. A greater number of billhooks in Posočje is known from the La Tène period, cf. Guštin 1991, Pls. 2: 1, 10: 14, 11: 8 etc.

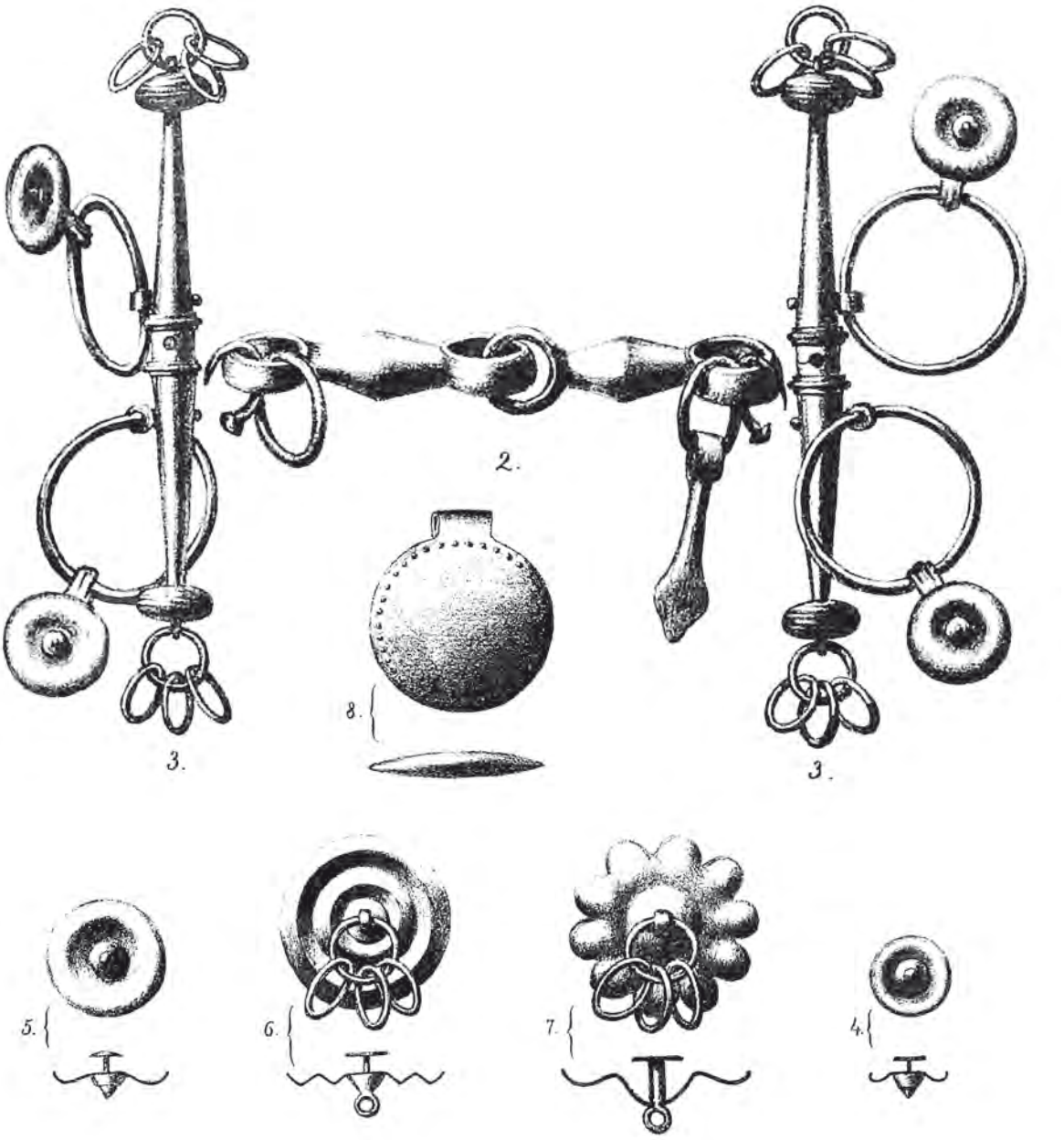
[417] Teržan 1990b, 227, Map 24 (the Most na Soči type); also cf. Neubauer, Stöllner 1996, 108 ff, Fig. 9.

[418] Sievers 1982, 33 ff, Pls. 22: 117-119, 23: 121–123,126,127, 24: 128,129, 42: B (Variants Neuenegg and Hoffenheim).

[419] Ib., 35 f, Pl. 24: 128; Egg 2004, 48 ff, Fig. 13: 3.

[420] Drexler-Woldirch 1980, 12 f, Pls. 1, 2; Gambacurta, Ruta Serafini 1998, 71 ff, 140 ff, Figs. 27, 35b, 36, 74: 33, 84: 30.

[421] Frey 1969, Pls. 27: 11, 67: 15, 81: 42; Bianco Peroni 1976, 42–44, Pls. 20: 159, 21: 165, 22: 167, 63 D; Nascimbene 1999: 148 f, Figs. 29, 35; Chieco Bianchi, Calzavara Capuis 1985, Pl. 175: 20.



Sl. 82A: Most na Soči, konjska oprema iz groba M 2141 (po Marchesettiju 1893, t. 30). Vse železo. M. = 1:2.
Fig. 82A: Most na Soči, horse gear from Grave M 2141 (from Marchesetti 1893, Pl. 30). All iron. Scale = 1:2.

Skeleten pokop

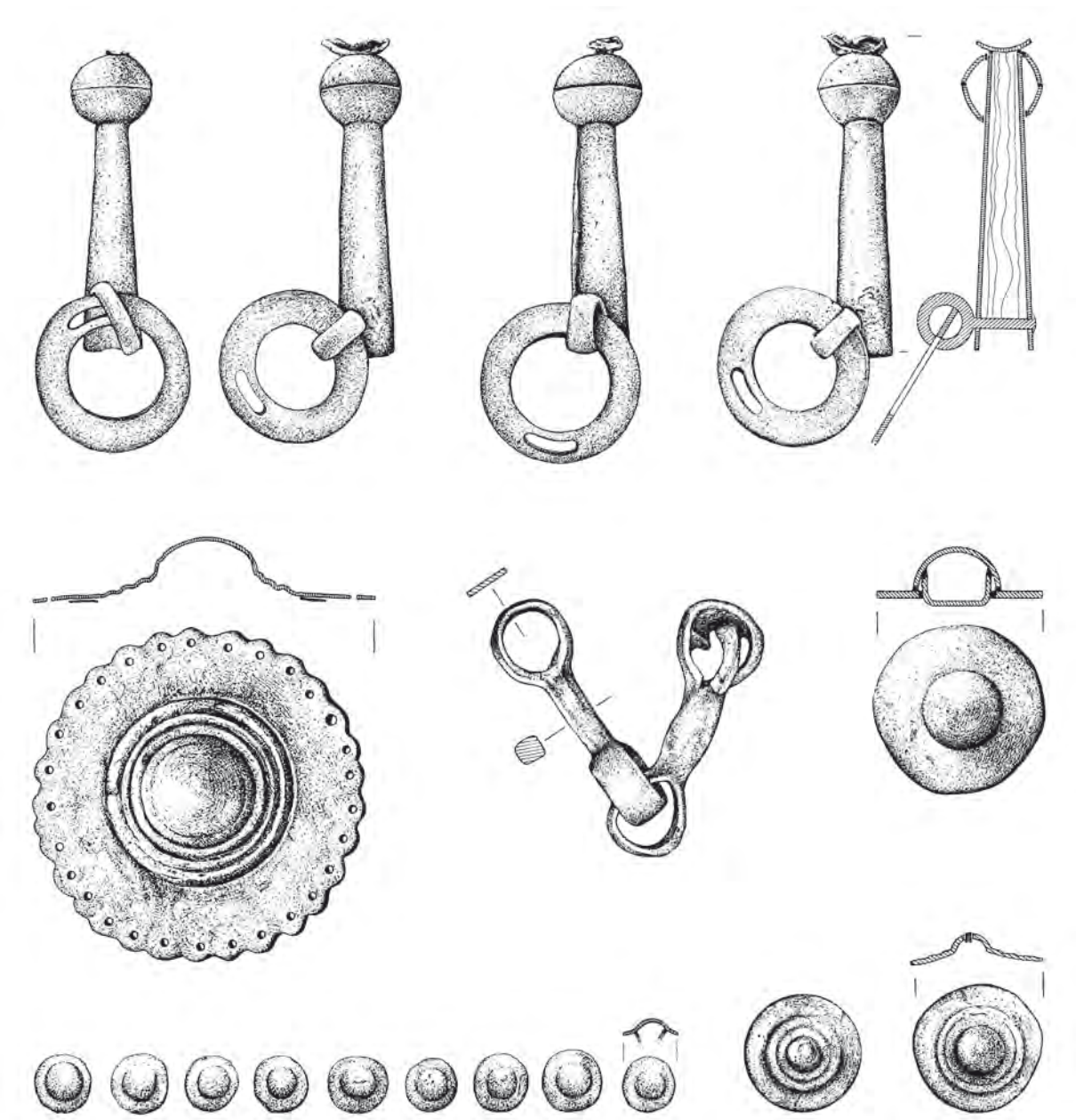
Od posoškega običaja sežiganja umrlih odstopa skeletni pokop moškega v grobu M 2184.[422] Po navedbah Marchesettija so ostanki človeškega skeleta ležali v kamniti skrinji, prekriti s kamnito grobljo. Pokojnik je bil pokopan v severozahodni smeri in je imel med nogama bronasto situlo, zraven pa železno sulično ost. Opravljen je bil s paroma certoških in kačastih fibul z zanko, pasno spono in ovratnico. Zraven so bile menda še kosti jagnjeta. Iz tega opisa je mogoče sklepati, da je

[422] Marchesetti 1893, 97.

Inhumation burial

Standing apart from the usual practice of cremating the dead at Most na Soči is the inhumation burial of a man in Grave M 2184.[422] According to Marchesetti's report, the human skeleton were found inside a stone chest covered with stones. The deceased was buried with the head towards the northwest, and with a bronze situla placed between the legs and an iron spearhead beside it. He wore a pair of Certosa and a pair of serpentine fibulae (*biserpeggiante*), a belt plate and a torque. Lamb

[422] Marchesetti 1893, 97.



Sl. 82B: Helpfau-Uttendorf, konjska oprema iz gomile 5 (po Egg 1985, sl. 23, 24, 35). Vse železo. M. = 1:2.
Fig. 82B: Helpfau-Uttendorf, horse gear from Tumulus 5 (from Egg 1985, Figs. 23, 24, 35). All iron. Scale = 1:2.

bil pokopan nekje proti koncu 5. st. (stopnja Sv. Lucija IIb/c), o njegovem poreklu pa bi kaj več lahko povedale podrobnejše analize pridatkov, če bi bili ti objavljeni. Lahko bi bil prišlek iz Dolenjske, kjer je bil tak način pokopa običajen.

Konjski pokopi in njihova oprema

Na grobišču na Mostu na Soči so zabeleženi tudi trije skeletni grobovi konjev. Po navedbah Marchesettija je v grobu M 2141, obdanem s skrilastimi ploščami in

bones were reportedly also found in the grave. This description suggests that he was buried towards the end of the 5th century BC (Sv. Lucija IIb/c), while his origin remains unclear pending more detailed analyses of the grave goods; he may have come from Dolenjska, where inhumation was the usual practice.

Horse burials and horse gear

Three inhumation burials of horses were recorded at the Most na Soči cemetery. Marchesetti reported that Grave M 2141, lined with slate slabs and covered with

z velikim apnenčastim kamnom na vrhu, ležal konjski skelet s pokrčenimi nogami in ob njem železna brzda ter jermensko okrasje (*sl. 82A*). Drugi konjski grob (M 2788) je prekrivala kamnita groblja v obliki nekakšnega oboka, v njej je bilo raztreseno oglje in koščki železa, pod njo pa v celoti ohranjen skelet žrebca, opremljen z železnimi žvalami.[423] Tretji konjski skelet (gr. Sz 592) je prekrivalo sedem skrilastih plošč, zloženih druga vrh druge, med pridatki je bilo več bronastih okroglih faler in fragmentov tulcev ter pravokotnih okovov z obročki, poleg tega še bronasta vozlasta ovratnica in danes izgubljen kos železnih brzd.[424]

Konji so bili verjetno žrtvovani in zatem pokopani v samostojne grobove. Tak ritual je bil v navadi pri Venetih, o žrtvovanju belih konjev v znak čaščenja grškega heroja Diomeda na tem območju govorijo tudi antični pisni viri.[425] Drugačen ritual je značilen za dolenjsko halštatsko skupnost, kjer so konje pokopavali navadno skupaj s konjeniki; pri njih so pomenili osebni prestiž in statusni simbol.[426] Toda ne na enem ne na drugem območju ni najti analogij za konjsko opremo. Opremo konjev z Mosta na Soči bi po risbi sodeč, ki jo je objavil Marchesetti (*sl. 82A*), lahko primerjali z najdbami iz mladohalštatskih grobov z vozovi na območju zgornjega Podonavja in Porenja (Helpfau-Uttendorf – *sl. 82B*; Haslach; Bergheim; Kicklingen; Hohmichele; Ludwigsburg; Asperg), kjer so zastopani podobni železni tuli s kroglasto glavico na zaključku in ob straneh pritrjenimi obročki ter železni okrogli gumbi.[427] Kako so prebivalci Mosta na Soči prišli v stik z onimi onkraj Alp, ostaja odprto vprašanje. Na drugi strani je iz Marchessetijevega opisa in skice konjske opreme iz groba M 2141 razvidno, da je imel na vratu še okrogel ploščičast obesek (*sl. 82A: 8*), podobno kot eden od konjskih skeletov iz Altina.[428] Ta konjska oprema bi tako bila evidenten dokaz o povezavah Mosta na Soči v stopnji Sv. Lucija IIb s solnograškim in severnojadranskim prostorom.

Most na Soči v mreži povezav

Iz te skice tujih elementov v železnodobni naselbini in pripadajočem grobišču je mogoče razbrati, da je bil Most na Soči vključen v razvejeno mrežo povezav med vzhodnim Sredozemljem, Apeninskim polotokom in kontinentalno Evropo. Prve znake stikov z egejskim

[423] Ib., 95, t. 30 (gr. M 2141), 123 s (gr. M 2788).

[424] Teržan, Lo Schiavo, Trampuž-Orel 1984–1985, 120 s, t. 51–52A.

[425] Glej npr. Grilli 1991, 37 ss; Malnati 2003, 16; Braccesi 2013, 56; Millo 2013, 364 ss.

[426] Dular 2007, 737 ss: Teržan 2008, 266 ss; Teržan 2011, 310 ss; Teržan 2014, 257.

[427] Egg 1985, 361 ss, sl. 23, 24, 35.

[428] Marchesetti 1893, t. 30: 8; prim. Gambacurta, Tirelli 1996, 71 ss, sl. 27.

a large limestone block, held the skeleton of a horse with bent legs and an iron bridle bit and rein adornments beside it (*Fig. 82A*). The second burial (M 2788) was covered by a dome-like heap of stones with bits of charcoal and pieces of iron among them, under it a completely surviving skeleton of a stallion equipped with an iron bridle bit.[423] The third burial (Sz 592) was covered by seven slate slabs stacked one on top of the other, while the grave goods comprised several round bronze phalerae and fragments of tubes and rectangular mounts with rings, as well as a bronze knobbed torque and a (now missing) piece of an iron bridle bit.[424]

These horses were probably sacrificed and buried in separate graves. The Veneti practised such a ritual, and the sacrifice of white horses in the worship of the Greek hero Diomedes in this area is even reported in ancient texts.[425] Quite a different ritual was common in the Dolenjska Hallstatt community, where horses were usually buried together with wariors.[426] Having said that, parallels for the horse gear from Most na Soči can be found neither in the Venetic area nor in Dolenjska. Judging from the drawing that Marchesetti published (*Fig. 82A*), the horse equipment from Most na Soči is comparable with the finds from the Late Hallstatt graves with wagons in the Upper Danube Basin and Rhineland (Helpfau-Uttendorf – *Fig. 82B*; Haslach; Bergheim; Kicklingen; Hohmichele; Ludwigsburg; Asperg) that include similar iron tubes with a spherical terminal and rings attached at the other end, as well as similar iron round buttons.[427] It remains unclear how the people of Most na Soči came into contact with populations living on the other side of the Alps. Marchesetti's description and sketch of the horse gear from Grave M 2141 reveals that the horse also had a disc-shaped pendant on the neck (*Fig. 82A: 8*), similarly as one of the horse skeletons at Altino.[428] This horse gear may be compelling evidence of the role of Most na Soči in the links between the Salzburg and Caput Adriae areas in the Sv. Lucija IIb phase.

The place of Most na Soči in wider networks

The above-presented outline of the foreign elements in the Iron Age settlement and associated cemetery shows that Most na Soči formed part of a wide network of connections between the eastern Mediter-

[423] Ib., 95, Pl. 30 (Gr. M 2141), 123 f (Gr. M 2788).

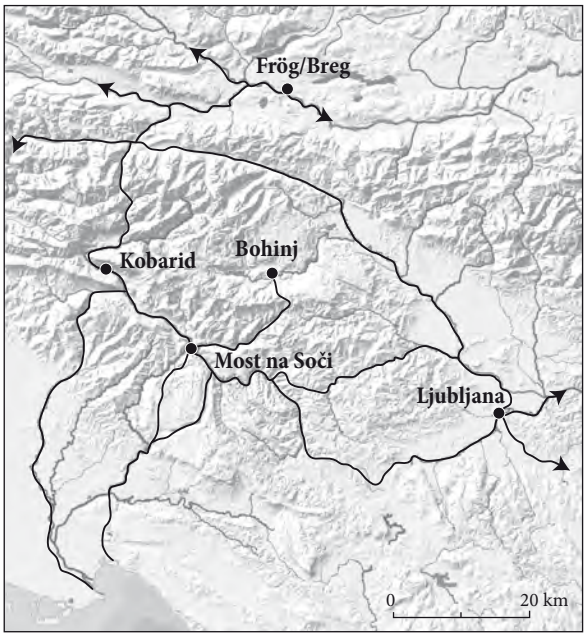
[424] Teržan, Lo Schiavo, Trampuž-Orel 1984–1985, 120 f, Pls. 51–52A.

[425] See e.g. Grilli 1991, 37 ff; Malnati 2003, 16; Braccesi 2013, 56; Millo 2013, 364 ff.

[426] Dular 2007, 737 ff: Teržan 2008, 266 ff; Teržan 2011, 310 ff; Teržan 2014, 257.

[427] Egg 1985, 361 ff, Figs. 23, 24, 35.

[428] Marchesetti 1893, Pl. 30: 8; cf. Gambacurta, Tirelli 1996, 71 ff, Fig. 27.



Sl. 83: Tovorne poti v Zgornjem Posočju.
Fig. 83: Transport routes in the upper Posočje region.
(Kartografska podlaga / Cartographic basis: © ZRC SAZU, Inštitut za geografijo Antona Melika)

prostorom kažejo med drugim polmesečaste enozankaste fibule in pojav železa, o čemer pričajo grobne najdbe.[429] Intenzivnejše se je v blagovno menjavo vključil zlasti v 6. in 5. st. (v stopnjah Sv. Lucija IIa–IIb), ko zasledimo importe tudi v raziskanem delu naselbine. To je čas, ko se je v Padski nižini razmahnila trgovina prek Bologne s tirensko Etrurijo in prek jadranskih emporijev z Grčijo ter na drugi strani z alpskimi skupnostmi.[430] V tej konstelaciji je Most na Soči pripadal interesni sferi severnoitalskih centrov.

Z razcvetom blagovne menjave je bil verjetno povezan tudi vznik lokalne elite, ki se razločuje od preostalega življa po prestižnih predmetih v njihovi lasti ter po načinu in mestu pokopa, manj je to zaznavno v bivalni kulturi. Pripadniki vrhnjega sloja so se dali pokopati v žarne grobove, njihovi grobovi so bili pogosto obkroženi s kamni in prekriti s kamnito grobljo ter malce distancirani od drugih.[431]

Toda kaj je omogočilo nastanek elite oziroma s čim so trgovali in kaj so lahko ponudili v zameno za luksuzno blago? Primarna surovina, za katero je bilo v tistem času veliko povpraševanja, je bilo železo. Tega v Posočju ni bilo v takem izobilju kot denimo na Dolenjskem ali v rudonosnem alpskem svetu, vključno z Bohinjskim kotom na Gorenjskem, ki ga je posoška skupnost v začetku 6. st. verjetno prav zaradi železa kolonizirala.[432] Sklepati je mogoče, da je imel Most na Soči v trgovanju s kovinami med Alpami in Caput Adriae posredniško vlogo, da

[429] Teržan 1990a; Teržan 1995, 360 s; Teržan 2002, 96, 100 s; Teržan 2007, 157 ss; Trampuž Orel 2012, 32.

[430] Glej npr. Capuis 1999, 294 ss; Sassatelli 2013, 119 ss; Bracessi, Veronese 2013, 139 ss; Marzatico 2013, 145 ss.

[431] Boiardi 1983; Boiardi 1984, 99 ss, sl. 3, 5.

[432] Trampuž Orel 2012, 30 ss.

ranean, the Apennine Peninsula and continental Europe. The first traces of contacts with the Aegean are indicated by objects such as semi-lunate single-looped fibulae and the first iron artefacts found in graves.[429] Its participation in the exchange of goods intensified in the 6th and 5th centuries BC (Sv. Lucija IIa–IIb), when imports have also been documented in the investigated part of the settlement. This is the time of burgeoning trading in the Po Plain that took place via Bologna with Tyrrhenian Etruria and via the emporia on the north-western Adriatic coast with Greece on the one hand and with communities living in the Alps on the other.[430] Within this network, Most na Soči belonged to the sphere of interest of the centres in northern Italy.

The flourishing exchange of goods probably also gave rise to local elites that distinguished themselves from the rest of the population in prestige possessions, the place and the rite of burial, while they are less readily detectable in the living standard. Affluent members practised inurned burial in graves frequently lined with stones and covered with a heap of stones, but also located at some distance from other burials.[431]

What created the elite in Posočje, which goods did they trade in or what was it that they could offer in return for luxury goods? The main raw material in high demand in the Iron Age was iron. Posočje was not rich in iron in comparison with Dolenjska and the Alpine regions that included the Bohinj area in Gorenjska, which the Posočje community presumably colonised in the early 6th century BC precisely for its deposits of iron ore.[432] We can infer from the historic circumstances and geographic position that Most na Soči played the role of an intermediary in the metal trading conducted between the Alps and Caput Adriae, that they practised freight transport and possibly served as guides across the alpine passes towards the north (*Fig. 83*).[433]

Another possible source is animal husbandry.[434] They may have supplied cattle and products of animal

[429] Teržan 1990a; Teržan 1995, 360 f; Teržan 2002, 96, 100 f; Teržan 2007, 157 ff; Trampuž Orel 2012, 32.

[430] See e.g. Capuis 1999, 294 ff; Sassatelli 2013, 119 ff; Bracessi, Veronese 2013, 139 ff; Marzatico 2013, 145 ff.

[431] Boiardi 1983; Boiardi 1984, 99 ff, Figs. 3, 5.

[432] Trampuž Orel 2012, 30 ff.

[433] Trampuž Orel, Heath 2001, 161 f, Fig. 18.

[434] See the chapter on Economic base and the contribution

so se ukvarjali s tovorništvom in morebiti kot vodniki po gorskih poteh čez alpske prelaze na sever (*sl. 83*).[433]

Drugi vir bi lahko bila živinoreja.[434] Z govedom in s produkti živalskega izvora (kože, volna, sir) so nemara oskrbovali bližnje centre v Padski nižini, morda tudi z lesom. Gozdnata pokrajina s sočnimi travniki v dolini, ki se širijo okoli Mosta na Soči, in visokogorski pašniki v njegovem zaledju ponujajo ugodno naravno okolje za to dejavnost ter omogočajo ekonomske presežke.

Tretji dejavnik bi lahko bile potrebe rastočih venetskih in etruščanskih mest v Padski nižini po človeških virih oz. delovni sili, ki so jo morebiti iskali v širšem zaledju na miren način ali s silo. O zasužnjevanju na Mostu na Soči nimamo neposrednih dokazov, kot so denimo najdbe suženjskih verig z obroči, znane sicer iz mlajšega časa v zgornjem Poadižju ali v Manchingu.[435] Pričevanja, da se je to dogajalo, bi lahko našli pri Strabonu[436] ali v upodobitvi na slavni situli Benvenuti. A maloštevilne najdbe orožja v Posočju in značaj predmetov tuje provenience govorijo v prid domnevi, da so bili odnosi z drugimi skupnostmi bolj kot ne miroljubni in ekonomsko motivirani, da so jih utrjevali s porokami in darili ter da so semkaj zahajali tudi potujoči rokodelci in trgovci.

Čeprav je videti, da se je lokalna elita zgledovala po nekaterih sredozemskih kulturnih normah in idejah, je ta skupnost vendarle ostala vseskozi zvesta svoji tradiciji, kar izkazujeta zlasti svojski grobni kult in geometrijska ornamentika.

ZA KONEC

Tolminska kotlina in Soška dolina severno od nje sta v komunikacijskem smislu dobro povezani geografski enoti, saj med Mostom na Soči in Kobaridom ni naravnih preprek. Pravzaprav ju lahko razumemo kot enovito poselitveno nišo, kjer so naravne danosti bistveno vplivale na umestitev železnodobnih naselij. Zdi se, da so bile poleg obrambnih zahtev odločujoče prometne povezave. Pri Mostu na Soči so se cepile poti po dolini Bače proti Bohinju, čez Šentviško planoto, Cerkno in Škofjo Loko do Ljubljanske kotline ter na jug v Vipavsko dolino. Drugo naravno vozlišče je pri Kobaridu. Tu doseže Soško dolino pot iz Furlanije, kjer se združi s komunikacijo, ki teče ob reki: na jug proti Tolminu in Mostu na Soči ter na sever čez prelaz Predel proti Koroški. Medsebojna oddaljenost obeh vozlišč je idealna, saj znaša v zračni liniji okoli 16 km, kar je dovolj, da se naselji, ki sta v železni dobi zrasli na obeh križiščih,

[433] Trampuž Orel, Heath 2001, 161 s, sl. 18.

[434] Glej tu poglavje o gospodarstvu in razpravo Toškana v tej publikaciji.

[435] Nothdurfter 1979, 90 ss; t. 77; Maier et al. 1992, t. 116: 3; Höck 2004, 703, kat. št. 9.23; Endrizzi 2004, 703 ss, kat. št. 9.24; Gebhard 2011, 446, 2.78.

[436] Strabon, Geographica, 5.1.8.

origin (hides, wool, cheese), possibly also wood, to the nearby centres in the Po Plain. The forested hills, the lush pastures in the valleys around Most na Soči and the alpine pastures in its hinterland offer excellent natural conditions for animal husbandry that had the potential to generate agricultural surplus.

The third factor may have been the growing needs of the Venetic and Etruscan towns in the Po Plain for human resources or workforce that they may have sought in the wider hinterland either peacefully or by force. We have no direct evidence of slaves at Most na Soči, such as the slightly later finds of slave-chains with rings known from Alto Adige or Manching.[435] References to slaves can be found in the writings of Strabo[436] and in the depiction of the famous Benvenuti Situla. However, the few finds of weapons in Posočje and the character of artefacts of foreign provenance rather suggest that the relationships with other communities were amicable and economically motivated, strengthened with marriage diplomacy and gifts, and included visits of travelling artisans and merchants.

While the local elite followed some of the Mediterranean cultural norms and ideas, the community as a whole remained rooted in its own traditions expressed in particular through the specific funerary cult and geometric decoration that also found its way into the ceramic elements of architecture (see here *Fig. 51*).

FINAL NOTE

The Tolmin basin, which includes the site of Most na Soči, and the upper reaches of the Soča valley to the north of it are well-connected geographic units, with no natural obstacles to divide Most na Soči in the south and Kobarid in the north. In fact, we may even consider them as a common settlement unit in the Iron Age where the natural environment decisively influenced the location of settlements. Apart from defensive considerations, communications appeared to have played an important role. Most na Soči stood at the crossroads of communications, with one route leading along the valley of the River Bača towards Bohinj, another one across the plateau of Šentviška planota, Cerkno and Škofja Loka eastwards to Ljubljana and the third one southwards to the Vipava valley. The second crossroads is at Kobarid, where the route from Friuli enters the Soča valley and joins with the route along the river to lead downstream to Tolmin and Most na Soči to the south, and upstream across the Predel Pass to Kärnten in the north. The two crossroads

by Toškan in this publication.

[435] Nothdurfter 1979, 90 ff; Pl. 77; Maier et al. 1992, Pl. 116: 3; Höck 2004, 703, Cat. No. 9.23; Endrizzi 2004, 703 ff, Cat. No. 9.24; Gebhard 2011, 446, 2.78.

[436] Strabon, Geographica, 5.1.8.

s svojima teritorijema nista ovirali. Oddaljenost je celo večja od razdalj, izmerjenih med halštatskimi središči jugovzhodne Slovenije.[437] Vse kaže, da so bile naravne danosti ob reki odlične, zato ne čudi, da sta se tako Most na Soči kot Kobarid razvila v najpomembnejši središči posoške skupnosti.

Pregled struktur in poselitvene dinamike moramo začeti na prehodu iz 2. v 1. tisočletje pr. Kr., ko je bil poseljen Tolmin, prva večja aglomeracija v tem delu Posočja. Naselje, ki se je najverjetneje širilo nedaleč od sotočja Soče in Tolminke, sicer ni pobližje znano,[438] zato pa je toliko bolje raziskana nekropola, ki jo je v šestdesetih letih izkopal Goriški muzej. Natančna analiza grobnih pridatkov je pokazala, da so se v prvi, formativni fazi zlile prvine iz različnih kulturnih in geografskih okolij.[439] V moških in ženskih nošah je namreč opaziti nakit, ki ima dobre primerjave tako v panonskem prostoru kot severni Italiji. V ženskem nakitu se zrcali še egejska komponenta in po morski poti je v Tolmin najverjetneje prišlo tudi prvo železo.

Kje so vzroki, da je začela moč Tolmina v času stopnje Sv. Lucija Ib slabeti, ni povsem jasno, vsekakor pa se proces časovno ujema z vzponom Mosta na Soči. Po 7. stoletju pr. Kr. življenje v Tolminu skoraj zamre. Verjetno imamo opraviti s sinoikizmom oziroma integracijo poselitve. Na Mostu na Soči se je populacija povečala – to dokazujejo številni grobovi iz tistega dela grobišča, ki ga je izkopal Marchesetti – in za naselje je bil izbran naravno utrjen prostor nad sotočjem rek. Če k temu dodamo še pomen prometnega vozlišča in ugodno agrarno zaledje, ne čudi, da se je Most na Soči naglo razvil v najpomembnejše središče celotne regije.

Nekaj podobnega se je v tem času dogajalo v Kobaridu, ki ga veliko slabše poznamo. Utrjeno naselje na Gradiču še ni bilo raziskano, več kot 1400 izkopanih grobov pa še vedno čaka na objavo. Stane Gabrovec, ki je iz skopih Marchesettijevih objav skušal izluščiti glavne značilnosti nekropole, ugotavlja, da je Kobarid z najstarejšimi najdbami vzporeden s Tolminom, vendar sodi glavnina najdb v mlajši čas.[440] Začetki Kobarida bi bili potemtakem celo starejši od Mosta na Soči, razen če se med tamkajšnjim neobjavljenim gradivom, ki ga je izkopal Marchesetti, ne skrivajo najdbe, starejše od stopnje Sv. Lucija Ib.

Nadaljnji razvoj je bil v obeh središčih približno enak. Močan horizont železnega nakita – Marchesetti omenja čez sto dvozankastih fibul – kaže na nagel vzpon Kobarida v svetolucijski stopnji Ib.[441] Ali lahko tudi te spremembe povežemo z integracijskimi procesi oziroma povečanjem populacije? Vprašanje je na mestu, vendar bi morali za verodostojen odgovor poznati celotno gradivo.

[437] Dular, Tecco Hvala 2007, 198 ss.
[438] Svoljšak 2002, 7; Mlinar 2018, 55.
[439] Teržan 2002, 99 ss.
[440] Gabrovec 1976, 50 ss.
[441] Marchesetti 1893, 228.

are at a sufficient distance from one another, roughly 16 km as the crow flies, to allow for the settlements established there in the Iron Age to possess a large enough territory to ensure their subsistence. The distance is even greater than the one measured among the Hallstatt centres in south-eastern Slovenia.[437] It would appear that the natural conditions along the waterway were very advantageous and it is not surprising that both Most na Soči and Kobarid developed into the most prominent centres of the Posočje community.

The overview of the settlement structures and dynamics in the region should commence at the transition from the 2nd to the 1st millennium BC, when Tolmin was first inhabited and represented the first agglomeration in this part of Posočje. The settlement itself has not yet been excavated, but it was most probably located in proximity to the confluence of the Soča and Tolminka.[438] Human occupation is rather evidenced by the associated cemetery, which is well-known and was excavated by the Goriški muzej in the 1960. A detailed analysis of the grave goods has shown that elements of different cultural and geographic backgrounds coalesced in the first, formative phase.[439] The male and female costumes comprise items of jewellery with close parallels in both Pannonia and northern Italy. Female jewellery even mirrors an Aegean component, while other goods suggest that the first artefacts of iron also came to Tolmin via the sea route.

Tolmin's strength began to wane during the Sv. Lucija Ib phase and declined towards the end of the 7th century BC; the reasons for this are as yet unclear, though it does coincide with the rise of Most na Soči. We are probably dealing with synoecism or integration of settlement. The increase of the population at Most na Soči is suggested by the higher number of graves in the part of the cemetery excavated by Marchesetti and a naturally well-defended location just above the river confluence chosen for the settlement. Adding the importance of its location at the crossroads of communications, it is only natural that Most na Soči rapidly developed into the most prominent centre of the region.

A similar development was taking place at Kobarid, though the site is less well-known. The fortified settlement on the hill of Gradič has not yet been investigated, while the associated cemetery yielded 1400 as yet unpublished graves. Stane Gabrovec attempted to outline the main characteristics of the cemetery from Marchesetti's brief reports and observed that the earliest goods chronologically correlated with those from Tolmin, while the majority of the graves dated to later periods.[440] The beginnings of Kobarid thus predate those of Most na Soči, providing that the unpublished goods

[437] Dular, Tecco Hvala 2007, 198 ff.
[438] Svoljšak 2002, 7; Mlinar 2018, 55.
[439] Teržan 2002, 99 ff.
[440] Gabrovec 1976, 50 ff.

Nujen je tudi sistematičen terenski pregled Tolminske kotline, ki še ni narejen, zato je območje bela lisa na karti arheoloških najdišč. Skoraj nič ne vemo o Gradiču v Kobaridu. Kot je razvidno iz lidarskih posnetkov, je bilo naselje utrjeno, vprašanje je le, kdaj so ga opasali z obzidjem.[442] Zanimivo bi bilo izvedeti tudi to, kakšen je bil hierarhičen odnos med obema središčema. Sodeč po velikosti nekropol, v katerih odseva številčnost prebivalstva, ima nesporno prednost Most na Soči. Vendar pa zgolj z velikostjo grobišč težko rangiramo poselitvene strukture, razvoj teh ni bil premočrten, ampak se je skozi čas njihova pomembnost spreminjala. Dokaz so izkopavanja na eni od teras na severozahodni strani Gradiča in pri Bizjakovi hiši v Kobaridu, ki so pokazala, da se je v zadnjih stoletjih pr. Kr. okrepila njegova veljava. Ob koncu starejše in zlasti v mlajši železni dobi je tu nastalo važno kultno središče.[443] Precej drugačen proces je doživel Most na Soči. Po opustelosti v srednjelatenskem obdobju, ko se je v stranske doline odselila večina njegovega prebivalstva, je na koncu mlajše železne dobe le še životaril ob spominih na nekdanjo slavo.

[442] Štular 2011, 409 ss.

[443] Osmuk 1987; Mlinar 2011; Mlinar, Gerbec 2011.

from Marchesetti's excavations at Most na Soči do not include those earlier than the Sv. Lucija Ib phase.

Subsequent development of Most na Soči and Kobarid was comparable. A prominent horizon of iron jewellery – Marchesetti mentions over a hundred two-looped fibulae – suggests a rapid rise of Kobarid in the Sv. Lucija Ib phase.[441] It is conceivable that these changes are also related to the integration processes or increased population, but an answer to this question requires an insight into the complete set of material evidence, as well as a systematic field survey of the Tolmin basin that today represents a white spot on the map of Slovenian archaeological sites. We know next to nothing of Gradič at Kobarid. Lidar images show that the settlement was fortified, but not the period in which the rampart was constructed.[442] It would be also interesting to have evidence pertaining to the hierarchical relationship between the two centres. Judging from the size of the associated necropoleis that reflect population size, Most na Soči clearly takes pride of place. However, cemetery size cannot be seen as a direct translation of the associated habitation structures as their development was not linear but rather subject to changes in prominence. Proof of this has been unearthed during the excavations on one of the terraces on the north-western slope of Gradič and at the Bizjakova hiša site in Kobarid, which revealed an increased importance of the site in the last centuries BC. An important cult centres developed here towards the end of the Early and even more so in the Late Iron Age.[443] Evidence shows quite a different process taking place at Most na Soči. Following the depopulation in the Middle La Tène period, when most of its inhabitants moved to more remote valleys, the settlement from the final part of the Late Iron Age was a mere shadow of its former glory.

[441] Marchesetti 1893, 228.

[442] Štular 2011, 409 ff.

[443] Osmuk 1987; Mlinar 2011; Mlinar, Gerbec 2011.

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Železnodobno naselje Most na Soči. Razprave / The Iron Age settlement at Most na Soči. Treatises. OIAS 34, 2018, 147–166

KRONOLOŠKA SLIKA ŽELEZNODOBNEGA NASELJA MOST NA SOČI

CHRONOLOGY OF THE IRON AGE SETTLEMENT AT MOST NA SOČI

Janez DULAR

Najstarejši sledovi poselitve dobro zavarovanega pomola, ki ga oblivata Idrijca in Soča, segajo v mlajšo bronasto dobo. V ta čas sodijo skromne ostaline stavbe, ki so jih odkrili ob gradnji Filijeve hiše v zahodnem delu vasi.[1] Gre za tri s kamni obložene luknje za stojke in obilico keramičnih fragmentov, ki imajo dobre paralele v lončenini kraških kaštelirjev, nekaj značilnih oblik pa kaže tudi na povezave z zahodnim Balkanom.[2]

Zanimiva je ugotovitev, da za zdaj z Mosta na Soči ni znanih naselbinskih najdb iz začetka železne dobe. Razmeroma obsežna izkopavanja Goriškega muzeja med letoma 1971 in 1984 na območju Merišča so namreč spravila na dan zgolj mladohalštatsko gradivo, mlade pa so tudi najdbe z območij, ki jih je kasneje na Mostu na Soči raziskal Tolminski muzej.[3] Odkrivanje starejšega dela naselja ostaja zato naloga prihodnjih raziskav. Malo je namreč verjetno, – sodeč po časovnem razponu nekropole – da bi bil že po naravi odlično zavarovan pomol poseljen zgolj v mladohalštatskem obdobju.

DATACIJE HIŠ

Hiše oziroma njihove gradbene faze, ki jih je na območju Merišča izkopal Goriški muzej, smo kronološko opredelili s pomočjo hišnih inventarjev.[4] Ker je bila večina tipov lončenine in kovinskega gradiva v uporabi dalj časa, precizne datacije večinoma niso bile mogoče. Ohlapne časovne razpone smo sicer skušali izostriti z metodo prekrivanja oziroma izključevanja tipov, rezultat pa kljub temu ni bil bistveno boljši. Zgolj v eno kronološko stopnjo smo uspeli datirati komaj polovico gradbenih faz. Nekateri objekti so ostali nedatirani, saj

The earliest traces of habitation on the naturally well protected promontory overlooking the Rivers Idrijca and Soča date back to the Late Bronze Age. These traces consist of scarce building remains discovered during the construction of Fili's house in the western part of the village of Most na Soči.[1] More precisely, the traces are three post holes lined with stones and numerous ceramic sherds closely comparable to the pottery from the hillforts in the Kras region, while some diagnostic vessels also show connections with the western Balkans.[2]

As for the Iron Age, Most na Soči has thus far failed to reveal any habitation traces from the beginning of the period. The fairly large-scale excavations the Goriški muzej conducted between 1971 and 1984 at Merišče only unearthed Late Hallstatt remains, as did the later investigations by the Tolminski muzej.[3] Considering the broader time span of the burials in the associated cemetery, however, it is unlikely that the promontory would only be settled in the Late Hallstatt period. Discovering the earlier settlement thus remains a challenge for future research.

CHRONOLOGICAL ATTRIBUTION OF INDIVIDUAL HOUSES

The small finds that came to light during the 1971–1984 excavations at Merišče represent the basis for our chronological assessment of individual houses and their construction phases.[4] These are associated with various artefacts, with most of the pottery and metal goods in use over a longer period of time, which hinders precise dating. We did attempt to narrow the broad time spans by examining the overlap or exclusion

[1] Za pozicijo najdišča glej Svoljšak, Dular 2016, 19, sl. 5.

[2] Svoljšak 1988–1989, 371 ss, t. 4–8. Glej tudi Teržan 1995, 330.

[3] Mlinar, Klasinc, Knavs 2008.

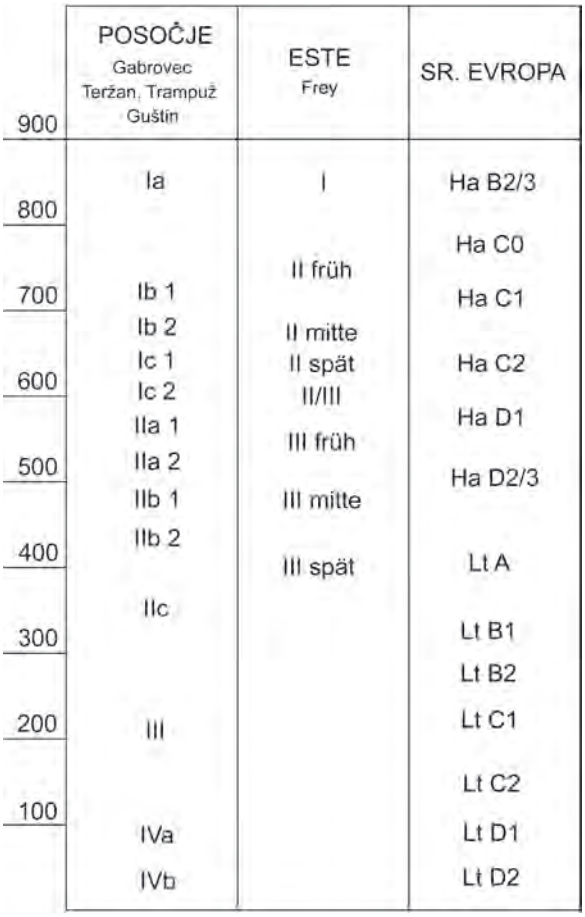
[4] Svoljšak, Dular 2016.

[1] For the location see Svoljšak, Dular 2016, 19, Fig. 5.

[2] Svoljšak 1988–1989, 371 ff, Pls. 4–8. Also see Teržan 1995, 330.

[3] Mlinar, Klasinc, Knavs 2008.

[4] Svoljšak, Dular 2016.



Sl. 1: Kronološka tabela.
Fig. 1: Chronological table.

niso vsebovali oprijemljivega gradiva. Pri razvrščanju smo se držali uveljavljene kronološke sheme, kot so jo pred leti za železno dobo v Posočju izdelali S. Gabrovec, B. Teržan, N. Trampuž in M. Guštin (*sl. 1*).[5]

HIŠA 1

Faza 1: ?

Opredeljive najdbe in komentar: Gradbena faza 1 ni vsebovala najdb, ki bi omogočale natančno datiranje, vendar pa glede na kos okrašene plošče (*t. 1: 7*),[6] kakršnega imamo tudi v fazi 2 (*t. 5: 1, 2*), med obema gradbenima posegoma ni bilo velike časovne razlike.

Faza 2: Sv. Lucija IIa–IIb.

Opredeljive najdbe: Ustje pitosa, tip 2 (*t. 2: 4*), ki se pojavlja v stopnjah Sv. Lucija Ic do IIc (najštevilčnejši v IIa in IIb);[7] noga keliha, tip 1 ali 3 (*t. 2: 13*), ki je bil v

[5] Frey in Gabrovec 1971, 197 ss; Teržan, Trampuž 1973; Gabrovec 1987, 123 ss; Guštin 1991, 29 ss.

[6] Pri navajanju predmetov se sklicujemo na table v prvem zvezku Mosta na Soči (glej Svoljšak, Dular 2016, 265 ss).

[7] Dular 1982, 94, sl. 6: 2; 104, sl. 10.

of types, though the results hardly improved our initial dating. We were able to date no more than half of the construction phases into a single chronological phase, while some houses could not be dated at all because they yielded no diagnostic finds. In attributing the houses and their construction phases, we used the chronology that Stane Gabrovec, Biba Teržan, Neva Trampuž and Mitja Guštin established for the Iron Age in the Posočje region (*Fig. 1*).[5]

HOUSE 1

Phase 1: ?

Diagnostic finds and commentary: Small finds do not enable precise dating, though the piece of a decorated terracotta plaque (*Pl. 1: 7*)[6] comparable with those associated with Construction Phase 2 (*Pl. 5: 1, 2*) suggests that not much time elapsed between the two phases.

Phase 2: Sv. Lucija IIa–IIb.

Diagnostic finds: Rim of a Type 2 pithos (*Pl. 2: 4*), such as were in use from Sv. Lucija Ic to IIc (most numerously in IIa and IIb);[7] foot of a goblet, Type 1 or 3 (*Pl. 2: 13*), which were in use from Sv. Lucija Ic to IIb (most numerously in IIa).[8]

Commentary: Small finds span from Sv. Lucija Ic to IIb, but the time of the greatest use of particular types allows us to fairly reliably narrow the date to IIa–IIb.

HOUSE 2

Phase 1: Sv. Lucija IIa–IIb.

Diagnostic finds: Base of a Type 2 pithos (*Pl. 8: 12*), such as were in use from Sv. Lucija Ic to IIc (most numerously in IIa and IIb);[9] rim of a Type 2 goblet (*Pl. 8: 6*), which were in use from Sv. Lucija Ic to IIb (most numerously in IIa).[10]

[5] Frey and Gabrovec 1971, 197 ff; Teržan, Trampuž 1973; Gabrovec 1987, 123 ff; Guštin 1991, 29 ff.

[6] The plates with the drawings of the small finds are to be found in the first volume of the publication presenting the settlement at Most na Soči (see Svoljšak, Dular 2016, 265 ff).

[7] Dular 1982, 94, Fig. 6: 2; 104, Fig. 10.

[8] Ib., 96, Fig. 7: 15,17; 104, Fig. 10.

[9] Ib., 94, Fig. 6: 2; 104, Fig. 10.

[10] Ib., 96, Fig. 7: 16; 104, Fig. 10.

uporabi v stopnjah Sv. Lucija Ic do IIb (najštevilčnejši v IIa).[8]

Komentar: Razpon najdb seže od stopnje Sv. Lucija Ic do IIb, vendar pa lahko z ozirom na pogostost njihovega pojavljanja datacijo z veliko verjetnostjo zožimo na stopnji IIa–IIb.

HIŠA 2

Faza 1: Sv. Lucija IIa–IIb.

Opredeljive najdbe: Dno pitosa, tip 2 (*t. 8: 12*), ki se pojavlja v stopnjah Ic do IIc (najštevilčnejši v IIa in IIb);[9] ustje keliha, tip 2 (*t. 8: 6*), ki je bil v uporabi v stopnjah Ic do IIb (najštevilčnejši v IIa).[10]

Komentar: Razpon najdb seže od stopnje Ic do IIb, vendar pa lahko z ozirom na pogostost njihovega pojavljanja datacijo z veliko verjetnostjo zožimo na stopnji Sv. Lucija IIa–IIb (morda celo zgolj na stopnjo IIa).

Faza 2: Sv. Lucija IIa–IIb.

Opredeljive najdbe: Fragmenta ustja in noge situl, tip 3 (*t. 9: 5, 9*), ki je bil v uporabi v stopnjah Sv. Lucija Ic do IIb (najštevilčnejši v IIa).[11]

Komentar: Razpon najdb seže od stopnje Sv. Lucija Ic do IIb, vendar pa lahko z ozirom na pogostost njihovega pojavljanja datacijo z veliko verjetnostjo zožimo na stopnji Sv. Lucija IIa–IIb (morda celo zgolj na stopnjo IIa).

HIŠA 3

Faza 1: Sv. Lucija IIa–IIb.

Opredeljive najdbe: Fragmenta ostenij pitosov, tip 2 (*t. 11: 11, 14: 2*), ki je bil v uporabi v stopnjah Ic do IIc (najštevilčnejši v IIa in IIb);[12] ustje keliha, tip 2 (*t. 14: 3*), ki se pojavlja v stopnjah Ic do IIb (najštevilčnejši v IIa).[13]

Komentar: Razpon najdb seže od stopnje Sv. Lucija Ic do IIb, vendar pa lahko z ozirom na pogostost njihovega pojavljanja datacijo z veliko verjetnostjo zožimo na stopnji IIa–IIb.

Faza 2: Sv. Lucija IIc.

Opredeljive najdbe: Certoška fibula, tip VIIe (*t. 23: 1*), ki je značilen za konec starejše železne dobe;[14] jagoda iz rumenega stekla s četvernimi plastovitimi

[8] Ib., 96, sl. 7: 15,17; 104, sl. 10.
[9] Ib., 94, sl. 6: 2; 104, sl. 10.
[10] Ib., 96, sl. 7: 16; 104, sl. 10.
[11] Ib., 96, sl. 7: 14; 104, sl. 10.
[12] Ib., 94, sl. 6: 2; 104, sl. 10.
[13] Ib., 96, sl. 7: 18; 104, sl. 10.
[14] Teržan 1976, 328 in 371 s.

Commentary: Small finds span from Sv. Lucija Ic to IIb, but the time of the greatest use of particular types allows us to fairly reliably narrow the date to IIa–IIb (possibly only IIa).

Phase 2: Sv. Lucija IIa–IIb.

Diagnostic finds: Rim and pedestal fragments of Type 3 situlae (*Pl. 9: 5, 9*), such as were in use in Sv. Lucija Ic to IIb (most numerously in IIa).[11]

Commentary: Small finds span from Sv. Lucija Ic to IIb, but the time of the greatest use of particular types allows us to fairly reliably narrow the date to IIa–IIb (possibly only IIa).

HOUSE 3

Phase 1: Sv. Lucija IIa–IIb.

Diagnostic finds: Fragments of Type 2 pithoi (*Pls. 11: 11, 14: 2*), such as were in use from Sv. Lucija Ic to IIc (most numerously in IIa and IIb);[12] rim of a Type 2 goblet (*Pl. 14: 3*), which were in use from Sv. Lucija Ic to IIb (most numerously in IIa).[13]

Commentary: Small finds span from Sv. Lucija Ic to IIb, but the time of the greatest use of particular types allows us to fairly reliably narrow the date to IIa–IIb.

Phase 2: Sv. Lucija IIc.

Diagnostic finds: Certosa fibula of Variant VIIe (*Pl. 23: 1*), which is a piece characteristically worn towards the end of the Early Iron Age;[14] bead of yellow glass with four layered white-blue eyes (*Pl. 23: 8*), such as were common in Sv. Lucija IIb and IIc.[15]

Commentary: Overlap in the dates of the glass bead and the Certosa fibula shows that Construction Phase 2 of House 3 dates to the final part of the Early Iron Age (Sv. Lucija IIc).

HOUSE 4

Phase: Sv. Lucija IIb.

Diagnostic finds and commentary: Relatively small foot of an undeterminable Certosa fibula (*Pl. 24: 1*) suggests that House 4 should be attributed to Sv. Lucija IIb, a phase when such items were most commonly in use.[16]

[11] Ib., 96, Fig. 7: 14; 104, Fig. 10.
[12] Ib., 94, Fig. 6: 2; 104, Fig. 10.
[13] Ib., 96, Fig. 7: 18; 104, Fig. 10.
[14] Teržan 1976, 328 and 432 f.
[15] Kunter 1995, 38; Božič 2011, 248.
[16] Teržan, Trampuž 1973, 430 ff; Gabrovec 1987, 130 ff.

modro-belimi očesci (*t. 23: 8*), ki je običajna v stopnjah IIb in IIc.[15]

Komentar: Prekrivanje datacij steklene jagode in certoške fibule kaže, da sodi 2. gradbena faza hiše 3 na konec starejše železne dobe (stopnja IIc).

HIŠA 4

Faza: Sv. Lucija IIb.

Opredeljive najdbe in komentar: Glede na razmeroma majhno nogo certoške fibule nedoločljivega tipa (*t. 24: 1*) opredeljujemo hišo 4 v stopnjo Sv. Lucija IIb, ko je bil takšen nakit najpogosteje v uporabi.[16]

HIŠA 5

Faza: Sv. Lucija IIc.

Opredeljive najdbe in komentar: Z atiškim skifosom, tip Saint Valentin (*t. 25: 1*) je hiša 5 datirana v zadnje četrtletje 5. st. (stopnja Sv. Lucija IIc).[17]

HIŠA 6

Faza 1: Sv. Lucija IIa.

Opredeljive najdbe: Z metličenjem oziroma glavničenjem okrašena ostenja posod (*t. 25: 12–14*) so v grobovih na Mostu na Soči sicer redka, vendar datirana v mladohalštatski čas (stopnja II);[18] ostenje keliha (*t. 25: 8*) ima paralelo v podobno okrašenem kelihu iz groba Benvenuti 101, ki sodi v stopnjo Este II/III oz. III zgodnje, kar odgovarja stopnjama Sv. Lucija Ic2 in IIa.[19]

Komentar: Prekrivanje razmeroma ohlapne datacije lončenine z metličenim ornamentom, ki pa vendarle ni starejša od mladohalštatskega obdobja, in datacije keliha kaže, da sodi 1. gradbena faza hiše 6 v stopnjo Sv. Lucija IIa.

Faza 2: Sv. Lucija IIa–IIc; Sv. Lucija IV.

Opredeljive najdbe: Trikotni obeski (*t. 26: 11–14*) se pojavljajo v grobovih stopenj Ic do IIa;[20] noga železne fibule, najverjetneje kačasta, tip VIIa (*t. 26: 2*) sodi v

[15] Kunter 1995, 38; Božič 2011, 248.

[16] Teržan, Trampuž 1973, 430 ss; Gabrovec 1987, 130 ss.

[17] Baldelli, Landolfi, Lollini 1982, 91; Maccellari 2002, vol. I, 129 s, 180, 247, vol. II, t. 80, 109, 237.

[18] Teržan, Lo Schiavo, Trampuž-Orel 1984–1985, 288, t. 169: A1-6; 362, t. 240: E. Gre za čvrsto žgano lončenino, pretežno rjavih tonov, ki se po fakturi razlikuje od redukcijsko žgane porozne keramike z metličenim okrasom latenskega obdobja.

[19] Capuis, Chiecho Bianchi 2006, t. 98: 13.

[20] Teržan, Lo Schiavo, Trampuž-Orel 1984–1985, t. 14: J2; 31: B7; 76: A2; 79: A5; 116: D2; 130: A12; 142: F6; 145: B12; 324: A2; 253: A5; 263: D4; glej tudi Warneke 1999, 49 s.

HOUSE 5

Phase: Sv. Lucija IIc.

Diagnostic finds and commentary: Attic skyphos of the Saint Valentin type (*Pl. 25: 1*) indicates that House 5 should be dated to the last quarter of the 5th century BC (Sv. Lucija IIc).[17]

HOUSE 6

Phase 1: Sv. Lucija IIa.

Diagnostic finds: Vessels with combed or brushed decoration (*Pl. 25: 12–14*) are rare in the cemetery at Most na Soči, but all date to the Late Hallstatt period (Sv. Lucija II);[18] fragment of a goblet (*Pl. 25: 8*) has a comparable find in a similarly decorated goblet from Grave Benvenuti 101 attributed to Este II/III or III Früh, which corresponds with Sv. Lucija Ic2 and IIa.[19]

Commentary: Overlap of the relatively broad date of the combed pottery, which does not predate the Late Hallstatt period, and of the date of the goblet indicates that Construction Phase 1 of House 6 should be attributed to Sv. Lucija IIa.

Phase 2: Sv. Lucija IIa–IIc; Sv. Lucija IV.

Diagnostic finds: Triangular pendants (*Pl. 26: 11–14*) occur in graves from Sv. Lucija Ic to IIa;[20] foot of an iron fibula, most probably serpentine of Variant VIIa (*Pl. 26: 2*), dates to IIa;[21] half of a hollow spherical pendant (*Pl. 26: 18*) dates to Sv. Lucija IIa or IIb;[22] foot of a Certosa fibula (*Pl. 26: 1*) most likely dates to IIb; glass bead with a wavy line (*Pl. 26: 22*) has parallels from graves of a Sv. Lucija IIb date;[23] moulded basket-shaped pendant of Type 22 after Warneke (*Pl. 26: 16*) has parallels at Este in Este III Spät, which corresponds with the late Sv. Lucija IIb and IIc;[24] spring fragment of a Certosa fibula, probably Type XIII (*Pl. 26: 3*) dates towards

[17] Baldelli, Landolfi, Lollini 1982, 91; Maccellari 2002, Vol. I, 129 f, 180, 247, Vol. II, Pls. 80, 109, 237.

[18] Teržan, Lo Schiavo, Trampuž-Orel 1984–1985, 288, Pl. 169: A1-6; 362, Pl. 240: E. It is hard fired pottery of predominantly brown shades that differs in fabric from the porous La Tène pottery with combed decoration fired in a reducing atmosphere.

[19] Capuis, Chiecho Bianchi 2006, Pl. 98: 13.

[20] Teržan, Lo Schiavo, Trampuž-Orel 1984–1985, Pls. 14: J2; 31: B7; 76: A2; 79: A5; 116: D2; 130: A12; 142: F6; 145: B12; 324: A2; 253: A5; 263: D4; also see Warneke 1999, 49 f.

[21] Tecco Hvala 2014, 136 f and 170; Teržan, Trampuž 1973, 428; Parzinger 1988, 11.

[22] Warneke 1999, 33, Fn. 145; also see Božič 2011, 244.

[23] Teržan, Lo Schiavo, Trampuž-Orel 1984–1985, Pls. 13: F4; 145: A20; 216: A5.

[24] Frey 1969, Fig. 10: 4; Pl. 33: 23,24; Warneke 1999, 128.

stopnjo IIa;[21] polovica votlega kroglastega obeska (*t. 26: 18*) je iz stopenj IIa ali IIb;[22] noga certoške fibule (*t. 26: 1*) sodi najverjetneje v stopnjo IIb; steklena jagoda z valovnico (*t. 26: 22*) je znana iz grobov stopnje IIb;[23] profiliran košarast obesek, tip 22 po Warnekeju (*t. 26: 16*) se pojavlja v Este v stopnji III pozno, kar odgovarja koncu stopnje Sv. Lucija IIb in stopnji IIc;[24] frag. peresovine certoške fibule, verjetno tip XIII (*t. 26: 3*) sodi na konec halštatskega obdobja (stopnja IIb ali IIc);[25] uhan s kavljem (*t. 26: 8*) ima edino dobro paralelo v mostarskem skupku 1816, ki sodi v stopnjo IIc;[26] ploščata nožica bronaste posode (*t. 27: 19*) sodi najverjetneje v pozni laten;[27] trije poznolatenski noriški srebrniki, tip jezdec s trirogeljno čelado – Kugelreitertyp (*t. 27: 25-27*).[28]

Komentar: Objekt, od katerega so se ohranili zgolj borni ostanki (glej Svoljšak, Dular 2016, 73 s), kaže vse karakteristike žgalno-daritvenega mesta. Temu v prid govore tudi ožgane najdbe, med katerimi je več kovinskih predmetov, ki so pomembni za kronološko opredelitev. Analiza je pokazala, da je bil prostor v uporabi skozi celo mladohalštatsko obdobje, očitno pa tudi v poznem latenu. S tem se Most na Soči dobro vključuje v krog sočasnih svetišč oziroma kultnih mest, ki so bila odkrita v Posočju, Karniji, Furlaniji in Notranjski.[29]

HIŠA 7

Faza: Sv. Lucija IIc.

Opredeljive najdbe in komentar: Hiša je dobro datirana s certoško fibulo, tip XII (*t. 28: 1*), ki je značilen nakit stopnje Sv. Lucija IIc.[30]

HIŠA 8

Faza 1: ?

Opredeljive najdbe in komentar: Ni elementov, ki bi omogočili natančno datiranje.

[21] Tecco Hvala 2014, 136 s in 153; Teržan, Trampuž 1973, 428; Parzinger 1988, 11.

[22] Warneke 1999, 33, op. 145; glej tudi Božič 2011, 244.

[23] Teržan, Lo Schiavo, Trampuž-Orel 1984–1985, t. 13: F4; 145: A20; 216: A5.

[24] Frey 1969, Abb. 10: 4; t. 33: 23,24; Warneke 1999, 128.

[25] Teržan 1976, 339 in 361 s; glej tudi Marchesetti 1893, t. 20: 2,3.

[26] Teržan, Lo Schiavo, Trampuž-Orel 1984–1985, t. 172: H2. Najden skupaj s certoško fibulo, tip VIId; za datacijo fibul glej Marić 2016.

[27] Božič 2003, 260, sl. 5: 2.

[28] Kos 1978.

[29] Božič 2011, 260 ss.

[30] Teržan 1976, 337 s in 371 s.

the end of the Hallstatt period (Sv. Lucija IIb or IIc);[25] earring with a hook (*Pl. 26: 8*) has a single close parallel from the cluster of finds No. 1816 at Most na Soči attributed to Sv. Lucija IIc;[26] flat foot of a bronze vessel (*Pl. 27: 19*) most likely dates to the Late La Tène period;[27] three Late La Tène Norican silver coins of the Kugelreitertyp type (*Pl. 27: 25–27*).[28]

Commentary: Little survived of the building (see Svoljšak, Dular 2016, 73 f) that has all the characteristics of a burning-offering place. Such function is corroborated by the burn marks on the small finds that mainly comprise metal items important for its chronological attribution. Analysis has shown that the place was in continuous use throughout the Late Hallstatt period, but also in the Late La Tène period. With this, Most na Soči enters the groups of contemporary sanctuaries or cult places known in the regions of Posočje, Carnia, Friuli and Notranjska.[29]

HOUSE 7

Phase: Sv. Lucija IIc.

Diagnostic finds and commentary: House is reliably dated with a Type XII Certosa fibula (*Pl. 28: 1*), which is an item characteristic of Sv. Lucija IIc.[30]

HOUSE 8

Phase 1: ?

Diagnostic finds and commentary: Small finds do not enable precise dating.

Phase 2: Sv. Lucija IIb.

Diagnostic finds: Rim of a Type 2 pithos (*Pl. 29: 13*), such as were in use from Sv. Lucija Ic to IIc (most numerously in IIa and IIb);[31] serpentine fibula with a saddle-shaped bow of Variant IVb (*Pl. 29: 8*), such as are known in graves from Sv. Lucija Ic2 to IIb;[32] foot of a Certosa fibula of undeterminable type, possibly Type V (*Pl. 29: 9*), points to Sv. Lucija

[25] Teržan 1976, 339 and 431; also see Marchesetti 1893, Pl. 20: 2,3.

[26] Teržan, Lo Schiavo, Trampuž-Orel 1984–1985, Pl. 172: H2. Found together with a Certosa fibula of Variant VIId; for the date of the fibulae see Marić 2016.

[27] Božič 2003, 260, Fig. 5: 2.

[28] Kos 1978.

[29] Božič 2011, 260 ff.

[30] Teržan 1976, 337 f and 432 f.

[31] Dular 1982, 94, Fig. 6: 2; 104, Fig. 10.

[32] Teržan, Trampuž 1973, 424, 428; Tecco Hvala 2014, 131 f and 168 f.

Faza 2: Sv. Lucija IIb.
Opredeljive najdbe: Ustje pitosa, tip 2 (*t. 29: 13*), ki je bil v uporabi v stopnjah Sv. Lucija Ic do IIc (najštevilčnejši v IIa in IIb);[31] kačasta fibula s sedlastim lokom, tip IVb (*t. 29: 8*), ki se pojavlja v grobovih stopenj Ic2 do IIb;[32] noga certoške fibule, nedoločljivega tipa (morda tip V) – (*t. 29: 9*) kaže na stopnjo IIb;[33] narebren prstan (*t. 29: 12*) sodi med nakit, ki je pogost v stopnjah IIa in IIb.[34]
Komentar: Razpon najdb seže od stopnje Sv. Lucija Ic2 do IIc, vendar pa lahko z ozirom na fragment noge certoške fibule datacijo z veliko verjetnostjo zožimo na stopnjo IIb.

HIŠA 9

Faza: Sv. Lucija IIa–IIb.
Opredeljive najdbe: Fragment noge in loka kačaste fibule nedoločljivega tipa (*t. 31: 8*) nudi zgolj okvirno datacijo v stopnji Sv. Lucija IIa–IIb;[35] z metličenjem okrašen fragment ostenja (*t. 31: 10*) sodi med zvrst posodja, ki se v grobovih na Mostu na Soči pojavlja v mladohalštatskem času (stopnja II).[36]
Komentar: Hišo 9 lahko postavimo v stopnji Sv. Lucija IIa–IIb.

HIŠA 10

Faza 1: ?
Opredeljive najdbe: Ni gradiva, ki bi omogočilo datiranje.

Faza 2: Sv. Lucija IIb.
Opredeljive najdbe: Pavkasta fibula (*t. 31: 11*), ki sodi v stopnjo Sv. Lucija IIb1;[37] fragment noge certoške fibule nedoločljivega tipa (*t. 31: 12*), ki ga lahko okvirno postavimo v stopnjo IIb.
Komentar: Starejše faze hiše ni bilo moč datirati, mlajša pa je jasno postavljena v stopnjo Sv. Lucija IIb.

[31] Dular 1982, 94, sl. 6: 2; 104, sl. 10.
[32] Teržan, Trampuž 1973, 424, 428; Tecco Hvala 2014, 131 s in 148 ss.
[33] Teržan 1976, 352 s.
[34] Teržan, Lo Schiavo, Trampuž-Orel 1984–1985, t. 54: E1; 57: A1; 63: A1; 65: D5; 104: A1 itd.
[35] Tecco Hvala 2014, 159.
[36] Teržan, Lo Schiavo, Trampuž-Orel 1984–1985, 288, t. 169: A1-6; 362, t. 240: E.
[37] Teržan, Trampuž 1973, 432.

IIb;[33] ribbed ring (*Pl. 29: 12*) is a piece of jewellery common in Sv. Lucija IIa and IIb.[34]
Commentary: Small finds span from Sv. Lucija Ic2 to IIc, but the foot fragment of a Certosa fibula allows us to reliably narrow the dating to IIb.

HOUSE 9

Phase: Sv. Lucija IIa–IIb.
Diagnostic finds: Fragment of the foot and bow of a serpentine fibula of undeterminable type (*Pl. 31: 8*) indicates broad dating to Sv. Lucija IIa–IIb;[35] ceramic sherd with combed decoration (*Pl. 31: 10*) belongs to the type of pottery occurring in the graves at Most na Soči in the Late Hallstatt period (Sv. Lucija II).[36]
Commentary: House 9 can be dated to Sv. Lucija IIa–IIb.

HOUSE 10

Phase 1: ?
Diagnostic finds: Small finds do not enable precise dating.

Phase 2: Sv. Lucija IIb.
Diagnostic finds: Kettledrum fibula (*Pl. 31: 11*) dates to Sv. Lucija IIb1;[37] foot fragment of a Certosa fibula of undeterminable type (*Pl. 31: 12*) roughly dates to Sv. Lucija IIb.
Commentary: It is not possible to date the first construction phase, while the second one is attributable to Sv. Lucija IIb.

HOUSE 11

Phase 1: ?
Diagnostic finds: Small finds do not enable precise dating.

Phase 2: Sv. Lucija IIb–IIc.
Diagnostic finds: Fragment of a yellow glass bead with blue-white layered eyes (*Pl. 32: 5*), such as occur in Sv. Lucija IIb and IIc.[38]

[33] Teržan 1976, 428 f.
[34] Teržan, Lo Schiavo, Trampuž-Orel 1984–1985, Pls. 54: E1; 57: A1; 63: A1; 65: D5; 104: A1 etc.
[35] Tecco Hvala 2014, 172.
[36] Teržan, Lo Schiavo, Trampuž-Orel 1984–1985, 288, Pl. 169: A1-6; 362, Pl. 240: E.
[37] Teržan, Trampuž 1973, 432.
[38] Kunter 1995, 38; Božič 2011, 248.

HIŠA 11

Faza 1: ?
Opredeljive najdbe: Ni elementov, ki bi omogočili natančno datiranje.

Faza 2: Sv. Lucija IIb–IIc.
Opredeljive najdbe: Fragment jagode iz rumenega stekla z modro-belimi plastovitimi očesci (*t. 32: 5*), ki se pojavljajo v stopnjah Sv. Lucija IIb in IIc.[38]

HIŠA 12

Faza 1: Sv. Lucija IIb–IIc.
Opredeljive najdbe: Spiralni zaključek (*t. 33: 1*) stranske ploščice večdelne samostrelne peresovine certoške fibule (tip XIII) oziroma fibule z okroglo pločevinasto ploščo. Takšne zaponke sodijo v stopnjo Sv. Lucija IIb ali IIc.[39]

Faza 2: Sv. Lucija IIb–IIc.
Opredeljive najdbe in komentar: Glede na dejstvo, da v plasteh faze 2 ni bilo gradiva, ki bi omogočalo njeno natančno datiranje (*t. 33: 4–17*), jo okvirno postavljamo v čas stopenj Sv. Lucija IIb–IIc.

HIŠA 13

Faza: ?
Opredeljive najdbe in komentar: V območju hiše 13 ni bilo najdb, s katerimi bi lahko ugotovili njeno natančno starost (*t. 33: 18–23*). Vsekakor pa sodi objekt v mladohalštatsko obdobje.

HIŠA 14

Faza 1: Sv. Lucija IIa.
Opredeljive najdbe in komentar: Med najdbami prevladujejo fragmenti naselbinske lončenine, ki pa za kronološko opredeljevanje niso kdove kako izpovedni. Izjema je žigosan okras krožcev s križi (*t. 34: 19*), ki bi po doslej znanih paralelah sodil v konec staro- oziroma na začetek mladohalštatskega obdobja.[40] Vendar pa je v keramičnem zbiru 1. gradbene faze tudi lončenina, ki je okrašena z glavničenjem (*t. 35: 4,7,8*). Takšno posodje je v grobišču na Mostu na Soči sicer redko, vendar jasno datirano v mladohalštatski čas.[41] Uvrstitev

[38] Kunter 1995, 38; Božič 2011, 248.

[39] Mlinar, Žbona Trkman 2010; Teržan 1976, 361 s; Mlinar 2001.

[40] Teržan 1990, 32 ss, sl. 3: 16; Grahek 2016, 213.

[41] Teržan, Lo Schiavo, Trampuž-Orel 1984–1985, 288, t.

HOUSE 12

Phase 1: Sv. Lucija IIb–IIc.
Diagnostic finds: Spiral terminal (*Pl. 33: 1*) of the side plate from a multi-part crossbow spring of a Certosa fibula (Type XIII) or a fibula with a disc on the bow, such as date to Sv. Lucija IIb or IIc.[39]

Phase 2: Sv. Lucija IIb–IIc.
Diagnostic finds and commentary: Small finds from the layers of Construction Phase 2 do not enable precise dating (*Pl. 33: 4–17*) and the phase is broadly attributed to Sv. Lucija IIb–IIc.

HOUSE 13

Phase: ?
Diagnostic finds and commentary: Small finds from the area of House 13 do not enable precise dating (*Pl. 33: 18–23*), but the house undoubtedly dates to the Late Hallstatt period.

HOUSE 14

Phase 1: Sv. Lucija IIa.
Diagnostic finds and commentary: Small finds predominantly comprise household pottery, but they are not chronologically diagnostic with the exception of a vessel decorated with stamped encircled crosses (*Pl. 34: 19*), with comparable finds suggesting a date to the end of the Early or the beginning of the Late Hallstatt period.[40] However, the ceramic assemblage associated with Construction Phase 1 also includes pottery with combed decoration (*Pl. 35: 4,7,8*), such as is rare in the cemetery at Most na Soči but clearly attributable to the Late Hallstatt period.[41] This shows that Construction Phase 1 most probably dates to Sv. Lucija IIa.

Phase 2: Sv. Lucija IIa.
Diagnostic finds: Serpentine fibula with a saddle-shaped bow, Variant IVa (*Pl. 36: 1*), such as were worn from Sv. Lucija Ic2 and IIb.[42]
Commentary: Despite the time span suggested by the serpentine fibula of Variant IVa, we attribute Construction Phase 2 of House 14 more precisely

[39] Mlinar, Žbona Trkman 2010; Teržan 1976, 431 f; Mlinar 2001.

[40] Teržan 1990, 34, Fig. 3: 16; Grahek 2016, 213.

[41] Teržan, Lo Schiavo, Trampuž-Orel 1984–1985, 288, Pl. 169: A1-6; 362, Pl. 240: E.

[42] Teržan, Trampuž 1973, 424, 428; Tecco Hvala 2014, 131, 168 f.

1. gradbene faze v stopnjo Sv. Lucija IIa se zdi zato še najbolj verjetna.

Faza 2: Sv. Lucija IIa.
Opredeljive najdbe: Kačasta fibula s sedlastim lokom, tip IVa (*t. 36: 1*), se pojavlja v stopnjah Sv. Lucija Ic2 in IIb.[42]
Komentar: Ne glede na časovni razpon, ki ga izkazujejo kačaste fibule tipa IVa, uvrščamo 2. gradbeno fazo hiše 14 v stopnjo Sv. Lucija IIa, ko je bil takšen nakit največ v uporabi.

Faza 3: Sv. Lucija IIb.
Opredeljive najdbe: Koničast košarast obesek, tip 21 po Warnekeju (*t. 36: 18*), ki se pojavlja v stopnjah Sv. Lucija IIa in IIb;[43] prstan, okrašen s snopi vrezov, med katerimi je krožec (*t. 36: 22*), ki se pojavlja v grobovih stopenj IIb in IIc.[44]
Komentar: Oba predmeta sta bila sicer najdena zunaj tlorisa hiše, vendar v ruševinah, ki jih lahko z gotovostjo pripišemo 3. gradbeni fazi. Prekrivanje njunih časovnih razponov kaže, da je bil objekt najverjetneje v uporabi v stopnji Sv. Lucija IIb.

HIŠA 15

Faza 1: ?
Opredeljive najdbe in komentar: Gradbeno fazo 1 ne moremo natančno opredeliti, saj na območju stavbišča ni bilo omembe vrednih najdb.

Faza 2: Sv. Lucija IIb.
Opredeljive najdbe: Noga fibule z gumbom in profiliranim zaključkom (*t. 37: 1*), najverjetneje del kačaste fibule tipov IIIa5, Va ali VIIc, ki se pojavljajo v razponu stopenj Sv. Lucija Ic2–IIb1;[45] prstan, okrašen z vrezi in pari krožcev (*t. 37: 3*) – po obliki soroden prstanom z enim krožcem, ki se pojavljajo v grobovih stopenj IIb in IIc.[46]
Komentar: Prekrivanje časovnih razponov obeh predmetov kaže, da lahko drugo gradbeno fazo hiše 15 z veliko verjetnostjo postavimo v stopnjo Sv. Lucija IIb.

169: A1-6; 362, t. 240: E.

[42] Teržan, Trampuž 1973, 424, 428; Tecco Hvala 2014, 131, 148 ss.

[43] Warneke 1999, 128.

[44] Teržan, Lo Schiavo, Trampuž-Orel 1984–1985, t. 35: A8; 42: B4; 149: E3; 263: G2.

[45] Tecco Hvala 2014, 128, sl. 3a: 6-10; 134, sl. 5: 3; 137, sl. 7: 6-8. Fragment bi lahko pripisali tudi zaključku noge fibule sangvisuge, ki so značilne za stopnjo Sv. Lucija IIa (npr. Teržan, Lo Schiavo, Trampuž-Orel 1984–1985, t. 120: D1; 194: E2; 231: F2.

[46] Teržan, Lo Schiavo, Trampuž-Orel 1984–1985, t. 35: A8; 42: B4; 149: E3; 263: G2.

to Sv. Lucija IIa, when such items were most commonly in use.
Phase 3: Sv. Lucija IIb.
Diagnostic finds: Conical basket-shaped pendant of Type 21 after Warneke (*Pl. 36: 18*), such as occur in Sv. Lucija IIa and IIb;[43] finger ring decorated with stripes of incisions separated by ring-and-dots (*Pl. 36: 22*), such as occur in the graves from Sv. Lucija IIb and IIc.[44]
Commentary: Both artefacts were found outside the house, but within the debris positively associated with Construction Phase 3 of the house. The overlap of the time spans indicates that the house was most probably in use in Sv. Lucija IIb.

HOUSE 15

Phase 1: ?
Diagnostic finds and commentary: Small finds do not enable precise dating.

Phase 2: Sv. Lucija IIb.
Diagnostic finds: Foot of a fibula with the terminal consisting of a knob and a protuberance (*Pl. 37: 1*), most probably part of a serpentine fibula of Variants IIIa5, Va or VIIc that span from Sv. Lucija Ic2 to IIb1;[45] finger ring decorated with stripes of incisions separated by pairs of ring-and-dots (*Pl. 37: 3*) is formally similar to the finger ring with single ring-and-dots that occur in the graves from Sv. Lucija IIb and IIc.[46]
Commentary: Overlap of the time spans indicates that we may fairly reliably attribute the second construction phase of House 15 to Sv. Lucija IIb.

Phase 3: Sv. Lucija IIc?
Diagnostic finds and commentary: The base fragment with combed decoration (*Pl. 39: 8*) can only broadly be dated to the Late Hallstatt period,[47] but considering the previous phase, the date of Construction Phase 3 may presumably be narrowed to Sv. Lucija IIc.

[43] Warneke 1999, 128.

[44] Teržan, Lo Schiavo, Trampuž-Orel 1984–1985, Pls. 35: A8; 42: B4; 149: E3; 263: G2.

[45] Tecco Hvala 2014, 128, Fig. 3a: 6-10; 134, Fig. 5: 3; 137, Fig. 7: 6-8. The fragment may also be the foot terminal of a leech fibula that are characteristic of Sv. Lucija IIa (e.g. Teržan, Lo Schiavo, Trampuž-Orel 1984–1985, Pls. 120: D1; 194: E2; 231: F2.

[46] Teržan, Lo Schiavo, Trampuž-Orel 1984–1985, Pls. 35: A8; 42: B4; 149: E3; 263: G2.

[47] Teržan, Lo Schiavo, Trampuž-Orel 1984–1985, 288, Pl. 169: A1-6; 362, Pl. 240: E.

Faza 3: Sv. Lucija IIc?

Opredeljive najdbe in komentar: Gradbene faze 3 ni mogoče natančno opredeliti, saj lahko za fragment dna, ki je okrašen z glavničenjem (*t. 39: 8*), rečemo le to, da je značilen za mladohalštatski čas.[47] Z ozirom na datacijo predhodne gradbene faze se zdi opredelitev v stopnjo Sv. Lucija IIc še najbolj verjetna.

HIŠA 15A

Faza 1: Sv. Lucija IIa.

Opredeljive najdbe: Deli pitosov, tip 2 (*t. 40: 10, 41: 1,2*), ki se pojavlja v stopnjah Ic do IIc (najštevilčnejši v IIa in IIb);[48] noga fibule z drobnim gumbastim zaključkom (*t. 40: 1*), najverjetneje del kačaste fibule tipov IV ali VIIb, ki se pojavljata v razponu stopenj Sv. Lucija Ic2–IIb1;[49] trikoten obesek (*t. 40: 5*), kakršni so znani iz grobov stopenj Sv. Lucija Ic–IIa;[50] fragment uhate sekire (*t. 40: 9*), ki ga je časovno sicer težko natančno opredeliti, vendar pa v stopnji Sv. Lucija Ic oziroma IIa ne bi bil nič nenavadnega.[51]

Komentar: Upoštevajoč časovne razpone predmetov, njihovo prekrivanje in pogostost pojavljanja, sodi 1. gradbena faza hiše 15A na prehod iz starohalštatskega v mladohalštatsko obdobje, oziroma na začetek stopnje Sv. Lucija IIa.

Faza 2: Sv. Lucija IIa–IIb.

Opredeljive najdbe in komentar: Trakasta fibula (*t. 53: 1*), ki se pojavlja v stopnjah Sv. Lucija IIa–IIb;[52] fragment ostenja okrašen z metličastim okrasom (*t. 54: 1,2*), ki je značilen za mladohalštatski čas (stopnja II).[53]

Faza 3: Sv. Lucija IIc?

Opredeljive najdbe in komentar: Ni gradiva, ki bi omogočilo natančno datiranje. Glede na halštatski značaj najdb in datacijo predhodne gradbene faze se zdi opredelitev v stopnjo Sv. Lucija IIc še najbolj verjetna.

[47] Teržan, Lo Schiavo, Trampuž-Orel 1984–1985, 288, t. 169: A1-6; 362, t. 240: E.

[48] Dular 1982, 94, sl. 6: 2; 104, sl. 10.

[49] Tecco Hvala 2014, 131, sl. 4; 137, sl. 7: 4,5.

[50] Teržan, Lo Schiavo, Trampuž-Orel 1984–1985, t. 212: A7; 266: A5,6. V istem času so znani tudi v grobiščih v Este; glej Frey 1969, t. 13: 1–5, 15: 10–12.

[51] Pavlin, Turk 2014, 49.

[52] Teržan, Trampuž 1973, 430.

[53] Teržan, Lo Schiavo, Trampuž-Orel 1984–1985, 288, t. 169: A1-6; 362, t. 240: E.

HOUSE 15A

Phase 1: Sv. Lucija IIa.

Diagnostic finds: Parts of Type 2 pithoi (*Pls. 40: 10, 41: 1,2*), such as occur from Sv. Lucija Ic to IIc (most numerously in IIa and IIb);[48] foot of a fibula with a small knob terminal (*Pl. 40: 1*) that most likely belongs to a serpentine fibula of Type IV or VIIb, both occurring from Sv. Lucija Ic2 to IIb1;[49] triangular pendant (*Pl. 40: 5*), such as are known from the graves of Sv. Lucija Ic–IIa;[50] fragment of a shaft-hole axe (*Pl. 40: 9*) that is difficult to date with any precision, but would not be an unusual find in Sv. Lucija Ic or IIa.[51]

Commentary: Time spans of the finds, their overlap and the times of greatest use suggest that Construction Phase 1 of House 15A should be attributed to the transition from the Early to the Late Hallstatt period, i.e. to the beginning of Sv. Lucija IIa.

Phase 2: Sv. Lucija IIa–IIb.

Diagnostic finds and commentary: Band bow fibula (*Pl. 53: 1*), such as occur in Sv. Lucija IIa–IIb;[52] ceramic fragment with combed decoration (*Pl. 54: 1,2*) of a vessel characteristic of the Late Hallstatt period (Sv. Lucija II).[53]

Phase 3: Sv. Lucija IIc?

Diagnostic finds and commentary: Small finds do not enable precise dating, though the Hallstatt character of the finds and the chronological attribution of the previous phase indicate a Sv. Lucija IIc date as the most likely.

HOUSE 16

Phase 1: ?

Diagnostic finds: Small finds do not enable precise dating.

Phase 2: Sv. Lucija IIc.

Diagnostic finds and commentary: Certosa fibula of Variant Xe (*Pl. 57: 1*), such as are characteristic of Sv. Lucija IIc.[54]

[48] Dular 1982, 94, Fig. 6: 2; 104, Fig. 10.

[49] Tecco Hvala 2014, 131, Fig. 4; 137, Fig. 7: 4,5.

[50] Teržan, Lo Schiavo, Trampuž-Orel 1984–1985, Pls. 212: A7; 266: A5,6. From the same period, such pendants are also known from the cemeteries at Este; see Frey 1969, t. 13: 1–5, 15: 10–12.

[51] Pavlin, Turk 2014, 67.

[52] Teržan, Trampuž 1973, 430.

[53] Teržan, Lo Schiavo, Trampuž-Orel 1984–1985, 288, Pl. 169: A1-6; 362, Pl. 240: E.

[54] Teržan 1976, 332 and 431 f.

HIŠA 16

Faza 1: ?
Opredeljive najdbe: Ni elementov, ki bi omogočili natančno datiranje.

Faza 2: Sv. Lucija IIc.
Opredeljive najdbe in komentar: Certoška fibula, tip Xe (*t. 57: 1*), ki je značilna za stopnjo Sv. Lucija IIc.[54]

Faza 3: Sv. Lucija IIc.
Opredeljive najdbe in komentar: Certoška fibula, tip Xn (*t. 57: 16*), ki je značilna za stopnjo Sv. Lucija IIc.[55]

HIŠA 17

Faza 1: ?
Opredeljive najdbe: Ni najdb, ki bi omogočile datiranje.

Faza 2: ?
Opredeljive najdbe: Ni najdb, ki bi omogočile datiranje. Skodela s poševno steno in poudarjenim robom ustja (*t. 58: 1*), je očitno mlajši (LT D) infiltrat.[56]

HIŠA 18

Faza: Sv. Lucija IIa.
Opredeljive najdbe: Ustje situle z nogo, najverjetneje tip 3 (*t. 58: 5*), ki se pojavlja v stopnjah Ic do IIb (najštevilčnejši v IIa).[57]
Komentar: Z ozirom na pogostost pojavljanja situl tipa 3 lahko datacijo z veliko verjetnostjo zožimo na stopnjo Sv. Lucija IIa.

HIŠA 19

Faza: Sv. Lucija II.
Opredeljive najdbe in komentar: Najdbe ne omogočajo natančnejše datacije. Z metličenjem oziroma glavničenjem okrašena keramika (*t. 59: 6,12*) je v grobišču opredeljena v mladohalštatski čas (stopnja Sv. Lucija II).[58]

[54] Teržan 1976, 332 in 364 ss.
[55] Ib. 335 s in 364 ss.
[56] Za datacijo glej Horvat, Bavdek 2009, 63, t. 2: 1-3.
[57] Dular 1982, 96 sl. 7: 14; 104, sl. 10.
[58] Teržan, Lo Schiavo, Trampuž-Orel 1984–1985, 288, t. 169: A1-6; 362, t. 240: E.

Phase 3: Sv. Lucija IIc.
Diagnostic finds and commentary: Certosa fibula of Variant Xn (*Pl. 57: 16*), such as are characteristic of Sv. Lucija IIc.[55]

HOUSE 17

Phase 1: ?
Diagnostic finds: Small finds do not enable precise dating.

Phase 2: ?
Diagnostic finds: Small finds do not enable precise dating and the bowl with flaring walls and an outwardly pronounced rim (*Pl. 58: 1*) is clearly a later (LT D) intrusive element.[56]

HOUSE 18

Phase: Sv. Lucija IIa.
Diagnostic finds: Rim of a pedestal situla, most likely Type 3 (*Pl. 58: 5*), such as occur from Sv. Lucija Ic to IIb (most numerously in IIa).[57]
Commentary: Frequency of use of the Type 3 situlae indicates that the house may be dated to Sv. Lucija IIa.

HOUSE 19

Phase: Sv. Lucija II.
Diagnostic finds and commentary: Small finds do not enable precise dating, though we should note that the comparable pottery with brushed and combed decoration from the cemetery (*Pl. 59: 6,12*) is attributable to the Late Hallstatt period (Sv. Lucija II).[58]

HOUSE 20

Phase: ?
Diagnostic finds and commentary: Small finds do not enable precise dating.

HOUSE 21

Phase: ?
Diagnostic finds: Small finds do not enable precise dating.

[55] Ib. 335 f and 431 f.
[56] For the dating see Horvat, Bavdek 2009, 62, Pl. 2: 1-3.
[57] Dular 1982, 96 Fig. 7: 14; 104, Fig. 10.
[58] Teržan, Lo Schiavo, Trampuž-Orel 1984–1985, 288, Pl. 169: A1-6; 362, Pl. 240: E.

HIŠA 20

Faza: ?

Opredeljive najdbe in komentar: Hiša ni vsebovala najdb, ki bi omogočale njeno datiranje.

HIŠA 21

Faza: ?

Opredeljive najdbe: Hiša ni vsebovala najdb, ki bi omogočale njeno natančno datiranje.

HIŠA 22

Faza 1: Sv. Lucija IIa–IIb.

Opredeljive najdbe: Fragmenta fibule (*t. 60: 1*) neznanega tipa (glede na pravokoten presek loka lahko kačasta, trakasta ali celo certoška, tip II), ki se pojavljajo v razponu stopenj Sv. Lucija IIa–IIb;[59] pinceta (*t. 60: 5*), ki je običajno v grobovih stopenj IIa in IIb;[60] prstan, okrašen s štirimi vrezanimi krožci (*t. 60: 2*), ki je znan predvsem iz grobov stopnje Sv. Lucija IIb.[61]

Komentar: Časovni razponi najdb kažejo, da sodi 1. gradbena faza hiše 22 v razpon stopenj Sv. Lucija IIa–IIb.

Faza 2: ?

Opredeljive najdbe in komentar: Gradbena faza 2 ni vsebovala najdb, ki bi omogočale njeno datiranje.

HIŠA 22A

Faza 1: Sv. Lucija II.

Opredeljive najdbe in komentar: Gradbene faze 1 ni moč natančneje datirati, saj imamo na razpolago le keramično gradivo. Z metličenjem okrašeni fragmenti ostenj (*t. 61: 6,19,21*) sodijo med dele posodja, ki se v grobovih na Mostu na Soči pojavlja v mladohalštatskem času (stopnja Sv. Lucija II).[62]

Faza 2: Sv. Lucija IIc.

Opredeljive najdbe: Profiliran košarast obesek, tip 22 po Warnekeju (*t. 62: 3*) se pojavlja v Este v stopnji III pozno, kar odgovarja koncu stopnje Sv. Lucija IIb in stopnji IIc;[63] jagoda iz črnega stekla z belo-mo-

[59] Ib., t. 216: F2-4; 237: D1,2; 247: B1 (kačaste); t. 56: D; 58: B1; 151: B1,2; 155: E1,2 (trakaste); t. 40: C3,4; 54: E3; 67: B2; 71: D1,2 itd. (certoške).

[60] Ib., t. 26: E1; 54: E1; 55: C9; 57: A1; 63: E8; 68: C2; 69: A1 itd.

[61] Ib., t. 57: A6; 86: A1; 137: A20,21; 177: A6.

[62] Teržan, Lo Schiavo, Trampuž-Orel 1984–1985, 288, t. 169: A1-6; 362, t. 240: E.

[63] Frey 1969, Abb. 10: 4; t. 33: 23,24; Warneke 1999, 128.

HOUSE 22

Phase 1: Sv. Lucija IIa–IIb.

Diagnostic finds: Fragments of an undeterminable fibula (*Pl. 60: 1*), the rectangular-sectioned bow of which suggests a serpentine, band bow or even a Type II Certosa fibula that occur in the span of Sv. Lucija IIa–IIb;[59] tweezers (*Pl. 60: 5*), such as usually occur in the graves of Sv. Lucija IIa and IIb;[60] finger ring decorated with four incised ring-and-dots (*Pl. 60: 2*), such as are mainly known from the graves of Sv. Lucija IIb.[61]

Commentary: Time spans of the finds indicate that Construction Phase 1 of House 22 should be dated to Sv. Lucija IIa–IIb.

Phase 2: ?

Diagnostic finds and commentary: Small finds do not enable precise dating.

HOUSE 22A

Phase 1: Sv. Lucija II.

Diagnostic finds and commentary: Ceramic finds do not enable precise dating, though we should note that the sherds with combed decoration (*Pl. 61: 6,19,21*) belong to vessels such as occur in the graves at Most na Soči in the Late Hallstatt period (Sv. Lucija II).[62]

Phase 2: Sv. Lucija IIc.

Diagnostic finds: Moulded basket-shaped pendant of Type 22 after Warneke (*Pl. 62: 3*), such as occur at Este in Este III Spät, which corresponds with the late Sv. Lucija IIb and IIc;[63] bead of black glass with white-blue layered eyes (*Pl. 62: 1*) dates to Sv. Lucija IIb to IIc;[64] disc of a Type X Certosa fibula (*Pl. 62: 4*), such as are characteristic of Sv. Lucija IIc.[65]

Commentary: Disc of the Certosa fibula narrows the dating to Sv. Lucija IIc.

[59] Ib., Pls. 216: F2-4; 237: D1,2; 247: B1 (serpentine); Pls. 56: D; 58: B1; 151: B1,2; 155: E1,2 (band bow); Pls. 40: C3,4; 54: E3; 67: B2; 71: D1,2 etc. (Certosa).

[60] Ib., Pls. 26: E1; 54: E1; 55: C9; 57: A1; 63: E8; 68: C2; 69: A1 etc.

[61] Ib., Pls. 57: A6; 86: A1; 137: A20,21; 177: A6.

[62] Teržan, Lo Schiavo, Trampuž-Orel 1984–1985, 288, Pl. 169: A1-6; 362, Pl. 240: E.

[63] Frey 1969, Fig. 10: 4; Pl. 33: 23,24; Warneke 1999, 128.

[64] Kunter 1995, 38; Božič 2011, 248; the geographically closest parallel is known from Most na Soči, the cemetery at Repelc, Gr. 10 (Mlinar 2001, Pl. 1: 7,8).

[65] Teržan 1976, 431 f.

drimi plastovitimi očesci (*t. 62: 1*) sodi v čas stopenj Sv. Lucija IIb do IIc;[64] gumb certoške fibule, tip X (*t. 62: 4*), ki je značilen za stopnjo Sv. Lucija IIc.[65]
Komentar: Gumb certoške fibule zožuje datacijo gradbene faze 2 v stopnjo Sv. Lucija IIc.

HIŠA 23

Faza 1: Sv. Lucija IIa.
Opredeljive najdbe in komentar: Pijavkaste fibule (*t. 66: 1–3*) opredeljujejo prvo gradbeno fazo v stopnjo Sv. Lucija IIa.[66]

Faza 2: Sv. Lucija IIb.
Opredeljive najdbe: Fragment ostenja, okrašen z mrežastim slikanim okrasom (*t. 80: 14*), ki se pojavlja na posodju iz grobov stopenj IIa in IIb.[67]
Komentar: Z ozirom na datacijo predhodne gradbene faze se zdi opredelitev na začetek stopnje Sv. Lucija IIb še najbolj verjetna.

HIŠA 24

Faza 1: ?
Opredeljive najdbe in komentar: Gradbena faza 1 ni vsebovala najdb, ki bi omogočale njeno datiranje.

Faza 2: Sv. Lucija IIa–IIb.
Opredeljive najdbe in komentar: Dno pitosa, tip 2 (*t. 88: 7*), sodi med oblike posodja, ki se pojavlja v stopnjah Sv. Lucija Ic do IIc. Širok razpon lahko z veliko verjetnostjo zožimo na stopnji IIa–IIb, ko je bilo takšno posodje najpogosteje v uporabi.[68]

HIŠA 25

Faza 1: Sv. Lucija IIc.
Opredeljive najdbe in komentar: Noga certoške fibule, tip VIIe ali VIIf (*t. 89: 1*), ki sodi na konec starejše železne dobe (stopnja Sv. Lucija IIc).[69]

Faza 2: ?
Opredeljive najdbe: Gradbena faza 2 ni vsebovala najdb, ki bi omogočale njeno natančno datiranje.

[64] Kunter 1995, 38; Božič 2011, 248; najbližja paralela je znana z Mosta na Soči, grobišče Repelc, gr. 10 (Mlinar 2001, t. 1: 7,8).
[65] Teržan 1976, 364 ss.
[66] Teržan, Trampuž 1973, 428 s.
[67] Teržan, Lo Schiavo, Trampuž-Orel 1984–1985, t. 59: C4; 162: D7; 219: F3; 229: E2; 230: A5.
[68] Dular 1982, 94, sl. 6: 2; 104, sl. 10.
[69] Teržan 1976, 328 in 371.

HOUSE 23

Phase 1: Sv. Lucija IIa.
Diagnostic finds and commentary: Leech fibulae (*Pl. 66: 1–3*) date the first construction phase to Sv. Lucija IIa.[66]

Phase 2: Sv. Lucija IIb.
Diagnostic finds: Ceramic sherd with painted reticular decoration (*Pl. 80: 14*), such as is known on vessels from the graves of a Sv. Lucija IIa and IIb date.[67]
Commentary: Attribution of the previous phase indicates that Construction Phase 2 could most likely be dated to the early Sv. Lucija IIb.

HOUSE 24

Phase 1: ?
Diagnostic finds and commentary: Small finds do not enable precise dating.

Phase 2: Sv. Lucija IIa–IIb.
Diagnostic finds and commentary: Base of a Type 2 pithos (*Pl. 88: 7*), such as occur from Sv. Lucija Ic to IIc. This wide span may be narrowed to IIa–IIb, when such vessels were most common.[68]

HOUSE 25

Phase 1: Sv. Lucija IIc.
Diagnostic finds and commentary: Foot of a Certosa fibula of Variant VIIe or VIIf (*Pl. 89: 1*), such as date to the Early Iron Age (Sv. Lucija IIc).[69]

Phase 2: ?
Diagnostic finds: Small finds do not enable precise dating.

HOUSE 26

Phase 1: Sv. Lucija IIb–IIc.
Diagnostic finds and commentary: Certosa fibula of Variant VIa (*Pl. 89: 16*), such as occur in the span of Sv. Lucija IIb2–IIc;[70] this dating is corroborated by a bead of yellow glass with blue-white layered

[66] Teržan, Trampuž 1973, 428 f.
[67] Teržan, Lo Schiavo, Trampuž-Orel 1984–1985, Pls. 59: C4; 162: D7; 219: F3; 229: E2; 230: A5.
[68] Dular 1982, 94, Fig. 6: 2; 104, Fig. 10.
[69] Teržan 1976, 328 and 432.
[70] Ib., 325 and 430.

HIŠA 26

Faza 1: Sv. Lucija IIb–IIc.

Opredeljive najdbe in komentar: Certoška fibula, tip VIa (*t. 89: 16*), ki se pojavlja v razponu stopenj Sv. Lucija IIb2–IIc;[70] datacijo potrjuje jagoda iz rumenega stekla z modro-belimi plastovitimi očesci (*t. 89: 19*), ki se pojavlja v istem časovnem razponu (Sv. Lucija IIb–IIc).[71]

Faza 2: ?

Opredeljive najdbe: Gradbena faza 2 ni vsebovala najdb, ki bi omogočale njeno datiranje.

HIŠA 27

Faza 1: ?

Opredeljive najdbe: Gradbena faza 1 ni vsebovala najdb, ki bi omogočale njeno natančno datiranje.

Faza 2: ?

Opredeljive najdbe: Gradbena faza 2 ni vsebovala najdb, ki bi omogočale njeno datiranje.

HIŠA 28

Faza: ?

Opredeljive najdbe: Hiša ni vsebovala najdb, ki bi omogočale njeno datiranje.

HIŠA 29

Faza 1: Sv. Lucija IIa–IIb.

Opredeljive najdbe: Noga situle tip 3 ali keliha, tip 1, 2 ali 3 (*t. 91: 6*), takšno posodje je bilo v uporabi v stopnjah Sv. Lucija Ic do IIb (najštevilčnejše v IIa);[72] fragment ostenja pitosa, tip 2 (*t. 91: 15*), ki se pojavlja v stopnjah Sv. Lucija Ic do IIc (najštevilčnejši v IIa in IIb).[73]

Komentar: Razpon najdb seže od stopnje Sv. Lucija Ic do IIc, vendar pa lahko z ozirom na pogostost njihovega pojavljanja datacijo z veliko verjetnostjo zožimo na stopnji Sv. Lucija IIa–IIb (morda celo zgolj na stopnjo IIa).

Faza 2: Sv. Lucija IIa–IIb.

Opredeljive najdbe in komentar: Fragmenta ostenja pitosa, tip 2 (*t. 92: 13, 14*), ki se pojavlja v stopnjah Sv. Lucija Ic do IIc (najštevilčnejši v IIa in IIb).[74]

[70] Ib., 325 in 355 s.

[71] Kunter 1995, 38; Božič 2011, 248.

[72] Dular 1982, 96, sl. 7: 14-17; 104, sl. 10.

[73] Ib., 94, sl. 6: 2; 104, sl. 10.

[74] Ib., 94, sl. 6: 2; 104, sl. 10.

eyes (*Pl. 89: 19*), items in use in the same time span (Sv. Lucija IIb–IIc).[71]

Phase 2: ?

Diagnostic finds: Small finds do not enable precise dating.

HOUSE 27

Phase 1: ?

Diagnostic finds: Small finds do not enable precise dating.

Phase 2: ?

Diagnostic finds: Small finds do not enable precise dating.

HOUSE 28

Phase: ?

Diagnostic finds: Small finds do not enable precise dating.

HOUSE 29

Phase 1: Sv. Lucija IIa–IIb.

Diagnostic finds: Pedestal of a Type 3 situla or a goblet of Type 1, 2 or 3 (*Pl. 91: 6*), such as were in use from Sv. Lucija Ic to IIb (most numerously in IIa);[72] fragment of a Type 2 pithos (*Pl. 91: 15*), such as occur from Sv. Lucija Ic to IIc (most numerously in IIa and IIb).[73]

Commentary: Small finds span from Sv. Lucija Ic to IIc, but the time of their greatest use allows us to fairly reliably narrow the span to Sv. Lucija IIa–IIb (possibly only IIa).

Phase 2: Sv. Lucija IIa–IIb.

Diagnostic finds and commentary: Sherd of a Type 2 pithos (*Pl. 92: 13, 14*), such as occur from Sv. Lucija Ic to IIc (most numerously in IIa and IIb).[74]

[71] Kunter 1995, 38; Božič 2011, 248.

[72] Dular 1982, 96, Fig. 7: 14-17; 104, Fig. 10.

[73] Ib., 94, Fig. 6: 2; 104, Fig. 10.

[74] Ib., 94, Fig. 6: 2; 104, Fig. 10.

HIŠA 30

Faza 1: Sv. Lucija IIa–IIb.

Opredeljive najdbe: Kačasta fibula, tip VIIb (*t. 94: 1*), ki je bila v uporabi v stopnjah Sv. Lucija Ic2 do IIa;[75] kačasta fibula, tip Va (*t. 94: 2*), ki se pojavlja v stopnjah Sv. Lucija Ic2 do IIb.[76]

Komentar: Razmeroma ohlapen časovni lok uporabe obeh fibul ne dovoljuje preciznejše opredelitve, vendar pa lahko z ozirom na pogostost njihovega pojavljanja datacijo z veliko verjetnostjo zožimo na stopnjo Sv. Lucija IIa–IIb.

Faza 2: Sv. Lucija IIb–IIc?

Opredeljive najdbe in komentar: Gradbena faza 2 ni vsebovala najdb, ki bi omogočale njeno datiranje. Z ozirom na datacijo predhodne faze in halštatski značaj najdb sodi najverjetneje v stopnjo Sv. Lucija IIb ali IIc.

HIŠA 31

Faza 1: Sv. Lucija IV (LT D).

Opredeljive najdbe: Pokrovček amfore, tip PA 8 (*t. 97: 7*), ki se pojavlja od sredine 2. do prve polovice 1. st. pr. Kr.;[77] amfora (*t. 97: 6*) sodi v čas od zadnje četrtine 1. st. pr. Kr. do prve polovice 1. st. po Kr.[78]

Faza 2: ?

Opredeljive najdbe: Gradbena faza 2 ni vsebovala najdb, ki bi omogočale njeno natančno datiranje.

HIŠA 32

Faza: ?

Opredeljive najdbe in komentar: Hiša ni vsebovala najdb, ki bi omogočale njeno natančno datiranje. Glede na kos okrašenega ometa (*t. 98: 2*), ki je bil najden v ruševinah, je objekt iz starejše železne dobe.

HIŠA 33

Faza: Sv. Lucija IV (LT D).

Opredeljive najdbe: Fragment steklene jagode s plastovitimi očesci in bradavicami – Noppenperle (*t. 97: 17*), ki sodi v čas stopenj Sv. Lucija IIb in IIc;[79] amforičasta jagoda (*t. 97: 14*) je znana iz kontekstov

[75] Tecco Hvala 2014, 136 ss in 154.

[76] Ib., 133 s in 150 s. Glej tudi mnenje Laharnarja v tej publikaciji (str. 200), ki zagovarja uporabo takih fibul predvsem v stopnji Sv. Lucija IIa.

[77] Horvat 1997, 78 ss; Horvat, Bavdek 2009, 90 ss.

[78] Dugulin, 113, fig. 43; Horvat 2012, 277, sl. 8: 5-7.

[79] Kunter 1995, 177, 208 ss.

HOUSE 30

Phase 1: Sv. Lucija IIa–IIb.

Diagnostic finds: Serpentine fibula of Variant VIIb (*Pl. 94: 1*), such as were in use from Sv. Lucija Ic2 to IIa;[75] serpentine fibula of Variant Va (*Pl. 94: 2*), which occur from Sv. Lucija Ic2 to IIb.[76]

Commentary: Span of the two fibula variants is relatively broad, but the time of their greatest use allows us to fairly reliably narrow the span to Sv. Lucija IIa–IIb.

Phase 2: Sv. Lucija IIb–IIc?

Diagnostic finds and commentary: Small finds do not enable precise dating, but the attribution of the previous phase and the Hallstatt character of the finds most likely indicates either a Sv. Lucija IIb or IIc date.

HOUSE 31

Phase 1: Sv. Lucija IV (LT D).

Diagnostic finds: Lid of a Type PA 8 amphora (*Pl. 97: 7*), which were in use from the mid-2nd to the first half of the 1st century BC;[77] amphora on *Pl. 97: 6* spans from the last quarter of the 1st century BC to the first half of the 1st century AD.[78]

Phase 2: ?

Diagnostic finds: Small finds do not enable precise dating.

HOUSE 32

Phase: ?

Diagnostic finds and commentary: Small finds do not enable precise dating, though the piece of decorated daub (*Pl. 98: 2*) found among the debris indicates an Early Iron Age building.

HOUSE 33

Phase: Sv. Lucija IV (LT D).

Diagnostic finds: Fragment of a glass bead with layered eyes and knobs or *Noppenperle* (*Pl. 97: 17*), such as occur in Sv. Lucija IIb and IIc;[79] amphora-shaped bead (*Pl. 97: 14*), such as are known from contexts contemporary with Sv. Lucija IIc;[80] fibula of the

[75] Tecco Hvala 2014, 138 and 170 f.

[76] Ib., 133 f and 169. Also see the opinion by Boštjan Laharnar in this book (p. 200), who argues that such fibulae were mainly worn in Sv. Lucija IIa.

[77] Horvat 1997, 78 ff; Horvat, Bavdek 2009, 90 ff.

[78] Dugulin, 113, Fig. 43; Horvat 2012, 277, Fig. 8: 5–7.

[79] Kunter 1995, 177, 208 ff.

[80] Meduna 1970, 231 f; Božič 1981, 326 and 330.

sočasnih s stopnjo Sv. Lucija IIc;[80] fibula srednjelatenske sheme (*t. 97: 9*), po konstrukciji blizu tipu Podzemelj, kaže na čas LT D;[81] obročasta fibula, tip Posočje (*t. 97: 13*), sodi v LT D.[82]

Komentar: Čeprav so bili na območju stavbišča najdeni tudi poznohalštatki kosi (stekleni jagodi), pa so za datacijo odločujoče mlajše najdbe, ki postavljajo objekt v stopnjo Sv. Lucija IV (LT D).

HIŠA 34

Faza: ?

Opredeljive najdbe: Hiša ni vsebovala najdb, ki bi omogočale njeno natančno datiranje.

HIŠA 35

Faza 1: ?

Opredeljive najdbe in komentar: Fragment ročaja (*t. 98: 5*) sodi po obliki in fakturi v starejšo železno dobo, natančnejša opredelitev pa ni mogoča.

Faza 2: Sv. Lucija IV (augustejsko obdobje).

Opredeljive najdbe: Ustje amfore, tip Lamboglia 2 (*t. 98: 9*), ki je v uporabi od zadnje četrtine 2. do zadnje tretjine 1. st. pr. Kr.;[83] pekač (*t. 98: 14*), ki se pojavlja od sredine 2. st. do avgustejskega obdobja;[84] konična skleda z uvihanim ustjem – terra sigilata (*t. 98: 7*), ki sodi v srednjeavgustejsko obdobje;[85] rimski denarij, kovan leta 96 pr. Kr.[86]

HIŠA 36

Faza: Sv. Lucija IIa–IIb.

Opredeljive najdbe in komentar: Ker izvira gradivo iz ruševin, je možna zgolj okvirna datacija. Fragment ustja pripada situli, tip 3 (*t. 99: 1*), ki je bil v uporabi v stopnjah Sv. Lucija Ic do IIb (najštevilčnejši v IIa);[87] ustje pitosa, tip 2 (*t. 99: 4, 5*) se pojavlja v stopnjah Sv. Lucija Ic do IIc (najštevilčnejši v IIa in IIb).[88]

[80] Meduna 1970, 231 s; Božič 1981, 315 in 324.

[81] Božič 2001, 188 ss; Božič 2008, 116; podoben primerek je znan iz Gurine, Jablonka 2001, t. 81: 16.

[82] Guštin 1991, 40. Prim. tudi Laharnarjev prispevek v tem zvezku razprav (str. 212), ki meni, da je fibula rimska. Očitno gre torej za datacijo irelevanten infiltrat.

[83] Horvat, Bavdek 2009, 83 ss.

[84] Ib., 76 s.

[85] Ettlinger et al. 2002, 94 s, oblika 24.3.1.

[86] Kos 1988, 23 (*FMRSl I 9/1-3*).

[87] Dular 1982, 96, sl. 7: 14; 104, sl. 10.

[88] Ib., 1982, 94, sl. 6: 2; 104, sl. 10.

Middle La Tène construction (*Pl. 97: 9*) that is close to the Podzemelj type in construction and indicates a LT D date;[81] penannular Posočje type fibula (*Pl. 97: 13*) that dates to LT D.[82]

Commentary: Area of the house did yield Late Hallstatt items (glass beads), but the finds relevant for the attribution of the house are later and suggest a Sv. Lucija IV date (LT D).

HOUSE 34

Phase: ?

Diagnostic finds: Small finds do not enable precise dating.

HOUSE 35

Phase 1: ?

Diagnostic finds and commentary: Handle fragment (*Pl. 98: 5*) is attributable to the Early Iron Age because of its fabric and form, but a more precise dating cannot be ventured.

Phase 2: Sv. Lucija IV (Augustan period).

Diagnostic finds: Rim of a Lamboglia 2 amphora (*Pl. 98: 9*), such as were in use from the last quarter of the 2nd century to the last third of the 1st century BC;[83] baking dish (*Pl. 98: 14*), such as occur from the mid-2nd century to the Augustan period;[84] conical terra sigillata dish with an inturned rim (*Pl. 98: 7*) that dates to the Middle Augustan period;[85] Roman *denarius* minted in 96 BC.[86]

HOUSE 36

Phase: Sv. Lucija IIa–IIb.

Diagnostic finds and commentary: Small finds originate from the debris and can only be dated broadly. The rim fragment belongs to a Type 3 situla (*Pl. 99: 1*), such as were in use from Sv. Lucija Ic to IIb (most numerously in IIa);[87] rim sherd belongs to a Type 2 pithos (*Pl. 99: 4, 5*), which occur from Sv. Lucija Ic to IIc (most numerously in IIa and IIb).[88]

[81] Božič 2001, 197; Božič 2008, 116; a similar example is known from Gurina, Jablonka 2001, Pl. 81: 16.

[82] Guštin 1991, 40. Also cf. the contribution by Laharnar in this book (p. 212), who sees the fibula as Roman in date; it is apparently an intrusive finds irrelevant for the dating of the house.

[83] Horvat, Bavdek 2009, 83 ff.

[84] Ib., 76 f.

[85] Ettlinger et al. 2002, 94 f, Form 24.3.1.

[86] Kos 1988, 23 (*FMRSl I 9/1-3*).

[87] Dular 1982, 96, Fig. 7: 14; 104, Fig. 10.

[88] Ib., 1982, 94, Fig. 6: 2; 104, Fig. 10.

POVZETEK UGOTOVITEV

Analiza gradiva je pokazala, da je bilo raziskano območje poseljeno v mladohalštatskem in manjšem obsegu tudi v poznolatenskem obdobju. Kot smo že uvodoma omenili, je bilo moč datirati komaj polovico gradbenih faz, kar močno otežuje študij poselitvene dinamike. Natančne slike o tem, kako je naselje nastajalo, raslo in usihalo, si je skoraj nemogoče ustvariti. Datacije so preohlapne, časovno neopredeljeni so ostali tudi številni gradbeni detajli. Vendar pa lahko na koncu vseeno ugotovimo, da nekatere podobnosti med objekti vendarle obstajajo, zato smo jih glede na čas, ko so bili v uporabi, razvrstili v tri skupine.

Prva je najštevilnejša, v njej pa so združene stavbe, katerih časovni razponi se gibljejo znotraj stopenj Sv. Lucija IIa–IIb (*sl. 2 zgoraj*).[89] Morda je bila kakšna obljudena tudi izven tega časovnega okvirja (npr. 2. faza hiše 22), kar pa z najdbami ni bilo mogoče zanesljivo dokazati.

Za naslednjo skupino hiš je značilno, da segajo z drugo gradbeno fazo do stopnje Sv. Lucija IIc (*sl. 2 sredina*). Njihov začetek ni tako jasen. Pri nekaterih objektih ga moramo iskati znotraj stopenj Sv. Lucija IIa–IIb, nekaj hiš je bilo postavljenih v razponu stopenj Sv. Lucija IIb–IIc, obstajali pa so tudi objekti, ki so bili obljudeni zgolj v stopnji Sv. Lucija IIc.

V tretjo skupino smo uvrstili hiše, ki so bile poseljene v poznolatenskem in avgustejskem obdobju (*sl. 2 spodaj*). Ni jih veliko, med njimi zavzema posebno mesto objekt 6, ki je bil zaradi svoje funkcije (gre namreč za žgano-darilno mesto) obljuden že v mladohalštatskem obdobju.

Poselitvena dinamika raziskanega območja je bila torej pestra. Pravzaprav lahko rečemo, da naselje ni imelo enotnega začetka in konca. Časovni razponi hiš se med seboj razlikujejo, v različnih obdobjih pa je prišlo tudi do njihovih obnov. Vse te ugotovitve so seveda pomembne za pravilno razumevanje rasti in usihanja naselja. Žal zaradi razpršene lege objektov njihove kronološke razpone ne moremo preverjati s stratigrafskimi podatki. Izjema je niz stavb na skrajnem zahodnem delu izkopnega polja, ki so bile postavljene v ravni vrsti, zato dajejo že na prvi pogled vtis vnaprej načrtovane naselbinske enote.[90] Soočenje datacij posameznih gradbenih faz z redkimi stratigrafskimi sekvencami je dalo zanimiv rezultat.

Začetek pozidave lahko datiramo zgolj okvirno. Pričela se je najverjetneje v stopnji Sv. Lucija IIa, ko so zgradili celoten niz vključno z odvodnim jarkom, v katerega sta se stekala kanala hiše 23 (*sl. 3A*).[91] Takšno stanje pa ni trajalo dolgo. Ne da bi mogli natančno določiti čas, vsekakor pa v razponu stopenj Sv. Lucija IIa–IIb, je hiša

[89] Tretji fazi hiš 15 in 15A sta uvrščeni na tabelo zgolj hipotetično,saj gre za skromne nedatirane ostanke zidov.

[90] Svoljšak, Dular 2016, pril. 1, kv. B–C/2–4.

[91] Še nekoliko starejše je moralo biti stavbišče hiše 36, saj ga je na vzhodni strani odsekal odvodni jarek. Glej Svoljšak, Dular 2016, 220.

SUMMARY

The analysis of the small finds has shown the investigated part of the settlement to be inhabited in the Late Hallstatt and to a smaller extent also in the Late La Tène period. As already mentioned in the introduction, we have been able to chronologically attribute barely half of the construction phases, which hinders the study of the settlement dynamics. From the available data, it is impossible to accurately reconstruct how the settlement began, how it grew and finally declined. The dates are too broad and numerous construction details remain chronologically undetermined. We have, however, observed certain similarities between the houses that lead us to distinguish between three groups based on the time of their use.

The first group is the largest and comprises houses with time spans within the Sv. Lucija IIa–IIb phases (*Fig. 2 top*).[89] It is possible that some of the houses were also occupied outside this time frame (for example House 22 in its second phase), but the associated small finds do not offer sufficient evidence of this.

The houses of the second group reach to Sv. Lucija IIc with their second phase (*Fig. 2 centre*), but the beginnings are less clear and should be sought in some cases in Sv. Lucija IIa–IIb, some houses were built within the span of Sv. Lucija IIb–IIc, while some houses only seems to have been inhabited in Sv. Lucija IIc.

The third group consists of a small number of houses inhabited in the Late La Tène and Augustan periods (*Fig. 2 bottom*). They include Building 6 that is set apart from the others in its function as a burning-offering place and was already in use in the Late Hallstatt period.

The above-shown dynamics of habitation lead us suggests that the settlement does not appear to have a uniform beginning and end. The time spans of individual houses differ and their renovations also occurred at different times. These observations are important in attempting to correctly asses the growth and decline of the settlement. Unfortunately, the rather scattered spatial disposition of the houses hinders us from using stratigraphic data to verify their time spans. The exception to this is the neat row of houses at the westernmost part of the excavation area that has the appearance of a planned housing unit.[90] For this row, the comparison of the dates for individual construction phases with the rare stratigraphic sequences has produced a more insightful result.

The beginning of construction for the row of houses can only be dated in broad terms. It most probably began in Sv. Lucija IIa, when the entire row was built simultaneously with the drainage ditch into which ran the two canals from House 23 (*Fig. 3A*).[91] Not long afterwards,

[89] The third phases of Houses 15 and 15A are included into the table hypothetically as they only consist of undated remains of walls.

[90] Svoljšak, Dular 2016, App. 1, Grid Square. B–C/2–4.

[91] The construction site for House 36 must have been

STOPNJE	HIŠE											
Sv. Lucija	18	14	15A	23	2	29	22	1	24	9	8	10	15
Ic													
IIa		faza 1 faza 2	faza 1	faza 1	faza 1 faza 2	faza 1 faza 2	faza 1	faza 2	faza 2				
IIb		faza 3	faza 2	faza 2							faza 2	faza 2	faza 2
IIc			faza 3?										faza 3?

STOPNJE	HIŠE											
Sv. Lucija	3	22A	30	19	26	11	12	4	16	25	5	7
Ic												
IIa	faza 1	faza 1?	faza 1									
IIb			faza 2?		faza 1	faza 2	faza 1 faza 2		faza 2 faza 3	faza 1		
IIc	faza 2	faza 2										

STOPNJE	HIŠE			
Sv. Lucija	6	35	31	33
Ic				
IIa	faza 1 faza 2			
IIb				
IIc		faza 1?		
IV		faza 2	faza 1	

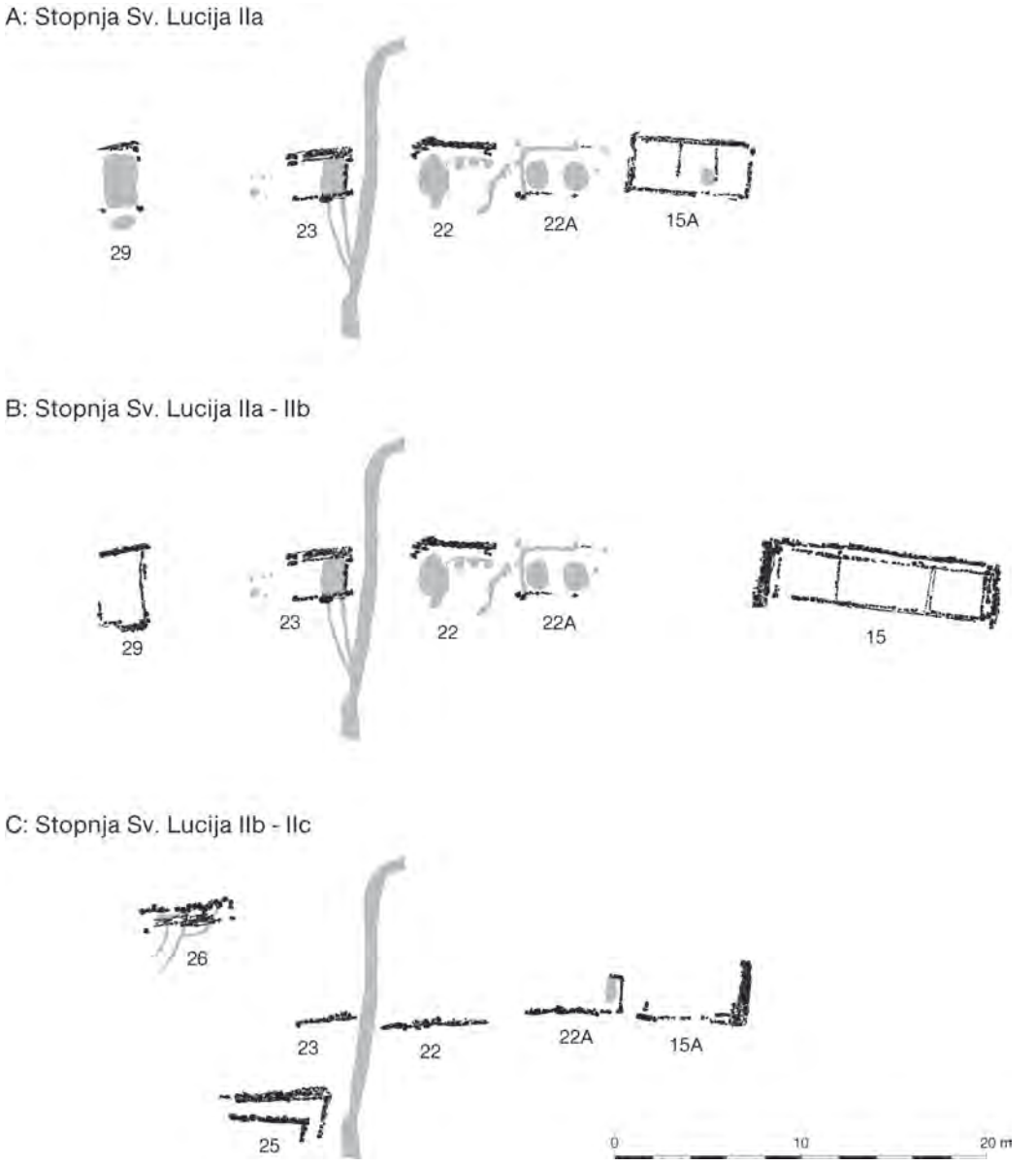
Sl. 2: Časovni razponi hiš.
Fig. 2: Time spans of individual houses.

15A pogorela. Na njenih ostankih so zgradili pregradni zid, ki je imel dvojno funkcijo: na eni strani je preprečeval posipanje ruševin, hkrati pa je bil tudi drenaža novi stavbi, ki so jo v dveh zamahih zgradili vzhodno od pogorišča. To je bila hiša 15, ki je imela prav tako tridelni tloris, le da je bila večja in še bolj imenitna. Stratigrafski odnos med obema gradnjama je jasen in dobro dokumentiran,[92]

sometime in the span of Sv. Lucija IIa–IIb, House 15A burnt down. On top of its debris, a dividing wall was constructed with a double function: it prevented the debris from collapsing and functioned as a drainage wall for the new house built in two phases east of the burn-down location. This new addition was House 15, which also had a tripartite layout, but was larger and finer. The stratigraphic relationship between the two

[92] Ib., 113 ss.

even earlier, as it was cut off by the drainage ditch in the east. See Svoljšak, Dular 2016, 220.



Sl. 3: Poselitvena dinamika v zahodnem delu naselja.
Fig. 3: Construction dynamics in the western part of the settlement.

zato vemo, da je stavbišče starejše stavbe (15A) po požaru ostalo prazno (*sl. 3B*).

Do ponovnih sprememb je prišlo v razponu stopenj Sv. Lucija IIb–IIc, ko je pogorel celotni niz stavb. Tudi tokrat natančnejša datacija ni možna. Na ruševinah starejših objektov so postavili nove hiše, ki pa so bile večinoma površno grajene, zato so se od tlorisov ohranili le posamezni zidovi (*sl. 3C*). Izjema je hiša 26, ki je bila locirana severneje od prvotnega niza. Imela je odvodne kanale, usmerjene proti opuščenim stavbiščem hiš 27 in 29. Solidno zgrajena je bila tudi hiša 25. Postavili so jo južno od prvotnega niza stavb, najdbe pa jo jasno datirajo v stopnjo Sv. Lucija IIc.

houses is clear and well documented,[92] revealing that the construction site of the earlier house (15A) remained empty after the fire (*Fig. 3B*).

Changes next occurred in Sv. Lucija IIb–IIc, when the entire row of houses burnt down. New houses were constructed on top of the debris of the earlier buildings, but these were for the most part of a shoddier construction and only some of their walls survive in outlines (*Fig. 3C*). The exception is House 26, which lay north of the original row. This house had drainage canals that led towards the abandoned Houses 27 and 29. House 25 also shows a solid construction, put up south of the

[92] Ib., 113 ff.

Kasneje sta bili na območju hiš 15 in 15A postavljeni še dve stavbi, od katerih pa so se ohranili le skromni ostanki.[93] Glede na stratigrafski odnos in spekter najdb bi ju smeli datirati čisto na konec starejše železne dobe.

[93] Ib., 124 in 133.

original row and positively attributed to Sv. Lucija IIc on the basis of the small finds.

Later, two more houses were constructed in the area of Houses 15 and 15A, of which only scarce remains survive.[93] Considering the stratigraphic relationships and the array of small finds, they can be attributed to the end of the Early Iron Age.

[93] Ib., 123 f and 133.

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POSOŠKO ŽELEZNODOBNO STAVBARSTVO

IRON AGE ARCHITECTURE IN POSOČJE

Drago SVOLJŠAK

UVOD

Najpomembnejši dosežek zavarovalnih arheoloških izkopavanj obsežnega dela železnodobne naselbine na območju ledine Merišče na Mostu na Soči je širok spekter stavbarskih sestavin, ki omogočajo dokaj zanesljivo rekonstrukcijo načina gradnje posoških železnodobnih stavb. To velja za (domnevno) stanovanjske stavbe ter tudi za (domnevno) delavnice.

Prvi poskusi rekonstrukcij stavb (hiš) so bili narejeni že med izkopavanji. Z njimi so etnolog in dva arhitekta skušali najti ali se čim bolj približati podobi in načinu posoške železnodobne gradnje in hkrati pokazati, kakšne bi lahko bile stavbe glede na kakovost arheoloških podatkov.

Tako si je že leta 1973, ko je bila na Mostu na Soči odkrita prva železnodobna stavba (hiša 1), njen tloris in njene imenitne stavbne sestavine podrobneje ogledal arhitekt Anton Bitenc (1920–1977) in pripravil dvoje možnih rekonstrukcij. V obeh primerih se je odločil za gradnjo z vodoravnimi bruni v obliki kladne stene na brade in tako postavil značilno alpsko brunarico. Predvidel je štirikapno streho in jo prekril s slamo. Na vrh je umestil perjanici podoben zaključek (*sl. 1*).[1] Ob najverjetnejši pritlični stavbi pa je predvidel tudi možnost, da bi glede na kakovost temeljev ta lahko bila tudi enonadstropna.

Zanimanje za železnodobne stavbe z Mosta na Soči in njihov videz ni usahnilo niti kasneje. Tako je arhitekt Peter Fister, opirajoč se verjetno na Bitenčeve skice, morda pa tudi na kasnejše objave (vira sicer ne navaja), hišo 1 uvrstil med posebno vredna pričevanja o stavbarstvu železne dobe.[2] Postavil jo je na njene kamnite temelje, konstrukcijo skeletnih sten pa je povzel po hiši 11. Sestavil jih je "*iz vodoravnih brun, vpetih na vogalih v pokončne nosilce*." Na skici so prikazane tudi vmesne sohe in bruna, ta so videti vgrajena vanje. Podobno kot Bitenc je tudi Fister hišo pokril s štirikapno streho in jo prekril s slamo. To je obtežil še z lesenimi,

[1] Svoljšak 1974, 18, t. 7.
[2] Fister 1986, sl. 13, 14.

INTRODUCTION

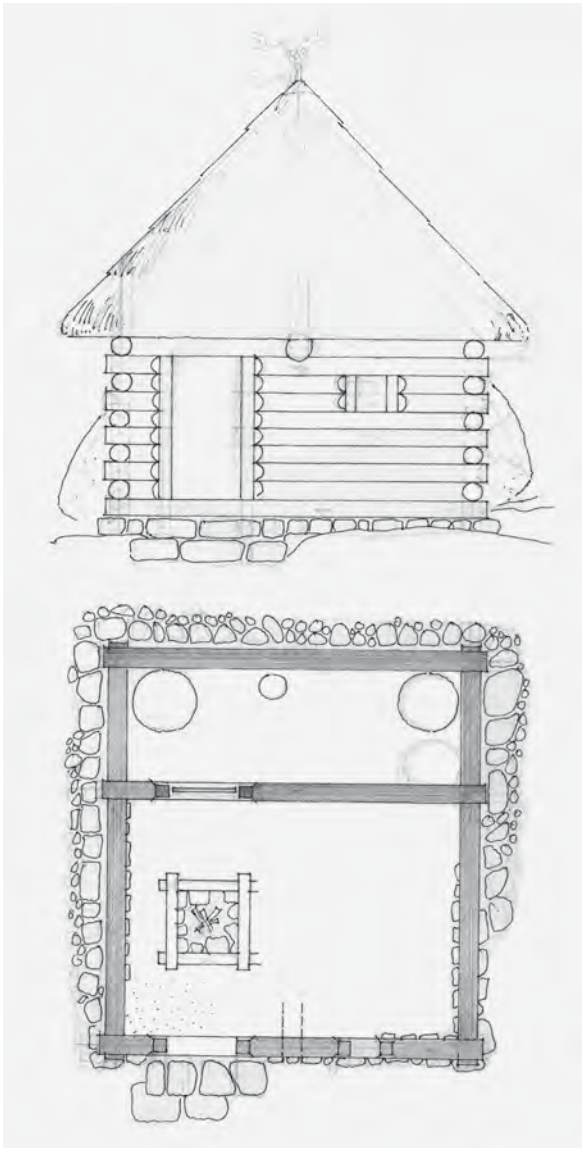
The most outstanding result of the rescue archaeological excavations at Merišče in Most na Soči, where a large part of the Iron Age settlement was investigated, is certainly a variety of constructional features that allow us to fairly reliably reconstruct the construction techniques employed by the Iron Age builders in Posočje to make houses and workshops.

The first reconstructions of these buildings were already attempted during excavations. Two architects and an ethnologist examined the documented constructional features and proposed reconstructions of the excavated buildings.

The first Iron Age building (House 1) was unearthed in 1973. In the same year, architect Anton Bitenc (1920–1977) examined its remains and used its plan and fairly well-preserved constructional features to propose two possible reconstructions. Both were houses made of horizontal logs with cross-lapped joints, such as the typical Alpine log houses, with a thatched hip roof and a plume-like ridge finial, as well as a single storey, though the solid foundations presumably allowed for an upper storey (*Fig. 1*).[1]

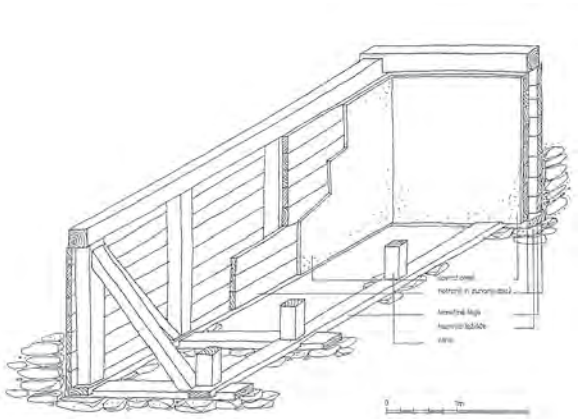
The Iron Age houses lost none of their appeal after the end of the excavations. Architect Peter Fister deemed House 1 as a particularly revealing piece of evidence of the Iron Age architecture.[2] Probably basing his observations on Bitenc's sketches and possibly also later publications (though he does not state any), his reconstruction presents a house with stone foundations and a skeleton or timber-framed construction with horizontal beams attached to vertical supports in the corners. His sketch also shows intermediary posts and horizontal beams that appear to be built into the posts. Similarly as Bitenc's, the house has a hip roof covered with straw that is weighed down with planks crossed at the ridge (*Fig. 2*). It has clay daub both on the exterior and the interior, as well as a projecting roof above the entrance. In con-

[1] Svoljšak 1974, 18, Pl. 7.
[2] Fister 1986, Figs. 13, 14.

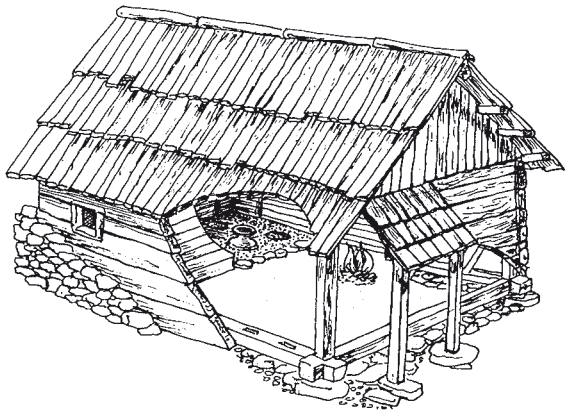


Sl. 1: Rekonstrukcija hiše 1 (avtor: T. Bitenc).
Fig. 1: Reconstruction of House 1 (author: T. Bitenc).

Sl. 2: Rekonstrukcija hiše 1 (avtor: P. Fister).
Fig. 2: Reconstruction of House 1 (author: P. Fister).



Sl. 3: Rekonstrukcija stene (avtor: T. Cevc).
Fig. 3: Reconstruction of a wall (author: T. Cevc).



Sl. 4: Rekonstrukcija hiše 1 (risba: I. Rehar).
Fig. 4: Reconstruction of House 1 (drawing: I. Rehar).

nection with the latter, Fister stated that a porch open in the south with presumably wooden posts standing on stone footings was a feature either adopted or newly developed here, but certainly known to the peoples of the Mediterranean long before, in Greece even developed into one of the basic elements (he was presumably referring to the pronaos) of temple architecture. He also specifically mentioned the drainage system and marked it as a particularly ingenious constructional invention.

The Iron Age houses at Most na Soči also caught the interest of ethnologist Tone Cevc, who specialised in researching the architecture associated with shepherds, charcoal burners and woodworkers in Slovenia, particularly in the Julian and Kamnik Alps, as well as the Karavanke Mountains. He examined the Iron Age houses to find models for the modern wooden houses.

Sl. 5: Rekonstrukcije hiš 15A, 23 in 16 (risba: I. Rehar).
Fig. 5: Reconstruction of Houses 15A, 23 and 16 (drawing: I. Rehar).

nad slemenom prekrižanimi tramiči (*sl. 2*). Hišo je znotraj in zunaj ometal z glinastim premazom. Posebej je poudaril vhod z nadstreškom, ki mu je vzore poiskal kar v antični Grčiji: "*Posebnost stavb je bilo tudi odprto preddverje na južni strani, kjer je bil vhod: na kamnitih podstavkih so najbrž leseni stebri nosili odprto ostrešje in so tako povzemali ali na novo razvili idejo, ki so jo že dolgo pred njimi poznali sredozemski narodi ter jo v Grčiji celo razvili v osnovni izraz za najpomembnejšo arhitekturo*." S tem je mislil najbrž na pronaos. Prav tako je posebej poudaril odvodnjavanje meteornih vodá in tukajšnjo drenažo označil kot posebno vreden stavbarski izum.

Sl. 6: Model hiše 11 v Tolminskem muzeju (izdelava: M. Vuk).
Fig. 6: Model of House 11 on show in the Tolminski muzej (elaborated by: M. Vuk).

Sl. 7: Rekonstrukcija hiše 15 v Osnovni šoli na Mostu na Soči (načrt: D. Svoljšak, M. Erič; izvedba: SVEA Zagorje, 2002).
Fig. 7: Reconstruction of House 15 on show in the Elementary school at Most na Soči (plan: D. Svoljšak, M. Erič; elaborated by: SVEA Zagorje, 2002).

Based on the documented remains of House 11, he proposed a timber-framed construction on a stone base. The walls presumably had wooden planking both on the exterior and the interior, which was daubed with clay in the interior (*Fig. 3*).[3] He agreed with Tone Bitenc on the possibility of the Iron Age houses at Most na Soči having an upper storey.[4]

The reconstruction efforts also include the drawn reconstructions of Houses 1, 8, 15A, 16 and 23 (*Figs. 4, 5, 8*),[5] as well as a scale model of House 11 prepared for

[3] Cevc 1984, 55, Fig. 49.
[4] Ib., 195.
[5] Svoljšak 1998 (1999); id. 2005; id. 2014, Fig. 4 and Fig. 6.

Mostarske železnodobne hiše so močno privlačile in zanimale tudi etnologa Toneta Cevca, raziskovalca stavbne dediščine pastirjev, oglarjev in drvarjev na Slovenskem, posebno v Julijskih in Kamniških Alpah ter Karavankah. V železnodobnih hišah z Mosta na Soči je iskal vzore za novodobne lesene stavbe. Oprt na odkritja v hiši 11 je rekonstruiral način gradnje, in sicer stavbo s skeletno steno, postavljeno na kamnit podzidek. Stena naj bi bila opažena na zunanji in notranji strani z deskami in znotraj tudi ometana (*sl. 3*).[3] Posebej pa ga je pritegnila ideja Toneta Bitenca, da so bile železnodobne hiše na Mostu na Soči bržkone nadstropne.[4]

V sklop rekonstrukcijskih poskusov kaže prišteti še risarske rekonstrukcije hiš 1, 8, 15A, 16 in 23 (*sl. 4, 5, 8*),[5] model hiše 11, narejen za arheološko razstavo v Tolminskem muzeju (*sl. 6*) in rekonstrukcijo ogrodja in stene iz hrastovega lesa v muzejski zbirki v osnovni šoli na Mostu na Soči, narejeno na ostalinah hiše 15, ohranjenih *in situ* (drenaža, temelj obodne in predelne stene, zemljeni pod – *sl. 7*).

URBANIZEM

Železnodobno naselje na Mostu na Soči je bilo umeščeno v obroč treh rek, Soče, Idrijce in Bače – te so mu skupaj s hribovitim obrobjem zagotavljale varnost ter dokaj svobodno rast –, zato ga ni obremenjevala potreba po posebej grajenih obrambnih obzidjih. Zasnovano je bilo na osončenih terasah nad desnim robom kanjona Idrijce; na severni strani jih je omejeval niz treh vzpetin (kukov) – najvišji med njimi (Teza) je bil imenitna strateško-razgledna točka –, na jugu rob reke Idrijce, na zahodu pa sotočje Idrijce in Soče, kjer sta se izvili iz globokih in ozkih sotesk. Rast naselja ni zapadla v anarhični nered, temveč se je razvijalo z urejeno in načrtovano notranjo ureditvijo s pravimi urbanističnimi nastavki.[6] Ti so izraženi v orientaciji stavb, prilagojeni klimatskim in geološkim razmeram, v ustaljeni stavbarski doktrini, zaščiti stavbnega prostora (stavbne parcele), združevanju po namembnosti sorodnih stavb (delavniška soseska), urejanju notranjih komunikacij, odvodnjavanju meteornih voda in ločenosti pokopališča od naselja.

V naselju se po namenu da stavbe (hiše) razločevati na stanovanjske (1, 2, 5, 6, 8, 10, 11, 13, 16, 20, 26, 29?), obrtnodelavniške (4, 12, 15?, 15A, 22, 22A, 23, 29, 30) in kultne (3?, 6/2[7]). Nekaterim odkritim stavbam se namembnosti zaradi prepičle ohranjenosti ali premajhne povednosti ni dalo določiti (7, 9, 14, 17, 19, 24, 25, 27, 28). Za stanovanjske hiše so bile opredeljene

[3] Cevc 1984, 55, sl. 49.

[4] Ib., 195.

[5] Svoljšak 1998 (1999); id. 2005; id. 2014, sl. 4 in sl. 6.

[6] Svoljšak 2001.

[7] Številka pred poševnico označuje hišo, številka za poševnico pomeni njeno gradbeno fazo.

the archaeological exhibition at the Tolmin Museum (*Fig. 6*). The remains of House 15 were preserved *in situ* (drainage walls, foundations of the exterior and partition walls, loamy floor) in the primary school at Most na Soči and were added a reconstructed superstructure of timber-framed and planked walls of oak wood (*Fig. 7*).

URBANISM

The Iron Age settlement at Most na Soči was located on a promontory surrounded on three sides by rivers: the Soča, Idrijca and Bača. Together with the hills along the fourth side, the location was naturally protected and allowed for a growth unimpeded by the constraints of a massive rampart. Buildings were erected on the sunny terraces of the right bank of the Idrijca, delimited in the north by the line of three peaks (the highest of them, Teza, serving as a strategic and vantage point), in the south by the River Idrijca and in the west by the confluence of the Idrijca and the Soča, flowing in their respective deep and narrow gorges. The settlement did not grow in a haphazard manner, but rather according to a pre-planned layout with elements of urbanism.[6] These are discernible in the orientation of the buildings adapted to the climatic and geologic conditions, in a uniform building practice, protection of the construction site, in the concentration of buildings according to function (workshop zone), in the internal communications, the drainage system and the separation of the residential area from the burial grounds.

The buildings in the settlement can be divided into three groups: residential units (Houses 1, 2, 5, 6, 8, 10, 11, 13, 16, 20, 26, 29?), workshops (4, 12, 15?, 15A, 22, 22A, 23, 29, 30) and cult buildings (3?, 6/2[7]); the function of some of the buildings (7, 9, 14, 17, 19, 24, 25, 27, 28) could not be ascertained because of the poor preservation or inconclusive evidence. The buildings with appropriate interior features (floor, hearth, storage pits) that yielded characteristic household items (pottery, ceramic rings, weights, querns, tools) have been identified as residential units. The buildings with features and items of different crafts and production activities have been identified as workshops. Of these, Houses 4 and 12 were detached, while all others stood in a row along the path and were also oriented (E–W) differently from the other buildings (NW–SE) as a consequence of the different underlying natural deposit (hard conglomerate).

The houses at Most na Soči were constructed so as to be partly sunken into the slope, with only the south wall free; this wall held the entrance. Three of the houses (1, 11, 29) were sunken on all four sides, they had specifically designed entrances (1, 11); after fires, these houses

[6] Svoljšak 2001.

[7] The number in front of the slash marks the house, the number after it its construction phase.

samostojno stoječe stavbe s primerno opremljenimi prostori (pod, ognjišče, shrambne jame), vsebovale so tudi značilen premični inventar (lončenino, svitke, uteži, žrmlje, orodja). V delavniških stavbah so bili ugotovljeni objekti in izdelki gospodarsko-obrtne dejavnosti. Med njimi sta hiši 4 in 12 stali samostojno, vse druge so bile razvrščene v nizu ob poti, kjer so bile zaradi spremembe geoloških slojev (trd konglomerat) tudi drugače orientirane (vzhod–zahod). Samostojno stoječe stavbe so bile namreč postavljene v smeri SZ–JV.

Po načinu umestitve v prostor so to bile v breg prislonjene hiše, ki so imele prosto le južno steno, v tej je bil tudi vhod. Tri med njimi (1, 11, 29) pa so bile vkopane ali obsute na vseh štirih stranicah. Zanje je značilno, da so bile po požarih prenavljane izključno znotraj prvotnega stavbnega tlorisa in da so imele na poseben način izveden vhod za povezavo z okoljem (1, 11). Zanesljivo pa so imele eno steno prosto stavbe v tako imenovanem delavniškem nizu ob vaški poti (15, 15A, 22, 22A, 23) ter nekatere posamič stoječe hiše, katerih tloris je bil ohranjen v celoti (8, 10, 16).

Skupno vsem hišam je, da so propadle v požarih. Ti so bili lokalni in so z njimi povezane tudi stavbne faze posameznih hiš.

IDEALNA POSOŠKA ŽELEZNODOBNA HIŠA

Stavbe (med izkopavanji so bili vsi odkriti objekti poimenovani kot "hiše") v železnodobnem naselju na Mostu na Soči so bile grajene po ustaljenih stavbarskih pravilih. Te so med gradnjo po potrebi zaradi zahtevnosti terena ali zaradi namembnosti stavb tudi prilagajali. Prav zaradi enovitosti gradbenega sistema in v njem uveljavljenih sestavin smemo gradnjo stavb v železnodobni naselbini na Mostu na Soči opredeliti znotraj vzhodnoalpske stavbarske doktrine kot posoško železnodobno stavbarstvo, njegov izdelek pa kot posoško železnodobno hišo. Temeljne sestavine posoškega stavbarstva so bile:

1. izbira lokacije (prostorski red, urbanizem);
2. umestitev stavbe z vkopom gradbene jame v pobočje in izravnava stavbne terase;
3. postavitev drenaž;
4. namestitev kamnitega temelja in lesenega temeljnega praga za nosilne in predelne stene;
5. vgradnja lesene skeletne stene z zunanjim opažem;
6. lesena konstrukcija hiše (skeletna stena, stenski opaž, streha);
7. ureditev notranjosti (prostorska delitev, ognjišča, podi).

Idealno zgrajena stavba ali hiša v železnodobnem naselju na Mostu na Soči bi po teh pravilih bila zgrajena takole (*sl. 8*): stavbišče zanjo je bilo pripravljeno z gradbeno jamo, vkopano v pobočje, in s poravnavo stavbne terase. Hiša je tako na treh, lahko pa tudi na vseh štirih

were renovated with respect to the original plan. The houses in the row of workshops along the path through the settlement (15, 15A, 22, 22A, 23) had one side free, as did some of the detached houses with completely surviving ground plans (8, 10, 16).

The houses shared a common fate – they were all destroyed in fires. These were localised and also the cause for renovations, i.e. the different phases of the houses.

IDEAL IRON AGE HOUSE IN POSOČJE

The buildings (all were named houses during excavations and this name was retained in later publications) of the Iron Age settlement at Most na Soči were constructed according to a uniform building practice, with only slight variations in constructional features that were adapted to the terrain and the function of the building. This uniform character and its particular features reveal the architecture of the settlement at Most na Soči as specific within the eastern Alpine Iron Age building practice, and its product as the Posočje type house. The basic elements of the Posočje building practice are the following:

1. choice of location (regular spatial pattern, urbanism);
2. construction pit dug into the slope and the bottom levelled;
3. drainage walls or other drainage features;
4. stone foundations for wooden sleeper beams supporting the exterior and partition walls;
5. timber-framed walls with exterior planking;
6. wooden roof truss;
7. interior division and furnishings (hearths, floors).

According to these guidelines, the ideal building or house in the Iron Age settlement at Most na Soči would be constructed as illustrated in *Fig. 8*. The construction pit was dug into the slope and its bottom levelled. It could be dug on three sides or on all four (Houses 1, 11, 29). The slanted walls of the construction pit were lined with solid drainage drywalls or (rarely) with marl slabs, in some cases in combination of the two.

Stone foundations were laid onto the levelled bottom of the construction pit. The most common material for the foundations was Volče limestone obtained from the nearby layered deposits (Modrej, Senica). Marl was less common, deposits of which are present along the riverbed of the Soča. Stones were not additionally worked, only carefully selected and laid on the ground in a single course to form levelled bedding for the sleeper beams. In rare cases, the foundations were constructed as a low drywall for construction purposes or as an adaptation to uneven terrain. For ensuring sufficiently load-bearing foundations, larger slabs were built into the corners and the junctions of exterior and partition walls.

The foundations held timber-framed walls composed of the following elements: sleeper beams, posts,

Sl. 8: Rekonstrukcija gradnje hiše 8 (risba: I. Rehar).
Fig. 8: Reconstruction of House 8 construction (drawing: I. Rehar).

straneh do določene višine stala v vkopu (hiše 1, 11, 29), gre torej za tako imenovano v breg prislonjeno hišo. Poševne stene vkopa gradbene jame so bile obložene s kakovostno grajenimi suho zidanimi drenažnimi zidovi ali (redkeje) s ploščami laporja namesto zidov, včasih pa v kombinaciji obeh.

Na poravnano površino stavbne terase so bili položeni temelji. Zanje so uporabili lokalni volčanski apnenec, ki so ga pridobivali iz ploščato lomljivih slojev v bližnjih kamnolomih (Modrej, Senica), redkeje pa lapor, ki ga najdemo ob soški strugi. Kamnov niso posebej obdelovali (klesali), temveč le namenu primerno odbirali in prilagajali ter jih urejeno in uravnano položili na podlago v eni sami legi. Le izjemoma so bili temelji zaradi gradbeniških potreb ali prilagajanja terenu narejeni kot nizek suho grajeni zidec. Zaradi zagotovljanja nosilnosti so bile v vogalih in na spojih nosilnih s predelnimi stenami v temelj vgrajene večje plošče.

Na kamnitih temeljih so stale lesene skeletne stene, katerih členi so bili temeljni prag, sohe, ročice, poveznik ali oklep in opaž. Temeljni pragovi so bili v vogalih prekrižani ter povezani s križnim spahom. Vanje so bile vstavljene sohe – vogalne in po dve ali tudi več stenskih ali vmesnih soh v vsaki steni med vogaloma. S temeljnim pragom so bile sohe povezane s čepom. Po potrebi so bile vogalne sohe dodatno zaščitene s pokonci ob drenažo prislonjenimi ploščami.

V sohe je bil vgrajen tudi poveznik, zgornji povezovalni okvir, podoben temeljnemu pragu. Vanj so bile sohe najverjetneje vpete enako kot v temeljni prag, torej s čepom. Poveznik je zagotavljal stabilnost lesenega ogrodja zgradbe hiše, hkrati je bil nanj lahko položen lesen strop, predvsem pa je bil opora ostrešju in strehi.[8] Stabilnost skeletnih sten so zagotavljale še med temeljnim pragom (najbrž tudi poveznikom) in sohami vgrajene vezi – ročice. S temeljnim pragom, sohami, ročicami in poveznikom je bilo postavljeno ogrodje za namestitev stenskega opaža in ostrešja.

Stene so na zunanji strani zaprli (opažili) z žaganimi plohi. Po dolžini so segali od sohe do sohe, po širini so bili odvisni od debeline debel, iz katerih so bili pridobljeni. O tem, kako so bile stene urejene v notranjosti, ni otipljivih dokazil, zato v opis gradnje niso vključene. Zagotovo pa niso bile ometane z glinastim ometom.

Hiše so bile pokrite z eno- (delavnice) ali dvokapnimi strehami (bivanjske). Slednje so odvajale meteorno vodo ob stranskih stenah v pobočje za drenažo. Zadnjo steno, ki je bila najgloblje v pobočju, je pred vplivom meteornih voda varovalo poleg drenaže še kamnito

[8] Vsi opisani stavbni elementi razen poveznika so bili tudi arheološko dokazani. Vrhnji povezovalni okvir je bil za trdnost stavb nepogrešljiva sestavina, zato o njegovem obstoju ne gre dvomiti. Ko gre za obliko strehe, ostrešje in kritino, pa je idealna konstrukcija hiše oprta le na umeščenost hiš v prostor ter na etnološke vzore (prim. Dular 2008, 340, sl. 5C).

braces, tie beams and planking. The sleeper beams were fastened together in the corners with cross-lapped joints. They held wooden posts at the corners and two or more in between, fastened to the sleeper beams with mortise-and-tenon joints. Where deemed necessary, the corner posts were additionally protected with slabs set upright along the drainage walls.

Placed over the posts were tie beams, which presumably corresponded with the sleeper beams in shape, but also the mortise-and-tenon joints to fasten them to the posts. The tie beams ensured the stability of the wooden frame, but also held the roof and possibly a wooden ceiling.[8] The timber frame was additionally stabilised with the use of braces tying the sleeper beams and the posts (probably also the posts and the tie beams). With these elements in place, the builders could proceed with the installation of wooden planks and the roof truss.

The walls were covered with sawn planks attached to the exterior. Lengthwise, they reached from post to post, while their width (height) depended on the diameter of the tree trunks used. We have no conclusive evidence as to the appearance of the interior faces of the walls, but they were certainly not daubed with clay.

The houses were covered with single-pitch (workshops) or gabled roofs (residential units). The latter directed precipitations to the sides of the houses beyond the drainage wall and onto the slope. The back wall, which reached deepest into the slope, was protected against precipitation by the drainage wall, but also by the stone rubble filling the space between the drainage wall and the wall of the construction pit. The roofs were covered either by thatch or wood.[9]

The wood used in construction belonged to a number of locally available tree species: fir, spruce, larch, pine, beach, oak, elm, maple and ash. The wood of alder, hazel, rose family wood, golden rain, dogwood, ash, hawthorn or thornbush and rowan was most probably used either for interior furnishings or tools. The load-bearing pieces of structural wood, i.e. the sleeper beams and posts, were mainly made of oak and fir wood (rarely of Scots pine and elm), while floor boards could also be made of larch.

[8] All the construction elements are archaeologically attested with the exception of the tie beams. Given the other elements of the wooden frame, however, their existence is unquestionable. As for the roof, the shape, the truss and the roofing material are all proposed in the reconstruction on the basis of the modern environment and the ethnological examples (cf. Dular 2008, 340, Fig. 5C).

[9] Both possibilities are based on reliable evidence from the settlement: the grains of different cereals indicate arable farming and growing of cereals, i.e. the presence of straw, while the use of wood in construction, the woodworking skills and the forested surroundings suggest the possibility of wood also being used as roof covering. Given the fire hazard clearly present in the village, I personally favour wooden roofing.

polnilo med njo in steno gradbene jame. Kritina je bila lahko slamnata ali lesena.[9]

Za gradnjo so uporabljali različne vrste lesa, ki jim je bil pri roki v okoliških gozdovih: jelov, smrekov, macesnov, borov, bukov, hrastov, brestov, javorov in jesenov, medtem ko je les jelše, leske, rožnic, nagnoja, drena, jesena, gloga ali trna in jerebike najverjetneje služil za notranjo opremo ali orodja. Nosilni stavbni deli, kakršni so bili temeljni pragovi in sohe, so bili predvsem iz hrastovega in jelovega lesa (redkeje tudi iz rdečega bora ali bresta), za lesene pode so poleg naštetih uporabili še macesen.

Les za gradnjo so obdelali s tesanjem (temeljni pragovi, sohe, poveznik) ali z žaganjem (opaž, podi). Ohranjene (pa čeprav zoglenele) lesene sestavine mostarskih hiš izpričujejo rokodelsko mojstrstvo in graditeljsko veščino tukajšnjih (ali potujočih) železnodobnih stavbarjev. Orodij, ki bi potrjevala prej omenjeni tehniki obdelave lesa na Mostu na Soči, med ohranjenim hišnim inventarjem ni bilo. Našli ga niso niti v številnih grobovih bližnje nekropole, razen če ne pripišemo železnim sekiram poleg bojevniške še obrtniško rabo.[10] Med orodja za obdelavo lesa kaže prišteti še manjše strgalo (rezilnik, šepsar, štrajhar).[11]

Za potrditev domneve o tesarsko-žagarskem znanju ali kar lesarski obrti (morda tudi sodarstvu – prim. vedro iz dog v hiši 16) se torej lahko zatečemo predvsem k tovrstnim odkritjem na sočasnih in geografsko ter kulturno primerljivih naseljih v venetskem (npr. Este)[12] ali retijskem okolju (npr. Sanzeno).[13]

Uporaba dolgih tesanih tramov za temeljne pragove, sohe in poveznike je narekovala oglato vezavo v vogalih in s tem tudi pravokotno obliko hiš. Odmiki od pravokotnosti in s tem nastali raznoliki tlorisi so bili le naključni oziroma so bili posledica premalo natančne gradnje. Vendar pa tlorisi po obliki in velikosti niso bili poenoteni. Za umevanje tlorisnih zasnov mostarskih stavb pridejo v poštev le tiste hiše, katerih tlorisi so bili v celoti ohranjeni. Tako so se izluščile tri osnovne tlorisne

[9] Za oboje je bilo v naselju dovolj zanesljivih dokazov: semena različnih žit pomenijo poljedelstvo in gojenje žit, torej v prid slami, uporaba lesa pri gradnji hiš in znanje obdelovanja lesa ter pogozdenost okolja pa v prid leseni kritini. Glede na požarno ogroženost stavb dajem prednost drugi.

[10] Teržan, Lo Schiavo, Trampuž-Orel 1985, t. 7: B2, 28: A4, 47: D4, 135: A16, 156: A11, 169: A3, 263: A1. Glej tudi Marchesetti 1993, 24 in 235, ki navaja 7 tulastih (*celt*), 2 uhati (*palstab*) in eno plavutasto sekiro (t. 28: 4); posebej omenja še sekiro – *mannaia*, to je velika uhata sekira s širokim rezilom, ki jo mora sekač držati z obema rokama in je bila primerna za podiranje dreves in obdelavo lesa.

[11] Teržan, Lo Schiavo, Trampuž-Orel 1985, t. 224: E2.

[12] Npr. pila, dve raspi in žaga v grobu Casa di Ricovero 236 (Chieco Bianchi 1984, 698).

[13] Marzatico 2016, 42.

Structural wood was worked by hewing (sleeper beams, posts, tie beams) or sawing (planks, floor boards). The surviving (albeit charred) wooden elements of the houses at Most na Soči reveal the carpentry and construction skills of the local (or travelling) masters. The houses and the settlement in general did not reveal any of the tools involved in the woodworking and construction processes. Neither were such tools recovered in the numerous graves of the nearby necropolis, if disregarding the possibility of iron axes serving a carpentry purpose in addition to them being used in battle.[10] The cemetery only yielded a small draw knife that may have been used in woodworking.[11]

The tools that do tell of carpentry and sawing skills, or woodworking in short (possibly also cooperage – cf. the bucket of wooden staves from House 16) have been found in the contemporary, geographically and culturally comparable settlements in Venetic (e.g. Este)[12] and Raetian areas (e.g. Sanzeno).[13]

The use of long squared logs for the sleeper beams, posts and tie beams produced angular structures or houses of a quadrangular plan, with deviations only occurring as a consequence of imprecise construction. However, the ground plans are not uniform either in shape or size. Our understanding of the house plans at Most na Soči is based on the completely surviving examples, which show either a square (1/1,[14] 10, 11/2, 16/2, 30/2), rectangular (1/2, 8/1,2, 15/1,2, 16/1, 22, 22A, 23, 26) or L-shaped plan (3/1). The detached buildings of a roughly square plan were presumably residential units, while the buildings of a markedly rectangular plan were workshops. Their interior division and furnishings (floors, hearths, pits, canals) depended on the function and the needs of the inhabitants or craftsmen.

The thickness of the elements that make up the timber-framed walls in House 11, as well as the fact that it was sunken into the slope, suggests that the house had an upper storey or was raised to a sufficient height to make space for a habitable attic (e.g. roof truss raised with additional beams above the tie beam frame). Access to the upper storey could have been from the ground floor or from the slope at the back of the house.

[10] Teržan, Lo Schiavo, Trampuž-Orel 1985, Pls. 7: B2, 28: A4, 47: D4, 135: A16, 156: A11, 169: A3, 263: A1. Also see Marchesetti 1993, 24 and 235, who states 7 socketed (*celt*), 2 shaft-hole (*palstab*) and one winged axe (Pl. 28: 4); he also mentions a *mannaia*, which is a large shaft-hole axe with a wide blade that has to be held with both hands and is suited for felling trees and woodworking.

[11] Teržan, Lo Schiavo, Trampuž-Orel 1985, Pl. 224: E2.

[12] E.g. a file, two rasps and a saw in the grave of Casa di Ricovero 236 (Chieco Bianchi 1984, 698).

[13] Marzatico 2016, 42.

[14] The number in front of the slash mark the houses, the number after the slash their construction phases (first, second).

oblike: kvadratne (1/1,[14] 10, 11/2, 16/2, 30/2), pravokotne (1/2, 8/1,2, 15/1,2, 16/1, 22, 22A, 23, 26) in tloris v obliki črke L (3/1). Približno kvadratnega tlorisa so bile samostojno stoječe hiše, namenjene bivanju, pravokotnega pa stavbe za rokodelsko dejavnost (delavnice). Njihova notranja delitev in opremljenost (podi, ognjišča, jame, kanali) je bila odvisna od namena in potreb v njih živečih ali delujočih prebivalcev.

Glede na masivnost v skeletno steno vgrajenih delov, ugotovljenih v hiši 11, in na vkopanost stavbe v pobočje je vsekakor možno, da so bile hiše tudi nadstropne oziroma toliko dvignjene, da so pridobili za bivanje še primerno urejeno podstrešje (npr. dvig ostrešja z dodatnimi tramovi nad povezovalnim okvirjem). Dostop v zgornje prostore bi lahko bil urejen iz pritličja ali v zadnji čelni strani s pobočja (na nivoju vkopa gradbene jame).

IZBRANI PRIMERI REKONSTRUIRANIH HIŠ

Za rekonstrukcijo so bile primerne samo tiste hiše, katerih tlorisi so bili v celoti ohranjeni (poudarjene so tudi rekonstruirane): 1 (faza 1), 3 (faza 1), 8 (faza 1), 10, 11 (faza 2), 15 (fazi 1 in 2), 15A (faza 1), 16 (fazi 1 in 2), 22, 22A, 23, 30 (faza 2). Vse ostale hiše s posamičnimi stavbnimi elementi celostno podobo posoške železnodobne gradnje dopolnjujejo (npr. hiša **5**).

HIŠA 11

Najboljši približek popolni posoški železnodobni hiši, zgrajeni po omenjenih stavbeniških pravilih, je hiša 11, in sicer njena obnova v drugi gradbeni fazi (*sl. 9*). Tudi ta hiša je zgorela, tako kot njena predhodnica. V ruševinah pod debelim zemljenim plaščem so se dobro ohranile njene kamnite (temelji, drenaža), lesene (stene, pod) in zemljene (pod) gradbene sestavine, prepoznavna je bila tudi njena umestitev v prostor. Kasnejši, rimskodobni, graditelji so se njenim obilnim ruševinam raje kar ognili.

Stala je v plitvi naravni kotanji, v kateri je bilo s širokim posegom v njena pobočja urejeno stavbišče.[15] Tu so izpeljali gradnjo prve in tudi druge stavbne faze s prenovo vred v tlorisno nespremenjenem obsegu, kar je bila v urbanistični ureditvi naselja in gradbeniški tradiciji ustaljena lokacijska prvina.[16] Videti je, da hiša ni bila umaknjena v pobočje, ampak je bila prosto stoječa, ker

[14] Številke pred poševnico označujejo hiše, številke za poševnico pomenijo njihove gradbene faze (prvo, drugo).

[15] Njen pod je bil za 1,60 m nižje kot pod v hiši 8 in za okoli 2,35 m nižje od železnodobnih stavbnih ostalin v sondi A8/sonda 3, 1973, ki so prav tako bile (sicer borne) ostaline železnodobne hiše.

[16] Za rekonstrukcijo je bila uporabljena mlajša izvedba njene druge faze, ki je prvo skoraj povsem izničila.

SELECT EXAMPLES OF RECONSTRUCTED HOUSES

Although all houses and their structural elements add to our knowledge of the Iron Age building practice in Posočje (e.g. House **5**), only the houses with completely surviving ground plans are suitable for attempting a reconstruction (the ones in bold are actually reconstructed): 1 (Phase 1), 3 (Phase 1), 8 (Phase 1), 10, 11 (Phase 2), 15 (Phases 1 and 2), 15A (Phase 1), 16 (Phases 1 and 2), 22, 22A, 23, 30 (Phase 2).

HOUSE 11

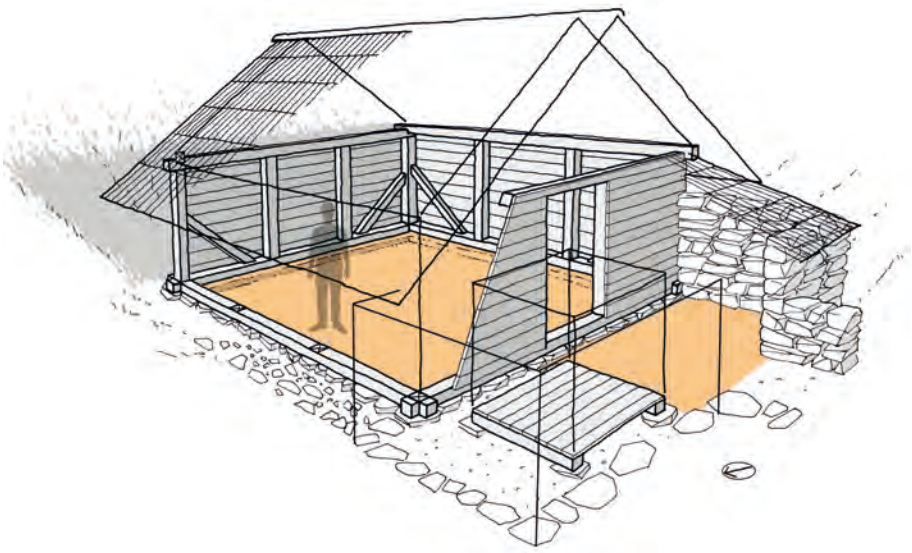
The one that comes closest to the ideal Posočje type building is House 11 in its second construction phase (*Fig. 9*). It was destroyed in a fire on two separate occasions, as was its predecessor of Phase 1. Surviving under a thick layer of earth were its stone (foundations, drainage walls), wooden (walls, boarded floor) and earthen elements (loamy floor) and its construction pit is clearly delimited. Later, Roman-period builders avoided the mass of its remains altogether.

House 11 was located in a natural depression (also cf. Houses 3 and 30) and, in consequence, its construction pit was sunken into the compacted moraine till on all four sides.[15] The ground plan of the second-phase house remained the same as that of the first phase, as was common in the settlement.[16] Its walls were not protected with drainage walls that are characteristic of most other buildings at Most na Soči and built most solidly in the parts sunken into the slope (e.g. in Houses 1 and 29).[17] It is possible that this function in House 11 was at least partially performed by the stone foundations, wide eaves, lightly packed stone fill of the construction pit and the permeable natural deposit.

[15] Its floor was 1.60 m lower than the floor in House 8 and 2.35 m lower than the Iron Age building remains unearthed in Trench A8/Trench 3, 1973, which also belonged to an Iron Age house.

[16] The reconstruction of the house is based on the remains of the second construction phase that almost completely destroyed the first house.

[17] House 29 (not investigated in its entirety and therefore not reconstructed) is comparable with House 11 in the preservation of its construction pit. The ground surface of House 29 is 0.70 m deeper than that of House 27 and as much as 1.60 m deeper in comparison with House 26. Leading from the latter and into House 29 were drainage canals. Its single-line foundations were laid along the drainage wall that was very precisely constructed (and excellently preserved) in the part deepest in the slope; the construction pit was sunken on all four sides as evidenced by the fill of the construction pit found on all four sides and corroborated by a low drywall along the south wall.



Sl. 9: Rekonstrukcija druge gradbene faze hiše 11 (risba: T. Korošec).
Fig. 9: Reconstruction of the second construction phase of House 11 (drawing: T. Korošec).

je tako postavitev omogočalo okolje (prim. še hiši 3 in 30). Njene stene namreč niso bile varovane z drenažnimi zidovi, ki so tako značilni za večino tukajšnjih stavb in delavnic. Ti so bili izrazito kakovostno grajeni prav na najbolj v pobočja umaknjenih predelih stavb (na primer pri hišah 1 in 29).[17] Lahko, da so tovrstno drenažo pri hiši 11 vsaj deloma nadomeščali kar kamnit temelj, širok nadstrešek in rahlo naloženo kamnito polnilo gradbene jame ter vodo dobro prepustna peščena geološka osnova.

Prva gradbena faza je bila izkazana le z bornim ostankom temelja ter z vkopom gradbene jame. S prenovo so bile vse njene gradbene in bivanjske ostaline temeljito odstranjene. V primerjavi s prvo gradbeno fazo hiše so za obnovo v požaru uničene hiše vkop gradbene jame poglobili. V drugi fazi je bila hiša v tlorisu kvadratna in enoprostorna z okoli 28,50 m² bivanjske površine (5,25 x 5,50 m), ki so ji dodali novost – posebej zgrajen vhodni del. Tega so navzven ogradili s suhim zidom, podobno grajenim, kot so bili grajeni drenažni zidovi, in ga obsuli z zemljo. Tako so dosegli načrt, to je do primerne višine v celoti v zemljo poglobljeno oziroma obsuto stavbo, v njej pa tri prostore – večjega lesenega (21,60 m²), primernega za bivanje, in predprostor. Ta je bil razdeljen na dva dela: vhodno vežo (4,70 m²) in

[17] Hiša 29 (ni rekonstruirana, ker ni bila v celoti raziskana) je po ohranjenosti umestitve v prostor najbližje hiši 11. Njena hodna površina je bila za 0,70 m globlje od hodne površine v hiši 27 in kar 1,60 m v primerjavi s hišo 26. Iz slednje so se v njene ruševine iztekali odvodni kanali. Njen temelj je bil enovrsten, zložen ob drenaži, ta je bila v najglobljem, pobočnem delu vkopa zelo kakovostno zgrajena (in odlično ohranjena); vkopanost – zasutje na vseh štirih straneh je izpričeval še suho grajeni zidec ob južni steni.

Of Construction Phase 1, excavations only documented modest remains of the foundations and the construction pit, because most of its construction and habitation remains were removed during the renovation that followed a fire. In Construction Phase 2, the construction pit was deepened. The new house was a single-room building of a square plan and a roughly 28.50 m² habitable space (5.25 x 5.50 m), it also had a separately constructed anteroom. The latter was enclosed within a drywall, resembling a drainage wall in construction and supported on the exterior by a deposit of earth. The house had three rooms: a large habitable room of a wooden construction (21.60 m²) and an anteroom consisting of an entrance area (4.70 m²) and a small storage room of a wooden construction (2.25 m²) to the left of it. The entrance to the house was via a porch with a projecting roof flanked by low walls.

The house of the second phase was only slightly smaller in plan than that of the first phase. The new foundations were constructed as a low drywall with a fairly levelled bedding surface. This ensured the stability of the superstructure. The foundations of the right wall were constructed according to the manner most common for foundations: with stones laid in a single line and mostly a single course (at places in two courses to compensate for the varying ground level). Both side foundations were adapted to the height of the back foundations so as to ensure a tight fit of the sleeper beams.

The front wall of the large room had inconsistently executed foundations. The sleeper beam was only supported by stones in the entrance section, where the sleeper beam supported the posts flanking the doorway, and at both corners, where the sleeper beam joined

majhno leseno shrambo (2,25 m²) levo od vhoda. Vanj so vstopali skozi pokrit obzidan nastrešek.

V primerjavi s starejšo stavbo je imela mlajša nekoliko manjši tloris. Novi temelji so bili narejeni kot nizek na suho zložen kamnit podzidek s solidno uravnano nosilno ploskvijo. To je pripomoglo k stabilnosti lesene nadgradnje. Desni temelj pa je bil narejen v najbolj razširjeni tehniki tukajšnje gradnje hiš, in sicer kot enovrstni in enoslojni niz kamnov, ki so jih zaradi uravnave na nekaterih delih položili tudi v dveh legah. Oba bočna temelja so višinsko prilagodili temelju pobočne stene tako, da je bil vogalni spoj temeljnih pragov do popolnosti izvedljiv.

Vhodna stena večjega prostora ni bila posebej temeljena. Njen temeljni prag je bil s kamni podložen le tam, kjer je bil urejen prehod iz veže v bivalni prostor – tu sta namreč temeljni prag obremenjevali vanj vgrajeni sohi podboja vrat –, in še v obeh vogalih, kjer se je križal s temeljnima pragoma stranskih sten. Tam sta bili vanju vgrajeni vogalni sohi. S steno je bil bivalni prostor ločen od preddverja.

Za gradnjo lesenih delov so v hiši 11 uporabili samo hrastov les. Z njim so postavili skelet obodnih sten, ki so ga sestavljali temeljni pragovi, sohe in diagonalne vezi oz. ročice ter stenski opaž, najbrž pa tudi nedokazani poveznik (oklep), ki je za trdnost stavbe nepogrešljiv. Vsi ohranjeni leseni deli stavbe, čeprav zogleneli in zato deformirani, kažejo na izredno kakovost in še bolj na izredno masivnost gradnje.

Predvideti smemo, da so bili okoli 5 m dolgi tramovi za temeljni prag (v severovzhodni steni je bil dolg 5,40 m, njegova debelina je v zoglenelem stanju znašala 26 x 10 cm) stesani v enem kosu iz enega hloda. Le temeljni prag v enem kosu je namreč zagotavljal stabilnost stene na kamnitem temelju. Kjer temeljni prag nanj ni dobro nalegal, so praznine zapolnili oziroma površino izravnali z ilovico. V vogalih so temeljne pragove prekrižali in jih povezali s križnim spahom.

Osnovno ogrodje sten so poleg trdno v vogalih povezanih temeljnih pragov sestavljale štiri vogalne sohe in še po dve v vsaki steni med vogali (morda tudi kakšna več z ozirom na raziskane razmere v stranskih stenah). V preseku pravokotno ali kvadratno tesane sohe (debeline okoli 20 x 20 cm) so bile s temeljnim pragom povezane s čepom, za katerega je bilo v temeljnem pragu z ostrim rezilom (dletom) izsekano primerno globoko stojišče (gl. okoli 15 cm). Čep je bil še dobro prepoznaven pri sohi v vzhodnem vogalu hiše.[18] Dvakrat, vendar odlomljen, je bil viden tudi v temeljnem pragu severozahodne stene. Horizontalno premikanje sten so onemogočale med sohe diagonalno umeščene ročice (ali panti). Podobno vpetost soh smemo predvideti tudi za zgornji oklep. Skelet sten je bil glede na dimenzije vanjo vgrajenih delov zelo masiven in je zagotavljal njihovo nosilnost in trdnost, zelo solidne vezi in opore pa tudi njihovo stabilnost.

[18] Glej Svoljšak, Dular 2016, 96, sl. 84.

with those of the side walls and also supported the corner posts. This wall separated the main room from the anteroom.

The wooden elements used in House 11 (timber frame of sleeper beams, posts, braces and wall planking, but probably also tie beams) were all made of oak wood. The surviving structural wood is charred and therefore deformed, but nevertheless reveals a high quality of workmanship and massive structural elements.

The roughly 5 m long sleeper beams (in a charred state, the one of the northeast wall was 5.40 m long, 0.26 m thick and 0.10 m high) were presumably hewn out of a single tree trunk; only a single-piece sleeper beam could ensure the appropriate stability of the wall resting on stone foundations. The stones of the foundations did not form a completely even bedding surface and were levelled with a layer of loam. The sleeper beams were fastened together in the corners with a cross-lapped joint.

Resting on the sleeper beams was a wooden post in each of the corners, as well as two posts between each pair of corner posts (possibly even more than two given the lack of evidence in the side walls). The posts were either rectangular or square sectioned (measuring around 20 x 20 cm) and fastened to the sleeper beams by way of tenons inserted into corresponding mortises in the sleeper beams, which were made with a sharp blade (chisel) to the depth of around 15 cm. One such tenon survived in the east corner post of the house.[18] Two stubs of tenons were also visible in the sleeper beam of the northwest wall. Horizontal stability was improved by installing diagonal braces to connect the posts and the sleeper beams. A similar solution may be expected for connecting posts and tie beams. The considerable size of the wooden elements reveals that the timber frame of the walls must have been very sturdy, sufficiently solid and load-bearing, while the solid joints and braces provided additional stability.

The frame then received wide and thick planks fastened to the exterior (their charred remains measured up to 6 cm in thickness). Their length depended on the distance between individual posts, while the width (varying between 15 and 33 cm) depended on the thickness of the tree trunks used in their production. They were presumably fastened to the posts with wooden tenons or pegs; these either did not survive or were no longer identifiable among the charred remains.

The floor was made of loam applied onto the natural deposit and beaten. It was extended over the foundations, providing additional insulation of the living space. Another ground surface or floor was unearthed under the upper floor, the two separated by a thin layer of ash, which suggests that the house suffered two fires during its second construction phase.

The anteroom formed part of the house, but was constructed separately from the main room. The walls

[18] See Svoljšak, Dular 2016, 96, Fig. 84.

Ogrodje sten so na zunanji strani opažili s širokimi in debelimi plohi (zogleneli ostanki so bili debeli še do 6 cm). Njihova dolžina je bila prilagojena razdaljam med sohami, širina (med 15 in 33 cm) pa je bila odvisna od debeline hlodov, iz katerih so bili izžagani. Na sohe so bili plohi opaža najverjetneje pritrjeni z lesenimi mozniki ali cveki. Ti se v zoglenelih ostalinah sten niso ohranili oziroma niso bili več prepoznavni.

Pod so napravili iz ilovice, ki so jo trdo sphali in jo na debelo nanesli še na temelje, s tem so dodatno izolirali bivalni prostor. Pod vrhnjim podom je bila odkrita še ena hodna površina, ločila pa ju je le tanka prevleka pepela po spodnjem podu, kar kaže na to, da je stavba v drugi gradbeni fazi doživela dva požara.

Preddverje je bilo sestavni del hiše, vendar je bilo zgrajeno ločeno od njenega lesenega dela. Njegove obodne suhozidne stene so bile narejene podobno kot drenaže v hišah 1 in 29 in so najbrž poleg omejevanja prostora imele tudi drenažno funkcijo. Na eni strani je bil suhi zid predprostora umaknjen od lesene stene osrednjega prostora ter oprt na steno vkopa gradbene jame, na drugi pa je bil zgrajen kot podaljšek lesene stene osrednjega prostora, tesno ob vkopu gradbene jame. Z zunanje strani je bil obsut z zemljo. V jugozahodno kamnito steno in obsutje je bil kot kratek hodnik umeščen vhod v hišo. Skozenj se je najprej vstopalo v vežo z zemljenim podom, od tod naprej pa čez temeljni prag obodne lesene stene v bivalni prostor.

Levo stran s suhim zidom ograjenega predprostora je zasedel majhen lesen objekt. Vhod vanj je bil iz veže. Zgrajen je bil enako kot bivalni prostor: temeljni prag, vogalne sohe na kamnitih podložnih ploščah in lesen opaž. Iz hrastovih desk je bil tudi njegov pod, podložen s hrastovimi legami. Od ostalih prostorov je bil povsem ločen. Od bivalnega dela ga je ločila njegova vhodna lesena stena, zadosten odmik lesenih sten od kamnitih obodnih in poda od geoloških tal pa ga je varoval pred zunanjimi klimatskimi vplivi. Tako so si v hiši priskrbeli suh prostor, še najbolj primeren za shrambo, morda kaščo.

Zgornja konstrukcija hiše je povsem hipotetična. Z gotovostjo smemo spodnjemu lesenemu skeletu stavbe, ki je bil dognan z izkopavanji, dodati poveznik, trdno umeščen na sohe. Na ta povezovalni okvir je bilo oprto ostrešje dvokapne strehe nad osrednjim bivalnim prostorom hiše, pa tudi stropniki morebitnega stropa. Na povezniku in suhozidnem obodu preddverja je morala sloneti tudi enokapna streha, s katero sta bila zaščitena predprostor s shrambo in vežo ter ograjen vhod. Tako kot konstrukcija ostrešja ostaja v domeni domnev tudi strešna kritina. V poštev pride les (klane ali žagane deske), glede na dokazano pridelovanje žit tudi slama. Na vrhu drenažnega suho grajenega zidu preddverja je bil zoglenel kos obdelanega javorjevega lesa, morebitna priča lesenih žlebov.

Hišo 11 uvrščamo med stanovanjske. Za takšno opredelitev govorijo predvsem kakovost gradnje, trice-

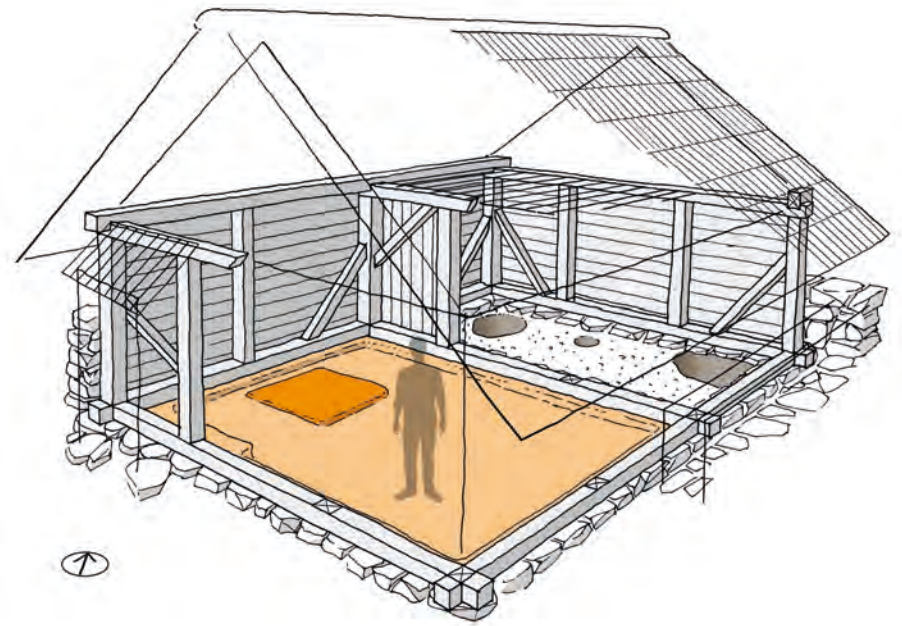
that delimited it on three sides were constructed similarly as the drainage walls of Houses 1 and 29, and probably not only delimited the space, but also functioned as drainage. On one side, the drywall of the anteroom was constructed some 20 cm from the wooden wall of the main room and leaned onto the wall of the construction pit, on the other side the drywall was constructed in line with the wall of the main room and immediately next to the wall of the construction pit. The space between its back side and the wall of the construction pit was filled with earth. In the southwest, the drywall included a short entranceway that led into the anteroom with an earthen floor and further on, across the sleeper beam, into the main room.

The left side of the anteroom was occupied by a small wooden structure, accessed from the anteroom. It was constructed in much same manner as the main room: foundation slabs in the corners, sleeper beams, corner posts, wooden planking. It had floor boards of oak wood resting on subfloor joists, also of oak wood. It was completely separate from the other rooms of the house (from the main room by the latter's wooden wall) and also from the drywall of the anteroom. It was sufficiently raised above ground so as to be protected from the exterior weather conditions. This made it a dry room, presumably most suitable for storage, possibly as a granary.

The construction of the house in its upper part is hypothetical. The element that must have been included into the timber-framed construction as ascertained during excavations is the tie beams securely fastened to the posts. The tie beams presumably held the roof truss of a gabled roof above the main room, possibly also ceiling joists. The tie beam on the front side and the anteroom drywall must also have held a single-pitch roof that protected the anteroom and the entranceway. We have no evidence as to the roofing material; it could have been made of wood (cleft or sawn shingles) or thatch (given the evidence we have on cereal growing at the settlement). Found on top of the anteroom drywall was a charred worked piece of maple wood that may represent the remains of wooden gutters.

The quality of construction, the three-room division and the carefully executed interior furnishings suggest that House 11 was a residential unit. For this identification, the most important feature is the earthen floor extended over the stone foundations, which increased the insulation of the habitable space, but also the otherwise scarce small finds (jewellery, needle, pottery, ceramic rings, ceramic wall decorations).[19] The large, main room was certainly the habitable area, while the separate anteroom only increased the living standard of the house that had no hearth. Does the paucity of finds suggest that the inhabitants managed to leave the house before it caught fire?

[19] Ib., 296, Pl. 32.



Sl. 10: Rekonstrukcija prve gradbene faze hiše 1 (risba: T. Korošec).
Fig. 10: Reconstruction of the first construction phase of House 1 (drawing: T. Korošec).

ličnost in zelo skrbna notranja ureditev. To velja v prvi vrsti za zemljeni pod, ki je bil potegnjen na kamniti temelj – to je povečevalo zatesnjenost bivalnega prostora –, pa tudi sicer dokaj skromno ohranjen premični hišni inventar (nakit, šivanka, lončeno posodje, glinasti svitki, glinast stenski okras).[19] Večji prostor je bil bivalni, ločeno dvoprostorno preddverje je bivalno ugodje v njem le še dopolnjevalo. V hiši ni bilo ognjišča. Je bila skoraj popolna izpraznjenost posledica pravočasnega umika pred požarom?

HIŠA 1

Če so posebno ugodne okoliščine nasipanja zemljine nad ruševinami hiše 11 ohranile njeno leseno konstrukcijo, pa je bila hiša 1 vzorčen primer gradnje kamnitih stavbnih delov (*sl. 10*).[20]

Hiša sodi v skupino v breg prislonjenih stavb, ki so imele najverjetneje z drenažo zavarovano in obsuto tudi vhodno steno. Takšno umestitev v prostor in način gradnje nakazujeta predvsem dve njeni sestavini: obnova v drugi fazi hiše strogo znotraj obstoječega tlorisa, vendar s prepoznavno zmanjšano bivalno površino, in pa z nadstreškom pokrit vhod. Dodaten dokaz so tudi dobro

[19] Ib., 296, t. 32.

[20] Rekonstrukcija hiše je izpeljana na osnovi stavbnih ostalin prve gradbene faze.

HOUSE 1

The earthen deposits above the debris of House 11 ensured a good preservation of its wooden elements, while House 1 is a classic example of the construction of the stone elements (*Fig. 10*).[20]

The house is one of those where also the entrance side was sunken and protected by a drainage wall. This observation is mainly supported by the fact that the second-phase renovation did not extend beyond the boundaries set in the first phase (the renovation actually reduced the size of the house) and by the entrance that had a porch with a projecting roof. Additional evidence is the well-preserved drainage wall along the northeast wall of the house and the bottom course of the drainage walls in the northwest.

The house was a two-room building of a NW–SE orientation that was almost perfectly square in the first phase (ground plan: 36.50 m², habitable surface: 21 m²). The larger of the two rooms, located in front, was habitable and the smaller room at the back was intended for storage. They were separated by a partition wall with a passage. While digging the construction pit into the layers of moraine till, they hit on an almost flat and hard crust of sand, which they used as the floor in the smaller room and accordingly adapted the earthen floor in the larger room. Drainage drywalls were then erected that

[20] The reconstruction of the house is based on the remains of the first construction phase.

ohranjeni drenažni zid ob severovzhodni steni ter bazi drenažnih zidov v severozahodni steni.

Hišo so zasnovali kot dvocelično stavbo skoraj pravilno kvadratnega tlorisa (tlorisna površina: 36,50 m², bivalna površina: 21 m²) in jo orientirali v smeri SZ–JV. Večji prostor v njej je bil bivalni, manjši pa shramba. Delila ju je predelna stena, v kateri je bil prehod. Med izkopom gradbene jame so v slojih ledeniške morene naleteli na skoraj vodoravno trdo peščeno skorjo, ki so jo vešče uporabili za pod v manjšem prostoru in ji prilagodili tudi hodno površino – zemljeni pod v preostalem delu hiše. Ob stene vkopa gradbene jame so postavili suho grajene drenažne zidove, oprte na poševni vkop gradbene jame ali na njeno zasutje. Zanje so uporabili kvadrasto lomljen volčanski apnenec, ki ga niso dodatno obdelovali. Poskrbeli so le, da so bila notranja lica drenaž skrbno in natančno zložena. Z nagibom drenažnih zidov so dosegli prezračenost in večjo obstojnost lesenih stavbnih delov. Ob drenažah so meteorne vode s površja in strehe ponikovale v prepustne peščene plasti ledeniške morene.

V temelje značilne posoške izvedbe – to je bil enoslojni in enovrstni kamniti niz, v tej hiši pa zraven še dvovrstni – so vgradili v primerjavi z drenažnim zidom tanjše ploščate lomljence apnenca, tako da so njihovo nosilno ploskev čim boljše uravnali ter s tem dosegli dobro naleganje temeljnega praga. Na najbolj obremenjenih mestih, to so bili vogali stavbe in stičišči obodnih sten s predelno, so v temelje vstavili večje in tudi debelejše plošče, ki so na teh mestih zmogle večje pritiske v temeljni prag vgrajenih soh. Stene so bile najverjetneje grajene kot skeletne, v kombinaciji temeljnega praga, vogalnih in vmesnih soh ter opaža na zunanji strani soh, narejenega iz masivnih plohov. Opora med sohami in temeljnim pragom ter tudi med sohami in poveznikom, ki je bil nepogrešljiva sestavina skeletne stene, so bile ročice.[21]

Vhod v hišo je bil urejen v jugozahodni steni. Zavarovan je bil z enokapnim lesenim nadstreškom, ki je slonel na dveh stebrih, postavljenih na večji plošči, pripet pa naj bi bil na poveznik ogrodja hiše.

Za hišo je bila glede na njeno umeščenost v prostor, drenažno zaščito in umestitev vhoda najprimernejša dvokapna streha (za domnevno možnost štirikapne strehe manjka v hiši bistvena sestavina za tako obliko strehe – stojišče za centralno nosilno soho). Kritina je bila najverjetneje iz klanih desk iz smrekovega in (ali) jelovega lesa. Med 42 analiziranimi vzorci lesnega oglja[22] je namreč polovica pripadala prav tema vrstama lesa

[21] V hiši 1 leseni stavbni deli niso bili ohranjeni *in situ*, ampak le v ruševinah. Da je v tej hiši kljub temu zanesljivo računati na skeletno gradnjo, potrjujejo v drugih hišah na podobno grajenih temeljih ohranjeni deli lesenih konstrukcij, npr. v hiši 2, 5, 8, 13, 15, 15A, 16, 23, 29 in 30.

[22] Prim. rezultate analize A. Šerclja, ki jih povzema S. Mottela De Carlo v tej knjigi.

either leaned against the inclined walls of the construction pit or were separated from them by the backfill. The drainage walls were constructed of blocks or slabs of Volče limestone that were not further worked, and assembled to form a flat front face. The construction of inclined drainage walls created more room for air to circulate around the foundations and ensure longer durability of the wooden parts. Along the drainage walls, the water from the slope and the roof drained into the permeable sandy layers of the moraine till.

The foundations characteristic of the Posočje type houses – with stones laid in a single course and a single, at places double line – were composed of thinner slabs of limestone in comparison with the pieces used in the drainage walls and formed an even bedding surface and a tight fit with the sleeper beams. In the places where loads were highest, i.e. at the corners and junctions of exterior and partition walls, larger and thicker slabs were built into the foundations. The walls were probably timber-framed, composed of sleeper beams, corner and intermediary posts, as well as exterior planking, with braces providing additional stability between the posts and the sleeper or tie beams.[21]

The entrance to the house was in the southwest wall. It had a small porch with a projecting single-pitch roof of wood supported on one side by a pair of columns that stood each on its stone footing, and on the other by the tie beam.

The location of the house, the drainage features and the location of its entrance suggest that it would have been covered by a gabled roof (the absence of the footing for a central post preclude the possibility of a hip roof). The roof was most likely covered by cleft boards of spruce and (or) fir wood; half of the 42 analysed samples of wood charcoal[22] belong to these tree species (26% of spruce, 24% of fir), which are suitable for making wooden roof covering.

The house had two rooms. The larger one in front had a square hearth built in the line of the entrance along the northwest wall; it was slightly raised above the level of the surrounding floor and had a top surface that rested on a bedding of small cobbles. The living conditions were improved by extending the floor of beaten loam onto the stones of the foundations. The natural sandy crust of the moraine till formed the floor in the smaller room at the back. This room also had a pair of round pits dug in both corners of the northeast wall, which probably held

[21] The wooden parts of House 1 survived in the debris of the house and not *in situ*. The presence of a timber frame, however, is clear from the wooden elements resting on similarly constructed foundations from other houses, e.g. in Houses 2, 5, 8, 13, 15, 15A, 16, 23, 29 and 30.

[22] Cf. the results of the analysis performed by Alojz Šercelj, which Sila Mottela De Carlo summarises in this publication.

(26 % smrekovega, 24 % jelovega), najprimernejšega za izdelavo takšne kritine.

Hiša je imela dva prostora. V večjem je bilo ob severozahodni steni v osi vhoda rahlo nad zemljeni pod vgrajeno kvadratno ognjišče, podloženo s slojem drobnih oblic. Boljše razmere za bivanje so v večjem prostoru dosegli tudi s tem, da so zemljeni pod iz sphane ilovice potegnili še na kamne temelja. V manjšem prostoru je bila za pod uporabljena kar naravna peščena skorja ledeniške morene. V njem sta bili v obeh kotih ob severovzhodni steni vkopani okrogli jami, v katerih sta najbrž stali lončeni posodi (pitosa) za shranjevanje živil.[23] Prav jami sta edini upoštevanja vreden dokaz, da gre za shranjevanju namenjen prostor.

Končno bi kazalo razmisliti še o možnosti stropa, tega bi vsekakor lahko pričakovali nad shrambo. Z njim bi bil prostor zares ločen od bivanjskega dela in tudi od zunanjih vplivov. Nad shrambo bi bil strop tudi tehnično izvedljiv: položen na obodni poveznik ter na preklado na predelni steni bi premostil popolnoma obvladljiv razpon. V bivalnem prostoru pa je zaradi ognjišča ostrešje moralo ostati odprto. Skupaj z vhodom v hišo je omogočalo odvajanje dima.

Hiša je bila stanovanjska. Taki opredelitvi v prid govori poleg zelo kakovostne gradnje tudi notranja oprema: skrbno narejen zemljeni pod, shramba in ognjišče. Tem sestavinam je treba dodati še pred vremenskimi vplivi zavarovan vhod. Hiša je pogorela. Na njenem mestu so znotraj prvotnega tlorisa postavili občutno zoženo (14,50 m²) novo stavbo, pri čemer so uporabili vse njene ohranjene in še uporabne dele, nanjo so postavili le temelj severozahodne stene in drenažo ob jugovzhodni. Tako sta nastala dva prostora, večji z novim ognjiščem, vdelanim v zemljeni pod, in manjši (shramba), v tej sta ostala v rabi geološka skorja za pod in ena jama. Nov je bil tudi vhod. Prav ta del hiše je bil uničen v prvi svetovni vojni.[24] Na izbranih delih hišne notranjosti so zaljšale bivalno okolje še iz gline narejene in z različnimi motivi okrašene plošče. Povedna je tudi premična oprema v hiši, npr. številni svitki, uteži ali brusi, ki kažejo na rokodelska hišna opravila ter vsekakor prav pisan izbor lončenega posodja.

Hiši 1 je bila po tlorisu in notranji delitvi najbližje hiša 16 (faza 2). Imela je skoraj kvadraten tloris (9 m² bivalne površine) in prav tako dva prostora (prim. *sl. 5: spodaj*). Večjega bivalnega in manjšega, namenjenega shrambi. V manjšem prostoru je bila na sredini vkopana jama, primerna za umestitev shrambne lončene posode.[25]

[23] Jama v vzhodnem kotu prostora je bila prilagojena prav trebušasti posodi z ozkim dnom.

[24] Glej Svoljšak, Dular 2016, 46, sl. 22.

[25] Ib., 135, sl. 123B.

ceramic containers (pithoi) for storing foodstuffs.[23] The two pits are also the only pieces of evidence to suggest that the room was intended for storage.

The small room may have had a ceiling; this would separate it both from the habitable larger room and the environment outside. A ceiling in this room is also technically feasible: ceiling boards resting on the exterior tie beams and the lintel of the partition wall would easily span the width of the room. Because of the hearth, the larger room required an open ceiling as a feature that would help clear the smoke in addition to the entrance.

The house was certainly a residential unit, which is revealed by the high quality of construction, a carefully laid earthen floor, a storage room, a hearth and the specially made entrance that offered additional protection. The house burnt down in a fire. In its place, a new house was constructed in a considerably smaller extent (14.50 m²) that reused the still useful foundations and drainage walls of the first-phase house; only the foundations of the northwest wall and the drainage along the southeast wall were built anew. The new house retained a two-room division: a large room in front with a hearth built into the earthen floor and a small room at the back (storage room) with the hard sandy crust remaining as the floor, as well as a single pit. The entrance was also moved, possibly toward the south corner of the house, which is the part destroyed in World War I.[24] The interior in select parts embellished terracotta plaques decorated with various motifs. Also telling are the items found in the interior, such as numerous ceramic rings, weights or whetstones that indicate certain household activities, as well as a wide array of pottery.

In its plan and interior division, House 1 most closely resembles House 16 (Phase 2) that was subsquare in plan (9 m² of habitable surface) and had two rooms (cf. *Fig. 5: bellow*): a larger one in front intended for habitation and a smaller one at the back for storage. The small room also had a pit suitable for storing a ceramic container.[25]

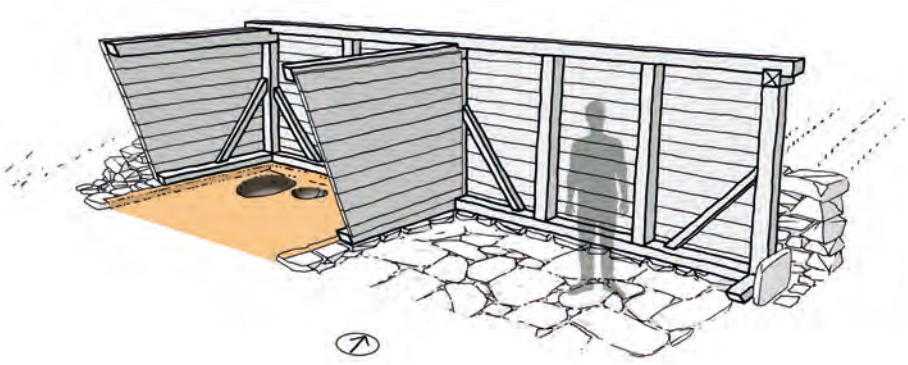
HOUSE 5

In its location, constructional elements and quality of construction, House 5 (*Fig. 11*) is closely comparable with other residential units (such as Houses 1, 2, 8, 13, 15, 16): sunken into the slope, square plan, drainage drywall, one-line and one-course stone foundations of the exterior and partition walls with large slabs at the junctions. A special feature (but not an exception, as it was also documented in Houses 20, 22, 23 and 24) is a carefully constructed lining around the corner slabs of

[23] The pit in the east corner of the room was adapted to the form of the ellipsoid vessel with a narrow base.

[24] See Svoljšak, Dular 2016, 46, Fig. 22.

[25] Ib., 135, Fig. 123B.



Sl. 11: Rekonstrukcija hiše 5 (risba: T. Korošec).
Fig. 11: Reconstruction of House 5 (drawing: T. Korošec).

HIŠA 5

Hiša 5 (*sl. 11*) je po umestitvi v prostor, stavbnih sestavinah in tudi po kakovosti gradnje povsem primerljiva z drugimi za prebivanje opredeljenimi stavbami (npr. 1, 2, 8, 13, 15, 16): prislonjena v breg, kvadraten tloris, suho grajen drenažni zid, enovrstni in enoslojni temelj za obodne in predelno steno, v katerega so bile v vogalih in na spoju predelne stene z obodno severovzhodno steno vgrajene večje plošče. Kot konstrukcijsko posebnost (ne pa tudi izjemo, saj se je ponovila še pri hišah 20, 22, 23 in 24) kaže omeniti skrbno narejeno oblogo vogalnih temeljnih plošč, zlasti tiste v vzhodnem vogalu. Tu sta bili namreč ob polnilo gradbene jame ali kar ob steno njenega vkopa prislonjeni dve večji lomljeni plošči, ki sta v tem predelu nadomestili drenažni zid.

Prav primer posebne obravnave vogalov kaže, da so mostarski stavbeniki v posebnih okoliščinah znali najti prave rešitve, ki so pripomogle k večji obstojnosti nosilnih lesenih delov hiš. Zanje so uporabili različne vrste lesa: za temeljni prag nagnoj ter hrast za opaž sten.

Hiša je imela dva prostora. V zahodnem, ki je imel zemljeni pod, sta bili dve jami, vendar bi bila le večja primerna za umestitev lončene shranjevalne posode. Vzhodni prostor je bil med vsemi raziskanimi edini, ki je imel pod narejen iz velikih lomljenih plošč volčanskega apnenca.

Po številu sicer skromen premični inventar (ob brusu le še skifos grškega izvora) iz hiše 5 kaže, poleg solidne gradnje in še posebno kamnitega poda, na stanovanjsko hišo.

DELAVNIŠKI NIZ

Drugi sklop hiš v železnodobni naselbini na Mostu na Soči so stavbe, ki smo jim pripisali obrtno dejavnost. Te so lahko stale posamič (npr. hiše 4, 12 in 30) ali pa bile razvrščene ob poti, pod katero je bil ob hiši 23 spe-

the foundations, particularly of the slab in the east corner, where two large slabs were set upright along the fill or the wall of the construction pit to replace the drainage.

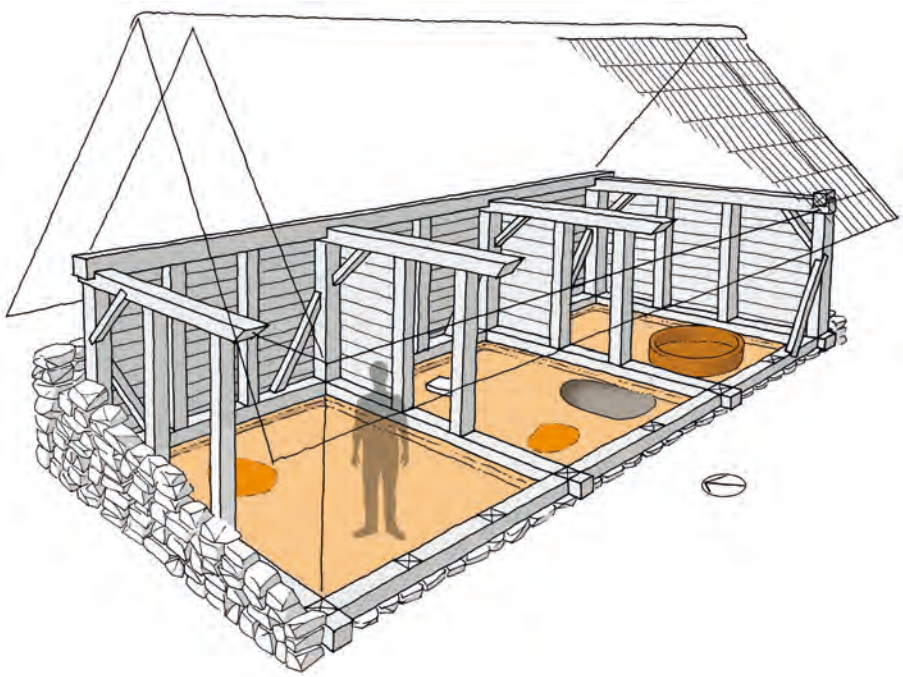
This feature is a demonstration of the ingenuity of the builders in Posočje aiming to improve the durability of the wooden elements of the house. These were made of different types of wood: golden rain for the sleeper beams, oak for wall planking.

The house had two rooms. The west room had an earthen floor and two pits, of which only the larger one was probably intended for storing a ceramic container. The east room was the only one in the settlement with the floor of large slabs of Volče limestone.

The house yielded very few small finds (a whetstone and a skyphos of Greek origin), but they do confirm a residential character of the building as suggested by the solid construction and stone floor.

ROW OF WORKSHOPS

The second group of buildings in the Iron Age settlement at Soči are those where certain crafts are believed to have been practised. These could stand separately (e.g. Houses 4, 12 and 30) or grouped along the path under which a large drainage ditch was made that ran east of House 23. It has to be said that the natural deposits in this part differ considerably from the rest of the investigated settlement and consist of hard impervious conglomerate that necessitated the construction of drainage ditches and canals. Found next to the drainage ditch were several smaller canals that ran between or even under the houses (15A, 22, 22A, 23 and 29/1). These buildings were all dug into the slope on three sides, while the fourth side was level with the slope and held the entrance and access to the path.



Sl. 12: Rekonstrukcija prve gradbene faze hiše 15A (risba: T. Korošec).
Fig. 12: Reconstruction of the first construction phase of House 15A (drawing: T. Korošec).

ljan velik odvodni kanal. Prav v tem delu naselja se je namreč bistveno spremenila geološka podlaga. Pojavil se je blok trdega neprepustnega konglomerata, kjer so bili v infrastrukturi naselja nujni odvodni kanali. Ob velikem še manjši, speljani med hišami ali pa kar znotraj stavbnih tlorisov. Sem sodijo hiše 15A, 22, 22A, 23 in 29/1. Njihova skupna značilnost je vkopanost treh stranic v breg in prosta četrta, ki je bila vhodna in vezana na pot.

HIŠA 15A

Hiša 15A je bila delavnica[26] (*sl. 12*). Prislonjena v breg je bila zgrajena po vseh posoških stavbnih pravilih, torej z drenažo, enovrstnim enoslojnim kamnitim temeljem in skeletno steno.[27] Drenaža je bila narejena iz pokonci postavljenih lomljenih in neobdelanih plošč laporja (podobno drenažo je imela le še hiša 2) in tudi pokonci založenih lomljencev apnenca, ki so bili prislonjeni na kamnito-zemljeno polnilo. S polnilom so zasuli prostor med ploščami in stenami gradbene jame. Zelo skrbno so s ploščami ogradili vogala v pobočnem delu hiše. S ploščami laporja je bil obložen tudi temelj vhodne stene.

Na kamnitem temelju, v katerega so v vogalih in na spojih s predelnima stenama namestili večje plošče

[26] Glej tudi drugačno interpretacijo v tej publikaciji (str. 76), kjer Dular in Tecco Hvala stavbo opredeljujeta kot bivalni objekt.

[27] Za rekonstrukcijo je bila uporabljena ostalina prve faze hiše, katere funkcija je bila enaka tudi v drugi fazi.

HOUSE 15A

It was a workshop[26] (*Fig. 12*) constructed in accordance with the principles governing the construction of a Posočje type house: construction pit sunken into the slope, drainage drywall, single-line single-course stone foundations and timber-framed walls.[27] The drainage was composed of upright unworked slabs of marl (a similar feature was observed in House 2) and upright pieces of limestone leaning onto the fill of stones and earth between the slabs and the walls of the construction pit. Slabs were particularly carefully laid in the north and east corners of the house. Marl slabs were also used, to line the foundations of the entrance wall in the southwest.

The foundations of the exterior and partition walls included large unworked limestone slabs at the junctions of walls. They held the sleeper beams fastened together with cross-lapped joints. The wood used for these beams was of fir and Scots pine, which predominated in the building; it also revealed the use of beech, oak and elm wood.[28] The sleeper beams supported corner posts, one

[26] See also a different interpretation in this publication (p. 76), where Dular and Tecco Hvala define the building as a residential house.

[27] The reconstruction of the house is based on the remains of the first construction phase, the function of which remained unchanged in the second phase.

[28] There were 27 charcoal samples taken in the house (of which two could not be determined as to the tree species): 52% of the samples belonged to fir, 30% to pine.

lomljenega apnenca, so bili položeni temeljni pragovi, povezani s križnimi spahi. Enako so povezali tudi temeljna praga obeh predelnih sten. Za temeljni prag so uporabili jelov in borov les, ki sta v stavbi prevladovala, sicer pa so bili v njej še les bukve, hrasta in bresta.[28] V temeljni prag so vgradili vogalne sohe, v podolžnih stenah pa še vmesne na mestih, kjer sta se na obodni temelj vezali predelni steni. Vmesne sohe so bile tudi na krajših stranicah. Obodne stene so opažili s plohi ali deskami manjših dimenzij.

S predelnima stenama so 17 m² veliko uporabno površino delavnice predelili v tri niše (6,30 m², 5,60 m² in 5,00 m²). Pod v njih je bil narejen iz sphane ilovice, razpotegnjene ob obodnih stenah tudi na temeljne kamne. V delovni proces v delavnici delujočega rokodelca sta bili vključeni dve okrogli pritlehni ognjišči, po eno v zahodnem in srednjem prostoru. Imeli sta kurilno ploskev iz nabite ilovice, ki je bila podložena z manjšimi rečnimi ali morenskimi oblicami. V srednjem prostoru je bila ob ognjišču plitva ovalna delovna jama, v vzhodni prostor je bil nameščen kar prostoren okrogel glinen silos.

To je bila delavnica mojstra, ki je obvladal več rokodelskih veščin, morda pa je v njej delovalo več mojstrov posebnih znanj. Obžagan jelenov rog kaže na obdelovalca roževine. Največ pričevanj izkazuje lončarja, ki je izdeloval lončeno posodje, glinene svitke ter glinaste plošče z raznolikim vrezanim ali apliciranim okrasom. Z njimi so v hišah lahko okrasili stene. Okrašene plošče izkazujejo visoko razvito, kultivirano bivanjsko raven železnodobnih Posočanov. Od orodij so bili v srednjem prostoru še brusni kamen ter žrmlje, slednje je morda služilo za fino drobljenje peska, ki so ga uporabljali kot primes glini.

V drugi fazi hiše – to so postavili v tlorisnih mejah predhodnice kar na njene ruševine in je bila prav tako zgrajena v posoški stavbni maniri – je svoje delo nadaljeval lončar. Železna šila, sulična ost, železova žlindra in brusni kamni razširjajo rokodelsko dejavnost v hiši še na kovaštvo in v tretji fazi z livnim kalupom med ruševinami tudi na livarstvo.

Prvi dve delavnici je uničil požar. V nasprotju s stanovanjskimi hišami, ki so jih med evakuacijo izpraznili, so tu ostali razen večine orodij tudi nekateri nedokončani izdelki, ki jih je prežgal in dovolj utrdil ogenj in so se zaradi tega sploh ohranili.

HIŠA 22A

Najbolj preprosta stavba v rokodelskem nizu ob poti, pa tudi sicer v raziskani stavbni dediščini naselja, je bila hiša 22A. To je bila očitno le preprosta lopa, večji del odprta in pokrita z enokapno z deskami prekrito streho (*sl. 13*). Njeno tlorisno zasnovo nepravilne pravokotne oblike je zarisal že vkop gradbene jame, ki pa ga niso

[28] Vzorčenih je bilo 27 primerkov oglja, dvema vzorcema vrsta lesa ni bila določena; jelovega je bilo 52 %, borovega 30 %.

in each of the corners, but also intermediate posts along each of the longer sides at the ends of the two partition walls. The shorter sides also held intermediary posts. The exterior walls were covered with small planks fastened to the frame.

Two partition walls divided the interior into three rooms (6.30 m², 5.60 m² and 5.00 m²). The floor in all was of beaten loam extended at the edges onto the stones of the foundations. The work process involved the use of two round ground-level hearths, one in the west room and the other in the central room. Their top surface was made of beaten loam laid onto a bedding of river and glacial pebbles (from the moraine till). Next to the pit in the central room was a shallow oval work pit, while the east room held a fairly large round ceramic container.

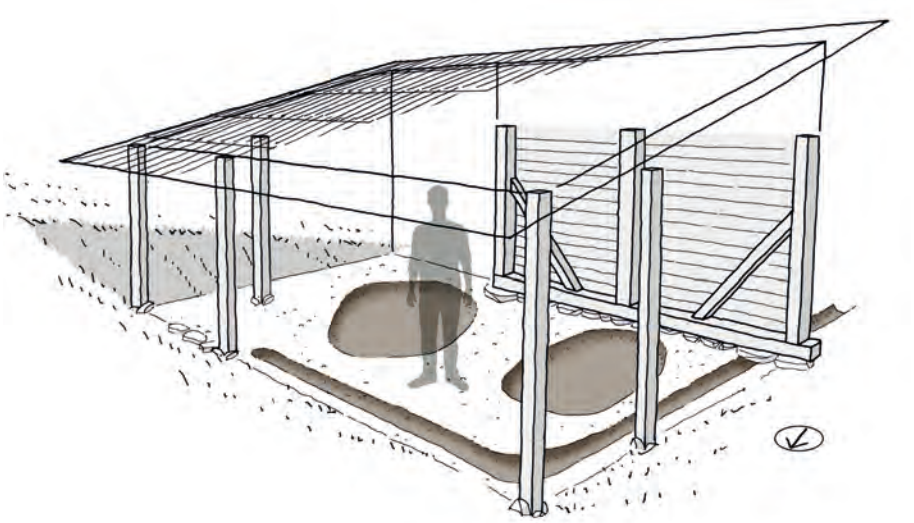
The building may have been a workshop of one artisan with a set of several different skills, but it may also have housed several specialised artisans. The piece of antler with the ends sawn off indicates an artisan working horn. Several items indicate the activity of a potter who produced pottery, ceramic rings and plaques with various ornaments – incised or plastic. These terracotta plaques decorated the interior walls of houses and reveal a highly developed living culture of the Iron Age population of Posočje. The tools recovered from the central room include a whetstone and a quern, the latter possibly serving to finely grind the sand that came to be added to the clay fabric.

The house was renovated. The second house was constructed within the contours of its predecessor and onto its debris, and also respected the above-mentioned principles of construction. It revealed remains that assume the activity of a potter. Iron awls, a spearhead, iron slag and whetstones suggest that smithing also took place here, while the casting mould found in the debris of the third phase indicates a foundry.

The first two workshops were destroyed in a fire. Contrary to the residential houses that were evacuated and emptied, most of the tools and several unfinished products remained in the workshops, which were charred in the fire and thereby preserved.

HOUSE 22A

The simplest building in the row of workshops and the investigated part of the settlement was House 22A. It was actually only a shed, largely open and covered with a single-pitch roof with wooden shingles (*Fig. 13*). Its sub-rectangular plan was determined by the shape of the construction pit, the walls of which were not lined with drainage walls; the water coming down the slope was drained by way of a shallow canal that ran along the north and west walls onto the path in front of the shed,



Sl. 13: Rekonstrukcija prve gradbene faze hiše 22A (risba: T. Korošec).
Fig. 13: Reconstruction of the first construction phase of House 22A (drawing: T. Korošec).

ločili od notranjosti z drenažnimi zidovi, ampak so meteorno vodo s pobočja in strehe ujeli v plitvem jarku, ki so ga speljali ob severni in zahodni steni hiše na pot pred lopo. Nekaj vode je odteklo tudi po s ploščami obloženem kanalu med lopo in sosednjo delavnico (hiša 22).

Kamnit temelj je imel le manjši del južne (vhodne) stene. Na njem je ležal temeljni prag, v katerega so bile vgrajene sohe. Na obeh koncih sta bili v temelj vgrajeni večji plošči lomljenega apnenca. Tu je bila stena lope lahko tudi opažena z vodoravno nameščenimi deskami ali plohi. Temeljena je bila tudi vzhodna četrtina v pobočje umaknjene stene (med stojkama v jamah št. 1 in 2). Sicer pa je bilo ogrodje lope iz stojk, ki so bile pokonci postavljene v jame, vkopane v geološko osnovo. Jame so bile obložene s ploščami ali pa so stojke trdno učvrstili s kamnitimi zagozdami. Kamnite plošče so položili tudi na dno jam, da so preprečevale posedanje stavbne konstrukcije. Tako je bilo urejeno leseno ogrodje lope v pobočni steni in do polovice v obeh krajših, bočnih stenah. Tak način gradnje – to je kombinacija skeletne stene v klasični posoški izvedbi ter uporaba stojk, trdno umeščenih v jame – je bil v mostarskem železnodobnem naselju le izjemoma uporabljena graditeljska metoda.

Lopa je bila pokrita z enokapno streho, nagnjeno od vhodne strani proti pobočju, v katero je bila vkopana. Kritino iz desk so nosile grede, oprte na vzdolžne lege ter povezane s stojkami in sohami.

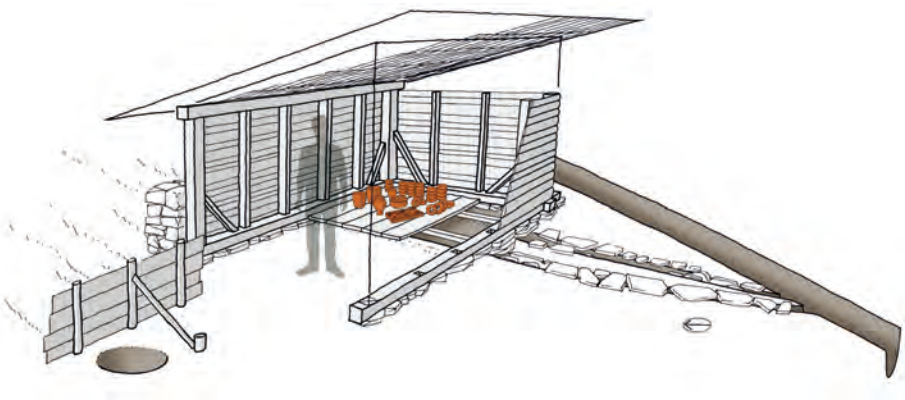
Pod streho je bila okoli 12 m² velika uporabna površina. Poleg jarka, ki je zagotavljal odvodnjavanje, sta bili v lopi še dve večji, v geološko osnovo vkopani ovalni jami. Na njihovo intenzivno uporabo kažejo zaporedni sloji polnila (oglje in pesek ali mivka). Obe jami sta bili tudi prenavljani, kar je mogoče sklepati iz naknadnih vkopov v prvotna polnila. Ostanki oglja in ožganost

while the canal lined with stone slabs that led between the shed and the adjacent workshop (House 22) also served as drainage.

Only a small section of the south (entrance) wall had stone foundations. They held a sleeper beam with posts, two of which was positioned on the spot where a large unworked slab of limestone was situated in the foundations. This part of the wall may have had horizontal wooden planking. Foundations were also found in the east quarter of the northeast wall, between Postholes 1 and 2, that was sunk deepest into the slope. Elsewhere, the shed had a frame of earthfast posts, the holes for which were dug vertically into the natural deposit. The posts were lined with stone slabs or secured with stone packing. Stone slabs were also placed on the bottom of the postholes so as to prevent sinking. This construction technique of a classic timber frame in combination with earthfast posts was only rarely used in the Iron Age settlement at Most na Soči.

The single-pitch roof of the house was slanted from the front down towards the slope. The roofing was supported by purlins resting on tie beams that connected the posts.

The shed had roughly 12 m² of usable space. Apart from the drainage canal, the shed also had two large oval pits dug into the natural deposit. The successive layers (charcoal and variously fine sand) of its fill show intensive use. The cuts made into the original fill also suggest reuse. The remains of charcoal and the burn marks on the sandy layers of the fill show that the activity taking place in the pits involved fire. Such activities are corroborated by the two whetstones, several pieces



Sl. 14: Rekonstrukcija prve gradbene faze hiše 23 (risba: T. Korošec).
Fig. 14: Reconstruction of the first construction phase of House 23 (drawing: T. Korošec).

peščenih in mivkastih plasti v polnilih kažejo, da se je v jamah odvijala dejavnost, ki je vključevala ogenj. V tako opredelitev jam se povsem vklapljata tudi v lopi najdena brusa, nekaj žlindre in kos brona, ki bi lahko bil polizdelek.[29]

HIŠA 23

Na zahodnem koncu delavniškega niza ob vaški poti je stala stavba, v kateri je prav tako deloval lončar (hiša 23). Na njegovo dejavnost kažeta jama z obiljem lončenih izdelkov in sama stavba z infrastrukturo, prilagojeno njegovi dejavnosti (*sl. 14*).[30]

V breg prislonjena stavba romboidnega tlorisa (obliko so narekovale geološke danosti v gradbeni jami in jarek) je bila grajena po ustaljenih posoških gradbenih pravilih. Drenaža je bila narejena v kombinaciji suhega zidu, znotraj obloženega s ploščami laporja. Enovrstni in enoslojni temelj je bil iz neobdelanih lomljencev apnenca, vanj so bile na vogalih vgrajene večje plošče, kar je povečalo nosilnost konstrukcije. Stojišča za sohe so bila obložena z drenažnimi ploščami. Skeletno steno so sestavljali temeljni prag iz jelovine, sohe in stenski opaž iz smrekovega, jelovega in borovega lesa. Hiša je bila zaprta na treh straneh, proti zahodu pa se je iztekla v delno ograjeno in morebiti tudi z nadstreškom pokrito preddverje (velikost okoli 3 m²). Tu so odlagali odsluženo, neuporabno in odvečno gradivo, morda tudi ostanke svojega dnevnega obroka, saj je bilo v mešanici zemljin, otrdele gline, oglja in pepela precej živalskih kosti. Nadstrešek preddverja je počival na stojkah. Čvrsto zagozdene so stale v jamah, ki so bile vkopane v geološko osnovo. Nanje je bil položen poveznik. Streha

[29] Glej Svoljšak, Dular, 2016, t. 60: 4.

[30] Rekonstrukcija stavbe je bila narejena po zapuščini njene prve gradbene faze.

of slag and a piece of bronze (possibly a semi-finished product) recovered in the building.[29]

HOUSE 23

The building at the west end of the row of workshops also housed a potter (House 23), the activity of whom is indicated by the abundance of pottery products and the building itself with an infrastructure adapted to this activity (*Fig. 14*).[30]

The building was sunken into the slope, rhomboid in plan (adaptation to the geology in the construction pit and to the adjacent drainage ditch) and constructed in accordance with the standard principles of a Posočje type house. The drainage was a drywall lined along the interior with marl slabs. The single-line and single-course foundations were constructed of unworked pieces of limestone with large slabs placed in the corners to increase the load-bearing capacity. The spots where the posts stood were lined with drainage slabs. The timber-framed walls were composed of sleeper beams of fir wood, as well as posts and planking of spruce, fir and pine wood. The building was closed off on three sides and open to the west where it extended into a partially enclosed and roofed anteroom (covering roughly 3 m²). The anteroom was also the place where items were deposited or discarded that were either no longer usable or were a surplus, but possibly also the remains of the daily meals as the mixture of earth, hardened clay, charcoal and ash included numerous animal bones. The roof rested on earthfast posts, securely anchored in postholes dug into the natural deposits and supporting a tie beam. It was single-pitch and (most likely) covered with wooden roofing. Running along the south side of the building was the gravel path.

[29] See Svoljšak, Dular, 2016, Pl. 60: 4.

[30] The reconstruction of the house is based on the remains of the first construction phase.

je bila enokapna, pokrita (najverjetneje) z leseno kritino. Ob južni steni delavnice je tekla s peskom nasuta pot.

V stavbi s 5,80 m² uporabne površine je bila delavnica lončarja, ki pa je bil vsaj občasno najbrž tudi kovinar, sodeč po železovi žlindri in bronasti pogači v zavrženem odpadu. Osnovni objekt delavnice je bila dobra 2 m² velika in 0,35 m globoka jama s kotanjastim dnom tik ob temelju vzhodne stene. Čeznjo si je lončar z lesenimi deskami iz rdečega bora, položenimi čez dve legi, pripravil delovni podij, kamor je odlagal svoje izdelke: raznoliko posodje, glinaste svitke in motke, živalsko figuro in ornamentirane glinaste plošče. V uničujočem požaru so deske zoglenele in padle na dno jame, na njih pa je ležala tudi od požarnega ognja otrdela in opečena lončenina.[31]

Vse to je izdeloval na prostoru pred podijem, kjer je požar, ki je objekt upepelil, zapekel za predelavo pripravljeno glino v brezoblično gmoto. Jama pod podijem je bila namenjena zbiranju zalednih padavinskih voda, ki so se vanjo stekale po površju konglomeratne skale. Iz jame je lončar pod hišnim temeljem in potjo napeljal s ploščatimi kamni obložena in s ploščami pokrita odtočna kanala in ju povezal z velikim, ob hiši speljanim jarkom. Z jamo in kanaloma je ustvaril suho okolje in dobre razmere za delo.

Globok jarek ob vzhodni strani hiše je odvajal vodo tudi z višje ležeče terase, na kateri je stala hiša 16. Ta del naselja je bil namreč zgrajen na neprepustnem konglomeratnem sloju ledeniške morene, zato je bilo z manjšimi kanali urejeno odvodnjavanje zalednih in strešnih meteornih voda tudi v hišah 22, 22A in 26.

HIŠA 15

V delavniškem nizu je bila tudi hiša 15, s 24,50 m² uporabnega prostora med vsemi največja (*sl. 15*). Bila je dvakrat obnovljena. Ko so jo obnavljali prvič (faza 2),[32] so ohranili izvirno bivanjsko širino (okoli 2,30 m), so pa objekt dodobra raztegnili (s prvotnih 6 na 14 m) ter notranjost razdelili v tri prostore (v prvi fazi je bila dvocelična).

Pri drugi obnovi (faza 3) se prvotne talne zasnove niso več držali, so pa ohranili pravokotni tloris. Hišo so postavili na kar debel sloj požarnih ruševin predhodnice, severo- in jugovzhodno steno so deloma odmaknili v ne-

[31] V prvem poskusu rekonstrukcije te lončarske delavnice sem v jami predvidel lončarsko peč, napačno izhajajoč iz domneve, da je bila v hiši 15A sočasno lončarjeva pripravljalnica, v hiši 23 pa lončarska peč. Dejansko sta delovali vsaka zase in vsaka v svojem času. Ob ponovnem preverjanju možnih dejavnosti v hiši 23 se je izkazalo, da v njej iz povsem logističnih razlogov (varnost v zaprtem prostoru, vodnatost terena) ni bilo peči. Tlorisno in gradbeniško pa prva rekonstrukcija ustreza. Prim. Svoljšak 2014, 290–292.

[32] Za rekonstrukcijo je bila uporabljena druga faza hiše, ki je bila najboljše ohranjena.

The building with a usable space of 5.80 m² was a workshop of a potter that may at least occasionally have conducted metalworking activities as well, judging from the iron slag and the bronze ingot among the refuse. The main part of the workshop was a 0.35 m deep rounded-sectioned pit measuring over 2 m² across and located next to the foundations of the east wall. The potter placed wooden boards of Scots pine, in two layers of perpendicularly placed boards, to make a work surface probably used for setting down the products: different vessels, rings and bobbins, an animal figurine and decorated plaques. The boards were charred in a fire and collapsed to the bottom of the pit, on top of which archaeologists found the fire-hardened and burnt ceramic products.[31]

The area where the actual pottery making took places was located in front of the work surface, where the fire turned the prepared clay into an amorphous mass. The function of the pit under the wooden boards was to collect the water coming down the conglomerate rock. The water was then drained away via two canals, lined and covered with flat stones, that ran under the foundations and into the drainage ditch to the east. The pit and the canals created a dry and suitable work environment.

This part of the settlement was constructed on an impervious conglomerate layer of moraine till, which required certain measures to be taken. The drainage ditch east of House 23 was draining water from the terrace above (that held House 16), but there were also smaller canals dug to drain the water from the slope and the roofs of Houses 22, 22A and 26.

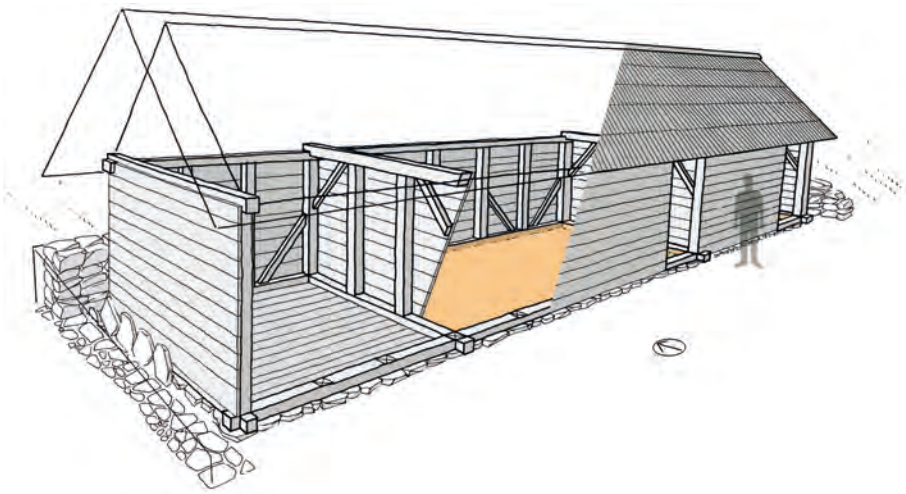
HOUSE 15

This was the largest of all the workshops in the row and measured 24.50 m² in usable space (*Fig. 15*). It was renovated twice; the first renovation (Phase 2)[32] retained the original width (around 2.30 m), but was lengthened (from the original 6 to 14 m) and divided into three rooms (the first-phase building had two rooms).

The second renovation (Phase 3) abandoned the second-phase layout. The new building of a rectangular plan was constructed on top of a fairly thick layer of the fire debris of the predecessor, with the northeast and southeast walls moved onto the previously undisturbed,

[31] In the initial reconstruction of the pottery workshop, I erroneously supposed a pottery kiln in the building on the assumption that there was a preparatory workshop in the contemporary House 15A and a pottery kiln in House 23. It turned out that the buildings functioned separately and each in its own time. The re-evaluation of the possible activities in House 23 revealed that it could not have contained a kiln from purely logistic concerns (safety in an enclosed space, amount of water in the area). However, the initial reconstruction is correct in plan and construction. Cf. Svoljšak 2014, 290–292.

[32] The reconstruction of the house is based on the remains of the best preserved, second construction phase.



Sl. 15: Rekonstrukcija druge gradbene faze hiše 15 (risba: T. Korošec).
Fig. 15: Reconstruction of the second construction phase of House 15 (drawing: T. Korošec).

dotaknjen nosilno zanesljiv geološki svet ter jo postavili še vedno v klasični posoški gradnji.[33]

V drugi gradbeni fazi so najprej odstranili vse starejše ruševine, razen na zahodni strani, kjer so z njimi poravnali višinsko razliko med starim in novim podom. Odstranili so tudi vso hišno opremo ter novogradnjo umestili na še vedno trdne dele predhodnice. Pri tem so uporabili nekatere njene nosilne in zaščitne elemente, tako temelj, del zemljenega poda in drenažo. Manjkajoče so dogradili ali popravili po ustaljenih stavbarskih normah.

Hiša je bila v prvi ter tudi v drugi fazi namenjena prebivanju, za kar vsekakor govori njena zelo kakovostna gradnja. Bila je izvrstno zgrajena, upoštevaje vsa posoška stavbna pravila. Gre za v breg postavljeno hišo z izhodom (enim ali več) v jugozahodni steni na neposredno ob njej potekajočo, s peskom nasuto pot. Za tako opredelitev sicer v njej ni bilo kaj prida dokazil. Ohranilo se je le nekaj predmetov vsakdanje rabe, na primer svitki, glinast motek, lončeno posodje, nakit in žrmlje. Železova žlindra, livarska posodica in dva ingota so lahko oprema v hiši stanujočega in delujočega livarja.

Že v prvi gradbeni fazi izvrstno grajen severni drenažni zid, naslonjen na steno vkopa gradbene jame, so v podaljšanem delu stavbe dogradili. Na mestih, kjer je bil poškodovan, so ga kakovostno popravili in hkrati podaljšali proti vzhodu. Novozgrajeni drenažni zid so še dopolnili s prislonjenimi ploščami laporja (kombinirana drenaža). Drenaža na zahodni strani je bila že v prvi gradbeni stopnji drugače narejena. Bila je vkopana v nestabilne ruševine porušene sosednje hiše 15A, zato je bil tu zgrajen 0,55 m širok suhi zid, ki je imel urejeno le čelno lice. Obenj so bile podobno kot na vzhodni strani prislonjene še plošče laporja.[34]

but solid ground of natural deposits and constructed according to the Posočje standards.[33]

In the second construction phase, all previous debris was removed with the exception of that in the west where it was used to level the old floor with the new; the interior furnishings were also removed. The new building did reuse some of the load-bearing (foundations) and protective elements (drainage) of the previous building, as well as a part of its earthen floor. The missing parts were either built anew or repaired, again according to the Posočje standards.

The building was a residential unit in the first and second phases, which is suggested by the high quality of construction. It was sunken into the slope with the entrance (entrances) in the southwest wall that opened to the gravel path in front. The building yielded few small finds, which consist of everyday items such as ceramic rings, a ceramic bobbin, pottery, jewellery and a quernstone, while the iron slag, a casting pot and two ingots may represent the belongings of a caster that lived and worked in the house.

The north drainage wall, which was already constructed in the first phase and leaned against the wall of the construction pit, was carefully repaired where damaged and extended eastwards in the second phase. Drainage was improved by lining with upright marl slabs (combined drainage). The drainage in the west differed already in the first phase; the construction pit here was prepared into the unstable debris of the adjacent House 15A and the drainage drywall constructed, 0.55 m wide, with only the front face carefully made. Similar as in the east, it was lined with marl slabs.[34]

[33] Glej Svoljšak, Dular 2016, 114, sl. 102.
[34] Ib., 116, sl. 106.

[33] See Svoljšak, Dular 2016, 114, Fig. 102.
[34] Ib., 116, Fig. 106.

Na kamnit enovrstni in enoslojni temelj so bile v vogalih in na spojih predelnih sten z nosilnimi obodnimi stenami, torej na mestih, kjer so stale sohe, vstavljene večje plošče. Segale so čez robove temeljev, kar pomeni, da so z njimi naredili podlage za temeljne pragove, ki so segali čez linije sten. To je bilo nujno za solidno izvedbo križnega spaha. Skupaj s še ohranjenimi (čeprav zoglenelimi) deli temeljnega praga (hrastov les) so plošče dokaz o skeletni steni, postavljeni na kamnite temelje. Njej v prid govori tudi na zemljenem podu v vzhodnem prostoru ležeča ročica, vpeta v soho pod kotom 70°.

V dveh prostorih hiše so namestili zemljeni pod, odebeljeno dvignjen kot tesnilo še ob temelje. V zahodnem prostoru so na tanek poravnani sloj ruševin starejše hiše položili pod iz jelovih desk.

Tudi za hišo 15 velja, da bi zavoljo zelo kakovostne in trdne gradnje lahko imela pod dvokapno streho za bivanje urejeno podstrešje, kritino pa bolj verjetno leseno kot slamnato.

IZJEMI

Za večino stavb železnodobnega naselja je možno najti skupni imenovalec, le hiši 3 in 30 od ustaljenega načina gradnje odstopata. Prva se razlikuje po tlorisni zasnovi, hiša 30 pa ima na povsem enkraten način narejeno zahodno steno.

HIŠA 3

Hiša je bila zgrajena v obliki črke L. Imela je dva prostora: večjega (okoli 10 m²) in manjšega (okoli 6,50 m²). Postavljena je bila na obsežnejšo ravnico (podobno kot hiša 30) v plitvo vkopano gradbeno jamo. Temelj je bil kombinacija suho zidanega kamnitega podzidka za severozahodno steno v najgloblje vkopanem predelu gradbene jame in enega sloja kamnov ob vseh preostalih stenah. Ob temelju ni bilo drenaže. Ta v geološko ugodni podlagi niti ni bila potrebna, očitno je zadoščalo kar kamnito polnilo plitve gradbene jame. Le ob temelju jugozahodne, to je vhodne stene, so bile pokonci založene lomljene plošče apnenca.

Na vseh nosilno občutljivih mestih, to so vogali hiše in spoji večjega in manjšega prostora, so bile v temelj vgrajene večje plošče. Na teh mestih so v ogrodju skeletne stene stale sohe – v daljših stenah poleg vogalnih še po dve vmesni, v krajših stenah le po ena vmesna. Večji kamniti blok v večjem prostoru bi lahko služil za bazo slemenski sohi. Za gradnjo so uporabili izključno jelov les, in sicer tako za temeljne pragove kot za sohe. Tudi v ruševinah razsuto oglje je pripadalo jelki.

O načinu gradnje ostrešja in kritini ni bilo v ostalinah hiše nikakršnih pričevanj, zato ostaja rekonstrukcija strehe popolna domneva. Na risbi (*sl. 16*) je ostrešje

The single-line and single-course foundations had larger slabs built into the junctions of walls that supported the posts, and reached beyond the junctions so as to suggest that the sleeper beams above them also projected from the line of the wall. This was necessary for the cross-lapped joint to be solidly made. The corner slabs and the surviving (charred) remains of sleeper beams of oak wood reveal a timber-framed construction, an element of which is also a brace, joined with the post at a 70° angle, that was found on the earthen floor in the east room.

The two east rooms had an earthen floor raised onto the foundations, while the west room had a floor of fir boards laid onto a thin levelled layer of Phase 1 debris.

The carefully constructed and solid House 15 presumably had a gabled roof with a habitable attic and a wooden rather than thatch roofing.

EXCEPTIONS

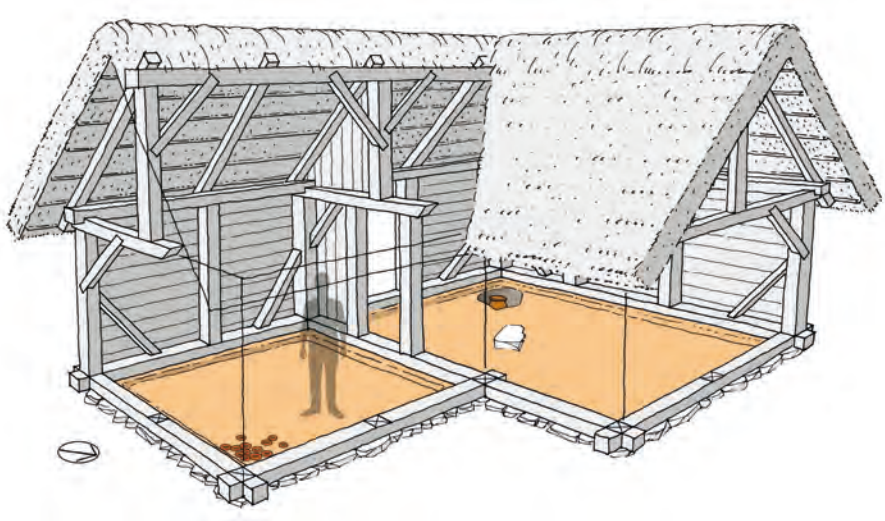
Two buildings stand apart from the others in construction manner: House 3 in ground plan and House 30 in its specifically constructed west wall.

HOUSE 3

The house had an L-shaped plan and two rooms: a larger one measuring around 10 m² and a smaller one of around 6.50 m². It was constructed on relatively flat ground present in this part of the settlement (similarly as House 30) and its construction pit was dug to a shallow depth. The foundations were a combination of a drywall construction for the northwest wall, where the construction pit was dug deepest into the ground, and a single course of stones elsewhere. There were no drainage walls along the foundations; they were presumably not necessary as the natural deposits in this area did not retain water and the stone fill of the shallow construction pit drained excess water to a sufficient degree. There were, however, upright slabs of limestone lining the foundations of the southwest wall that also held the entrance.

The foundations had larger slabs placed at wall junctions, where posts of the timber frame stood. Apart from these, there were also intermediary posts: two in the longer walls and one in the shorter ones. The large stone block just off the centre in the large room may have supported a ridge post. Only fir wood was used in construction, both for the sleeper beams and posts. The charcoal strewn across the debris was also fir.

The house yielded no evidence of the roof construction and covering. The drawn reconstruction (*Fig.*



Sl. 16: Rekonstrukcija prve gradbene faze hiše 3 (risba: T. Korošec).
Fig. 16: Reconstruction of the first construction phase of House 3 (drawing: T. Korošec).

prikazano v dvokapni zasnovi, za kritino je uporabljena slama, ob lesu vsekakor možen material.

Od notranje opreme hiše so se *in situ* ohranili v zahodnem kotu večjega prostora v geološko osnovo vstavljen lonec, obložen proti stenama s kamnitima ploščama. Na nivoju hodne površine je bil obdan s "tlakom" iz oblic. V manjšem prostoru je na zemljenem podu ali ognjišču ležala poleg skupine glinastih svitkov večja amorfna gmota glinastega ometa, v kateri so se ohranili manjši otrdeli kosi ornamentiranih glinastih plošč. Prav številčnost in raznolikost motivike na okrašenih ploščah napeljuje na pomisel o posebni vlogi hiše 3 v železnodobnem naselju, najsi je bila ta posebnost povezana s posebnim statusom njenih prebivalcev ali pa z njihovo dejavnostjo.

16) proposes a gabled roof covered with thatch, though wood cannot be excluded as roofing material.

Of the interior furnishing surviving *in situ*, excavations documented a jar in the west corner of the large room, placed into a pit dug into the natural deposit and lined with a pair of stone slabs at the corner. At ground level, the jar was surrounded by a cobbled 'paving'. Lying either on the floor or on a hearth, the small room revealed a group of ceramic rings, as well as a large amorphous mass of clay daub that included smaller hardened pieces of decorated ceramic plaques. The number of plaques and the diversity of their decorative designs suggests a special role of House 3 within the Iron Age settlement, related possibly to the special status of its inhabitants or to their activities.

HIŠA 30

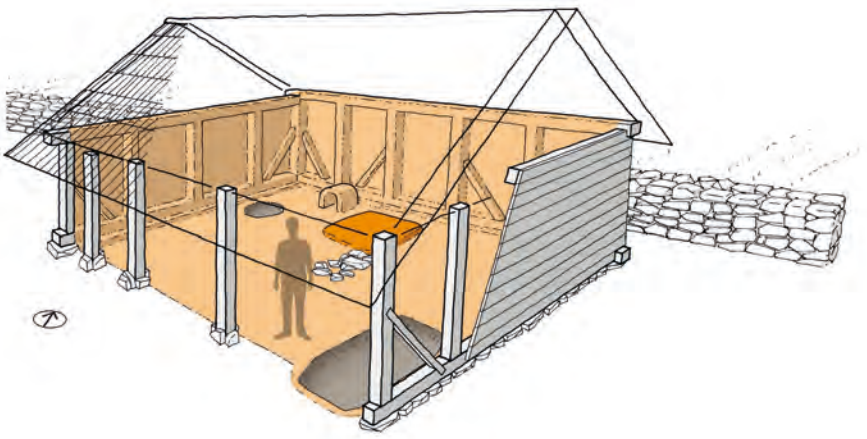
Hiša je stala na skrajnem vzhodnem robu naselja, tik ob suho zidani ogradi, onkraj katere se je razprostiralo poznolatensko in zgodnjerimsko grobišče. Glede na notranjo opremo je bila opredeljena kot pekarski obrat. Bila je eden večjih objektov s 25,50 m² uporabne površine.

Hiša je stala na ravnici oziroma v zelo blagem nagibu terena, tako da ne sodi med tipične v breg prislonjene hiše, ki so v naselju prevladovale (*sl. 17*). Na severni, vzhodni in južni strani je bilo njeno stavbišče urejeno s plitvim vkopom skozi tanek sloj ruševin starejše stavbe, ki je stala na tem mestu, deloma pa tudi v geološko podlago. Temelj iz ene lege in ene vrste kamnov ter nanj položen hrastov prag so varovale ob vkop gradbene jame založene drenažne plošče laporja

HOUSE 30

It stood at the eastern edge of the settlement, next to a drywall enclosure beyond which extends a Late La Tène and Early Roman cemetery. Its interior furnishings suggest that it functioned as a bakery. With 25.50 m² of usable space, it was one of the largest buildings unearthed in the settlement.

The house was located on fairly gentle slope and is therefore not among those sunken deep into the slope (*Fig. 17*). In the north, east and south, the construction pit of Phase 2 was dug to a shallow depth through the thin layer of debris of the Phase 1 house and into the natural deposits. The single-line and single-course foundations held oak sleeper beams and were protected by drainage slabs of marl and limestone lining the walls of the construction pit. This was fairly common type of



Sl. 17: Rekonstrukcija druge gradbene faze hiše 30 (risba: T. Korošec).
Fig. 17: Reconstruction of the second construction phase of House 30 (drawing: T. Korošec).

ali ploščato lomljenega apnenca. To je bila na Mostu na Soči kar pogosto uporabljena tehnika gradnje drenaž. Na zahodni strani, kjer je bil vhod v hišo, je bilo stavbišče poravnano z nivojem okolja.

Po obliki temelja in drenaže ter tudi iz ostankov zoglenelih temeljnih pragov je mogoče sklepati, da je imela stavba na vseh treh plitko vkopanih stranicah skeletne stene, medtem ko je bila zahodna stran narejena povsem drugače. Za vmesna nosilca strehe sta namreč služili stojki, postavljeni v jami, ki so ju obložili s ploščatimi kamni. Obloga je segala nekaj centimetrov nad hodno površino hiše. V preseku pravokotno stesani stojki (22 x 18 cm in 25 x 22 cm) z ravno odžaganima koncema so trdno umestili v kamniti okvir in ju še zagozdili. Od južne oziroma severne stene hiše sta bili odmaknjeni za okoli 2 m, podobna je bila tudi razdalja med njima. Tretja, v preseku kvadratna stojka (24 x 24 cm), je stala v podobno urejeni jami, vendar pa z drugima dvema ni bila poravnana. Šteti jo je zato za kasneje dodano oporo. Neporavnanost jam za stojke zelo otežuje rekonstrukcijo zahodne stene hiše, posebno njeno tlorisno podobo.

Gradnja s stojkami, trdno postavljenimi v obložene jame, je dopuščala opustitev temelja in temeljnega praga, s tem pa sta bila omogočena neovirano gibanje in vstop v prostor. Če je bil vhod med središčnima sohama, je bila njegova širina okoli 2 m. Tako grajena stranica hiše, drugačna od drugih treh sten, je bila očitno prilagojena funkciji stavbe. To pa je iskati še v drugi posebnosti te hiše, in sicer peči, edinim primerkom med dokaj skromnim nepremičnim inventarjem mostarskih železnodobnih hiš (ognjišča, jame). Postavili so jo ob pritlehnem ognjišču in tako na enem mestu (vzdrževanje, varnost) združili v hiši obe kuri-

drainage at Most na Soči. In the west, the bottom of the construction pit was level with the existing ground; this was also the side with the entrance.

The form of the foundations and drainage, as well as the charred remains of sleeper beams suggest that the house was timber-framed on three sides (north, east, south), while the west side showed a different construction. The roof here was supported by a pair of posts anchored in postholes (2 and 3) lined with flat stones. The lining projected several centimetres above the ground level. The posts were hewn to a rectangular cross section (22 x 18 cm and 25 x 22 cm) and their ends cut flat, placed into the lined postholes and packed with stones. Each was removed some 2 m from the south and the north wall, respectively, but also from each other. There was a third post (1), which was square in cross section (24 x 24 cm) and anchored in a similarly lined hole, but was not aligned with the other two posts; it should therefore be seen as a later addition. This misalignment also hinders a reliable reconstruction of the west wall.

The construction using posts anchored in stone-lined holes did not require foundations and sleeper beams, but did allow unobstructed access to the house. If the entrance were located between the central posts, its width would measure around 2 m. The different construction of this wall was presumably an adaptation to the function of the building. Another feature that is particular to this house is a built-in oven (the investigated houses at Most na Soči generally yielded few similar furnishings, such as hearths and pits). The oven was located next to a ground-level hearth, combining both features in the same place of the house (easier maintenance, greater safety). The oven had 0.25 m² of

šči. Kurilna površina v njej je merila 0,25 m², obdajal jo je iz lapornatih plošč sestavljen okvir, prevlečen z debelo glinasto izolacijsko oblogo. Kaj so pekli v njej? Domnevati smemo, da je služila peki nekvašenega kruha ali pogače, sodeč po izpričanem pridelovanju žit (več tipov pšenice, rž, proso).[35] Srp, ki je ležal na zemljenem hišnem podu, pa je tudi znanilec z žitom, moko in kruhom povezljive dejavnosti.

Z dejavnostjo v hiši sta bili povezani še dve jami, posebno jama ob njeni južni steni, ki je tlorisno podobna jamam v drugih delavnicah. Okoli nje je bilo razpršenih precej polomljenih glinastih svitkov, ki so med drugim lahko služili za obtežilo niti na statvah. V manjši okrogli jami blizu peči je morda stala lončena posoda za vodo.

Skeletne stene hiše so bile znotraj ometane z ilovnatim ometom. Sodeč po odtisih, so na deskah stenskega opaža zanj z vejnatim prepletom pripravili dober oprijem ali pa je zadostovala že groba, hrapava površina klanih desk.[36]

Ostrešje je pri dveh v hiši delujočih kuriščih in temu primerni zadimljenosti moralo biti odprto in glede na razsežnost tudi podprto. S kamni tlakovana površina ob ognjišču je zelo verjetna baza takšne strešne opore.

interior surface and an exterior frame composed of marl slabs covered with a thick layer of clay for insulation. The oven was used for baking food, presumably unleavened bread or cake as suggested by the documented crops of cereals (several types of wheat, rye, millet).[35] The sickle found on the earthen floor of the house also indicates activities connected with cereals, flour and bread.

The house had two pits that also tell of the activities taking place here, particularly the pit located at the south wall that is similar in plan to the pits in other workshops. There were a number of broken ceramic rings strewn around the pit, which may also have been used as loom weights. The other, smaller and round pit was located near the oven and may have held a ceramic water container.

The timber-framed walls of the building were daubed with loam in the interior. The impressions left on the pieces of daub show that the wall planks were either combined with wattle to improve adhesion or were left raw, with the rough surface of cleft planks sufficing.[36]

With the house having a hearth and an oven, both emitting smoke, the roof truss must have been open. The roof must also have been additionally supported; the stone-paved surface near the hearth was very likely the footing for such a support.

ZAKLJUČEK

Šestintrideset na Mostu na Soči odkritih in raziskanih hiš, od katerih so bile nekatere vsaj na nivoju temeljev in hišnega poda zelo dobro ohranjene (1, 2, 3, 5, 8, 10, 11, 15, 15A, 16, 20, 22, 22A, 26, 29, 30), druge pa le v manjših preostankih, je prineslo obilico gradbenih sestavin. Od hiše do hiše so se ponavljale in dopolnjevale, tako da je bilo v njih preprosto prepoznati kakovostno gradnjo in poseben gradbeni slog. Poimenovali smo ga kot posoško železnodobno stavbarstvo, ki se je ohranilo tudi v mlajši železni dobi (npr. hiše 31, 33, 35). Temeljilo je na znanju in izkušnjah ter rokodelskih veščinah posoških stavbenikov, ki so se pri gradnji povečini togo držali temeljnih gradbenih sestavin, saj so

CONCLUSION

The thirty-six investigated houses at Most na Soči, those that had well-preserved foundations and floors (1, 2, 3, 5, 8, 10, 11, 15, 15A, 16, 20, 22, 22A, 26, 29, 30) and others that survived in more limited extents, have provided an abundance of evidence on the construction practices in the region. The constructional details revealed a high quality and a specific style of construction named the Posočje type house, which continued to be built in the Late Iron Age (e.g. in Houses 31, 33, 35). It was the product of the knowledge and experience of the craftsmen of Posočje who used the basic principles

[35] Glej tu Motella De Carlo.

[36] Omet v območju hiše 30 ima dve obliki. Na enem so ohranjeni odtisi okroglega lesa – vej, drugi so trikotnega preseka in so lahko bili mašila. Ta so bila vezana na jame zunaj tlorisa hiše 30, ki so stratigrafsko gledano starejše (prva faza hiše). Oboje je zelo pomembno za razumevanje načina gradnje: mašila so prišla v poštev pri gradnji z bruni, veje pa pri gradnji z vejnatim prepletom ali iz vej narejene opore za ilovnat stenski omet. Toliko ometa z odtisi vej ni bilo v nobeni drugi hiši. Temelji in temeljni prag, ohranjen na temelju, kažejo na običajen način gradnje, dokazan in preverjen v večini hiš. Plast ometa je bila najbolj debela ob temeljih in nad njimi, čezenj so nalegale še drenažne plošče. Ležal je tudi v notranjosti prostora na zemljenem podu, največ do 1,85 m od temelja. To bi kazalo na padlo steno in s tem na (približno) višino bivalnega prostora.

[35] See here Motella De Carlo.

[36] The recovered daub pieces in the area of House 30 are of two types: one are pieces with the impressions of round pieces of wood – branches, the other are triangular-sectioned pieces that may represent caulking. The latter were found in pits outside the house, which are stratigraphically earlier (first construction phase). Both are important for the understanding of the construction technique: caulking was used with logs or planks, branches in wattlework walls or daub supports. No other house yielded so much daub with branch impressions. The foundations and the sleeper beam surviving on them suggest a standard construction technique used in most houses. The daub was thickest along and above the foundations, with drainage slabs leaning over them. Daub was also found on the earthen floor in the interior, up to 1.85 m from the foundations; this may suggest a collapsed wall and consequently the (approximate) height of the living quarters.

zagotavljale trdnost stavb in bivanjsko ugodje, velikost stavb in njihovo izvedbo pa so prilagajali naročnikovim potrebam. Od tod opazna raznolikost stavb v sicer urejenem naselju. Povrhu so stavbe glede na njihovo namembnost primerno razvrščali v prostoru – stanovanjske hiše v ugodnejše geološke predele ledeniške morene na pobočjih pod tremi kuki, delavniške pa na slabša območja, kjer je bilo treba poskrbeti za primerno infrastrukturo. Razen nekaj izjem (hiše 3, 11, 30) so bile vse druge stavbe postavljene v breg, zato so lahko imele nekatere v bivalni prostor urejena podstrešja. Za tri je značilno, da so imele na vseh štirih straneh vkopane oziroma obsute stene (1/1, 11/2, 29). Te so imele skozi obsutje narejen nadkrit vhod.

Razen po velikosti so se hiše razlikovale tudi po funkcionalnosti. Ločimo lahko stanovanjske (1, 5, 6/1, 8, 10, 11, 13, 15, 16, 17, 20, 26, 29/2) in delavniške (4, 12, 15A, 22A, 22, 23, 29/1, 30/2), stanovanjske pa razdelimo še na enoprostorne (6/1, 10, 16/1, 20, 24, 26), dvoprostorne (1, 5, 16) in najbolj razkošne s tremi prostori (8, 11/2, 15). Dve dvoprostorni hiši (1, 16) in še nekatere, ki so jima po nekaterih sestavinah (jame) zelo blizu (5, 13, 17), imajo podoben kvadraten tloris, eden od prostorov je bil urejen za shrambo. Nad shrambami je bil nujen strop.

Hiši 8 in 15 sta bili v tlorisu ozki in dolgi. V nekaterih primerih, ko so bili ohranjeni le stavbni fragmenti (hiše 2, 9, 18, 19, 21, 25, 27, 28), njihova oblika sicer ni bila določljiva, vendar z detajli dobro dopolnjujejo sliko posoškega železnodobnega stavbarstva.

Stanovanjske hiše so stale posamič, imele so tudi očitno večjo okolico, medtem ko so bile delavniške stavbe razmeščene bodisi posamič (4, 12, 30) ali pa v urejenem nizu ob vaški poti (15A, 22A, 22, 23).

Kronološko sodijo vse odkrite hiše v drugo stopnjo svetolucijske halštatske kulture (Sv. Lucija II). Večina jih je bila zaradi uničujočih požarov enkrat ali dvakrat obnovljena. Pri tem so v glavnem uničili sestavine in tudi inventar starejših stavb, če pa so bili posamični deli dobro ohranjeni, so jih vključili v prenovo. Presenetljivo je, da se je v stanovanjskih hišah ohranil le neuporaben ali manj cenjen premični inventar (izjema je prva faza hiše 16), medtem ko so porušene delavnice ponudile dosti bolj pisano arheološko tvarino. Izpraznjenost stanovanjskih hiš nakazuje na pravočasen umik iz gorečih stavb.

Še posebno preseneča skromen bivalni nepremični hišni inventar, ki ga predstavljajo redka znotraj hiš nameščena ognjišča, shrambne jame, peč. Prav zato je verjetno, da so pri hišah stala pomožna poslopja (shrambe, hlevi, kuhinje), v nekaterih primerih so ta tudi ugotovljena (npr. v sondi 1). Nesorazmerna s kakovostjo gradnje hiš je skromna ohranjenost notranje opreme (izjema so delavnice in prva faza hiše 16), h kateri so sodile tudi premične glinaste plošče, okrašene z raznoliko geometrijsko motiviko (edini figuralni

of construction to ensure the stability of construction and the comfort of the living standards, with the size and shape of the houses adapted to the needs of the inhabitants. The latter considerations produced a variety of buildings sited within the settlement according to their function – the residential buildings in the geologically better suited parts of the moraine till, on the slopes below the three peaks, and the workshops on poorer ground that required additional infrastructure. With rare exceptions (Houses 3, 11, 30), buildings were sunken into the slope, which suggests that some may have had a habitable attic. Three houses (1/1, 11/2, 29) were sunken into the ground or slope on all four sides, and were furnished with an entrance with a projecting roof.

The buildings differed in size and function, as mentioned above; we can distinguish between residential units (1, 5, 6/1, 8, 10, 11, 13, 15, 16, 17, 20, 26, 29/2) and workshops (4, 12, 15A, 22A, 22, 23, 29/1, 30/2). The residential units or houses can be further divided into single-room (6/1, 10, 16/1, 20, 24, 26), two-room (1, 5, 16) and three-room buildings (8, 11/2, 15). Two of the two-room houses (1, 16) and several others with similar features, i.e. pits (5, 13, 17), have a comparable, square plan, with one of the rooms used for storage. Storage rooms certainly required a ceiling.

Houses 8 and 15 were narrow and long in plan. Some houses could not be determined as to their plan (Houses 2, 9, 18, 19, 21, 25, 27, 28), but they nevertheless revealed details that importantly add to our understanding of the construction techniques practised in Posočje in the Iron Age.

Residential buildings stood separate from one another, i.e. were detached and apparently provided with a certain free space around them, while the workshops were either detached (4, 12, 30) or huddled together in a row along the path (15A, 22A, 22, 23).

All the investigated houses date to the second phase of the Sveta Lucija group of the Hallstatt culture (Sv. Lucija II). Most were renovated once or twice following destructive fires. Renovation involved removing the damaged remains of the previous houses, their constructional elements, interior furnishings and movable items, while the parts that survived to a sufficient degree were incorporated into the new building. Surprisingly, the residential buildings only revealed items that were no longer usable (with the exception of the first phase of House 16), while the workshops yielded a much richer array of archaeological finds. The paucity of finds suggests that the burning houses were emptied of portable items and people in time.

Even more surprising is the paucity of immovable furnishings of houses, with rare hearths, storage pits and a single oven. This opens the possibility of outbuildings (pantries, stables, kitchens), some of which have been documented (e.g. in Trench 1). Dis-

motiv na njih je konj z jezdecem).[37] Nameščene so bile na izbrana mesta in so svojevrsten izraz umetniškega ustvarjanja v železnodobni vasi. Plemenitile so bivalno ugodje in pričajo ne nazadnje o udobju, za katerega ni bila merilo velikost bivalne površine.

Mogočna nisi, ne prostorna
in stavil te umetnik ni,
bolj kot bogata si uborna
preprosta selska hiša ti.

Simon Gregorčič, Kmetski hiši

[37] Svoljšak, Dular 2016, t. 65: 4.

proportionate with the high quality of construction is the poor preservation of the interior furnishings (with the exception of the workshops and the first phase of House 16) that included the terracotta plaques decorated with different geometric motifs (the only figural motif is that of a mounted horseman).[37] These plaques were fitted in select areas of the houses and are a testimony to the artistic expression in the Iron Age village; they enhanced a living environment not measured according to the size of the house.

[37] Svoljšak, Dular 2016, Pl. 65: 4.

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KOVINSKE IN STEKLENE NAJDBE TER KAMNITI KALUPI IZ ŽELEZNODOBNE NASELBINE NA MOSTU NA SOČI

METAL FINDS, GLASS FINDS AND STONE MOULDS FROM THE IRON AGE SETTLEMENT AT MOST NA SOČI

Boštjan LAHARNAR

UVOD

Arheološko tipokronološko analizo drobnih kovinskih in steklenih najdb ter kamnitih kalupov iz železnodobne naselbine na Mostu na Soči predstavljamo v treh sklopih. Najprej obravnavamo gradivo iz raziskanih hiš, nato iz ruševine druge gradbene faze hiše 6 oz. kultnega mesta in nazadnje najdbe z območij z razpršenimi sledmi poselitve. Gradivo pri posameznih podpoglavjih obravnavamo po zvrsteh, najprej nakit, nato orožje, orodje, razne pripomočke in nazadnje kamnite livarske kalupe. V prvi vrsti želimo, kadar je to mogoče, ugotoviti funkcijo ter predlagati časovni okvir uporabe obravnavanih predmetov, kar bo v pomoč pri končnem kronološkem ovrednotenju raziskanega dela naselbine.

INTRODUCTION

The contribution below discusses the metal and glass finds, as well as the stone moulds recovered from the Iron Age settlement at Most na Soči. The results of their typo-chronological analysis are presented in three sections. The first one examines the finds from the investigated houses, the second one those from the debris of the second phase of House 6 interpreted as a cult place and the third section the finds from the locations of dispersed habitation traces. Within each section, the finds are presented according to function: first pieces of jewellery, followed by weapons, tools and implements, and finally stone moulds. The aim of the analysis is to establish, inasmuch as possible, the function of the finds and the span of their use as a step towards a comprehensive chronological assessment of the settlement.

NAJDBE IZ HIŠ

NAKIT

Fibule

V plasti ruševin ob južnem temeljnem zidu prve gradbene faze hiše 23 je bila odkrita skupina treh bronastih ***dolgonožnih ločnih fibul*** (*t. 66: 1–3*)[1]. Tej ali sorodni obliki fibule je verjetno pripadal tudi odlomek noge fibule iz istega skupka najdb (*t. 66: 4*). Dolgonožne ločne ali pijavkaste fibule označuje značilna polkrožna oblika votlega ali polnega loka,[2] ki je pogosto okrašen z vrezi, ter največkrat dolga noga s kroglasto odebeljenim zaključkom. Peresovina je izdelana iz dvakrat navite žice. Naštete oblikovne značilnosti so lastne tudi primerkom z votlim lokom iz hiše 23.

[1] Pri navajanju gradiva se sklicujemo na table v prvi knjigi o železnodobni naselbini na Mostu na Soči (Svoljšak, Dular 2016).

[2] Teržan, Lo Schiavo, Trampuž-Orel 1985, 22–23: št. 5–7.

FINDS FROM HOUSES

JEWELLERY

Fibulae

The debris layer unearthed along the south foundations of the first construction phase of House 23 revealed a group of three bronze ***long-footed bow fibulae*** (*Pl. 66: 1–3*)[1]. A foot fragment of another fibula (*Pl. 66: 4*) from the same assemblage belongs either to this or to a similar form. Long-footed bow or leech fibulae are characterised by a semi-circular outline of the bow that is either hollow or solid,[2] and often decorated with incisions, a predominantly long foot with a spherical terminal and a two-coil spring. The enumerated formal characteristics also apply to the leech fibulae from House 23 that have a hollow bow.

[1] The references to the drawings of small finds are on the plates in the first volume on the Iron Age settlement at Most na Soči (Svoljšak, Dular 2016).

[2] Teržan, Lo Schiavo, Trampuž-Orel 1985, 22–23: Nos. 5–7.

Biba Teržan in Neva Trampuž-Orel sta pijavkaste fibule opredelili kot obliko stopenj Sv. Lucija Ic2 in IIa.[3] Avtorici ugotavljata, da je prehod med stopnjama Ic2 in IIa nepretrgan.[4] Horizont Sv. Lucija Ic2 sta umestili na prelom iz 7. v 6. st. pr. n. št. oz. v čas prehoda med staro- in mladohalštatskim obdobjem. V tem obdobju so pijavkaste fibule in fibule z nizkim lokom in dolgo nogo izražale jasne zveze z italskim prostorom.[5]

Na mostarskem grobišču bi njihov pojav že v stopnji Ic2 nakazovale kombinacije s čolničastimi,[6] dvozankastimi vozlastimi[7] in dolgonožnimi ločnimi fibulami z nizkim lokom,[8] v stopnji Sv. Lucija IIa pa kombinacije s svetolucijskimi,[9] kačastimi,[10] trakastimi,[11] masivnejšimi oblikami rtastih[12] in drugimi različicami dolgonožnih ločnih fibul.[13] Med slednjimi je večkrat različica z luknjicami za okras na loku,[14] ki velja za mlajšo različico v evoluciji dolgonožnih ločnih fibul in je kasnejša od stopnje Sv. Lucija Ic2.[15] To nazadnje potrjuje najdba dveh tovrstnih fibul, okrašenih s številnimi obeski (npr. s trikotnim obeskom, na katerem so nameščeni trije obeski v obliki rokice) in obročki, v grobu 10 grobišča "Pian de la Gnela" pri Pieve d'Alpago. Po Diegu Voltoliniju grob ni starejši od sredine 6. st. pr. n. št.[16]

Opozarjamo na previdnost pri sklicevanju na grobne celote z Mosta na Soči pri tipokronološkem opredeljevanju gradiva. Svetolucijski grobovi z veliko pridatki večkrat vsebujejo predmete, ki so po uveljavljenih tipokronologijah različno stari. Med njimi je npr. grob Sz 2229 (*sl. 1*), ki vsebuje pijavkasto fibulo (*sl. 1: 3*), dolgonožni ločni fibuli z luknjicami na loku (*sl. 1: 1–2*), odlomek kačaste fibule s ploščicama (*sl. 1: 5*), samostrelno fibulo z dvignjeno pečatno nogo (*sl. 1: 6*), lok certoške fibule vrste IIa po Teržanovi (*sl. 1: 4*) in prstan (*sl. 1: 7*).[17] Pijavkasta fibula sodi v stopnji Ic2 in IIa, dolgonožni ločni fibuli z luknjicami v stopnjo IIa, kamor se večinoma datira tudi kačasta fibula s ploščicama.[18] Kasnejši sta certoška fibula vrste IIa in samostrelna fibula s pečatno nogo, ki sta značilni najdbi horizonta Sv. Lucija

[3] Teržan, Trampuž 1973, 424, 428; tako tudi Gabrovec 1987, 128–129.

[4] Teržan, Trampuž 1973, 428.

[5] Ibid., 427.

[6] Teržan, Lo Schiavo, Trampuž-Orel 1984, t. 55C, 230D.

[7] Ibid. 138B, 175E, 200C, 248D.

[8] Ibid., t. 99D, 200C, 230D.

[9] Ibid., t. 55C, 83B, 159C, 214A, 227A, 231F.

[10] Ibid., t. 157C, 227A, 231F, 232A.

[11] Ibid., t. 210A, 231F.

[12] Ibid., t. 159C.

[13] Ibid., t. 83B.

[14] Ibid., t. 55C: 4, 210A: 2, 214A: 2, 230D: 2, 232A: 1–2.

[15] Teržan, Trampuž 1973, 429; Gabrovec 1987, 129; Nascimbene 2009, 133, op. 321.

[16] Voltolini 2015, 49.

[17] Teržan, Lo Schiavo, Trampuž - Orel 1984, t. 232A; Ibid., 1985, 353.

[18] Tecco Hvala 2014, 152.

Biba Teržan and Neva Trampuž attribute leech fibulae to the Sv. Lucija Ic2 and IIa phases.[3] They also observe that the transition between these two phases was smooth.[4] In absolute terms, they date Sv. Lucija Ic2 to the transition from the 7th to the 6th century BC, i.e. to the transition from the Early to the Late Hallstatt period. In this phase, leech and long-footed fibulae with a low bow indicate clear connections with Italy.[5]

At the Most na Soči cemetery, their appearance already in the Ic2 phase is indicated by the association with boat,[6] two-looped knobbed[7] and long-footed bow fibulae with a low bow.[8] Their continuous use in the IIa phase is suggested by the association with the Sveta Lucija,[9] serpentine,[10] band,[11] larger variants of two- or three-knobbed fibulae (*Zwei-, Dreiknopffibeln*)[12] and other variants of long-footed bow fibulae.[13] The last of the enumerated fibula forms includes several examples of the variant with holes for inlaid decoration on the bow,[14] which is deemed a later variant in the development of long-footed bow fibulae and postdates the Sv. Lucija Ic2 phase.[15] This is corroborated by the find of two such fibulae with numerous pendants (e.g. with a triangular pendant hung with three hand-shaped pendants) and rings hanging from them, found in Grave 10 of the Pian de la Gnela cemetery near Pieve d'Alpago; according to Diego Voltolini, the grave does not predate the mid-6th century BC.[16]

We should note that caution is required when using the grave groups from Most na Soči for a typo-chronological attribution of comparable finds, as these graves were often found to contain items of differing phases, if judging from the established typo-chronologies. For example, Grave Sz 2229 (*Fig. 1*) revealed a leech fibula (*Fig. 1: 3*), two long-footed bow fibulae with holes on the bow (*Fig. 1: 1–2*), a fragment of a serpentine fibula with two discs on the bow (*Fig. 1: 5*), a fibula with a crossbow spring (*Armbrustfibel*) and a raised stamp-shaped foot (*Fig. 1: 6*), the bow of a Certosa fibula of Variant IIa after Teržan (*Fig. 1: 4*) and a finger ring (*Fig. 1: 7*).[17] The leech

[3] Teržan, Trampuž 1973, 424, 428; the same dating in Gabrovec 1987, 128–129.

[4] Teržan, Trampuž 1973, 428.

[5] Ibid., 427.

[6] Teržan, Lo Schiavo, Trampuž-Orel 1984, Pls. 55C, 230D.

[7] Ibid., 138B, 175E, 200C, 248D.

[8] Ibid., Pls. 99D, 200C, 230D.

[9] Ibid., Pls. 55C, 83B, 159C, 214A, 227A, 231F.

[10] Ibid., Pls. 157C, 227A, 231F, 232A.

[11] Ibid., Pls. 210A, 231F.

[12] Ibid. , Pl. 159C.

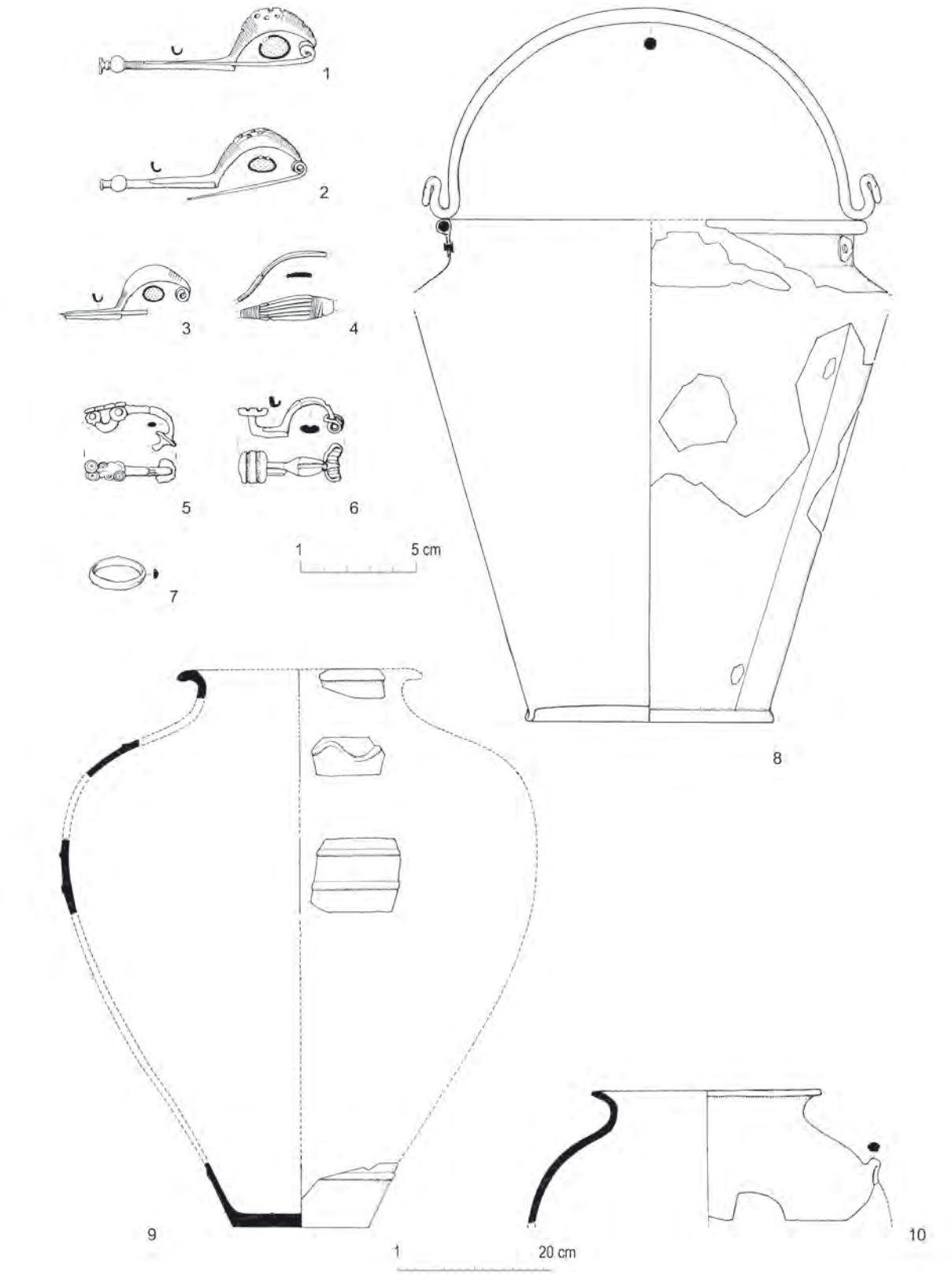
[13] Ibid., Pl. 83B.

[14] Ibid., Pls. 55C: 4, 210A: 2, 214A: 2, 230D: 2, 232A: 1-2.

[15] Teržan, Trampuž 1973, 429; Gabrovec 1987, 129; Nascimbene 2009, 133, Fn. 321.

[16] Voltolini 2015, 49.

[17] Teržan, Lo Schiavo, Trampuž-Orel 1984, Pls. 232A; Ibid., 1985, 353.



Sl. 1: Most na Soči. Grob Sz 2229 (po Teržan, Trampuž-Orel, Lo Schiavo 1984, t. 232A).
Fig. 1: Most na Soči. Grave Sz 2229 (from Teržan, Trampuž-Orel, Lo Schiavo 1984, Pl. 232A).

IIb1.[19] Iz Szombathyjevih dnevniških zapisov izvemo, da je grob 2229 ležal 45 cm globoko in ga je prekrivala kamnita plošča s premerom 80/100 cm. Najdbe izvirajo iz keramične žare, ki je bila skoraj do vrha zapolnjena z žganino, vrh nje je ležala slabo ohranjena bronasta situla (*sl. 1: 8*).[20] Za žaro so uporabili značilni svetolucijski narebreni pitos (*sl. 1: 9*). Tovrstne keramične pitose so na svetolucijski nekropoli uporabljali od stopnje Ic do konca starejše železne dobe.[21] Bronasta situla ima kratek vrat in navzven zavihano ustje, kar je značilnost situl stopnje Sv. Lucija IIa.[22] Pomenljivo je opažanje avtoric, ki so se pri opredeljevanju grobne celote oprle tudi na patino predmetov in pri tem ugotovile, da glede na podobnost patine eno skupino sestavljajo dolgonožne ločne fibule, drugo certoška in samostrelna fibula s pečatno nogo.[23] Ali smemo to razumeti kot nesočasen pokop vsaj dveh oseb na istem mestu? Na fenomen takšnih pokopov je bilo že večkrat opozorjeno in verjetno ni bil zgolj pojav venetskih središč,[24] ampak v določeni meri tudi podalpskih najdišč s periferije estenske kulture[25] in morda tudi Mosta na Soči.

Specifičnost mostarskih grobnih celot ter odsotnost in problematičnost radiokarbonskih[26] datumov za najdišča svetolucijske skupine nakazujejo podobne ugotovitve kot v dolenjski halštatski skupini. Teržanova v analizi kronoloških vprašanj dolenjske skupine namreč ugotavlja, da absolutne datacije nekoliko "plavajo", pri čemer edina opora za datiranje ostaja "klasična" primerjalna arheološka analiza kronološko relevantnih celot in značilnih zvrsti predmetov.[27]

Datacija pijavkastih fibul v stopnjo Sv. Lucija IIa, ki je sočasna horizontu kačastih fibul na Dolenjskem,[28] je tako dobro podprta z najdbo tovrstne fibule v ženskem grobu 136 gomile 48 v Stični.[29] Ni pa na Dolenjskem

[19] Teržan 1976, 349–351.

[20] Teržan, Lo Schiavo, Trampuž-Orel 1985, 353, sl. 141.

[21] Dular 1982, 103; glej Grahek v tej knjigi.

[22] Teržan, Trampuž 1973, 429.

[23] Teržan, Lo Schiavo, Trampuž-Orel 1985, 353, op. 27.

[24] Passucci 1981, 133–134; Gambacurta 2005, 335–338; Gamba, Gambacurta 2010; Ruta Serafini 2013, 94–95.

[25] Gangemi, Bassetti, Voltolini 2015, 33–34; Voltolini 2015, 145.

[26] Z območja svetolucijske skupine razpolagamo s petimi radiokarbonskimi datacijami grobov iz Kobarida. Med njimi so štirje s čolničastimi fibulami (Kruh 2014, 615–627). Teržanova in Črešnar jih označujeta kot predstavnike horizonta čolničastih fibul (stopnja Sv. Lucija Ic) in jih datirata v prvo polovico in sredino 7. st. pr. n. št. (2014, 716–717, 719). Poleg tega smo soočeni še s problemom t. i. halštatskega platoja na kalibracijski krivulji, ki onemogoča preciznejše datiranje posameznih horizontov (Teržan, Črešnar 2014, 703).

[27] Teržan 2008, 276.

[28] Ibid., 287.

[29] Gabrovec 1987, 58, sl. 4: 9; Gabrovec et al. 2006, 98, t. 78: 7.

fibula is attributable to Ic2 and IIa, the two long-footed bow fibulae to IIa, for the most part similarly as the serpentine fibula with two discs on the bow.[18] The Variant IIa Certosa fibula and the fibula with a crossbow spring, to the contrary, are later and typical of the Sv. Lucija IIb1 phase.[19] Szombathy's diaries show that Grave 2229 lay 45 cm deep and was covered with a stone slab measuring 80/100 cm across. The artefacts were found in a ceramic urn, which was filled almost to the rim with cremated and burnt remains and was covered by a poorly preserved bronze situla (*Fig. 1: 8*).[20] The urn is a cordoned pithos characteristic of the Sveta Lucija group (*Fig. 1: 9*). Such ceramic pithoi were in use in the Most na Soči cemetery from the Ic phase to the end of the Early Iron Age.[21] The bronze situla has a short neck and an everted rim, which is characteristic of the situlae dated to the Sv. Lucija IIa phase.[22] We should also note that the authors of the publications use the differing patina on the objects to distinguish between two groups: one that comprises the long-footed bow fibulae and the other the Certosa fibula and the fibula with a crossbow spring with a stamp-shaped foot.[23] Is it possible to see this as the remains of at least two different individuals from different phases buried on the same spot? Such a possibility has already been raised for several graves and was probably not a phenomenon limited to Venetic centres,[24] but to a certain degree also present in the sub-Alpine sites on the periphery of the Este culture[25] and possibly also at Most na Soči.

The specific features of the grave groups from Most na Soči, as well as the absence of and the problems associated with the results of the radiocarbon analyses[26] pertaining to the sites of the Sveta Lucija group lead to conclusions similar to those for the Dolenjska Hallstatt group. In her analysis of certain chronological issues pertaining to the Dolenjska group, Teržan observes that the absolute dates are too broad and unreliable, with the 'classic' comparative analysis of the chronologically

[18] Tecco Hvala 2014, 152.

[19] Teržan 1976, 349–351.

[20] Teržan, Lo Schiavo, Trampuž-Orel 1985, 353, Fig. 141.

[21] Dular 1982, 103; see Grahek in this book.

[22] Teržan, Trampuž 1973, 429.

[23] Teržan, Lo Schiavo, Trampuž-Orel 1985, 353, Fn. 27.

[24] Passucci 1981, 133–134; Gambacurta 2005, 335–338; Gamba, Gambacurta 2010; Ruta Serafini 2013, 94–95.

[25] Gangemi, Bassetti, Voltolini 2015, 33–34; Voltolini 2015, 145.

[26] From the area of the Sveta Lucija group, we have at our disposal five radiocarbon dated graves from Kobarid. Four of them contained boat fibulae (Kruh 2014, 615–627). Teržan and Črešnar see them as the representatives of the Boat Fibula horizon (the Sv. Lucija Ic phase) and date them to the first half and mid-7th century BC (2014, 716–717, 719). In connection with radiocarbon dating the period, there is the problem of the Hallstatt plateau to contend with, which hinders a more precise dating of individual horizons (Teržan, Črešnar 2014, 703).

nobene v zanesljivem kontekstu iz predhodne stopnje Stična 2, ki je sočasna stopnji Sv. Lucija Ic2.

Stopnjo Sv. Lucija IIa, ki predstavlja prvi horizont mladohalštatskega obdobja v Posočju, med drugim označujejo ***kačaste fibule*** raznih različic.[30] Po novejših tipoloških študijah opredeljujemo klasični obliki ***kačaste fibule s krilci*** (*t. 94: 2*)[31] kot tip V po Tecco Hvalovi[32] ali kot varianto B tipa I.2 po razdelitvi Nascimbenejeve,[33] obliko ***s ploščicami*** (*t. 57: 17*) pa kot tip VI po Tecco Hvalovi.[34] Obe obliki se v grobovih Mosta na Soči pogosto pojavljata skupaj.[35]

Fibula iz nasute zemljine ob ogradi poleg hiše 30 (*t. 94: 2*) spada med manjše in neokrašene primerke tipa V, ki jih je Tecco Hvalova opredelila kot različico Va.[36] Iz karte razprostranjenosti kačastih fibul s krilci je razvidno, da gre za izdelke jugovzhodnoalpskega delavniškega kroga. Odkrili so jih tudi na najdiščih v delti reke Pad, osrednjih Alpah in Donji Dolini. Največ jih izvira prav z grobišča na Mostu na Soči, kjer so kar v tretjini grobov s takimi fibulami, odkritih pri Szombathyjevih izkopavanjih, predstavljale edino vrsto zaponk. Tecco Hvalova je zaključila, da njihov pojav v kombinaciji s kačastimi fibulami drugih različic, fibulami očalarkami ter dvozankastimi, čolničastimi, rtastimi, svetolucijskimi in trakastimi fibulami, nakazuje njihovo dolgotrajno uporabo. V modi naj bi bile vse od stopnje Sv. Lucija Ic2 do stopnje IIb.[37]

Tudi na Dolenjskem obstajajo pokazatelji dolgotrajne noše kačastih fibul s krilci. Njihov pojav v stopnji Stična 2 dolenjskega halštatskega obdobja naj bi dokazovali grobovi, v katerih so bile odkrite skupaj s čolničastimi fibulami in fibulo ježevko. Nošnjo še vse do certoškega obdobja pa nakazuje odkritje grobov, v katerih nastopa s certoškimi fibulami V. vrste in samostrelno figuralno fibulo.[38] Vendar pri tem velja previdnost. Obe skrajni meji časovnega razpona njihove mode na Dolenjskem večinoma nakazujejo grobne celote iz Brezij, ki so v veliki meri nezanesljive, saj gre za stara izkopavanja, iz časa pred 1. sv. vojno. Naj na tem mestu navedemo le grob Brezje 7/33,[39] ki naj bi nakazoval pojav kačastih fibul s krilci že v času mode fibule ježevke.[40] Grobno celoto moramo postaviti pod vprašaj, saj vsebuje predmete, značilne za kar tri relativno kronološke stopnje dolenjske halštatske kulture. Fibula s stekleno oblogo oz. ježevka

[30] Teržan, Trampuž 1973, 428.
[31] Cunja, Mlinar 2010, 100, kat. št. 47.
[32] Tecco Hvala 2012, 233, sl. 88: 11; ista 2014, 133–134.
[33] Nascimbene 2009, 75– 76.
[34] Tecco Hvala 2014, 135–136.
[35] Ibid., 152.
[36] Ibid., 133–134.
[37] Ibid., 150–152.
[38] Ibid., 151–152.
[39] Kromer 1959, 27, 65, t. 31: 1–8.
[40] Tecco Hvala 2014, 152, op. 200.

diagnostic grave groups and the characteristic artefact forms remaining the only sound basis for chronological attributions.[27]

With this in mind, leech fibulae are attributed to the Sv. Lucija IIa phase, which is contemporaneous with the Serpentine Fibula phase in Dolenjska,[28] where this attribution is supported by the find of such a fibula in Grave 136 of a woman buried in Tumulus 48 at Stična.[29] The region of Dolenjska revealed no leech fibulae in reliable contexts from the previous, Stična 2 phase, which is contemporary with Sv. Lucija Ic2.

The Sv. Lucija IIa phase, the first horizon of the Late Hallstatt period in the Posočje area, is also marked by ***serpentine fibulae*** in several variants.[30] Recent typological studies determine the classic forms of ***serpentine fibulae with wings*** (*Pl. 94: 2*)[31] as Type V after Tecco Hvala[32] or as Variant B of Type I.2 after Nascimbene,[33] and the form ***with discs on the bow*** (*Pl. 57: 17*) as Type VI after Tecco Hvala.[34] At Most na Soči, the two forms often occur together in graves.[35]

The fibula found in the earthen deposit along the enclosure at House 30 (*Pl. 94: 2*) ranks among the smaller and undecorated examples of Type V, which Tecco Hvala determines as Variant Va.[36] The distribution map of the serpentine fibulae with wings show that these are the products of workshops active in the south-eastern Alpine area. Examples have also been unearthed at sites in the delta of the River Po, in the central Alps and at Donja Dolina in Bosnia. The greatest number of them, however, is known from the cemetery at Most na Soči, where a third of the graves with such fibulae excavated by Szombathy revealed no other forms of fibulae. Tecco Hvala conclude that their association with the serpentine fibulae of other forms, with spectacle fibulae and with two-looped, boat, two- or three-knobbed, Sveta Lucija and band bow fibulae indicates their prolonged use; they are believed to have stayed in vogue from the Sv. Lucija Ic2 to the IIb phase.[37]

Finds from Dolenjska include examples that seem to corroborate a prolonged use of the serpentine fibulae with wings. They presumably appeared in the Stična 2 phase of the Dolenjska Hallstatt period, as suggested by the graves in which such fibulae were found together with boat fibulae and in one case a fibula with a spiky glass overlay. The continuous use into the Certosa Fibula

[27] Teržan 2008, 276.
[28] Ibid., 287.
[29] Gabrovec 1987, 58, Fig. 4: 9; Gabrovec et al. 2006, 98, Pl. 78: 7.
[30] Teržan, Trampuž 1973, 428.
[31] Cunja, Mlinar 2010, 100, Cat. No. 47.
[32] Tecco Hvala 2012, 233, Fig. 88: 11; ead. 2014, 133–134.
[33] Nascimbene 2009, 75–76.
[34] Tecco Hvala 2014, 135–136.
[35] Ibid., 152.
[36] Ibid., 133–134.
[37] Ibid., 150–152.

je element stopnje Stična 2[41] ali certoškega horizonta,[42] narebrena zapestnica s presegajočima koncema in kačasta fibula sodita v kačasto stopnjo,[43] velike kroglaste jantarne jagode ter narebrene zapestnice s stikajočima se koncema pa v certoški horizont.[44] Tiste kačaste fibule s krilci, ki izvirajo iz zanesljivih in dobro datiranih grobnih celot,[45] so iz kačaste stopnje. Primerek iz groba 4 gomile v Volčjih njivah[46] lahko zaradi narebrene zapestnice s stikajočimi se konci[47] datiramo na sam konec kačaste oz. na prehod v certoško stopnjo.

Argumenti za zgodnjo datacijo pojava kačastih fibul s krilci na Dolenjskem so torej neprepričljivi. Kačaste fibule s krilci so se morda pojavile celo nekoliko kasneje kot različice s pestiči in sedlastim lokom[48] in vsekakor predstavljajo eno od značilnih oblik kačaste stopnje na Dolenjskem oziroma horizonta Sv. Lucija IIa v Posočju,[49] medtem ko moramo njihovo dolgotrajno uporabo oz. širok časovni razpon njihove nošnje (od stopnje Sv. Lucija Ic2 do stopnje IIb) postaviti pod vprašaj.

Med drobnimi najdbami druge faze hiše 8 je ***kačasta fibula s sedlastim lokom*** in diskom na prehodu loka v iglo (*t. 29: 8*), kar jo opredeljuje kot tip IVb po tipologiji Tecco Hvalove.[50] Tipu IV pripada tudi fragmentirana fibula iz druge gradbene faze hiše 14 (*t. 36: 1*). Tovrstne zaponke so bile najpogostejša oblika kačastih fibul na območju Slovenije, sploh največ jih je bilo odkritih na grobišču na Mostu na Soči. Zato jih je Hermann Parzinger označil kot vodilni jugovzhodnoalpski tip 6. horizonta, ki ga datira v prvo polovico 6. st. pr. n. št.[51] V naših krajih je bilo bržkone njihovo izvorno območje in zdi se, da so se v svetolucijski skupnosti pojavile prej kot na Dolenjskem.[52] Podobno kot pri različici s krilci

[41] Gabrovec 1987, 49, sl. 5: 11; Dular 2003, 130, sl. 73: 1.

[42] Na podlagi pregleda zanesljivih grobnih celot dolenjske halštatske skupine se zdi, da so fibule ježevke nosili v stopnji Stična 2 (npr. grob 5 iz Špilerjeve gomile na Libni: Guštin 1976, 38, t. 6: 7, in glej prejšnjo opombo, tako tudi Kruh 2008, 112–113), vendar tipološke značilnosti nekaterih primerkov (npr. ježevka s spodvito samostrelno peresovino z Magdalenske gore, ki je bila odkrita skupaj s samostrelno fibulo v obliki konjenika na vozu s trovprego: Stare 1978, 75, t. 2: 8; Tecco Hvala, Dular, Kocuvan 2004, 125–126, t. 10: 3) nakazujejo njihovo nošnjo še v certoški stopnji (Tecco Hvala 2012, 228–229). Za vmesno (kačasto) stopnjo nimamo prepričljivega dokaza za njihovo uporabo.

[43] Gabrovec 1987, 50, sl. 4: 10, 13.

[44] Ibid., 68, sl. 5: 29; Božič 2016, 162, t. 3: 20a-b, 26.

[45] Tecco Hvala 2014, 133–134, seznam 5: grobovi 136, 163, 179 gomile 48 in grobova 21-22, 25 gomile 5 v Stični ter grob 9 iz gomile na najdišču Mačkovec pri Novem mestu.

[46] Gabrovec 1956, t. 5–6; Teržan 1976, sl. 54: 10–16.

[47] Božič 2016, 162, t. 3: 20a-b.

[48] Tecco Hvala 2014, 152.

[49] Teržan, Trampuž 1973, 428; Tecco Hvala 2014, 159, op. 268.

[50] Tecco Hvala 2014, 131.

[51] Parzinger 1988, 153–154, 125, t. 143.1: 2.

[52] Tecco Hvala 2014, 131–133, 148–150.

phase is indicated by the graves in which they were associated with the Type V Certosa fibulae and with a figural fibula with a crossbow spring.[38] Both the beginning and the end of use in Dolenjska, however, should be treated with some caution, because the evidence mainly comes from the grave groups from Brezje excavated before World War I and hence largely unreliable. One example is Grave Brezje 7/33,[39] which supposedly proves the appearance of the serpentine fibulae with wings already in the time when the fibulae with a spiky glass overlay were in use.[40] This grave group is questionable because it includes items characteristic of as many as three relative chronological phases of the Dolenjska Hallstatt culture. The fibula with a spiky glass overlay is a characteristic element of the Stična 2[41] and Certosa Fibula phases,[42] the ribbed bracelet with overlapping ends and the serpentine fibula are attributable to the Serpentine Fibula phase,[43] while the large spherical amber beads and the ribbed bracelets with touching ends date to the Certosa Fibula phase.[44] The serpentine fibulae with wings from reliable and narrowly-dated grave groups,[45] however, date to the Serpentine Fibula phase and only the example from Grave 4 of the tumulus at Volčje njive[46] may be attributed to the end of the Serpentine Fibula or the transition to the Certosa Fibula phase on the basis of the associated ribbed bracelet with touching ends.[47]

The evidence for an earlier appearance of the serpentine fibulae with wings in Dolenjska is not persuasive. Such fibulae may even have appeared slightly later than the variants with antennae and with a saddle-shaped bow[48] and certainly represent one of the

[38] Ibid., 151–152.

[39] Kromer 1959, 27, 65, Pl. 31: 1-8.

[40] Tecco Hvala 2014, 152, Fn. 200.

[41] Gabrovec 1987, 49, Fig. 5: 11; Dular 2003, 130, Fig. 73: 1.

[42] A review of reliable grave groups of the Dolenjska Hallstatt group revealed that the fibulae with a spiky glass overlay were worn in the Stična 2 phase (e.g. Grave 5 from the Špiler tumulus at Libna: Guštin 1976, 38, Pl. 6: 7, also see previous footnote, the same dating in Kruh 2008, 112–113), though the typological characteristics of some examples (e.g. the fibula with a spiky glass overlay and a crossbow spring with an internal chord from Magdalenska gora that was presumably found together with a crossbow fibula in the shape of a male figure riding a chariot pulled by three horses: Stare 1978, 75, Pl. 2: 8; Tecco Hvala, Dular, Kocuvan 2004, 125–126, Pl. 10: 3) seem to indicate their use in the Certosa Fibula phase (Tecco Hvala 2012, 228–229); we have no conclusive evidence of their use in the phase in between, i.e. the Serpentine Fibula phase.

[43] Gabrovec 1987, 50, Fig. 4: 10,13.

[44] Ibid., 68, Fig. 5: 29; Božič 2016, 162, Pl. 3: 20a-b,26.

[45] Tecco Hvala 2014, 133–134, List 5: Graves 136, 163, 179 of Tumulus 48, Graves 21–22, 25 of Tumulus 5 in Stična and Grave 9 from a tumulus at Mačkovec near Novo mesto.

[46] Gabrovec 1956, Pls. 5–6; Teržan 1976, Fig. 54: 10-16.

[47] Božič 2016, 162, Pl. 3: 20a-b.

[48] Tecco Hvala 2014, 152.

se poraja vprašanje, ali lahko njihovo nošnjo na podlagi grobnih celot z Mosta na Soči prepričljivo pokažemo že za stopnjo Sv. Lucija Ic2 ter njihovo uporabo še v stopnji IIb.[53] Vsekakor so bile značilna oblika stopnje Sv. Lucija IIa oz. stopnje kačastih fibul po kronološki shemi za halštatsko obdobje na Dolenjskem.[54]

Med kamni zidu ograde, ki je vodila poleg hiše 30, je bila odkrita ***kačasta fibula z lokom, zvitim v zanko in koleno*** (*t. 94: 1*). Natančneje jo lahko označimo kot ***različico VIIb*** po Tecco Hvalovi, za katero je značilen žičnat lok okroglega preseka, ki tekoče prehaja v iglo oz. ima na prehodu majhen disk.[55] Tovrstne fibule so bile široko razprostranjene. Pogoste so bile na prostoru zahodnohalštatskega kroga, med skupnostmi kulture Golasecca in Este. Odkrili so jih tudi v Populoniji, Istri, Osorju, Spodnji Šleziji in na Slovaškem.[56] V Sloveniji jih je največ z grobišča na Mostu na Soči, kjer jih Tecco Hvalova na podlagi kombinacij z drugimi pridatki iz grobov datira v stopnji Sv. Lucija Ic2 in IIa. Teržanova in Trampuževa sta grobove, v katerih prevladujejo tovrstne fibule, opredelili na začetek stopnje Sv. Lucija IIa 2.[57] Med halštatskimi skupnostmi Dolenjske se ta oblika fibule ni uveljavila. Med dobro datiranimi je le primerek iz groba bogato opravljene stiške dame (grob 27/48) iz stopnje Stična 2.[58]

Čeprav dobršen del loka fibule iz hiše 22 (*t. 60: 1*) ni ohranjen, smemo na podlagi sploščenega zadnjega dela loka fibulo opredeliti kot ***kačasto fibulo tipa VIIc*** po Tecco Hvalovi[59] ali kot trakasto fibulo. Matično območje kačastih fibul tipa VIIc je bil najverjetneje prostor kulture Golasecca, od koder so se prek Padske nižine razširile do jugovzhodnih Alp, kjer pa se niso množično uveljavile.[60] Veljajo za pozno obliko kačastih fibul, a se v grobovih na Mostu na Soči pojavljajo skupaj z drugimi oblikami kačastih fibul, čolničasto, svetolucijsko in trakasto fibulo. Na Dolenjskem so bile odkrite skupaj z majhnimi trortastimi fibulami, certoško fibulo II. vrste, valjastimi uhani in votlimi zapestnicami ter nanožnicami.[61] Njihovo nošnjo v certoški stopnji Dolenjske dobro kažejo moderno raziskani grobovi. V veliki stiški gomili 48 nastopajo v dveh grobnih celotah iz certoške stopnje, in sicer v grobu 34 in 54.[62] Prav tako sodi v certoško stopnjo primerek iz groba 10 grobišča Mačkovec pri Novem mestu.[63]

[53] Ibid., 149.
[54] Ibid., 159.
[55] Ibid., 136, sl. 7: 4-5.
[56] Ibid., 154.
[57] Teržan, Trampuž 1973, 428.
[58] Tecco Hvala 2014, 154.
[59] Ibid., 136–138.
[60] Ibid., 154–156, karta 11.
[61] Ibid., 156.
[62] Gabrovec et al. 2006, t. 27: 1; 54: 1-2; Božič 2016, 162, t. 1: 8.
[63] Udovč, Leben Seljak 2009, 72–73, kat. št. 67.

characteristic forms of the Serpentine Fibula phase in Dolenjska or the Sv. Lucija IIa phase in Posočje,[49] while their prolonged use (from the Sv. Lucija Ic2 to the IIb phase) is questionable.

The small finds associated with the second construction phase of House 8 include a ***serpentine fibula with a saddle-shaped bow*** and a disc guard (*Pl. 29: 8*), which belongs to Variant IVb after Tecco Hvala.[50] Of Type IV is also a fragmented fibula from the second construction phase of House 14 (*Pl. 36: 1*). This is the commonest form of serpentine fibulae in Slovenia, most numerously unearthed in the cemetery at Most na Soči. This led Hermann Parzinger to mark them as the leading south-eastern Alpine type of his Horizon 6 that he dated to the first half of the 6th century BC.[51] Slovenia does seem to be the area of origin for these fibulae that presumably appeared within the Sveta Lucija community earlier than in Dolenjska.[52] Similarly as with the variant with wings, it is not completely clear whether we have enough reliable evidence to place the beginning of use, based on the grave groups from Most na Soči, in the Sv. Lucija Ic2 phase and their continuation in the IIb phase.[53] What is certain is that they are characteristic of the Sv. Lucija IIa phase in Posočje and the Serpentine Fibula phase in Dolenjska.[54]

Found among the stones of the enclosure at House 30 was a ***serpentine fibula with the bow twisted into a loop and a knee*** (*Pl. 94: 1*). It is of ***Variant VIIb*** after Tecco Hvala, which is characterised by a round-sectioned wire bow that either has a smooth junction with the pin or has a small disc guard at the junction.[55] Such fibulae have a wide distribution: they are known in the area of the West Hallstatt circle and among the communities of the Golasecca and Este cultures. They have been unearthed at Populonia, Istria, Osor, Lower Silesia and Slovakia.[56] In Slovenia, the greatest number came to light in the cemetery at Most na Soči and Tecco Hvala attributes them to the Sv. Lucija Ic2 and IIa phases on the basis of the associated grave goods. Teržan and Trampuž attribute the graves where such fibulae predominate to the beginning of the IIa phase.[57] This form was not in common use among the Hallstatt communities of Dolenjska. We have a single reliably dated example, found in the grave of a richly accoutred woman buried in Grave 27/48 attributed to the Stična 2 phase.[58]

[49] Teržan, Trampuž 1973, 428; Tecco Hvala 2014, 159, Fn. 268.
[50] Tecco Hvala 2014, 131.
[51] Parzinger 1988, 153–154, 125, Pl. 143.1: 2.
[52] Tecco Hvala 2014, 131–133, 148–150.
[53] Ibid., 149.
[54] Ibid., 159.
[55] Ibid., 136, Fig. 7: 4-5.
[56] Ibid., 154.
[57] Teržan, Trampuž 1973, 428.
[58] Tecco Hvala 2014, 154.

Med najdbami druge faze hiše 15A je bronasta ***trakasta fibula*** z diskasto ploščico na prehodu loka v iglo (*t. 53: 1*). Teržanova in Trampuževa sta tovrstne fibule razvrstili med mlajše oblike stopnje Sv. Lucija IIa oz. kot značilnost horizonta IIa2.[64] Podobno jih je za Dolenjsko opredelil Stane Gabrovec. Trakasto fibulo je navedel kot značilen element s konca kačaste stopnje, ki so jo nosili še v certoški stopnji.[65]

Med drobnimi najdbami iz mostarskih halštatskih hiš je 9 ***certoških fibul*** ali njihovih odlomkov (*t. 23: 1, 9; 24: 1; 28: 1; 31: 12; 57: 1, 16; 62: 4; 89: 1, 16*).

Fibula iz druge gradbene faze hiše 16 (*t. 57: 1*) pripada klasični, veliki ***certoški fibuli X. vrste***, različice e po Teržanovi.[66] Na lok tovrstne fibule je bil nameščen tudi narezljan gumb, odkrit v drugi gradbeni fazi hiše 22A (*t. 62: 4*).

V naših krajih redka različica certoške fibule Xn je bila odkrita v okviru tretje gradbene faze hiše 16 (*t. 57: 16*). Zanjo je značilen tekoč prehod noge v lok, ki je označen z V-motivom.[67] To je bila tessinska oblika fibule, razširjena na območju Alp, zlasti zahodno od rek Adiža in Inn. Izvira iz izrazitih mladohalštatskih horizontov.[68]

Certoške fibule X. vrste so bile na Dolenjskem vodilna oblika negovskega horizonta, prav tako so značilne za najmlajši starejšeželeznodobni horizont v svetolucijski skupini in Estah.[69] Teržanova je na podlagi grobov z Goleka pri Vinici in iz Est (Villa Benvenuti 123, Casa di Ricovero 231), kjer se take fibule pojavljajo skupaj z latenskimi fibulami, utemeljevala njihovo nošnjo še v latenski dobi.[70] Vendar našteti argumenti ne vzdržijo več. Grobne celote z Goleka pri Vinici so nezanesljive,[71] v obeh omenjenih grobnicah v Estah pa so pokopavali v dolgem obdobju. Grobnici vsebujeta več žar in veliko pridatkov. Tako v primeru grobnice Villa Benvenuti 123 kot Casa di Ricovero 231 ni bilo mogoče ugotoviti, kateri pridatki izvirajo iz posamezne žare.[72] Pojav različnih tipokronoloških predmetov v grobnicah, ki so jih uporabljali več generacij, zato ne more biti argument za njihovo sočasno uporabo.

Vendar so se v desetletjih po študiji Teržanove pojavili novi dokazi, ki potrjujejo njeno tezo o uporabi nekaterih različic certoških fibul X. vrste na začetku latenske in celo še v srednji latenski dobi.[73] Temu v prid

[64] Teržan, Trampuž 1973, 429.

[65] Gabrovec 1987, 58, sl. 4: 13, t. 8: 12.

[66] Teržan 1976, 331, 333, sl. 4: e.

[67] Ibid., 331, 333, sl. 4: n.

[68] Teržan 1976, 373, sl. 31.

[69] Ibid., 364–368.

[70] Ibid., 368, op. 109.

[71] Božič 2009, 81–82, 94; Božič 2010, 167–170.

[72] Chieco Bianchi, Calzavara Capuis 1985, 258–264; Capuis, Chieco Bianchi 2006, 276–294.

[73] Zdi se, da to velja v prvi vrsti za različici g in h certoških fibul X. vrste po Teržanovi (Teržan 1976, 368). Zanje je značilno, da imajo najvišji del loka izrazito pomaknjen proti nogi (Teržan 1976, 331).

The fibula from House 22 (*Pl. 60: 1*) is missing a large part of its bow, but the flattened rear part of the bow does suggest that the object is either a ***serpentine fibula of Variant VIIc*** after Tecco Hvala[59] or a band bow fibula. The serpentine fibulae of Variant VIIc most probably originate in the area of the Golasecca culture, whence they spread across the Po Plain to the south-eastern Alpine area, where they are not very numerous.[60] They are believed to be a late form of serpentine fibulae and occur in the graves at Most na Soči together with other forms of serpentine fibulae, as well as boat, Sveta Lucija and band bow fibulae. In Dolenjska, they are associated with small three-knobbed fibulae, a Type II Certosa fibula, cylindrical earrings, as well as hollow bracelets and anklets.[61] Their use in the Certosa Fibula phase of Dolenjska is clearly indicated by the graves excavated using modern methods. They have been found in Graves 34 and 54 of the large Tumulus 48 at Stična, which are attributable to the Certosa Fibula phase.[62] The example from Grave 10 of the cemetery at Mačkovec near Novo mesto dates to the same phase.[63]

The small finds associated with the second construction phase of House 15A include a bronze ***band bow fibula*** (*Band Bogenfibel*) with a disc guard (*Pl. 53: 1*). Teržan and Trampuž rank such fibulae among the characteristic forms of the Sv. Lucija IIa2 phase.[64] Stane Gabrovec proposed a similar attribution for the examples from Dolenjska, deemed characteristic of the late Serpentine Fibulae phase and continued to be worn in the Certosa Fibula phase.[65]

The Hallstatt houses at Most na Soči yielded nine ***Certosa fibulae*** or their fragments (*Pls. 23: 1, 9; 24: 1; 28: 1; 31: 12; 57: 1, 16; 62: 4; 89: 1, 16*).

The fibula from the second construction phase of House 16 (*Pl. 57: 1*) is a classic, large ***Certosa fibula of Type X***, Variant e after Teržan.[66] The ribbed disc associated with the second construction phase of House 22A (*Pl. 62: 4*) was also attached to the bow of such a fibula.

A Variant Xn Certosa fibula, a rare find in Slovenia, was unearthed in association with the third construction phase of House 16 (*Pl. 57: 16*). It is characterised by a smooth foot-bow junction accentuated with a chevron-shaped thickening.[67] This is a Tessino fibula form widespread in Alpine areas, particularly west of the Rivers Adige and Inn, and is reliably attributed to the Late Hallstatt period.[68]

[59] Ibid., 136–138.

[60] Ibid., 154–156, Map 11.

[61] Ibid., 156.

[62] Gabrovec et al. 2006, Pls. 27: 1; 54: 1-2; Božič 2016, 162, Pl. 1: 8.

[63] Udovč, Leben Seljak 2009, 72–73, Cat. No. 67.

[64] Teržan, Trampuž 1973, 429.

[65] Gabrovec 1987, 58, Fig. 4: 13, Pl. 8: 12.

[66] Teržan 1976, 331, 333, Fig. 4: e.

[67] Ibid., 331, 333, Fig. 4: n.

[68] Teržan 1976, 373, Fig. 31.

govori grob 458 z latenskega dela grobišča na Kapiteljski njivi v Novem mestu. Žgani grob je vseboval certoško fibulo X. vrste različice h, železno uhato sekiro, železen nož, keramično vretence, keramični posodi in železne ostanke ščita (umbo, ročaj, robni okov),[74] značilnega za stopnjo LT B2.[75] Radiokarbonska datacija vzorca sežgane človeške kosti datira pokop v drugo polovico 4. st. pr. n. št. oz. 325 ± 27 cal BC.[76] Ta grob nakazuje sobivanje mladohalštatskih tradicij, uveljavljanje latenske materialne kulture in uveljavitev novega načina pokopavanja na novomeški nekropoli.

Pomenljivo je tudi odkritje z ledine Laze pri vasi Čadrg na Tolminskem. V manjši jami (55 x 55 x 50 cm) so bili skupaj zakopani rahlo zvita železna sulična ost, prepognjen in zlomljen železen meč, večkrat zvita železna nožnica meča, železna vojaška pasna veriga in železna trakasta ščitna grba. Na robu jame pa je bila tik ob nožnici položena velika bronasta certoška fibula različice Xg po Teržanovi.[77] Latenska vojaška oprema iz jame je značilna za srednjelatensko stopnjo LT C1, ki zajema glavnino 3. st. pr. n. št. Očitno je bila tedaj tradicionalna, mladohalštatska oblika certoške fibule med posoškimi skupnostmi še vedno v uporabi.

Certoška fibula s štirimi na iglo nanizanimi obročki iz hiše 7 (*t. 28: 1*) je po obliki najbližja ***XII. vrsti*** po Teržanovi.[78] Za to obliko zaponk je značilen lok trikotastega preseka, ki je na najvišjem delu okrašen z bradavičastima izrastkoma ter s kroglastim gumbom nad peresovino. Gumb noge je lahko okrašen s koncentričnimi krožnimi vrezi, jamico ali čepkom. Obravnavani primerek nima običajne rebraste odebelitve med bradavičastima izrastkoma in lokom niti razkošnega okrasa kratkih prečnih vrezov na loku ter v kombinaciji z V-vrezi na nogi. Teržanova je manjše in manj bogato okrašene primerke opredelila kot različico b, vendar fibula iz hiše 7, čeprav na prvi pogled skromneje okrašena, sodi med večje izvedbe. Mostarska fibula ima na obeh bradavičastih izrastkih in na gumbu noge ovalno poglobitev, v tem je zelo podobna fibuli iz groba 10 na Jelenšku pri Godoviču (*sl. 2: 2*). Poglobitve so morda služile namestitvi okrasnih elementov iz drugih materialov,[79] ki se niso ohranili. Če je naša domneva o okrasnih luknjicah točna,

[74] Križ 2005, 93–94, t. 77.

[75] Za tipokronološko opredelitev ščitne grbe, kot je bila odkrita v grobu 458: Božič 1981, 317, 324: pl. 2; Brunaux, Rapin 1988, fig. 39.

[76] Križ, Jereb, Teržan 2014, 482–484; Teržan, Črešnar 2014, 721–722.

[77] Mlinar, Turk 2016, 21, 40–44, kat. št. 39–45.

[78] Teržan 1976, 337–338.

[79] Naj kot primer navedemo certoški fibuli XIIa, ki so ju odkrili v enem od halštatskih grobov v Zagorju. Fibuli imata gumb noge okrašen s koncentričnimi krožnimi vrezi, namesto čepka pa luknjico z vstavljeno koralo (Murko, Draksler 2012, 8–9). Košček korale v luknjici na sredi gumba noge ima tudi certoška fibula vrste VIId iz groba 77 grobišča Misincinis v Paularu (Vitri 1997b, 430, sl. 6).

Type X Certosa fibulae represent the leading fibula form of the Negova phase in Dolenjska and are also common in the last of the Early Iron Age phases in the Sveta Lucija and Este groups.[69] Based on graves from Golek near Vinica and from Este (Villa Benvenuti 123, Casa di Ricovero 231), where such fibulae also occur alongside La Tène fibulae, Teržan postulates that they continued to be worn into the La Tène period.[70] However, her reasoning is flawed because the grave groups from Golek are unreliable[71] and the two tombs at Este received burials over a longer period. The tombs contained several urns and a large number of goods, and it is not possible to be certain which goods were held in which urn;[72] the appearance of typo-chronologically different items in tombs used for several generations is not evidence of contemporaneity.

Having said that, new evidence came to light several decades after the study published by Teržan that, in fact, supports her hypothesis on the use of certain variants of Type X Certosa fibulae in the beginning of the La Tène and even in the Middle La Tène period.[73] One such piece of evidence comes from Grave 458 from the La Tène part of the cemetery at Kapiteljska njiva in Novo mesto. This cremation contained a Type X Certosa fibula of Variant h, as well as an iron shaft-hole axe, an iron knife, a ceramic spindle whorl, two ceramic vessels and iron remains of a shield (boss, handgrip, edge binding)[74] such as are characteristic of LT B2.[75] The result of the radiocarbon analysis of a human bone sample dates the burial to the second half of the 4th century BC or 325 ± 27 cal BC.[76] This grave reveals a cohabitation of the Late Hallstatt traditions, the introduction of the La Tène material culture and the predominance of the new burial manner in the cemetery in Novo mesto.

Also of significance is a discovery at Laze near the village of Čadrg in the Tolmin area. At this site, a slightly bent iron spearhead, a bent and broken iron sword, an iron sword scabbard bent in several places, an iron military belt chain and an iron rectangular shield boss were found buried together in a small pit (55 x 55 x 50 cm). At the edge of the pit and next to the scabbard, a large bronze Certosa fibula of Variant Xg after Teržan

[69] Ibid., 364–368.

[70] Ibid., 368, Fn. 109.

[71] Božič 2009, 81–82, 94; Božič 2010, 167–170.

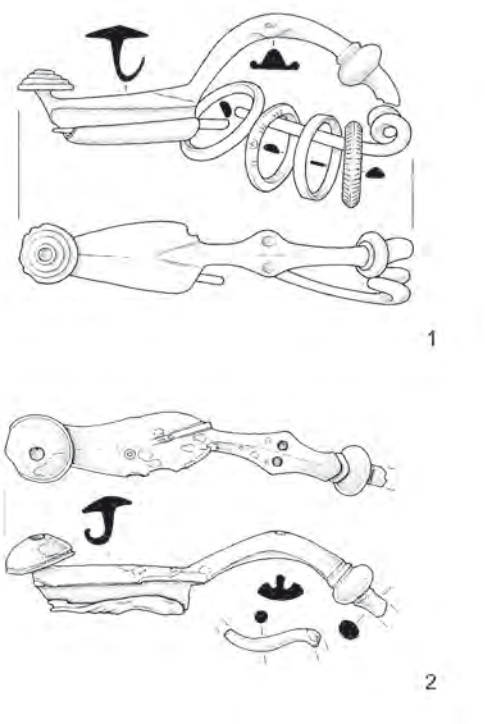
[72] Chieco Bianchi, Calzavara Capuis 1985, 258–264; Capuis, Chieco Bianchi 2006, 276–294.

[73] It seems that this is primarily characteristic of Variants g and h of the Type X Certosa fibulae after Teržan (Teržan 1976, 368). They characteristically have the uppermost part of the bow heavily tilted towards the foot (Teržan 1976, 331).

[74] Križ 2005, 93–94, Pl. 77.

[75] For a typo-chronological determination of the shield boss such as was found in Grave 458 see: Božič 1981, 317, 324: Pl. 2; Brunaux, Rapin 1988, Fig. 39.

[76] Križ, Jereb, Teržan 2014, 482–484; Teržan, Črešnar 2014, 721–722.



Sl. 2: Certoški fibuli. 1 Most na Soči – naselbina (po Svoljšak, Dular 2016, t. 28: 1); 2 Godovič, grobna najdba (Narodni muzej Slovenije). M = 1:2.
Fig. 2: Certosa fibulae. 1 Most na Soči – settlement (from Svoljšak, Dular 2016, Pl. 28: 1); 2 Godovič, grave good (Narodni muzej Slovenije). Scale = 1:2.

smemo tako mostarsko kot godoviško fibulo uvrstiti v okvir certoških fibul XIIa, le da ju odlikuje svojstveno okraševanje. Že Teržanova je certoške fibule XII. vrste opredelila kot značilen element mode zaključne faze negovskega horizonta po kronologiji dolenjske skupine.[80] Tej dataciji ne nasprotuje grob 10 z Jelenška, ki je vseboval odlomke železnih dlet ali šil, železno sulično ost, železno sulično kopito, odlomke dveh železnih nožev, železno mahairo in železno uhato sekiro.[81]

Med drobnimi najdbami iz hiše 26 je bila ***certoška fibula VI. vrste*** (*t. 89: 16*). Najverjetneje je sodila v različico a, v kateri je Teržanova združile oblike z navadno peresovino in dvema navojema. Sicer je za to obliko značilen iztegnjen lok zaobljeno rombičnega preseka, s parom izrazitih prečnih reber nad peresovino.[82] Nogo imajo večkrat okrašeno s krožci s piko in vrezi v obliki črke V, kar pa ne velja za obravnavano fibulo, saj ji hrbet noge poleg V-vrezov krasi tremolirni okras. Teržanova je začetek razvoja te vrste fibul, ki so iznajdba svetolucijske

[80] Teržan 1976, 371; Dular 2003, 144.
[81] Hrani Narodni muzej Slovenije, objava je v pripravi.
[82] Teržan 1976, 324–325.

was placed.[77] The La Tène military gear from the pit is typical of the Middle La Tène phase of LT C1, which spans most of the 3rd century BC. The find shows that at that time, the traditionally Late Hallstatt form of Certosa fibulae was still in use among the Posočje communities.

The Certosa fibula with four rings hanging from the pin that was recovered from House 7 (*Pl. 28: 1*) is formally closest to ***Type XII*** after Teržan.[78] This form typically has a bow of a triangular-shaped cross section that bears two knobs at the highest point of the bow and a spherical knob above the spring. The conical foot terminal is decorated either with concentric incisions (and a small protrusion) or with a small hole. The fibula from Most na Soči lacks the usual ribbing between the two knobs on the bow, neither does it bear the rich decoration of short transverse incisions on the bow in combination with incised chevrons on the foot. Teržan determines the smaller and less ornately decorated examples as Variant b, while the fibula from House 7, although not ornately decorated, is large. The fibula has an oval depression on both knobs and on the knob of the foot, in which it is similar to the fibula from Grave 10 at Jelenšek near Godovič (*Fig. 2: 2*). The depressions may have been the spot where the unpreserved decorative elements of other materials were attached.[79] If the supposition of decorative elements is correct, the two fibulae from Most na Soči and Godovič are both Variant XIIa Certosa fibulae with unique decoration. Teržan sees Type XII Certosa fibulae as characteristic elements of the fashions in the final phase of the Negova phase within the chronology of the Dolenjska group.[80] The proposed date for Grave 10 from Jelenšek, which further contained fragments of iron chisels or awls, an iron spearhead, an iron spear butt, fragments of two iron knives, an iron machaira sword and an iron shaft-hole axe, does not oppose such an attribution.[81]

The small finds from House 26 include a ***Type VI Certosa fibula*** (*Pl. 89: 16*). It is most probably of Variant a, in which Teržan combined examples with a two-coil spring. This variant characteristically has an elongated bow of a rounded lozenge-shaped cross section with a pair of pronounced ribs above the spring.[82] The foot is usually decorated with ring-and-dots and incised chevrons, though this is not the case for the fibula from House 26, which bears chevron and zigzag inci-

[77] Mlinar, Turk 2016, 21, 40–44, Cat. Nos. 39–45.
[78] Teržan 1976, 337–338.
[79] Two Type XIIa fibulae found in one of the Hallstatt graves at Zagorje have the foot knob decorated with concentric incisions and a hole with a choral set into it instead of the common protrusion (Murko, Draksler 2012, 8–9). The foot knob with a choral set into the hole has also a Certosa fibula of Type VIId from Grave 77 at the Paularo-Misincinis cemetery (Vitri 1997b, 430, Fig. 6).
[80] Teržan 1976, 371; Dular 2003, 144.
[81] Kept in the Narodni muzej Slovenije, publication in preparation.
[82] Teržan 1976, 324–325.

skupine, datirala v stopnjo Sv. Lucija IIb2. V uporabi so bile tudi v stopnji IIc, zadnjem obdobju starejše železne dobe v Posočju.[83] Iz tega časa je najverjetneje fibula iz hiše 26. Tako datacijo podpira vrezan tremoliran okras, značilen za ***certoške fibule VII. vrste različice e***,[84] ki sodijo med najmlajše različice certoških fibul in ne morejo biti zgodnejše od stopnje Sv. Lucija IIc; na Dolenjskem so bile sočasne s certoškimi fibulami XII. vrste iz zaključne faze negovskega horizonta. [85] Certoška fibula VIIe je bila odkrita med raziskovanjem druge gradbene faze hiše 3 (*t. 23: 1*), isti ali pa različici VIIf pripada tudi noga fibule iz hiše 25 (t. 89: 1). Fibula iz hiše 3 ima najvišji del loka pomaknjen proti nogi, to jo povezuje s sočasnimi fibulami vrst VIId, VIIf, Xg in XII[86], ki je rombično razširjen in okrašen s polkrožnimi vrezi ter ima tročleno odebelitev z okrašenima stranskima rebroma. Greben loka je okrašen s punciranimi pikicami. Hrbet noge, pri tej različici navadno okrašen z V-vrezi in tremolirnim okrasom,[87] pri obravnavanem mostarskem primerku ni okrašen.

V drugi gradbeni fazi hiše 10 je bila poleg odlomkov bronaste certoške fibule, prstana, kalotastega gumba in drugih odlomkov bronastih predmetov odkrita bronasta ***pavkasta fibula*** (*sl. 3: 1*). Fibula ima lok v obliki polkrogle ali pavke,[88] okrašene s koncentričnimi krožnimi rebri oziroma žlebiči, in križno oblikovan zaključek noge. Ta je na obeh koncih odlomljen, polkrožni zarezi pa sta ostanka luknjic, skozi kateri sta bili prvotno nataknjeni dve manjši pavki, ki se nista ohranili. Na sredini pavke je jamica, ki je služila namestitvi okrasnega vložka iz drugega materiala.[89]

Severno od Alp so bile razširjene pavkaste in dvopavkaste fibule,[90] južno in vzhodno od Alp pa izvedbe s tremi in petimi pavkami. Anne Marie Adam jih je razvrstila med fibule II. vrste vzhodnohalštatskih fibul z večdelno nogo. Primerke iz grobov na Mostu na Soči je dalje umestila v južnoalpsko izvedbo tovrstnih fibul. Njihovo izdelavo je predvidevala na Kranjskem ali na Tridentinskem z Zgornjim Poadižjem.[91]

Alexia Nascimbene jih je poimenovala fibule vrste I.16. Izvedbo z daljšo nogo in paroma pavk je označila kot

[83] Ibid., 355–357.

[84] Marić 2016, 107–108.

[85] Teržan 1976, 371–372.

[86] Ibid., 325, 331.

[87] Marić 2016, 107–108.

[88] Poimenovanje sledi prevodu iz nemščine (Paukenfibel). Pavka je posebna oblika bobna polkroglaste oblike.

[89] Pavkaste fibule iz grobnice prve gomile pri Weisenbergu so imele v jamicah vložke iz korale (Nascimbene 2009, 147–148. op. 329).

[90] Frey 1971; Heimann 2007.

[91] Adam 1996, 60–64. Ker je Adamova ponesrečeno uporabila zastarel izraz Kranjska (Carniola), ni najbolj jasno, ali domneva njihovo izdelavo na Mostu na Soči (kjer je takih fibul v Sloveniji največ) ali morda na Dolenjskem (Kranjska v času Avstrijske monarhije).

sions executed in the tremolo technique. Teržan set the beginning of the development of these fibulae, which originate in the Sveta Lucija group, to Sv. Lucija IIb2. They remained in use in IIc, which is the last phase of the Early Iron Age in Posočje.[83] This is the presumed date for the fibula from House 26. Such a date is supported by the tremolo decoration that is characteristic of the ***Type VII Certosa fibulae of Variant e***,[84] which rank among the last variants of the Certosa fibulae and cannot predate Sv. Lucija IIc; in Dolenjska it was contemporary with the Certosa fibulae of Type XII dated to the end of the Negova phase.[85] A Variant VIIe Certosa fibula was also unearthed during the investigation of the second construction phase of House 3 (*Pl. 23: 1*). This fibula bears semicircular incisions on the highest part of the bow widened to form a lozenge that is located closer to the foot, which is common characteristic of the contemporary Types VIId, VIIIf, Xg and XII[86], while the bow bears a decorated triple moulding just above the spring. The longitudinal ridge of the bow is decorated with incised dots. The back of the foot, which usually bears incised chevrons and tremolo decoration in this variant,[87] is undecorated on the example from House 3.

The finds associated with the second construction phase of House 10 include fragments of a bronze Certosa fibula, a finger ring, a domed button and other fragments of bronze objects, among them a ***kettledrum fibula*** (*Paukenfibel*; *Fig. 3: 1*). Its bow is hemispherical or shaped like a kettledrum,[88] and decorated with concentric moulding. The fibula also has a cross-shaped foot terminal, which is broken off on both sides, while the semicircular notches are the remains of the holes that originally held two additional kettledrum elements. In the centre of the kettledrum element is a depression that originally held a decorative inlay of a different material.[89]

Kettledrum and double-kettledrum fibulae were widespread north of the Alps,[90] while the sites south and east of the Alps yielded fibulae with three or five kettledrum elements. Anne Marie Adam classifies the latter as Type II of the Eastern Hallstatt fibulae with a multipart foot (*fibule di tipo hallstattiano occidentale a piede multiplo*). Moreover, she determines the examples from the graves at Most na Soči as a south Alpine vari-

[83] Ibid., 355–357.

[84] Marić 2016, 107–108.

[85] Teržan 1976, 371–372.

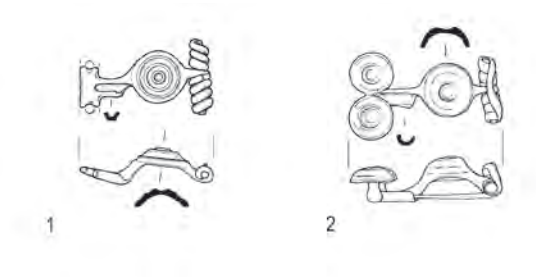
[86] Ibid., 325, 331.

[87] Marić 2016, 107–108.

[88] The term is a translation of the German name for such fibulae (*Paukenfibel*) used because of a formal resemblance to kettledrums.

[89] The kettledrum fibulae from the burial chamber of the first tumulus at Weisenberg had corals set into the holes (Nascimbene 2009, 147–148. Fn. 329).

[90] Frey 1971; Heimann 2007.



Sl. 3: Pavkasti fibuli. 1 Most na Soči – naselbina (po Svoljšak, Dular 2016, t. 31: 11); 2 Most na Soči, grob Sz 2393 (po Teržan, Trampuž-Orel, Lo Schiavo 1984, t. 255D: 4). M. = 1:2.
Fig. 3: Kettledrum fibulae. 1 Most na Soči – settlement (from Svoljšak, Dular 2016, t. 31: 11); 2 Most na Soči, Grave Sz 2393 (from Teržan, Trampuž-Orel, Lo Schiavo 1984, Pl. 255D: 4). Scale = 1:2.

različico B, tiste s krajšo nogo in dvema pavkama, ki mu pripada tudi fibula iz hiše 10, pa kot različico A.[92] Južnoalpske fibule z večdelno nogo vrste I.16 po Nascimbenovi so bile odkrite na najdiščih od Zgornjega Poadižja prek Koroške do Posočja in Dolenjske.[93] Izven tega pasu so dokumentirane južno, v Nezakciju, mestih Spina in Adrija ter proti vzhodu na Ptuju[94] in Ikerváru na Madžarskem.[95]

Anne Marie Adam jih je datirala v drugo polovico 5. st. pr. n. št., pri čemer se je oprla na grob Sz 1484 z Mosta na Soči (*sl. 4*) in na grob 5 z grobišča Valle Trebba v Spini.[96] Slednjega časovno umešča riton Slikarja iz Eretrije, ki je datiran okrog leta 425 pr. n. št.[97] Grob Sz 1484 z Mosta na Soči je zmotno umestila v mlajšo fazo stopnje Sv. Lucija IIb,[98] ker se je oprla zgolj na kombinacijsko tabelo članka Teržanove in Trampuževe, na kateri delitev stopnje IIb ni prikazana.[99] V prispevku h kronologiji svetolucijske skupine sta namreč avtorici grob Sz 1484 umestili v starejšo skupino grobov stopnje Sv. Lucija IIb in nakazali možnost delitve stopnje IIb na starejši (IIb1) in mlajši (IIb2) horizont.[100]

Med najdbami centralnega groba s sežganimi ostanki moškega in ženske v prvi knežji gomili pri Weisenbergu blizu Velikovca so bile tudi štiri pavkaste fibule

[92] Nascimbene 2009, 147–151.
[93] Ibid., 150–151, sl. 42.
[94] Kavur, Lubšina Tušek 2016, 32–42.
[95] Nagy 2011, 166–167, sl. 104.
[96] Adam 1996, 62.
[97] Tako datacijo ritona navaja Adamova (1996, 62). V objavi groba 5 iz Spine/Valle Trebba je riton datiran v čas 450–420 pr. n. št. (Aurigemma 1960, 192). Datacije opusa okrog 150 rdeče figuralno poslikanih posod Slikarja iz Eretrije v novejši literaturi niso bistveno popravljene, navajajo se npr. letnice 440–410 in 450–425 pr. n. št. (Enrico Arias 1994; Giudice 2007, 313–314, op. 19).
[98] Adam 1996, 62.
[99] Teržan, Trampuž 1973, Priloga 1.
[100] Ibid., 432.

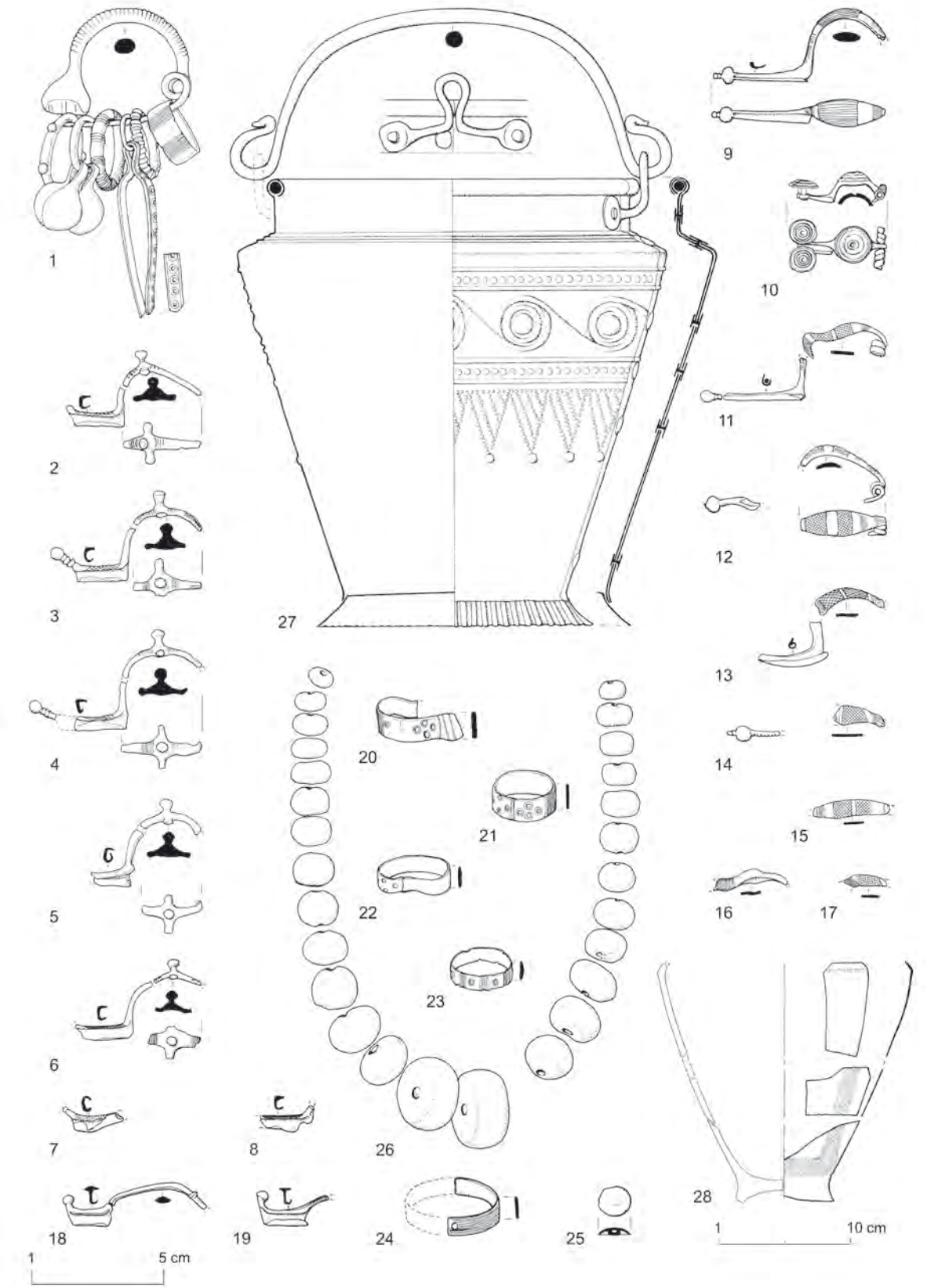
ant of such fibulae and presumes their production in Carniola or Trentino/Alto Adige.[91]

Alexia Nascimbene determines them as Type I.16 fibulae; the examples with a long foot and a pair of kettledrum elements as Variant B, those with a shorter foot and a pair of kettledrum elements, such as the one from House 10, as Variant A.[92] The south Alpine fibulae with a multipart foot of Type I.16 after Nascimbene have come to light at sites from Alto Adige and Carinthia to Posočje and Dolenjska.[93] Outside this area, they have been found southwards as far as Nesactium, Spina and Adria, and eastwards as far as Ptuj[94] and Ikervár.[95]

Anne Marie Adam dates them to the second half of the 5th century BC on the basis of Grave Sz 1484 from Most na Soči (*Fig. 4*) and Grave 5 from the Valle Trebba cemetery at Spina.[96] The dating of the latter grave is based on the rhyton ascribed to the Painter of Eretria and dated around 425 BC.[97] She attributes Grave Sz 1484 from Most na Soči to the late phase of Sv. Lucija IIb,[98] because she only takes into consideration the combination table published by Teržan and Trampuž that does not include the division of the IIb phase.[99] In the discussion on the chronology of the Sveta Lucija group, the two authors indicate the possibility of a division into two subphases – earlier (IIb1) and later (IIb2) – and ascribe Grave Sz 1484 to the earlier group of graves of the Sv. Lucija IIb phase.[100]

Four kettledrum fibulae of Type II after Adam have been found in the central grave of the first princely tumulus at Weisenberg near Völkermarkt/Velikovec, which held the cremated remains of a man and a woman. The burial chamber had been robbed in the past, but nevertheless yielded numerous goods that included twenty fibulae (serpentine fibula, animal-headed fibulae, proto-Certosa and Certosa fibulae of Types Ia, IV and V after Teržan, variants of kettledrum

[91] Adam 1996, 60–64. Adam uses the term Carniola (Kranjska in Slovene language), which is a historical region covering a considerable part of present-day Slovenia in the time of the Habsburg Monarchy, hence it is not quite clear whether she presumes their production at Most na Soči (a site that yielded the greatest number of such fibulae in Slovenia) or in Dolenjska.
[92] Nascimbene 2009, 147–151.
[93] Ibid., 150–151, Fig. 42.
[94] Kavur, Lubšina Tušek 2016, 32–42.
[95] Nagy 2011, 166–167, Fig. 104.
[96] Adam 1996, 62.
[97] This is a dating that Adam states (1996, 62). In the publication of Grave 5 from Spina/Valle Trebba, the rhyton is dated to 450–420 BC (Aurigemma 1960, 192). The dating of the opus of roughly 150 red figural vases attributed to the Painter of Eretria has not been significantly altered in recent literature and ranges between 440–410 and 450–425 BC (Enrico Arias 1994; Giudice 2007, 313–314, Fn. 19).
[98] Adam 1996, 62.
[99] Teržan, Trampuž 1973, App. 1.
[100] Ibid., 432.



Sl. 4: Most na Soči. Grob Sz 1484 (po Teržan, Trampuž-Orel, Lo Schiavo 1984, t. 137A).
Fig. 4: Most na Soči. Grave Sz 1484 (from Teržan, Trampuž-Orel, Lo Schiavo 1984, Pl. 137A).

II. vrste po Adamovi. Kljub temu, da je bila grobnica izropana, se je ohranilo precej najdb, med drugim 20 fibul (kačasta fibula, fibule z živalsko glavo, protocertoške in certoške fibule Ia, IV. in V. vrste po Teržanovi, različice pavkastih fibul, fibuli vrste Velem), steklene in jantarne jagode, zlata zaponka, domnevni ostanki štirikolesnega voza, odlomki orožja, keramike in pločevine, okrašene v klasičnem situlskem stilu, itd. Paul Gleirscher, ki je med letoma 1993 in 1995 vodil izkopavanja, vidi pokop para v centralni grobnici kot enkratno dejanje[101] iz časa proti sredini 5. st. pr. n. št.[102]

Nascimbenejeva je grob Sz 1484 z Mosta na Soči datirala v stopnjo Sv. Lucija IIb, ki jo absolutno datira v obdobje med 525 in 450 pr. n. št. V razpravi je opozorila tudi na grob Sz 2393 z Mosta na Soči (iz tega groba pavkasta fibula na *sl. 3: 2*), ki je dober pokazatelj zgodnjega pojava pavkastih fibul v okviru stopnje Sv. Lucija IIb, saj so bile v grobu tudi oblike, značilne za predhodno stopnjo IIa: tri kačaste fibule s krilci, fragmenta kačastih (verjetno različice VIIb) in trakaste fibule. Nascimbenejeva dodaja še absolutni dataciji groba 4 z grobišča Cà Cima in groba 349 v Valle Trebba, ki sta na podlagi atiške keramike (Slikar iz Megare) datirana pred 450 pr. n. št.[103]

Glavnina predmetov iz groba 1484 je torej značilnih za stopnjo Sv. Lucija IIb1, ki je sočasna starejši fazi certoške stopnje na Dolenjskem. Poleg pavkaste fibule so to drobne trortaste fibule z mrežastim okrasom na zgornji ploskvi noge oz. VII. vrste po Ogrinovi (*sl. 4: 2–8*),[104] trakaste fibule z mrežastim okrasom (*sl. 4: 11–17*)[105] in certoški fibuli V. vrste (*sl. 4: 18–19)*.[106] Bronasta situla z navznoter zavihanim robom ustja, rebrasto razčlenjenim ramenom in t. i. estensko nogo (*sl. 4: 27*) se prav tako pojavi v stopnji Sv. Lucija IIb.[107] Dve najdbi sta morda nekoliko starejši od glavnine. V prvi vrsti je to svetolucijska fibula (*sl. 4: 1*),[108] značilna za stopnjo Sv. Lucija IIa,[109] ki pripada zgodnejši obliki po Parzingerju.[110] V

[101] K centralni grobnici pod mogočno gomilo (premera 40 m in predvidene originalne višine 8-10 m) ni vodil nikakršen dostop (dromus).

[102] Gleirscher 2005, 59–76; id. 2006, 35–42.

[103] Nascimbene 2009, 148–149.

[104] Prim. Guštin 1974, 90, Pl. 13: 3; Gabrovec 2006, 89, Grave 121, Pl. 71: 4; Udovč, Leben Seljak 2009, 60–61, No. 48.

[105] Dular 2003, t. 67: 5; Pavlovič 2014, 496, sl. 26.7: 22.

[106] Dular 2003, 136. Dular, tako kot Gabrovec (1987, 67), predpostavlja njihovo uporabo še v mlajšem certoškem horizontu. Pri tem navaja grob 2/11 z Voselce pri Hrastju (Magdalenska gora), ki je vseboval poleg certoške fibule V. vrste in trakaste fibule z mrežastim okrasom še samostrelno fibulo z nogo v obliki konjske glavice in ozko, pravokotno pasno spono z dolgim kavljem, ki sta mlajši najdbi.

[107] Teržan, Trampuž 1973, 429–430.

[108] Teržanova in Trampuževa sicer navajata fibulo iz groba 1484 kot nadaljevaje koncepta noše iz stopnje IIa v IIb (1973, 432).

[109] Teržan, Trampuž 1973, 428–429.

[110] Parzinger 1988, 14, Sv. Lucija-III2a, t. 10: 124; o mlajši obliki s skupinami reber na loku glej o. c. 14, Sv. Lucija-III3,

fibulae, two Velem type fibulae), glass and amber beads, a gold clasp, presumed remains of a four-wheeled cart, fragments of weapons, pottery and sheet metal decorated in the classic situla art style and others. Paul Gleirscher, who led the excavations between 1993 and 1995, sees the burial of the couple in the central chamber as a single act[101] from the time around the mid-5th century BC.[102]

Nascimbene attributes Grave Sz 1484 from Most na Soči to Sv. Lucija IIb, which she absolutely dates between 525 and 450 BC. In her discussion, she also notes Grave Sz 2393 from Most na Soči that yielded the kettledrum fibula on *Fig. 3: 2*, which is a good indicator of the early appearance of kettledrum fibulae within the Sv. Lucija IIb phase, because the associated goods in this grave include forms characteristic of the previous IIa phase: three serpentine fibulae with wings, two fragments of serpentine (probably Variant VIIb) and band bow fibulae. In this connection, Nascimbene adds the absolute dates for Grave 4 of the Cà Cima cemetery and Grave 349 at Valle Trebba, both of which predate 450 BC as suggested by the Attic pottery (Painter of Megara) from the graves.[103]

The bulk of the goods from Grave Sz 1484 is thus characteristic of the Sv. Lucija IIb1 phase, which is contemporary with the early part of the Certosa Fibula phase in Dolenjska. Apart from the kettledrum fibula, these objects are the small three-knobbed fibulae with reticular decoration on the upper surface of the foot of Type VII after Ogrin (*Fig. 4: 2–8*),[104] band bow fibulae with reticular decoration (*Fig. 4: 11–17*)[105] and Type V Certosa fibulae (*Fig. 4: 18–19)*.[106] The bronze situla with an internally rolled rim, a cordoned shoulder and an Este type ring foot (*Fig. 4: 27*) also appears in the Sv. Lucija IIb phase.[107] Two items may be slightly earlier. One is a Sveta Lucija fibula (*Fig. 4: 1*),[108] characteristic of the Sv. Lucija IIa phase,[109] which ranks among the

[101] The central tomb of the mighty tumulus (measuring 40 m across and 8–10 m in estimated height) had no access (dromus/dromos) leading to it.

[102] Gleirscher 2005, 59–76; id. 2006, 35–42.

[103] Nascimbene 2009, 148–149.

[104] Cf. Guštin 1974, 90, Pl. 13: 3; Gabrovec 2006, 89, Grave 121, Pl. 71: 4; Udovč, Leben Seljak 2009, 60–61, No. 48.

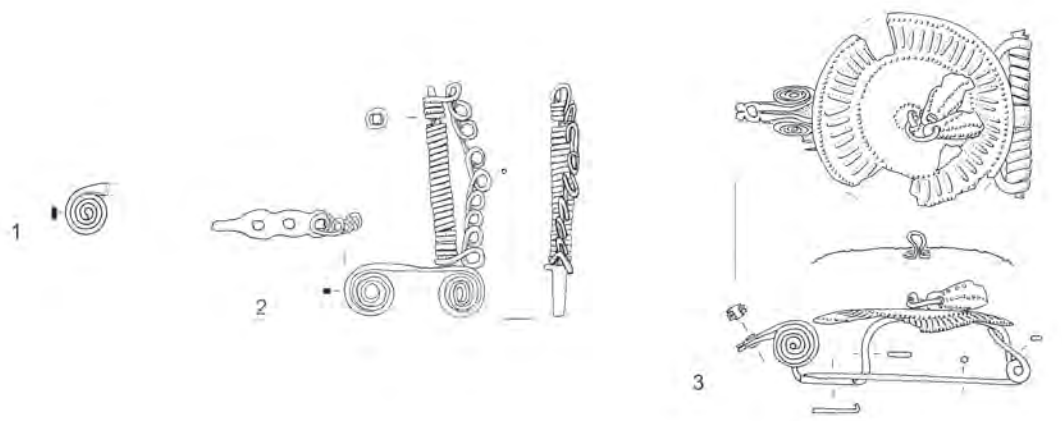
[105] Dular 2003, Pl. 67: 5; Pavlovič 2014, 496, Fig. 26.7: 22.

[106] Dular 2003, 136. Dular, similarly as Gabrovec (1987, 67), presumes their use into the Late Certosa Fibula phase, basing his assumption on Grave 2/11 from Voselca near Hrastje (Magdalenska gora) that contained a Type V Certosa fibula and a band bow fibula with reticular decoration, but also a crossbow fibula with the foot in the shape of a horse's head and a narrow rectangular belt plate with a long hook, the last two of the goods being later in date.

[107] Teržan, Trampuž 1973, 429–430.

[108] Teržan and Trampuž see the fibula from Grave 1484 as a continuation of the fashion from phases IIa to IIb (1973, 432).

[109] Teržan, Trampuž 1973, 428–429.



Sl. 5: Odlomki fibul. 1 Most na Soči – naselbina (po Svoljšak, Dular 2016, t. 33: 1); 2 Idrija pri Bači, Ledince, najverjetneje grobna najdba (po Mlinar, Žbona Trkman 2010, 94); 3 Most na Soči, Repelc (po Mlinar 2001, t. 1: 1). M = 1:2.
Fig. 5: Fibula fragments. 1 Most na Soči – settlement (from Svoljšak, Dular 2016, Pl. 33: 1); 2 Idrija pri Bači, Ledince, most probably grave good (from Mlinar, Žbona Trkman 2010, 94); 3 Most na Soči, Repelc (from Mlinar 2001, Pl. 1: 1). Scale = 1:2.

stopnji IIa se je že uveljavil horizontalno nažlebljen uhan (*sl. 4: 24*),[111] ki je sicer lahko tudi iz stopnje IIb.[112] Iz terenskega opisa izvemo, da so bili v grobni jami ostanki rdeče narebrene žare (niso ohranjeni), v kateri je bila situla, okrog nje pa ovita jantarna ogrlica (*sl. 4: 26*). Pet jantarnih jagod je bilo v situli, ostali pridatki so bili zbrani ob situli na severni strani.[113] Opis je važen indic, ki nakazuje svojstveno pogrebno obredje. Ali gre pri grobu 1484 morda za pokop več oseb, za nesočasen pokop več oseb ali za obeleževanje pokojnika s svetolucijsko fibulo kot arhaičnim elementom lokalne noše, ostaja odprto.

Spiralno zavita bronasta žica pravokotnega preseka z odebeljenim koncem iz hiše 12 (*sl. 5: 1*) ima dobro primerjavo v dveh podobno oblikovanih spiralah bronaste ***fibule s tridelno peresovino*** z Idrije pri Bači (*sl. 5: 2*) [114] in na bronasti ***fibuli z okroglo pločevinasto ploščo*** iz groba 10, ki je bil raziskan na ledini Repelc na Mostu na Soči (*sl. 5: 3*).[115]

Večdelne peresovine so bile značilne za nekatere izvedbe živalskih fibul in različice certoških fibul XIIIh po Teržanovi, ki imajo tako kot fibula z Idrije pri Bači pogosto dodatno okrasno peresovino z zankami. Cunja, Mlinar in Mlinar, Žbona Trkman povzemajo, da je izdelava večdelnih peresovin značilnost fibul iz obdobja

t. 12: 174.

[111] Kos 1973, 860.

[112] Laharnar, Mlinar 2013, 13–14.

[113] Teržan, Lo Schiavo, Trampuž-Orel 1985, 245.

[114] Mlinar, Žbona Trkman 2010, 94; Cunja, Mlinar 2010, 104, kat. št. 67. Glede na pravokotni presek žice odlomka iz hiše 12 je morda verjetneje, da gre za del fibule s tridelno peresovino.

[115] Mlinar 2001, 23–30; 2002, 23, sl. 15, 46, kat. št. 21; Cunja, Mlinar 2010, 104, kat. št. 65.

early forms according to Parzinger.[110] The other item is a horizontally grooved earring (*Fig. 4: 24*),[111] such as already appeared in IIa, but are also known in the IIb phase.[112] The field records reveal that the remains of a red cordoned urn (not surviving) were also found in the grave that contained a situla with an amber necklace wrapped around it (*Fig. 4: 26*). Five amber beads were found in the situla, while other goods were collected north of the situla.[113] This description reveals a specific burial ritual. It remains unclear, however, whether Grave Sz 1484 represents the burial of more individuals, the burial of several individuals not interred at the same time or possibly the Sveta Lucija fibula being offered to the deceased as an archaic element of the local costume.

The coil of bronze rectangular-sectioned wire with a thickened end from House 12 (*Fig. 5: 1*) has a close parallel in two similarly shaped spirals of a bronze ***fibula with a three-piece spring*** from Idrija pri Bači (*Fig. 5: 2*) [114] and a bronze ***fibula with a sheet metal disc on the bow*** from Grave 10 investigated at Repelc in Most na Soči (*Fig. 5: 3*).[115]

Multipart springs are characteristic of some variants of animal fibulae and of the Certosa fibulae of Vari-

[110] Parzinger 1988, 14, Sv. Lucija-III2a, Pl. 10: 124; on the later form with groups of ribs on the bow see *o. c.* 14, Sv. Lucija-III3, Pl. 12: 174.

[111] Kos 1973, 860.

[112] Laharnar, Mlinar 2013, 13–14.

[113] Teržan, Lo Schiavo, Trampuž-Orel 1985, 245.

[114] Mlinar, Žbona Trkman 2010, 94; Cunja, Mlinar 2010, 104, Cat. No. 67. Given the rectangular section of the wire fragment from House 12, it may be more likely that this is a part of a fibula with a three-part spring.

[115] Mlinar 2001, 23–30; 2002, 23, Figs. 15, 46, Cat. No. 21; Cunja, Mlinar 2010, 104, Cat. No. 65.

od konca 5. do konca 4. st. pr. n. št.[116] S tem se okvirno ujemajo referenčni predlogi datacij certoških fibul vrste XIIIh, ki sicer veljajo za izdelke panonskih in severnobosanskih delavnic.[117] Teržanova jih je datirala v sredino in drugo polovico 4. st. pr. n. št.,[118] Božič jih je prištel k vodilnim oblikam končne stopnje starejše železne dobe hrvaško-srbskega Podonavja oz. LT B1 po srednjeevropski kronologiji.[119] Nazadnje jih je obravnaval Marko Dizdar v objavi mladohalštatskega ženskega groba iz podravskega Belišća, kjer jih datira v zadnjo tretjino 5. in prvo četrtino 4. st. pr. n. št.[120]

Grob 10 z Repelca je po trakasti fibuli z mrežastim okrasom in certoški fibuli IIIa po Teržanovi datiran v stopnjo Sv. Lucija IIb oz. okrog leta 500 ali v prvo polovico 5. st. pr. n. št.[121] Ob upoštevanju razdelitve stopnje IIb gre torej za njen starejši horizont IIb1.

Spirali na zaponki z okroglo pločevinasto ploščo z Repelca oblikujeta zaključek noge fibule zgodnjelatenske sheme in ji dajeta vtis ovnove glavice. Miha Mlinar je v tej edinstveni zaponki videl spoj halštatske oblikovalske tradicije in uveljavljanje latenskega stila, pri čemer je prvo prepoznati v izvedbi iztolčenega okrasja na okrogli pločevinasti ploščici in samostrelne peresovine, drugega v pravokotni obliki trakastega loka ter podaljšanem zaključku noge z živalsko glavico, ki z rogovi molí nazaj k loku.[122] Podobno Adamova razume razkošni ploščičasti fibuli iz Trenta,[123] ki sta srednjelatenske sheme, vendar po obliki loka in načinu pritrditve okrasne plošče nanj primerku z Repelca zelo podobna.[124] Mostarski fibuli je blizu fibula iz Valične vasi,[125] ki ima podobno izvedeno namestitev okrogle okrasne plošče na trakast lok in samostrelno peresovino z visoko ležečo notranjo tetivo. Najdbe iz Valične vasi izvirajo z območja mladohalštatskega in latensko-rimskega grobišča.[126] Soroden okras iztolčenih in krožno razporejenih, proti sredini obrnjenih reber imajo fibula iz Poljan pri Žužemberku[127] ter zlate prevleke železnih ali bronasto-železnih ploščičastih fibul, aplik in faler z mladohalštatskih ter zgodnjelatenskih najdišč severno od Alp.[128] V slednjih je primerjave za tridentinski fibuli iskala tudi Adamova in opozorila na sorodnosti s ploščičastimi fibulami s švicarskih najdišč Saint-Sulpice, Murzelen, Ütliberg (knežja gomila)

[116] Mlinar, Žbona Trkman 2010, 94; Cunja, Mlinar 2010, 104.

[117] Dizdar 2015, 47, karta.

[118] Teržan 1976, 380.

[119] Božič 1981, 316 (o razmerju t. i. stopnje Čurug do srednjeevropske kronologije na str. 324).

[120] Dizdar 2015, 49.

[121] Mlinar 2001, 32; id. 2002, 46.

[122] Mlinar 2002, 24.

[123] Adam 1996, 174, 176–177, t. 12: 273-274.

[124] Mlinar 2001, 28.

[125] Teržan 1973, t. 4: 4; Mlinar 2002, 26, t. 2: 2.

[126] Teržan 1973, 660–665.

[127] Knez 1968–1969, 185; Mlinar 2001, 28, t. 2: 1.

[128] Npr. Megaw 2015, 423–431.

ant XIIIh after Teržan, which often have an additional decorative spring with loops similarly as the fibula from Idrija pri Bači mentioned above. In Cunja, Mlinar and in Mlinar, Žbona Trkman, it has been established that multipart springs characterise fibulae produced from the late 5th to the end of the 4th century BC.[116] This roughly corresponds with the proposed dates for the Variant XIIIh Certosa fibulae, which are believed to be the products of Pannonian and north Bosnian workshops.[117] Teržan dates them to the middle and the second half of the 4th century BC,[118] while Božič sees them as one of the leading forms of the final phase of the Early Iron Age in the Croatian and Serbian parts of the Danube Basin or LT B1 of the central European chronology.[119] The last to discuss them is Marko Dizdar, in his publication of a Late Hallstatt grave of a woman from the site of Belišće in the Croatian region of Podravina, where he dates them to the last third of the 5th and the first quarter of the 4th century BC.[120]

The above-cited Grave 10 from Repelc has been attributed to the Sv. Lucija IIb phase, i.e. around 500 or the first half of the 5th century BC on the basis of the associated band bow fibula with reticular decoration and the Certosa fibula of Variant IIIa after Teržan.[121] Considering the division of the IIb phase, this is its early IIb1 subphase.

The spirals on the fibula with a sheet metal disc from Repelc resemble a ram's head and form the foot terminal typical of the fibulae of the Early La Tène construction. In this item, Miha Mlinar sees a fusion of the Hallstatt formal tradition and the new La Tène style, with the former visible in the embossed decoration on the sheet metal disc and the crossbow spring, and the latter in the rectangular form of the bow and the elongated foot terminal with an animal head the horns of which point back to the foot.[122] Adam similarly interprets the ornate fibulae with a disc on the bow (*fibule laminari con dischi ribaditi*) from Trento,[123] which are of the Middle La Tène construction, but very similar to the example from Repelc in the shape of the bow and the manner of attaching the decorative disc onto the bow.[124] A fibula resembling that from Most na Soči has been found at Valična vas,[125] with the decorative disc attached to the band bow in a similar manner and with a crossbow spring with a high internal chord. The finds from Valična vas originate from the area of the Late Hallstatt and La

[116] Mlinar, Žbona Trkman 2010, 94; Cunja, Mlinar 2010, 104.

[117] Dizdar 2015, 47, Map.

[118] Teržan 1976, 380.

[119] Božič 1981, 316 (on the relationship between the Čurug phase and the central European chronology see p. 324).

[120] Dizdar 2015, 49.

[121] Mlinar 2001, 32; id. 2002, 46.

[122] Mlinar 2002, 24.

[123] Adam 1996, 174, 176–177, Pl. 12: 273-274.

[124] Mlinar 2001, 28.

[125] Teržan 1973, Pl. 4: 4; Mlinar 2002, 26, Pl. 2: 2.

ter nemškega Reinheima. V ta okvir umešča še fibulo iz kraja Želenice,[129] hranjeno v Narodnem muzeju v Pragi,[130] katere ploščica je ponovno podobno okrašena kot pri fibuli z Repelca.[131] Naštete primerjave z območja vznika in začetnega širjenja latenske kulture niso mlajše od začetka horizonta LT B po srednjeevropski kronologiji.[132]

Že Mlinar je opozoril na dobro primerjavo mostarskega primerka z bronasto ploščičasto fibulo z najdišča Hochbühel pri Meranu,[133] ki ju povezujejo kvadratno oblikovan trakast lok, dolga samostrelna peresovina z visoko ležečo notranjo tetivo, podobno okrašena in pritrjena ploščica ter trikotni obeski kot dodaten okrasni element.[134] Vendar z razliko od fibule z Repelca (dolžina 7,8 cm), ki je bila del bogate dekliške oprave,[135] meranske fibule najverjetneje nikoli niso nosili. Komaj 2,5 cm dolga zaponka je bila izdelana za daritev in skupaj z zbirko miniaturnih votivnih predmetov izvira z žgalnodaritvenega kultnega mesta na najdišču Hochbühel.[136]

Skupina podobnih fibul z okroglo pločevinasto ploščo se torej pojavlja od Južne Tirolske prek Posočja do Dolenjske. Namestitev okrogle plošče na lok fibule, lok zgodnjelatenske sheme in morda ikonografija okrasa jih povezujejo z izdelki zgodnjelatenskega stila severno od Alp. Vendar z razliko od švicarskih, nemških in čeških primerjav okrogla okrašena bronasta pločevina tukajšnjih fibul ni iz zlata in ne služi kot prevleka železnih plošč.

Med drobnimi najdbami hiše 33 sta bili dve fibuli. Bronasta ***fibula srednjelatenske sheme*** (*t. 97: 9)* s pravokotnim presekom loka in dolgo peresovino z zunanjo tetivo ima ohranjen zadnji del nazaj zapognjene noge, z enim večjim in tremi manjšimi polkrožnimi rebri, ki se z objemko pripenja na lok. V soseščini najdemo sorodno oblikovan zaključek noge na odlomku fibule z lokom pravokotnega preseka iz Dernazzacca, ki pa ne omogoča natančnejše časovne umestitve.[137] Zaključek noge s polkrožnimi rebri nekoliko spominja na fibulo vrste Idrija pri Bači iz groba 5 na Idriji pri Bači, ki sodi v stopnjo LT D1,[138] a se od nje loči v obliki objemke – ta je brez izrazitih prečnih reber na robovih – in izvedbi peresovine. Dolga peresovina z zunanjo tetivo ima primerjave v bronastih in železnih fibulah stopnje LT C2 z območja mokronoške skupine.[139]

[129] Adam 1996, 174.
[130] Valentová et al. 2012, 139, kat. št. 91.
[131] Mlinar 2001, 26, t. 2: 3.
[132] Adam 1996, 174; Megaw 2015, 429.
[133] Mlinar 2001, 26.
[134] Lunz 1976, 47, sl. 38
[135] Mlinar 2001, 32.
[136] Sölder 2002, 51–52, sl. 35, 198, kat. št. 198.
[137] Pettarin 2006, 119, t. 15: 212.
[138] Guštin 1991, t. 6: 10; Božič 2011, 254–255, sl. 6.14: 3.
[139] Božič 1999a, 198–199, 210; Pirkmajer 1991, t. 9: 55-57, 13: 84-85.

Tène-Roman cemetery.[126] Comparable decoration of embossed and circularly arranged ribs pointing towards the centre can also be found on a fibula from Poljane pri Žužemberku[127] and on the gold foils on the iron or bronze-iron fibulae with a disc on the bow, appliques and phalerae from the Late Hallstatt and Early La Tène sites north of the Alps.[128] In the last of the objects mentioned, Adam also sees a parallel for the fibulae from Trento and notes the similarities with the fibulae with a disc on the bow from Saint-Sulpice, Murzelen, Ütliberg (princely tumulus) in Switzerland and Reinheim in Germany. In this connection, she also mentions a fibula from Želenice,[129] kept in the Národní Muzeum in Prague,[130] the disc on which bears a decoration similar to that on the fibula from Repelc.[131] These parallels from the area of the origin and initial spread of the La Tène culture do not postdate the beginning of LT B of the central European chronology.[132]

Mlinar observes that the fibula from Most na Soči has a close parallel in the bronze fibula with a disc on the bow from Hochbühel near Merano/Meran in South Tyrol,[133] which share a square band bow, a long crossbow spring with a high internal chord, a similarly decorated and attached disc and triangular pendants as an additional decorative element.[134] As opposed to the fibula from Repelc (length 7.8 cm), which was part of a rich attire of a girl,[135] however, the fibula from Merano was probably never worn. The no more than 2.5 cm long fibula was made as an offering and formed part of the assemblage of miniature votive objects recovered from a cult place for burnt offerings at Hochbühel.[136]

The above shows that similar fibulae with a sheet metal disc on the bow are known from South Tyrol to Posočje and Dolenjska. The manner of attaching the round disc to the bow, the bow of the Early La Tène construction and possibly the decorative iconography ties these fibulae to the products of the Early La Tène style north of the Alps. Contrary to the examples from Switzerland, Germany and the Czech Republic, the round decorated sheet bronze of the fibulae here is not made of gold and does not serve as the coating of iron discs.

The small finds from House 33 include two fibulae. The bronze ***fibula of the Middle La Tène construction*** (*Pl. 97: 9*) has a rectangular-sectioned bow, a wide spring with an external chord and a reverted foot that survives in part, bears one large and three smaller semicircular

[126] Teržan 1973, 660–665.
[127] Knez 1968–1969, 185; Mlinar 2001, 28, Pl. 2: 1.
[128] E.g. Megaw 2015, 423–431.
[129] Adam 1996, 174.
[130] Valentová et al. 2012, 139, Cat. No. 91.
[131] Mlinar 2001, 26, Pl. 2: 3.
[132] Adam 1996, 174; Megaw 2015, 429.
[133] Mlinar 2001, 26.
[134] Lunz 1976, 47, Fig. 38.
[135] Mlinar 2001, 32.
[136] Sölder 2002, 51–52, Figs. 35, 198, Cat. No. 198.

Obročasto fibulo, okrašeno s tangencialno povezanimi krožci s piko, iz hiše 33 (*t. 97: 13*) je objavil Mitja Guštin v knjigi o mlajši železni dobi Posočja in jo opredelil kot obročasto fibulo vrste Posočje.[140] Menimo, da gre za mlajšo, rimsko fibulo. V primerjavi z ostalimi fibulami vrste Posočje, mednje sodi tudi tukaj predstavljena fibula iz sonde 17 (*sl. 12: 13* in glej spodaj), je zaponka iz hiše 33 manjša. Njen premer je 3 cm.[141] Čeprav je zlomljena, bi luknjica za namestitev igle, ki je značilna za vse ostale primerke fibul vrste Posočje, morala biti vidna. To dejstvo napeljuje k domnevi, da je bila igla, ki ni ohranjena, pri bazi najverjetneje oblikovana v zanko tako, da se je krožno premikala po obroču fibule. Takšna konstrukcija je značilna za različico rimskih obročastih fibul, izdelanih iz pločevinastega traku s preprosto zapognjenima ali cevasto oz. spiralno zavitima koncema.[142] Po Feugèrju je prva izvedba (tip 30g1) značilna za 1. st., druga (tip 30g2) je pogosta v kontekstih 4. stoletja.[143]

Odlomek loka in noge bronaste fibule (*t. 31: 8*) iz hiše 9 morda pripada kateri od klasičnih izvedb kačastih fibul ali eni od oblik, ki sodijo v veliko skupino ***usločenih fibul***, značilnih za t. i. horizont usločenih fibul, to je stopnjo LT D2 po srednjeevropski kronologiji.[144]

Prstani, obeski, gumbi in steklene jagode

Med hišnimi najdbami so bronasti ***prstani*** dobro zastopani. Med njimi je pet preprostih primerkov s polkrožnim presekom (*t. 9: 4; 28: 4; 31: 13; 61: 1; 98: 1*) ter različne okrašene izvedbe, med njimi narebren (*t. 29: 12*), z vrezanimi skupinami črtic in krožci s piko med njimi (*t. 36: 22; 37: 3*), s skupinami vrezanih krožcev s piko (*t. 60: 2*) in vrezanimi črticami (*t. 89: 17*). Vsem najdemo primerjave med grobnim gradivom najdišč svetolucijske skupine.

Morda je najmlajši prstan odlomek neokrašenega trakastega obročka iz druge gradbene faze hiše 11 (*t. 32: 6*), ki ima primerjavo v grobu 31 na Koritnici ob Bači, kjer je bil v grobu skupaj z odlomki keramike, brusnima kamnoma in fibulo zgodnjelatenske sheme. S prstanom s Koritnice so se ohranili tudi ostanki prstne kosti,[145] kar govori v prid opredelitve obročka za prstan. V ostalih primerih je bila gotovo mogoča tudi drugačna raba prstanov oz. obročkov. Zelo pogosto so nanizani na svetolucijskih in drugih fibulah.[146]

[140] Guštin 1991, 25, t. 44: 4.

[141] Premeri fibul vrste Posočje iz grobov na Idriji pri Bači znašajo 5, 5,4 in 5,8 cm (po Guštin 1991, t. 6: 9; 10: 10; 20: 4), premer fibule z najdišča Vrh gradu pri Pečinah znaša 4,8 cm (Mlinar, Cunja 2010, 112, št. 115).

[142] Jobst 1975, 125: varianta A: kat. št. 358–367.

[143] Feugère 1985, 185, 417, 421.

[144] Völling 1994, 234, op. 398; Božič 2008, 95.

[145] Kos 1973, 856, t. 8: 2.

[146] Prim. na iglo certoške fibule iz hiše 7 so nanizani bronasti obročki ali prstani v treh izvedbah (*t. 28: 1*).

ribs and is attached to the bow with a clamp. In the vicinity of Most na Soči, a similarly shaped foot terminal can be seen on the fragment of a fibula with a rectangular-sectioned bow from Dernazzacco, but this fragment cannot be dated more precisely.[137] The foot terminal with semicircular ribs is similar to that on an Idrija pri Bači fibula from Grave 5 at Idrija pri Bači, which is attributed to LT D1,[138] but differs in the shape of the clamp that is devoid of the pronounced ribs at the edges and in the shape of the spring. The wide spring with an external chord has parallels in the bronze and iron fibulae of LT C2 from the area of the Mokronog group.[139]

The second fibula from House 33 is a ***penannular fibula,*** decorated with tangentially connected ring-and-dots (*Pl. 97: 13*). It has been published by Mitja Guštin in his book on the Late Iron Age in Posočje who determined it as a Posočje type penannular fibula.[140] We are of the opinion that the fibula is actually Roman in date. Compared with other fibulae of the Posočje type, which include one from Trench 17 at Most na Soči (*Fig. 12: 13* and see below), the fibula from House 33 is smaller and only measures 3 cm in diameter.[141] Although it is broken, the hole for attaching the pin, which is characteristic of all other fibulae of the type, should be clearly visible, suggesting that the unpreserved pin must have been attached to the frame by way of a loop and thus movable along the frame. Such a construction is typical of the Roman penannular fibulae made of a sheet metal frame with bent or rolled ends.[142] According to Feugère, its Type 30g1 is characteristic of the 1st century AD, while Type 30g2 is common in contexts from the 4th century.[143]

The bow and foot fragment of a bronze fibula (*Pl. 31: 8*) from House 9 may belong to one of the classic forms of serpentine fibulae or to one of the forms of the large group of ***arched fibulae (geschweifte Fibeln)***, characteristic of the Arched Fibula phase, i.e. LT D2 of the central European chronology.[144]

Finger rings, pendants, buttons and glass beads

The Iron Age houses at Most na Soči revealed numerous bronze ***finger rings***. They include five plain examples with a semicircular cross section (*Pls. 9: 4; 28: 4; 31: 13; 61: 1; 98: 1*) and different decorated examples.

[137] Pettarin 2006, 119, Pl. 15: 212.

[138] Guštin 1991, Pl. 6: 10; Božič 2011, 254–255, Fig. 6.14: 3.

[139] Božič 1999a, 198–199, 210; Pirkmajer 1991, Pls. 9: 55-57, 13: 84-85.

[140] Guštin 1991, 25, Pl. 44: 4.

[141] The diameters of the Posočje fibulae from the graves at Idrija pri Bači are 5, 5.4 and 5.8 cm (from Guštin 1991, Pls. 6: 9; 10: 10; 20: 4), while the fibula from Vrh gradu near Pečine measures 4.8 cm across (Mlinar, Cunja 2010, 112, No. 115).

[142] Jobst 1975, 125: Variant A: Cat. Nos. 358–367.

[143] Feugère 1985, 185, 417, 421.

[144] Völling 1994, 234, Fn. 398; Božič 2008, 95.

Medtem ko so različne izvedbe košarastih obeskov z zaobljenim dnom v svetolucijski skupini pogosta oblika,[147] se ***košarasti obesek s koničnim dnom***[148] pojavlja redkeje.[149] Obesek iz hiše 22A (*t. 62: 3*) je zaradi kroglaste odebelitve na dnu podoben polnemu primerku iz groba Sz 520 na Mostu na Soči,[150] ki ga je Thilo F. Warneke uvrstil v svojo, sicer precej raznoliko obliko 21.[151] Tej obliki pripadajo tudi košarasti obesek s kultnega mesta (*sl. 7: 20*) in vsaj dva z Marchesettijevih izkopavanj.[152] Warnekejeva karta razprostranjenosti se deloma ujema z ugotovitvami italijanskih arheologov, da se košarasti obeski s koničastim dnom pojavljajo na najdiščih od Lombardije, Tridentinskega do Benečije. Nastopajo predvsem v horizontu certoških fibul[153] in v kontekstih 5. st. pr. n. št.[154] Podobno povzema Teržanova, ki je prva zbrala primerke s slovenskih in hrvaških najdišč, da gre za značilno mladohalštatsko obliko.[155] Temu ne nasprotuje odkritje iz druge gradbene faze hiše 22A, kjer je bil poleg obeska tudi gumb certoške fibule X. vrste (*t. 62: 4*) in odlomek steklene jagode (*t. 62:* 1, glej spodaj).

V skupino košaričastih obeskov s koničnim dnom uvrščamo tudi različico z mrežastim okrasom (*t. 36: 18*), ki se pojavlja na najdiščih svetolucijske skupine ter s posameznimi primerki še na Dolenjskem in v Beli krajini.[156]

Bronasti ***kalotasti gumbi***, ki so jih našli v hišah 1, 7 in 10 (*t. 2: 3; 28: 6; 31: 20*), imajo primerjave na kultnem mestu (glej spodaj).

Predmeti iz stekla, ki so jih našli na območju raziskanih hiš, so kroglaste in sploščeno kroglaste jagode iz raznobarvnega stekla z raznobarvnimi očesci, odlomek steklenega obročka (*t. 40: 4*) in obesek amforičaste oblike (*t. 97: 14*). Med ***steklenimi jagodami*** in njihovimi odlomki so primerki iz rumenega stekla in plastovitimi belo-modrimi očesci (*t. 23: 8, 32: 5, 57: 24, 89: 19*) ter iz modrozelenega stekla s plastovitimi rumeno-belo-modrimi očesci (*t. 57: 25, 97: 17*). Manjše kroglaste jagode so izdelane iz zelenega ali temnozelenega (*t. 23: 10–11*) in modrega (*t. 55: 2*) stekla. Rumene in modrozelene steklene jagode s plastovitimi očesci so bile v 5. in 4. st.

[147] Gabrovec 1974, 303–304; Teßsmann 2007; Pavlin 2014.

[148] Prim. De Marinis 1981, 229–323, sl. 5; Carancini 1975, 58–59, sl. 10: 13-14.

[149] Svetličič 1997, 35.

[150] Teržan, Lo Schiavo, Trampuž-Orel 1984, t. 42C: 2.

[151] Warneke 1999, 129, sl. 62.

[152] Marchesetti 1893, 173, t. 24: 32,34 (= Montagnari Kokelj 1993, 267, t. 24: 32,34).

[153] Peroni et al. 1975, 59, 63, 219, 229–230, sl. 10: 14, 60: 7.

[154] Nascimbene 2004, 661–662.

[155] Teržan 1973, 684, op. 62; Svetličič 1997, 35–36.

[156] Za Posočje seznam najdišč Barbare Teßmann lahko dopolnimo še z najdbami iz Dernazzacca (Pettarin 2006, t. 26: 438-441), 13 primerki z najdišča Grad pri Krnu (neobjavljeno, hrani Tolminski muzej) in Kobarida (v zasebni hrambi).

The latter include a ring with ribbing (*Pl. 29: 12*), one with groups of incised lines separated by ring-and-dots (*Pls. 36: 22; 37: 3*), one with groups of incised ring-and-dots (*Pl. 60: 2*) and one with incised lines (*Pl. 89: 17*). All have parallels among the grave goods from the cemeteries of the Sveta Lucija group.

The last in date may be the fragment of a plain band finger ring from the second construction phase of House 11 (*Pl. 32: 6*), which has a parallel in a ring from Grave 31 at Koritnica, found together with pottery fragments, two whetstones and a fibula of the Early La Tène construction. Surviving together with this ring from Koritnica is the remains of finger bones,[145] which speaks in favour of the item being used as a finger ring. Other examples may have served a different purpose; they are commonly found hanging from Sveta Lucija and other fibulae.[146]

Basket-shaped pendants with a rounded bottom in different variants are common finds in the Sveta Lucija group,[147] while the ***basket-shaped pendants with a conical bottom***[148] are much rarer.[149] One such pendant, from House 22A (*Pl. 62: 3*), has a spherical knob at the bottom, in which it is comparable with a solid pendant from Grave Sz 520 at Most na Soči,[150] which Thilo F. Warneke classified into his rather varied Form 21.[151] This form also includes a basket-shaped pendant from the cult place (*Fig. 7: 20*) and at least two such items from Marchesetti's excavations.[152] Warneke's distribution map partly corresponds with the findings of Italian archaeologists that basket-shaped pendants with a conical bottom occur at sites from Lombardy to Trentino and Veneto. They are mainly known from contexts of the Certosa Fibula phase,[153] i.e. the 5th century BC.[154] Teržan draws a similar conclusion, gathering the known examples from sites in Slovenia and Croatia, and sees them as a typical Late Hallstatt form.[155] The find from the second construction phase of House 22A does not contradict this conclusion, as it was found together with the ribbed disc of a Type X Certosa fibula (*Pl. 62: 4*) and a fragment of a glass bead (*Pl. 62:* 1, see below).

The group of basket-shaped pendants with a conical bottom includes the variant with reticular decoration (*Pl. 36: 18*), examples of which are known from the sites

[145] Kos 1973, 856, Pl. 8: 2.

[146] Cf. that bronze rings or finger rings in three variants are hanging from the Certosa fibula from House 7 (*Pl. 28: 1*).

[147] Gabrovec 1974, 303–304; Teßmann 2007; Pavlin 2014.

[148] Cf. De Marinis 1981, 229–323, Fig. 5; Carancini 1975, 58–59, Fig. 10: 13-14.

[149] Svetličič 1997, 35.

[150] Teržan, Lo Schiavo, Trampuž-Orel 1984, Pl. 42C: 2.

[151] Warneke 1999, 129, Fig. 62.

[152] Marchesetti 1893, 173, Pl. 24: 32,34 (= Montagnari Kokelj 1993, 267, Pl. 24: 32,34).

[153] Peroni et al. 1975, 59, 63, 219, 229–230, Figs. 10: 14, 60: 7.

[154] Nascimbene 2004, 661–662.

[155] Teržan 1973, 684, Fn. 62; Svetličič 1997, 35–36.

pr. n. št. široko razprostranjene.[157] Na Dolenjskem so med najdbami iz grobov certoške in negovske stopnje.[158] Kot je opozorila Kari Kunter, so v svetolucijski skupini značilne za stopnji Sv. Lucija IIb in IIc,[159] nekateri primerki, ki naj bi bili iz starejših grobov, pa so posamezne najdbe in ne izvirajo iz zaključenih grobnih celot.[160]

Odlomek velike sploščene kroglaste jagode iz črnega stekla in številnimi modro-belimi očesci iz druge gradbene faze hiše 22A (*t. 62: 1*) ima odlično primerjavo v odlomkih steklenih jagod iz groba 10 na Repelcu. Kot smo že napisali, je grob z Repelca na podlagi trakaste fibule z mrežastim okrasom in certoške fibule IIIa po Teržanovi datiran v stopnjo Sv. Lucija IIb1 oz. okrog leta 500 ali v prvo polovico 5. st. pr. n. št.[161] V Sloveniji poznamo tako jagodo zgolj med gradivom z grobišča blizu Goleka pri Vinici,[162] širše pa predvsem v Italiji, kjer veljajo za izdelke, povezane z mojstrstvom feničanskih steklarskih delavnic.[163] Pri tem spomnimo, da enako velja tudi za stekleni obesek v podobi bradatega moškega obraza iz groba 2942 na mostarskem grobišču, ki ga je odkril Marchesetti.[164]

Med gradivom hiše 33 so najdbe iz več obdobij. V starejšo železno dobo sodita bronasti lasni spiralni obroček (*t. 97: 10*)[165] in odlomek steklene jagode *t. 97:17*. Poznolatenska sta fibula srednjelatenske sheme (*t. 97: 9*) in odlomek vretenastega kozarca Marabini 3 oziroma Ricci 1/7 (*t. 97: 18*),[166] medtem ko je fibula *t. 97: 13* iz rimske dobe. Iz konca starejše železne dobe je ***jagoda amforičaste oblike iz temnorjavega stekla*** (*t. 97: 14*).[167] Dragan Božič jih našteva med oblikami stopnje Čurug (LT B1) relativne kronologije hrvaško-srbskega Podonavja.[168] Petar Popović je pokazal, da neredko nastopajo kot grobne najdbe skupaj s fibulami zgodnjelatenske sheme, in domneva njihovo širjenje od Makedonije, ob vzhodni jadranski obali in prek osrednjega Balkana do Moravske.[169]

[157] Kunter 1995, 161.

[158] Ibid. 37; Božič 2011, 248.

[159] Kunter 1995, 38, op. 112.

[160] Ibid., 226–227; Božič 2011, 248.

[161] Mlinar 2001, 32; 2002, 46.

[162] Hrani Peabody Museum of Archaeology and Ethnology pri Harvardski univerzi, inv. št. 40-77-40/12213, (https://www.peabody.harvard.edu/collections, zadnji dostop 9. 5. 2017).

[163] Prim. Moscati 1988, 745, kat. št. 946.

[164] Marchesetti 1893, 132, 171, t. 29: 9 (= Montagnari Kokelj 1993, 226, 267, t. 29: 9); Vitri 1997, 314, kat. št. 193.

[165] Teržan, Lo Schiavo, Trampuž-Orel 1985, 30–31, št. 4.

[166] Grahek v tej knjigi. O dataciji kozarcev Marabini 3 oziroma Ricci 1/7 glej npr. Fasano 1994, 165–172; Horvat, Bavdek 2009, 70–72.

[167] Datacija v pozno latensko dobo ni povsem izključena. Vendar jo nakazuje zgolj primerjava v najdbi podobne jagode na poznolatenskem grobišču Strmec nad Belo Cerkvijo (Dular 1991, t. 51: 9; Božič 1992, 39).

[168] Božič 1981, 315, op. 12.

[169] Popović 1997; id. 2000.

of the Sveta Lucija group and with individual examples from Dolenjska and Bela krajina.[156]

The bronze ***domed buttons*** from Houses 1, 7 and 10 (*Pls. 2: 3; 28: 6; 31: 20*) are comparable with the finds from the cult place (see below).

The items of glass from the houses of the settlement comprise spherical and flattened spherical beads of multi-coloured glass and multi-coloured eyes, a fragment of a glass ring (*Pl. 40: 4*) and an amphora-shaped pendant (*Pl. 97: 14*). The ***glass beads*** and their fragments include examples of yellow glass and layered white-blue eyes (*Pls. 23: 8, 32: 5, 57: 24, 89: 19*), and examples of blue-green glass with layered yellow-white-blue eyes (*Pls. 57: 25, 97: 17*). Smaller beads are made of green or dark green (*Pl. 23: 10–11*) and blue (*Pl. 55: 2*) glass. The yellow and blue-green glass beads with layered eyes were widespread in the 5th and 4th centuries BC.[157] In Dolenjska, they occur in the graves of the Certosa Fibula and Negova phases.[158] Within the Sveta Lucija group, Kari Kunter observes that they were characteristic of the Sv. Lucija IIb and IIc phases,[159] while the examples presumed to be from earlier graves actually represent stray finds and do not originate from reliable grave groups.[160]

The fragment of a large flattened spherical bead of black glass with numerous blue-white eyes, associated with the second construction phase of House 22A (*Pl. 62: 1*), has close parallels in the fragments of glass beads from Grave 10 at Repelc. As already noted above, the band bow fibula with reticular decoration and the Variant IIIa Certosa fibula after Teržan from this grave date it to the Sv. Lucija IIb1, i.e. around 500 or the first half of the 5th century BC.[161] In Slovenia, a single other such fibula is known from the cemetery in the vicinity of Golek near Vinica,[162] while abroad they are mainly known in Italy where they are believed to be products connected with Phoenician workshops.[163] The same is true of the glass pendant in the shape of a bearded male face from Grave 2942 at Most na Soči excavated by Marchesetti.[164]

[156] We can add further finds to the list published by Barbara Teßmann for Posočje Region: those from Dernazzacco (Pettarin 2006, Pl. 26: 438-441), 13 examples from Grad near Krn (unpublished, kept in the Tolminski muzej) and Kobarid (private collection).

[157] Kunter 1995, 161.

[158] Ibid. 37; Božič 2011, 248.

[159] Kunter 1995, 38, Fn. 112.

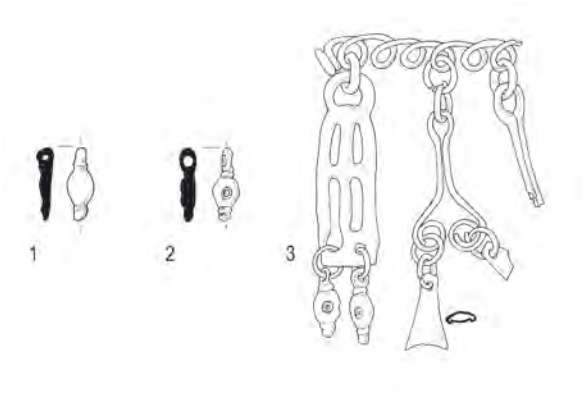
[160] Ibid., 226–227; Božič 2011, 248.

[161] Mlinar 2001, 32; 2002, 46.

[162] Kept in the Peabody Museum of Archaeology and Ethnology at Harvard University, Inv. No. 40-77-40/12213. (https://www.peabody.harvard.edu/collections, last accessed 9. 5. 2017).

[163] Cf. Moscati 1988, 745, Cat. No. 946.

[164] Marchesetti 1893, 132, 171, Pl. 29: 9 (= Montagnari Kokelj 1993, 226, 267, Pl. 29: 9); Vitri 1997, 314, Cat. No. 193.



Sl. 6: Obeski. 1 Most na Soči – naselbina (po Svoljšak, Dular 2016, t. 97: 15); 2 Berlotov rob (Narodni muzej Slovenije); 3 Loga pri Bodrežu (po Guštin 1991, t. 40: 22). M = 1:2.
Fig. 6: Pendants. 1 Most na Soči – settlement (from Svoljšak, Dular 2016, Pl. 97: 15); 2 Berlotov rob (Narodni muzej Slovenije); 3 Loga near Bodrež (from Guštin 1991, Pl. 40: 22). Scale = 1:2.

Prevladujoče mladohalštatske in poznolatenske najdbe iz hiše 33 nakazujejo tudi datacijo bronastega ***sploščenega obeska*** iz hiše 33 v ta časovni okvir (*sl. 6*: 1). Obesek ima v Posočju dve primerjavi, obe izvirata s kultnih mest in ju tudi ne moremo ožje datirati. Prvega so našli z detektorjem kovin na Berlotovem robu (*sl. 6: 2*), drugi dopolnjuje nenavadno bronasto garnituro obeskov na spiralno zaviti žici z Loge pri Bodrežu (*sl. 6: 3*).[170] Navedena predmeta se od mostarskega razlikujeta le v tem, da sta na sredini okrašena s krožcem in piko. Sicer zbirki najdb iz Bodreža in z Berlotovega roba zajemata čas mladohalštatske in poznolatenske dobe.[171]

Orožje, orodje in razni pripomočki

Edine najdbe orožja iz hiš so tri ***železne sulične osti*** in ***sulično kopito*** *(t. 94: 6*). Odlomek sulične osti iz hiše 1 je zelo korodiran (*t. 2: 6*), od tiste iz hiše 14A se je ohranil zgolj tul (*t. 36: 4*). Bolje je ohranjena sulična ost iz hiše

[170] Guštin 1991, 12, t. 40: 22.

[171] V gradivu obeh najdišč prepoznavamo mladohalštatsko in poznolatensko drobno materialno kulturo, medtem ko značilnih najdb iz srednjega latena ni oz. nimamo prepričljivih argumentov za tako datacijo. Najmlajše najdbe z Berlotovega roba sodijo v zadnja desetletja pr. n. št. in morda še v avgustejsko dobo. Zgolj eden od rimskih prstanov je mlajši, iz 3. stoletja (Narodni muzej Slovenije in Tolminski muzej, neobjavljeno). Tovrsten fenomen "odsotnosti srednjega latena" je značilen za celotno Posočje. Iz tega časa ne poznamo nobene grobne celote niti drugih prepričljivih kontekstov, temveč le redke posamezne najdbe. V tem trenutku je edina izjema jama z ledine Laze pri Čadrgu (glej zgoraj) z najdbo certoške fibule vrste Xg in vojaško opremo, značilno za srednjelatensko stopnjo LT C1 (Mlinar, Turk 2016, 21, 40–44, kat. št. 39–45).

The small finds from House 33 are attributable to different periods. The bronze spiral hair ring (*Pl. 97: 10*)[165] and the fragment of a glass bead on *Pl. 97:17* date to the Early Iron Age. The fibula of the Middle La Tène construction (*Pl. 97: 9*) and the fragment of a spindle-shaped Marabini 3 or Ricci 1/7 beaker (*Pl. 97: 18*)[166] are from the Late La Tène period, while the fibula on *Pl. 97: 13* dates to the Roman period. The ***amphora-shaped bead of dark brown glass*** (*Pl. 97: 14*) dates to the final part of the Early Iron Age.[167] Dragan Božič lists such beads among the forms of the Čurug phase (LT B1) of the relative chronology for the Croatian and Serbian part of the Danube Basin.[168] Petar Popović has shown that they sometimes occur as grave goods in association with the fibulae of the Early La Tène construction and suggested their spread from Macedonia along the eastern Adriatic coast, across the central Balkans to Moravia.[169]

The predominantly Late Hallstatt and Late La Tène finds from House 33 indicate the date of the bronze ***flattened pendant*** from this house (*Fig. 6*: 1). The pendant is comparable with two finds from Posočje, both recovered from cult places, that cannot be dated more precisely. One was found with a metal detector at Berlotov rob (*Fig. 6: 2*), while the other is part of an unusual set of bronze pendants strung on a spiral wire that was found at Loge near Bodrež (*Fig. 6: 3*).[170] The two items only differ from the example from Most na Soči in that they bear ring-and-dot decoration in the centre. The assemblages of finds from Bodrež and Berlotov rob span the Late Hallstatt and Late La Tène periods.[171]

[165] Teržan, Lo Schiavo, Trampuž-Orel 1985, 30–31, No. 4.

[166] Grahek in this book. On the date of the Marabini 3 or Ricci 1/7 beakers see e.g. Fasano 1994, 165–172; Horvat, Bavdek 2009, 70–72.

[167] It is not possible to exclude the possibility of a Late La Tène date, though it is only indicated by a similar bead being found on the Late La Tène cemetery at Strmec above Bela Cerkev (Dular 1991, Pl. 51: 9; Božič 1992, 39).

[168] Božič 1981, 315, Fn. 12.

[169] Popović 1997; id. 2000.

[170] Guštin 1991, 12, Pl. 40: 22.

[171] The two sites revealed Late Hallstatt and Late La Tène small finds, and no artefacts characteristic of the Middle La Tène period, offering us no convincing evidence of such a date. The latest finds from Berlotov rob date to the closing decades BC and possibly the Augustan period; only one of the Roman finger rings is later, from the 3rd century (Narodni muzej Slovenije and Tolminski muzej, unpublished). This phenomenon of 'an absence of Middle La Tène finds' has been observed across the Posočje region; we have no documented grave groups or other reliable contexts from this period, only stray finds, with the exception of a cave at Laze near Čadrg (see above) with the find of a Type Xg Certosa fibula and military equipment characteristic of the Middle La Tène phase of LT C1 (Mlinar, Turk 2016, 21, 40–44, Cat. Nos. 39–45).

15A, z listom vrbolistne oblike in izrazitim sredinskim rebrom polkrožnega preseka (*t. 53: 6*). Obliko je samo po sebi težko datirati, a ji najdemo primerjave tudi med halštatsko dediščino Posočja.[172]

Blizu večjega kamna, ki je bil del ognjišča v drugi gradbeni fazi hiše 30,[173] je bil odkrit ***železen srp*** (*t. 95: 3*). Gre za najdbo, ki pomembno dopolnjuje naše vedenje o poljedelskem delu v starejši železni dobi Posočja. Arheobotanične najdbe različnih žit, ostankov rastlinske hrane[174] in žrmlje[175] so zgovoren dokaz, da so obdelovali njive in vrtove ter gojili poljščine, medtem ko najdb poljedelskega orodja doslej nismo poznali. Drugače je z dediščino poznega latena, ko je v Posočju izpričan običaj pridajanja poljedelskega orodja v grobove[176] in pojav orodnih depojev.[177]

Medtem ko poznamo v obdobju kulture žarnih grobišč bronaste srpe kot eno od najštevilčnejših oblik drobne materialne kulture z mnogoznačnim pomenom (poljedelsko orodje, predmonetarno sredstvo, simbol rodovitnosti ali lunarni simbol v semantičnem smislu),[178] so v starejši železni dobi precej redkejši. Hans Nothdurfter ugotavlja, da so v srednji Evropi začeli uporabljati železne srpe v stopnji Ha C,[179] kar povzemajo tudi novejša referenčna dela.[180] Natančneje je problematiko železnih srpov skozi prizmo slovaških najdb obravnavala Etela Studeníková, ki izpostavlja posamezne najdbe iz hiš in dveh depojev utrjene naselbine Molpír pri Smolenicah kot dober orientir za tipokronološko opredelitev drugih srednjeevropskih železnodobnih srpov.[181] Znano je, da si Molpír po uničenju obzidja v poznem 7. ali zgodnjem 6. st. pr. n. št. ni več opomogel.[182] Na Molpírju so našli železne srpe v štirih hišah, depo šestih železnih srpov ter še dva železna srpa v zbiru oz. domnevnem depoju železnih orodij. Večina srpov ima značilno polkrožno obliko rezila, z največjo širino do 6 cm in jasno ločenim ročajem. Glede na njegovo obliko Studeníková loči srpe s trnastim ročajem in srpe z zapognjenim koncem ročajnega trna.[183] Po teh kriterijih je srp iz hiše 30 blizu prvi obliki srpov iz Molpírja. Kljub podobnosti s srpi iz Malih Karpatov moramo mostarski primerek vendarle prej videti v povezavi z razvojem alpskih oblik. Pri tem je morda pomenljiv kolenčast prehod med ročajem in rezilom, ki spominja na trne med ročajem in rezilom južnotirolskih starejšeželeznodobnih srpov v depoju

[172] Npr. Teržan, Lo Schiavo, Trampuž-Orel 1984, t. 266A: 3; Kos 1973, t. 5: 3.

[173] Svoljšak, Dular 2016, 210–211.

[174] Glej razpravi S. Motella De Carlo in T. Tolar v tej knjigi.

[175] A. Horvat v tej knjigi.

[176] Guštin 1991, 60–63, 76.

[177] Ibid., 23–24, t. 45; Božič 2007a, 225–235.

[178] Teržan 2016, 385–386.

[179] Nothdurfter 1979, 46.

[180] Npr. Hanemann 2014, 197.

[181] Studeníková 2007, 48.

[182] Parzinger, Stegmann-Rajtár 1988.

[183] Studeníková 2007, 48–50.

Weapons, tools and other implements

The only finds of weapons from the houses at Most na Soči are three ***iron spearheads*** and a ***spear butt*** *(Pl. 94: 6*). The spearhead fragment from House 1 is heavily corroded (*Pl. 2: 6*), of the spearhead from House 14A only the socket survives (*Pl. 36: 4*), while the spearhead from House 15A is better preserved and has a willow-leaf blade and a pronounced semicircular-sectioned midrib (*Pl. 53: 6*). The form in itself is difficult to date, but does have parallels among Hallstatt-period objects from Posočje.[172]

An ***iron sickle*** (*Pl. 95: 3*) was unearthed close to a large rock that was part of the hearth associated with the second construction phase of House 30.[173] This find certainly advances our knowledge of the farming activities in the Early Iron Age Posočje as no farming implements have been known here previously. The archaeobotanical finds from Most na Soči of different cereals, the remains of plant foodstuffs[174] and quern stones[175] provide clear evidence of the inhabitants of the settlement working their land and growing crops. In the Late La Tène period, there was a custom of offering farming tools into graves,[176] and we also have hoard finds of tools.[177]

In the Urnfield culture period, sickles are one of the most numerously represented forms of small finds with multiple meanings (farming tools, pre-monetary currency, symbol of fertility, lunar symbol).[178] They become much rarer in the Early Iron Age. Hans Nothdurfter observes that people in central Europe began using iron sickles in Ha C;[179] his observation has been cited in recent important publications.[180] Etela Studeníková has studied the iron sickles in greater detail with an emphasis on the examples from Slovakia, in particular the individual finds from the houses and two hoards from the fortified settlement at Molpír near Smolenice that serve as a reliable point of reference for the typo-chronological attribution of other Iron Age sickles from central Europe.[181] It has been clearly established that the settlement at Molpír did not recover after the destruction of its fortification walls in the late 7th or early 6th century BC.[182] The site has yielded iron sickles in four houses, a hoard consisting of six iron sickles and two more sickles in another assemblage or

[172] E.g. Teržan, Lo Schiavo, Trampuž-Orel 1984, Pl. 266A: 3; Kos 1973, Pl. 5: 3.

[173] Svoljšak, Dular 2016, 210–211.

[174] See the discussions by Sila Motella De Carlo and Tjaša Tolar in this book.

[175] A. Horvat in this book.

[176] Guštin 1991, 60–63, 76.

[177] Ibid., 23–24, Pl. 45; Božič 2007a, 225–235.

[178] Teržan 2016, 385–386.

[179] Nothdurfter 1979, 46.

[180] E.g. Hanemann 2014, 197.

[181] Studeníková 2007, 48.

[182] Parzinger, Stegmann-Rajtár 1988.

Greinwelden pri Brünecku in med najdbami iz hiše z najdišča Putzer Gschleier.[184] Hans Nothdurfter je trn med ročajem in rezilom videl kot konstrukcijsko značilnost (običajna že pri srpih iz časa kulture žarnih grobišč[185]), ki je imela vlogo v namestitvi organskega elementa ročaja, ter jo je opazoval v razvoju južnotirolskih in tridentinskih železnodobnih srpov, vejnikov in kos.[186] Povezava srpov s pojavom kratkih in dolgih kos[187] ni povsem jasna, mestoma je ločevanje med tipi težavno, prav tako datacija.

Uvedba kose je bila v srednjeevropskem keltskem svetu revolucionarna novost, verjetno povezana z mediteranskimi vplivi v izteku srednjelatenskega obdobja.[188] Uvedba kratke kose se je bržkone zgodila že v mladohalštatskem obdobju.[189] Kratka, 24,5 cm dolga kosa je bila najdena tudi na dnu zakopa konjskih skeletov in številnih predmetov pri Bizjakovi hiši v Kobaridu, ki je datiran v konec 4. in začetek 3. st. pr. n. št.[190] Ta najdba torej nakazuje pojav košnje v Posočju, vendar pa se je, kot dokazujejo etnološke in geografske študije, za košnjo na slabših, kamna neočiščenih površinah uporabljal predvsem srp.[191] To pomeni, da železen srp iz mladohalštatske hiše 30 oz. "pekarne", kot jo imenuje Svoljšak,[192] razumemo kot poljedelsko orodje, ki so ga uporabljali za žetev ali košnjo.

Druga gradbena faza hiše 35 že kaže močne vplive romanizacije ozemelj severno in vzhodno od Akvileje. Pri njenem zidanju so uporabljali malto,[193] zbir keramičnih najdb pa je izrazito italski. Sestavljajo ga odlomka srednjeavgustejske tere sigilate (*t. 98: 7–8*) ter odlomki, značilni predvsem za 1. st. pr. n. št.: ustje pozne amfore za vino Lamboglia 2 oz. prehoda k obliki Dressel 6A (*t. 98: 9*), verjetno ročaj amfore Lamboglia 2 (*t. 98: 10*), morda odlomek amfore za olje Dressel 6B in značilni italski pekač (*t. 98: 14*).[194] Tako datiramo tudi ***železen srp*** na *t. 98: 15* (list z rezilom ni v celoti ohranjen) in del ***železne verige*** (*t. 98: 12*), ki sta bila odkrita v ruševinah hiše. Iz teh izvira tudi denarij, skovan v letu 96 pr. n. št.[195]

[184] Nothdurfter 1979, 45–46, op. 256 (Putzer Gschleier), op. 264 (Greinwelden).

[185] Npr. Šinkovec 1995, 27.

[186] Nothdurfter 1979, 41, 46.

[187] Arheološke študije poljedelskega orodja črpajo tudi iz etnoloških primerjav. Tako npr. Břicháček in Beranová ločita med kratkimi in dolgimi kosami ter ugotavljata, da so listi pri dolgih kosah dolgi več kot 90 cm (1993, 254).

[188] Gleirscher 1987, 255.

[189] Břicháček, Beranová 1993.

[190] Mlinar, Gerbec 2011, 76, kat. št. 49; Mlinar, Gerbec 2015, 94–95.

[191] Prim. za Kras: Gams 1991, 20.

[192] Svoljšak 2014, 288.

[193] Svoljšak, Dular 2016, 219.

[194] Keramiko si je ogledala in okvirno datirala Jana Horvat (Inštitut za arheologijo, ZRC SAZU).

[195] Datacija novca: Kos 1988, 23. Denarij v tem primeru ni uporaben za ožjo datacijo hiše, saj so bili rimski

presumed ironwork hoard find. Most of the sickles have a characteristic semicircular shape of the blade with a maximum width of 6 cm and a clearly separate handle. On the basis of their shape, Studeníková distinguishes between sickles with a tanged handle and those with a bent terminal of the tang.[183] The sickle from House 30 at Most na Soči is close to the first formal group from Molpír. In spite of the similarities with the sickles from the Lesser Carpathians, however, the sickle from Most na Soči should rather be interpreted with regards to the development of the Alpine forms. A significant feature in this respect may be the knee-shaped junction of the handle and the blade, which is similar to the guards that separated handle and grip on the Early Iron Age sickles in the hoard from Greinwelden near Brüneck and those found in a house at Putzer Gschleier, both in South Tyrol.[184] Hans Nothdurfter sees these guards as a constructional feature (already common on the sickles from the Urnfield culture period[185]), which served to fasten the organic grip of the handle, and which he observes in the development of iron sickles, billhooks and scythes from South Tyrol and Trentino.[186] The connection between the sickles and the appearance of the short and long scythes[187] is not altogether clear and it is sometimes difficult to distinguish between types and also to determine their date.

The introduction of the scythe in Celtic central Europe was a revolutionary novelty, probably connected with Mediterranean influences arriving here towards the end of the Middle La Tène period.[188] The use of the short scythe probably already began in the Late Hallstatt period.[189] A short, 24.5 cm long scythe also came to light at the bottom of the pit where four horse skeletons and numerous objects were buried at the site of Bizjakova hiša in Kobarid, dating to the late 4th and the early 3rd century BC.[190] This artefact suggests the introduction of grass cutting in Posočje, though grass on poorer-quality terrain not cleared of stones would mainly be cut using a sickle, as indicated by ethnological and geographical studies.[191] This signifies that the iron sickle from the Late Hallstatt House 30, which Svoljšak termed 'the

[183] Studeníková 2007, 48–50.

[184] Nothdurfter 1979, 45–46, Fn. 256 (Putzer Gschleier), Fn. 264 (Greinwelden).

[185] E.g. Šinkovec 1995, 27.

[186] Nothdurfter 1979, 41, 46.

[187] The archaeological studies of farming tools also draw on the comparisons with ethnological finds. Břicháček and Beranová, for example, distinguish between short and long scythes and note that the blades of the long scythes measure over 90 cm in length (1993, 254).

[188] Gleirscher 1987, 255.

[189] Břicháček, Beranová 1993.

[190] Mlinar, Gerbec 2011, 76, Cat. No. 49; Mlinar, Gerbec 2015, 94–95.

[191] Cf. for the Kras: Gams 1991, 20.

Srp je tipološko blizu ločnim srpom z ozkim listom in trnastim ročajnim nasadiščem pravokotnega preseka,[196] ki je skovan navpično na list. Bärbel Hanemann je take srpe označila kot vrsto 2 in jih dalje ločila na različico A in B, pri čemer slednjo označuje tanjši, širši in manj ukrivljen list.[197] Na osnovi zbranih primerkov je Hanemannova zaključila, da so se ločni srpi druge vrste pojavili že v latenski dobi, uporabljali naj bi jih v zgodnjerimskih vojaških taborih, v rimski cesarski dobi in kasneje.[198] Vendar pri datiranju začetka izdelave in uporabe tovrstnih srpov velja previdnost, saj med zbranimi primerki,[199] med njimi je npr. srp iz La Tène,[200] nobeden ne izvira iz zanesljivega latenskega konteksta.

Poleg tukaj obravnavanih primerkov so z Mosta na Soči znane še štiri arheološke najdbe srpov. Precej poškodovan železen srp je bil z raznovrstnim nakitom, fibulo, železnim vejnikom in ukrivljeno konično kopačo pridan v grob 14 na najdišču Most na Soči – Repelc, ki je iz poznega latena oz. 1. st. pr. n. št.[201] Večji, a po obliki zelo podoben železen srp kot primerek iz hiše 35, je bil najden v njeni neposredni bližini in prav tako izvira iz rimskodobnih gradbenih ostalin.[202] Dva hranijo med najdbami Szombathyjevih izkopavanj v Naravoslovnem muzeju na Dunaju in sta inventarizirana kot inventar groba Sz 1817.[203] Tudi ta srpa pripadata obliki s širokim ločnim listom in trnastim nasadiščem za ročaj.[204] Če je grobna celota Sz 1817 zanesljiva,[205] njegovo datacijo v pozno latensko dobo nakazuje bronasta delfinska fibula. Ta je namreč po oblikovnih lastnostih podobna fibulam vrste Nova vas, ki so datirane v stopnjo LT D1.[206]

Več kovinskih predmetov smo prepoznali kot rokodelska orodja. Odlomek bronaste konice s sploščenim zgornjim delom (*t. 92: 4*) je morda služil kot ***šilo***, bronast predmet *t. 31: 19* iz hiše 10 pa kot ***dleto***. Zanimiv je zbir predmetov, ki so bili najdeni skupaj z dletom v

poznorepublikanski srebrniki lahko v uporabi še dolgo v imperialno obdobje.

196 Kot kaže prva objava predmeta, je bil ob odkritju ohranjen večji del trna (Svoljšak 1974, 25, t. 14: 6).

197 Hanemann 2014, 198.

198 Ibid., 200, op. 543.

199 Ibid., 200: Fundparallelen.

200 Vogua 1923, 75, t. 24: 4. Med gradivom z območja jezerskega mostovža v La Tènu niso zgolj najdbe iz mlajše železne dobe, ampak se pojavljajo tudi mlajši predmeti.

201 Mlinar 2002, 27, sl. 19.

202 Svoljšak 1974, 25, t. 14: 7; Guštin 1991, 25, t. 44: 2.

203 Teržan, Lo Schiavo, Trampuž-Orel 1984, t. 173B: 17-18; Teržan, Lo Schiavo, Trampuž-Orel 1985, 293; Guštin 1991, 24, t. 43: 8-9.

204 Guštin 1991, 62.

205 Pod številko 1817 sta v NHMW inventarizirana grob iz starejše železne dobe in poznolatenski grob s srpoma, ki pa ga Szombathyjev dnevnik ne omenja. Prav tako grob sodi med tiste, pri katerih so se pri preinventarizaciji in posojanju gradiva med ustanovami pojavile napake (Teržan, Lo Schiavo, Trampuž-Orel 1985, 293 in op. 17 na str. 403).

206 Božič 2008, 82–84.

bakery',[192] may be seen as a farming tool used either for reaping crops or for cutting grass.

The second construction phase of House 35 shows a strong influence of Romanisation of the regions north and east of Aquileia. Mortar was used to construct this house,[193] and the assemblage of ceramic finds shows a distinctly Italic character. The recovered pottery includes two fragments of Middle Augustan terra sigillata ware (*Pl. 98: 7–8*) and sherds of vessels mainly characteristic of the 1st century BC: the rim of a late wine amphora of the Lamboglia 2 or transition to the Dressel 6A type (*Pl. 98: 9*), probably the handle of a Lamboglia 2 amphora (*Pl. 98: 10*), possibly a fragment of a Dressel 6B oil amphora and a characteristic Italian baking dish (*Pl. 98: 14*).[194] This is also the dating attributed to the ***iron sickle*** on *Pl. 98: 15* (blade incompletely preserved) and to a part of an ***iron chain*** (*Pl. 98: 12*), both of which were found in the debris of the house. This debris further yielded a *denarius* minted in 96 BC.[195] The sickle is typologically close to the arched sickles with a narrow blade and a rectangular-sectioned tang[196] that is forged perpendicularly to the blade. Bärbel Hanemann determines such sickles as Type 2 and distinguishes between Variants A and B, of which the latter have a thinner, wider and less curved blade.[197] Based on the gathered examples, Hanemann concludes that the arched sickles of Type 2 already appeared in the La Tène period, but were mainly used in the Early Roman army camps or fortresses, throughout the Imperial period and later.[198] We should, however, be careful when dating the beginning of their production and use, because none of the gathered examples,[199] which include a sickle from the site of La Tène,[200] originates from a reliable La Tène period context.

Apart from the sickles discussed above, Most na Soči yielded four other archaeological finds of sickles. A fairly damaged iron sickle was found together with varied pieces of jewellery, a fibula, an iron billhook and a curved conical hoe in Grave 14 at Repelc, which is dated to the Late La Tène period or the 1st century BC.[201] A larger sickle that is formally similar to the one

192 Svoljšak 2014, 288.

193 Svoljšak, Dular 2016, 219.

194 Jana Horvat (Inštitut za arheologijo, ZRC SAZU) examined and roughly dated the ceramic finds.

195 Coin date: Kos 1988, 23. The denarius in this case cannot be used for a precise dating of the house, because Roman Late Republican silver coins may have remained in use long into the Imperial period.

196 The first publication reveals that a large part of the tang survived upon discovery (Svoljšak 1974, 25, Pl. 14: 6).

197 Hanemann 2014, 198.

198 Ibid., 200, Fn. 543.

199 Ibid., 200: Fundparallelen.

200 Vogua 1923, 75, Pl. 24: 4. The small finds from the area of the bridge on the lake at La Tène comprise not only Late Iron Age artefacts, but also later ones.

201 Mlinar 2002, 27, Fig. 19.

drugi gradbeni fazi hiše 10. Večinoma so ležali v močno prežgani ruševini nad podom hiše. Gre za poškodovano bronasto pavkasto fibulo, bronast odlomek fibule, prstana, obročkov, žičke, zakovic in kalotastega gumba (*t. 31: 11–21*). Med najdbami se omenjajo tudi drobci stopljenega brona.[207] Tako dleto kot vrsta bronastih odlomkov morda nakazujejo, da je bila v tej hiši delavnica oz. popravljalnica bronastih predmetov. Pomenljivo je, da je med najdbami tudi južnoalpska različica pavkaste fibule. Glede na njihovo sicersnjo številčno zastopanost na grobišču je bil namreč eden od centrov njihove proizvodnje morda prav na Mostu na Soči.[208]

Med najdbami iz hiš ugotavljamo vsaj dva kompleta železnih orodij. Prvi je iz druge gradbene faze hiše 15A oz. kupa oglja in njegove bližine, ki je ležal v domnevnem kotu hiše. Komplet koničastega orodja sestavljajo ***dleto*** (*t. 53: 2*) in tri ***šila*** ali ***puncirna orodja*** (*t. 53: 3–5*), kar ga približuje drugi skupini orodij, kot jo prepoznava Teržanova na podlagi starejšeželeznodobnih grobnih najdb.[209] Teržanova ugotavlja, da se tovrstni sklopi orodij pojavljajo v bogatih moških, največkrat bojevniških grobovih.[210] V tem oziru je zanimivo, da sklop najdb iz domnevnega kota hiše 15A dopolnjujejo najbolje ohranjena železna sulična ost iz naselbine ter trije brusni kamni (*t. 53: 6, 10–12*).

Drugi sklop železnega orodja vidimo v predmetu z dvema ročajema in ukrivljenim rezilom, ***žličastem svedru*** ter podolgovatem orodju (verjetno dleto), ki so bili odkriti na dnu jame s prežgano plastjo pepela in oglja v prvi gradbeni fazi hiše 29 (*t. 90: 5, 7–8*). ***Polkrožen rezilnik*** je najverjetneje služil kot lupilec lubja ali za obdelavo podolgovatih kosov lesa. Za delo z lesom so uporabljali tudi žličasti sveder. Glede na arhitekturo svetolucijskih hiš,[211] pri kateri je bil ključen gradbeni material les, najdbe tovrstnega orodja ne presenečajo.

Podobno kot kompleti značilnih orodij v železnodobnih grobovih nakazujejo določene rokodelske dejavnosti, od kovaških, torevtskih, rezbarskih, tesarskih ali mizarskih do livarskih,[212] domnevamo v kompletu iz hiše 15A orodje torevta ali kovača, v tistem iz hiše 29 pa tesarja ali mizarja. Dejavnosti so se prepletale, saj iz jame z mizarskim orodjem v hiši 29 izvirajo tudi odlomek bronastega ploščičastega ingota (*t. 90: 6*) in koščki strjene bronaste taline.[213] Po drugi strani Svoljšak prvo fazo hiše 15A interpretira kot pripravljalno delavnico lončarjevega obrata.[214]

Železna koničasta orodja, šila ali puncirna orodja so morda predmeti *t. 32: 11–13*; *57: 23* in *t. 97: 8*, pri

[207] Svoljšak, Dular 2016, 90.
[208] Kavur, Lubšina Tušek 2016, 38–39.
[209] Teržan 1994, 659.
[210] Ibid., 664.
[211] Dular, Tecco Hvala in Svoljšak v tej knjigi.
[212] Teržan 1994, 664.
[213] Svoljšak, Dular 2016, 197.
[214] Svoljšak 2014.

from House 35 was found in its immediate vicinity and also originates from Roman-period building debris.[202] Two sickles are kept in the Naturhistorishes Museum in Vienna among the finds that Szombathy excavated at Most na Soči, inventoried as the goods of Grave Sz 1817.[203] These also belong to the form with a wide blade and a tang.[204] If we accept the group of finds from this grave as reliable,[205] its date to the Late La Tène period is indicated by the bronze dolphin-shaped fibula; in its formal characteristics, this fibula is similar to the Nova vas fibulae that date to LT D1.[206]

Several metal objects have been identified as artisan's tools. The fragment of a bronze point with a flattened upper end (*Pl. 92: 4*) may have been used as an ***awl***, the bronze item on *Pl. 31: 19* from House 10 as a ***chisel***. Of interest is the assemblage of artefacts found together with this chisel in association with the second construction phase of House 10. Most of them was found in a heavily burnt debris layer above the floor of the house. The artefacts comprise a damaged kettledrum fibula and bronze fragments of a fibula, a finger ring, rings, wire, rivets and of a domed button (*Pl. 31: 11–21*). Mentioned among these finds are bits of melted bronze.[207] The chisel and the array of bronze fragments may indicate a workshop or repair shop for bronze items. We should especially mention the kettledrum fibula of the south Alpine variant, because the high number of these fibulae recovered from the Most and Soči cemetery suggest the site to be one of the centres of their production.[208]

The finds from the houses of the settlement include at least two sets of iron tools. The first one is associated with the second construction phase of House 15A, more precisely the heap of charcoal and its vicinity that was found in the presumed corner of the house. It is a set of pointed tools consisting of a ***chisel*** (*Pl. 53: 2*) and three ***awls*** or ***punching tools*** (*Pl. 53: 3–5*), in which it is attributed to the second group of tools as determined by Teržan on the basis of the Early Iron Age grave goods.[209] Teržan observes that such sets occur in the rich graves of men,

[202] Svoljšak 1974, 25, Pl. 14: 7; Guštin 1991, 25, Pl. 44: 2.
[203] Teržan, Lo Schiavo, Trampuž-Orel 1984, Pl. 173B: 17-18; Teržan, Lo Schiavo, Trampuž-Orel 1985, 293; Guštin 1991, 24, Pl. 43: 8-9.
[204] Guštin 1991, 62.
[205] Inventoried under No. 1817 at the NHMW are a grave from the Early Iron Age and a Late La Tène grave with two sickles, the latter not mentioned in Szombathy's diary. The grave is among those that became unreliable as a consequence of the errors that occurred during reinventarisation and loaning items to other institutions (Teržan, Lo Schiavo, Trampuž-Orel 1985, 293 and Fn. 17 on p. 403).
[206] Božič 2008, 82–84.
[207] Svoljšak, Dular 2016, 90.
[208] Kavur, Lubšina Tušek 2016, 38–39.
[209] Teržan 1994, 659.

čemer je slednje, iz hiše 31, verjetno že latensko- ali rimskodobno. Masivnejše od naštetih je koničasto orodje z od udarcev razkovanim zgornjim delom (*t. 94: 5*), ki je morda služilo kot ***prebijač***.

Med orodja oz. pripomočke štejemo tudi železne ***nože***, ki so bili odkriti v šestih hišah (*t. 2: 2; 11: 1–2; 32: 10; 34: 1–2; 40: 7; 59: 13*[215]).

Med najdbami iz stavbnih ruševin druge faze hiše 11 je bila ***bronasta šivanka*** (*t. 32: 7*). Bronaste šivanke se redko pojavljajo že v grobovih in depojih pozne bronaste dobe.[216] Z mostarskega železnodobnega grobišča so znane tri bronaste šivanke.[217] Ena od njih je bila v ženskem grobu iz časa stopnje Sv. Lucija Ic, druga v še starejšem, moškem grobu iz stopnje Ia.[218] Pridajanje šivank v grobove je bila arhaična navada, ki je dobro izpričana na tolminskem grobišču.[219]

Najdba bronastega ***trnka*** (*t. 100: 1*) v odvodnem jarku halštatske naselbine ponovno odpira vprašanje uživanja rib med železnodobnimi prebivalci Mosta na Soči. László Bartosiewicz je bil presenečen nad dejstvom, da med tisoči primerki zbranega kostnega gradiva (med njimi tudi zelo majhni primerki, primerljivi z velikostjo večji ribjih kosti) ni bilo nobene ribje kosti ali školjčne lupine. Ker mu ni bil znan podatek o najdbi trnka, je opozoril, da med odkritji ni predmetov, potrebnih za ribolov.[220] Opozarjamo, da je trnek lahko infiltrat iz kasnejših obdobij, saj se tovrstne oblike trnkov pojavljajo tako v rimskem času kot kasneje.[221]

Da vsaj v začetku železne dobe Posočja ribolov vendarle ni bil tabu, nakazuje trnek iz groba 155 v Tolminu,[222] ki ga odlomek večglave igle III. vrste po Pogačnikovi datira v stopnjo Sv. Lucija Ib, tj. okvirno v 8. st. pr. n. št.[223] Gotovo pa so bile ribe na jedilniku železnodobnih Dolenjcev, kot nam zgovorno prikazuje motiv ribolova na bronastem pasu iz mladohalštatskega groba III/12 na Kapiteljski njivi v Novem mestu.[224]

[215] Masiven nož s plavutastim nasadiščem *t. 59: 13* je bil najden v ruševinah, 10 cm nad temeljem severnega vogala hiše 20 (Svoljšak, Dular 2016, 153). Objavil ga je že Guštin (1991, 25, t. 44: 1).

[216] Turk 2016, 210.

[217] Ibid., op. 16.

[218] Teržan, Lo Schiavo, Trampuž-Orel 1984, t. 44F: 10; 102E: 2.

[219] V Tolminu so bile bronaste šivanke pridane v šestih grobovih (Svoljšak, Pogačnik 2001, t. 15: 3; 31: 3; 41: 5; 79: 8; 83: 14, 18; Pogačnik 2002, 73–74, sl. 11, 19, 50, 68–69).

[220] Bartosiewicz 1985, 124–125.

[221] Glej različni prispevki v Bekker-Nielsen, Casasola 2010.

[222] Svoljšak 1976, sl. 1: 3; Bartosiewicz 1985, 124, op. 2; Svoljšak, Pogačnik 2001, t. 27: 5.

[223] Teržan 2002, 89.

[224] Dular, Tecco Hvala 2007, 211–212; Stipančič 2016, 50.

most often warriors.[210] In this regard it is worth mentioning that the assemblage of finds from the presumed corner of House 15A includes the best preserved iron spearhead of the settlement and three whetstones (*Pl. 53: 6, 10–12*).

An object with a curved blade and a handle at each of the ends, a ***spoon-shaped auger*** and an elongated tool (probably chisel) presumably constitute the second set of tools, found at the bottom of a pit with a fill of ash and associated with the first construction phase of House 29 (*Pl. 90: 5, 7–8*). The tool with a curved blade is a ***drawknife*** that was most probably used to peel bark or to work long pieces of wood. The spoon-shaped auger was also used in woodworking. Given that wood represented the main material in the construction of the houses at Most na Soči,[211] such finds are hardly surprising.

Similarly as the sets of typical tools in the Iron Age graves indicate certain crafts, from smithing, toreutics, engraving, carpentry to casting,[212] we suppose that the set of tools from House 15A belonged to an individual who practised toreutics or smithing, while the set from House 29 points to a carpenter. The pit with carpentry tools in House 29 also yielded a fragment of a bronze flate ingot (*Pl. 90: 6*) and bits of hardened bronze melt,[213] which show that these crafts were not practiced independently from one another. As for the first phase of House 15A, Svoljšak interprets it as a preparatory work area of a potter's workshop.[214]

The items on *Pls. 32: 11–13*; *57: 23* and *Pl. 97: 8* may have been used as pointed iron tools, awls or punching tools, with the last one, from House 31, probably dating to the La Tène or even the Roman period. The largest of them is a pointed tool with the head reshaped through repeated blows (*Pl. 94: 5*) that may have served as a ***punch***.

Iron ***knives***, unearthed in six houses (*Pls. 2: 2; 11: 1–2; 32: 10; 34: 1–2; 40: 7; 59: 13*[215]) are also considered as tools.

The small finds from the debris associated with second phase of House 11 include a ***bronze needle*** (*Pl. 32: 7*). Bronze needles already appear, albeit rarely, in the graves and hoards from the Late Bronze Age.[216] Three have been found at the Iron Age cemetery at Most na Soči.[217] One was found in a grave of a woman dating to the Sv. Lucija Ic phase and one in an earlier grave of a man from the Ia

[210] Ibid., 664.

[211] Dular, Tecco Hvala and Svoljšak in this book.

[212] Teržan 1994, 664.

[213] Svoljšak, Dular 2016, 197.

[214] Svoljšak 2014.

[215] The large knife with the handle end widened to form a socket on *Pl. 59: 13* was found in a debris layer, 10 cm above the foundations of the north corner of House 20 (Svoljšak, Dular 2016, 153). It has already been published by Guštin (1991, 25, Pl. 44: 1).

[216] Turk 2016, 210.

[217] Ibid., Fn. 16.

Ingoti

V več hišah so bili odkriti razlomljeni bronasti predmeti z obrabljenimi prelomi in jasno določljivimi robnimi površinami. Odlomek *t. 40: 9* iz hiše 15A je del ***uhate bronaste sekire***. Deli uhatih sekir so morda tudi odlomki *t. 8: 1; 33: 18–19; 37: 5–6* in *97:1–2*, ni pa izključeno, da gre v teh primerih za odlomke drugih vrst ***ingotov sploščenih oblik***. Jasno sta določljiva odlomka *t. 29: 2* in *t. 60: 4*, ki pripadata ***paličasti obliki bronastih ingotov***. Našteti predmeti, zlasti uhate sekire, so glede na specifično bronasto leguro z veliko količino svinca[225] in glede na italske primerjave razumljeni kot posebna oblika kovinskega ingota, najverjetneje v vlogi predmonetarnega plačilnega sredstva.[226] Tovrstne najdbe so pogoste na najdiščih (večinoma utrjenih naselbinah) v zahodni in osrednji Sloveniji.[227] Nastopajo v depojih mešane sestave ali kot posamezne najdbe. Zaradi izredne razlomljenosti najdb ter dolgega časovnega razpona primerjav iz kontekstov je njihova natančna tipološka določitev težavna, prav tako je predmet diskusij njihova datacija.[228] Primož Pavlin in Peter Turk v izčrpni objavi depojev z Gobavice nad Mengšem povzameta, da se uhate sekire s slovenskih najdišč umeščajo okvirno med 10. in 8., vendar se pojavljajo tudi še v 7., 6. in morda celo v 5. st. pr. n. št.[229] Pozno datacijo uporabe odlomkov bronastih uhatih sekir in / ali bronastih ingotov sploščenih oblik nakazujejo tudi najdbe ingotov iz vkopa v t. i. stavbi 1a na Maregovi guni na Mostu na Soči.[230] Ruševine stavbe so datirane v 6. st. pr. n. št., oz. glede na najdbo odlomkov bronaste trakaste fibule, v konec 6. in začetek 5. st. pr. n. št.[231]

Glede na izrabljenost predmetov in podane datacije Pavlin in Turk ugotavljata, da so bile na koščke razsekane uhate sekire v uporabi oz. v obtoku več stoletij. Imele so golo utežno vrednost kovine, in kot kažejo kemične analize, z visokimi deležem svinca niso bile uporabne kot orodje. Zdi se, da so imele univerzalno izmenjalno, predmonetarno vrednost.[232] Pri tem je Biba Teržan opozorila na jasne povezave z italskim prostorom, ki nakazujejo uveljavljanje italskih (etruščanskih) gospodarskih interesov v zahodno- in osrednjeslovenskem prostoru.[233]

V ta okvir lahko še bolj prepričljivo umestimo ploščata bronasta odlomka *t. 23: 7* in *t. 33: 20* z izrazitim livnim šivom, ki pričata, da sta bila prvotno del

[225] Glej tu Šmit in Laharnar.

[226] Teržan 2008, 296–300, sl. 47, 48.

[227] Pavlin, Turk 2014, 44: sl. 10.

[228] Ibid., 48.

[229] Ibid., 48–49, 52–54.

[230] Mlinar, Klasinc, Knavs 2008, 197–198, 199, sl. 5 (SE 10), t. 1: 12–14.

[231] Ibid. 197.

[232] Pavlin, Turk 2014, 48–49, 52–54.

[233] Teržan 2008, 296–300, sl. 47.

phase.[218] Offering needles in graves is an archaic custom that was common in the cemetery at Tolmin.[219]

The bronze ***fishhook*** (*Pl. 100: 1*) that was found in the drainage ditch of the Hallstatt settlement reopens the question of the consumption of fish among the inhabitants at Most na Soči. László Bartosiewicz was surprised to find that the thousands of pieces of collected bone remains from the settlement (that also consisted of very small pieces comparable with fish bones in size) included no fish bones or shells. Not being aware of this fishhook, he concluded that the settlement provided no evidence of fishing.[220] We should note that the fishhook may be an infiltrated find from later periods, as these forms of hooks were used both in the Roman period and later.[221]

The find of a fishhook from Grave 155 at Tolmin,[222] which was associated with a multi-knobbed pin of Type III after Pogačnik that suggests a date into the Sv. Lucija Ib phase, i.e. roughly the 8th century BC,[223] shows that at least in the initial part of the Iron Age fishing was not unknown in Posočje. We know that fish were certainly on the menu of the Iron Age inhabitants of Dolenjska, as revealed by a fishing scene depicted on a bronze belt plate from the Late Hallstatt Grave III/12 at Kapiteljska njiva in Novo mesto.[224]

Ingots

Several houses revealed broken bronze objects with worn fractures and clearly defined edges. The fragment on *Pl. 40: 9* from House 15A was part of a ***bronze shaft-hole axe***. The fragments on *Pls. 8: 1; 33: 18–19; 37: 5–6* and *97:1–2* may also have been parts of shaft-hole axes though we should not exclude the possibility of them forming part of other types of ***flat ingots***. The fragments on *Pl. 29: 2* and *Pl. 60: 4* belong to ***bar-shaped bronze ingots***. The above-mentioned items, the shaft-hole axes in particular, are of a specific bronze alloy with a high lead content[225] and have parallels in Italy, which allows us to see them as a special form of metal ingots most probably serving as pre-monetary currency.[226] Such items are common finds at sites (predominantly fortified

[218] Teržan, Lo Schiavo, Trampuž-Orel 1984, Pls. 44F: 10; 102E: 2.

[219] At the Tolmin cemetery, bronze needles were found in six of the graves (Svoljšak, Pogačnik 2001, Pls. 15: 3; 31: 3; 41: 5; 79: 8; 83: 14, 18; Pogačnik 2002, 73–74, Figs. 11, 19, 50, 68–69).

[220] Bartosiewicz 1985, 124–125.

[221] See the contributions in Bekker-Nielsen, Casasola 2010.

[222] Svoljšak 1976, Fig. 1: 3; Bartosiewicz 1985, 124, Fn. 2; Svoljšak, Pogačnik 2001, Pl. 27: 5.

[223] Teržan 2002, 89.

[224] Dular, Tecco Hvala 2007, 211–212; Stipančič 2016, 50.

[225] See here Šmit and Laharnar.

[226] Teržan 2008, 296–300, Figs. 47, 48.

večjega pravokotnega predmeta, ulitega v dvodelni kalup. Njuna oblika kot elementa sestava odlomka (*t. 23: 7*) se približuje ***ingotom vrste ramo secco***, ki jih navadno označuje preprosta upodobitev suhe vejice. Ingoti *ramo secco* so se v severni Italiji uporabljali v 6. in zlasti 5. st. pr. n. št.[234] Najdbi z Mosta na Soči nista presenečenje, saj redki ingoti te vrste zunaj italskega prostora izvirajo ravno iz Slovenije, tudi z najdišča Repelc na Mostu na Soči.[235]

Predmeti *t. 28: 14* in morda tudi *t. 32: 1*[236]; *62: 6*; *94: 7* so železarski polizdelki oz. ***železni kvadri***.[237] Neva Trampuž-Orel našteva z območja Slovenije in kot verjetno železnodobna kvader s Kučarja nad Podzemljem ter en nepravilne oblike iz naselbine na Špičastem hribu nad Dolami pri Litiji.[238] Oblika iz hiše 7 (t. 28: 14) je blizu kvadru s Kučarja, ki ima dobre primerjave v Manchingu.[239] Sicer so v ruševini hiše 7 našli predmete, ki morda nakazujejo kovaško dejavnost: koščke železove žlindre, oglje, prežgano ilovico in masivno železno dleto (*t. 28: 11*).[240]

Kamniti kalupi

Dokaz livarske dejavnosti v naselbini so najdbe kamnitih kalupov (*t. 54: 9; 92: 6*). Zelo izpoveden je zbir najdb iz dveh jam in ruševine, sicer skromno ohranjene hiše 4.[241] V njih so našli livarsko-kovinarske pripomočke, ki jih poleg štirih odlomkov dvodelnih kamnitih kalupov za ulivanje obročastih (*t. 24: 6–8*) in podolgovatega predmeta (*t. 24: 9*)[242] dopolnjujejo keramična livarska zajemalka (*t. 24: 5*), kamnita brusna koluta (*t. 24: 12–13*) in brusna kamna (*t. 24: 10–11*). Kot kovinarski pripomočki za poliranje so morda služili tudi obdelani odlomki rogovine (*t. 24: 16–19*).[243]

Kamnite kalupe za ulivanje predmetov iz bakrovih zlitin najdemo v prazgodovinskih naseljih in tudi v grobovih. Iz Slovenije naj omenimo zgolj serminska poznobronastodobna kalupa (11.–10 st. pr. n. št.) iz peščenjaka za ulivanje plavutastih sekir s trnasto poudarjenim prehodom iz telesa v rezilni del in za ulivanje

settlements) in western and central Slovenia.[227] They also occur in hoards of a mixed composition and as stray finds. Their high fragmentation and a long time span of parallels from datable contexts makes it very difficult to offer a precise typological and chronological attribution.[228] In their comprehensive study of the hoards from Gobavica above Mengeš, Primož Pavlin and Peter Turk conclude that the shaft-holes axes from Slovenian sites mainly date between the 10th and 8th centuries BC, but continue to be used in the 7th, 6th and possibly even the 5th century BC.[229] A late dating of the fragments of bronze shaft-hole axes and/or the bronze flat ingots is supported by the finds of ingots in the cut of Building 1a at Maregova guna in Most na Soči.[230] The debris of the building has been dated to the 6th century BC, or to the late 6th and early 5th century BC on the basis of the fragments of a bronze band bow fibula.[231]

Considering the wear of the objects and the proposed dates, Pavlin and Turk postulate that the shaft-hole axes cut into pieces were in use or circulation for several centuries. They possessed the weight value of the metal and could not, as revealed by the chemical analyses, be used as tools because of the high lead content. It seems that they possessed a universal trade or premonetary value.[232] In connection with this, Biba Teržan points out clear connections with Italy that indicate a promotion of Italic (Etruscan) economic interests in the areas of western and central Slovenia.[233]

Even more compelling evidence to this effect is the two bronze fragments on *Pl. 23: 7* and *Pl. 33: 20* with a pronounced parting line flash that reveals them as originally forming part of a larger rectangular object cast in a two-piece mould. Both the form and the chemical composition of the fragment (*Pl. 23: 7*) is close to those of the ***ramo secco ingots***, usually bearing the motif of a dry branch. In northern Italy, *ramo secco* ingots were in use in the 6th and even more so in 5th century BC.[234] The two fragments from Most na Soči are not surprising finds, because the rare ingots of this type outside Italy only come from Slovenia, including the site at Repelc in Most na Soči.[235]

The objects on *Pl. 28: 14* and possibly also *Pls. 32: 1*[236]; *62: 6*; *94: 7* are semi-finished ironworking products or ***iron block***.[237] From Slovenia and probably from the

[234] Pellegrini, Macellari 2002; Pavlin, Turk 2014, 53.

[235] Mlinar 2014, 611–614.

[236] V Svoljšak, Dular 2016 je predmet opredeljen kot dleto (str. 91) oz. fragment železne palice (str. 237).

[237] Lamut v tej knjigi.

[238] Trampuž-Orel 2012, 33.

[239] Dular 1995, 69–70.

[240] Svoljšak, Dular 2016, 77.

[241] Ibid., 65–67.

[242] Svoljšak in Dular domnevata, da je kalup prvotno služil za ulivanje sličnih osti in je bil predelan v drug namen (2016, 67).

[243] Prim. Grobovi z rokodelskim orodjem v Estah (Chieco Bianchi, Calzavara Capuis 1985, t. 200: 51–52, 210: 75–76; Teržan 1994, 659, op. 5.).

[227] Pavlin, Turk 2014, 44: Fig. 10.

[228] Ibid., 48.

[229] Ibid., 48–49, 52–54.

[230] Mlinar, Klasinc, Knavs 2008, 197–198, 199, Fig. 5 (SE 10), Pl. 1: 12-14.

[231] Ibid. 197.

[232] Pavlin, Turk 2014, 48–49, 52–54.

[233] Teržan 2008, 296–300, Fig. 47.

[234] Pellegrini, Macellari 2002; Pavlin, Turk 2014, 53.

[235] Mlinar 2014, 611–614.

[236] In Svoljšak, Dular 2016, the items is interpreted as a chisel (p. 91) or a fragment of an iron rod (p. 237).

[237] Lamut in this book.

obročev[244] ter odlomke različnih kamnitih kalupov iz poznobronasto- in starejšeželeznodobnega Ormoža.[245] Iz pozne bronaste ali starejše železne dobe sta kalupa z Rifnika.[246] Rifniški kalup s "cvetličnim motivom"[247] je bil namenjen za ulivanje vsaj osmih obročkov ali morda dveh deteljastih obeskov,[248] medtem ko so v kalup iz mostarske hiše 4 lahko naenkrat ulili dva obročka (*t. 24: 6*).

Dalje poznamo kalup iz rdečega peščenca za ulivanje obročkov med najdbami s Cvingerja nad Virom pri Stični.[249] Najdbi kalupov nakazujeta predelavo kovine na Kučarju nad Podzemljem v mlajši, verjetno pa že v starejši železni dobi.[250] Med inventarjem iz hiše 4 na Gradišču nad Vintarjevcem pri Litiji, ki je bila najverjetneje opuščena v mladohalštatskem obdobju, je bil tudi glinen kalup za ulivanje križnih razdelilnih gumbov.[251]

Dokaj redko se v starejši železni dobi pojavljajo kalupi kot grobni pridatek. Kot je nakazala Teržanova, gre v teh primerih verjetno za grobove livarjev in metalurgov.[252] Med njimi je grob Sz 2446 z Mosta na Soči, ki je vseboval keramično žaro, ob katero je bila naslonjena bronasta situla, v tej je bila skodelica iz rumenega stekla. Od noše sta ohranjeni kačasti fibuli, svitek očalaste fibule, odlomek bronastega obročka in odlomek tordiranega bronastega ročaja.[253] Gre torej za bogat grob iz časa okrog leta 600 pr. n. št.[254] Dejstvo, da pridatki kalupov in rokodelskega orodja običajno označujejo bogate in večinoma bojevniške grobove, potrjuje tudi grob livarja z Jelenška nad Godovičem. V grobu je bilo kar osem delov dvodelnih kalupov, ki pripadajo šestim različnim kalupom. Bojevniški element prepoznamo v sulični osti, suličnem kopitu in bojni sekiri, njegov čas pa v odlomku certoške fibule.[255]

[244] Snoj 1992, t. 6, 7; Svetličič 1997, 114–115, Trampuž-Orel, Heath 2001, 157.

[245] Dular, Tomanič Jevremov 2010, 77–78, sl. 92.

[246] Tecco Hvala 1987, 33–34; Pirkmajer 1994, 21.

[247] Pirkmajer 1994, 21.

[248] Prim. Teržan, Lo Schiavo, Trampuž-Orel 1985, 34–35, št. 4.

[249] Gabrovec 1994, 168, t. 13: 3. Odkrit je bil v sondi 8, ki je razkrila starejše- in mlajšeželeznodobno plast.

[250] Dular et al. 1995, 69, t. 65: 1; 69: 16.

[251] Stare 1999, 23–26, 29, sl. 9: 1.

[252] Teržan 1994, 664.

[253] Teržan, Lo Schiavo, Trampuž-Orel 1984, t. 264A, 265A; Teržan, Lo Schiavo, Trampuž-Orel 1985, 383.

[254] Teržan 1994, 664.

[255] Hrani Narodni muzej Slovenije. Objava je v pripravi.

Iron Age, Neva Trampuž-Orel cites a block from Kučar above Podzemelj and an irregularly shaped example from the settlement on the hill of Špičasti hrib above Dole pri Litiji.[238] The form of the block from House 7 (*Pl. 28: 14*) is close to that from Kučar, which in turn is formally close to finds from Manching.[239] Other objects indicating smithery at Most na Soči have been found in the debris of House 7: pieces of iron slag, charcoal, burnt loam and a massive iron chisel (*Pl. 28: 11*).[240]

Stone moulds

The finds of stone moulds (*Pls. 54: 9; 92: 6*) provide evidence of metal casting being practised at the settlement. A very revealing assemblage in this respect came to light in two pits and the debris of the otherwise poorly preserved House 4.[241] These include casting and smithing tools that comprise four fragments of two-piece stone moulds for casting ring objects (*Pl. 24: 6–8*) and elongated objects (*Pl. 24: 9*),[242] a ceramic casting ladle (*Pl. 24: 5*), two stone grinding wheels (*Pl. 24: 12–13*) and two whetstones (*Pl. 24: 10–11*). The worked pieces of horn may also have been used as metalwork polishing tools (*Pl. 24: 16–19*).[243]

Prehistoric stone moulds for casting objects of copper alloys have come to light in both cemeteries and settlements. From Slovenia, we should mention two sandstone moulds from the Late Bronze Age (11th–10th century BC) for casting winged axes with a protruding stop ridge and for casting ring objects from Sermin,[244] as well as fragments of different stone moulds among the Late Bronze – Early Iron Age remains at Ormož.[245] Two moulds from Rifnik also date to the Late Bronze or the Early Iron Age.[246] One of these bears a 'floral motif'[247] and was used for casting at least eight rings or possibly two clover-shaped pendants.[248] The mould from House 4 at Most na Soči could be used to cast two rings at a time (*Pl. 24: 6*).

[238] Trampuž-Orel 2012, 33.

[239] Dular 1995, 69–70.

[240] Svoljšak, Dular 2016, 77.

[241] Ibid., 65–67.

[242] Svoljšak and Dular suggest that the mould originally served to cast spearheads and was subsequently reused for a different purpose (2016, 67).

[243] Cf. the graves with artisans' tools at Este (Chieco Bianchi, Calzavara Capuis 1985, Pls. 200: 51-52, 210: 75-76; Teržan 1994, 659, Fn. 5.).

[244] Snoj 1992, Pls. 6, 7; Svetličič 1997, 114–115, Trampuž-Orel, Heath 2001, 157.

[245] Dular, Tomanič Jevremov 2010, 77–78, Fig. 92.

[246] Tecco Hvala 1987, 33–34; Pirkmajer 1994, 21.

[247] Pirkmajer 1994, 21.

[248] Cf. Teržan, Lo Schiavo, Trampuž-Orel 1985, 34–35, No. 4.

NAJDBE S KULTNEGA MESTA (HIŠA 6, GRADBENA FAZA 2)

Pri izkopavanju hiše 6 je bilo ugotovljeno, da so gradbeno jamo njene druge gradbene faze zapolnjevale do 0,75 m debele ruševine iz prežgane zemlje, kamnitega drobirja s sledovi ognja in številnimi ostanki zoglenelega lesa. Analize so pokazale, da je les pripadal kar osmim drevesnim vrstam. Iz severnega kota, sporadično pa tudi iz drugih delov gradbene jame, izvirajo številni ožgani, večinoma zelo razlomljeni bronasti, železni in stekleni predmeti. Med pripravo monografske objave gradbenih izvidov in izbora najdb sta Drago Svoljšak in Janez Dular povsem upravičeno zaključila, da je bilo na tem mestu sežigališče oz. najverjetneje kultno mesto.[256] Kljub temu, da so kasnejši rimski gradbeni posegi glavnino kultnega mesta uničili, ohranjeni del predstavlja pomenljiv kontekst, zato tudi tukajšnje najdbe obravnavamo v ločenem podpoglavju. V prvi knjigi so bile najdbe s kultnega mesta predstavljene z izborom značilnega gradiva.[257] Pri pripravi druge knjige smo vključili še predmete, ki so takrat izostali, in objavljamo gradivo v celoti (*sl. 7–9*).

Med najdbami so štiri ***ploščice iz rdeče korale*** (*sl. 7: 41*) in deset ***obeskov iz neobdelanih rdečih koral*** (*sl. 7: 42–43*), med katerimi je eden popravljen z bronasto žičko. Prežgana zemlja je vsebovala tudi živalske kosti, zrna žit ter dele zoglenele tkanine.[258]

Trije ***veliki noriški srebrniki*** vrste jezdec s trirogeljno čelado (*Kugelreiter*) so verjetno preostanek večjega depoja novcev (*sl. 7: 38–40*).[259] Peter Kos je v študiji o keltskih tetradrahmah vrste jezdec s trirogeljno čelado uvrstil mostarske primerke v skupino C2a, ki je zastopana na petih najdiščih Karnije, Furlanije in zahodne Slovenije. Najvzhodnejša sta novca iz novčnega depoja Višnja Gora. Novci z vseh najdišč so med seboj pečatno povezani. Kovali so jih nekje na območju njihove razprostranjenosti, in glede na to, da so malo obrabljeni, niso bili dolgo v obtoku. Kos je predstavil prepričljive argumente za njihovo datacijo v prva desetletja druge polovice 2. st. pr. n. št.[260]

Nakit

Odlomek bronaste ***certoške fibule*** *sl. 7: 1* ima ploščat in asimetrično postavljen gumb na nogi, kar je najbolj običajno za certoške fibule V. vrste po Teržanovi.[261] Teržanova ugotavlja, da so bile fibule te vrste značilnejše

[256] Svoljšak, Dular 2016, 73.

[257] Ibid., 235–236, t. 26–27.

[258] Svoljšak, Dular 2016, 73, in posamezni prispevki v tej knjigi.

[259] Kos 1978, 122–125.

[260] Kos 2010, 73–102.

[261] Teržan 1976, 323–324, 353.

Another mould for casting ring objects, of red sandstone, was found at Cvinger above Vir pri Stični.[249] Finds of moulds indicate metal processing taking place at Kučar above Podzemelj in the Late, but probably already in the Early Iron Age.[250] The contents of House 4 at Gradišče above Vintarjevec near Litija, which was probably abandoned in the Late Hallstatt period, include a clay mould for casting cross-shaped strap distributors.[251]

In the Early Iron Age, moulds fairly rarely appear as grave goods. Teržan suggests that such graves should probably be ascribed to founders or metallurgists.[252] These include Grave Sz 2446 from Most na Soči, which held a ceramic urn and a bronze situla leaning onto it, the situla containing a cup of yellow glass. Also found in the grave were two serpentine fibulae, a coil of a spectacle fibula, a fragment of a bronze ring and a fragment of a twisted bronze handle;[253] it is a rich grave dating to around 600 BC.[254] The observation that moulds and artisans' tools are usually found in rich and predominantly warrior graves is corroborated by the grave of a founder from Jelenšek above Godovič. This grave contained as many as eight pieces belonging to six different two-pieces moulds, while the warrior element is represented by a spearhead, a spear butt and a battle axe, and the dating is suggested by the fragment of a Certosa fibula.[255]

FINDS FROM THE CULT PLACE (HOUSE 6, CONSTRUCTION PHASE 2)

The excavation of House 6 revealed that the construction pit of the second construction phase was filled with up to 0.75 m thick debris composed of burnt earth, small-sized rubble with traces of fire and fairly numerous pieces of charred wood. Analysis revealed that the wood belonged to as many as eight tree species. The north corner and sporadically also other parts of the construction pit yielded numerous burnt and for the most part heavily fragmented objects of bronze, iron and glass. Upon examining the architectural remains and the small finds in preparation for this publication, Drago Svoljšak and Janez Dular concluded that burning took place here and that the spot was probably used as a cult place.[256] Later Roman construction works destroyed most of the original remains, but the surviving part nevertheless represents an important context that lead us to treat it separately from

[249] Gabrovec 1994, 168, Pl. 13: 3. It was found in Trench 8 that investigated an Early and a Late Iron Age layer.

[250] Dular et al. 1995, 69, Pls. 65: 1; 69: 16.

[251] Stare 1999, 23–26, 29, Fig. 9: 1.

[252] Teržan 1994, 664.

[253] Teržan, Lo Schiavo, Trampuž-Orel 1984, Pls. 264A, 265A; Teržan, Lo Schiavo, Trampuž-Orel 1985, 383.

[254] Teržan 1994, 664.

[255] Kept in the Narodni muzej Slovenije. Publication in preparation.

[256] Svoljšak, Dular 2016, 73.

za žensko nošo,[262] podatki z grobišč na Magdalenski gori pa morda nakazujejo uravnoteženo uporabo pri obeh spolih.[263] Težko bi jih povezovali z ustvarjalno posebnostjo določenega območja,[264] saj se pojavljajo na širšem območju med Padom in Donavo.[265]

Po Gabrovcu so bile certoške fibule V. vrste značilne za obe stopnji certoškega horizonta na Dolenjskem.[266] Teržanova je v študiji o certoških fibulah opozorila, da vrsta V ni mlajša od groba 104 z negovsko čelado vrste Vetulonia v Stični, ki leži blizu groba 99 s takima fibulama, in s katerim sta oba umeščena v certoški horizont pokopov velike stiške gomile 48. Dalje ugotavlja, da študije balkanskih najdb in primerjava "grškega in italskega" kronološkega koncepta potrjujejo pojav njihove mode na samem začetku 5. st. pr. n. št.,[267] ter sklene, da so ravno tovrstne fibule značilnost začetka certoškega horizonta na Dolenjskem.[268] Te ugotovitve povzema Dular, ki certoške fibule V. vrste našteva med značilnimi oblikami starejše faze certoške stopnje.[269] Iz mlajše certoške[270] ali verjetneje prehoda med starejšo in mlajšo certoško fazo je primerek iz groba 2/11 z Voselce pri Hrastju (Magdalenska gora).[271] Da so tovrstne fibule predvsem iz časa starejše certoške stopnje, nakazuje tudi poskus opredelitve sočasnega horizonta Sv. Lucija IIb1 na podlagi skupine grobov z Mosta na Soči, ki sta ga nakazali Teržanova in Trampuževa, saj je bila certoška fibula V. vrste pridana v dveh značilnih grobovih te skupine.[272]

Veliki bronasti fibuli, najverjetneje eni od večjih različic X. vrste po Teržanovi, pripada odlomek peresovine z iglo (*sl. 7: 12*), fibulam oz. njihovim peresovinam pripadajo odlomki *sl. 7: 4–6.*

Odlomek bronaste žice, navite v zanke (*sl. 7: 3*), je bil morda sestavni del certoške fibule s samostrelno enojno ali dvojno peresovino, ki ji najdemo primerjave med Marchesettijevim gradivom iz mostarskih grobov[273] in jih je Teržanova opredelila kot različici b vrste VI[274] in XIII.[275] Pojav fibul z dvema ali celo tremi dodatnimi okrasnimi peresovinami, ki imajo vedno več kot štiri navoje na vsaki strani, je na jugovzhodno-

[262] Ibid., 353; tako tudi Gabrovec 1987, 67.

[263] Tecco Hvala 2012, 249–251.

[264] Gabrovec meni, da kažejo na vpliv Dolenjske izven svojih meja (Gabrovec 1987, 67).

[265] Teržan 1976, 352–353.

[266] Gabrovec 1987, 67.

[267] Teržan 1976, 353.

[268] Ibid., 391.

[269] Dular 2003, 136.

[270] Ibid. 136, sl. 85.

[271] Glej op. 104.

[272] Teržan, Trampuž 1973, 432, Priloga 1: grobova Sz 1561 in Sz 1484 (s pavkasto fibulo, glej zgoraj).

[273] Marchesetti 1893, t. 19: 10, 20: 1-3 (= Montagnari Kokelj 1993, t. 19: 10, 20: 1-3).

[274] Teržan 1976, 325.

[275] Ibid., 339.

other remains. In the first volume, only a selection of the small finds from the cult place has been presented;[257] here, the small finds are presented in their entirety (*Figs. 7–9*).

The recovered objects include four ***perforated discs of red corals*** (*Fig. 7: 41*) and ten ***pendants of unworked red corals*** (*Fig. 7: 42–43*), one of which is repaired using bronze wire. We should mention that the burnt earth of the cult place also revealed animal bones, cereal grains and pieces of charred textile.[258]

The three ***large Norican silver coins*** of the *Kugelreiter* type probably represent the remains of a large coin hoard (*Fig. 7: 38–40*).[259] In his study of the Celtic tetradrachms of the Kugelreiter type, Peter Kos classifies the coins from Most na Soči into Group C2a that consists of coins from five sites in Carnia, Friuli and western Slovenia. The easternmost are two coins from the Višnja gora coin hoard. The die-links connect the coins from all the sites and indicate that they were minted somewhere in their distribution area and, given their low degree of wear, could not have been in circulation over a long period. Kos convincingly argues that they should be dated to the opening decades of the second half of the 2nd century BC.[260]

Jewellery

The fragment of a bronze ***Certosa fibula*** on *Fig. 7: 1* has a flat and asymmetrically positioned knob on the foot, which is most common for Type V after Teržan.[261] She argues that these fibulae were usually worn by women,[262] though evidence from the cemeteries at Magdalenska gora may suggest they were worn by men and women in a roughly equal proportion.[263] They cannot be connected with the creativity of any particular area[264] as they are known across wide areas between the Rivers Po and Danube.[265]

Gabrovec believed that Type V Certosa fibulae were characteristic of both subphases of the Certosa Fibula phase in Dolenjska.[266] In her study on the Certosa fibulae, Teržan notes that the type was not later than Grave 104 with a Negova helmet of the Vetulonia type at Stična, which was located close to Grave 99 with two such fibulae, both of which are attributed to the Certosa Fibula phase of the large Tumulus 48 at Stična. She also observes

[257] Ibid., 235–236, Pls. 26–27.

[258] Svoljšak, Dular 2016, 73, and contributions in this book.

[259] Kos 1978, 122–125.

[260] Kos 2010, 73–102.

[261] Teržan 1976, 323–324, 353.

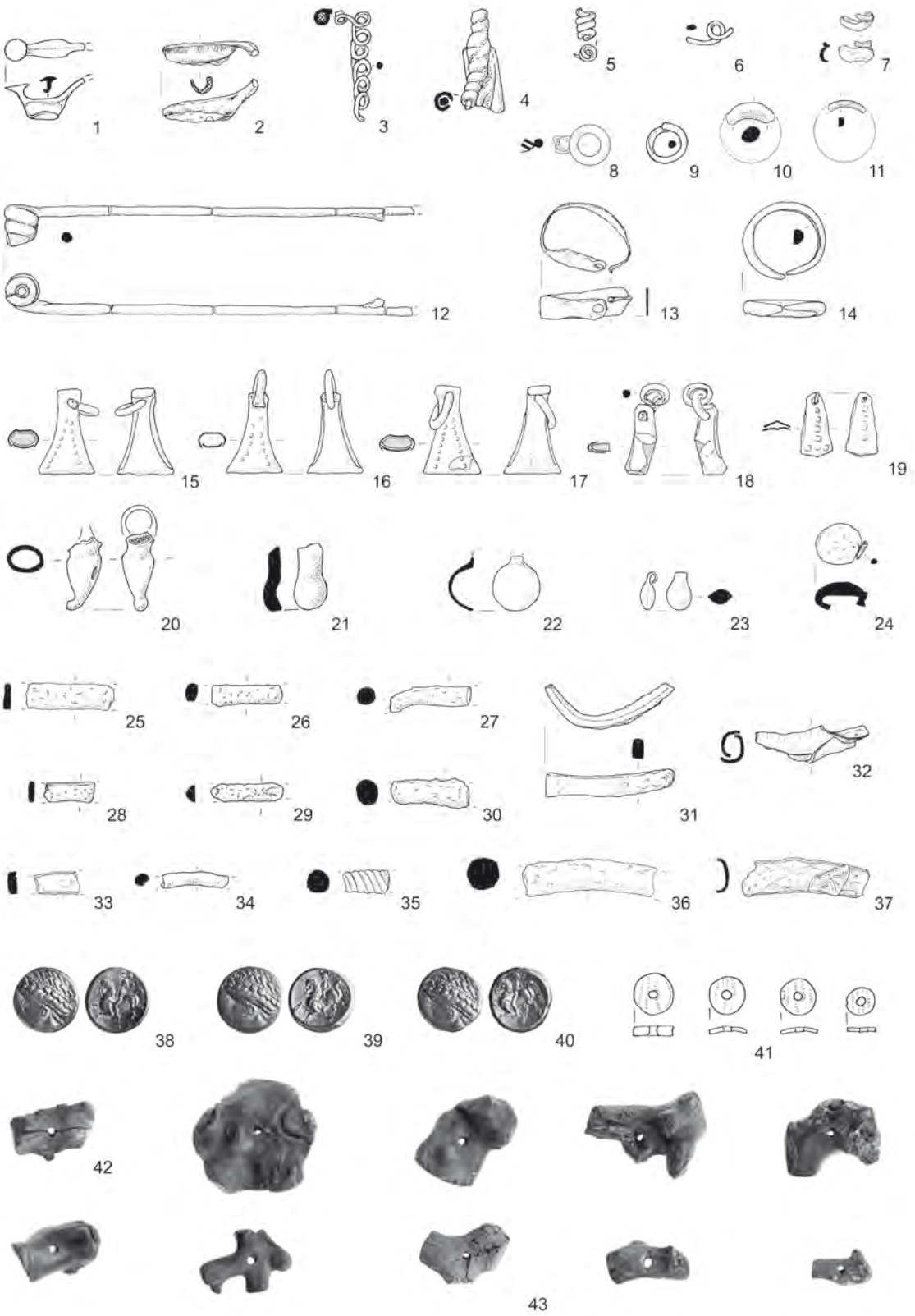
[262] Ibid., 353; the same opinion in Gabrovec 1987, 67.

[263] Tecco Hvala 2012, 249–251.

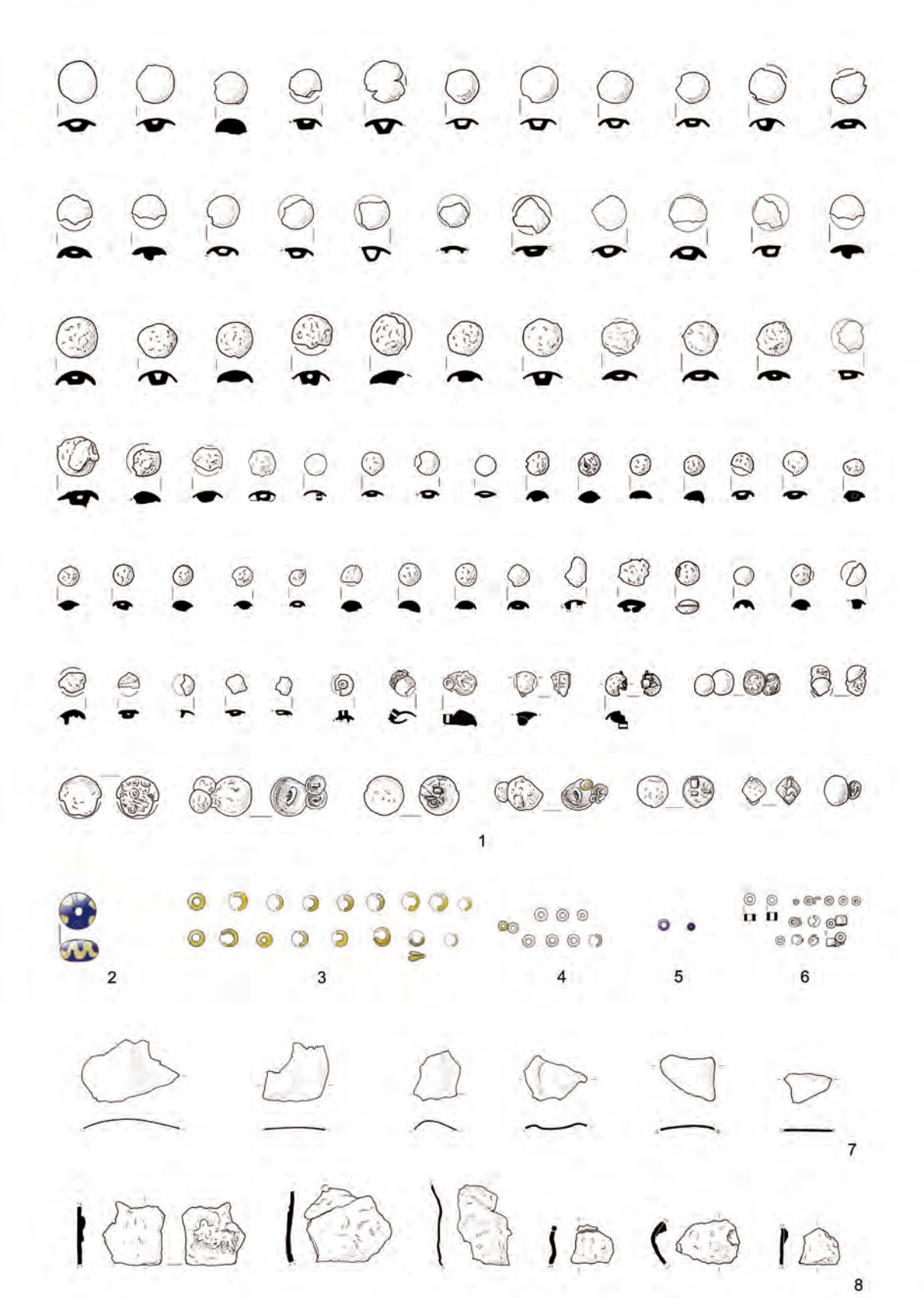
[264] Gabrovec believed that they indicated the influence of the Dolenjska group outside their boundaries (Gabrovec 1987, 67).

[265] Teržan 1976, 352–353.

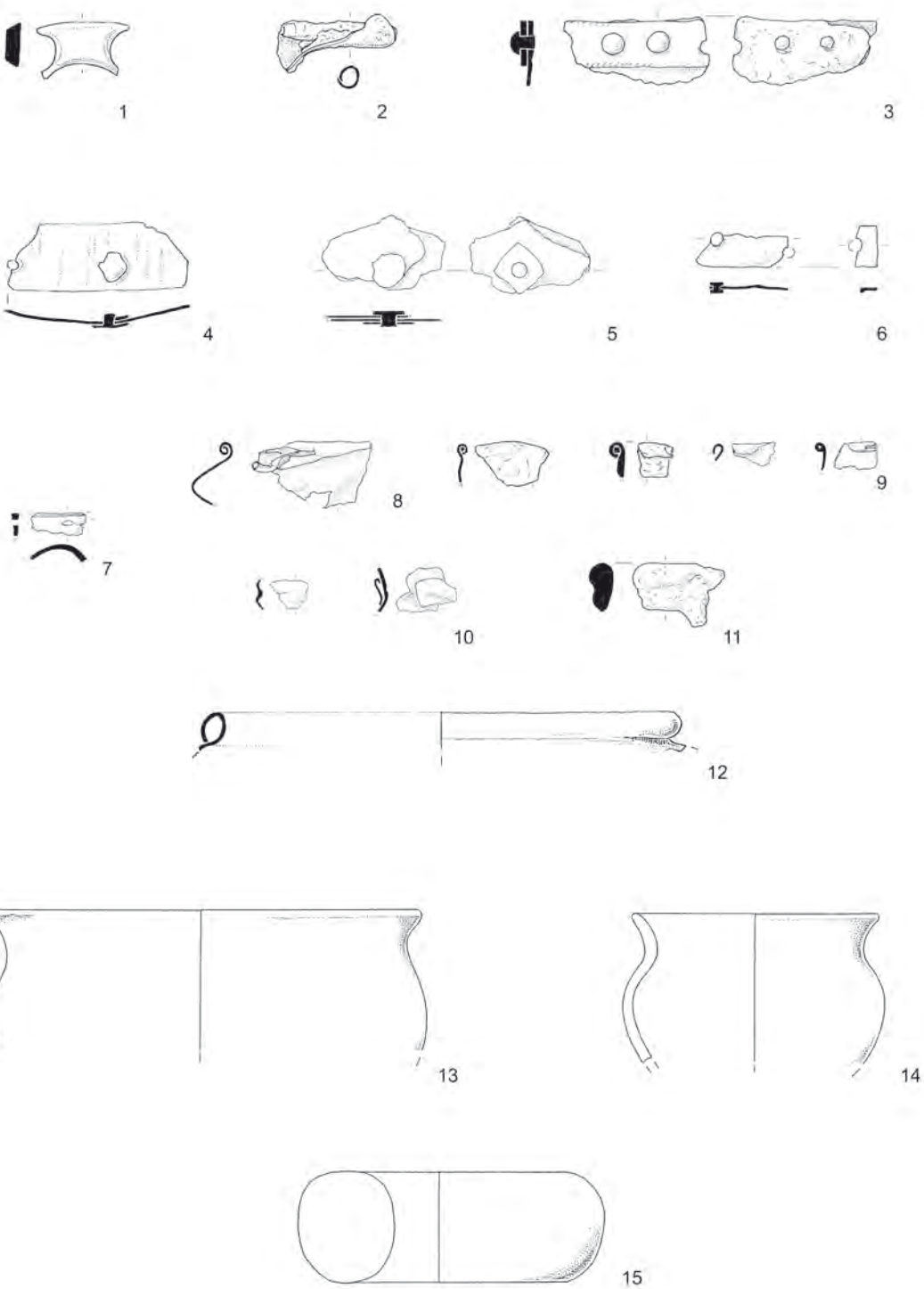
[266] Gabrovec 1987, 67.



Sl. 7: Most na Soči – naselbina, kultno mesto (dopolnjeno po Svoljšak, Dular 2016, t. 26–27). M = 1:2.
Fig. 7: Most na Soči – settlement, cult place (in part from Svoljšak, Dular 2016, Pls. 26–27). Scale = 1:2.



Sl. 8: Most na Soči – naselbina, kultno mesto (dopolnjeno po Svoljšak, Dular 2016, t. 26–27). M = 1:2.
Fig. 8: Most na Soči – settlement, cult place (in part from Svoljšak, Dular 2016, Pls. 26–27). Scale = 1:2.



Sl. 9: Most na Soči – naselbina, kultno mesto (dopolnjeno po Svoljšak, Dular 2016, t. 26–27). M = 1:2.
Fig. 9: Most na Soči – settlement, cult place (in part from Svoljšak, Dular 2016, Pls. 26–27). Scale = 1:2.

alpskem območju mlajši od prvega pojava samostrelne peresovine, ki velja za konstrukcijsko novost zgodnjega certoškega horizonta.[276] Morda pa gre pri obravnavanem odlomku za okrasno žico kakšne druge oblike fibule z večdelno peresovino. Razen na certoških fibulah se namreč dodatne peresovine pojavljajo tudi na fibulah z lokom, oblikovanim v obliki živali, in drugih fibulah, ki jih najdemo tudi med mladohalštatsko dediščino Mosta na Soči in Idrije pri Bači (prim. *sl. 5: 2*).[277]

Mlajši fibuli morda pripada odlomek noge in dela loka *sl. 7: 2*, ki bi bil lahko del katere od poznolatenskih ali zgodnjerimskih oblik ***železnih fibul z žičnatim lokom*** okroglega ali pravokotnega preseka in polno nogo.[278] Tako nogo je imela verjetno železna fibula poznolatenske sheme z bližnjega Vrha gradu pri Pečinah, ki je po obliki podobna fibulam vrste Gorica.[279] Te so praviloma izdelane iz bakrove zlitine in so značilne za stopnjo LT D2 po srednjeevropski kronologiji,[280] medtem ko je primerek s Pečin verjetno njihova imitacija. Polne noge najdemo tudi med železnimi fibulami oblik Kostrzewski M-a1 in N-a, ki sodijo v družino usločenih fibul in so razširjene od območij ob Labi, Visli ter Porenja do jugovzhodnih Alp (Štalenska gora, Verdun pri Stopičah, grob 37). Izdelovali in uporabljali so jih ob koncu poznolatenske stopnje LT D2, v avgustejski dobi in do sredine 1. st.[281]

Poleg majhnih ***bronastih obročkov*** ali njihovih delov (*sl. 7: 7–8, 10–11*), ***bronastega obročka s presegajočima koncema*** (*sl. 7: 9*) in bronastega ***nesklenjenega prstana*** polkrožnega preseka (*sl. 7: 14*) je med najdbami neokrašen bronast ***trakast uhan*** (*sl. 7: 13*), ki se po načinu zapenjanja s kvačico ujema z značilnimi halštatskimi svetolucijskimi nažlebljenimi uhani,[282] a tudi z razkošno okrašenimi poznolatenskimi uhani idrijske skupine.[283] Neokrašeni uhani so redkost. Med najdbami z mostarskega grobišča je znan le primerek iz kupčka najdb med grobovoma Sz 1812 in Sz 1813, ki je vseboval še dva uhana in certoško fibulo.[284]

Med bolje ohranjenimi najdbami s kultnega mesta so bronasti ***trikotni obeski***, ki so ena značilnih oblik halštatske drobne materialne kulture Mosta na Soči in

[276] Guštin, Teržan 1975, 189–190; Gabrovec 1987, 68.

[277] Mlinar, Cunja 2010, 40: kat. št. 62; Mlinar 2010, 94; Cunja, Mlinar 2010, 104, kat. št. 67.

[278] Predmet je zelo slabo ohranjen, zato ne moremo povsem izključiti možnosti, da gre za odlomek železne kačaste fibule.

[279] Istenič 2015, 50, t. 5: 7.

[280] Božič 2008, 144–148.

[281] Horvat 2015, 176–177.

[282] Kos 1973, 860–861; Teržan, Lo Schiavo, Trampuž-Orel 1985, 30–31, št. 1.

[283] Božič 2007b, 839.

[284] Teržan, Lo Schiavo, Trampuž-Orel 1984, t. 172H; Teržan, Lo Schiavo, Trampuž-Orel 1985, 293.

that the studies of the small finds from the Balkans and the comparison with 'Greek and Italic' chronological concepts confirm the appearance of these fibulae in the beginning of the 5th century BC,[267] and concludes that it is these fibulae that characterise the beginning of the Certosa Fibula phase in Dolenjska.[268] Her observations are also cited by Dular, who lists Type V Certosa fibulae among the characteristic forms of the early part of the Certosa Fibula phase.[269] The example from Grave 2/11 at Voselca near Hrastje (Magdalenska gora) dates to the late Certosa[270] or more probably the transition between the early and the late Certosa Fibula phase.[271] The attribution of such fibulae mainly to the early Certosa Fibula phase is supported by proposed dating by Teržan and Trampuž of the contemporary Sv. Lucija IIb1 phase on the basis of a group of graves from Most na Soči, of which at least two typical graves held a Type V Certosa fibula.[272]

The pin and spring fragment on *Fig. 7: 12* belongs to a large bronze fibula, probably one of the variants of Type X Certosa fibulae after Teržan. The fragments on *Fig. 7: 4–6* also formed parts of fibulae.

The ***fragment of bronze wire twisted into loops*** (*Fig. 7: 3*) may have been part of a Certosa fibula with either a one-piece or two-piece crossbow spring. Comparable fibulae are known among the finds from Marchesetti's excavations of the Most na Soči cemetery[273] that Teržan determines as Variants b of Types VI[274] and XIII.[275] The appearance of fibulae with two or even three additional and decorative springs, regularly with more than four coils on each side, postdates the appearance of the crossbow spring in the south-eastern Alpine area, which is deemed a constructional novelty of the early Certosa Fibula phase.[276] It is also possible that this fragment belongs to some other type of fibulae with a multipart spring; apart from Certosa fibulae, additional springs are also known on the fibulae with an animal-shaped bow and other fibulae of the Late Hallstatt heritage at Most na Soči and Idrija pri Bači (cf. *Fig. 5: 2*).[277]

The foot and bow fragment on *Fig. 7: 2* may belong to a later fibula, possibly one of the Late La Tène or Early Roman forms of ***iron fibulae with a wire bow*** of a round or rectangular cross section and a solid foot.[278]

[267] Teržan 1976, 353.

[268] Ibid., 391.

[269] Dular 2003, 136.

[270] Ibid. 136, Fig. 85.

[271] See Fn. 104.

[272] Teržan, Trampuž 1973, 432, App. 1: Graves Sz 1561 and Sz 1484 (with a kettledrum fibula, see above).

[273] Marchesetti 1893, Pls. 19: 10, 20: 1-3 (= Montagnari Kokelj 1993, Pls. 19: 10, 20: 1-3).

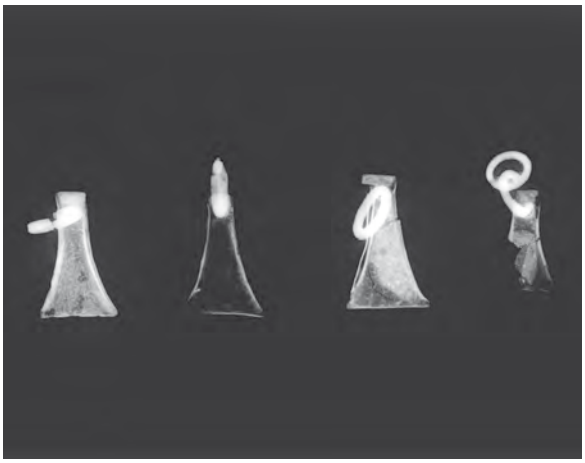
[274] Teržan 1976, 325.

[275] Ibid., 339.

[276] Guštin, Teržan 1975, 189–190; Gabrovec 1987, 68.

[277] Mlinar, Cunja 2010, 40: Cat. No. 62; Mlinar 2010, 94; Cunja, Mlinar 2010, 104, Cat. No. 67.

[278] The item is poorly preserved and it is not possibly to



Sl. 10: Most na Soči – naselbina, kultno mesto. Rentgenski posnetek trikotnih obeskov.
Fig. 10: Most na Soči – settlement, cult place. X-ray images of the triangular pendants.

Posočja[285] ter, kot ugotavlja Miha Mlinar, v prvi vrsti izvirajo z grobišč in kultnih mest.[286]

Pri večjih primerkih sta robova zgornje ploskve praviloma okrašena z nizom iztolčenih pik (*sl. 7: 15–17*), manjši obesek pa z iztolčenimi pikami v obliki narobe obrnjene črke T (*sl. 7: 19*). Pri poškodovanem primerku (*sl. 7: 18*) smo opazili, da pločevina obdaja kamenček. Rokodelec je torej najprej obdelal kamenček v trikotno obliko[287] ter ga z obeh strani okoval z bronasto pločevino. Rentgenski posnetki celih obeskov so pokazali, da sta tako narejena še dva primerka, eden pa je votel (*sl. 10*). Bronastim trikotnim obeskom s kamenčkom nismo našli primerjav,[288] opozarjamo pa na najdbo obdelanega kamenčka iz groba Sz 648 na Mostu na Soči, ki po obliki spominja na diskaste obeske.[289]

Košarasti obesek s koničastim dnom (*sl. 5: 20*) ima dobro primerjavo v obesku iz druge gradbene faze hiše 22A (*t. 62: 3* in glej zgoraj), kjer je bila najdena tudi steklena jagoda iz stopnje Sv. Lucija IIb1 (*t. 62: 1*) in gumb certoške fibule X. vrste, značilne za stopnjo Sv. Lucija IIc (*t. 62: 4*). Opozarjamo na grob, ki ga je leta 1913 izkopal Raffaelle Battaglia na Socerbu. Med skromnimi pridatki je bil košarasti obesek s profiliranim koničastim dnom in

[285] Teržan, Lo Schiavo, Trampuž-Orel 1985, 34–35, št. 14.
[286] Mlinar 2016, 100.
[287] Uporabili so skrilavec, ki je zelo krušljiv in "mehek" kamen ter se ga zlahka obdeluje.
[288] Vsi trikotni obeski te vrste, ki jih hranimo v Narodnem muzeju Slovenije, se zdijo votli. To velja tudi za obeske, ki jih najdemo v literaturi.
[289] Teržan, Lo Schiavo, Trampuž-Orel 1984, t. 59A: 9; Teržan, Lo Schiavo, Trampuž-Orel 1985, 128.

Such a foot can probably also be seen on the iron fibula of the Late La Tène construction from the nearby site at Vrh gradu near Pečine, which is formally similar to the Gorica type fibulae.[279] These fibulae are usually made of copper alloy and are characteristic of LT D2 of the central European chronology,[280] while the example from Pečine is probably their imitation. A solid foot can also be found on the iron Kostrzewski M-a1 and N-a fibulae that belong to the group of arched fibulae and have a documented distribution area spanning from the Rivers Laba, Visla, the Rhineland to the south-eastern Alps (Magdalensberg/Štalenska gora, Verdun near Stopiče, Grave 37). They were produced and used towards the end of the Late La Tène phase of LT D2, in the Augustan period and to the mid-1st century AD.[281]

The small finds from the cult place also include small ***bronze rings*** or their parts (*Fig. 7: 7–8, 10–11*), a ***bronze ring with overlapping ends*** (*Fig. 7: 9*), a bronze ***penannular finger ring*** of a semicircular cross section (*Fig. 7: 14*) and a plain bronze ***band earring*** (*Fig. 7: 13*). In the fastening manner, with a hook and a hole, the latter is comparable with the typical grooved earrings of the Hallstatt Sveta Lucija group,[282] but also with the ornate Late La Tène earrings of the Idrija group.[283] Undecorated earrings are rare, with a single such items known from the cemetery at Most na Soči, found in a heap of finds between Graves Sz 1812 and Sz 1813 that also contained two other earrings and a Certosa fibula.[284]

The better preserved finds from the cult place include bronze ***triangular pendants***, which represent one of the characteristic forms of the Hallstatt material culture at Most na Soči and in Posočje in general,[285] and also, as Miha Mlinar has shown, mainly originate from cemeteries and cult places.[286]

The large examples have the side edges of the upper plate decorated with embossed dots (*Fig. 7: 15–17*), while the smaller example bears embossed dots shaped into an inverted T (*Fig. 7: 19*). The damaged example (*Fig. 7: 18*) shows that the sheet metal envelops a pebble; the craftsman thus first worked the pebble into a triangular form[287] and proceeded to wrap it in sheet bronze. X-ray images of the complete pendants have shown that two other pendants were made in the same manner, while

exclude the possibility of it representing a fragment of an iron serpentine fibula.
[279] Istenič 2015, 50, Pl. 5: 7.
[280] Božič 2008, 144–148.
[281] Horvat 2015, 176–177.
[282] Kos 1973, 860–861; Teržan, Lo Schiavo, Trampuž-Orel 1985, 30–31, No. 1.
[283] Božič 2007b, 839.
[284] Teržan, Lo Schiavo, Trampuž-Orel 1984, Pl. 172H; Teržan, Lo Schiavo, Trampuž-Orel 1985, 293.
[285] Teržan, Lo Schiavo, Trampuž-Orel 1985, 34–35, No. 14.
[286] Mlinar 2016, 100.
[287] Slate was used for this purpose, which is a crumbly and soft rock that can easily be worked.

odlomka certoške fibule V. vrste, kar nakazuje datacijo pokopa v stopnjo Sv. Lucija IIb1.[290]

Bronast diskast obesek[291] (*sl. 7: 23*) je podoben okrašenim izvedbam z grobišča.[292] Dobro primerjavo ima v nizu devetnajstih obeskov iz ženskega groba Preloge 13/97 na Magdalenski gori,[293] ki ga na podlagi značilnih pridatkov (votle zapestnice različice V5 po Tecco Hvalovi, steklene jagode v obliki ovnovih glavic itd.) datiramo v certoški horizont.[294] Zanimivo je, da so bile v omenjenem magdalenskogorskem grobu, podobno kot na obravnavanem kultnem mestu (glej spodaj), odkrite številne drobne obročaste jagode iz rumenega in modrega stekla.[295]

Bronast odlomek (*sl. 7: 22*) je polovica z delom zanke neokrašenega votlega ***kroglastega obeska***, značilnih za Posočje v času uporabe svetolucijskih fibul, tj. v stopnjah Sv. Lucija IIa in IIb.[296]

Bronast gumb s široko zanko (*sl. 7: 24*) ima najbližjo tipološko in geografsko primerjavo na najdišču Robič – Sv. Volar.[297] Za gumb s Sv. Volarja smo skušali nakazati železnodobno starost, čeprav sodi v sklop nestrokovno izkopanih detektorskih najdb, ki na tem najdišču datirajo od bronaste dobe do zgodnjega srednjega veka.[298]

Na sežigališču so našli 89 preprostih ***bronastih kalotastih gumbov*** z ovalno ali oglato zanko na spodnji strani kapic (*sl. 8: 1*), več celih ali poškodovanih obročastih jagod iz rumenega, belega in modrega stekla (*sl. 8: 3–5*) in majhne bronaste obročke (*sl. 8: 6*).

Večkrat je bilo pokazano, da preprosti kalotasti gumbi kronološko niso občutljivi, saj izvirajo iz različnih kulturnih okolij žarnogrobiščne, starejše in mlajše železne dobe.[299] Pogosta najdba so tudi v svetolucijskih grobovih.[300] V obravnavanem sklopu sta zastopani dve velikosti: večji premera okoli 1,5 cm in manjši z okoli 0,8 cm premera. Pomenljivo je, da so gumbi obeh velikosti večkrat sprijeti med sabo, z ***drobnimi obročastimi steklenimi jagodami*** ter ***majhnimi bronastimi obročki*** (*sl. 8: 1, 6*). To nakazuje, da ti skupki predstavljajo ostanke oprav, morda pasov[301] ali oblek.

[290] Crismani 2002, 62, sl. 43.

[291] Narisan je kot poln predmet (t. 26: 19 in *sl. 5: 23*). Dejansko je iz dveh polovic, zelo poškodovan od ognja in v notranjosti zapolnjen s kompaktno žganino.

[292] Teržan, Lo Schiavo, Trampuž-Orel 1984, t. 200B: 3, 231E.

[293] Tecco Hvala, Dular, Kocuvan 2004, t. 100: 13.

[294] Tecco Hvala 2012, 320.

[295] Tecco Hvala, Dular, Kocuvan 2004, t. 100: 3-4,6.

[296] Božič 2011, 242–244.

[297] Bratina 1997, 196, sl. 2.

[298] Mlinar, Gerbec, Laharnar 2014, 13, 30: kat. št. 10.

[299] Božič 2009, 71; Sakara Sučević 2004, 34, bronasti kalotasti gumbi vrste 1; Blečić 2005, 75–77.

[300] Npr. Teržan, Lo Schiavo, Trampuž-Orel 1984, t. 11F: 1, 26D: 2, 26F: 5 itd.

[301] Spomnimo na pas iz ženskega poznolatenskega groba 52 v Prozoru, ki je bil okovan s 114 bronastimi gumbi

one was hollow (*Fig. 10*). We could find no comparable objects to the bronze triangular pendants with a pebble in the interior,[288] though we should note that a worked pebble was found in Grave Sz 648 at Most na Soči that is formally reminiscent of the disc-shaped pendants discussed below.[289]

The ***basket-shaped pendant with a conical bottom*** (*Fig. 5: 20*) is closely comparable with the pendant associated with the second construction phase of House 22A (*Pl. 62: 3* and see above), which also yielded a glass bead attributed to the Sv. Lucija IIb1 phase (*Pl. 62: 1*) and a knob of a Type X Certosa fibula characteristic of the Sv. Lucija IIc phase (*Pl. 62: 4*). We should also mention a grave that Raffaelle Battaglia excavated in 1913 at Socerb; the grave did not yield many goods, but these included a basket-shaped pendant with a moulded conical bottom and two fragments of a Type V Certosa fibula that indicate the dating of the grave to the Sv. Lucija IIb1 phase.[290]

The ***bronze disc-shaped pendant***[291] on *Fig. 7: 23* is similar to the decorated examples from the cemetery.[292] It is also closely comparable with the pendant in the set of nineteen pendants found in the female Grave Preloge 13/97 at Magdalenska gora,[293] which is attributable to the Certosa Fibula phase on the basis of the associated goods (hollow bracelets of Variant V5 after Tecco Hvala, glass beads in the shape of ram's heads and others).[294] It is noteworthy that the grave from Magdalenska gora, similarly as the cult place at Most na Soči (see below), revealed numerous small annular beads of yellow and blue glass.[295]

The bronze fragment on *Fig. 7: 22* represents half of the loop of a plain and hollow ***spherical pendant***, such as are typical of Posočje in the time when the Sveta Lucija fibulae were in use, i.e. the Sv. Lucija IIa and IIb phases.[296]

The ***bronze button with a wide loop*** (*Fig. 7: 24*) is typologically and geographically most closely comparable with the example from Robič – Sv. Volar.[297] This button is among the objects unprofessionally excavated with the help of a metal detector and spanning from the Bronze Age to the Early Middle Ages, but there is evidence to suggest that the button actually dates to the Iron Age.[298]

[288] All the triangular pendants of this form kept in the Narodni muzej Slovenije appear to be hollow; this is also true of such pendants known in literature.

[289] Teržan, Lo Schiavo, Trampuž-Orel 1984, Pl. 59A: 9; Teržan, Lo Schiavo, Trampuž-Orel 1985, 128.

[290] Crismani 2002, 62, Fig. 43.

[291] It is drawn as a solid object (Pl. 26: 19 and *Fig. 5: 23*); it actually consists of two halves, it is heavily fire-damaged and the interior is filled with compact burnt remains.

[292] Teržan, Lo Schiavo, Trampuž-Orel 1984, Pls. 200B: 3, 231E.

[293] Tecco Hvala, Dular, Kocuvan 2004, Pl. 100: 13.

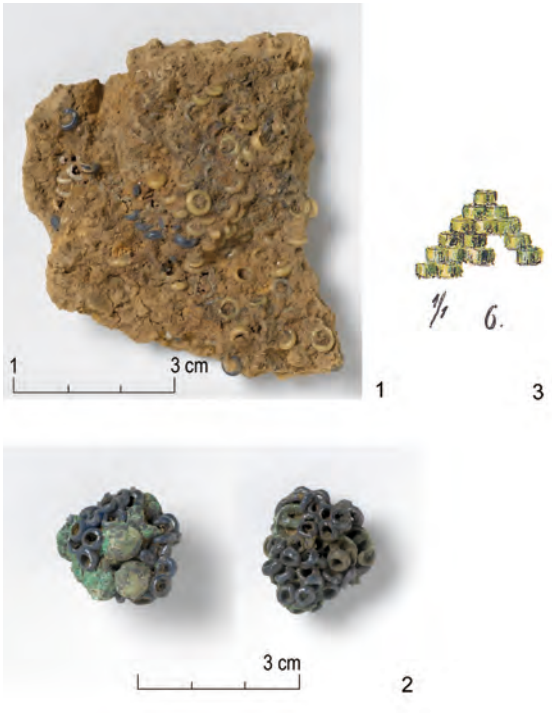
[294] Tecco Hvala 2012, 320.

[295] Tecco Hvala, Dular, Kocuvan 2004, Pl. 100: 3-4,6.

[296] Božič 2011, 242–244.

[297] Bratina 1997, 196, Fig. 2.

[298] Mlinar, Gerbec, Laharnar 2014, 13, 30: Cat. No. 10.



Sl. 11: Skupki steklenih jagod, bronastih kalotastih gumbov in bronastih obročkov. 1 Stična, grob 48/121; 2 Most na Soči, grob Sz 648; 3 Most na Soči, grob 590 (po Marchesetti 1893, t. 9: 6).
Fig. 11: Clusters of glass beads, bronze domed buttons and bronze rings. 1 Stična, Grave 48/121; 2 Most na Soči, Grave Sz 648; 3 Most na Soči, Grave 590 (from Marchesetti 1893, Pl. 9: 6).

Anja Hellmuth je predlagala rekonstrukcijo ženske oprave iz groba 27 stiške gomile 48, kjer domneva, da je bilo na stotine bronastih gumbov našitih na tekstil tudi v kombinaciji z jantarjevimi jagodami.[302] Menimo, da to zelo verjetno velja tudi za prenekatero od številnih steklenih jagod iz tega groba. Tako je bilo ugotovljeno v grobu 121 iste stiške gomile, kjer so bile na dnu groba fibule in večji nizi jagod, ki so bili očitno našiti na obleko (*sl. 11: 1)*.[303] Zanimiv je tudi primer modrih, rumenih in belih obročastih steklenih jagod iz groba 43, prav tako gomile 48 v Stični, ki so bile pritrjene na trak iz organske snovi in so sestavljale niz barvnih trikotnikov.[304]

Skupki sprijetih bronastih kalotastih gumbov, steklenih jagod in majhnih bronastih obročkov so bili odkriti tudi v grobovih Mosta na Soči.[305] Tukaj prikazujemo primer skupka bronastih kalotastih gumbkov in različnih velikosti (Drechsler-Bižić 1972–1973, 37, t. 27–28), in na podobno nošo v Kvarnerju (Blečić 2002, t. 10–11; ead. 2004, t. 7–8, sl. 6: 11-20).

[302] Hellmuth 2008, 65.

[303] Gabrovec et al. 2006, 89.

[304] Ibid., 45, t. 29: 11.

[305] Teržan, Lo Schiavo, Trampuž-Orel 1984, t. 59: 648A: 6-7, 98A: 9-10; Teržan, Lo Schiavo, Trampuž-Orel 1985, 128, 180.

The burning site yielded 89 simple ***bronze domed buttons*** with an oval or angular loop on the underside (*Fig. 8: 1*), several complete or damaged annular beads of yellow, white and blue glass (*Fig. 8: 3–5*) and small bronze rings (*Fig. 8: 6*).

It has been shown that simple domed buttons are chronologically undiagnostic, unearthed in different contexts dating to the Urnfield culture period and the Early and Late Iron Ages.[299] They have also been found in the graves of the Sveta Lucija group.[300] The buttons from the cult place come in two sizes: large ones measuring around 1.5 in diameter and small ones measuring around 0.8 cm across. An important observation is that the buttons of both sizes were sometimes found clumped together and with ***small annular glass beads*** and ***small bronze rings*** (*Fig. 8: 1, 6*). This indicates that the clusters represent costume remains, possibly belts[301] or garments.

Anja Hellmuth proposed a reconstruction of the female attire found in Grave 27 of Tumulus 48 at Stična and supposes that the hundreds of recovered bronze buttons were sewn onto textile in combination with amber beads.[302] We believe that this can be extended to many of the numerous glass beads from the same grave. This is what has been established in the case of Grave 121 of the same tumulus at Stična, which revealed fibulae and a large set of beads found on the bottom of the grave pit and presumably sewn onto the dress (*Fig. 11: 1)*.[303] Also interesting is the find of blue, yellow and white annular glass beads from Grave 43, also in Tumulus 48 at Stična, which were fastened to a band of organic material to form a string of colourful triangles.[304]

Clumps of bronze domed buttons, glass beads and small bronze rings have also been found in the graves at Most na Soči.[305] The find presented here is a clump of bronze domed buttons and blue annular glass beads from Grave Sz 648 (*Fig. 11: 2*). Carlo Marchesetti presumed that beads were sewn onto garments and gives as evidence a grave with over 1500 glass beads and bronze rings, of which oxidised examples survived in the original pattern (*Fig. 11: 3*).[306] A rich set of 508 light

[299] Božič 2009, 71; Sakara Sučević 2004, 34, bronze domed buttons of Type 1; Blečić 2005, 75–77.

[300] E.g. Teržan, Lo Schiavo, Trampuž-Orel 1984, Pls. 11F: 1, 26D: 2, 26F: 5 etc.

[301] The Late La Tène Grave 52 of a woman from Prozor yielded a belt fitted with 114 bronze buttons of different sizes (Drechsler-Bižić 1972–j1973, 37, Pls. 27–28), a similar costume has also been recorded in the Kvarner area (Blečić 2002, Pls. 10–11; ead. 2004, Pls. 7–8, Fig. 6: 11-20).

[302] Hellmuth 2008, 65.

[303] Gabrovec et al. 2006, 89.

[304] Ibid., 45, Pl. 29: 11.

[305] Teržan, Lo Schiavo, Trampuž-Orel 1984, Pls. 59: 648A: 6-7, 98A: 9-10; Teržan, Lo Schiavo, Trampuž-Orel 1985, 128, 180.

[306] Marchesetti 1893, 26, 171, Pl. 9: 6 (= Montagnari

modrih obročastih steklenih jagod iz groba Sz 648 (*sl. 11: 2*). Carlo Marchesetti domneva primere šivanja jagod na obleke. Kot dokaz omenja grob z več kot 1500 steklenimi jagodami in bronastimi obročki, med slednjimi so se ohranili oksidirani primerki v prvotnem vzorcu (*sl. 11: 3*).[306] Razkošen sklop 508 svetlo- in temnomodrih obročastih steklenih jagod, 25 bronastih obročastih jagod in 29 bronastih kalotastih gumbov je bil leta 2001 odkrit tudi na Pucarjevem robu na Mostu na Soči.[307] Ali gre v mostarskih primerih za ostanke pogrebih oblačil umrlih ali morda za ostanke umetelno tkanih tkanin, v katere so bili zaviti grobni pridatki ali žare,[308] ostaja odprto.

V povezavi s preprostimi bronastimi kalotastimi gumbi, drobnimi steklenimi jagodami in majhnimi bronastimi obročki z obravnavanega kultnega mesta so naša razmišljanja blizu tezi Felixa Müllerja o darovanju oblek, ki so bile, glede na količino vloženega dela pri izdelavi, nedvomno dragocen dar.[309] Vsekakor je zgovorno dejstvo, da so bili prav tukaj odkriti tudi fragmenti zoglenele tkanine.[310]

Od večjih steklenih jagod se je ohranila ***jagoda sploščeno kroglaste oblike*** iz modrega in valovnico iz rumenkastega stekla (*sl. 8: 2*). Na mostarskem grobišču ni veliko primerljivih jagod[311] in običajno imajo belo valovnico na modri podlagi.[312] Njihov pojav s starejšo izvedbo svetolucijske ločne fibule[313] in pavkasto fibulo[314] se ujema s pojavom takih jagod na Dolenjskem. Tam jih najdemo v grobovih kačaste in certoške stopnje.[315] V stopnjo Sv. Lucija IIb datiramo grob 11 z Bitenj v Bohinju, ki je vseboval svetolucijsko fibulo mlajše različice,[316] na katero je bila med drugim obešena modra steklena jagoda z belo valovnico.[317]

Več bronastih predmetov so deli razlomljenega in v ognju uničenega ***obročastega nakita*** *(sl. 7: 25–31, 33–36)*. Običaj in predmeti zelo spominjajo na zbirko odlomkov bronastih zapestnic in žic iz groba 3 na Bitnjah v Bohinju, ki ga je Gabrovec datiral v stopnjo Sv. Lucija IIa.[318] Od-

[306] Marchesetti 1893, 26, 171, t. 9: 6 (= Montagnari Kokelj 1993, 120, 267, t. 9: 6).

[307] Mlinar 2002, 45, kat. št. 20, sl. 27.

[308] Prim. Gambacurta, Ruta Serafini 1998; Škvor Jernejčič, Vinazza 2015.

[309] Müller 2002, 1098–1100.

[310] Svoljšak, Dular 2016, 73; Grömer et al. v tej knjigi.

[311] Marchesetti 1893, 327, t. 9: 4 (= Montagnari Kokelj 1993, 421, t. 9: 4).

[312] Teržan, Lo Schiavo, Trampuž-Orel 1984, t. 13F: 4; 216A: 5; 280: 24, 31; Teržan, Lo Schiavo, Trampuž-Orel 1985, 85, 335, 392.

[313] Zanjo je značilen v celoti narebren lok: Parzinger 1988, 12, Sv. Lucija-III1, Sv Lucija-III2a, t. 9: 115, 10: 124.

[314] Teržan, Lo Schiavo, Trampuž-Orel 1984, t. 13F.

[315] Prim. Gabrovec et al. 2006, t. 3, 15, 24, 47; Udovč, Leben Seljak 2016, 52–53: št. 34; 80–81: št. 81.

[316] Zanjo je značilen lok, okrašen z nizi prečnih vrezov ali reber: Parzinger 1988, 14, Sveta Lucija-III3, t. 12: 174.

[317] Gabrovec 1974, t. 4: 18; Božič 2011, 244.

[318] Ibid., 290, 301, t. 3: 7-12.

and dark blue annular glass beads, 25 bronze annular beads and 29 bronze domed buttons was excavated in 2001 at Pucarjev rob in Most na Soči.[307] Having said that, it is not clear whether the examples from Most na Soči are the remains of the burial costume of the deceased or of the fine textile used to wrap the grave goods or urns.[308]

Our interpretation of the simple bronze domed buttons, small glass beads and small bronze rings from the cult place is similar to the one that Felix Müller gave on the garments that were, considering the amount of time and effort that went into their production, doubtlessly precious offerings.[309] Such an interpretation is supported by the fact that charred textile remains were found alongside buttons, beads and rings at the cult place at Most na Soči.[310]

Of the large glass beads, we have a ***flattened spherical bead*** of blue glass with a wavy line of yellowish glass (*Fig. 8: 2*). The cemetery at Most na Soči revealed few comparable finds[311] which usually have a white wavy line on the otherwise blue glass bead.[312] They occur together with the early variant of the Sveta Lucija bow fibula[313] and with a kettledrum fibula,[314] which chronologically corresponds with the occurrence of such beads in Dolenjska where they are known from the graves of the Serpentine and Certosa Fibula phases.[315] Hanging together with other items from a late variant Sveta Lucija fibula[316] was a blue glass bead with a white wavy line found in Grave 11 at Bitnje in the Bohinj area,[317] which has been attributed to the Sv. Lucija IIb phase.

Several bronze pieces are parts of broken and fire-damaged ***ring jewellery*** *(Fig. 7: 25–31, 33–36)*. In form and ritual, they are very similar to the collection of fragments of bronze bracelets and wires recovered from Grave 3 at Bitnje in Bohinj, which Gabrovec dated to Sv. Lucija IIa.[318] The fragments on *Fig. 7: 35–36* probably

Kokelj 1993, 120, 267, Pl. 9: 6).

[307] Mlinar 2002, 45, Cat. No. 20, Fig. 27.

[308] Cf. Gambacurta, Ruta Serafini 1998; Škvor Jernejčič, Vinazza 2015.

[309] Müller 2002, 1098–1100.

[310] Svoljšak, Dular 2016, 73; Grömer et al. in this book.

[311] Marchesetti 1893, 327, Pl. 9: 4 (= Montagnari Kokelj 1993, 421, Pl. 9: 4).

[312] Teržan, Lo Schiavo, Trampuž-Orel 1984, Pls. 13F: 4; 216A: 5; 280: 24, 31; Teržan, Lo Schiavo, Trampuž-Orel 1985, 85, 335, 392.

[313] These typically bear ribs across the whole bow: Parzinger 1988, 12, Sv. Lucija-III1, Sv Lucija-III2a, Pls. 9: 115, 10: 124.

[314] Teržan, Lo Schiavo, Trampuž-Orel 1984, Pl. 13F.

[315] Cf. Gabrovec et al. 2006, Pls. 3, 15, 24, 47; Udovč, Leben Seljak 2016, 52–53: No. 34; 80–81: No. 81.

[316] It typically has a bow decorated with stripes of transverse incisions or ribs: Parzinger 1988, 14, Sveta Lucija-III3, Pl. 12: 174.

[317] Gabrovec 1974, Pl. 4: 18; Božič 2011, 244.

[318] Ibid., 290, 301, Pl. 3: 7-12.

lomka *sl. 7: 35–36* sta verjetno odlomka ***bronastih ovratnic***. Tordiran predmet (*sl. 7: 35*) je v primerjavi z ostalimi najdbami s kultnega mesta morda arhaičen element iz stopnje Sv. Lucija Ic. To velja bodisi v primeru, da gre za odlomek tordirane ovratnice,[319] bodisi loka fibule.[320] Slednjemu primerjavo ponovno najdemo v Bohinju.[321]

Kovinske posode

Najdbe kultnega mesta dopolnjujejo odlomki keramičnega posodja in svitka (*sl. 9: 13–15*) ter serija odlomkov iz bronaste pločevine, med katerimi prepoznamo odlomke bronastih posod (*sl. 9: 1, 3, 4–6, 8–9, 12; morda sl. 7: 35*). Predmeti so izjemno fragmentarni, razlomljeni in ožgani, zato jih je večinoma nemogoče ožje tipološko opredeliti. Predmet *sl. 9: 3* ima med gradivom Szombathyjevih izkopavanj v obliki in okrasu primerjavo v ***obročastem okovu posode*** z dvema ušesoma.[322]

Nogica bronaste posode je najverjetneje pripadala kateri od predavgustejskih oblik italskih bronastih posod, najverjetneje vrču (*sl. 9: 1*). Skoraj povsem enaka bronasta nogica je bila v grobu 46 na Idriji pri Bači,[323] za katero Guštin predvideva pripadnost vrču, a zanjo ne najde primerjav.[324]

NAJDBE Z OBMOČIJ Z RAZPRŠENIMI SLEDMI POSELITVE

V prvi monografiji o železnodobni naselbini na Mostu na Soči sta avtorja opredelila 32 območij z razpršenimi sledmi poselitve. Gre za ostanke različnih struktur, od krajših odsekov suhih zidov brez jasnega poteka do neizrazitih hodnih površin, ki jih ni bilo mogoče povezati v zanesljive objekte. V glavnem so bile tod odkrite ruševine, v katerih so se pojavljale posamezne najdbe.[325] V nadaljevanju obravnavamo posamezne kovinske in steklene najdbe, če ni navedeno drugače, po številkah

[319] Teržan, Trampuž 1973, 426.

[320] Ni izključeno, da je predmet odlomek tordiranega ročaja situle ali kakšne druge posode (prim. Teržan, Lo Schiavo, Trampuž-Orel 1985, 36–37, št. 3).

[321] Gre za dvozankasto fibulo iz groba 2 v Jereki, ki jo je Gabrovec imenoval dvozankasta ločna fibula s psevdotordiranim lokom (Gabrovec 1974, 298, t. 11: 3). Gabrovec je domneval datacijo groba iz Jereke v začetek halštatske kolonizacije Bohinja, torej morda že v stopnjo Sv. Lucija Ic (Ibid., 300).

[322] Teržan, Lo Schiavo, Trampuž-Orel 1984, t. 278: 2; Teržan, Lo Schiavo, Trampuž-Orel 1985, 392.

[323] Guštin 1991, 20, t. 27: 18. V grobu je bilo še nekaj skromnih najdb (bronasti odlomki fibul in prstana, kalotasta bronasta gumba), ki ne omogočajo ožje datacije.

[324] Ibid., 70.

[325] Svoljšak, Dular 2016, 222–227.

belonged to ***bronze torques***. In comparison with other finds from the cult place, the twisted fragment (*Fig. 7: 35*) may be an archaic element from the Sv. Lucija Ic phase regardless of whether it is a fragment of a twisted torque[319] or possibly the bow of a fibula.[320] If it is the latter, it again has parallels in Bohinj.[321]

Metal vessels

The finds from the cult place further comprise fragments of ceramic vessels and a spindle whorl (*Fig. 9: 13–15*), as well as a series of sheet bronze fragments that include those identified as belonging to vessels (*Fig. 9: 1, 3, 4–6, 8–9, 12;* possibly *Fig. 7: 35*). These items are highly fragmented and fire-damaged, hence for the most part not allowing precise typological determination. The piece on *Fig. 9: 3* is comparable in form and decoration with an ***attachment with two loops of a metal vessel*** found during Szombathy's excavations.[322]

The ***foot of a bronze vessel*** on *Fig. 9: 1* most likely belonged to one of the pre-Augustan forms of Italic bronze vessels, probably a jug. An almost identical bronze foot was found in Grave 46 at Idrija pri Bači,[323] which Guštin presumes to have belonged to a jug, but does not know of any parallels.[324]

SMALL FINDS FROM THE LOCATIONS OF DISPERSED HABITATION TRACES

The first volume of the monograph on the Iron Age settlement at Most na Soči presented the 32 identified locations of dispersed habitation traces. The traces consist of various structures, ranging from short sections of drywalls without a clear course to indistinct patches of ground surface that could not positively be tied to form the remains of individual houses. For the most part, these

[319] Teržan, Trampuž 1973, 426.

[320] We can also not exclude the possibility of the item being a fragment of a twisted handle of a situla or some other vessel (cf. Teržan, Lo Schiavo, Trampuž-Orel 1985, 36–37, No. 3).

[321] It is a two-looped fibula from Grave 2 at Jereka that Gabrovec termed two-looped bow fibula with a pseudo-twisted bow (Gabrovec 1974, 298, Pl. 11: 3). He presumed that the grave dated to the beginning of the Hallstatt-period colonisation of the Bohinj area, i.e. possibly to the Sv. Lucija Ic phase (Ibid., 300).

[322] Teržan, Lo Schiavo, Trampuž-Orel 1984, Pl. 278: 2; Teržan, Lo Schiavo, Trampuž-Orel 1985, 392.

[323] Guštin 1991, 20, Pl. 27: 18. The grave contained few other items (bronze fragments of fibulae and of a finger ring, two domed bronze buttons) that do not allow for a more precise dating.

[324] Ibid., 70.

sond, ki so ta območja razkrila.[326] Nekatere fibule iz naselbine, ki jih razumemo v okviru poznolatenske oz. prve rimske poselitve, so že bile predstavljene v literaturi in jih v našo obravnavo nismo zajeli. To so italske fibule iz bakrovih zlitin vrste Nauheim II, Almgren 65, Nova vas, Posočje (Isontino) 2 in Jezerine,[327] med njimi prve štiri vrste datiramo v stopnjo LT D1b oz. v prvo četrtino 1. st. pr. n. št., fibulo vrste Jezerine pa v stopnjo LT D2 po srednjeevropski kronologiji.[328]

SONDA 17

Iz stavbnih ruševin v sondi 17 izvira bronasta obročasta ***fibula vrste Posočje*** (*sl. 12: 13*). [329] Tovrstne fibule so najverjetneje izdelovali na prostoru latenske idrijske skupine, kjer so jih odkrili največ. Posamič se pojavljajo še na Notranjskem, Koroškem in celo na Bavarskem.[330] Na podlagi grobov z Idrije pri Bači jih datiramo v poznolatensko stopnjo LT D1, vendar se na tamkajšnjem grobišču pojavljajo kot starejši pridatek tudi v mlajših grobovih.[331]

V sondi 17 so našli ***bronast obesek v obliki glave goveda*** z značilno podolgovato glavo in dolgimi, navzdol obrnjenimi in navzven ukrivljenimi rogovi (*sl. 12: 14*). Alexia Nascimbene ugotavlja, da se pojavljajo na prostoru med reko Piavo z zgornjo Furlanijo, Posočjem in Dolenjsko. Možno je ločiti več različic glede na okras.[332] Obesek iz sonde 17 ima okras petih krožcev s piko, medtem ko ima njegova primerjava iz Marchesettijevega groba 2370 okras dveh krožcev s piko (ponazoritev oči) in črtastih vrezov.[333] Če so najdeni med grobnimi pridatki, nastopajo kot element ženske noše, navadno v bogatih pokopih ali v grobnicah z več pokopi mladohalštatskega časa.[334]

[326] Za lego sond in označene sledi razpršene poselitve glej generalni načrt najdišča (Svoljšak, Dular 2016, priloga 1).

[327] Cunja, Mlinar 2010, kat. št. 117, 119, 125–128 (z navedbo predhodnih objav). Za poskus interpretacije teh fibul glej Mlinar et al. 2012, 265–266.

[328] Božič 2008, 144–148, Tab. 5.

[329] Guštin 1991, 24, t. 44: 5 (v objavi križec na enem od zapognjenih koncev ni narisan, saj ga je razkrila šele kasnejša konservacija predmeta).

[330] Cunja, Mlinar 2010, 48, kat. št. 115.

[331] Guštin 1991, 40, sl. 22, t. 6: 9, 10: 10, 20: 4; Božič 1999b, 75, sl. 5: 3.

[332] Nascimbene 2009, 202–203.

[333] Marchesetti 1893, 105, t. 24: 36 (= Montagnari Kokelj 1993, 199, t. 24: 36).

[334] Npr. grobnica 13 grobišča Posmon pri Montebelluni in grob iz Safforze pri Bellunu (Gamba et al. 2013, 404–407, kat. št. 11.3.5, 11.3.8.).

locations only yielded debris with scarce small finds.[325] The text below presents several metal and glass finds according to the trenches that investigated these traces, if not otherwise specified.[326] Some of the fibulae from the settlement that are traces of the Late La Tène or the first Roman settlement have already been published elsewhere and are not discussed here; these consist of Italic fibulae from copper alloys of Nauheim II, Almgren 65, Nova vas, Posočje (Isontino) 2 and Jezerine types,[327] of which the first four types date to LT D1b, i.e. the first quarter of the 1st century BC, while the Jezerine type fibula is attributed to LT D2 of the central European chronology.[328]

TRENCH 17

The house debris in Trench 17 revealed a bronze penannular ***Posočje type fibula*** (*Fig. 12: 13*). [329] Such fibulae were most probably produced in the area of the La Tène period Idrija group, where the greatest number of them has been found. Individual examples are also known from the regions of Notranjska, Kärnten and even Bavaria.[330] The examples from the graves at Idrija pri Bači suggest their date to the Late La Tène phase of LT D1, but the cemetery in question also revealed examples of such fibulae as early goods in later graves.[331]

Trench 17 yielded a ***bronze pendant in the shape of a bovine head*** with a characteristic elongated head and long downturned horns that curve outwards at the tip (*Fig. 12: 14*). Alexia Nascimbene observes that such pendants are known in the area between the River Piave with the upper Friuli, Posočje and Dolenjska. The decoration allows us to distinguish between several types.[332] The pendant from Trench 17 bears five ring-and-dots, while a comparable pendant from Marchesetti's Grave 2370 bears two ring-and-dots (representing eyes) and linear incisions.[333] In graves, such items are parts of the female costume, usually appearing in rich graves or in tombs with several Late Hallstatt burials.[334]

[325] Svoljšak, Dular 2016, 222–227.

[326] For the position of the trenches and the locations of dispersed habitation traces see the site plan (Svoljšak, Dular 2016, App. 1).

[327] Cunja, Mlinar 2010, Cat. Nos. 117, 119, 125–128 (with a list of previous publications). For an attempt at interpreting these fibulae see Mlinar et al. 2012, 265–266.

[328] Božič 2008, 144–148, Tab. 5.

[329] Guštin 1991, 24, Pl. 44: 5 (the drawing in this publication is missing a cross on one of the bent ends because it has only been revealed during later conservation work).

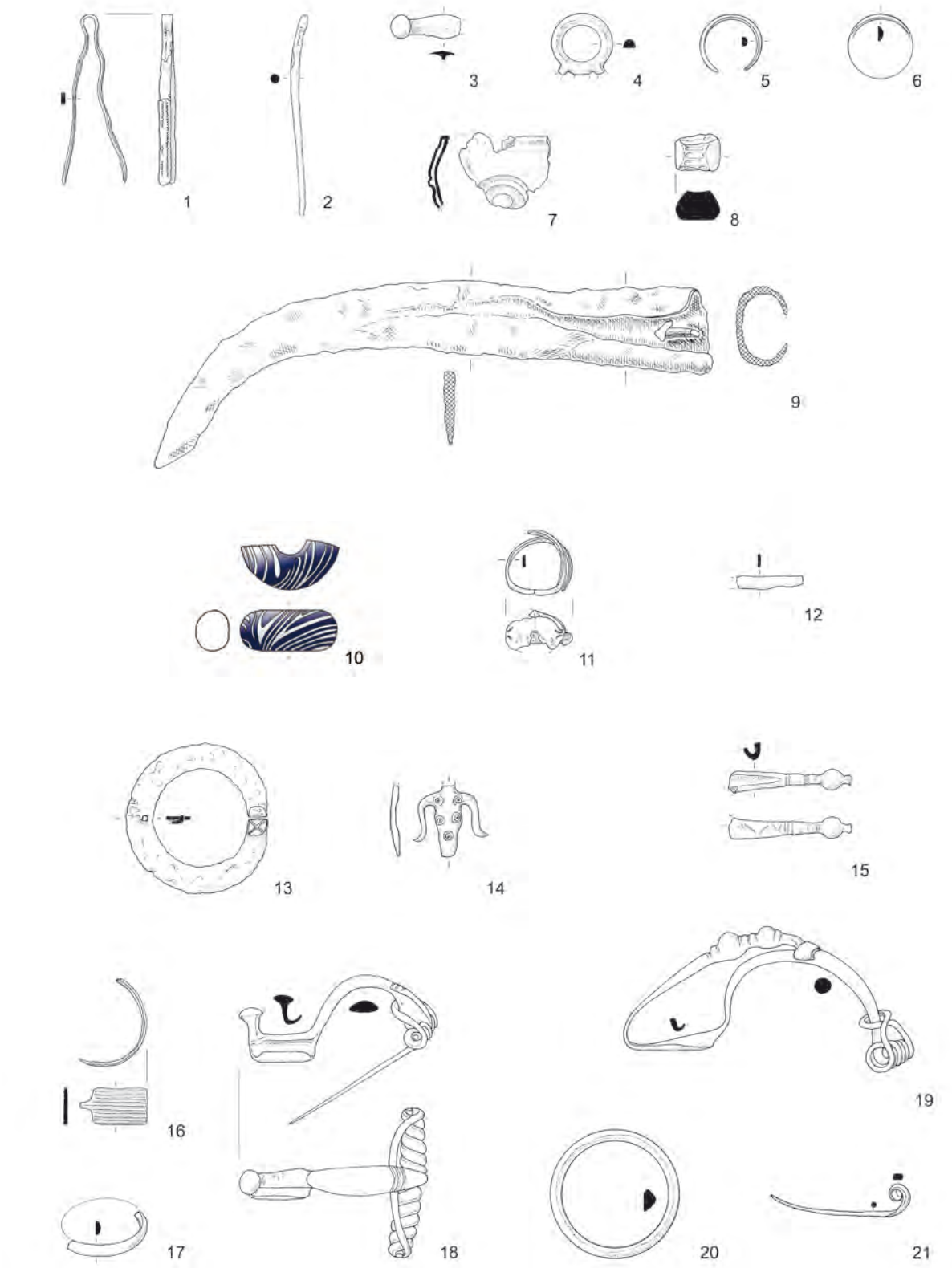
[330] Cunja, Mlinar 2010, 48, Cat. No. 115.

[331] Guštin 1991, 40, Fig. 22, Pls. 6: 9, 10: 10, 20: 4; Božič 1999b, 75, Fig. 5: 3.

[332] Nascimbene 2009, 202–203.

[333] Marchesetti 1893, 105, Pl. 24: 36 (= Montagnari Kokelj 1993, 199, Pl. 24: 36).

[334] E.g. Tomb 13 from the cemetery at Posmon near



Sl. 12: Most na Soči – naselbina, najdbe z območij z razpršenimi sledmi poselitve. 1–8, 11–22 bron; 9 železo; 10 steklo. M = 1:2.
Fig. 12: Most na Soči – settlement, finds from the locations of dispersed habitation traces. 1–8, 11–22 bronze; 9 iron; 10 glass. Scale = 1:2.

SONDA 21–22

Med najdbami poleg bronaste poznolatenske italske fibule in rimskega ***srebrnega prstana*** (*sl. 12: 11*) izstopa odlomek latenske ***obročaste steklene jagode*** (*sl. 12: 10*). Jagoda pripada zelo številčni skupini 23 po Haevernickovi, in sicer izvedbi iz modrega stekla z belim vrtinčastim okrasom. Težišče keltske srednjeevropske proizvodnje tovrstnih jagod je bilo v poznolatenski stopnji LT D1,[335] njihov prvi pojav pa je nakazan že v stopnji LT C2.[336]

SONDA 29

Z razširitvijo sonde 29, ki je razkrila hišo 30 in ob njej potekajočo kamnito ograjo,[337] je bila v smeri latensko-rimskega grobišča odkrita kamnita groblja. Drago Svoljšak ugotavlja, da je groblja morda rezultat rimskega planiranja pri urejanju njihovega grobišča oz. da gre, kot sta zapisala z Beatriče Žbono Trkman, za časovno nedoločljiv poseg, povezan s preureditvami zemljišča v poljedelske namene.[338] Rimsko urejanje je gotovo poseglo tudi v železnodobne plasti, pri čemer so se v groblji znašli odlomka bronastega prstana s polkrožnim presekom in bronastega nažlebljenega uhana s kvačico ter v celoti ohranjena certoška fibula s samostrelno peresovino vrste XIIIa po Teržanovi (*sl. 12: 16–18*).

SONDA 36

V tej sondi so se pojavljale stavbne ruševine in sledi poselitve s keramiko, koščki prežgane ilovice ter drobci oglja. Med kovinskimi najdbami so bili bronasta pinceta, igla, noga certoške fibule, odlomka obročkov, okrašene zapognjene pločevine, ingot in železen nož z ukrivljenim rezilom in plavutastim nasadiščem (*sl. 12: 1–3, 5–6, 7–9*). Bronast obroček polkrožnega preseka (*sl. 12: 4*) je del antropo-ornitomorfnega obeska vrste 2 po Geigerju.[339] Tovrstne obeske je preučevala Martina Blečić Kavur, ki ugotavlja, da se obeski različice 2b, kamor uvrščamo tudi odlomek iz sonde 36, pojavljajo v 5. in 4. st. pr. n. št. v severni Italiji (največ v Benečiji in na

[335] Karwowski 2004, 42–43, 79, sl. 25.

[336] Zepezauer 1993, 95–97, sl. 8; Venclová 2016, 86–87, sl. 69: 1909.

[337] Svoljšak, Dular 2016, 202–211, pril. 4–5.

[338] Svoljšak, Žbona Trkman 1985, 87–88. Med kamni groblje so bili prazni prostori in po njeni odložitvi se je začela izločati siga. Značilna je bila siga v obliki majhnih "kapničkov" (Drago Svoljšak ustno in dnevnik izkopavanj, Arhiv Goriškega muzeja).

[339] Geiger 1994, 13–15, sl. 2.

TRENCHES 21–22

These trenches yielded a bronze Late La Tène Italic fibula and a Roman ***silver finger ring*** (*Fig. 12: 11*), but also a fragment of a La Tène ***annular glass bead*** (*Fig. 12: 10*). The bead belongs to the very numerous Group 23 after Haevernick, more precisely to the variant of blue glass with whirling white decoration. The main period of central European Celtic production of such beads was in the Late La Tène phase of LT D1,[335] though they first appeared already in LT C2.[336]

TRENCH 29

This trench investigated House 30 and the adjacent stone enclosure,[337] while its extension revealed a stone heap in the direction towards the La Tène-Roman cemetery. Drago Svoljšak suggests that this heap may be the result of Roman-period levelling associated with the cemetery or, as he wrote together with Beatriče Žbona Trkman, that it is the consequence of a chronologically undeterminable intervention connected with agricultural activities.[338] The Roman-period interventions certainly disturbed the Iron Age layers, which resulted in the fragments of a bronze semicircular-sectioned finger ring and a bronze grooved earring with a hook, as well as a completely preserved Certosa fibula with a crossbow spring of Variant XIIIa after Teržan (*Fig. 12: 16–18*) to have found their way into the stone heap.

TRENCH 36

The trench revealed house debris and habitation traces that comprise ceramic sherds, pieces of burnt loam daub and bits of charcoal, while the metal finds include bronze tweezers, a pin, the foot of a Certosa fibula, two ring fragments, bent and decorated sheet metal, an ingot and an iron knife with a curved blade tip and the other end widened to form a socket (*Fig. 12: 1–3, 5–6, 7–9*). There was also a bronze semicircular-sectioned ring (*Fig. 12: 4*), which formed part of an anthropo-ornitomorphic pendant of Type 2 after Geiger.[339] Martina Blečić Kavur studied such pendants and

Montebelluna and a grave from Safforza near Belluno (Gamba et al. 2013, 404–407, Cat. Nos. 11.3.5, 11.3.8.).

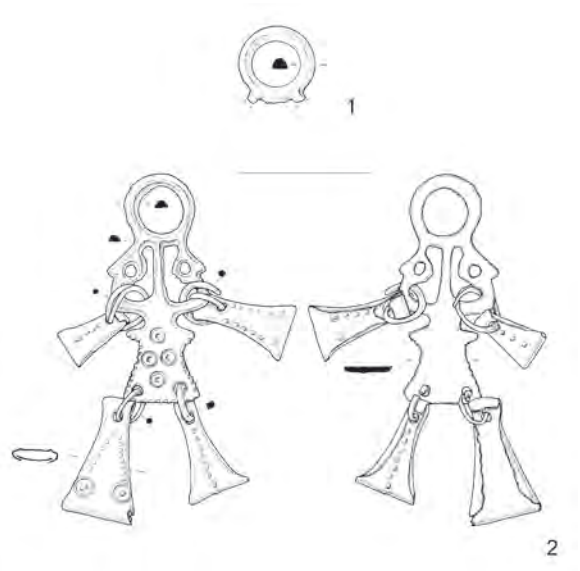
[335] Karwowski 2004, 42–43, 79, Fig. 25.

[336] Zepezauer 1993, 95–97, Fig. 8; Venclová 2016, 86–87, Fig. 69: 1909.

[337] Svoljšak, Dular 2016, 202–211, Apps. 4–5.

[338] Svoljšak, Žbona Trkman 1985, 87–88. Sinter began forming in the empty spaces between the stones of the heap after its deposition, typically in the form of small 'stalactites' (Drago Svoljšak, pers. comm. and excavation diary, archives of the Goriški muzej).

[339] Geiger 1994, 13–15, Fig. 2.



Sl. 13: Antropo-ornitomorfna obeska: 1 Most na Soči – naselbina, sonda 36; 2 Berlotov rob (Narodni muzej Slovenije). M = 1:2.
Fig. 13: Anthropo-ornitomorphic pendants: 1 Most na Soči – settlement, Trench 36; 2 Berlotov rob (Narodni muzej Slovenije). Scale = 1:2.

Tridentinskem), Posočju, na Notranjskem, Dolenjskem in v Kvarnerju z zaledjem.[340] Zanimivo je, da sta v celoti ohranjena primerka iz Posočja med vsemi najrazkošneje okrašena (*sl. 13: 2*).[341] Obeske 2. vrste opredeljuje značilna antropo-ornitomorfna ikonografija, pri čemer zadnjo večkrat povezujejo z upodabljanjem gospodarice živali (*Potnia theron*), izpostavljene figure z dvignjenimi rokami, obdane z divjimi živalmi.[342]

PARCELA BABIĆ

Pod tem imenom dokumentiramo sklop bronastih najdb, ki jih je lastnik pobral po izkopu ob začetku gradnje stanovanjske hiše Most na Soči 104.[343] Med najdbami so bili obroček, igla fibule (*sl. 12: 20–21*), dva nedoločljiva predmeta in rimska fibula t. i. emonskega tipa (oblika s stilizirano račko, antropomorfno masko in polno nogo).[344] Prazgodovinski predmet je fibula

[340] Blečić Kavur 2017, sl. 4. karta razprostranjenosti različice 2b antropo-ornitomorfnih obeskov in seznam najdišč.

[341] Obeska sta z najdišč Berlotov rob (hrani Narodni muzej Slovenije; Laharnar 2017) in Gradič nad Kobaridom (hrani Tolminski muzej).

[342] Teržan 2003, 70–72; Marzatico 2011, 330–331.

[343] Informacija Drago Svoljšak, dnevnik izkopavanj. Parcela leži v neposredni bližini rimske "hiše s kopalnico", ki je urejena kot arheološki park.

[344] Cunja, Mlinar 2010, 121, kat. št. 166; za opredelitev tovrstnih fibul glej Pavlin 2007, 71–73.

observed that the pendants of Variant 2b, to which we ascribe the example from Trench 36, occur in the 5th and 4th centuries BC in northern Italy (most numerously in Veneto and Trentino), Posočje, Notranjska, Dolenjska and the Kvarner Bay with its hinterland.[340] Interestingly, the two completely preserved examples from Posočje are the most lavishly decorated of all (*Fig. 13: 2*).[341] The pendants of Type 2 have a characteristic anthropo-ornitomorphic iconography that is frequently connected with the representations of the Mistress of the Animals (*Potnia theron*), a figure with raised arms flanked by wild animals.[342]

THE BABIĆ LOCATION

The bronze finds discussed here have been collected by the owner (Babić) of the plot of land at the address Most na Soči 104 after the excavation of the construction pit for his house.[343] The finds include a ring, the pin of a fibula (*Fig. 12: 20–21*), two undeterminable objects and an Emona type Roman fibula (with a stylised duck, an anthropomorphic mask and a solid foot).[344] A prehistoric find is an Idrija pri Bači type fibula of the Middle La Tène construction (*Fig. 12: 19*). These fibulae were worn in the La Tène Idrija group in LT D1 and, as suggested by the examples from the latest graves at the eponymous site of Idrija pri Bači, also in LT D2 and the Augustan period.[345]

CONCLUSION

The metal and glass finds from the investigated part of the Iron Age settlement at Most na Soči reveal that the period of its greatest prosperity should be sought in the Late Hallstatt period. The houses and the locations of dispersed habitation traces yielded objects from all three Late Hallstatt phases of the Sveta Lucija group. The leech fibulae (*Pl. 66: 1–3*) represent the tie with the closing Early Hallstatt period (the Sv. Lucija Ic2 phase), but were also worn in Sv. Lucija IIa, i.e. the first Late Hallstatt phase, when serpentine and

[340] Blečić Kavur 2017, Fig. 4 for the distribution map of the Variant 2b anthropo-ornitomorphic pendants and the list of sites.

[341] The pendants were found at Berlotov rob (kept in the Narodni muzej Slovenije; Laharnar 2017) and Gradič above Kobarid (kept in the Tolminski muzej).

[342] Teržan 2003, 70–72; Marzatico 2011, 330–331.

[343] Information from Drago Svoljšak's excavation diary. The location is in the immediate vicinity of the Roman 'house with a bathroom' that has been presented in an archaeological park.

[344] Cunja, Mlinar 2010, 121, Cat. No. 166; for an interpretation of such fibulae see Pavlin 2007, 71–73.

[345] Božič 2011, 253–255.

srednjelatenske sheme vrste Idrija pri Bači (*sl. 12: 19*). Fibula je bila lastna idrijski latenski skupini v stopnji LT D1 in, kot nakazujejo primerki iz najmlajših grobov na eponimnem najdišču Idrija pri Bači, tudi še v stopnji LT D2 ter avgustejskem obdobju.[345]

SKLEP

Če presojamo trajanje poselitve raziskanega dela mostarske železnodobne naselbine na podlagi kovinskih in steklenih najdb, je njeno težišče v mladohalštatskem obdobju. Tako v hišah kot na območjih z razpršenimi sledmi poselitve so bili odkriti predmeti iz vseh treh mladohalštatskih stopenj svetolucijske skupine. Pijavkaste fibule (*t. 66: 1–3*) so še predstavljale vez z iztekom starohalštatske dobe (stopnja Sv. Lucija Ic2), vendar so bile tudi značilnost prve mladohalštatske stopnje Sv. Lucija IIa, ko so bile v modi kačaste in trakasta fibula (*t. 29: 8; 36: 1; 53: 1; 57: 17; 94: 1–2*). Kačasto fibulo različice VIIc (morda *t. 60: 1*), pavkasto fibulo (*t. 31: 11*), certoško fibulo XIII. vrste (*sl. 12: 18*) in domneven odlomek fibule z okroglo ploščo ali fibule z večdelno samostrelno peresovino (*sl. 5: 1*) datiramo v stopnjo Sv. Lucija IIb oz. v njen starejši del. Zadnjo halštatsko stopnjo Sv. Lucija IIc označujejo predvsem najdbe certoških fibul X. vrste (*t. 57: 1, 16; 62: 4*) . Primerki vrste VIIe (*t. 23: 1*) oz. VIIe ali f (*t. 89: 1*) ter obliki, ki se približujeta certoškim fibulam različic XIIa in VIa (*t. 28: 1; 89: 16*), so iz faze Sv. Lucija IIc2. Fibula, prikazana na t. 28: 1, je bila izrazito ožgana in sodi med dokaze za požar, ki je bil morda povezan z zatonom naselbine na koncu starejše železne dobe.[346]

Značilno mladohalštatsko drobno materialno kulturo dopolnjujejo prstani (*sl. 12: 17; t. 9: 4; 29: 12; 28: 4; 31: 13; 36: 22; 37: 3; 60: 2; 61: 1; 89: 17; 98: 1*), uhani (*sl. 10: 17; 12: 16*), košarasti obeski (*t. 62: 3*), odlomek antropo-ornitomorfnega obeska (*sl. 12: 4*), obesek v obliki goveje glave (*sl. 12: 14*), lasni spiralni obroček (*t. 97: 10*) in steklene jagode s plastovitimi očesci (*t. 23: 8; 32: 5; 57: 24–25; 89: 19; 97: 17*). Steklena jagoda amforičaste oblike (*t. 97: 14*) je iz konca starejše železne dobe. Naselbinske najdbe odlomkov uhatih sekir, ingotov sploščenih oblik in paličastih ingotov iz bakrovih zlitin (*t. 8: 1; 29: 2; 33: 18–19; 37: 5–6; 60: 4; 97: 1–2*), tj. predmetov z dozdevno predmonetarno namembnostjo, podpirajo njihovo uporabo še v mladohalštatskem obdobju. V istem času in podobni funkciji razumemo odlomka ingotov, ki sta morda pripadala vrsti *ramo secco* ali sorodni obliki (*t. 23: 7; 33: 20*). Potrošniki ingotov iz bakrovih zlitin so bili livarji in kovinarji, katerih dejavnost dokazujejo odkritja kamnitih livarskih kalupov (*t. 24: 6–9; 54: 9; 92: 6*), keramična livarska zajemalka (*t. 24: 5*), kamniti brusni koluti (*t. 24: 12–13*), morda obdelani odlomki rogovine (*t. 24: 16–19*), najdbe žlindre in drugega livarskega

[345] Božič 2011, 253–255.

[346] Žbona Trkman, Svoljšak 1981, kat. št. 22.

band bow fibulae were the fashion (*Pls. 29: 8; 36: 1; 53: 1; 57: 17; 94: 1–2*). The serpentine fibula of Variant VIIc (possibly *Pl. 60: 1*), the kettledrum fibula (*Pl. 31: 11*), the Type XIII Certosa fibula (*Fig. 12: 18*) and the presumed fragment of a fibula with a disc on the bow or with a multi-part crossbow spring (*Fig. 5: 1*) are all attributable to the Sv. Lucija IIb phase i.e. in its early part respectively. The last Hallstatt phase of Sv. Lucija IIc is primarily marked by Type X Certosa fibulae (*Pls. 57: 1, 16; 62: 4*). The examples of Certosa fibulae Variant VIIe (*Pl. 23: 1*) and VIIe or f (*Pl. 89: 1*), and also similar forms of the Certosa fibulae of Variants VIa and XIIa (*Pls. 28: 1; 89: 16*) are dated in the very final Sv. Lucija IIc2 phase. The fibula represented on *Pl. 28: 1* was heavily burnt and is considered as evidence of a fire that may have been connected with the decline of the settlement at the end of the Early Iron Age.[346]

The characteristic Late Hallstatt material culture also includes finger rings (*Fig. 12: 17; Pls. 9: 4; 29: 12; 28: 4; 31: 13; 36: 22; 37: 3; 60: 2; 61: 1; 89: 17; 98: 1*), earrings (*Fig. 10: 17; 12: 16*), basket-shaped pendants (*Pl. 62: 3*), a fragment of an anthropo-ornitomorphic pendant (*Fig. 12: 4*), a pendant in the shape of a bovine head (*Fig. 12: 14*), a spiral hair ring (*Pl. 97: 10*) and glass beads with layered eyes (*Pls. 23: 8; 32: 5; 57: 24–25; 89: 19; 97: 17*). The glass amphora-shaped bead (*Pl. 97: 14*) dates to the end of the Early Iron Age. The fragments of shaft-holes axes, flat and bar-shaped ingots of copper alloys in habitation contexts (*Pls. 8: 1; 29: 2; 33: 18–19; 37: 5–6; 60: 4; 97: 1–2*) are objects with a presumed pre-monetary function and speak of their use into the Late Hallstatt period. The two fragments of ingots possibly belonging to the *ramo secco* or a similar type (*Pls. 23: 7; 33: 20*) are believed to be of the same date and a similar function. The people who used copper alloy ingots were founders and metalworkers, the presence of which at the settlement is revealed by stone casting moulds (*Pls. 24: 6–9; 54: 9; 92: 6*), a ceramic casting ladle (*Pl. 24: 5*), stone grinding wheels (*Pl. 24: 12–13*), possibly also the worked pieces of horns (*Pl. 24: 16–19*), pieces of slag and other casting refuse material. The tools and implements recovered from the settlement include chisels (*Pls. 31: 19; 53: 2*), awls and punching tools (*Pls. 32: 11–13; 53: 3–5; 57: 23; 92: 4; 97: 8*), an auger (*Pl. 90: 8*), a drawknife (*Pl. 90: 5*), a punch (*Pl. 94: 5*), a needle (*Pl. 32: 7*) and a fishhook (*Pl. 100: 1*). The collection of tools from House 29 that consisted of the drawknife, the chisel and the spoon-shaped auger may represent a carpeting tool kit (*Pl. 90: 5, 7, 8*), while the collection from House 15A comprising the chisel and three awls may represent a toreutic tool kit (*Pl. 53: 2–5*).

The last period of prehistoric habitation is illuminated by Late La Tène finds: a fibula of the Middle La Tène construction (*Pl. 97: 9*), an Idrija pri Bači fibula (*Fig. 12: 19*), a penannular Posočje fibula (*Fig. 12: 13*),

[346] Žbona Trkman, Svoljšak 1981, Cat. No. 22.

odpada. Med orodji in različnimi pripomočki so dleta (*t. 31: 19; 53: 2*), šila ter puncirna orodja (*t. 32: 11–13; 53: 3–5; 57: 23; 92: 4; 97: 8*), sveder (*t. 90: 8*), polkrožen rezilnik (*t. 90: 5*), prebijač (*t. 94: 5*), šivanka (*t. 32: 7*) in trnek (*t. 100: 1*). V sklopu orodij z rezilnikom, dletom in žličastim svedrom (hiša 29) slutimo tesarski oz. mizarski (*t. 90: 5, 7, 8*), v sklopu dleta in treh šil (hiša 15A) pa torevtski orodni komplet (*t. 53: 2–5*).

Zadnje obdobje prazgodovinske poselitve označujejo poznolatenske najdbe. To so fibula srednjelatenske sheme (*t. 97: 9*), fibula vrste Idrija pri Bači (*sl. 12: 19*), obročasta fibula vrste Posočje (*sl. 12: 13*), morda odlomek usločene fibule (*t. 31: 8*) in steklena obročasta jagoda (*sl. 12: 10*).

Podoben časovni razpon, kot ga označujejo najdbe iz hiš in območij z razpršeno poselitvijo, nakazujejo tudi predmeti na kultnem mestu. Mladohalštatski horizont opredeljujejo odlomki certoških fibul (*sl. 7: 1, 12*), morda del fibule z večdelno peresovino (*sl. 7: 3*), trakast uhan s kvačico (*sl. 7: 13*), trikotni obeski (*sl. 7: 15–19*), košarast obesek (*sl. 7: 20*), kroglast obesek (*sl. 7: 22*), steklena jagoda z valovnico (*sl. 8: 2*) in glavnina odlomkov obročastega nakita (*sl. 7: 25–31, 33–36*). Mladohalštatski so najverjetneje tudi vrsta bronastih preprostih kalotastih gumbov, bronasti obročki in drobne steklene obročaste jagode (*sl. 8: 1, 3–6*). Domnevamo, da so bili ti predmeti našiti na tkanino, morda obleko ali prt. Iztek uporabe kultnega mesta vidimo v najmlajših najdbah. Mednje sodi skupna najdba tetradrahem vrste jezdec s trirogeljno čelado iz prvih desetletij druge polovice 2. st. pr. n. št. (*sl. 7: 38–40*), nogica najverjetneje poznorepublikanske bronaste posode (*sl. 9: 1*) in odlomek železne žičnate fibule (*sl. 7: 2*), ki je verjetno iz stopnje LT D2.

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possibly a fragment of an arched fibula (*Pl. 31: 8*) and an annular glass bead (*Fig. 12: 10*).

A time span similar to that of the small finds recovered from the settlement and the locations of dispersed habitation traces is shown by the artefacts from the cult place. The fragments of Certosa fibulae (*Fig. 7: 1, 12*), possibly part of a fibula with a multi-part spring (*Fig. 7: 3*), a band earring with a hook and a hole (*Fig. 7: 13*), triangular pendants (*Fig. 7: 15–19*), a basket-shaped pendant (*Fig. 7: 20*), a spherical pendant (*Fig. 7: 22*), a glass bead with a wavy line (*Fig. 8: 2*) and most of the ring jewellery fragments (*Fig. 7: 25–31, 33–36*) date to the Late Hallstatt period. Most probably of the same date are the series of simple domed bronze buttons, bronze rings and small annular glass beads (*Fig. 8: 1, 3–6*). We presume that these objects were sewn onto some fabric, possibly a garment or a shroud. The artefacts most recent in date indicate the end of use of the cult place, which include the joint find of tetradrachms of the Kugelreiter type from the initial decades of the second half of the 2nd century BC (*Fig. 7: 38–40*), the foot of a most probably Late Republican bronze vessel (*Fig. 9: 1*) and a fragment of a fibula with a wire bow (*Fig. 7: 2*), the last of the items probably dating to LT D2.

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DODATEK

Katalog najdb s kultnega mesta (*sl. 7–9*) in z območij z razpršenimi sledmi poselitve (*sl. 12*).

Slika 7

1. Frag. noge bronaste certoške fibule V. vrste; inv. št.: br. št.; hiša 6; faza: 2.
2. Frag. noge železne fibule; inv. št.: br. št.; hiša 6; faza: 2.
3. Frag. peresovine bronaste fibule; inv. št.: br. št.; hiša 6; faza: 2.
4. Frag. peresovine bronaste fibule; inv. št.: br. št.; hiša 6; faza: 2.
5. Frag. peresovine bronaste fibule; inv. št.: br. št.; hiša 6; faza: 2.
6. Frag. bronaste žice; inv. št.: br. št.; hiša 6; faza: 2.
7. Frag. votlega bronastega obročka in frag. bronaste jagode; inv. št.: br. št.; hiša 6; faza: 2.
8. Bronast obroček sprijet s kalotastim gumbom in jagodo; inv. št.: br. št.; hiša 6; faza: 2.
9. Bronast obroček; inv. št.: br. št.; hiša 6; faza: 2.
10. Frag. bronastega obročka; inv. št.: br. št.; hiša 6; faza: 2.
11. Frag. bronastega obročka; inv. št.: br. št.; hiša 6; faza: 2.
12. Frag. igle in peresovine bronaste certoške fibule; inv. št.: br. št.; hiša 6; faza: 2.
13. Bronast trakast uhan; inv. št.: br. št.; hiša 6; faza: 2.
14. Bronast obroček (prstan); inv. št.: br. št.; hiša 6; faza: 2.
15. Bronast trikotni obesek s kamenčkom; inv. št.: br. št.; hiša 6; faza: 2.
16. Bronast trikotni obesek; inv. št.: br. št.; hiša 6; faza: 2.
17. Bronast trikotni obesek s kamenčkom; inv. št.: br. št.; hiša 6; faza: 2.
18. Frag. bronast trikotni obesek s kamenčkom; inv. št.: br. št.; hiša 6; faza: 2.
19. Bronast trikotni obesek; inv. št.: br. št.; hiša 6; faza: 2.
20. Frag. bronast košarast obesek; inv. št.: br. št.; hiša 6; faza: 2.
21. Frag. bronast predmet; inv. št.: br. št.; hiša 6; faza: 2.
22. Frag. bronast kroglast obesek; inv. št.: br. št.; hiša 6; faza: 2.
23. Frag. bronast obesek; inv. št.: br. št.; hiša 6; faza: 2.
24. Frag. bronast gumb; inv. št.: br. št.; hiša 6; faza: 2.
25. Frag. bronaste zapestnice; inv. št.: br. št.; hiša 6; faza: 2.
26. Frag. bronaste zapestnice; inv. št.: br. št.; hiša 6; faza: 2.
27. Frag. bronaste zapestnice; inv. št.: br. št.; hiša 6; faza: 2.
28. Frag. bronaste zapestnice; inv. št.: br. št.; hiša 6; faza: 2.
29. Frag. bronaste zapestnice; inv. št.: br. št.; hiša 6; faza: 2.
30. Frag. bronaste zapestnice; inv. št.: br. št.; hiša 6; faza: 2.
31. Frag. bronaste zapestnice; inv. št.: br. št.; hiša 6; faza: 2.
32. Frag. bronaste pločevine; okras: prečni vrezi; inv. št.: br. št.; hiša 6; faza: 2.
33. Frag. bronaste zapestnice; inv. št.: br. št.; hiša 6; faza: 2.
34. Frag. bronaste zapestnice; inv. št.: br. št.; hiša 6; faza: 2.
35. Frag. bronaste tordirane zapestnice ali ročaja situle; inv. št.: br. št.; hiša 6; faza: 2.
36. Frag. bronaste ovratnice; inv. št.: br. št.; hiša 6; faza: 2.
37. Frag. bronaste pločevine; inv. št.: br. št.; hiša 6; faza: 2.
38. Veliki noriški srebrnik; inv. št.: br. št.; hiša 6; faza: 2.
39. Veliki noriški srebrnik; inv. št.: br. št.; hiša 6; faza: 2.
40. Veliki noriški srebrnik; inv. št.: br. št.; hiša 6; faza: 2.
41. Štiri ploščice iz rdeče korale; inv. št.: br. št.; hiša 6; faza: 2.
42. Obesek iz rdeče korale, antično popravljen z bronasto zakovico; inv. št.: br. št.; hiša 6; faza: 2.
43. Devet obeskov iz rdeče korale; inv. št.: br. št.; hiša 6; faza: 2.

Slika 8

1. 82 bronastih kalotastih gumbov; nekateri sprijeti med sabo ali s steklenimi ali bronastimi jagodami (glej zadnji dve vrsti), inv. št.: br. št.; hiša 6; faza: 2.
2. Jagoda iz modrega stekla z rumeno valovnico; inv. št.: br. št.; hiša 6; faza: 2.
3. Jagode iz rumenega stekla; inv. št.: br. št.; hiša 6; faza: 2.
4. Jagode iz belega stekla; inv. št.: br. št.; hiša 6; faza: 2.
5. Jagodi iz modrega stekla; inv. št.: br. št.; hiša 6; faza: 2.
6. Bronaste jagode; inv. št.: br. št.; hiša 6; faza: 2.
7. Frag. bronaste pločevine; inv. št.: br. št.; hiša 6; faza: 2.
8. Frag. bronaste pločevine; inv. št.: br. št.; hiša 6; faza: 2.

Slika 9

1. Bronasta nožica bronaste posode, verjetno vrča; inv. št.: br. št.; hiša 6; faza: 2.
2. Frag. bronaste pločevine; inv. št.: br. št.; hiša 6; faza: 2.
3. Frag. dvojne bronaste pločevine z zakovicama; okras: poševni vrezi; inv. št.: br. št.; hiša 6; faza: 2.
4. Frag. bronaste pločevine z zakovicama ; inv. št.: br. št.; hiša 6; faza: 2.
5. Frag. bronaste pločevine z zakovico; inv. št.: br. št.; hiša 6; faza: 2.
6. Trak iz bronaste pločevine z zakovico; inv. št.: br. št.; hiša 6; faza: 2.
7. Frag. bronaste pločevine z luknjico; inv. št.: br. št.; hiša 6; faza: 2.
8. Frag. bronaste pločevine z zavihanim robom; inv. št.: br. št.; hiša 6; faza: 2.
9. Štirje frag. bronaste pločevine z zavihanim robom; inv. št.: br. št.; hiša 6; faza: 2.
10. Dva frag. bronaste pločevine; inv. št.: br. št.; hiša 6; faza: 2.
11. Masiven frag. brona; inv. št.: br. št.; hiša 6; faza: 2.
12. Frag. ustja bronaste posode; inv. št.: br. št.; hiša 6; faza: 2.
13. Frag. ustja in ostenja posode; izdelava: prostoročna; barva: rjava; površina: hrapava; sestava: drobnozrnata; inv. št.: br. št.; hiša 6; faza: 2.
14. Frag. ustja in ostenja posode; izdelava: prostoročna; barva: rjava; površina: hrapava; sestava: drobnozrnata; inv. št.: br. št.; hiša 6; faza: 2.
15. Frag. svitka; izdelava: prostoročna; barva: rumeno-rjava; površina: hrapava; sestava: grobozrnata; inv. št.: br. št.; hiša 6; faza: 2.

Slika 12

1. Bronasta pinceta; inv. št.: P 4702; sonda 36.
2. Frag. bronasta igla; inv. št.: P 4698 sonda 36.
3. Noga bronaste certoške fibule; P 5700/1; sonda 36.
4. Frag. bronastega antropo-ornitomorfnega obeska; P 4701; sonda 36.
5. Nesklenjen bronast prstan ali obroček; P 4699; sonda 36.
6. Frag. bronastega prstana ali obročka; P 4700/2; sonda 36.

7. Frag. pločevine; okras: koncentrični krogi; inv. št.: br. št.; sonda 36.
8. Frag. bronastega paličastega ingota, na površini so vidni sledovi udarcev, stranski ploskvi sta močno obrabljeni; P 4700/3; sonda 36.
9. Železen nož s plavutastim nasadiščem; P 4703; sonda 36.
10. Odlomek obročaste jagode iz temno modrega stekla z belimi črtami; inv. št.: br. št.; sonda 21 – 22.
11. Poškodovan srebrn prstan; okras: na zunanji strani tremolirni vrez, na notranji strani cik-cak vrez; inv. št.: br. št.; sonda 21 – 22.
12. Frag. bronastega traku; inv. št.: br. št.; sonda 21 – 22.
13. Bronasta obročasta fibula vrste Posočje; inv. št.: br. št.; sonda 17.
14. Frag. bronast obesek v obliki goveje glave; okras: puncirani krogci; inv. št.: br. št.; sonda 17.
15. Noga bronaste dolgonožne fibule z gumbastim zaključkom; okras: cik-cak vrez; P 5698; sonda 42.
16. Frag. bronastega nažlebljenega uhana; inv. št.: br. št.; sonda 29.
17. Frag. bronastega prstana; inv. št.: br. št.; sonda 29.
18. Bronasta certoška fibula XIIIa vrste; inv. št.: br. št.; sonda 29.
19. Bronasta fibula srednjelatenske sheme vrste Idrija pri Bači; inv. št.: br. št.; posamezna najdba, parcela Babič.
20. Bronast obroček; inv. št.: br. št.; posamezna najdba, parcela Babić.
21. Igla bronaste fibule z delom peresovine; inv. št.: br. št.; posamezna najdba, parcela Babič.

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Železnodobno naselje Most na Soči. Razprave / The Iron Age settlement at Most na Soči. Treatises. OIAS 34, 2018, 249–306

NASELBINSKA KERAMIKA Z MOSTA NA SOČI

POTTERY FROM THE SETTLEMENT AT MOST NA SOČI

Lucija GRAHEK

Analiza naselbinske keramike z Mosta na Soči vključuje vse oblike keramičnega posodja in predmetov z izjemo velikih silosov, glinenih plošč in kosov stenskega ometa.[1] Opravljena analiza tako temelji na pregledu več kot 10.000 kosov keramike. Večinoma gre za zelo fragmentirane najdbe, ki v največji meri (82,73 % ali 8.955 kosov) izvirajo iz raziskanih hiš. Poleg njih so bile v analizo vključene še najdbe z območij z razpršenimi sledmi poselitve (8,92 % ali 965 kosov), obravnavane so po posameznih sondah,[2] in najdbe iz raziskanih ostalin naselbinskih ulic ali poti (7 % ali 758 kosov). Najmanj obravnavanih najdb izvira iz predvsem s hišo 23 povezanega jarka (1,35 % ali 146 kosov).

Količina najdb po posameznih hišah se po pričakovanjih močno razlikuje (*sl. 1*), saj vse hiše niso bile ohranjene in raziskane v enakem obsegu. Enako velja za količino najdb po posameznih gradbenih fazah hiš (*sl. 2*), kjer je količina ohranjenih najdb odvisna tudi od sprememb v namembnosti (npr. hiša 6) in obsegu (npr. hiše 14, 16, 22A, 30);[3] v primeru hiš 10 in 15 pa najstarejša faza ni bila (v celoti) izkopana.[4] Prav tako ne preseneča dejstvo, da je pri objektih z več gradbenimi fazami običajno slabše ohranjena (naj)mlajša faza, saj gre praviloma za višje ležeče ostaline, ki so bile z mlajšimi posegi in aktivnostmi bolj poškodovane.

Osnova analize naselbinske keramike je sistematičen pregled 2.037 kosov tipološko opredeljive in/ali okrašene keramike (*sl. 3*), ki predstavljajo 18,82 % vseh najdb. Približno tolikšen je v povprečju tudi delež opredeljivih najdb po posameznih hišah. Reprezentativen del izrisane opredeljive keramike je kataloško predstavljen v objavi gradbenih izvidov naselja z Mosta na Soči (Svoljšak, Dular 2016), tako se v nadaljevanju vsi citati tabel nanašajo prav na to delo.

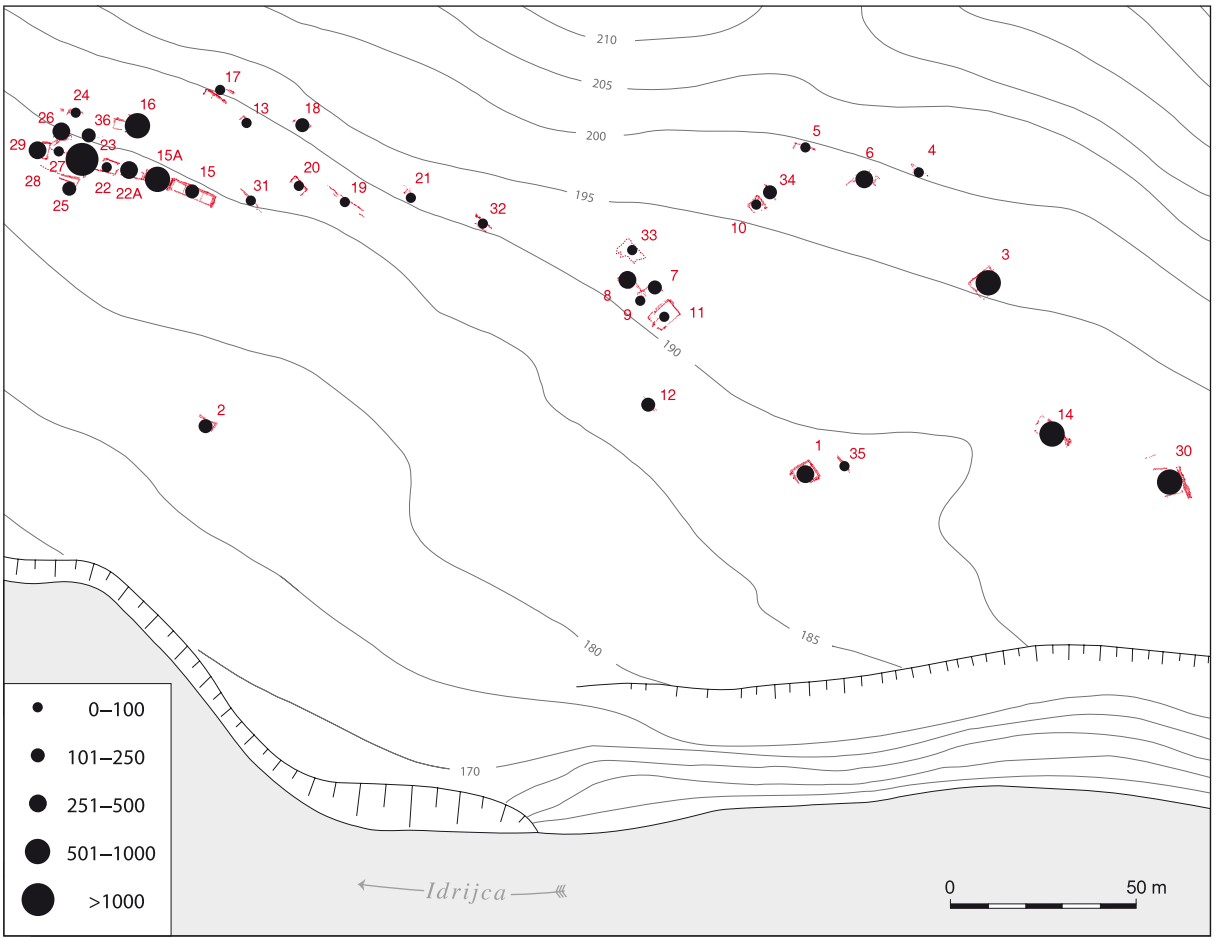
The ceramic finds discussed below comprise pottery, hearth utensils and several other kinds of ceramic artefacts with the exception of large containers, terracotta plaques and pieces of clay daub that are presented elsewhere.[1] The analysis involved over 10,000 ceramic pieces. Most of them are highly fragmented (82.73% or 8,955 pieces) and originate from the excavated houses, while others originate from the locations of dispersed habitation traces (8.92% or 965 pieces) presented according to trenches,[2] from the path through the settlement (7% or 758 pieces) and from the drainage ditch mainly connected with House 23 (1.35% or 146 pieces).

The number of finds differs considerably from house to house (*App. 1*) in consequence of the differing states of preservation and degrees of investigation. The same is true of the number of finds from different construction phases of a house (*Fig. 2*), which also depends on the changes in function (e.g. House 6) and extent (e.g. Houses 14, 16, 22A, 30),[3] while Phase 1 of Houses 10 and 15 could not even be excavated in their entirety.[4] It is not surprising that of the houses with several construction phases the remains of the last phase were usually least preserved, as they were mainly highest in stratigraphy and more exposed to later interventions and activities.

The analysis involved a systematic examination of 2,037 pieces of typologically determinable and/or decorated ceramics (*Fig. 3*) that represent 18.82% of all ceramic finds. This is also roughly the share of determinable finds according to individual houses. A representative portion of the drawn determinable ceramics is presented in the form of a catalogue in the first volume of the publication on the settlement at Most na Soči (Svoljšak, Dular 2016) and the plates cited below are referenced to the plates in that volume.

[1] Dular, Tecco Hvala hic.
[2] Svoljšak, Dular 2016, 222 ss.
[3] Dular, Tecco Hvala hic.
[4] Svoljšak, Dular 2016, 87 in 113.

[1] Dular, Tecco Hvala hic.
[2] Svoljšak, Dular 2016, 222 ff.
[3] Dular, Tecco Hvala hic.
[4] Svoljšak, Dular 2016, 87 and 113.



Sl. 1: Razprostranjenost keramičnih najdb.
Fig. 1: Distribution of ceramic finds.

NAČIN IZDELAVE IN TEHNOLOŠKE ZNAČILNOSTI KERAMIKE

Pri vseh opredeljivih fragmentih keramike sem po kriterijih Horvatove[5] opazovala način izdelave, zrnavost in sestavo lončarske mase na makroskopskem nivoju, način žganja in trdoto ter obdelavo in barvo površine.

Večina analizirane keramike (96,07 % ali 1.957 kosov) je prostoročne izdelave (*sl. 4*). Pri redkih kosih, predvsem finega posodja, so bile opažene sledi oblikovanja na ročnem ali počasnem lončarskem vretenu (2,85 % ali 58 kosov). Ker so v analizo vključene tudi najdbe iz hiš, ki so bile poseljene v času mlajše železne dobe, ne preseneča dejstvo, da smo prepoznali sledi uporabe hitrega lončarskega vretena na nožni pogon (1,08 % ali 22 kosov).

Makroskopsko opazovanje sestave lončarske mase je hitro pokazalo, da ta praviloma vsebuje razmeroma veliko primesi kalcijevega karbonata[6] (71,38 % ali 1.454

[5] Horvat 1999.

[6] Za kemijsko-geološko analizo značilne sestave lončarske mase glej Grahek, Košir hic.

SHAPING TECHNIQUE AND TECHNOLOGICAL CHARACTERISTICS

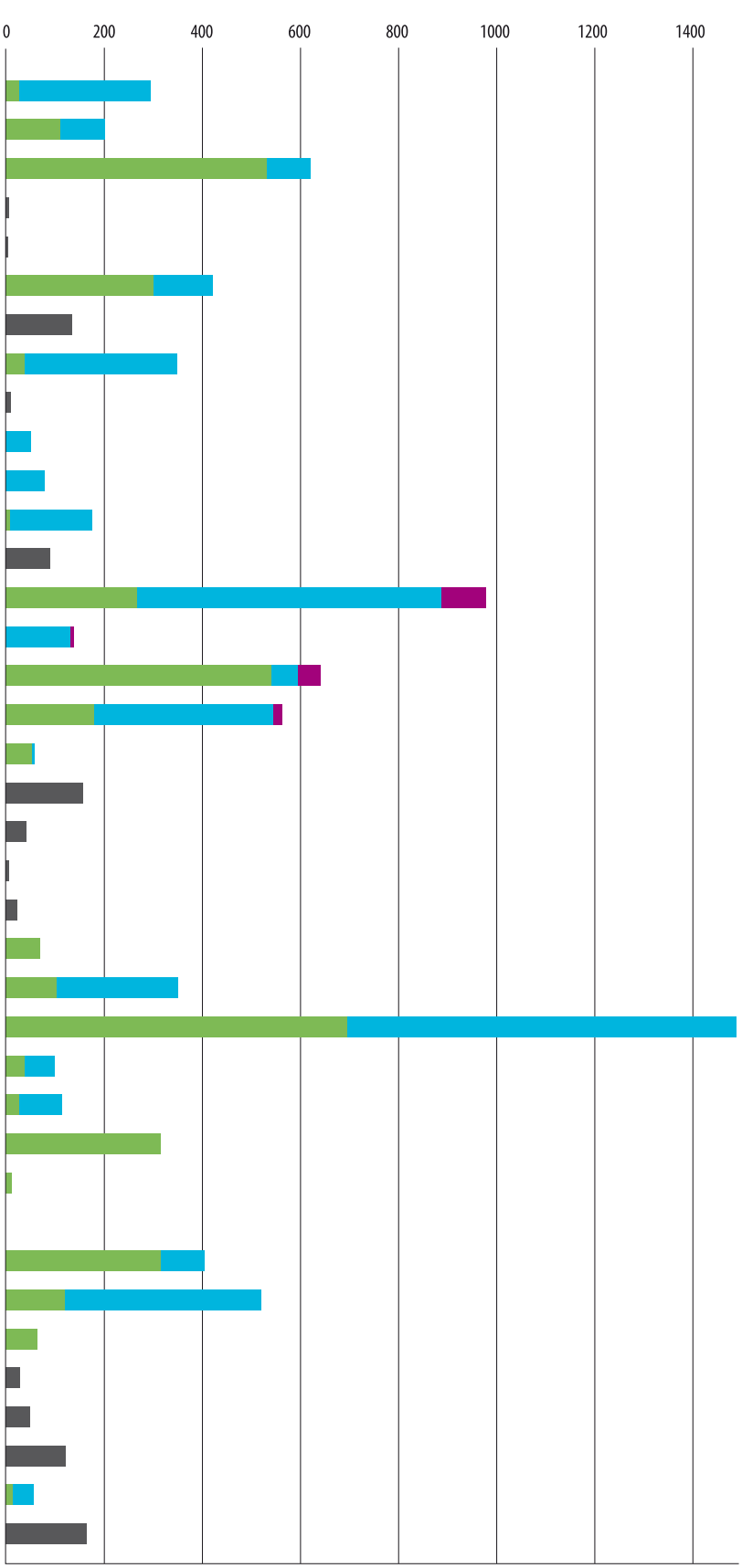
Using the criteria established by Milena Horvat,[5] the determinable ceramic fragments have been examined as to the shaping technique, grain size and fabric composition on a macroscopic level, as well as the firing technique, hardness, surface treatment and colour.

Most of the analysed pottery (96.07% or 1,957 pieces) is hand-built (*Fig. 4*) and only few pieces, mainly fineware, show traces of being thrown on a hand-powered or slow wheel (2.85% or 58 pieces). The examination also revealed rare pieces of pottery thrown on the fast, foot-powered wheel (1.08% or 22pieces), which is understandable given that the analysis included the finds from houses also inhabited in the Late Iron Age.

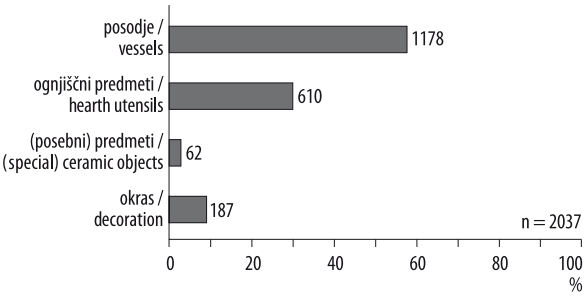
Macroscopic examination has shown that the fabrics usually include a relatively high amount of cal-

[5] Horvat 1999.

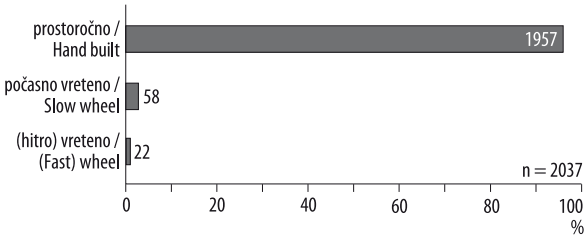
Hiša / House	Faza 1 / Phase 1	Faza 2 / Phase 2	Faza 3 / Phase 3	Skupno / Total
1	29	268		**297**
2	113	90		**203**
3	553	90		**625**
4				**6**
5				**3**
6	305	120		**425**
7				**136**
8	39	309		**348**
9				**9**
10		53		**53**
11		81		**81**
12	11	167		**178**
13				**90**
14	270	622	92	**984**
15		135	6	**141**
15A	541	53	47	**641**
16	184	367	18	**569**
17	56	2		**58**
18				**157**
19				**41**
20				**4**
21				**24**
22	70			**70**
22A	107	247		**354**
23	698	796		**1494**
24	38	59		**97**
25	31	84		**115**
26	319			**319**
27	14			**14**
28				**0**
29	320	88		**408**
30	122	402		**524**
31	64			**64**
32				**29**
33				**49**
34				**123**
35	17	40		**57**
36				**165**



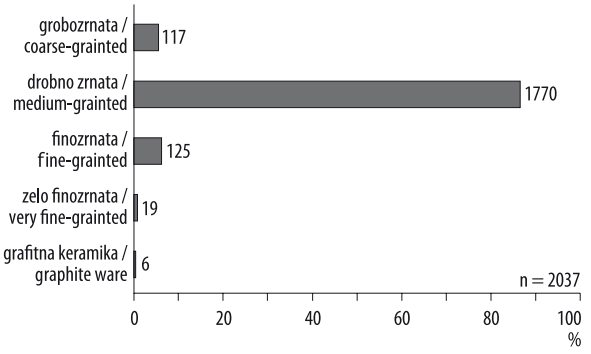
Sl. 2: Delež analiziranih keramičnih najdb po gradbenih fazah posameznih hiš.
Fig. 2: Shares of the analysed ceramic finds according to the individual house and the construction phases.



Sl. 3: Delež osnovnih skupin tipološko analizirane keramike.
Fig. 3: Shares of the basic groups of the analysed ceramic finds.



Sl. 4: Delež analiziranih najdb glede na način izdelave.
Fig. 4: Shares of the analysed ceramics according to the shaping technique.



Sl. 5: Delež analizirane keramike glede na zrnavost.
Fig. 5: Shares of the analysed ceramics according to grain size.

kosov), kar velja tako za grobo kot tudi bolj fino keramiko. Po zrnavosti (*sl. 5*) namreč močno prevladujejo kosi drobnozrnate sestave (86,89 % ali 1.770 kosov). Vsebnost finega kalcitnega peska smo opazili tudi pri večini keramike iz finozrnate mase (6,14 % ali 125 kosov). Podobno velja za najdbe grobozrnate sestave (5,74 % ali 117 kosov), vendar pa moramo tu razlikovati med svitki in posodjem iz grobozrnate mase. Pri svitkih lahko namreč zasledimo predvsem bolj redke kose zelo grobega peska, ki ga gre obravnavati kot nečistoče in ne kot primes lončarski masi. Primesi kalcitnega peska pa niso bile prepoznane pri redkih kosih keramike iz zelo finozrnate mase (0,93 % ali 19 kosov). Pri teh gre

ium carbonate temper[6] (71.38% or 1,454 pieces), which is true of both the coarse and finer wares. The great majority of the examined pottery (*Fig. 5*) is medium-grained (86.89% or 1,770 pieces) and contains fine carbonate sand. This temper has also been observed in most pieces of fine-grained fabric (6.14% or 125 pieces), as well as most pieces of coarse-grained fabric (5.74% or 117 pieces), though in the latter case we should distinguish between ceramic rings and pottery. The rings include rare pieces of very coarse-grained sand that should be seen as impurities rather than intentional additives. No such inclusions have been identified in the rare pieces of very fine-grained fabric (0.93% or 19 pieces). These are mainly shards of imported, predominantly Roman pottery of a highly refined fabric. Comparably with the rare piece of graphite ware (0.30% or 6 pieces), these were mainly found in the Late Iron Age houses.

The ceramic finds were predominantly fired in an oxidising atmosphere (*Fig. 6*), of that either in a complete oxidising (43.40% or 884 pieces), an incomplete oxidising (26.02% or 530 pieces) or an incomplete oxidising atmosphere with smoking in the final phase (1.42% or 29 pieces). A much lower share is that of pottery fired in a reducing atmosphere, with a complete reducing atmosphere (17.77% or 362 pieces) slightly better represented than a reducing atmosphere with oxidation in the final phase (11.39% or 232 pieces).

The atmosphere and temperature of firing, as well as the fabric, also determine the hardness of the ceramic (*Fig. 7*).[7] The examined shards are mainly hard (85.47% or 1,741 pieces), to a smaller degree also very hard (5.84% or 119 pieces). As the very hard pieces do not differ from the rest in fabric composition, I presume that they were only better fired. Also connected with the firing technique is the lower share of soft ceramics (8.69% or 177 pieces), most of which were pieces that suffered secondary burning or were burnt through.

Exposure to secondary burning is visible as a rough surface of the finds (5.25% or 107 pieces). Most of the ceramic finds have a wet-smoothed surface (92.19% or 1,878 pieces). On the very fine-grained pieces and the pieces that were burnt through, the smooth surface may also be dusty (2.01% or 41 pieces). Some and mainly fineware pieces have a burnished surface (1.92% or 39 pieces), while the surface of the coarseware was in some cases smoothed without the use of water (0.64% or 13 pieces).

The surface colour mainly depends on the firing technique, but has not been examined in detail because it is excessively susceptible to post-depositional changes.[8] The predominantly oxidation-fired ceramics are red to

[6] For the chemical and geologic analysis of the fabric see Grahek, Košir hic.

[7] Horvat 1999, 56.

[8] Cf. Grahek 2016, 106.

praviloma za uvožene, večinoma že rimskodobne kose keramike iz zelo dobro prečiščene gline. Te kot redki kosi grafitne keramike (0,30 % ali 6 kosov) praviloma izvirajo iz mlajšeželeznodobnih hiš.

Za obravnavano keramiko je značilno, da močno prevladuje oksidacijski način žganja (*sl. 6*). In sicer je bila največkrat ugotovljena popolna oksidacija (43,40 % ali 884 kosov), sledita ji nepopolno oksidacijski način žganja (26,02 % ali 530 kosov) in nepopolna oksidacija s končnim dimljenjem (1,42 % ali 29 kosov). Mnogo manjši je delež redukcijsko žgane keramike, pri kateri je popolna redukcija (17,77 % ali 362 kosov) nekoliko bolj razširjena kot redukcijsko žganje s končno oksidacijo (11,39 % ali 232 kosov).

Od načina in temperature žganja ter seveda same sestave lončarske mase je odvisna tudi trdota keramike (*sl. 7*).[7] Ta je povečini trda (85,47 % ali 1.741 kosov), ugotovljen pa je bil tudi manjši delež zelo trde keramike (5,84 % ali 119 kosov). Ker se ta po sestavi mase ne razlikuje od preostale, domnevamo, da je bila le bolj kvalitetno žgana. Z žganjem posredno povezujemo tudi manjši delež najdb iz mehke keramike (8,69 % ali 177 kosov). Večinoma gre namreč za sekundarno ožgane ali prežgane najdbe.

Sekundarno (pre)žganje je opazno tudi na površini najdb. Tovrstne najdbe imajo običajno hrapavo površino (5,25 % ali 107 kosov). Velika večina obravnavane keramike je bila sicer mokro brisana in ima zato gladko površino (92,19 % ali 1.878 kosov). Pri zelo finozrnati keramiki ali kosih, ki so bili sekundarno prežgani, je gladka površina lahko tudi prašnata (2,01 % ali 41 kosov). Predvsem fina keramika je imela dobro zglajeno površino (1,92 % ali 39 kosov), bolj groba keramika pa je bila lahko zgolj glajena ali na suho obrisana (0,64 % ali 13 kosov).

Barva površine je v prvi vrsti odvisna od načina žganja, vendar ni podrobneje analizirana, saj je preveč dovzetna za kasnejše spremembe.[8] Ker prevladuje oksidacijsko žgana keramika, je ta rdeče do rjavo obarvana. Svetlejših odtenkov rdeče, rdeče-rumene do bledo rjave barve so pogosteje ognjiščna keramika in svitki. Ti so bili domnevno žgani pri nižji temperaturi, v nekaj primerih najverjetneje zgolj sušeni. Redukcijsko žgana keramika je praviloma temnejše barve, tako pri njej prevladujejo temno rjavi do črni odtenki barve površine.

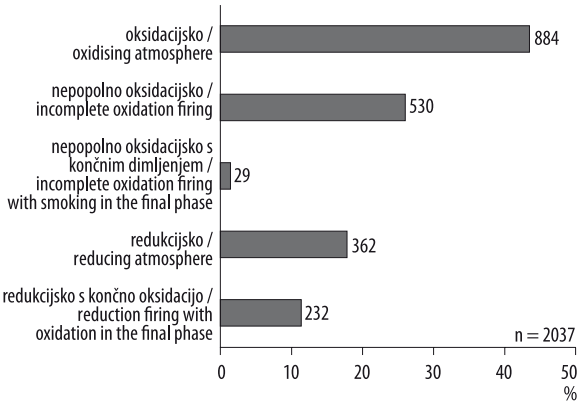
TIPOLOŠKA RAZVRSTITEV KERAMIKE

Velika zbirka keramičnih najdb iz raziskovanj železnodobnega naselja na Mostu na Soči je dobra osnova za oblikovno, funkcionalno, tehnološko in tudi kronološko analizo svetolucijske naselbinske keramike. S tipološko razvrstitvijo sem kot v primeru Stične in dolenjske halštatske skupine[9] skušala preseči okvirje

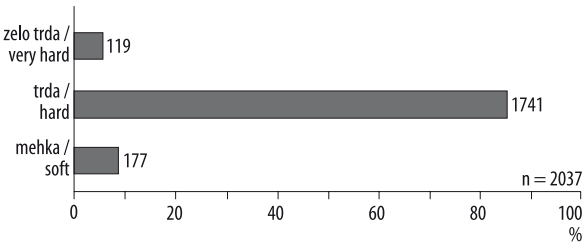
[7] Horvat 1999, 56.

[8] Prim. Grahek 2016, 106.

[9] Grahek 2016, 106 ss.



Sl. 6: Delež analizirane keramike glede na način žganja.
Fig. 6: Shares of the analysed ceramics according to the firing technique.



Sl. 7: Delež analizirane keramike glede na trdoto.
Fig. 7: Shares of the analysed ceramics according to hardness.

brown in colour. The ceramics used on the hearth and the ceramic rings are lighter red, red-yellow to pale brown; they were presumably fired at lower temperatures and in some cases only dried. The ceramics fired in a reducing atmosphere are mainly darker, predominantly dark brown to black.

TYPOLOGY

The body of the ceramic finds from the Iron Age settlement at Most na Soči is substantial and allows us to perform formal, functional, technological and chronological analyses. Similarly as in analysing the pottery from the hillfort at Stična, in the Dolenjska Hallstatt group,[9] however, I attempted to evaluate the ceramic finds not only as to their significance within the settlement, but also wider within the cultural group, making general inferences on the pottery used in the settlements of the Sveta Lucija group. The typological classification involves all the 2.037 determinable pieces. With the exception of some decorated shards that cannot be typo-

[9] Grahek 2016, 106 ff.

posodje / vessels	**ognjiščni predmeti / hearth utensils**	**(posebni) predmeti / (special) ceramic objects**	**okras / decoration (O)**
pitosi / pithoi (Pi) lonci / jars (L) situle / situlae (Si) lončki / beakers (Lo) kelihi / goblets (K) sklede / dishes (Sk) ročaji / handles (Ro) pokrovi / lids (Po) dna / bases (D) noge / pedestals (N)	pekve / baking lids (Pe) prenosne pečke / portable ovens (Pp) pladnji / platters (Pl) ognjiščne koze / firedogs (Ok) svitki / ceramic rings (S)	motki / bobbins (M) uteži / weights (U) vretenca / spindle whorls (Vr) drugi predmeti / other objects uvožena keramika / imported ceramics Lt-rimska keramika / LT-roman ceramics	plastični okras / plastic decoration vrezani in vtisnjeni okrasi / incised or impressed decoration barvni okras / painted decoration

Sl. 8: Preglednica tipološko analizirane keramike po osnovnih skupinah.
Fig. 8: List of the typologically determinable and decorated ceramic finds according to basic groups.

najdišča samega. Tipološko sem tako skušala razvrstiti vse opredeljive kose keramike (2.037 kosov). Z izjemo nekaj okrašenih fragmentov (9,18 % ali 187 kosov), ki so vključeni zgolj v analizo okrasa, najdbe v prvi vrsti po namenu uvrščam v tri osnovne skupine keramike: posodje, ognjiščne ter druge, posebne predmete (*sl. 3, 8*).

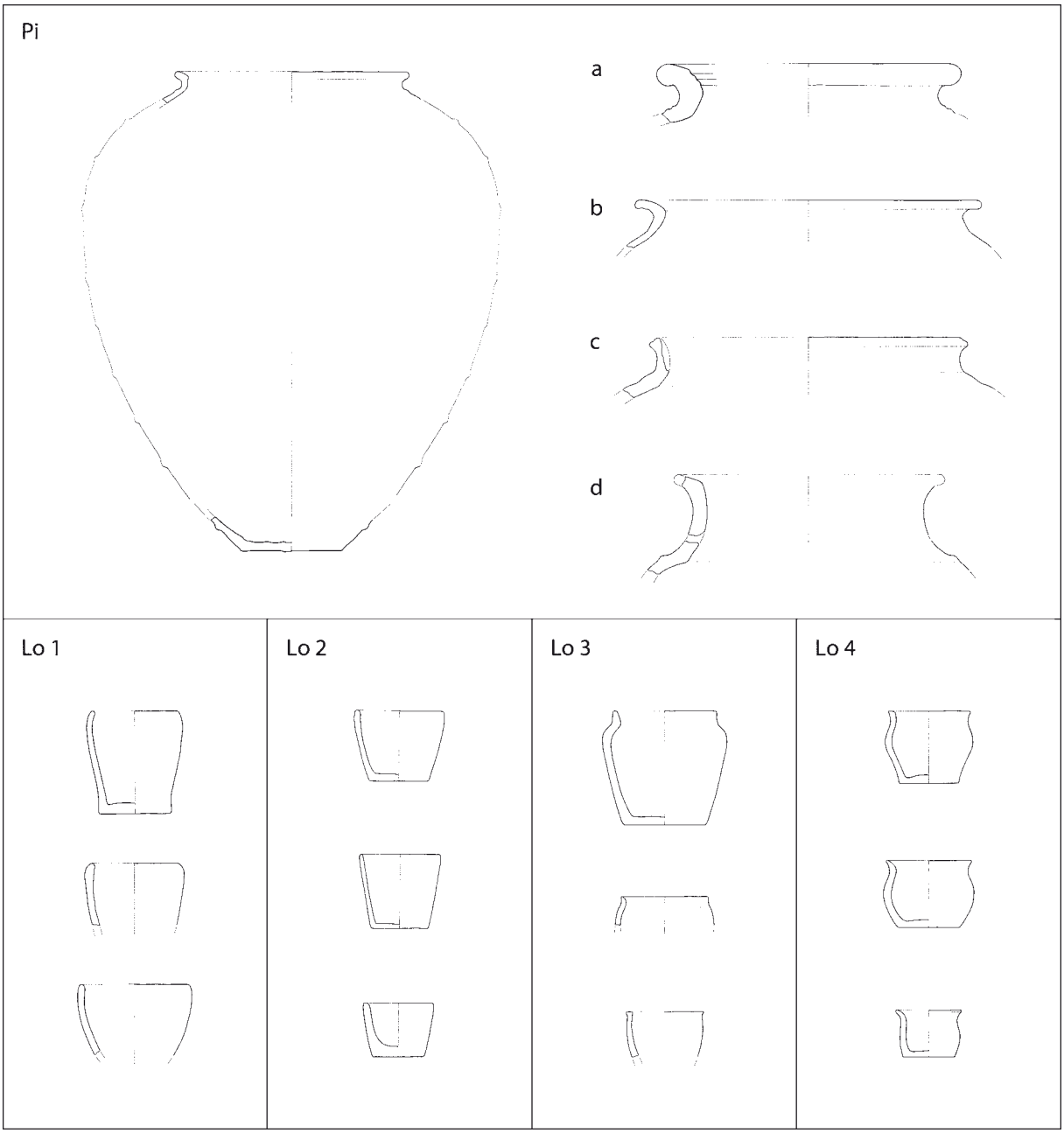
Daleč najštevilčnejša je skupina posodja (57,83 % ali 1.178 kosov), kamor so poleg različnih oblik večinoma globokega posodja uvrščeni še pokrovi, fragmenti dna in nog ter tisti okrašeni fragmenti ostenij, ki omogočajo zanesljivo prepoznavo vrste (in tipa) posode. V skupino ognjiščnih predmetov (29,95 % ali 610 kosov) poleg najštevilčnejših svitkov sodijo še prenosne pečke in ognjiščne koze, pekve ter pladnji, ki so lahko služili tudi kot pekači. Kot druge, posebne predmete obravnavam najdbe (3,04 % ali 62 kosov), ki jih lahko povezujemo s tekstilno (motki, vretenca, piramidalne uteži) ali metalurško obrtjo (livarski lončki, zajemalki) ter domnevno lončarstvom (keramične krogle iz hiše 23). Poleg njih so v to skupino uvrščeni še kosi uvožene keramike, in sicer tako grško-italske kot tudi kosi latensko-rimske keramike iz mlajšeželeznodobnih hiš.

V okviru osnovnih skupin keramike so posamezne oblike posodja in vrste predmetov razvrščene v več tipov, le če so ti dovolj izraziti in številčno zastopani. Najprej je definirana *oblika*, sledijo ji podatki o *izdelavi*. V rubriki *najdbe* so predstavljeni izrisani in kataloško objavljeni kosi (Svoljšak, Dular 2016), v *stratigrafsko kronološkem orisu* pa so zbrani podatki, v katerih hišah in fazah (npr. 1. in 2. gradbena faza hiše 14 = 14(1,2)) se pojavljajo vse najdbe obravnavanega tipa. Na koncu so v *opombah* navedene morebitne primerjave z grobno keramiko, izpostavljene so tudi vse izjeme.

logically determined and are discussed separately (9.18% or 187 pieces), I divided the finds into three main groups: pottery, hearth utensils and miscellaneous objects (*Figs. 3, 8*).

The group of pottery is by far the best represented (57.83% or 1,178 pieces) and includes vessels proper, lids, base and pedestal shards, as well as decorated shards that can be positively determined with regard to their type. The second group, of hearth utensils (29.95% or 610 pieces), comprises ceramic rings and less numerous portable ovens and firedogs, baking lids and platters that may have served as baking pans. Miscellaneous objects (2.99% or 61 pieces) are those connected with textile production (bobbins, spindle whorls, pyramidal weights), metallurgy (casting pots, ladles) and presumably pottery making (ceramic balls from House 23). Discussed under miscellanea are also pieces of imported pottery, both the Greek-Italic pottery and the La Tène-Roman pottery from the houses inhabited in the Late Iron Age.

Within these basic groups, the finds are classified according to types, which have been determined as such if their form is specific and their number high enough. Each type is first defined as to its *form*, followed by data on *manufacture*. The heading of *finds* lists the drawn pieces presented in the catalogue (Svoljšak, Dular 2016), while the *chrono-stratigraphic attribution* lists the houses and their phases (e.g. Phases 1 and 2 of House 14 = 14(1,2)), or other structures, in which the finds were unearthed. The description ends with *notes* that relate the comparable finds from cemeteries, but also possible exceptions within a type.



Sl. 9: Pitosi (Pi) in lončki tipa 1–4.
Fig. 9: Pithoi (Pi) and beakers of Types 1–4.

POSODJE

PITOSI (Pi)

Pitosi ali velike shrambne posode so med najdbami razmeroma maloštevilno zastopani (33 kosov). Prepoznali smo zgolj tip pitosov z okrasom vodoravnih plastičnih reber.

Oblika: Velike posode z navzgor pomaknjenimi rameni, proti dnu zožujočim se trupom in nizkim vratom, okrašene z vodoravno nalepljenimi ali izvlečenimi

POTTERY

PITHOI (Pi)

The finds from the Iron Age houses include relatively few pithoi or large storage vessels (33 pieces), all of which bear cordons.

Form: Large vessels with a short neck, high shoulder and body that narrows towards the base, bearing either applied or drawn out cordons. Several pieces show red painted exterior, but also alternating

rebri. V več primerih imajo zunanjo površino rdeče obarvano, pasovi med rebri pa so izmenoma premazani še s črno smolnato barvo. Izvihano ustje je na notranji strani lahko rahlo nažlebljeno, redkeje fasetirano. Po obliki vrata in ustja razlikujemo med več inačicami (*sl. 9*: Pi). Prvo (a) predstavljajo pitosi z nizkim vratom in kratkim, masivnim izvihanim ustjem, ki je običajno kroglasto odebeljeno; drugo (b) pitosi s kratkim stožčastim vratom in močno izvihanim dolgim ustjem; tretjo (c) pitosi s kratkim vratom in rahlo navzven obrnjenim robom ustja; četrto (d) pa pitosi z visokim vratom in kratkim izvihanim ustjem.

Izdelava: Prostoročno, praviloma iz drobnozrnate lončarske mase izdelani pitosi so bili običajno oksidacijsko žgani. Površina je največkrat gladka in trda.

Najdbe: t. 2: 4; 8: 12; 11: 11; 29: 13; 30: 9; 31: 22; 37: 16; 40: 10; 41: 1,3; 54: 6; 88: 7; 89: 11; 92: 9; 99: 4,5.

Stratigrafsko-kronološki oris: Deli pitosov so najdeni v hišah 1(2), 2(1), 3(1,2), 8(2), 10(2), 13, 15(2), 15A(1,2,3), 16(2), 24(2), 25(2), 29(2) in 35(1) ter na poti pri hiši 23. Največ najdb izvira iz hiš 26, 36 in 15A, predvsem 1. faze.

Opombe: Naselbinske najdbe pitosov ustrezajo pitosom tipa 2 po Dularju,[10] ki se pojavijo že v grobovih stopnje Sv. Lucija Ic. V grobovih so najbolj razširjeni v času stopnje Sv. Lucija IIa, kjer so služile kot žara.

LONCI (L)

Lonci predstavljajo skoraj polovico (49,24 % ali 580 kosov) vsega posodja in jih razvrščamo v 21 tipov.

Tip L 1

Oblika: Lonci s trupom valjaste oblike, ki so proti dnu lahko nekoliko zoženi. Zaobljeno ali ravno odrezano, redko rahlo navzven odebeljeno ustje je pokončno ali rahlo nagnjeno navznoter (*sl. 10*: L 1).

Izdelava: Prostoročno, navadno iz drobnozrnate lončarske mase z veliko primešanega peska, so bili lonci običajno oksidacijsko ali nepopolno oksidacijsko žgani. Površina je praviloma gladka.

Najdbe: t. 8: 3,4; 9: 11; 13: 1–5; 14: 10; 25: 5; 32: 15; 41: 6,7,9; 58: 8; 59: 5,15; 58: 7; 60: 11; 66: 12,13; 70: 10; 71: 9; 72: 1,2,4,5,7–9; 79: 4–6; 80: 13; 88: 11; 89: 27; 96: 3; 100: 8.

Stratigrafsko-kronološki oris: Lonce tipa 1 prepoznamo med gradivom iz hiš 1(1,2), 2(1,2), 3(1,2), 6(1,2), 8(1,2), 11(2), 12(2), 14(2), 15(2), 15A(1,3), 16(1), 18, 19, 21, 22(1), 22A(1,2), 23(1,2), 24(2), 25(2), 26(1), 29(1,2), 30(1,2), 32, 35(1) in 36, iz jarka ter

[10] Dular 1982, 93 ss, sl. 6: 2,10.

bands of black resinous paint between the cordons. The everted rim may have shallow grooves on the interior, rarely facets. The shape of the neck and rim allows us to distinguish between four variants (*Fig. 9*: Pi): (a) pithoi with a short neck and usually a roundly thickened everted rim; (b) pithoi with a short conical neck and a strongly everted broad rim; (c) pithoi with a short neck and an only slightly everted lip; (d) pithoi with a long neck and a short everted rim.

Manufacture: Hand-built, mainly of medium-grained fabric, usually fired in an oxidising atmosphere, surface mostly smooth and hard.

Finds: Pls. 2: 4; 8: 12; 11: 11; 29: 13; 30: 9; 31: 22; 37: 16; 40: 10; 41: 1,3; 54: 6; 88: 7; 89: 11; 92: 9; 99: 4,5.

Chrono-stratigraphic attribution: Houses 1(2), 2(1), 3(1,2), 8(2), 10(2), 13, 15(2), 15A(1,2,3), 16(2), 24(2), 25(2), 29(2), 35(1) and the path at House 23, most numerously in Phase 1 of Houses 26, 36 and 15A.

Notes: They correspond with the pithoi of Type 2 after Dular,[10] which in funerary contexts already appear in the Sv. Lucija Ic phase and are most common serving as urns in Sv. Lucija IIa.

JARS (L)

Jars represent almost half (49.24% or 580 pieces) of all the recovered pottery and can be classified into 21 types.

Type L 1

Form: Cylindrical jars with a rounded or flat lip, a vertical or slightly inturned rim that it is rarely externally thickened and a body that narrow slightly towards the base (*Fig. 10*: L 1).

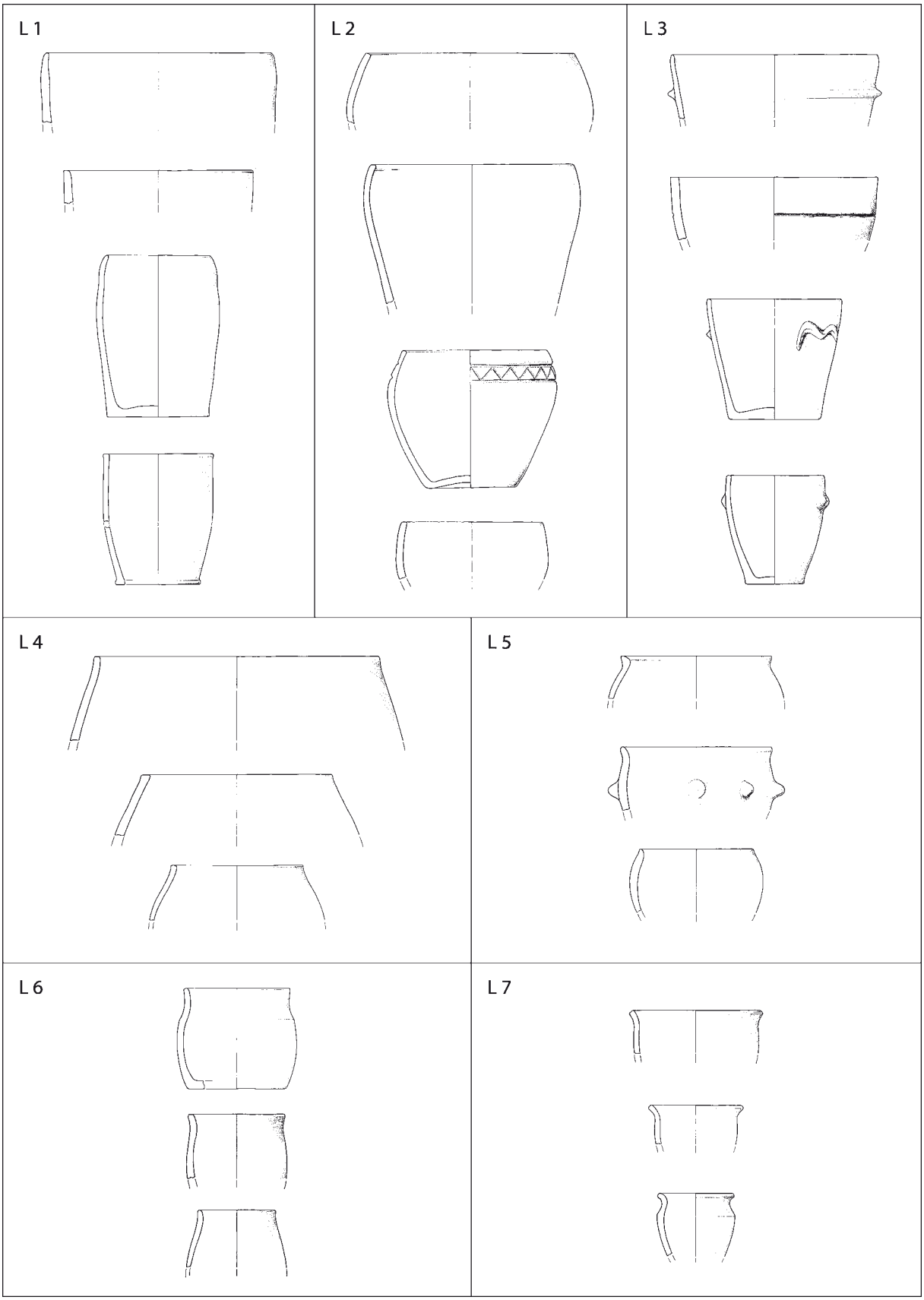
Manufacture: Hand-built, usually of medium-grained fabric with a high amount of sand temper, usually fired in an oxidising or incomplete oxidising atmosphere, surface mainly smooth.

Finds: Pls. 8: 3,4; 9: 11; 13: 1–5; 14: 10; 25: 5; 32: 15; 41: 6,7,9; 58: 8; 59: 5,15; 58: 7; 60: 11; 66: 12,13; 70: 10; 71: 9; 72: 1,2,4,5,7–9; 79: 4–6; 80: 13; 88: 11; 89: 27; 96: 3; 100: 8.

Chrono-stratigraphic attribution: Houses 1(1,2), 2(1,2), 3(1,2), 6(1,2), 8(1,2), 11(2), 12(2), 14(2), 15(2), 15A(1,3), 16(1), 18, 19, 21, 22(1), 22A(1,2), 23(1,2), 24(2), 25(2), 26(1), 29(1,2), 30(1,2), 32, 35(1), 36, the drainage ditch and Trenches 1 and 1A, most numerously from Phase 1 of Houses 15A and 26.

Notes: The rare decorated pieces bear horizontal U-sectioned incisions or shallow grooves (*Pls. 60: 11; 71: 9*), applied knobs (*Pls. 13: 1; 66: 12*) or a

[10] Dular 1982, 93 ff, Fig. 6: 2,10.



Sl. 10: Lonci tipa 1–7.
Fig. 10: Jars of Types 1–7.

sond 1 in 1A, pri čemer največ primerkov izvira iz najstarejših faz hiš 15A in 26.

Opombe: Lonci tipa 1 so redko okrašeni z vodoravnimi topimi vrezi ali plitkimi kanelurami (*t. 60: 11; 71: 9*), nalepljenimi bradavicami (*t. 13: 1; 66: 12*) ali rebrom,[11] odtisi prsta (*t. 32: 15*) in metličenjem.[12] Neokrašenim loncem tega tipa je nekoliko podoben tudi dobro ohranjen, a deformiran in nesimetričen lonec iz najstarejše gradbene faze hiše 15A, ki pa ima kratko rahlo navzven zapognjeno ustje *(t. 42: 5*). Sicer lahko lonce tipa 1 v okviru grobne keramike primerjamo z lonci tipa 3 po Dularju,[13] vendar jih v grobovih z Mosta na Soči bolj redko zasledimo in so največkrat edini pridatek.[14]

Tip L 2

Oblika: Lonci z navzgor pomaknjenimi zaobljenimi rameni, ki se proti dnu zožujejo. Zaobljen ali ravno odrezan rob ustja je običajno močno nagnjen navznoter (*sl. 10*: L 2).

Izdelava: Oblikovani so prostoročno iz drobnozrnate mase, ta ima običajno primešanega veliko peska, in so bili največkrat oksidacijsko žgani. Površina je praviloma gladka.

Najdbe: t. 9: 2,8; 25: 4; 42: 1; 66: 6; 69: 14,15; 72: 6; 91: 9.

Stratigrafsko-kronološki oris: Najdbe izvirajo iz hiš 2(2), 3(1), 6(1), 15(3), 15A(1), 26(1) in 29(1), največ pa iz hiše 23(1).

Opombe: Vrezan okras zasledimo le na ožganem in delno deformiranem loncu iz hiše 2 (*t. 9: 2*), ki ga po okrasu morebiti lahko še najbolje primerjamo z neohranjeno skodelo iz groba S-369 z Mosta na Soči[15] ali pa skledo iz groba 366 v Tolminu.[16] Sicer lonce tipa 2, ki sodijo med lonce tipa 3 po Dularju,[17] v grobovih z Mosta na Soči redko zasledimo.[18]

Tip L 3

Oblika: Lonci s koničnim ali valjastim trupom, ki se proti zaobljenemu ali ravno odrezanemu robu ustja lijakasto razširijo, proti dnu pa močno zožijo. Pogosto imajo plastičen okras v obliki vodoravnega

[11] Inv. št. P 2409 iz 2. faze hiše 1.

[12] Inv. št. P 5570, 5579 in P 2334 iz 2. faze hiše 22 in 2. faze hiše 1.

[13] Dular 1982, 95, sl. 6: 7.

[14] Npr. Teržan et al. 1984–1985, 105, sl. 30; 112, sl. 32; 282, sl. 123; t. 108: F; 114: G, J; 158: F.

[15] Teržan et al. 1984–1985, 91, sl. 23.

[16] Svoljšak, Pogačnik 2001, t. 70: 11.

[17] Dular 1982, 95, sl. 6: 7.

[18] Teržan et al. 1984–1985, t. 170: C; 171: F/3.

cordon,[11] finger impressions (*Pl. 32: 15*) or brushing.[12] Resembling the undecorated jars of this type is a well-preserved, but deformed and asymmetrical jar from the earliest phase of House 15A, which has a short and slightly everted rim *(Pl. 42: 5*). The Type 1 jars are comparable with the jars of Type 3 after Dular,[13] which are rare in the graves at Most na Soči and most often represent the only good in a grave.[14]

Type L 2

Form: Jars with a rounded or flat lip, usually a strongly inturned rim, a high shoulder and a body that narrows towards the base (*Fig. 10*: L 2).

Manufacture: Hand-built, of medium-grained fabric usually with a high amount of sand temper, mainly fired in an oxidising atmosphere, surface mainly smooth.

Finds: Pls. 9: 2,8; 25: 4; 42: 1; 66: 6; 69: 14,15; 72: 6; 91: 9.

Chrono-stratigraphic attribution: Houses 2(2), 3(1), 6(1), 15(3), 15(1), 26(1) and 29(1), most numerously from House 23(1).

Notes: These jars are usually undecorated, incised decoration is only present on a burnt and partially deformed jar from House 2 (*Pl. 9: 2*) and most closely resembles the decoration on the unpreserved bowl from Grave S-369 at Most na Soči[15] or that on a dish from Grave 366 at Tolmin.[16] The jars are comparable with those of Type 3 after Dular,[17] which are rare in the graves at Most na Soči.[18]

Type L 3

Form: Jars with a body that widens towards a rounded or flat lip and narrows significantly towards the base. They often bear cordons, knobs and other applied decoration, sometimes also horizontal incisions (*Fig. 10*: L 3).

Manufacture: Same as for the jars of Type 2.

Finds: Pls. 8: 10; 23: 14; 41: 8; 42: 6,7; 55: 4; 71: 2,7; 72: 3; 80: 8–11; 88: 10; 91: 1.

Chrono-stratigraphic attribution: Houses 1(2), 2(1), 3(2), 6(1), 15A(1), 16(1), 19, 23(1,2), 24(2), 26(1), 29(1) and Trench 21-22, most numerously from House

[11] Inv. No. P 2409 from House 1, Construction phase 2.

[12] Inv. Nos. P 5570, 5579 and P 2334 from House 22, Construction phase 2 and House 1, Construction phase 2.

[13] Dular 1982, 95, Fig. 6: 7.

[14] E.g. Teržan *et al.* 1984–1985, 105, Fig. 30; 112, Fig. 32; 282, Fig. 123; Pls. 108: F; 114: G, J; 158: F.

[15] Teržan *et al.* 1984–1985, 91, Fig. 23.

[16] Svoljšak, Pogačnik 2001, Pl. 70: 11.

[17] Dular 1982, 95, Fig. 6: 7.

[18] Teržan *et al.* 1984–1985, Pls. 170: C; 171: F/3.

rebra, bradavic in drugih nalepk ali pa so okrašeni z vodoravnimi vrezi (*sl. 10*: L 3).

Izdelava: Kot lonci tipa 2.

Najdbe: t. 8: 10; 23: 14; 41: 8; 42: 6,7; 55: 4; 71: 2,7; 72: 3; 80: 8–11; 88: 10; 91: 1.

Stratigrafsko-kronološki oris: Najdbe izvirajo iz hiš 1(2), 2(1), 3(2), 6(1), 15A(1), 16(1), 19, 23(1,2), 24(2), 26(1) in 29(1) ter sonde 21-22. Pri tem je bilo največ primerkov najdeno v hiši 23, in sicer enako v obeh fazah, ter najstarejši fazi hiše 15A.

Opombe: Tudi lonce tipa 3 redko zasledimo med grobno keramiko[19] in jih lahko primerjamo z lonci tipa 3 po Dularju.[20]

Tip L 4

Oblika: Trebušasti lonci z visoko pomaknjenimi rameni, ki se proti ravno odrezanemu robu ustja stožčasto zožijo (*sl. 10*: L 4).

Izdelava: Prostoročno oblikovani lonci, običajno iz drobnozrnate lončarske mase z nekaj peska, so bili najpogosteje oksidacijsko ali redukcijsko žgani s končno oksidacijo. Površina je praviloma gladka.

Najdbe: t. 3: 2; 8: 2; 11: 6; 70: 12; 71: 8.

Stratigrafsko-kronološki oris: Redki primerki loncev tipa 4 izvirajo iz hiš 1(2), 2(1), 3(1), 19, 23(1) in 30(1).

Tip L 5

Oblika: Manjši, kroglasti ali trebušasti lonci z navzven zapognjenim robom ustja ali kratkim izvihanim ustjem (*sl. 10*: L 5).

Izdelava: Prostoročno oblikovani lonci iz drobnozrnate lončarske mase z nekaj peska so bili najpogosteje (nepopolno) oksidacijsko žgani in imajo gladko površino.

Najdbe: t. 8: 5; 33: 7; 41: 5; 42: 4; 53: 7; 79: 12; 89: 12; 90: 13; 91: 2.

Stratigrafsko-kronološki oris: Najdbe izvirajo iz hiš 1(1), 2(1), 3(1), 8(2), 12(2), 23(2), 25(2) in 29(1); največ primerkov izvira iz hiše 15A(1,2). Tu so bili številčnejše zastopani med gradivom najstarejše faze hiše.

Opombe: Z nalepljenimi bradavicami je okrašen lonec iz hiše 29 (*t. 91: 2*), ki ga lahko primerjamo s fragmenti lonca iz groba S-72 z Mosta na Soči.[21] Sicer lahko ustja, opredeljena kot lonci tipa 5, pripadajo tudi neokrašenim kelihom kot npr. fragmenti iz groba S-1925.[22]

[19] Npr. Teržan et al. 1984–1985, t. 11: E; Marchesetti 1885, t. 2: 1.

[20] Dular 1982, 95, sl. 6: 7.

[21] Teržan et al. 1984–1985, t. 9: F/4.

[22] Teržan et al. 1984–1985, t. 187: A/3.

23 (equally represented in both phases), and Phase 1 of House 15A.

Notes: Such jars are rare in funerary contexts[19] and are comparable with the jars of Type 3 after Dular.[20]

Type L 4

Form: Ellipsoid jars with a flat lip and a high conical shoulder (*Fig. 10*: L 4).

Manufacture: Hand-built, usually of medium-grained fabric with some sand temper, most frequently fired in either a oxidising or a reducing atmosphere with final oxidation, surface is mainly smooth.

Finds: Pls. 3: 2; 8: 2; 11: 6; 70: 12; 71: 8.

*Chrono-stratigrap*hic *attribution*: Rare, from Houses 1(2), 2(1), 3(1), 19, 23(1) and 30(1).

Type L 5

Form: Small globular or ellipsoid jars with a slightly everted rim (*Fig. 10*: L 5).

Manufacture: Hand-built, of medium-grained fabric with some sand temper, most frequently fired in an (incomplete) oxidising atmosphere, surface is smooth.

Finds: Pls. 8: 5; 33: 7; 41: 5; 42: 4; 53: 7; 79: 12; 89: 12; 90: 13; 91: 2.

*Chrono-stratigrap*hic *attribution*: Houses 1(1), 2(1), 3(1), 8(2), 12(2), 23(2), 25(2) and 29(1); most numerously from House 15A, particularly Phase 1.

Notes: The jar from House 29 (*Pl. 91: 2*) bears applied knobs and is comparable with the fragments of a jar from Grave S-72 at Most na Soči.[21] It should be noted that the rims ascribed to the jars of Type 5 may also have belonged to goblets, such as is the case with the fragments from Grave S-1925.[22]

Type L 6

Form: Small and more or less cylindrical jars with an unpronounced shoulder and a slightly everted rim (*Fig. 10*: L 6).

Manufacture: Same as for the jars of Type 2.

Finds: Pls. 42: 3; 79: 1,3; 92: 12; 100: 5.

*Chrono-stratigrap*hic *attribution*: Rare, from Houses 14(2), 15A(1), 22(1), 23(2), 29(2), the drainage ditch and Trench 2.

[19] E.g. Teržan *et al.* 1984–1985, Pl. 11: E; Marchesetti 1885, Pl. 2: 1.

[20] Dular 1982, 95, Fig. 6: 7.

[21] Teržan *et al.* 1984–1985, Pl. 9: F/4.

[22] Teržan *et al.* 1984–1985, Pl. 187: A/3.

Tip L 6

Oblika: Manjši lonci z valjastim trupom, neizrazitimi rameni in rahlo izvihanim ustjem (*sl. 10*: L 6).
Izdelava: Kot lonci tipa 2.
Najdbe: t. 42: 3; 79: 1,3; 92: 12; 100: 5.
Stratigrafsko-kronološki oris: Redki primerki loncev tipa 6 izvirajo iz hiš 14(2), 15A(1), 22(1), 23(2) in 29(2), ter jarka in sonde 2.

Tip L 7

Oblika: Majhni lonci z rahlo napetimi, lahko s klekom poudarjenimi rameni, ki se proti dnu močno zožujejo in imajo izvihano ustje (*sl. 10*: L 7).
Izdelava: Prostoročno oblikovani lonci, običajno iz drobnozrnate lončarske mase z nekaj peska, so najpogosteje redukcijsko žgani in imajo gladko površino.
Najdbe: t. 55: 7; 60: 10; 63: 3; 100: 7.
Stratigrafsko-kronološki oris: Redki primerki loncev tipa 7 izvirajo iz hiš 6(1), 8(2), 16(1,2), 21, 22(1) in 22A(2) ter jarka in sonde 1A.

Tip L 8

Oblika: Trebušasti lonci z visoko pomaknjenimi zaobljenimi rameni in lijakasto izvihanim ustjem (*sl. 11*: L 8).
Izdelava: Prostoročno oblikovani lonci iz drobnozrnate lončarske mase, ki praviloma vsebuje veliko peska, so bili najpogosteje nepopolno oksidacijsko ali redukcijsko žgani in imajo gladko površino.
Najdbe: t. 1: 1; 2: 7,8,12; 23: 13,16; 25: 10; 27: 22,23; 28: 16,20; 29: 1,6,14; 30: 2,5,14; 33: 6; 34: 8,12; 37: 8,11,12,15; 53: 8; 54: 7; 55: 5,11; 57: 4,6,7; 58: 2; 61: 13; 62: 10,16; 63: 7; 88: 1; 90: 12,14; 91: 5; 94: 8; 95: 5–9; 96: 1.
Stratigrafsko-kronološki oris: Najdbe izvirajo iz hiš 1(1,2), 3(1,2), 6(1,2), 7, 8(2), 11(2), 12(2), 14(1–3), 15(2), 15A (2,3), 16(1,2), 17(2), 19, 22A (1,2), 24(1), 29(1), 30(1,2) in 32, ter s poti pri hiši 23 in sond 1, 21-22 in A8/3R. Največ primerkov izvira iz 2. faze hiše 30, pri čemer so tudi drugod lonci tipa 8 številčnejše zastopani v mlajših fazah hiš.
Opombe: Redko pri loncih tipa 8 zasledimo vtisnjen (*t. 1: 1; 29: 1; 33: 6; 34: 12; 37: 12*), vrezan (*t. 23: 16; 29: 1*) ali plastičen okras (*t. 30: 14; 37: 8*). Primerjamo jih lahko z lonci tipa 1 po Dularju, pri čemer se tovrstni lonci v grobovih svetolucijske skupine razmeroma redko pojavljajo, in to predvsem v grobovih stopnje Sv. Lucija Ic in IIa.[23]

[23] Dular 1982, 93 ss, sl. 6: 5, 9: 5; 10.

Type L 7

Form: Small jars with an everted rim, a slight and sometimes carinated shoulder and a body that narrows towards the base (*Fig. 10*: L 7).
Manufacture: Hand-built, usually of medium-grained fabric with some sand temper, most frequently fired in a reducing atmosphere, surface is smooth.
Finds: Pls. 55: 7; 60: 10; 63: 3; 100: 7.
Chrono-stratigraphic attribution: Rare, from Houses 6(1), 8(2), 16(1,2), 21, 22A(2), 23(1), the drainage ditch and Trench 1A.

Type L 8

Form: Ellipsoid jars with a funnel-shaped rim and a high rounded shoulder (*Fig. 11*: L 8).
Manufacture: Hand-built, of medium-grained fabric usually with a high amount of sand temper, most frequently fired in an incomplete oxidising or a reducing atmosphere, surface is smooth.
Finds: Pls. 1: 1; 2: 7,8,12; 23: 13,16; 25: 10; 27: 22,23; 28: 16,20; 29: 1,6,14; 30: 2,5,14; 33: 6; 34: 8,12; 37: 8,11,12,15; 53: 8; 54: 7; 55: 5,11; 57: 4,6,7; 58: 2; 61: 13; 62: 10,16; 63: 7; 88: 1; 90: 12,14; 91: 5; 94: 8; 95: 5–9; 96: 1.
Chrono-stratigraphic attribution: Houses 1(1,2), 3(1,2), 6(1,2), 7, 8(2), 11(2), 12(2), 14(1–3), 15(2), 15A (2,3), 16(1,2), 17(2), 19, 22A (1,2), 24(1), 29(1), 30(1,2), 32, the path at House 23, as well as Trenches 1, 21-22 and A8/3R, most numerously from Phase 2 of House 30, but also the jars from other houses are better represented in later phases.
Notes: The jars of this type rarely bear decoration, which consists of impressions (*Pls. 1: 1; 29: 1; 33: 6; 34: 12; 37: 12*), incisions (*Pls. 23: 16; 29: 1*) or plastic decoration (*Pls. 30: 14; 37: 8*). They are comparable with the jars of Type 1 after Dular, which occur fairly rarely in the graves of the Sveta Lucija group, mainly in those attributed to the Sv. Lucija Ic and IIa phases.[23]

Type L 9

Form: Ellipsoid jars with a short everted rim, a high shoulder and a body that narrows significantly towards the base (*Fig. 11*: L 9).
Manufacture: Hand-built, of medium-grained fabric with some sand temper, most frequently fired in a reducing or an incomplete oxidising atmosphere, surface usually smooth.
Finds: Pls. 10: 5; 11: 4; 12: 1; 13: 9; 29: 15; 30: 1,3,6,7; 34: 3,10; 60: 12; 62: 14; 63: 4.

[23] Dular 1982, 93 ff, Figs. 6: 5; 9: 5; 10.

Tip L 9

Oblika: Trebušasti lonci z visoko pomaknjenimi rameni, ki se proti dnu močno zožujejo in imajo kratko izvihano ustje (*sl. 11*: L 9).

Izdelava: Prostoročno oblikovani lonci iz drobnozrnate lončarske mase z nekaj peska so bili najpogosteje redukcijsko ali nepopolno oksidacijsko žgani. Površina je praviloma gladka.

Najdbe: t. 10: 5; 11: 4; 12: 1; 13: 9; 29: 15; 30: 1,3,6,7; 34: 3,10; 60: 12; 62: 14; 63: 4.

Stratigrafsko-kronološki oris: Lonci tipa 9 so prepoznani med gradivom iz hiš 2(2), 3(1,2), 8(2), 13, 14(1–3), 15A(1), 16(1,2), 19, 20, 22(1), 22A(2) in 30(1,2) ter sonde 1. Pri tem največ primerkov izvira iz mlajše faze hiše 8 in pa najstarejše gradbene faze hiše 14.

Opombe: Lonci tipa 9 se v okviru grobne keramike uvrščajo med lonce tipa 1 po Dularju (cf. op. 23). K loncem tipa 9 uvrščamo tudi primerek lonca z vrezanim in metličenim okrasom iz hiše 14(2),[24] ki mu po okrasu vrezane valovnice najdemo primerjave v estenskih grobnicah.[25]

Tip L 10

Oblika: Trebušasti lonci z zaobljenimi, visoko pomaknjenimi rameni in kratkim izvihanim ustjem z ravno odrezanim robom (*sl. 11*: L 10).

Izdelava: Kot lonci tipa 9.

Najdbe: t. 1: 6; 25: 3; 30: 8; 34: 15; 37: 13; 61: 12; 63: 2; 90: 15.

Stratigrafsko-kronološki oris: Razmeroma maloštevilni primerki loncev tipa 10 izvirajo iz hiš 1(1), 2(2), 3(1), 6(1), 8(2), 14(1,2), 15(2), 16(2), 22A(1,2) in 29(1) ter sonde 1A. Pri hišah z več gradbenimi fazami so običajno številčnejše zastopani med gradivom iz najstarejše faze.

Opombe: Lonci tipa 10 se v okviru grobne keramike uvrščajo med lonce tipa 1 po Dularju (cf. op. 23).

Tip L 11

Oblika: Kroglasti lonci s kratkim pokončnim ali rahlo navzven nagnjenim ustjem z zaobljenim ali ravno odrezanim robom (*sl. 11*: L 11).

Izdelava: Kot lonci tipa 8.

Najdbe: t. 9: 7; 14: 1; 25: 9; 34: 7,9,19; 62: 15; 89: 22.

Stratigrafsko-kronološki oris: Redke najdbe izvirajo iz hiš 2(2), 3(1), 6(1), 14(1,3), 22A(2), 26(1) in 30(2).

[24] Inv. št. P 4816.

[25] Capuis, Chieco Bianchi 2006, t. 1: B/1; 7: 18.

Chrono-stratigraphic attribution: Houses 2(2), 3(1,2), 8(2), 13, 14(1–3), 15A(1), 16(1,2), 19, 20, 22(1), 22A(2), 30(1,2) and Trench 1, most numerously from Phase 2 of House 8 and Phase 1 of House 14.

Notes: They are comparable with the jars of Type 1 after Dular (cf. Fn. 23). They also include an example with incised and brushed decoration from House 14(2),[24] which is comparable with some examples from the tombs at Este in the decoration of incised wavy lines.[25]

Type L 10

Form: Ellipsoid jars with a flat lip, a short everted rim and a high rounded shoulder (*Fig. 11*: L 10).

Manufacture: Same as for the jars of Type 9.

Finds: Pls. 1: 6; 25: 3; 30: 8; 34: 15; 37: 13; 61: 12; 63: 2; 90: 15.

Chrono-stratigraphic attribution: Fairly few, from Houses 1(1), 2(2), 3(1), 6(1), 8(2), 14(1,2), 15(2), 16(2), 22A(1,2), 29(1) and Trench 1A. From the houses with more than one construction phase, these jars are more numerous in the early phases.

Notes: They are comparable with the jars of Type 1 after Dular (cf. Fn. 23).

Type L 11

Form: Globular jars with a round or flat lip and a short vertical or slightly everted rim (*Fig. 11*: L 11).

Manufacture: Same as for the jars of Type 8.

Finds: Pls. 9: 7; 14: 1; 25: 9; 34: 7,9,19; 62: 15; 89: 22.

Chrono-stratigraphic attribution: Rare, from Houses 2(2), 3(1), 6(1), 14(1,3), 22A(2), 26(1) and 30(2).

Type L 12

Form: Ellipsoid jars with a rounded lip, a strongly everted rim that is frequently roundly thickened, a narrow neck and a high rounded shoulder (*Fig. 11*: L 12).

Manufacture: Same as for the jars of Type 8.

Finds: Pls. 57: 5; 58: 4; 62: 12; 70: 5,9; 92: 8.

Chrono-stratigraphic attribution: Houses 3(1), 13, 14(1), 15(2), 16(2), 18, 22A(2), 23(1), 26(1), 29(2), 33, as well as Trenches 1A and 4, most numerously from Houses 15 and 16.

Notes: Some examples of these jars are decorated with series of impressions (*Pls. 58: 4; 62: 12*) or with a

[24] Inv. No. P 4816.

[25] Capuis, Chieco Bianchi 2006, Pls. 1: B/1; 7: 18.

Tip L 12

Oblika: Trebušasti lonci z visoko pomaknjenimi zaobljenimi rameni in kratkim, močno zoženim vratom. Izrazito navzven zapognjeno ustje ima zaobljen, nemalokrat kroglasto odebeljen rob (*sl. 11*: L 12).

Izdelava: Kot lonci tipa 8.

Najdbe: t. 57: 5; 58: 4; 62: 12; 70: 5,9; 92: 8.

Stratigrafsko-kronološki oris: Najdbe izvirajo iz hiš 3(1), 13, 14(1), 15(2), 16(2), 18, 22A(2), 23(1), 26(1), 29(2) in 33 ter sond 1A in 4, pri čemer je bilo največ primerkov najdenih v hišah 15 in 16.

Opombe: Nekaj primerkov loncev tipa 12 je okrašeno z nizi vtisov (*t. 58: 4; 62: 12*) ali plastičnim okrasom vodoravnega rebra.[26] Lonce tipa 12 lahko v okviru grobne keramike primerjamo z bolj redko zastopanimi lonci tipa 2 po Dularju.[27]

Tip L 13

Oblika: Trebušasti ali kroglasti lonci z zoženim, usločenim vratom in izvihanim ustjem, z nemalokrat odebeljenim robom (*sl. 11*: L 13).

Izdelava: Prostoročno oblikovani lonci, običajno iz drobnozrnate lončarske mase z nekaj peska, so najpogosteje (nepopolno) oksidacijsko ali redukcijsko žgani s končno oksidacijo. Površina je praviloma gladka.

Najdbe: t. 1: 2; 28: 19; 33: 4; 34: 5,6; 38: 2; 41: 4; 60: 18; 62: 11; 70: 8; 91: 4; 96: 4,5.

Stratigrafsko-kronološki oris: Razmeroma številne najdbe izvirajo iz hiš 1(1,2), 3(1), 6(1), 7, 12(2), 13, 14(1–3), 15(2), 15A(1), 16(1,2), 22(1), 22A(2), 23(1,2), 24(2), 25(2), 26(1), 29(1), 30(1,2) in 36 ter sonde 21-22.

Opombe: Lonce tipa 13 lahko primerjamo z lonci tipa 4 po Dularju, ki se redko pojavljajo v grobovih stopnje Sv. Lucija Ic in IIa.[28]

Tip L 14

Oblika: Trebušasti lonci z zaobljenimi rameni in običajno klekastim prehodom v kratek vrat. Kratko ustje z običajno nekoliko odebeljenim robom je zapognjeno navzven (*sl. 12*: L 14).

Izdelava: Prostoročno oblikovani, lahko tudi na počasnem vretenu dodelani lonci iz običajno drobnozrnate lončarske mase z nekaj peska so najpogosteje redukcijsko žgani ali pa so žgani redukcijsko s končno oksidacijo. Površina je gladka.

Najdbe: t. 2: 5, 59: 1; 79: 7,11; 92: 7.

[26] Inv. št. P 4841 iz 1. faze hiše 14; P 5423 iz 2. faze hiše 16.

[27] Dular 1982, 93 ss, sl. 6: 6; 9: 6.

[28] Dular 1982, 95 ss, sl. 6: 8; 9: 8,10.

cordon.[26] In general, these jars are comparable with the rare jars of Type 2 after Dular.[27]

Type L 13

Form: Ellipsoid or globular jars with an everted and frequently thickened rim, as well as a narrow and curved neck (*Fig. 11*: L 13).

Manufacture: Hand-built, usually of medium-grained fabric with some sand temper, most frequently fired in an (incomplete) oxidising or a reducing atmosphere with final oxidation, surface is mainly smooth.

Finds: Pls. 1: 2; 28: 19; 33: 4; 34: 5,6; 38: 2; 41: 4; 60: 18; 62: 11; 70: 8; 91: 4; 96: 4,5.

*Chrono-stratigrap*hic *attribution*: Fairly frequent, from Houses 1(1,2), 3(1), 6(1), 7, 12(2), 13, 14(1–3), 15(2), 15A(1), 16(1,2), 22(1), 22A(2), 23(1,2), 24(2), 25(2), 26(1), 29(1), 30(1,2), 36 and Trench 21-22.

Notes: They are comparable with the jars of Type 4 after Dular, which are rare finds in the funerary contexts of the Sv. Lucija Ic and IIa phases.[28]

Type L 14

Form: Ellipsoid jars with a short everted and usually slightly thickened rim, a short neck, usually a carinated neck-shoulder junction and a rounded shoulder (*Fig. 12*: L 14).

Manufacture: Hand-built and sometimes finished on a slow wheel, usually of medium-grained fabric with some sand temper, most frequently fired in a reducing atmosphere with or without final oxidation, surface is smooth.

Finds: Pls. 2: 5, 59: 1; 79: 7,11; 92: 7.

*Chrono-stratigrap*hic *attribution*: Houses 1(2), 3(2), 8(1), 12(2), 15(2), 15A(1,2), 16(2), 19, 21, 23(2), 25(2), 29(2), as well as Trenches 1 and 1A, most numerously from House 23, but also other houses yielded such jars most commonly in later phases.

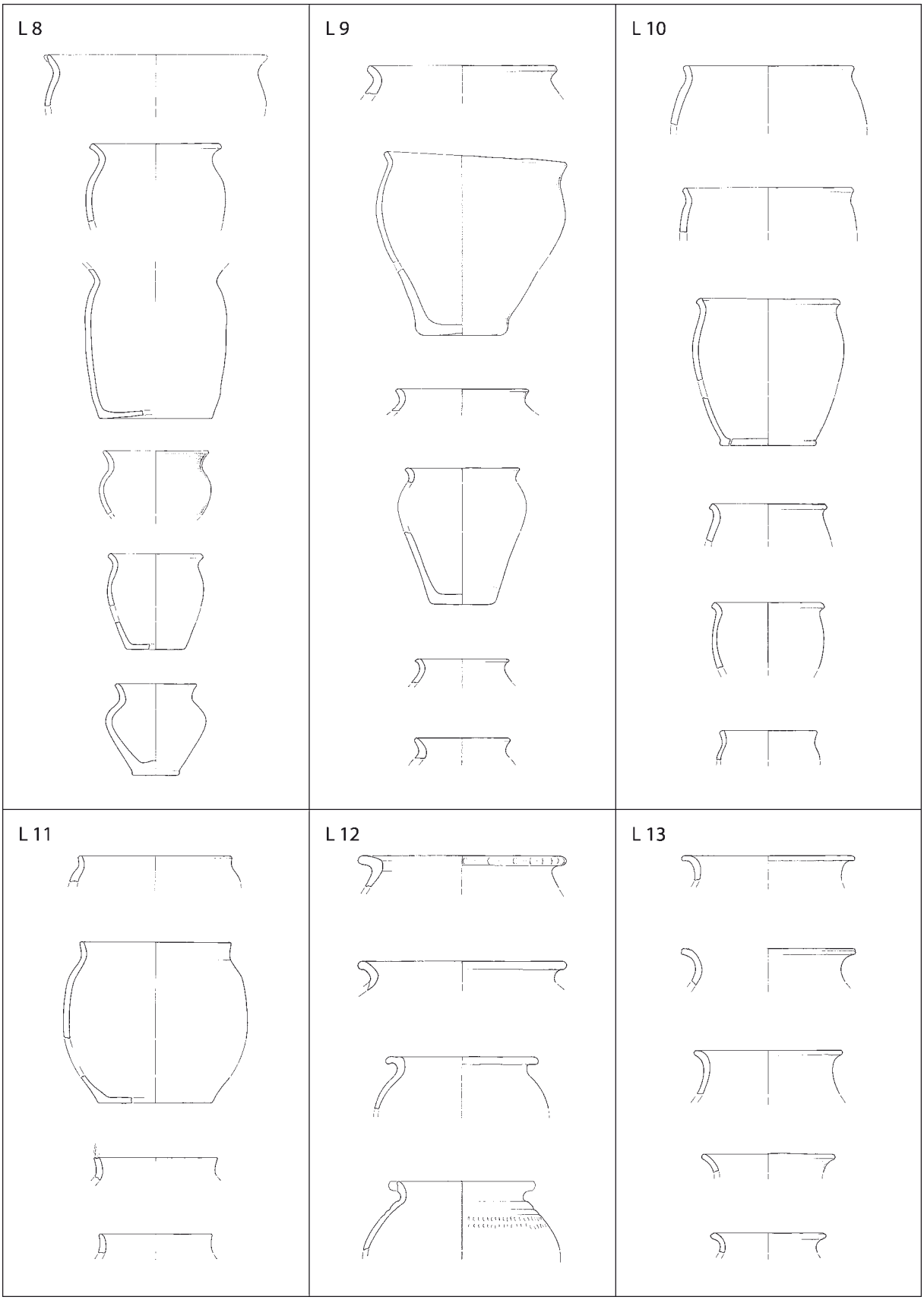
Notes: The jar from House 19 (*Pl. 59: 1*) stands apart in its technological characteristics, because it has a red painted exterior and was probably not produced locally. In general, these jars are comparable with those of Type 6 after Dular, which occur in the graves of the Sv. Lucija Ib and Ic phases.[29]

[26] Inv. No. P 4841 from House 14, Construction phase 1; P 5423 from House 16, Construction phase 2.

[27] Dular 1982, 93 ff, Figs. 6: 6; 9: 6.

[28] Dular 1982, 95 ff, Figs. 6: 8; 9: 8,10.

[29] Dular 1982, 95 ff, Figs. 7: 10; 10.



Sl. 11: Lonci tipa 8–13.
Fig. 11: Jars of Types 8–13.

Stratigrafsko-kronološki oris: Najdbe izvirajo iz hiš 1(2), 3(2), 8(1), 12(2), 15(2), 15A(1,2), 16(2), 19, 21, 23(2), 25(2) in 29(2) ter sond 1 in 1A. Največ primerkov je bilo najdenih v hiši 23 in tudi pri drugih hišah so tovrstni lonci pogosteje zastopani med gradivom iz mlajših gradbenih faz.

Opombe: Med lonci tipa 14 po tehnoloških lastnostih izstopa primerek iz hiše 19 (*t. 59: 1*), ki je bil zunaj rdeče premazan in verjetno ni lokalni izdelek. Sicer lahko lonce tipa 14 primerjamo z lonci tipa 6 po Dularju, ki so bili pridani v grobove stopnje Sv. Lucija Ib in Ic.[29]

Tip L 15

Oblika: Trebušasti lonci, ki se proti ustju močno zožijo. Kratko, običajno odebeljeno ustje je zapognjeno navzven, na zgornjem robu ima pogosto utor za pokrov (*sl. 12*: L 15).

Izdelava: Kot lonci tipa 14.

Najdbe: t. 30: 4,10; 33: 2; 36: 10; 55: 12; 59: 3,4; 62: 8; 79: 8; 89: 20,21; 92: 5.

Stratigrafsko-kronološki oris: Najdbe izvirajo iz hiš 3(2), 8(2), 12(2), 14(1,2), 15A(1,2), 16(1,2), 19, 22A(2), 23(2), 26(1), 29(2) in 30(2) ter sonde 1, pri čemer je bilo še največ primerkov najdenih v 2. fazi hiše 14.

Opombe: Lonci so na ramenih redko okrašeni z vtisi (*t. 59: 3; 89: 20*).[30]

Tip L 16

Oblika: Trebušasti lonci z visoko postavljenimi zaobljenimi rameni, ki so s klekom oddvojena od kratkega usločenega vratu in izvihanega ali navzven nagnjenega ustja (*sl. 12*: L 16).

Izdelava: Kot lonci tipa 5.

Najdbe: t. 14: 6; 62: 13; 70: 4,7,11; 96: 2.

Stratigrafsko-kronološki oris: Redke najdbe izvirajo iz hiš 3(1), 7, 12(2), 15(2), 15A(1), 22A(2), 26(1) in 30(2) ter najštevilčnejše iz 1. faze hiše 23.

Tip L 17

Oblika: Trebušasti lonci z zaobljenimi rameni in izvihanim ustjem, okrašeni z metličenjem (*sl. 12*: L 17).

Izdelava: Kot lonci tipa 9.

Najdbe: t. 9: 6; 28: 15; 29: 3,7; 32: 16; 59: 12; 61: 14; 62: 7; 63: 6; 97: 16; 98: 4.

Stratigrafsko-kronološki oris: Primerki loncev tipa 17 so najdeni v hišah 1(2), 2(2), 3(2), 6(1), 7, 8(1), 11(2), 14(1,2), 16(1), 19, 22A(1,2), 33 in 34 ter sondah

[29] Dular 1982, 95 ss, sl. 7: 10; 10.

[30] Inv. št. P 4735 iz 2. faze hiše 14.

Type L 15

Form: Ellipsoid jars with a short, everted and usually thickened rim, frequently with a lid seat, and a narrow neck (*Fig. 12*: L 15).

Manufacture: Same as for the jars of Type 14.

Finds: Pls. 30: 4,10; 33: 2; 36: 10; 55: 12; 59: 3,4; 62: 8; 79: 8; 89: 20,21; 92: 5.

*Chrono-stratigrap*hic *attribution*: Houses 3(2), 8(2), 12(2), 14(1,2), 15A(1,2), 16(1,2), 19, 22A(2), 23(2), 26(1), 29(2), 30(2) and Trench 1, most numerously from Phase 2 of House 14.

Notes: A small number of these jars bear impressions on the shoulder (*Pls. 59: 3; 89: 20*).[30]

Type L 16

Form: Ellipsoid jars with an everted rim, a short curved neck, a carinated neck-shoulder junction and a high rounded shoulder (*Fig. 12*: L 16).

Manufacture: Same as for the jars of Type 5.

Finds: Pls. 14: 6; 62: 13; 70: 4,7,11; 96: 2.

*Chrono-stratigrap*hic *attribution*: Rare, from Houses 3(1), 7, 12(2), 15(2), 15A(1), 22A(2), 26(1) and 30(2), most numerously from Phase 1 of House 23.

Type L 17

Form: Ellipsoid jars with an everted rim, a rounded shoulder and brushed decoration (*Fig. 12*: L 17).

Manufacture: Same as for the jars of Type 9.

Finds: Pls. 9: 6; 28: 15; 29: 3,7; 32: 16; 59: 12; 61: 14; 62: 7; 63: 6; 97: 16; 98: 4.

*Chrono-stratigrap*hic *attribution*: Houses 1(2), 2(2), 3(2), 6(1), 7, 8(1), 11(2), 14(1,2), 16(1), 19, 22A(1,2), 33, 34, as well as Trenches A8/3R and 36, most numerously from Phase 2 of House 14.

Notes: Jars with brushed decoration only rarely occur in the graves at Most na Soči.[31] The greatest number of them is known from the Late Hallstatt (R 42, 45) and La Tène (R 25) graves from Repelc,[32] where pieces of such pottery have also been found at the ustrinum.[33]

Type L 18

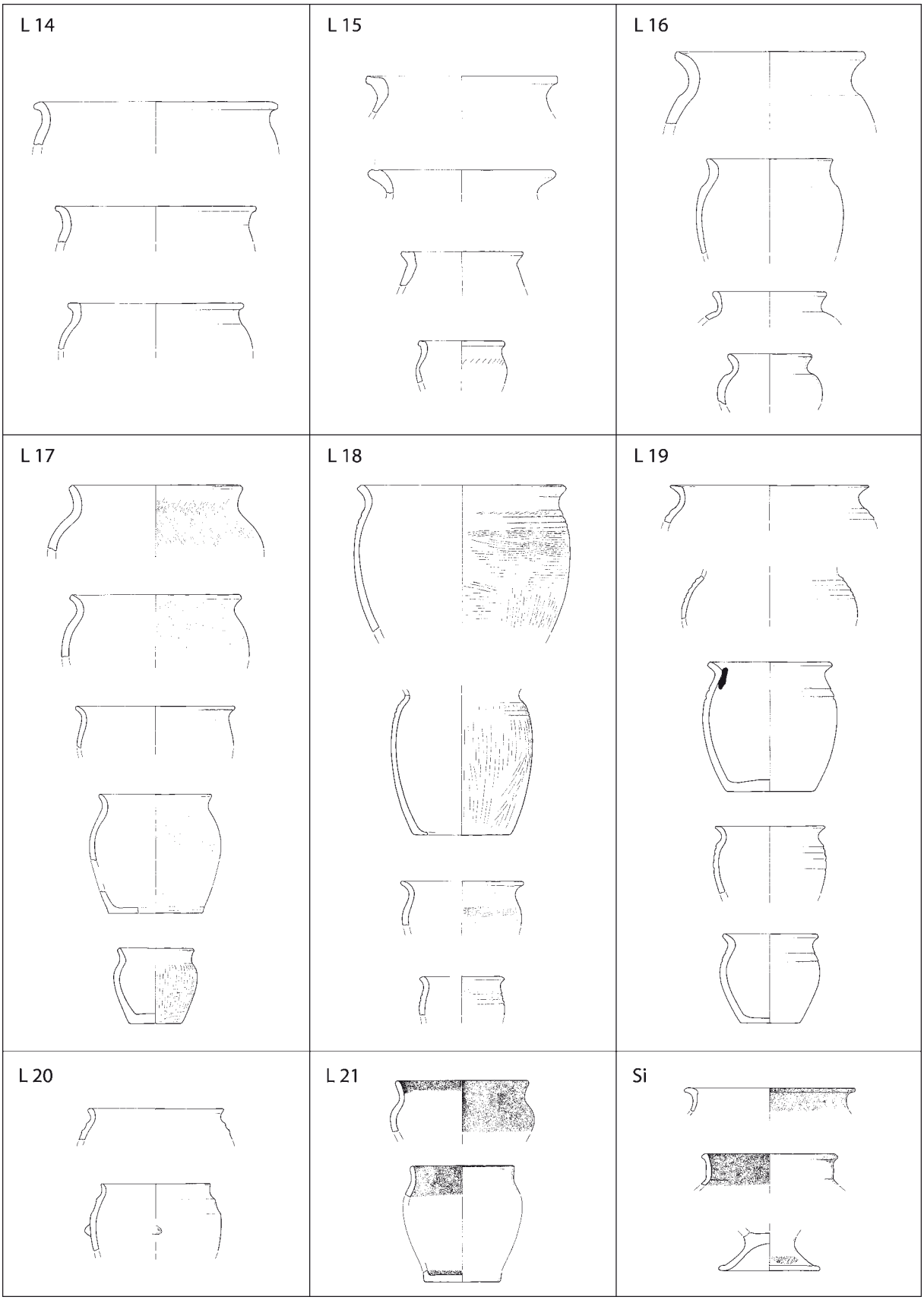
Form: Ellipsoid jars with an everted rim and a slightly raised or rounded shoulder, bearing brushed deco-

[30] Inv. No. P 4735 from House 14, Construction phase 2.

[31] Teržan *et al.* 1984–1985, Pls. 169: 6; 172: G/2; 240: E/5.

[32] Mlinar 2008, Pls. 17: 4; 21: 10,11,13; 22: 4–6.

[33] Mlinar 2008, 23, Pls. 28: 13,15,16,18,22,25–27.



Sl. 12: Lonci tipa 14–21 in situle (Si).
Fig. 12: Jars of Types 14–21 and situlae (Si).

A8/3R in 36, pri čemer največ primerkov izvira iz 2. faze hiše 14.

Opombe: Lonci z metličenim okrasom se le redko pojavljajo v grobovih z Mosta.[31] Še največ najdb poznamo iz mladohalštatskih (R 42, 45) ali že latenskih (R 25) grobov z Repelca,[32] kjer so bili kosi tovrstne keramike najdeni tudi na ustrini.[33]

Tip L 18

Oblika: Trebušasto oblikovani lonci z nekoliko napetimi ali zaobljenimi rameni in izvihanim ustjem, okrašeni z metličenjem, pri čemer imajo ramena vodoravno nažlebljena ali okrašena s plitkimi, vodoravnimi kanelurami (*sl. 12*: L 18).

Izdelava: Kot lonci tipa 7.

Najdbe: t. 28: 21; 29: 16; 34: 14; 35: 1,2,4; 36: 3; 37: 9; 55: 10; 63: 5; 98: 13.

Stratigrafsko-kronološki oris: Najdbe izvirajo iz hiš 6(1), 7, 8(2), 12(2), 14(1,2), 15(2), 16(1), 22A(2), 27(1) in 35(2), pri čemer je bilo daleč največ primerkov najdenih v hiši 14, številčno pa so zastopani tudi med gradivom 2. faze hiše 15.

Opombe: Lonci tipa 18 so najdeni v ostalinah hiše 1a z Marengove gune na Mostu na Soči, ki je po bronastih najdbah datirana v stopnjo Sv. Lucija IIb.[34] Podobno je v 6. ali 5. stol. pr. Kr. datirana "hiša z doliji", iz naselja v Montereale Valcellina, kjer je bil prav tako najden podoben lonec.[35]

Tip L 19

Oblika: Trebušasti lonci z nekoliko napetimi ali zaobljenimi rameni in izvihanim ustjem. Ramena so okrašena z vodoravnimi plitkimi kanelurami ali topimi vrezi (*sl. 12*: L 19).

Izdelava: Kot lonci tipa 7.

Najdbe: t. 2: 9,10,14; 11: 10; 14: 4; 29: 5; 33: 5,9,12; 34: 4,11,13,16,17; 36: 2; 37: 7; 53: 9; 55: 9; 57: 3; 79: 9.

Stratigrafsko-kronološki oris: Razmeroma številni lonci tipa 19 izvirajo iz hiš 1(2), 2(1), 3(1), 6(1,2), 7, 8(1,2), 12(2), 14(1,2), 15(2), 15A(2), 16(1,2), 22A(1) in 23(2) ter sond A8/3R in 36, pri čemer največ primerkov izvira iz najstarejše faze hiše 14.

[31] Teržan et al. 1984–1985, t. 169: 6; 172: G/2; 240: E/5.

[32] Mlinar 2008, t. 17: 4; 21: 10,11,13; 22: 4–6.

[33] Mlinar 2008, 23, t. 28: 13,15,16,18,22,25–27.

[34] Mlinar et al. 2008, 197 s, t. 1: 23; 2: 31. Op.: Čeprav je za lonce tipa 18 z Marengove gune navedeno, da so izdelani na vretenu (ib. 199), so tudi ti primerki oblikovani prostoročno, vendar dobro zglajeni ali dodelani na (počasnem) vretenu.

[35] Vitri 1996, 401 ss; Corazza 1996, 434, sl. 17: 60.

ration on the body and shallow horizontal grooves on the shoulder (*Fig. 12*: L 18).

Manufacture: Same as for the jars of Type 7.

Finds: Pls. 28: 21; 29: 16; 34: 14; 35: 1,2,4; 36: 3; 37: 9; 55: 10; 63: 5; 98: 13.

Chrono-stratigraphic attribution: Houses 6(1), 7, 8(2), 12(2), 14(1,2), 15(2), 16(1), 22A(2), 27(1) and 35(2), by far the most numerously from House 14, a higher share also from Phase 2 of House 15.

Notes: Jars of this type have also come to light in the remains of House 1a at Marengova guna in Most na Soči, dated to Sv. Lucija IIb on the basis of the associated bronze finds.[34] Similarly dated, to the 6th or 5th centuries BC is the *Casa dei dolii* from the settlement at Montereale Valcellina, where a comparable jar has been found.[35]

Type L 19

Form: Ellipsoid jars with an everted rim and a slightly raised or rounded shoulder, the latter bearing shallow horizontal grooves or U-sectioned incisions (*Fig. 12*: L 19).

Manufacture: Same as for the jars of Type 7.

Finds: Pls. 2: 9,10,14; 11: 10; 14: 4; 29: 5; 33: 5,9,12; 34: 4,11,13,16,17; 36: 2; 37: 7; 53: 9; 55: 9; 57: 3; 79: 9.

Chrono-stratigraphic attribution: Fairly frequent, from Houses 1(2), 2(1), 3(1), 6(1,2), 7, 8(1,2), 12(2), 14(1,2), 15(2), 15A(2), 16(1,2), 22A(1), 23(2), as well as Trenches A8/3R and 36, most numerously from Phase 1 of House 14.

Notes: This type is similar to the jars with U-sectioned incisions from the (Late) Hallstatt cemetery at San Pietro al Natisone.[36]

Type L 20

Form: Ellipsoid jars with a short and slightly everted rim, as well as a high and slightly raised shoulder, the latter bearing horizontal grooves (*Fig. 12*: L 20).

Manufacture: Hand-built, of fine- or medium-grained fabric, most frequently fired in a reducing atmosphere, surface is smooth.

Finds: Pls. 8: 6; 14: 3.

Chrono-stratigraphic attribution: Rare, from Houses 2(1), 3(1), 6(1) and 14(2).

[34] Mlinar *et al.* 2008, 197 f, Pls. 1: 23; 2: 31. Fn.: The jars of Type 18 from Marengova guna are published as wheel-thrown (ib. 199), but a closer examination has shown them to be hand-built, but well smoothed and sometimes finished on the (slow) wheel.

[35] Vitri 1996, 401 ff; Corazza 1996, 434, Fig. 17: 60.

[36] Pettarin 2006, Pl. 38: 647,648.

Opombe: Med lonce tipa 19 sodijo tudi s topimi vrezi okrašeni lonci iz (mlajše)halštatskega grobišča v Špetru (San Pietro al Natisone).[36]

Tip L 20

Oblika: Trebušasti lonci z visoko postavljenimi, nekoliko napetimi in vodoravno nažlebljenimi rameni ter kratkim navzven zapognjenim ustjem (*sl. 12*: L 20).
Izdelava: Prostoročno oblikovani primerki iz fino- ali drobnozrnate lončarske mase so najpogosteje redukcijsko žgani in imajo gladko površino.
Najdbe: t. 8: 6; 14: 3.
Stratigrafsko-kronološki oris: Redki primerki izvirajo iz hiš 2(1), 3(1), 6(1) in 14(2).
Opombe: Kot lonci tipa 20 so lahko opredeljeni tudi fragmenti kelihov tipa 2 po Dularju, ki jih zasledimo predvsem v grobovih stopnje Sv. Lucija IIa.[37]

Tip L 21

Oblika: Trebušasti ali kroglasti lonci z izvihanim ustjem, okrašeni z rdeče-črnimi premazi (*sl. 12*: L 21).
Izdelava: Prostoročno oblikovani, lahko tudi na počasnem vretenu dodelani lonci iz fino- ali drobnozrnate lončarske mase z nekaj peska so najpogosteje nepopolno oksidacijsko žgani in imajo gladko površino.
Najdbe: t. 2: 11; 36: 12; 70: 3; 79: 10; 90: 10.
Stratigrafsko-kronološki oris: Najdbe izvirajo iz hiš 1(2), 14(2), 15A(1), 16(2), 23(1,2) in 29(1) ter sonde 36.

SITULE (Si)

Redke fragmente finih posod z rdeče-črnimi premazi opredeljujemo kot situle, ki pa so med obravnavanim gradivom maloštevilno zastopane (10 kosov).
Oblika: Posode (na nogi) z nizkim pokončnim ali rahlo usločenim vratom in kratkim izvihanim ustjem ali zgolj navzven nagnjenim, lahko odebeljenim robom ustja, okrašene z rdečim in črnim grafitnim premazom (*sl. 12*: Si).
Izdelava: Običajno na počasnem vretenu oblikovane posode so najpogosteje izdelane iz finozrnate lončarske mase z nekaj peska in redukcijsko žgane s končno oksidacijo. Površina je zglajena ali vsaj gladka.
Najdbe: t. 2: 13; 9: 5; 23: 20; 58: 5; 66: 7; 70: 6; 91: 6; 99: 1.
Stratigrafsko-kronološki oris: Najdbe izvirajo iz hiš 1(2), 2(2), 3(2), 7, 14(1), 15A(2), 18, 23(1), 29(1) in 36.

[36] Pettarin 2006, t. 38: 647,648.
[37] Dular 1982, 97 ss, sl. 7: 16; 10.

Notes: This type may include shards that actually belong to the goblets of Type 2 after Dular mainly to be found in the graves of the Sv. Lucija IIa phase.[37]

Type L 21

Form: Ellipsoid or globular jars with an everted rim and black-on-red painted decoration (*Fig. 12*: L 21).
Manufacture: Hand-built, some finished on a slow wheel, of fine- or medium-grained fabric with some sand temper, most frequently fired in an incomplete oxidising atmosphere, surface is smooth.
Finds: Pls. 2: 11; 36: 12; 70: 3; 79: 10; 90: 10.
Chrono-stratigraphic attribution: Houses 1(2), 14(2), 15A(1), 16(2), 23(1,2), 29(1) and Trench 36.

SITULAE (Si)

The shards of black-on-red painted fineware are determined as situlae, which are rare finds at the settlement at Most na Soči (10 pieces).
Form: Vessels with a short and some only slightly everted rim, sometimes with a thickened rim, a short cylindrical or slightly curved neck, with or without a pedestal and bearing black graphite and red painted decoration (*Fig. 12*: Si).
Manufacture: Usually made on a slow wheel, most frequently of fine-grained fabric with some sand temper, most frequently fired in a reducing atmosphere with final oxidation, surface is burnished or at least smooth.
Finds: Pls. 2: 13; 9: 5; 23: 20; 58: 5; 66: 7; 70: 6; 91: 6; 99: 1.
Chrono-stratigraphic attribution: Houses 1(2), 2(2), 3(2), 7, 14(1), 15A(2), 18, 23(1), 29(1) and 36.
Notes: They are comparable with the pedestal situlae of Types 2 and 3, but also goblets of Type 1 after Dular. These vessels are more common than jars in the graves of the Sveta Lucija group and are most common in the Sv. Lucija IIa phase.[38]

BEAKERS (Lo)

Beakers are deep vessels of a small volume that do not exceed 10 cm in height.[39] They are not common finds (28 pieces), of which I distinguish between four types.

[37] Dular 1982, 97 ff, Figs. 7: 16; 10.
[38] Dular 1982, 97 ff, Figs. 7: (13),14,15; 9; 10.
[39] The vessel from House 16 (*Pl. 55: 7*) is formally a beaker, but is treated together with the jars of Type 7.

Opombe: Fragmentom, ki so opredeljeni kot situle, lahko najdemo primerjave med situlami z nogo tipa 2 in 3; lahko pa pripadajo tudi kelihom tipa 1 po Dularju. Gre za obliki posodja, ki sta v grobovih svetolucijske bolj običajen pridatek kot lonci, pri čemer so najbolj razširjene v grobovih stopnje Sv. Lucija IIa.[38]

LONČKI (Lo)

Globoke posode manjšega volumna, ki v višino ne presegajo 10 cm in jih nismo razvrstili med tipe manjših loncev,[39] obravnavamo kot lončke. Gre za maloštevilne najdbe (28 kosov), ki jih razvrščamo v štiri tipe.

Tip Lo 1

Oblika: Posode z visoko postavljenimi zaobljenimi ali le rahlo napetimi rameni, ki se močno zožijo proti ravnemu dnu. Zaobljen rob ustja je usločen navznoter (*sl. 9*: Lo 1).

Izdelava: Prostoročno oblikovani lončki iz običajno drobnozrnate lončarske mase z nekaj peska so največkrat oksidacijsko ali redukcijsko žgani. Površina je praviloma gladka.

Najdbe: t. 2: 16; 13: 6; 28: 17; 33: 8; 42: 2.

Stratigrafsko-kronološki oris: Najdbe izvirajo iz hiš 1(2), 3(1), 7, 12(2), 14(3), 15A(1) in 16(1).

Opombe: Pridajanje različno oblikovanih lončkov je sicer bolj kot za svetolucijske grobove značilno za estenske grobnice.[40]

Tip Lo 2

Oblika: Majhne odprte posode brez ramen z navzven usmerjenim zaokroženim robom ustja, ki se proti dnu zožijo (*sl. 9*: Lo 2).

Izdelava: Prostoročno oblikovani lončki iz drobnozrnate lončarske mase z nekaj peska so običajno (nepopolno) oksidacijsko žgani in imajo gladko površino.

Najdbe: t. 28: 13; 55: 3; 66: 5; 91: 3.

Stratigrafsko-kronološki oris: Redke najdbe izvirajo iz hiš 7, 14(1), 16(1), 23(1) in 29(1).

Opombe: Lončkom tipa 2 najdemo primerjave v svetolucijskih grobovih[41] in tudi v estenskih grobnicah.[42]

[38] Dular 1982, 97 ss, sl. 7: (13),14,15; 9; 10.

[39] Npr. lonček iz hiše 16 (*t. 55: 7*) smo uvrstili med lonce tipa 7.

[40] Prim. Capuis, Chieco Bianchi 2006, t. 124: 21–26; Chieco Bianchi, Calzavara Capuis 1985, t. 80: 10–12.

[41] Teržan et al. 1984–1985, 112: sl. 33; 215: sl. 104; t. 100: E; 243: B/8.

[42] Capuis, Chieco Bianchi 2006, t. 124: 26; Chieco Bianchi, Calzavara Capuis 1985, t. 80: 11; 130: 5.

Type Lo 1

Form: Beakers with a rounded lip, an inturned rim, a high rounded or slightly raised shoulder and a body that narrows towards a flat base (*Fig. 9*: Lo 1).

Manufacture: Hand-built, usually of medium-grained fabric with some sand temper, most frequently fired in an oxidising or reducing atmosphere, surface is mainly smooth.

Finds: Pls. 2: 16; 13: 6; 28: 17; 33: 8; 42: 2.

Chrono-stratigraphic attribution: Houses 1(2), 3(1), 7, 12(2), 14(3), 15A(1) and 16(1).

Notes: Different forms of beakers are present in the cemeteries of the Sveta Lucija group, but are more characteristic of the tombs at Este.[40]

Type Lo 2

Form: Small open and shoulderless beakers with a rounded lip and a body that narrows towards the base (*Fig. 9*: Lo 2).

Manufacture: Hand-built, of medium-grained fabric with some sand temper, usually fired in an (incomplete) oxidising atmosphere, surface is smooth.

Finds: Pls. 28: 13; 55: 3; 66: 5; 91: 3.

Chrono-stratigraphic attribution: Rare, from Houses 7, 14(1), 16(1), 23(1) and 29(1).

Notes: These beakers have parallels from the graves of the Sveta Lucija group[41] and the tombs at Este.[42]

Type Lo 3

Form: Beakers with a rounded lip, a vertical rim that is rarely thickened, a high rounded or only slightly raised shoulder, some with a short cylindrical neck, and a body that narrows towards the base (*Fig. 9*: Lo 3).

Manufacture: Hand-built, of medium-grained fabric with some sand temper, fired in a reducing atmosphere, surface is smooth.

Finds: Pls. 28: 18; 55: 8,14; 60: 9.

Chrono-stratigraphic attribution: Rare, from Houses 7, 16(1), 22(1) and 26(1).

[40] Cf. Capuis, Chieco Bianchi 2006, Pl. 124: 21–26; Chieco Bianchi, Calzavara Capuis 1985, Pl. 80: 10–12.

[41] Teržan *et al.* 1984–1985, 112: Fig. 33; 215: Fig. 104; Pls. 100: E; 243: B/8.

[42] Capuis, Chieco Bianchi 2006, Pl. 124: 26; Chieco Bianchi, Calzavara Capuis 1985, Pls. 80: 11; 130: 5.

Tip Lo 3

Oblika: Lončki z visoko postavljenimi zaobljenimi ali le rahlo napetimi rameni, ki se proti dnu močno zožijo. Lahko imajo kratek pokončen vrat. Zaobljen, redkeje odebeljen rob ustja je pokončno usmerjen (*sl. 9*: Lo 3).
Izdelava: Lončki so prostoročno oblikovani iz drobnozrnate lončarske mase z nekaj peska in redukcijsko žgani. Površina je gladka.
Najdbe: t. 28: 18; 55: 8,14; 60: 9.
Stratigrafsko-kronološki oris: Redki primerki izvirajo iz hiš 7, 16(1), 22(1) in 26(1).

Tip Lo 4

Oblika: Trebušasti lončki z usločenim vratom in kratkim izvihanim ustjem (*sl. 9*: Lo 4).
Izdelava: Prostoročno oblikovani lončki, običajno iz drobnozrnate lončarske mase z nekaj peska, so najpogosteje redukcijsko žgani in imajo gladko površino.
Najdbe: t. 37: 14; 55: 6; 63: 1; 95: 4; 99: 3.
Stratigrafsko-kronološki oris: Lončki izvirajo iz hiš 13, 14(1,2), 15(2), 16(1), 22A(2), 30(2) in 36 ter sonde 1.
Opombe: Lončkom tipa 4 najdemo primerjave v svetolucijskih[43] in tudi estenskih grobovih.[44] Po obliki so lončki tipa 4 primerljivi tudi s skodelicami tipa 3 po Dularju, ki so zastopane predvsem v grobovih stopnje Sv. Lucija IIa.[45]

KELIHI (K)

Kelihi v svetolucijski skupini veljajo za običajen inventar grobov, pri čemer so najbolj razširjeni v času stopnje Sv. Lucija IIa,[46] med naselbinskimi najdbami pa jih zaradi fragmentiranosti težko prepoznamo. Med obravnavano keramiko smo tako prepoznali skupno le 3 primerke. Gre za fragmente majhnih posod, ki so po obliki podobne lončkom tipa 2, a imajo ravno dno pritrjeno na ozko izoblikovano nogo (*sl. 13*: K).
Izdelava: Primerki so prostoročno oblikovani iz drobnozrnate lončarske mase z nekaj peska, (nepopolno) oksidacijsko žgani in imajo gladko površino.
Najdbe: t. 14: 5; 35: 19.
Stratigrafsko-kronološki oris: Najdbe izvirajo iz hiš 3(1) in 14(1).

[43] Teržan et al. 1984–1985, t. 2: D; 18: H/2; prim. 56: A/7; 192: A/6.
[44] Capuis, Chieco Bianchi 2006, t. 73: 8; Chieco Bianchi, Calzavara Capuis 1985, t. 62: 42; 141: 18.
[45] Dular 1982, 99 ss, sl. 8: 23; 10.
[46] Dular 1982, 97 ss, sl. 7: 15–18; 10.

Type Lo 4

Form: Ellipsoid beakers with a short everted rim and a curved neck (*Fig. 9*: Lo 4).
Manufacture: Hand-built, usually of medium-grained fabric with some sand temper, most frequently fired in a reducing atmosphere, surface is smooth.
Finds: Pls. 37: 14; 55: 6; 63: 1; 95: 4; 99: 3.
Chrono-stratigraphic attribution: Houses 13, 14(1,2), 15(2), 16(1), 22A(2), 30(2), 36 and Trench 1.
Notes: They have parallels in the beakers from the graves of the Sveta Lucija group[43] and those at Este.[44] They are also comparable with the cups of Type 3 after Dular, which occur in graves that mainly date to the Sv. Lucija IIa phase.[45]

GOBLETS (K)

Goblets are standard goods in the graves of the Sveta Lucija group and are most common in the Sv. Lucija IIa phase,[46] while the high fragmentation of the finds from settlements hinders their identification. The examined pottery from Most na Soči has thus only revealed three pieces that we could positively determine as goblets. All are shards of small vessels that resemble the beakers of Type 2 and only differ in the narrow pedestal applied to the flat base (*Fig. 13*: K).
Manufacture: Hand-built, of medium-grained fabric with some sand temper, fired in an (incomplete) oxidising atmosphere, surface is smooth.
Finds: Pls. 14: 5; 35: 19.
Chrono-stratigraphic attribution: Houses 3(1) and 14(1).

DISHES (Sk)

The pottery from the settlement at Most na Soči includes relatively few pieces of low tableware such as bowls and dishes (7.29% or 86 pieces). Because the low tableware is only represented by rim shards, all pieces are treated here as dishes.

Type Sk 1

Form: Dishes with a short everted rim, a low curved neck, a carinated shoulder-neck junction and a broad shoulder (*Fig. 13*: Sk 1).

[43] Teržan *et al.* 1984–1985, Pls. 2: D; 18: H/2; Cf. 56: A/7; 192: A/6.
[44] Capuis, Chieco Bianchi 2006, Pl. 73: 8; Chieco Bianchi, Calzavara Capuis 1985, Pls. 62: 42; 141: 18.
[45] Dular 1982, 99 ff, Figs. 8: 23; 10.
[46] Dular 1982, 97 ff, Figs. 7: 15–18; 10.

SKLEDE (Sk)

Med obravnavanim gradivom je razmeroma malo nizkega servisnega posodja (7,29 % ali 86 kosov). To je zastopano le s fragmenti ustij, ki jih vse obravnavamo kot sklede.

Tip Sk 1

Oblika: Sklede s širokimi rameni, ki so s klekom oddvojena od nizkega usločenega vratu, in kratkim izvihanim ali navzven zapognjenim ustjem (*sl. 13*: Sk 1).

Izdelava: Prostoročno ali na počasnem vretenu običajno iz finozrnate lončarske mase oblikovane sklede so žgane redukcijsko s končno oksidacijo ali nepopolno oksidacijsko s končnim dimljenjem. Površina je praviloma zglajena.

Najdbe: t. 14: 11; 98: 5.

Stratigrafsko-kronološki oris: Redke najdbe izvirajo iz hiš 3(1), 16(2) in 35(2).

Opombe: Fragment ustja s presegajočim trakastim ročajem iz hiše 35 kaže, da gre pri skledah tipa 1 lahko tudi za skodele (*t. 98: 5*). Primerjave jim najdemo med skodelami tipa 1 po Dularju, ki se pojavljajo predvsem v grobovih stopnje Sv. Lucija Ib.[47]

Tip Sk 2

Oblika: Sklede ali globoke latvice z zaobljenimi rameni in navznoter upognjenim ustjem (*sl. 13*: Sk 2).

Izdelava: Prostoročno oblikovane sklede ali latvice, običajno iz drobnozrnate lončarske mase z nekaj peska, so najpogosteje oksidacijsko ali redukcijsko žgane s končno oksidacijo. Površina je praviloma gladka.

Najdbe: t. 3: 1,3,4,6; 23: 19; 36: 6; 71: 6; 92: 11; 94: 10.

Stratigrafsko-kronološki oris: Najdbe izvirajo iz hiš 3(2), 14(2), 23(1), 29(2) in 30(1), še največ primerkov je najdeno v 2. fazi hiše 1.

Opombe: Sklede tipa 2 lahko primerjamo z latvicami tipa 1 po Dularju, ki veljajo za enega najbolj razširjenih tipov grobne keramike, pri čemer so značilne predvsem za grobove stopnje Sv. Lucija Ib in Ic.[48]

Tip Sk 3

Oblika: Skledi tipa 3 imata pokončno ostenje, ki se v spodnjem delu zalomi proti močno zoženemu dnu. Ustje je pokončno ali rahlo nagnjeno navznoter (*sl. 13*: Sk 3).

[47] Dular 1982, 99 ss, sl. 8: 21; 10.

[48] Dular 1982, 101 ss, sl. 8: 27; 9: 27; 10.

Manufacture: Hand-built or thrown on a slow wheel, usually of fine-grained fabric, fired in a reducing atmosphere with final oxidation or an incomplete oxidising atmosphere with final smoking, surface is usually burnished.

Finds: Pls. 14: 11; 98: 5.

Chrono-stratigraphic attribution: Rare, from Houses 3(1), 16(2) and 35(2).

Notes: The rim fragment with a high strap handle from House 35 shows that Type 1 dishes may also be bowls (*Pl. 98: 5*). They are comparable with the bowls of Type 1 after Dular, which mainly occur in the graves of the Sv. Lucija Ib phase.[47]

Type Sk 2

Form: Dishes with an inturned rim and a rounded shoulder (*Fig. 13*: Sk 2).

Manufacture: Hand-built, usually of medium-grained fabric with some sand temper, most frequently fired in an oxidising or a reducing atmosphere with final oxidation, surface is usually smooth.

Finds: Pls. 3: 1,3,4,6; 23: 19; 36: 6; 71: 6; 92: 11; 94: 10.

Chrono-stratigraphic attribution: Houses 3(2), 14(2), 23(1), 29(2) and 30(1), most numerously from Phase 2 of House 1.

Notes: They are comparable with the dishes with an inturned rim of Type 1 after Dular, which represent one of the most widespread types of funerary pottery and are most characteristic of the graves from the Sv. Lucija Ib and Ic phases.[48]

Type Sk 3

Form: Carinated dishes with a vertical or slightly inturned rim (*Fig. 13*: Sk 3).

Manufacture: Same as for the dishes of Type 2.

Finds: Pls. 59: 18; 89: 24.

Chrono-stratigraphic attribution: Rare, from Houses 21 and 26(1).

Type Sk 4

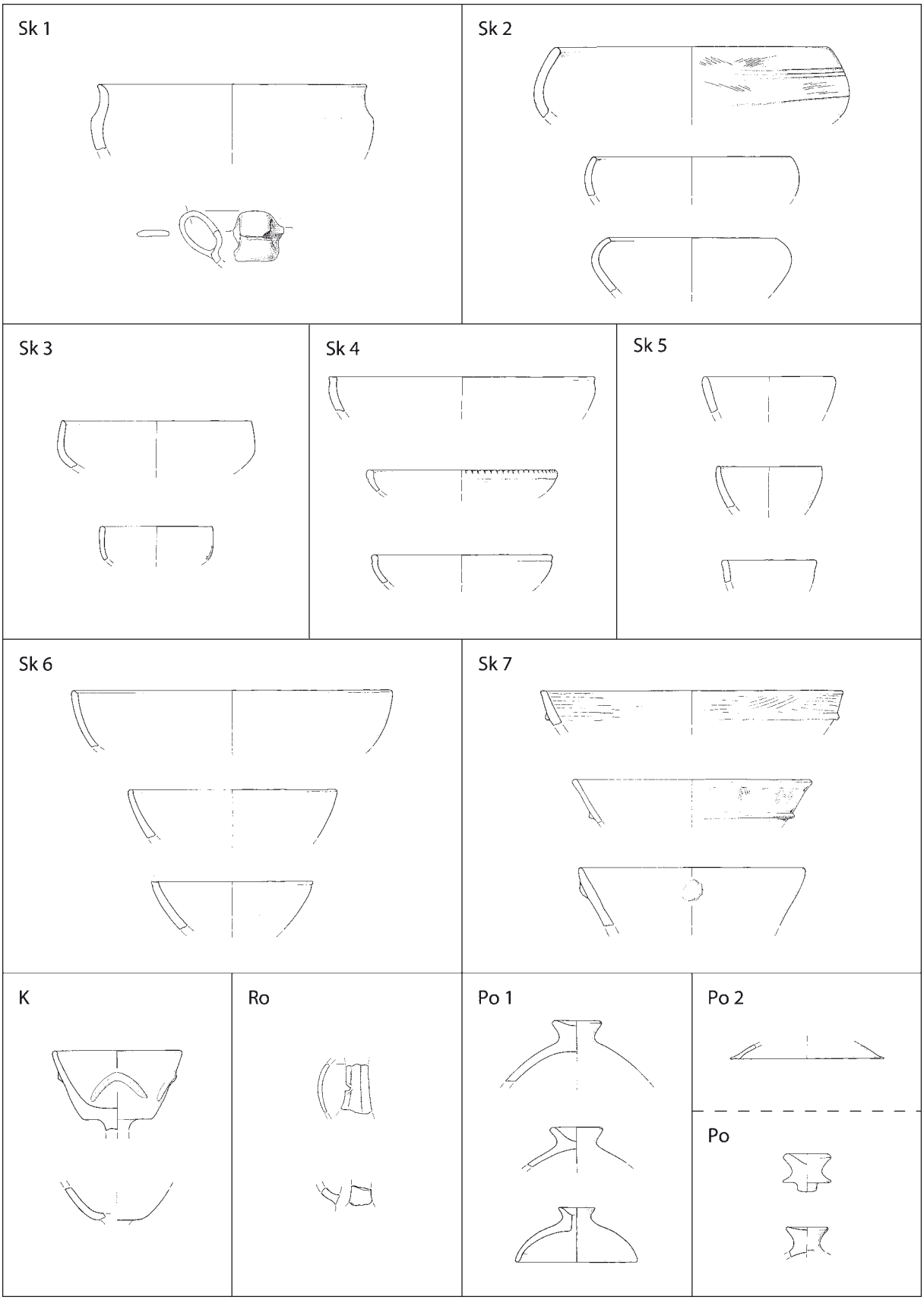
Form: Low open dishes with usually a roundly thickened rim, a rounded body that narrows towards the base and a shallow groove below the rim (*Fig. 13*: Sk 4).

Manufacture: Hand-built, of fine- or medium-grained fabric with some sand temper, most frequently fired in a reducing or oxidising atmosphere, surface is smooth.

Finds: Pls. 28: 23; 33: 11; 37: 10; 54: 8; 88: 12; 89: 14; 91: 7.

[47] Dular 1982, 99 ff, Figs. 8: 21; 10.

[48] Dular 1982, 101 ff, Figs. 8: 27; 9: 27; 10.



Sl. 13: Sklede tipa 1–7, kelihi (K), ročaji (Ro) in pokrovi tipa 1 in 2.
Fig. 13: Dishes of Types 1–7, goblets (K), handles (Ro) and lids of Types 1 and 2.

Izdelava: Kot sklede tipa 2.
Najdbi: t. 59: 18; 89: 24.
Stratigrafsko-kronološki oris: Posamična primerka izvirata iz hiš 21 in 26(1).

Tip Sk 4

Oblika: Nizke odprte sklede z zaobljenim trupom, ki se proti dnu močno zoži. Rob ustja je pogosto poudarjen s plitko kaneluro in običajno kroglasto odebeljen (*sl. 13*: Sk 4).
Izdelava: Prostoročno oblikovane sklede iz drobno- ali finozrnate lončarske mase z nekaj peska so največkrat redukcijsko ali oksidacijsko žgane in imajo gladko površino.
Najdbe: t. 28: 23; 33: 11; 37: 10; 54: 8; 88: 12; 89: 14; 91: 7.
Stratigrafsko-kronološki oris: Najdbe izvirajo iz hiš 1(2), 3(1), 6(2), 7, 12(2), 14(1), 15(2), 15A(3), 24(2), 25(2) in 29(1).
Opombe: Sklede tipa 4 navadno niso okrašene, imajo zgolj poudarjen rob ustja. Izjema je z metličenjem okrašen fragment iz hiše 7 (*t. 28: 23*), ki pa lahko pripada tudi pokrovu. V grobovih se podobne sklede le redko pojavljajo.[49]

Tip Sk 5

Oblika: Manjše globoke odprte sklede s stožčasto oblikovanim trupom, ki se proti dnu močno zožujejo. Običajno zaobljen rob ustja je usmerjen pokončno ali navzven (*sl. 13*: Sk 5).
Izdelava: Prostoročno oblikovane sklede iz običajno drobnozrnate lončarske mase z nekaj peska so najpogosteje oksidacijsko žgane in imajo gladko površino.
Najdbe: t. 2: 15; 59: 16; 64: 7; 71: 1; 92: 10.
Stratigrafsko-kronološki oris: Redke najdbe izvirajo iz hiš 1(2), 13, 14(1), 21, 22A(2), 23(1,2) in 29(2).
Opombe: V grobovih zelo redko zasledimo podobne posode.[50]

Tip Sk 6

Oblika: Globoke odprte sklede s polkrožno oblikovanim zaobljenim trupom, ki se proti dnu močno zožujejo. Rob ustja, na katerem je pogosto plitek žleb kot utor za pokrov, je pokončen (*sl. 13*: Sk 6).
Izdelava: Kot sklede tipa 5.
Najdbe: t. 8: 7; 9: 12; 10: 1; 35: 11; 36: 5; 58: 3; 66: 10; 71: 3,5; 95: 11.

[49] Prim. Teržan et al. 1984–1985, t. 18: I/4; 22: F/2.
[50] Prim. Teržan et al. 1984–1985, t. 21: D/1; 33: B/4.

Chrono-stratigraphic attribution: Houses 1(2), 3(1), 6(2), 7, 12(2), 14(1), 15(2), 15A(3), 24(2), 25(2) and 29(1).
Notes: They are usually undecorated with the exception of the groove below the rim, but do include a shard with brushed decoration from House 7 (*Pl. 28: 23*), though it may also have belonged to a lid. Such dishes only rarely occur as grave goods.[49]

Type Sk 5

Form: Small conical dishes with a rounded lip and a vertical or oblique rim (*Fig. 13*: Sk 5).
Manufacture: Hand-built, usually of medium-grained fabric with some sand temper, most frequently fired in an oxidising atmosphere, surface is smooth.
Finds: Pls. 2: 15; 59: 16; 64: 7; 71: 1; 92: 10.
Chrono-stratigraphic attribution: Rare, from Houses 1(2), 13, 14(1), 21, 22A(2), 23(1,2) and 29(2).
Notes: Such vessels rarely occur as grave goods.[50]

Type Sk 6

Form: Deep hemispherical dishes with a vertical rim that often has a lid seat (*Fig. 13*: Sk 6).
Manufacture: Same as for the dishes of Type 5.
Finds: Pls. 8: 7; 9: 12; 10: 1; 35: 11; 36: 5; 58: 3; 66: 10; 71: 3,5; 95: 11.
Chrono-stratigraphic attribution: Houses 2(1,2), 8(2), 10(2), 14(1–3), 16(1,2), 17(1), 23(1), 24(2), 26(1), 30(1,2), the drainage ditch and Trenches 1, 21-22 and 36.
Notes: They are predominantly undecorated with the exception of a shard with brushed decoration from Phase 2 of House 16 (*Pl. 36: 5*). The rim fragments without the lid seat may also belong to baking lids. Similar dishes only rarely occur as grave goods.[51]

Type Sk 7

Form: Deep conical dishes with a rounded or flat lip and usually an oblique rim, often decorated with applied cordons and knobs, some also with brushed decoration (*Fig. 13*: Sk 7).
Manufacture: Same as for the dishes of Type 5.
Finds: Pls. 35: 3; 63: 12,14; 71: 4; 91: 13; 95: 12.
Chrono-stratigraphic attribution: Houses 6(1,2), 7, 14(1), 22A(2), 23(1), 25(2) and 29(1).
Notes: These dishes include a fragment of a strongly everted rim with a lid seat associated with Phase

[49] Cf. Teržan *et al.* 1984–1985, Pls. 18: I/4; 22: F/2.
[50] Cf. Teržan *et al.* 1984–1985, Pls. 21: D/1; 33: B/4.
[51] Cf. Teržan *et al.* 1984–1985, Pls. 34: G/2; 239: B/3.

Stratigrafsko-kronološki oris: Najdbe izvirajo iz hiš 2(1,2), 8(2), 10(2), 14(1–3), 16(1,2), 17(1), 23(1), 24(2), 26(1), 30(1,2) in jarka ter sond 1, 21-22 in 36.

Opombe: Razen z metličenjem okrašenega primerka iz 2. faze hiše 16 (*t. 36: 5*) sklede tipa 6 niso okrašene. Fragmenti ustij brez utora za pokrov lahko pripadajo tudi pekvam. Podobne sklede v grobovih redko zasledimo.[51]

Tip Sk 7

Oblika: Globoke odprte sklede s stožčasto oblikovanim trupom, ki se proti dnu močno zožuje. Zaobljen ali ravno odrezan rob ustja je običajno usmerjen navzven. Sklede so pogosto okrašene z nalepljenimi rebri ali bradavicami, lahko pa so okrašene tudi z metličenjem (*sl. 13*: Sk 7).

Izdelava: Kot sklede tipa 5.

Najdbe: t. 35: 3; 63: 12,14; 71: 4; 91: 13; 95: 12.

Stratigrafsko-kronološki oris: Najdbe izvirajo iz hiš 6(1,2), 7, 14(1), 22A(2), 23(1), 25(2) in 29(1).

Opombe: Med sklede tipa 6 uvrščamo tudi fragment navzven podaljšanega ustja z utorom za pokrov na zgornji strani iz 2. faze hiše 30 (*t. 95: 12*). Sicer so kot sklede lahko opredeljeni tudi fragmenti, ki pripadajo pekvam. Podobne sklede poznamo iz estenskih grobnic.[52]

ROČAJI (Ro)

Med obravnavano keramiko je tudi več fragmentov različno oblikovanih trakastih ročajev (*sl. 13*: Ro). Ti kažejo, da so med naselbinskimi najdbami zagotovo zastopane tudi skodele in vrči, ki sodijo med najbolj razširjene oblike grobne keramike.[53]

Izdelava: Prostoročno oblikovani ročaji iz fino- ali drobnozrnate lončarske mase, običajno z nekaj peska, so najpogosteje oksidacijsko žgani in imajo gladko površino.

Najdbe: t. 60: 17; 61: 3.

Stratigrafsko-kronološki oris: Redke najdbe izvirajo iz hiš 7, 11(2), 14(2), 15(2), 22(1) in 22A(2).

Opombe: Iz jarka izvira najdba masivnega trakastega ročaja, okrašenega z vzdolžnimi plitkimi kanelurami in na robovih z vtisi (*t. 100: 6*). Primerek se od preostalih najdb nekoliko razlikuje tudi po sestavi lončarske mase, saj ga moramo najverjetneje povezovati s poselitvijo Mosta na Soči v pozni bronasti dobi.[54]

[51] Prim. Teržan et al. 1984–1985, t. 34: G/2; 239: B/3.

[52] Chieco Bianchi, Calzavara Capuis 1985, t. 260: B/8; 270: 10; 275: B/2.

[53] Dular 1982, 98 ss, sl. 7: 19,20; 8: 21–23.

[54] Prim. Svoljšak 1988–1989, 371, t. 6.

2 of House 30 (*Pl. 95: 12*). Some of the shards determined as Type Sk 7 dishes may also belong to baking lids. Similar dishes are known from the tombs at Este.[52]

HANDLES (Ro)

The pottery remains from the settlement at Most na Soči include several fragments of differently shaped strap handles (*Fig. 13*: Ro). These show that the pottery certainly included bowls and jugs, which represent the most common forms of funerary pottery.[53]

Manufacture: Hand-built, of fine- or medium-grained fabric, usually with some sand temper, most frequently fired in an oxidising atmosphere, surface is smooth.

Finds: Pls. 60: 17; 61: 3.

*Chrono-stratigra*phic *attribution*: Rare, from Houses 7, 11(2), 14(2), 15(2), 22(1) and 22A(2).

Notes: A piece of a large strap handle with longitudinal shallow grooves and impressions along the edges has been found in the drainage ditch (*Pl. 100: 6*). Apart from its size and form, this piece also differs from the others in its fabric and should probably be connected with the Bronze Age occupation of this area.[54]

LIDS (Po)

Lids are not common at Most na Soči and are most readily identifiable by their knobs (*Fig. 13*: Po). I distinguish between two types: the commoner bell-shaped type that usually has a rounded rim (*Fig. 13*: Po 1) and the conical type with a flat and slightly out-turned rim (*Fig. 13*: Po 2). Both types have more or less deeply indented knobs that are only rarely perforated (*Pl. 36: 7*).

Manufacture: Hand-built, of medium-grained fabric, usually with some sand temper, most frequently fired in an (incomplete) oxidising atmosphere, surface is smooth.

Finds: **Po**: Pls. 30: 11; 95: 10; **Po 1**: Pls. 30: 12; 32: 14; 34: 18; 36: 7; 94: 13; **Po 2**: Pls. 11: 3; 30: 16.

*Chrono-stratigrap*hic *attribution*: Houses 3(1), 6(1,2), 8(2), 11(2), 14(1,2), 23(1), 30(1,2), as well as Trenches 1, 1A and 21-22.

Notes: Rare lids bear brushed decoration (*Pl. 30: 11*).

[52] Chieco Bianchi, Calzavara Capuis 1985, Pls. 260: B/8; 270: 10; 275: B/2.

[53] Dular 1982, 98 ff, Figs. 7: 19,20; 8: 21–23.

[54] Cf. Svoljšak 1988–1989, 371, Pl. 6.

POKROVI (Po)

S posodjem povezujemo pokrove, a so ti maloštevilni in najlažje prepoznani po čepih (*sl. 13*: Po). Razlikujemo med dvema tipoma pokrovov, pri čemer so pogostejši kupolasto oblikovani pokrovi z običajno zaobljenim robom stojne površine (*sl. 13*: Po 1). Poleg njih med obravnavanim gradivom prepoznamo še bolj konično oblikovane pokrove, ki imajo ravni rob stojne ploskve izvlečen navzven (*sl. 13*: Po 2). Obe obliki pokrovov se zaključujeta z lijakasto oblikovanimi ali z vrha bolj ali manj globoko usločeni masivnimi čepi, ki so le redko predrti (*t. 36: 7*).

Izdelava: Prostoročno oblikovani pokrovi iz drobnozrnate lončarske mase, običajno z nekaj peska, so največkrat (nepopolno) oksidacijsko žgani in imajo gladko površino.

Najdbe: **Po**: t. 30: 11; 95: 10; **Po 1**: t. 30: 12; 32: 14; 34: 18; 36: 7; 94: 13; **Po 2**: t. 11: 3; 30: 16.

Stratigrafsko-kronološki oris: Najdbe izvirajo iz hiš 3(1), 6(1,2), 8(2), 11(2), 14(1,2), 23(1) in 30(1,2) ter sond 1, 1A in 21-22.

Opombe: Pokrovi so redko okrašeni z metličenjem (*t. 30: 11*).

DNA (D)

Velik delež posodja (31,30 % ali 369 kosov) predstavljajo fragmenti dna, razvrščamo jih v 7 tipov.

Tip D 1

Oblika: Ravno dno z ostrim ali zaobljenim prehodom v steno posode (*sl. 14*: D 1).

Izdelava: Dna posod, ki so bile prostoročno oblikovane, običajno iz drobnozrnate lončarske mase s peskom, in so bile največkrat (nepopolno) oksidacijsko žgane, imajo običajno gladko površino.

Najdbe: t. 3: 8; 9: 10; 10: 3; 11: 7,8; 14: 8,9,12; 25: 6; 30: 17,19; 33: 13,16; 35: 6,12,14,15; 36: 11; 38: 3,5; 42: 8; 43: 1,3,4; 54: 4,5; 59: 8; 60: 19; 61: 20; 64: 4,6; 69: 17; 73: 1,2,7; 79: 2; 81: 2,16; 88: 4; 91: 11; 92: 15–18; 99: 6,10; 100: 10.

Stratigrafsko-kronološki oris: Fragmenti dna tipa 1 so bili najdeni malodane v vseh hišah, jarku ter v sondah 1, 1A, 2, 36 in A8/3R.

Opombe: Dna tipa 1 večinoma pripadajo loncem ali lončkom (prim. *t. 36: 11*). Redki bolj fini primerki (*t. 30: 19*) lahko pripadajo tudi skledam.

BASE FRAGMENTS (D)

Fragments of bases represent a high share (31.30% or 369 pieces) of the pottery remains and are classified into seven types.

Type D 1

Form: Flat base with a sharp or rounded base-body junction (*Fig. 14*: D 1).

Manufacture: Hand-built, usually of medium-grained fabric with sand temper, most frequently fired in an (incomplete) oxidising atmosphere, surface is usually smooth.

Finds: Pls. 3: 8; 9: 10; 10: 3; 11: 7,8; 14: 8,9,12; 25: 6; 30: 17,19; 33: 13,16; 35: 6,12,14,15; 36: 11; 38: 3,5; 42: 8; 43: 1,3,4; 54: 4,5; 59: 8; 60: 19; 61: 20; 64: 4,6; 69: 17; 73: 1,2,7; 79: 2; 81: 2,16; 88: 4; 91: 11; 92: 15–18; 99: 6,10; 100: 10.

*Chrono-stratigrap*hic *attribution*: Found in almost all houses, the drainage ditch and Trenches 1, 1A, 2, 36 and A8/3R.

Notes: They mostly belong to jars or beakers (cf. *Pl. 36: 11*). The rare finer examples (*Pl. 30: 19*) may also belong to dishes.

Type D 2

Form: Flat bases with a rounded or sharp saddle-like base-body junction (*Fig. 14*: D 2).

Manufacture: Same as for the bases of Type 1.

Finds: Pls. 8: 8; 10: 4; 11: 5,9,13; 13: 7,8,10; 25: 7; 32: 17,19,21; 35: 10; 36: 14; 38: 4,9; 39: 9; 43: 5,6,9; 54: 3,11; 55: 15; 58: 9; 59: 17; 60: 20; 61: 4; 67: 4; 73: 3–5, 8–10; 81: 1,5,6,8–15, 17; 90: 4; 91: 10,12; 94: 3; 99: 7.

*Chrono-stratigrap*hic *attribution*: From almost all houses, the drainage ditch and Trenches 1, 1A, 20 and A8/3R.

Notes: They mostly belong to jars.

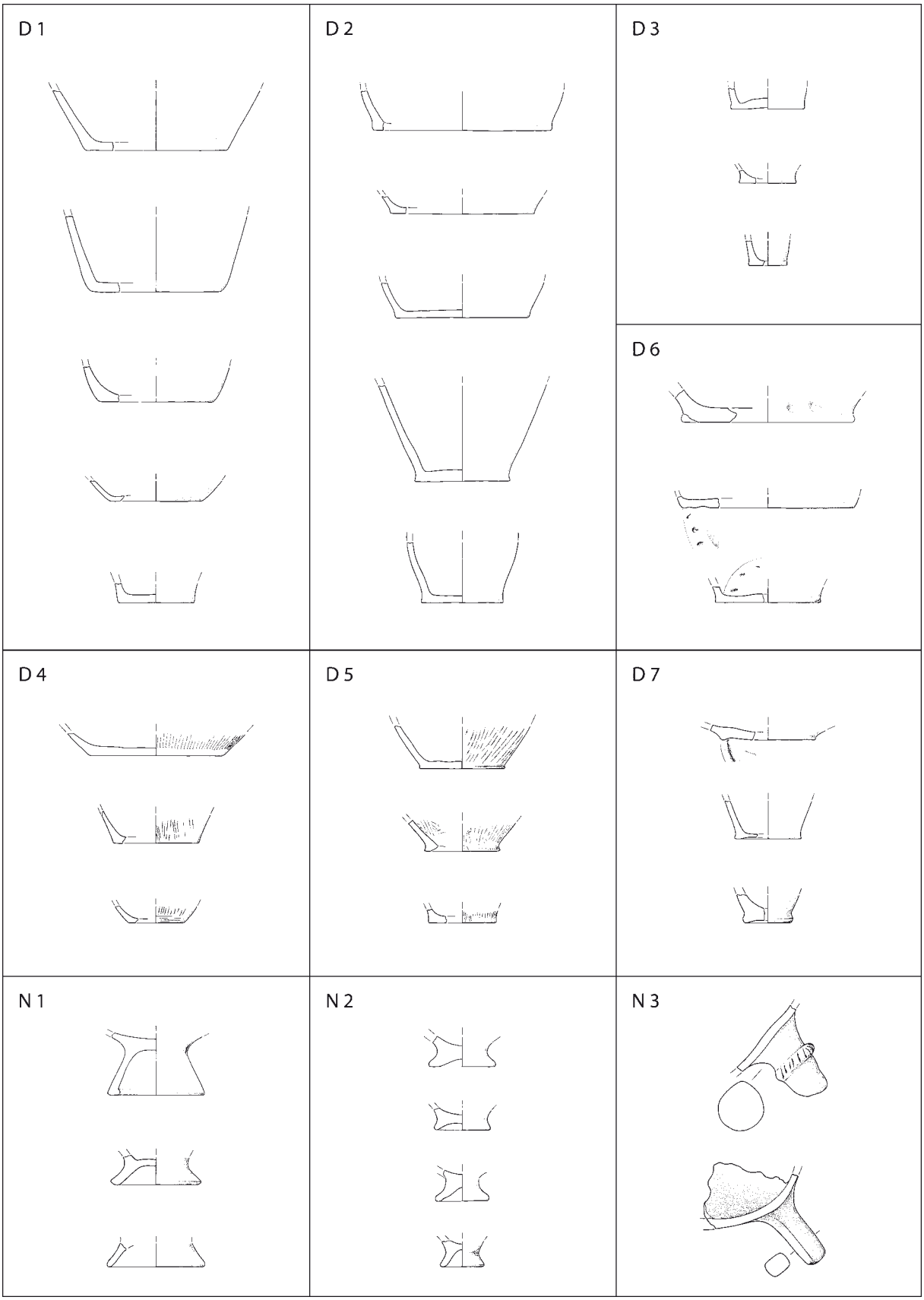
Type D 3

Form: Flat bases of beakers with a rounded or sharp saddle-like base-body junction (*Fig. 14*: D 3).

Manufacture: Hand-built, usually of medium-grained fabric with some sand temper, most frequently fired in a reducing atmosphere with final oxidation or in an oxidising atmosphere, surface is smooth.

Finds: Pls. 10: 2; 28: 24; 35: 9; 36: 15; 64: 3; 81: 3,4,7.

*Chrono-stratigrap*hic *attribution*: Houses 2(2), 7, 14(1,2), 15A(2), 16(1), 22(1), 22A(2) and 23(2).



Sl. 14: Dna tipa 1–7 in noge tipa 1–3.
Fig. 14: Bases of Types 1–7 and pedestals of Types 1–3.

Tip D 2

Oblika: Ravno dno z zaobljenim ali ostrim sedlastim prehodom v steno posode (*sl. 14*: D 2).
Izdelava: Kot dna tipa 1.
Najdbe: t. 8: 8; 10: 4; 11: 5,9,13; 13: 7,8,10; 25: 7; 32: 17,19,21; 35: 10; 36: 14; 38: 4,9; 39: 9; 43: 5,6,9; 54: 3,11; 55: 15; 58: 9; 59: 17; 60: 20; 61: 4; 67: 4; 73: 3–5, 8–10; 81: 1,5,6,8–15, 17; 90: 4; 91: 10,12; 94: 3; 99: 7.
Stratigrafsko-kronološki oris: Fragmenti dna tipa 2 so najdeni malodane v vseh hišah, jarku ter v sondah 1, 1A, 20 in A8/3R.
Opombe: Dna tipa 2 večinoma pripadajo loncem.

Tip D 3

Oblika: Ravna dna lončkov s ostrim ali zaobljenim sedlastim prehodom v steno posode (*sl. 14*: D 3).
Izdelava: Dna prostoročno oblikovanih lončkov, običajno iz drobnozrnate lončarske mase z nekaj peska; lončki so največkrat redukcijsko žgani s končno oksidacijo ali oksidacijsko žgani in imajo gladko površino.
Najdbe: t. 10: 2; 28: 24; 35: 9; 36: 15; 64: 3; 81: 3,4,7.
Stratigrafsko-kronološki oris: Najdbe izvirajo iz hiš 2(2), 7, 14(1,2), 15A(2), 16(1), 22(1), 22A(2) in 23(2).

Tip D 4

Oblika: Ravna dna loncev z okrasom metličenja, ki imajo oster ali zaobljen prehod v steno posode (*sl. 14*: D 4).
Izdelava: Dna prostoročno oblikovanih loncev iz drobnozrnate lončarske mase z nekaj peska, ki so bili najpogosteje redukcijsko ali nepopolno oksidacijsko žgani, imajo gladko površino.
Najdbe: t. 1: 3; 33: 15; 35: 7,8; 35: 13; 16; 39: 8; 59: 7; 60: 16; 61: 19,21; 64: 2; 99: 9.
Stratigrafsko-kronološki oris: Najdbe izvirajo iz hiš 1(1,2), 6(2), 7, 12(2), 14(1–3), 15 (3), 16(2), 19, 20, 22(1), 22A(1,2) in 36.
Opombe: Dna pripadajo loncem tipa 17 in 18.

Tip D 5

Oblika: Ravna dna loncev z okrasom metličenja, ki imajo oster ali zaobljen sedlast prehod v steno posode (*sl. 14*: D 5).
Izdelava: Kot dna tipa 4.
Najdbe: t. 30: 18; 36: 13; 39: 7; 57: 8; 59: 6; 64: 5.
Stratigrafsko-kronološki oris: Redke najdbe izvirajo iz hiš 1(2), 8(2), 14(1,2), 15(3), 16(2), 19 in 22A(2).
Opombe: Dna pripadajo loncem tipa 17 in 18.

Type D 4

Form: Flat bases of jars with a sharp or rounded base-body junction and brushed decoration (*Fig. 14*: D 4).
Manufacture: Hand-built, of medium-grained fabric with some sand temper, most frequently fired in a reducing or an incomplete oxidising atmosphere, surface is smooth.
Finds: Pls. 1: 3; 33: 15; 35: 7,8; 35: 13; 16; 39: 8; 59: 7; 60: 16; 61: 19,21; 64: 2; 99: 9.
*Chrono-stratigrap*hic *attribution*: Houses 1(1,2), 6(2), 7, 12(2), 14(1–3), 15 (3), 16(2), 19, 20, 22(1), 22A(1,2) and 36.
Notes: They belong to the jars of Types 17 and 18.

Type D 5

Form: Flat bases of jars with a rounded or sharp saddle-like base-body junction and brushed decoration (*Fig. 14*: D 5).
Manufacture: Same as for the bases of Type 4.
Finds: Pls. 30: 18; 36: 13; 39: 7; 57: 8; 59: 6; 64: 5.
*Chrono-stratigrap*hic *attribution*: Rare, from Houses 1(2), 8(2), 14(1,2), 15(3), 16(2), 19 and 22A(2).
Notes: They belong to the jars of Types 17 and 18.

Type D 6

Form: Flat bases with a sharp or rounded and sometimes saddle-like base-body junction, decorated with finger or fingernail impressions (*Fig. 14*: D 6).
Manufacture: Same as for the bases of Type 1.
Finds: Pls. 3: 7; 33: 10; 43: 2.
*Chrono-stratigrap*hic *attribution*: Rare, from Houses 1(2), 12(2), 15A(1) and 30(2).

Type D 7

Form: Ring or concave bases with a saddle-like base-body junction (*Fig. 14*: D 7).
Manufacture: Same as for the bases of Type 1.
Finds: Pls. 28: 22; 61: 8; 91: 8.
*Chrono-stratigrap*hic *attribution*: Houses 3(1,2), 7, 12(2), 13, 22A(1), 23(1), 29(1) and Trench 1A.

Tip D 6

Oblika: Ravna dna z ostrim ali zaobljenim, lahko sedlastim prehodom v steno posode, okrašena z vtisi prsta ali nohta (*sl. 14*: D 6).
Izdelava: Kot dna tipa 1.
Najdbe: t. 3: 7; 33: 10; 43: 2.
Stratigrafsko-kronološki oris: Redke najdbe izvirajo iz hiš 1(2), 12(2), 15A(1) in 30(2).

Tip D 7

Oblika: Prstanasta in vbočena dna s sedlastim prehodom v steno posode (*sl. 14*: D 7).
Izdelava: Lot dna tipa 1.
Najdbe: t. 28: 22; 61: 8; 91: 8.
Stratigrafsko-kronološki oris: Najdbe izvirajo iz hiš 3(1,2), 7, 12(2), 13, 22A(1), 23(1) in 29(1) ter sonde 1A.

NOGE (N)

Med obravnavanim gradivom je več primerkov nog ali dna posod na nogi, ki kažejo, da so situle in kelihi bolj številčno zastopani med naselbinsko keramiko, kot je to razvidno iz fragmentov ustij in ostenij. Razlikujemo med razmeroma visokimi, stožčasto oblikovanimi nogami (*sl. 14*: N 1), ki lahko pripadajo tudi loncem na nogi, ter nizkimi nogami z navzven izvihano stojno ploskvijo (*sl. 14*: N 2), ki pa najverjetneje pripadajo le kelihom. Poleg teh je bilo najdeno tudi nekaj primerkov masivnih nog (*sl. 14*: N 3), ki bržkone pripadajo tri- ali štirinožnikom, kot jih najdemo med gradivom iz estenskih grobnic.[55]
Izdelava: Prostoročno oblikovane noge iz običajno drobnozrnate lončarske mase z nekaj peska so najpogosteje (nepopolno) oksidacijsko žgane in imajo gladko površino.
Najdbe: **N 1**: t. 35: 5; 36: 12; 55: 13; 64: 1; **N 2**: t. 9: 9; 57: 14; 59: 10; 61: 15; 88: 2; 89: 15; 99: 2,8; **N 3**: 29: 4; 35: 20; 57: 12,13.
Stratigrafsko-kronološki oris: Najdbe nog tipa 1 izvirajo iz hiš 14(1,2), 16(1) in 22A(2). Noge tipa 2 so najdene med gradivom iz hiš 2(2), 14(1), 16(2), 19, 22A(1), 24(1), 25(2) in 36; noge tipa 3 pa v hišah 8(1,2), 14(1) in 16(2).
Opombe: Na nogah tipa 1 in 2 so lahko ohranjene sledi rdečega premaza (*t. 9: 9; 64: 1; 99: 2,8*).

[55] Capuis, Chieco Bianchi 2006, t. 30: 11; Chieco Bianchi, Calzavara Capuis 1985, t. 192: 36,37.

PEDESTALS (N)

The pottery from Most na Soči includes several shards of pedestals and pedestal bases that show situlae and goblets to be better represented than what can be gleaned from the rim and body shards. I distinguish between relatively high conical pedestals (*Fig. 14*: N 1), which may belong to situlae, goblets or even pedestal jars, and low pedestals with an out-turned rim (*Fig. 14*: N 2) that most likely belonged to goblets. The pottery remains also include several large legs (*Fig. 14*: N 3), which presumably belonged to vessels with three or four legs, such as are known from the tombs at Este.[55]
Manufacture: Hand-built, usually of medium-grained fabric with some sand temper, most frequently fired in an (incomplete) oxidising atmosphere, surface is smooth.
Finds: **N 1**: Pls. 35: 5; 36: 12; 55: 13; 64: 1; **N 2**: Pls. 9: 9; 57: 14; 59: 10; 61: 15; 88: 2; 89: 15; 99: 2,8; **N 3**: 29: 4; 35: 20; 57: 12,13.
Chrono-stratigraphic attribution: Type 1 pedestals from Houses 14(1,2), 16(1) and 22A(2); Type 2 from Houses 2(2), 14(1), 16(2), 19, 22A(1), 24(1), 25(2) and 36; Type 3 from Houses 8(1,2), 14(1) and 16(2).
Notes: Some pedestals of Types 1 and 2 show traces of a red paint (*Pls. 9: 9; 64: 1; 99: 2,8*).

HEARTH UTENSILS

BAKING LIDS (Pe)

Baking lids are very rare finds in the settlement at Most na Soči (only 23 pieces). I distinguish between Type 1 with an undecorated body-apex junction, Type 2 with this junction decorated with impressions and Type 3, which comprises completely undecorated examples, while baking lid handles decorated with impressions or incisions are treated as Type 4 (*Fig. 15*: Pe 1–Pe 4).
Manufacture: Hand-built, usually of medium-grained fabric with some (also coarse) sand temper, fired in an oxidising atmosphere, surface is most frequently smooth.
Finds: **Pe 1**: Pl. 3: 9; **Pe 2**: Pls. 94: 14; 96: 8–10; **Pe 3**: Pls. 59: 2; 90: 9; **Pe 4**: 25: 11; 94: 12; 96: 6; 100: 12.
Chrono-stratigraphic attribution: Houses 1(2), 6(1), 7, 10(2), 14/(1,2), 15(2), 19, 29(1), 30(1,2), the drainage ditch, as well as Trenches 2 and A8/3R.
Notes: All three examples of Type 1 baking lids have a cordon on the body (cf. *Pl. 3: 9*). Some of the rims discussed under the dishes of Types 6 and 7 may also belong to baking lids.

[55] Capuis, Chieco Bianchi 2006, Pl. 30: 11; Chieco Bianchi, Calzavara Capuis 1985, Pls. 192: 36,37.

OGNJIŠČNI PREDMETI

PEKVE (Pe)

Pekve predstavljajo zelo majhen delež obravnavane keramike (le 23 kosov). Po oblikovanosti prehoda ostenja v teme razlikujemo med pekvami tipa 1, ki imajo neokrašen prehod, in pekvami tipa 2, za katere je značilno, da imajo rob temena okrašen z vtisi. Kot pekve tipa 3 obravnavamo neokrašene, kot pekve tipa 4 pa z vtisi ali vrezi okrašene ročaje pekev (*sl. 15*: Pe 1–Pe 4).

Izdelava: Prostoročno oblikovane pekve, običajno iz drobnozrnate lončarske mase z nekaj (tudi grobega) peska, so oksidacijsko žgane in imajo najpogosteje gladko površino.

Najdbe: **Pe 1**: t. 3: 9; **Pe 2**: t. 94: 14; 96: 8–10; **Pe 3**: t. 59: 2; 90: 9; **Pe 4**: 25: 11; 94: 12; 96: 6; 100: 12.

Stratigrafsko-kronološki oris: Najdbe pekev izvirajo iz hiš 1(2), 6(1), 7, 10(2), 14/(1,2), 15(2), 19, 29(1) in 30(1,2), ter jarka in sond 2 in A8/3R.

Opombe: Vsi trije primerki pekev tipa 1 so okrašeni z vodoravnim rebrom na ostenju (prim. *t. 3: 9*). Pekvam lahko pripadajo tudi nekatera ustja, ki jih obravnavamo kot sklede tipa 6 in 7.

PRENOSNE PEČKE (Pp)

Prenosne pečke so v primerjavi s pekvami na Mostu na Soči bolj razširjene (57 kosov), vendar močno fragmentirane. Razvrščamo jih glede na oblikovanost roba pekača. Za pečke tipa 1 je tako značilno, da ostenje tekoče prehaja v izvlečeno ploščo (pekač),[56] ki ima običajno zaobljen rob (*sl. 15*: Pp 1). Izvlečena plošča, ki ima ali zaobljen ali ravno odrezan rob, je značilna tudi za pečke tipa 2, vendar je zanje značilen oster prehod v ostenje (*sl. 15*: Pp 2). Pri pečkah tipa 3 plošča ni tako izrazito izvlečena iz ostenja, je pa vedno nekoliko usločena (*sl. 15*: Pp 3), medtem ko je značilnost prenosnih pečk tipa 4, da plošča iz ostenja ni izvlečena (*sl. 15*: Pp 4). Vse fragmente vrat in ostenja obravnavamo kot prenosne pečke tipa 5 (*sl. 15*: Pp 5).

Izdelava: Prenosne pečke so prostoročno oblikovane, običajno iz drobnozrnate lončarske mase z nekaj peska, in so (nepopolno) oksidacijsko žgane. Površina je najpogosteje gladka.

Najdbe: **Pp 1**: t. 33: 17; 38: 1; 67: 2; 80: 1–3,5; 99: 12; **Pp 2**: t. 67: 1,3; 80: 4,6,7; **Pp 3**: t. 3: 5; 7: 2; 33: 14; 57: 10; 58: 6; 88: 8; 89: 23; **Pp 4**: t. 65: 5; 88: 8; 89: 25; **Pp 5**: t. 66: 8; 67: 5; 69: 13,18.

Stratigrafsko-kronološki oris: Najdbe izvirajo iz hiš 1(1,2), 8(2), 12(2), 14(2), 15(2), 16(2), 18, 22A(2), 23(1,2), 24(2), 26(1), 29(2), 30(1,2) in 36 ter sonde 1A. Pri tem daleč največ primerkov (27 kosov) izvira iz hiše

[56] Prim. Grahek 2016, 182 ss, sl. 50.

PORTABLE OVENS (Pp)

Portable ovens are much better represented (57 pieces) at Most na Soči than baking lids, but they are heavily fragmented. They are classified according to the shape of the pan rim. Type 1 has a smooth stand-pan[56] junction and usually a rounded pan rim (*Fig. 15*: Pp 1). Type 2 has a sharp stand-pan junction, while the rim is either rounded or flat (*Fig. 15*: Pp 2). Type 3 has a slightly concave pan that does not exceed the stand by much (*Fig. 15*: Pp 3), Type 4 has a pan that does not exceed the stand at all (*Fig. 15*: Pp 4), while all the fragments of openings and stands are jointly treated as Type 5 (*Fig. 15*: Pp 5).

Manufacture: Hand-built, usually of medium-grained fabric with some sand temper, fired in an (incomplete) oxidising atmosphere, surface is most frequently smooth.

Finds: **Pp 1**: Pls. 33: 17; 38: 1; 67: 2; 80: 1–3,5; 99: 12; **Pp 2**: Pls. 67: 1,3; 80: 4,6,7; **Pp 3**: Pls. 3: 5; 7: 2; 33: 14; 57: 10; 58: 6; 88: 8; 89: 23; **Pp 4**: Pls. 65: 5; 88: 8; 89: 25; **Pp 5**: Pls. 66: 8; 67: 5; 69: 13,18.

Chrono-stratigraphic attribution: Houses 1(1,2), 8(2), 12(2), 14(2), 15(2), 16(2), 18, 22A(2), 23(1,2), 24(2), 26(1), 29(2), 30(1,2), 36 and Trench 1A, most numerously (27 pieces) from House 23, particularly its Phase 2.

Notes: Portable ovens can be decorated with U-sectioned incisions or shallow grooves (*Pls. 33: 14; 67: 2; 65: 5; 89: 25*), but can also bear brushed decoration that in the interior may only be the consequence of smoothing during the shaping process (*Pl. 33: 17*). A well preserved portable oven from Phase 2 of House 1 (*Pl. 7: 2*) has perforations in its pan, possibly also the burnt and slightly deformed fragment from House 22A (*Pl. 65: 5*).

PLATTERS (Pl)

Platters are in principle a form of low tableware, but those from Most na Soči frequently show a burnt upper surface suggesting they served as low baking pans, which led me to classify them under hearth utensils. They are rare and varied finds, and all have a short everted rim (*Fig. 15*: Pl).

Manufacture: Hand-built, of medium-grained fabric, usually with some sand temper, fired in an (incomplete) oxidising atmosphere, surface is smooth.

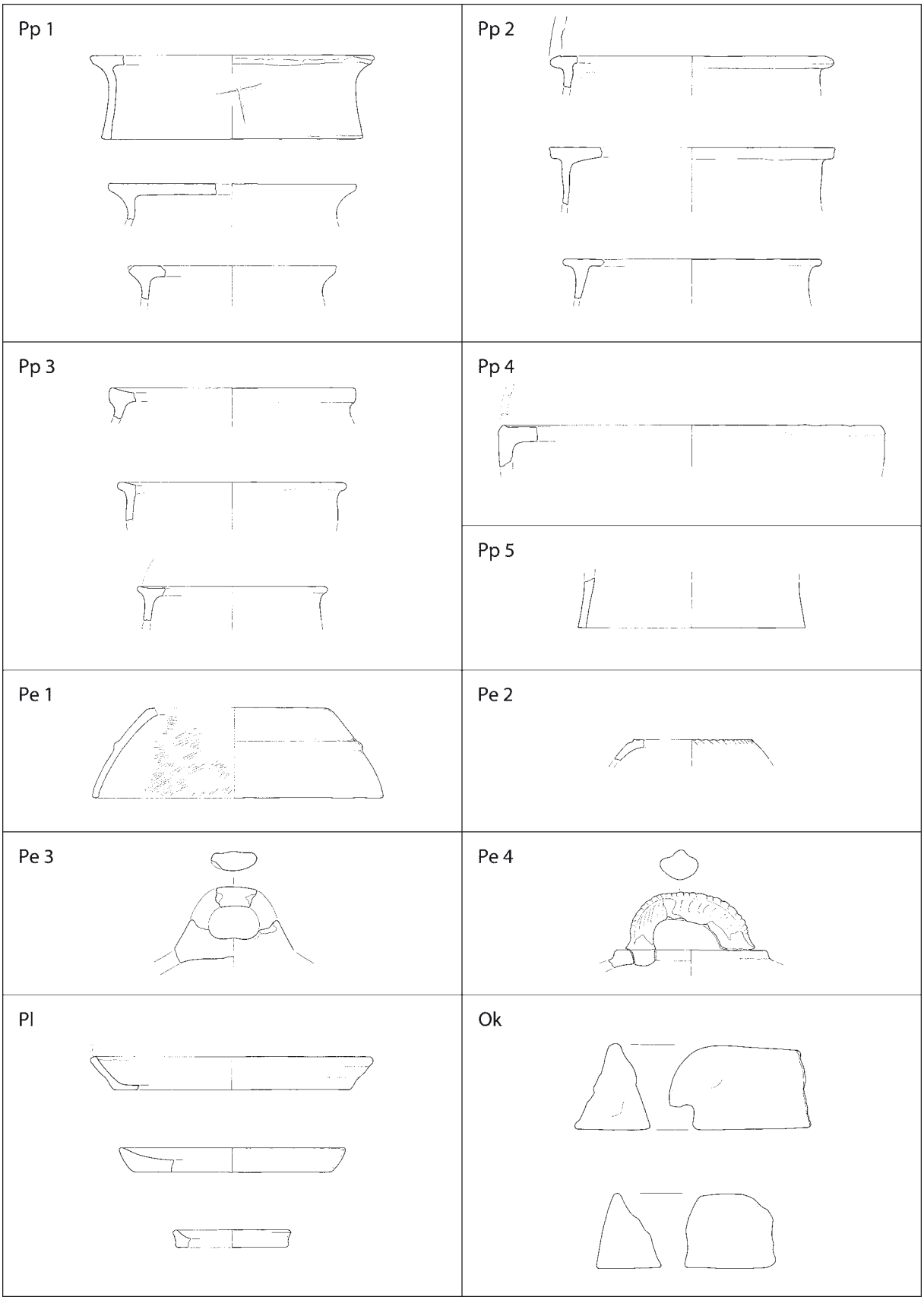
Finds: Pls. 30: 15; 63: 13; 94: 15.

Chrono-stratigraphic attribution: Houses 8(2), 14(1), 16(2), 22A(2), 30(1) and Trench 21-22.

Notes: The platter from House 8 (*Pl. 30: 15*) is comparable with a platter from a tomb in Villa Benvenuti at Este.[57]

[56] Cf. Grahek 2016, 182 ff, Fig. 50.

[57] Capuis, Chieco Bianchi 2006, Pl. 118: 20.



Sl. 15: Prenosne pečke tipa 1–5, pekve tipa 1–4, pladnji (Pl) in ognjiščne koze (Ok).
Fig. 15: Portable ovens of Types 1–5, baking lids of Types 1–4, platters (Pl) and firedogs (Ok).

23, kjer so bolj številčno zastopane med gradivom iz 2. gradbene faze.

Opombe: Prenosne pečke so lahko okrašene s topimi vrezi ali plitkimi kanelurami (*t. 33: 14; 67: 2; 65: 5; 89: 25*), lahko tudi z metličenjem, pri čemer predstavlja metličenje na notranji strani ostenja zgolj sledi brisanja ob izdelavi predmeta (*t. 33: 17*). Preluknjano ploščo ima bolje ohranjena prenosna pečka iz 2. faze hiše 1 (*t. 7: 2*), morda pa tudi prežgan in nekoliko deformiran fragment iz hiše 22A (*t. 65: 5*).

PLADNJI (Pl)

Čeprav so pladnji oblika nizkega servisnega posodja, jih obravnavamo med ognjiščnimi predmeti. Fragmenti pladnjev z Mosta na Soči imajo namreč pogosto ožgano zgornjo površino, kar nakazuje, da so služili kot nizki pekači. Gre za redke in raznolike najdbe, ki pa imajo vse nizko in navzven usmerjeno ustje (*sl. 15*: Pl).

Izdelava: Pladnji so prostoročno oblikovani iz drobnozrnate lončarske mase, običajno z nekaj peska. So (nepopolno) oksidacijsko žgani in imajo gladko površino.

Najdbe: t. 30: 15; 63: 13; 94: 15.

Stratigrafsko-kronološki oris: Najdbe izvirajo iz hiš 8(2), 14(1), 16(2), 22A(2) in 30(1) ter sonde 21-22.

Opombe: Pladenj iz hiše 8 (*t. 30: 15*) lahko primerjamo z najdbo iz estenske grobnice Villa Benvenuti.[57]

OGNJIŠČNE KOZE (Ok)

Med obravnavanim gradivom je nekaj fragmentov ognjiščnih koz (*sl. 15*: Ok).

Izdelava: Koze so prostoročno izdelane, običajno iz drobnozrnate lončarske mase z nekaj (tudi grobega) peska, in so oksidacijsko žgane. Površino imajo gladko.

Najdbe: t. 74: 1,2.

Stratigrafsko-kronološki oris: Najdbe izvirajo iz hiš 1(2), 6(1), 14(2) in 23(1).

Opombe: Razen fragmenta koze z zaključkom v obliki stilizirane živalske (ovnove?) glave (*t. 74: 1*) so neokrašene.

SVITKI (S)

Daleč največji delež ognjiščne keramike predstavljajo fragmenti svitkov (85,08 % ali 519 kosov), ki jih po obliki razvrščamo v 13 tipov.

Izdelava: Svitki so oblikovani prostoročno, najpogosteje iz drobnozrnate lončarske mase z nekaj peska.

[57] Capuis, Chieco Bianchi 2006, t. 118: 20.

FIREDOGS (Ok)

The pottery from Most na Soči includes several fragments of firedogs (*Fig. 15*: Ok).

Manufacture: Hand-built, usually of medium-grained fabric with some (also coarse) sand temper, fired in an oxidising atmosphere, surface is smooth.

Finds: Pl. 74: 1,2.

Chrono-stratigraphic attribution: Houses 1(2), 6(1), 14(2) and 23(1).

Notes: All are undecorated with the exception of a fragment of a finial in the shape of a stylised animal (ram's) head (*Pl. 74: 1*).

CERAMIC RINGS (S)

Ceramic rings are by far the most numerously represented (85.08% or 519 pieces) hearth utensils at Most na Soči. They have been classified into thirteen types.

Manufacture: Hand-built, most frequently of medium-grained fabric with some sand temper (possibly also made of a poorly kneaded clay with coarse sand temper), usually fired in an oxidising atmosphere and some only dried, surface is usually smooth, on the burnt rings also dusty.

Type S 1

Form: Undecorated rings (*Fig. 16*: S 1)

Finds: Pls. 1: 5; 4: 1–6, 12–17; 10: 6,7,9,11; 12: 3,5–10,13–16; 15: 1,3,5,7–9,11–13; 23: (22[58]),23; 27: 24; 31: 4,24; 32: 25; 33: 22; 35: 16,18; 38: 8,10–15; 43: 13–18; 44: 1,3,5–9; 54: 12–14; 56: 1–7; 57: 15; 58: 11–13,15–18,20–22; 59: 21; 60: 21; 64: 10,12–17; 67: 7,10; 68: 2,8,11,14,15,18,19,21; 75: 16–18; 76: 1–9,11–14,16,17,19–24; 82: 1–15,17,19–24; 83: 1–24; 85: 1–3; 88: 5; 89: 8; 91: 17–19; 94: 17,18; 96: 11–19; 99: 14,16; 100: 14,15.

Chrono-stratigraphic attribution: Houses 1(1,2), 2(2), 3(1,2), 6(1,2), 8(2), 10(2), 11(2), 13, 14(1–3), 15(2), 15A(1,3), 16(1,2), 18, 21, 22(1), 22A(2), 23(1,2), 24(1), 25(1), 26(1), 29(1,2), 30(1,2), 36, the drainage ditch, the path at House 23, as well as Trenches 1, 1A, 2, 36 and A8/3R.

Notes: The undecorated ceramic rings rarely occur as grave goods at Most na Soči.[59]

[58] The ceramic ring of Inv. No. P 4261-4 is associated with Phase 1 of House 3 and is illustrated on Pl. 15: 1 (cf. Svoljšak, Dular 2016, 233 and 235).

[59] Teržan *et al.* 1984–1985, Pls. 50: D/2; 235: B/2; 237: C/4–5.

Drobnozrnati svitki so lahko izdelani tudi iz slabo pregnetene mase s primesmi zelo grobega peska. Običajno so oksidacijsko žgani, nekateri primerki pa so bili le sušeni. Običajno imajo gladko površino, prežgani svitki tudi prašnato.

Tip S 1

Oblika: Neokrašeni svitki (*sl. 16*: S 1)
Najdbe: t. 1: 5; 4: 1–6, 12–17; 10: 6,7,9,11; 12: 3,5–10,13–16; 15: 1,3,5,7–9,11–13; 23: (22[58]),23; 27: 24; 31: 4,24; 32: 25; 33: 22; 35: 16,18; 38: 8,10–15; 43: 13–18; 44: 1,3,5–9; 54: 12–14; 56: 1–7; 57: 15; 58: 11–13,15–18,20–22; 59: 21; 60: 21; 64: 10,12–17; 67: 7,10; 68: 2,8,11,14,15,18,19,21; 75: 16–18; 76: 1–9,11–14,16,17,19–24; 82: 1–15,17,19–24; 83: 1–24; 85: 1–3; 88: 5; 89: 8; 91: 17–19; 94: 17,18; 96: 11–19; 99: 14,16; 100: 14,15.
Stratigrafsko-kronološki oris: Najdbe izvirajo iz hiš 1(1,2), 2(2), 3(1,2), 6(1,2), 8(2), 10(2), 11(2), 13, 14(1–3), 15(2), 15A(1,3), 16(1,2), 18, 21, 22(1), 22A(2), 23(1,2), 24(1), 25(1), 26(1), 29(1,2), 30(1,2) in 36 ter jarka, poti pri hiši 23 in sond 1, 1A, 2, 36 in A8/3R.
Opombe: Neokrašeni svitki so na Mostu na Soči izjemno redko najdeni tudi kot grobni pridatek.[59]

Tip S 2

Oblika: Majhni neokrašeni svitki (*sl. 16*: S 2)
Najdbe: t. 12: 2,4; 38: 7; 58: 10; 67: 6,8,9,11,12,14; 68: 1,3,4,6,7,9,10,12,13,16; 77: 1,3–7,10–12,14,15; 81: 18–25; 99: 13; 100: 13.
Stratigrafsko-kronološki oris: Najdbe izvirajo iz hiš 1(2), 3(1), 15(2), 15A(1), 18, 21, 22, 23(1,2), 26(1) in 36 ter jarka. Daleč največ primerkov izvira iz hiše 23 (47 od 58 kosov), kjer so pogostejši med gradivom 1. faze.
Opombe: Majhni svitki so lahko služili kot uteži za statve.[60] Takšni svitki so bili skupaj s številnimi motki najdeni v estenski grobnici Casa di Ricovero.[61]

Tip S 3

Oblika: Svitki, ki so ob strani okrašeni s topima vrezoma v obliki križa. Kot inačico 3a obravnavamo majhne

[58] Svitek inv. št. P 4261-4 izvira iz 1. gradbene faze hiše 3 in je predstavljen že na t. 15: 1 (prim. Svoljšak, Dular 2016, 233 in 235).
[59] Teržan et al. 1984–1985, t. 50: D/2; 235: B/2; 237: C/4–5.
[60] Prim. Sainati, Salerno 1992, 92, sl. 8: (19,20,)21; Bazzanella, Mayr 2009, 194 ss, t. 11–20.
[61] Chieco Bianchi, Calzavara Capuis 1985, t. 13: o–u.

Type S 2

Form: Small undecorated rings (*Fig. 16*: S 2)
Finds: Pls. 12: 2,4; 38: 7; 58: 10; 67: 6,8,9,11,12,14; 68: 1,3,4,6,7,9,10,12,13,16; 77: 1,3–7,10–12,14,15; 81: 18–25; 99: 13; 100: 13.
Chrono-stratigraphic attribution: Houses 1(2), 3(1), 15(2), 15A(1), 18, 21, 22, 23(1,2), 26(1), 36 and the drainage ditch, most numerously from House 23 (47 of 58 pieces), particularly from its Phase 1.
Notes: These rings may have been used as loom weights.[60] Such items have been found together with numerous bobbins in a tomb in Casa di Ricovero at Este.[61]

Type S 3

Form: Rings decorated with U-sectioned incisions in the shape of a cross that come in two variants: 3a are smaller rings and 3b have the cross on the upper surface (*Fig. 16*: S 3).
Finds: Pls. 67: 13; 68: 17,20; 69: 2,5,8,11; 74: 8–20,22; 84: 5,8,10,11,14–16,18–20,22–24; **S 3a**: 69: 6,12,16; 84: 6,9; **S 3b**: 30: 21; 32: 20; 54: 10; 75: 1.
Chrono-stratigraphic attribution: Types 3 and 3a only from House 23 (1,2), Type 3b from Houses 1(2), 8(2), 11(2), 15A(3), 21, 23(1), as well as Trenches 1 and 36.
Notes: Standing apart from all other Type 3 examples is a ring with one horizontal and several vertical incisions along the side (*Pl. 84: 19*). The rings of Variant 3b include an example from House 18 with a single vertical incision at the side (*Pl. 58: 19*).

Type S 4

Form: Rings with a U-sectioned incision or a shallow groove on the upper surface (*Fig. 16*: S 4).
Finds: Pls. 15: 2,6,10,16–18; 23: 24; 64: 11.
Chrono-stratigraphic attribution: Except an uncharacteristic example from Phase 2 of House 22A (*Pl. 64: 11*) all come from House 3, of which all but one are associated with its Phase 1.

Type S 5

Form: Rings with oblique U-sectioned incisions on the upper side, usually forming the letter V (*Fig. 16*: S 5).
Finds: Pls. 4: 8; 64: 9; 75: 2.
Chrono-stratigraphic attribution: Rare, from Houses 1(2), 16(1), 22A(2) and 23(1).

[60] Cf. Sainati, Salerno 1992, 92, Fig. 8: (19,20,)21; Bazzanella, Mayr 2009, 194 ff, Pls. 11–20.
[61] Chieco Bianchi, Calzavara Capuis 1985, Pl. 13: o–u.

svitke; za svitke tipa 3b je značilno, da imajo okras na zgornji strani (*sl. 16:* S 3)

Najdbe: t. 67: 13; 68: 17,20; 69: 2,5,8,11; 74: 8–20,22; 84: 5,8,10,11,14–16,18–20,22–24; **S 3a**: 69: 6,12,16; 84: 6,9; **S 3b**: 30: 21; 32: 20; 54: 10; 75: 1.

Stratigrafsko-kronološki oris: Svitki tipa 3 in 3a izvirajo izključno iz hiše 23 (1,2), svitki tipa 3b pa iz hiš 1(2), 8(2), 11(2), 15A(3), 21 in 23(1) ter sond 1 in 36.

Opombe: Med svitki tipa 3 nekoliko odstopa primerek, ki je ob strani okrašen z vodoravnim in več navpičnimi vrezi (*t. 84: 19*); k svitkom tipa 3b pa prištevamo posamični primerek svitka iz hiše 18, ki ima ob strani le navpičen topi vrez (*t. 58: 19*).

Tip S 4

Oblika: Svitki, ki so na zgornji strani okrašeni s krožnim topim vrezom ali plitko kaneluro (*sl. 16*: S 4).

Najdbe: t. 15: 2,6,10,16–18; 23: 24; 64: 11.

Stratigrafsko-kronološki oris: Z izjemo neznačilnega primerka iz 2. gradbene faze hiše 22A (*t. 64: 11*) izvirajo vsi svitki tipa 4 iz hiše 3. Tu so bili z izjemo enega primerka vsi najdeni v starejši fazi.

Tip S 5

Oblika: Svitki, ki so na zgornji strani okrašeni s prečnim topim vrezom, največkrat v obliki črke V (*sl. 16*: S 5).

Najdbe: t. 4: 8; 64: 9; 75: 2.

Stratigrafsko-kronološki oris: Redke najdbe izvirajo iz hiš 1(2), 16(1), 22A(2) in 23(1).

Tip S 6

Oblika: Svitki z okrasom vodoravnega topega vreza ob strani (*sl. 16*: S 6).

Najdbe: t. 68: 5; 74: 21; 75: 15; 76: 10,15,18; 77: 2,13; 82: 16; 84: 4,7,12,13,17,21.

Stratigrafsko-kronološki oris: Najdbe izvirajo izključno iz hiše 23(1,2).

Tip S 7

Oblika: Svitki, ki so ob stani okrašeni z vtisnjenim krožcem (*sl. 16*: S 7).

Najdbe: t. 69: 4,7,10; 75: 7–9,13; 84: 2,3.

Stratigrafsko-kronološki oris: Vse najdbe izvirajo iz hiše 23(1,2), in to predvsem starejše faze.

Type S 6

Form: Rings with horizontal U-sectioned incisions along the side (*Fig. 16*: S 6).

Finds: Pls. 68: 5; 74: 21; 75: 15; 76: 10,15,18; 77: 2,13; 82: 16; 84: 4,7,12,13,17,21.

Chrono-stratigraphic attribution: Only from House 23(1,2).

Type S 7

Form: Rings with an impressed circle at the side (*Fig. 16*: S 7).

Finds: Pls. 69: 4,7,10; 75: 7–9,13; 84: 2,3.

Chrono-stratigraphic attribution: Only from House 23(1,2), mostly its Phase 1.

Type S 8

Form: Rings with impressed circles on the upper surface (*Fig. 16*: S 8).

Finds: Pls. 4: 7,9–11; 12: 18; 32: 24; 56: 8–14; 75: 14; 100: 16.

Chrono-stratigraphic attribution: Mainly from House 16(1,2), all but one from its Phase 1, and from Phase 2 of House 1,[62] individual examples also from Houses 3(1), 11(2), 23(1) and the drainage ditch.

Type S 9

Form: Rings with a series of (finger) impressions on the upper surface (*Fig. 16*: S 9).

Finds: Pls. 1: 8,10,12; 12: 17; 31: 23; 33: 21; 75: 4,5; 82: 18.

Chrono-stratigraphic attribution: Houses 1(1), 3(1), 10(2), 11(2), 13, 14(2), 15A(1), 23(1,2) and the drainage ditch, with more than one example only recovered from Houses 1 and 23.

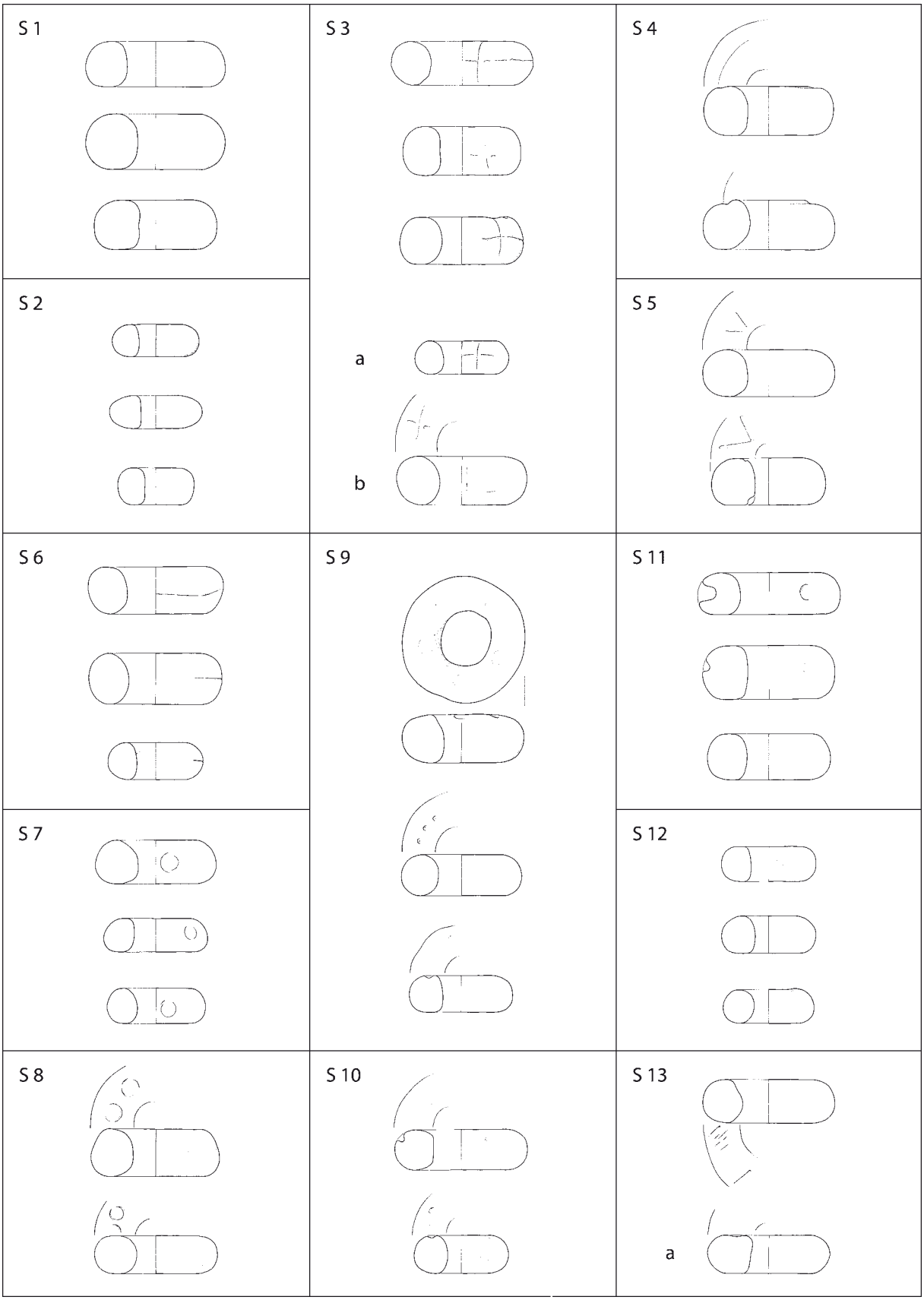
Type S 10

Form: Rings with impressions randomly positioned along the upper surface (*Fig. 16*: S 10).

Finds: Pls. 12: 19,20; 15: 14; 33: 23; 69: 3.

Chrono-stratigraphic attribution: House 3(1), single examples also from Houses 13 and 23(1).

[62] At the time of my analysis, the ceramic rings from House 1 have been misplaced and the analysis therefore uses the technological descriptions as published in Svoljšak, Dular 2016, 230.



Sl. 16: Svitki tipa 1–13.
Fig. 16: Ceramic rings of Types 1–13.

Tip S 8

Oblika: Svitki z okrasom vtisnjenih krožcev na zgornji površini (*sl. 16*: S 8).
Najdbe: t. 4: 7,9–11; 12: 18; 32: 24; 56: 8–14; 75: 14; 100: 16.
Stratigrafsko-kronološki oris: Svitki tipa 8 so značilni predvsem za hišo 16(1,2), kjer so bili z izjemo enega vsi najdeni med gradivom starejše gradbene faze, in pa 2. fazo hiše 1.[62] Posamični primerki svitkov tipa 8 izvirajo še iz hiš 3(1), 11(2) in 23(1) ter jarka.

Tip S 9

Oblika: Svitki, ki so na zgornji površini okrašeni z nizom vtisov (prsta) (*sl. 16*: S 9).
Najdbe: t. 1: 8,10,12; 12: 17; 31: 23; 33: 21; 75: 4,5; 82: 18.
Stratigrafsko-kronološki oris: Najdbe izvirajo iz hiš 1(1), 3(1), 10(2), 11(2), 13, 14(2), 15A(1) in 23(1,2) ter jarka, pri čemer je bilo po več primerkov najdenih le v hišah 1 in 23.

Tip S 10

Oblika: Svitki z okrasom nerazvrščenih vtisov na zgornji površini ali ob strani (*sl. 16*: S 10).
Najdbe: t. 12: 19,20; 15: 14; 33: 23; 69: 3.
Stratigrafsko-kronološki oris: Svitki tipa 10 so značilni predvsem za hišo 3(1), saj sta bila v hiši 13 in 23(1) najdena le posamična primerka.

Tip S 11

Oblika: Svitki, ki so ob strani okrašeni z vtisom prsta (*sl. 16*: S 11).
Najdbe: t. 10: 8; 12: 12; 15: 4,15; 44: 2,4; 58: 14; 75: 6,10–12.
Stratigrafsko-kronološki oris: Najdbe izvirajo iz hiš 2(2), 3(1), 8(2), 15A(1), 18 in 23(1), pri čemer so svitki tipa 11 najbolj značilni za hiši 23 in 3.

Tip S 12

Oblika: Majhni svitki, ki so ob strani okrašeni z vtisom prsta (*sl. 16*: S 12).
Najdbe: t. 1: 4; 69: 9; 77: 8,9; 84: 1.
Stratigrafsko-kronološki oris: Z izjemo enega primerka iz hiše 1(1) izvirajo svitki tipa 12 le iz hiše 23(1,2).

[62] V času obravnave so bili svitki iz hiše 1 založeni, zato so bili pri analizi upoštevani opisi tehnoloških lastnosti po Svoljšak, Dular 2016, 230.

Type S 11

Form: Rings with a finger impression at the side (*Fig. 16*: S 11).
Finds: Pls. 10: 8; 12: 12; 15: 4,15; 44: 2,4; 58: 14; 75: 6,10–12.
Chrono-stratigraphic attribution: Houses 2(2), 3(1), 8(2), 15A(1), 18 and 23(1), most numerously from Houses 23 and 3.

Type S 12

Form: Small rings with a finger impression at the side (*Fig. 16*: S 12).
Finds: Pls. 1: 4; 69: 9; 77: 8,9; 84: 1.
Chrono-stratigraphic attribution: House 23(1,2) and a single example from House 1(1).

Type S 13

Form: Rings with oblique U-sectioned incisions on the upper surface. Those with traces of the drying process in the shape of a shallow impressed groove or of wooden board impressions (*Fig. 16*: S 13) are marked as Variant 13a.
Finds: **S 13:** Pls. 12: 11; 75: 3; 85: 4; **S 13a**: Pls. 59: 19; 94: 16.
Chrono-stratigraphic attribution: Rare, from Houses 3(1), 21, 23(1,2) and 30(1).

MISCELLANEOUS OBJECTS

BOBBINS (M)

Bobbins are usually associated with spinning and the production of textile.[63] At Most na Soči, I distinguish between two variants: the **M a** bobbins have a roundly constricted central section with a smooth transition into the usually spherical ends, while the **M b** bobbins have a cylindrical central section (*Fig. 17*: M).
Manufacture: Hand-built, most frequently of medium-grained fabric with some sand temper, usually fired in an (incomplete) oxidising atmosphere, surface is smooth.
Finds: **M a**: Pls. 38: 16; 69: 1; 74: 3–7; 85: 5; 100: 18; **M b**: Pls. 88: 6; 100: 17,19.
Chrono-stratigraphic attribution: Houses 15(2), 23(1,2), 24(1) and the path at House 27, most numerously from Phase 1 of House 23.
Notes: A bobbin found on the path is decorated with a pair of U-sectioned incisions (*Pl. 100: 17*) and

[63] Cf. Grahek 2016, 187.

Tip S 13

Oblika: Svitki, ki so na zgornji površini okrašeni s poševnimi topimi vrezi. Kot inačico 13a obravnavamo primerke svitkov s sledmi sušenja v obliki vtisnjenega plitkega žleba ali odtisov deske (*sl. 16:* S 13).
Najdbe: **S 13:** t. 12: 11; 75: 3; 85: 4; **S 13a**: t. 59: 19; 94: 16.
Stratigrafsko-kronološki oris: Redke najdbe izvirajo iz hiš 3(1), 21, 23(1,2) in 30(1).

DRUGI KERAMIČNI PREDMETI

MOTKI (M)

Motke običajno povezujemo s predilstvom in tekstilno obrtjo.[63] Razlikujemo med dvema inačicama motkov. Za prvo (**M a**) je značilno, da zožen sredinski del tekoče prehaja v običajno kroglasto odebeljena konca; za drugo inačico (**M b**) pa, da je sredinski del valjasto oblikovan (*sl. 17*: M).
Izdelava: Prostoročno oblikovani motki, najpogosteje iz drobnozrnate lončarske mase z nekaj peska, so običajno (nepopolno) oksidacijsko žgani in imajo gladko površino.
Najdbe: **M a**: t. 38: 16; 69: 1; 74: 3–7; 85: 5; 100: 18; **M b**: t. 88: 6; 100: 17,19.
Stratigrafsko-kronološki oris: Najdbe izvirajo iz hiš 15(2), 23(1,2) in 24(1) ter s poti ob hiši 27, pri čemer je bilo največ motkov najdenih v 1. gradbeni fazi hiše 23.
Opombe: S topima vrezoma je okrašen primerek motka s poti (*t. 100: 17*), ki mu lahko dobre primerjave najdemo v estenskih grobnicah.[64] Tu so motki še bolj razširjeni kot v grobovih iz Mosta na Soči.[65]

UTEŽI (U) IN VRETENCA (Vr)

Uteži sodijo med izjemno redke najdbe iz obravnavanega železnodobnega naselja. Običajno piramidalne uteži povezujemo s tekstilstvom, vendar so bile na Mostu na Soči najdene predvsem velike uteži (*sl. 17*: U), ki so lahko služile tudi kot nosila za raženj in bi tako sodile med ognjiščne predmete.[66] Kot inačica a (**U a**) je tako označena bolj kvalitetno iz drobnozrnate lončarske mase izdelana in z vtisnjenimi krožci okrašena utež (*t. 65: 3*), ki bržkone edina sodi med tipične uteži za statve.

[63] Prim. Grahek 2016, 187.
[64] Capuis, Chieco Bianchi 2006, t. 26: a2; Chieco Bianchi, Calzavara Capuis 1985, t. 13: i–m; 31: 39; 71: r; 187: n3,o; 228: 8.
[65] Motki so bili najdeni v grobovih 652, 937, 989, 1045, 1293, 1747, 1764, 2321 in 2671 ter v bližini grobov 1299 in 2654 iz Marchesettijevih izkopavanj (Marchesetti 1893, 29 ss).
[66] Prim. Grahek 2016, 186, t. 64: 8.

has close parallels from the tombs at Este,[64] where bobbins are even commoner that in the graves at Most na Soči.[65]

WEIGHTS (U) AND SPINDLE WHORLS (Vr)

Weights are rare at this Iron Age settlement. Pyramidal weights are usually associated with textile production, though the settlement mainly yielded large weights (*Fig. 17*: U), which may have served as spit stands and therefore represent hearth utensils.[66] The only weight that may be interpreted as a typical loom weight is marked as Variant **U a**; it is made of a better-quality medium-grained fabric and bears impressed circles (*Pl. 65: 3*).
Manufacture: Large weights are hand-built, of coarse-grained fabric with some sand temper, poorly fired in an oxidising atmosphere, surface is rough.
Finds: Pls. 1: 9,11; 10: 10.
Chrono-stratigraphic attribution: Large weights from Houses 1(1) and 2(2); the only example of a typical loom weight was found in House 22A(2).

Spindle whorls are also rare at the settlement (*Fig. 17*: Vr). The graves at Most na Soči did yield some spindle whorls,[67] but they are more frequent in the graves at Tolmin[68] that date to the earliest period of the Sveta Lucija group, i.e. the Sv. Lucija Ia phase.[69]
Manufacture: Hand-built, of fine- or medium-grained fabric usually with some sand temper, most frequently fired in an oxidising atmosphere, surface is smooth.
Finds: Pls. 23: 12; 59: 9; 97: 4.
Chrono-stratigraphic attribution: Individual and differing examples from Houses 3(2), 12(2), 19 and 31(1).

CERAMIC BALLS AND CASTING UTENSILS (Liv.)

The ceramic finds from the settlement include three balls associated with Phase 2 of House 15A.[70] All are hand-built, made of sand-tempered medium-grained fabric and fired in an incomplete oxidising atmosphere,

[64] Capuis, Chieco Bianchi 2006, Pl. 26: a2; Chieco Bianchi, Calzavara Capuis 1985, Pls. 13: i–m; 31: 39; 71: r; 187: n3,o; 228: 8.
[65] Bobbins have been found in Graves 652, 937, 989, 1045, 1293, 1747, 1764, 2321 and 2671, as well as near Graves 1299 and 2654 excavated by Marchesetti (Marchesetti 1893, 29 ff).
[66] Cf. Grahek 2016, 186, Pl. 64: 8.
[67] Teržan *et al.* 1984–1985, Pls. 32: H/6; 152: C/1; Marchesetti 1885, 106: Gr. 139; *id.* 1893, 111: Gr. 2520, Pl. 25: 10.
[68] Svoljšak, Pogačnik 2002, 70 ff, Fig. 65.
[69] Teržan, Trampuž 1975, 419.
[70] Svoljšak, Dular 2016, 132 f, Fig. 122.

Izdelava: Velike uteži so prostoročno oblikovane iz grobozrnate lončarske mase z nekaj peska. So slabše oksidacijsko žgane in imajo hrapavo površino.
Najdbe: t. 1: 9,11; 10: 10.
Stratigrafsko-kronološki oris: Velike uteži izvirajo iz hiš 1(1) in 2(2); edini primerek tipične uteži za statve pa je bil najden v hiši 22A(2).

Poleg uteži so tudi vretenca med obravnavanim gradivom zastopana le s posamičnimi primerki (*sl. 17*: Vr). Nekaj vretenc najdemo tudi v grobovih iz Mosta na Soči,[67] vendar so ta še najbolj razširjena v grobovih iz Tolmina,[68] ki pa sodijo na sam začetek svetolucijske skupine ali čas stopnje Sv. Lucija Ia.[69]
Izdelava: Vretenca so prostoročno oblikovana iz fino- ali drobnozrnate lončarske mase, običajno z nekaj peska. Najpogosteje so oksidacijsko žgana in imajo gladko površino.
Najdbe: t. 23: 12; 59: 9; 97: 4.
Stratigrafsko-kronološki oris: Posamezni raznoliki primerki so bili najdeni v hišah 3(2), 12(2), 19 in 31(1).

KERAMIČNE KROGLE IN LIVARSKI PREDMETI (Liv.)

Med drugimi, posebnimi keramičnimi predmeti izstopa najdba treh krogel iz 2. gradbene faze hiše 15A.[70] Vse so prostoročno oblikovane iz značilne drobnozrnate lončarske mase s primešanim peskom in nepopolno oksidacijsko žgane, na glajeni površini so dobro vidni odtisi prstov. Čemu so služile, ostaja nerazjasnjeno.

Bolj jasna je uporaba posamičnih najdb zajemalk in talilnih lončkov, ki jih povezujemo z livarsko dejavnostjo (*sl. 17*: Liv.).[71]
Izdelava: Prostoročno oblikovani predmeti iz drobnozrnate lončarske mase z nekaj (lahko tudi grobega) peska so bili vsi oksidacijsko žgani. Razen prežganega talilnega lončka[72] imajo gladko površino.
Najdbe: t. 24: 5; 38: 6; 64: 8; 96: 7.
Stratigrafsko-kronološki oris: Predmeti, ki jih povezujemo z livarsko dejavnostjo, izvirajo iz hiš 4, 15(2), 22A(2), 23(2) in 30(2).

UVOŽENA IN LATENSKA KERAMIKA (Lt-rim.)

V hiši 5 je bil najden dobro ohranjen že na vretenu oblikovan atiški skifos iz dobro prečiščene, zelo finozrnate lončarske mase z izlivom, ki izvira iz 2. gradbene faze hiše 23.

[67] Teržan et al. 1984–1985, t. 32: H/6; 152: C/1; Marchesetti 1885, 106: gr. 139; id. 1893, 111: gr. 2520, t. 25: 10.
[68] Svoljšak, Pogačnik 2002, 70 ss, sl. 65.
[69] Teržan, Trampuž 1975, 419.
[70] Svoljšak, Dular 2016, 132s, sl. 122.
[71] Šmit, Laharnar hic.
[72] Inv. št. P 5840 = prežgan in delno deformiran fragment lončka z izlivom, ki izvira iz 2. gradbene faze hiše 23.

with finger impressions clearly visible on the smoothed surface. Their function is unknown.

Much clearer is the function of the different ladles and crucibles associated with the casting process (*Fig. 17*: Liv.).[71]
Manufacture: Hand-built, of medium-grained fabric with some (occasionally coarse) sand temper, fired in an oxidising atmosphere, surface is smooth except on the burnt-through crucible.[72]
Finds: Pls. 24: 5; 38: 6; 64: 8; 96: 7.
Chrono-stratigraphic attribution: Houses 4, 15(2), 22A(2), 23(2) and 30(2).

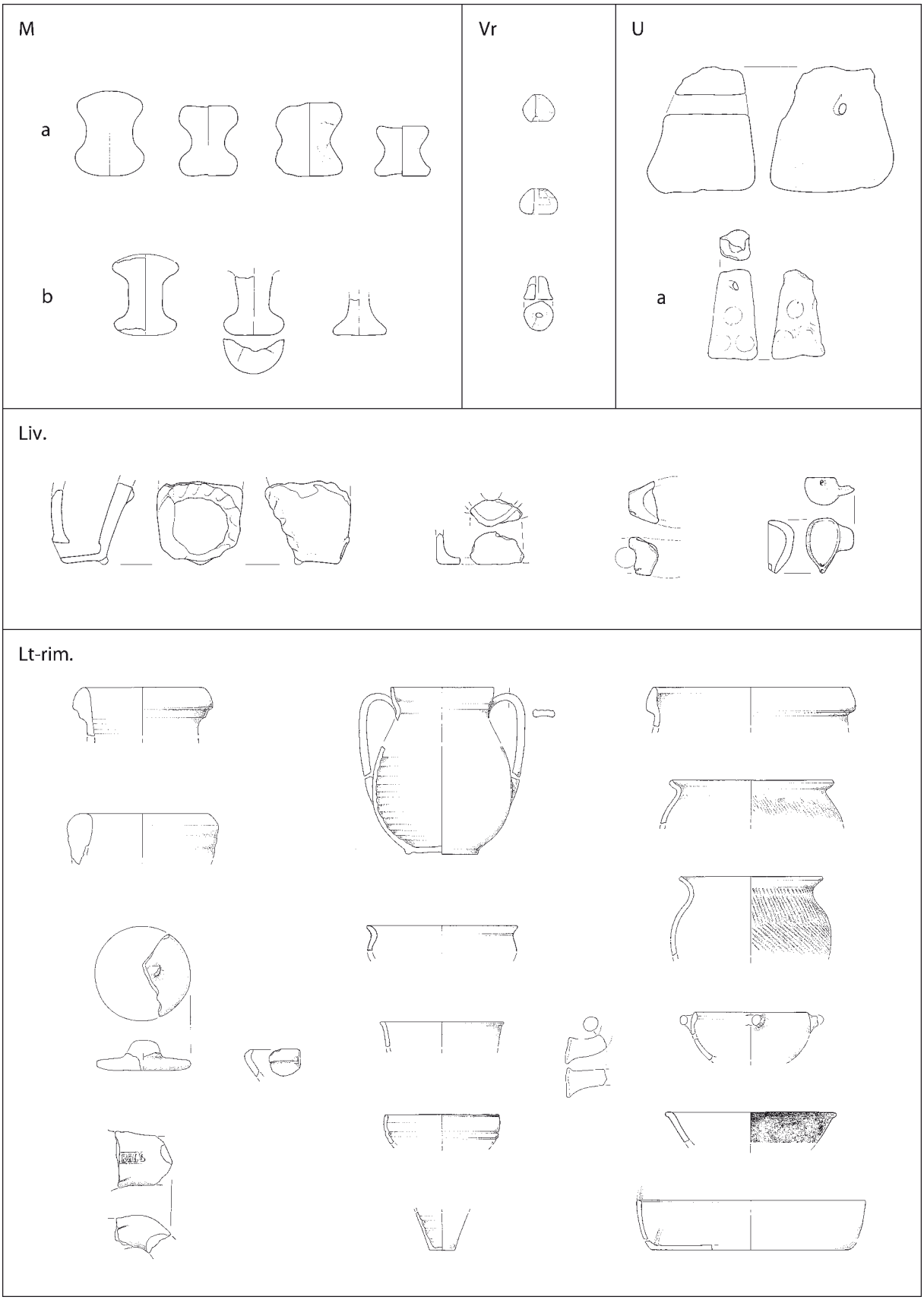
IMPORTED AND LA TÈNE POTTERY (Lt-rim.)

House 5 revealed a well-preserved Attic *skyphos* with black painted decoration (*Pl. 25: 1*).[73] It is a Saint Valentin skyphos[74] that was thrown on the wheel, made of a highly refined and very fine-grained fabric, and fired in an oxidising atmosphere. The adjacent cemetery yielded a bronze Etruscan *oinochoe*,[75] but also several pieces of Greek pottery that comprise three Ionian *kylikes*,[76] an owl *skyphos*[77] and a long-lost ceramic *oinochoe*.[78] Together, these items point to close trade relations that the Hallstatt-period inhabitants maintained with the highly developed cultures of the Mediterranean.

The unique goblet with a horizontally grooved shoulder and a vertical rim from Phase 1 of House 6 (*Pl. 25: 8*) is probably also an import. It is comparable with the cordoned goblets from the tombs at Este, though these usually have a short everted rim.[79] The ceramic finds from the settlement include several other pieces of imported pottery, but these are associated with the remains from the Late Iron Age.

The main characteristics of the La Tène period are the appearance of graphite ware and the use of the fast wheel. The small finds associated with the occupation at Most na Soči in the Late Iron Age (*Fig. 17*: Lt-rim.)

[71] See Šmit, Lahranar hic.
[72] Inv. No. P 5840 = burnt and partially deformed fragment of a spouted beaker associated with Phase 2 of House 23.
[73] Svoljšak, Dular 2016, 70, Fig. 56.
[74] Baldelli, Landolfi, Lollini 1982, 91; Maccellari 2002, vol. I, 129 f, 180, 247, vol. II, Pls. 80, 109, 237.
[75] Grave M-3145 (Vitri 1980, Figs. 1: 3; 2).
[76] Grave M-2850 (Marchesetti 1893, 127 f, Pl. 6: 9; cf. Vitri 1980, 276), Grave S-1002 (Teržan *et al.* 1984–1985, 187, Pl. 288: 2) and Grave S-1008 (*ibid.,* 188, Pl. 104: 13).
[77] Grave 1 from Pucarjev rob (Mlinar 2002, 28 ff; *id.* 2008, Pl. 2: 1).
[78] Grave M-1026 (Marchesetti 1893, 47, Pl. 6: 10; cf. Vitri 1980, Fn. 32).
[79] Capuis, Chieco Bianchi 2006, Pl. 98: 13; Chieco Bianchi, Calzavara Capuis 1985, Pls. 135: 41,42; 231: 7,8; 248: 5; 260: B/7; 284: 37.



Sl. 17: Motki (M), vretenca (Vr), uteži (U), livarski predmeti (liv.) in latenska keramika (Lt-rim.)
Fig. 17: Bobbins (M), spindle whorls (Vr), weights (U), casting utensils (liv.) and La Tène pottery (Lt-rim.)

nate lončarske mase (*t. 25: 1*).[73] Oksidacijsko žgan skifos je okrašen s črno poslikavo in sodi med skifose tipa Saint Valentin.[74] Skupaj z najdbami grške keramike iz posamičnih grobov kaže vsaj na močne trgovske povezave halštatskih prebivalcev Mosta na Soči z drugimi visoko razvitimi mediteranskimi kulturami. Poleg bronaste etruščanske ojnohoje (*oinohoa*)[75] so bili na grobišču obravnavanega naselja namreč najdeni še trije jonski kiliksi (*kylix*),[76] sovji skifos (*skyphos*)[77] in že dolgo časa izgubljena ojnohoja.[78]

Uvožen kos je bržkone tudi unikaten primerek keliha z vodoravno kaneliranimi rameni in pokončnim ustjem iz 1. faze hiše 6 (*t. 25: 8*). Primerjamo ga lahko z vodoravno narebrenimi kelihi iz estenskih grobnic, ki pa imajo praviloma kratko izvihano ustje.[79] Med obravnavanim gradivom je še več kosov uvožene keramike, ki pa jih povezujemo z ostalinami iz mlajše železne dobe.

Tudi za svetolucijsko skupino velja, da sta z vidika keramike glavni značilnosti nove latenske dobe pojav grafitne keramike in uporaba hitrega lončarskega vretena. Vse najdbe, ki jih povezujemo s poselitvijo Mosta na Soči v mlajši železni dobi (*sl. 17*: Lt-rim.), predstavljajo zelo majhen delež tu obravnavanih najdb (1,52 % ali 31 kosov).

Z ostalinami latenske poselitve tako povezujemo najdbe loncev, ki se od neokrašenih loncev tipa 8 ali z metličenjem okrašenih loncev tipa 17 lahko razlikujejo le po načinu izdelave. Poleg prostoročno oblikovanih primerkov (prim. *t. 97: 16; 98: 4*) se sedaj namreč pojavljajo tudi na vretenu vsaj dodelani in najpogosteje z metličenjem okrašeni lonci.[80] Ti so zastopani med gradivom iz hiš 34 in 35(2) ter sonde A8/3R. V hiši 35(2) je bil najden tudi fragment na vretenu dodelanega lonca z navzven odebeljenim visokim robom ustja (*t. 98: 6*). Po obliki ga sicer lahko primerjamo s poznolatenskimi lonci tipa 37b iz Stične,[81] vendar pa po tehnoloških lastnostih bolj ustreza zgodnjerimskim t. i. loncem tipa Auerberg, kakršni so bili najdeni tudi na ustrini na Repelcu.[82] Na vretenu dodelan lonec iz drobnozrnate mase z veliko

[73] Svoljšak, Dular 2016, 70, sl. 56.

[74] Baldelli, Landolfi, Lollini 1982, 91; Maccellari 2002, vol. I, 129 s, 180, 247, vol. II, t. 80, 109, 237.

[75] Grob M-3145 (Vitri 1980, sl. 1: 3; 2).

[76] Grob M-2850 (Marchesetti 1893, 127s, t. 6: 9; prim. Vitri 1980, 276), grob S-1002 (Teržan et al. 1984–1985, 187, t. 288: 2) in grob S-1008 (ib., 188, t. 104: 13).

[77] Grob 1 s Pucarjevega roba (Mlinar 2002, 28 ss; id. 2008, t. 2: 1).

[78] Grob M-1026 (Marchesetti 1893, 47, t. 6: 10; prim. Vitri 1980, op. 32).

[79] Capuis, Chieco Bianchi 2006, t. 98: 13; Chieco Bianchi, Calzavara Capuis 1985, t. 135: 41,42; 231: 7,8; 248: 5; 260: B/7; 284: 37.

[80] Prim. Donat 2015, 44 ss.

[81] Grahek 2016, 130 s, 254 s, sl. 42: L 37 b.

[82] Mlinar 2008, 69 s, t. 28: 1–9; prim. t. 42: 14–20.

represent a small share of the finds discussed here (1.52% or 31 pieces).

The objects interpreted as the remains of the La Tène habitation are the jars that only differ from the undecorated jars of Type 8 and the brushed jars of Type 17 in the production technique. Some jars of this period are still hand-built (cf. *Pls. 97: 16; 98: 4*), while others are at least finished on the wheel and most commonly decorated with brushing.[80] They were found in Houses 34 and 35(2), as well as Trench A8/3R. House 35(2) also yielded a fragment of a wheel-finished jar with a high externally thickened rim (*Pl. 98: 6*). In form, it is comparable with the Late La Tène jars of Type 37b from Stična,[81] though in its technological characteristics it is closer to the Early Roman Auerberg jars, such as have been found in the ustrinum at Repelc.[82] The jar of medium-grained fabric with a substantial amount of limestone sand temper has a greasy black-grey surface in which it is closest to the Group 1 Auerberg jars from Friuli.[83]

The rare shards of graphite ware do not allow us to perform a more detailed typological analysis (cf. *Pl. 97: 19*). Apart from the graphite ware proper, such as also came to light on the ustrinum at Repelc,[84] the finds from the settlement at Most na Soči include those of which the fabric contains less graphite.[85] The finds of the typical graphite ware were unearthed in Houses 3(2), 11(2) and 33.

The Late La Tène habitation is marked by imports of Roman pottery. These include rim shards of Lamboglia 2 (*Pl. 98: 9*) and Dressel 6B (*Pl. 98: 11*) amphorae. Judging from their fabric, which corresponds with that of S 1 from Sermin,[86] and the lighter pale brown colour, the Lamboglia 2 amphorae are best represented. Presumably also associated with these is a stamped handle (*Pl. 98: 10*) and a mould-made lid (*Pl. 97: 7*). Similar lids were found on the Phase 1 floor of House 2 (*Fig. 18*).[87] It is clear from the associated finds that these two lids are not to be connected with the remains of the house and are rather finds infiltrated by later interventions, hence they are not included into the discussion. The amphora shards associated with Houses 18, 31(1) and 35(2), as well as those found in Trench 36 have close parallels among the early, pre-Augustan amphorae from Sermin and *Ocra*.[88]

Roman pottery is further represented with several fragments of fine tableware (*Pl. 62: 9*), which is wheel-thrown and made of a highly refined and very

[80] Cf. Donat 2015, 44 ff.

[81] Grahek 2016, 130 f, 254 f, Fig. 42: L 37 b.

[82] Mlinar 2008, 69 f, Pl. 28: 1–9; cf. Pl. 42: 14–20.

[83] Donat, Maggi 2007, 152 ff.

[84] Mlinar 2008, 65, 70, Pl. 28: 11.

[85] Uninventoried base fragment of a jar from Trench 21-22. Cf. Grahek 2016, 103, Fig. 33: b.

[86] Horvat 1997, 69, Figs. 22–23.

[87] Inv. Nos. P 2675 and 2674.

[88] Horvat 1997, 57 ff; Horvat, Bavdek 2009, 83 ff.

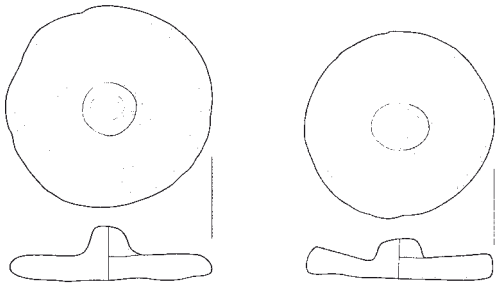
primešanega apnenčastega peska ima namreč črnosivo mastno površino in tako še najbolj ustreza furlanijski skupini 1 auerberških loncev.[83]

Redki fragmenti grafitne keramike ne omogočajo podrobnejše tipološke opredelitve (prim. *t. 97: 19*). Poleg prave grafitne keramike, ki je zastopana tudi na ustrini z Repelca,[84] je med naselbinskimi najdbami prepoznana še lončarska masa z manj primešanega grafita.[85] Najdbe tipične grafitne keramike izvirajo iz hiš 3(2), 11(2) in 33.

S poznolatensko poselitvijo povezujemo importe rimske keramike. Gre za odlomke amfor, ki so zastopani s fragmenti ustij amfor Lamboglia 2 (*t. 98: 9*) in Dressel 6B (*t. 98: 11*). Sodeč po fakturi, ki ustreza fakturi S 1 iz Sermina,[86] in svetlejši bledo rjavi barvi, so številčnejše zastopani odlomki amfor Lamb. 2. Z njimi bržkone lahko povezujemo tudi žigosan ročaj (*t. 98: 10*) in pa v kalupu narejen pokrov amfore (*t. 97: 7*). Podobna pokrovčka sta bila najdena na tlaku 1. gradbene faze hiše 2 (*sl. 18*).[87] Ker več kot očitno nista povezana z ostalinami hiše, temveč gre za najdbi, ki sta bili na tlak najverjetneje infiltrirani s kasnejšimi posegi, sta ta dva pokrovčka izločena iz obravnave. Obravnavani odlomki amfor tako izvirajo iz hiš 18, 31(1) in 35(2) ter sonde 36 in jim lahko dobre primerjave najdemo v zgodnjih, predavgustejskih amforah iz Sermina ali Okre.[88]

Poleg amfor je rimska keramika zastopana še z nekaj fragmenti fine namizne keramike (*t. 62: 9*), ki je oblikovana na vretenu iz dobro prečiščene, zelo finozrnate lončarske mase. Žgana je oksidacijsko in ima gladko, običajno prašnato površino. Najdbe tovrstne keramike so lahko bile tudi zamešane, saj posamični fragmenti izvirajo iz območij hiš 6(1), 29(1) in 22A(2). Iz hiš 11(2), 22A(2), 31(1) in 35(2) pa izvirajo najdbe z rdečim sigilatnim premazom. Med njimi kaže omeniti fragmenta skled, ki ustrezata oblikam Consp. 8.1. (*t. 98: 8*) in Consp. 24.3.1. (*t. 98: 7*), datiranim v zgodnje oziroma srednje avgustejsko obdobje.[89]

Iz hiše 31(1) izvira dobro ohranjen dvoročajni vrč (*t. 97: 6*). Tovrstne vrče zasledimo v avgustejsko-tiberijskih grobovih iz Adrije.[90] V tiberjanski čas so datirani tudi primerki z Vrhnike,[91] vendar pa je bila sorodna oblika dvoročajnega vrča najdena tudi v stopnjo Sv. Lucija IV datiranem grobu 6 iz Idrije pri Bači[92] in med sporadičnimi najdbami z Repelca.[93]



Sl. 18: Hiša 2, pokrovčka amfor. M. = 1:4.
Fig. 18: House 2, amphora lids. Scale = 1:4.

fine-grained fabric, fired in an oxidising atmosphere and has a smooth, usually dusty surface. These shards came singly from the areas of Houses 6(1), 29(1) and 22A(2), and may represent infiltrated finds. Houses 11(2), 22A(2), 31(1) and 35(2) yielded red slip sigillata vessels that include two shards of dishes that correspond with Consp. 8.1. (*Pl. 98: 8*) and Consp. 24.3.1. (*Pl. 98: 7*) forms, dated to the Early or Middle Augustan period.[89]

House 31(1) revealed a well-preserved two-handled jug (*Pl. 97: 6*). Such vessels are known from Augustan to Tiberian-period graves from Adria.[90] At Vrhnika, such jugs are dated to the Tiberian period,[91] while a similar jug has also been found in Grave 6 from Idrija pri Bači,[92] attributed to the Sv. Lucija IV phase, as well as among the stray finds from the cemetery at Repelc.[93]

House 33 yielded a fragment of a spindle-shaped and undecorated thin-walled beaker (*Pl. 97: 18*) of refined fabric, which is closely comparable with such beakers from *Ocra* and Sermin.[94] The beakers from these two sites have been broadly dated to the 2nd and first half of the 1st century BC on the basis of the comparable goods from Adria.[95] Such beakers have also been found in the Late La Tène layers at Stična,[96] the hillfort that also yielded a fragment of a baking dish[97] found in a Late La Tène layer dated to the pre-Augustan period, which is closely comparable with a shard (*Pl. 98: 14*) associated with Phase 2 of House 35 at Most na Soči. It is a

[83] Donat, Maggi 2007, 152 ss.
[84] Mlinar 2008, 65, 70, t. 28: 11.
[85] Neinventarizirani fragment dna lonca iz sonde 21-22. Prim. Grahek 2016, 103, sl. 33: b.
[86] Horvat 1997, 69, sl. 22–23.
[87] Inv. št. P 2675 in 2674.
[88] Horvat 1997, 57 ss; Horvat, Bavdek 2009, 83 ss.
[89] Conspectus 2002, 66, t. 8; 94, t. 22.
[90] Mangani 1982, 38 s, sl. 27: 4; 44: e; 56 ss, sl. 42: 6.
[91] Horvat 2012, 277 ss, sl. 8: 5–6.
[92] Guštin 1991, 93 (32), t. 9: 6/5.
[93] Mlinar 2008, t. 41: 2.

[89] Conspectus 2002, 66, Pls. 8; 94; 22.
[90] Mangani 1982, 38 f, Figs. 27: 4; 44: e; 56 ff, Fig. 42: 6.
[91] Horvat 2012, 277 ff, Fig. 8: 5–6.
[92] Guštin 1991, 93 (32), Pl. 9: 6/5.
[93] Mlinar 2008, Pl. 41: 2.
[94] Horvat, Bavdek 2009, Fig. 25, Pls. 2: 10–16; 3: 2–5; 17: 23–27; 25: 8–22; 26: 1–8; Horvat 1997, Fig. 42; Pls. 6: 4–13; 35: 7.
[95] Horvat, Bavdek 2009, 68 ff; Horvat 1997, 103.
[96] Grahek 2016, 261 ff, Fig. 79: 9, 10; Pls. 79: 6,9; 95: 5.
[97] Grahek 2016, 262, Fig. 79: 12; Pl. 95: 4.

V hiši 33 je bil najden fragment (visokega neokrašenega) vretenastega kozarca (*t. 97: 18*) iz prečiščene keramike tankih sten, ki je povsem primerljiv z najdbami iz Okre ali Sermina.[94] Te so tudi na podlagi primerjav z grobnimi najdbami iz Adrije okvirno datirane v 2. stol. in prvo polovico 1. stol. pr. Kr.[95] Najdbe podobnih kozarcev poznamo že iz poznolatenskih plasti Stične.[96] Tam je bil v plasti mlajše latenske stopnje, ki je datirana v predavgustejski čas, najden še fragment pekača,[97] povsem primerljiv z najdbo iz 2. gradbene faze hiše 35 (*t. 98: 14*). Gre za razširjeno obliko pekačev s preprosto zaobljeno steno in rahlim utorom za pokrov na robu ustja.[98]

V skupino sive venetske keramike sodi fragment ustja iz hiše 34 (*t. 98: 3*), ki ga lahko dobro primerjamo s skledo iz Sevegliana;[99] podobne oblike skled pa poznamo tudi iz Okre.[100] Sicer se pepelnato siva venetska keramika na območje Furlanije in v zaledje Tržaškega zaliva razširi v 2. stol. pr. Kr. in je v srednjeavgustejskem obdobju že maloštevilna.[101]

Podobno velja za keramiko s črnim premazom, ki je na Mostu na Soči najštevilčnejše zastopana med uvoženo latensko-rimsko keramiko. Najdbe izvirajo iz območij hiš 6(2), 11(2), 17(2), 24 in 33. Fragmenti ostenja na vretenu oblikovanih posod iz zelo finozrnate lončarske mase, ki imajo gladko, pod premazom lahko tudi prašnato površino, bržkone vsi pripadajo oblikam Lamboglia 28.[102] To velja tudi za nekoliko bolje ohranjeno skledo iz hiše 17 (*t. 58: 1*), ki jo sicer lahko uvrstimo v skupino skled s poševno steno in poudarjenim robom ustja iz Okre.[103] Poleg nje je med keramiko s črnim premazom z Mosta na Soči tipološko zanesljivo opredeljiv le še skifos iz hiše 33 (*t. 97: 12*). Ta je primerljiv s skifosi Morel 4124 ("forme 82");[104] skifosu z rdečim sigilatnim premazom pa pripada fragment ročaja iz hiše 31 (*t. 97: 3*). Keramika s črnim premazom se torej veže na severnoitalijanske oziroma severnojadranske najdbe, ki so značilne predvsem za konec 2. stol. pr. Kr. in so datirane v LTit D1 po severnoitalijanski oziroma LT D1a po srednjeevropski kronologiji.[105]

[94] Horvat, Bavdek 2009, sl. 25, t. 2: 10–16; 3: 2–5; 17: 23–27; 25: 8–22; 26: 1–8; Horvat 1997, sl. 42; t. 6: 4–13; 35: 7.

[95] Horvat, Bavdek 2009, 68 ss; Horvat 1997, 103.

[96] Grahek 2016, 261 ss, sl. 79: 9, 10; t. 79: 6,9; 95: 5.

[97] Grahek 2016, 262, sl. 79: 12; t. 95: 4.

[98] Prim. Horvat, Bavdek 2009, 76 s, t. 28: 8; Horvat 1997, 103 ss, t. 6: 4–14; 35: 7; 54: 3.

[99] Casssani 2008, 95: CGr 4.

[100] Horvat, Bavdek 2009, t. 5; zlasti 5: 12.

[101] Merlatti 2003; Cassani et al. 2007; Buora, Cassani 1999, 93 ss; prim. Horvat, Bavdek 2009, 72 s.

[102] Lamboglia 1952, 177 s.

[103] Horvat, Bavdek 2009, 63, t. 2: 1–3; 17: 22; 23: 1–9.

[104] Morel 1981, 290 s, t. 118. Prim. Gamba 1983, 41, sl. 3: 13–15.

[105] Maggi, Merlatti 2011; Buora 2008; id. 1995. Prim. Horvat, Bavdek 2009, 64 ss; Božič 2008, 130 ss, tab. 5.

widespread form of baking dishes with a slightly curved outline of the body and a small lid seat on the rim.[98]

The settlement at Most na Soči also yielded a rim shard of the grey Venetic ware (*Pl. 98: 3*), found in House 34, which is closely comparable with a dish from Sevegliano,[99] while similar forms of dishes are also known from *Ocra*.[100] The ash grey Venetic ware spread across Friuli and the hinterland of Trieste in the 2nd century BC and became rare in the Middle Augustan period.[101]

A similar time frame is true of the black-slipped ware, which is the best represented type of pottery among the imported La Tène-Roman pottery at Most na Soči. Its shards have been documented in the areas of Houses 6(2), 11(2), 17(2), 24 and 33. The body fragments of wheel-thrown vessels of very fine-grained fabric with a smooth surface, that may even be dusty underneath the slip, possibly all belong to the Lamboglia 28 forms.[102] This is also true of the somewhat better-preserved dish from House 17 (*Pl. 58: 1*), which can be ascribed to the group of conical dishes with a pronounced rim as defined at *Ocra*.[103] The only other black-slipped and typologically determinable vessel from Most na Soči is the *skyphos* from House 33 (*Pl. 97: 12*); it is comparable with the Morel 4124 skyphoi (of Form 82).[104] The handle fragment from House 31 (*Pl. 97: 3*) belongs to a red slip sigillata skyphos. The black-slipped ware from Most na Soči is comparable with the north Italian or north Adriatic finds mainly characteristic of the late 2nd century BC and attributed to LTit D1 of the north Italian or LT D1a of the central European chronology.[105]

[98] Cf. Horvat, Bavdek 2009, 76 f, Pl. 28: 8; Horvat 1997, 103 ff, Pls. 6: 4–14; 35: 7; 54: 3.

[99] Cassani 2008, 95: CGr 4.

[100] Horvat, Bavdek 2009, Pl. 5; particularly 5: 12.

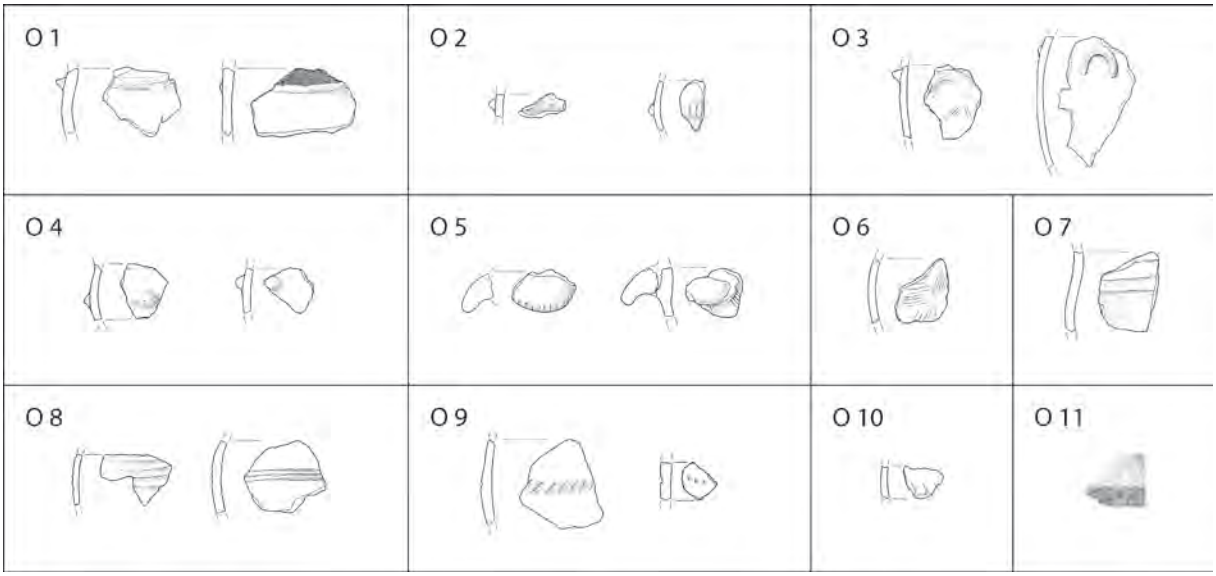
[101] Merlatti 2003; Cassani *et al.* 2007; Buora, Cassani 1999, 93 ff; Cf. Horvat, Bavdek 2009, 72 f.

[102] Lamboglia 1952, 177 f.

[103] Horvat, Bavdek 2009, 63, Pls. 2: 1–3; 17: 22; 23: 1–9.

[104] Morel 1981, 290 f, Pl. 118. Cf. Gamba 1983, 41, Fig. 3: 13–15.

[105] Maggi, Merlatti 2011; Buora 2008; *id.* 1995. Cf. Horvat, Bavdek 2009, 64 ff; Božič 2008, 130 ff, Tab. 5.



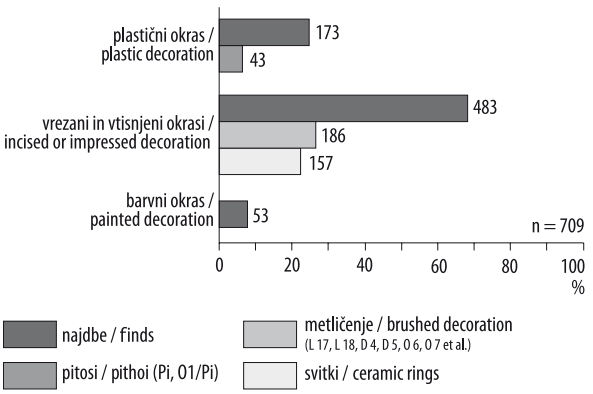
Sl. 19: Oblike in motivi okrasa (O 1–11).
Fig. 19: Techniques and motifs of decoration (O 1–11).

OKRAS

Majhen delež obravnavane keramike (9,18 % ali 187 kosov) predstavljajo tipološko neopredeljeni, a okrašeni fragmenti posodja. Te razvrščamo glede na način izdelave, obliko in motiv okrasa (*sl. 3, 19*). Vendar pa so v analizo okrasa vključeni tudi tipološko opredeljeni kosi, tako v nadaljevanju obravnavamo skupno 709 kosov ali 34,81 % keramike (*sl. 20*).

PLASTIČNI OKRAS

Med tipološko neopredeljenimi kosi so daleč najštevilčnejši fragmenti ostenja z vodoravno nalepljenim ali modeliranim rebrom (*sl. 19:* **O 1**), na katerih so večkrat ohranjene tudi sledi rdeče-črnega barvanja. Večina slednjih po tehnoloških lastnostih pripada pitosom tipa 1 (**O 1/Pi**), ki so kot običajni hišni inventar na Mostu na Soči razmeroma razširjeni (*sl. 24*). Fragmenti bolj fine



DECORATION

The ceramic shards that are decorated but typologically undeterminable represent a small share (9.18% or 187 pieces) of all the analysed ceramic finds. They are classified according to decorative technique, form and motif (*Figs. 3, 19*). To offer a more comprehensive picture, however, the discussion below considers the decoration that adorns not only the undeterminable, but also the determined shards, i.e. all together 709 pieces or 34.81% of ceramic finds (*Fig. 20*).

PLASTIC DECORATION

By far the most numerous in the group of typologically undeterminable shards are the body fragments with applied or drawn-out cordons (*Fig. 19:* **O 1**), which often also show traces of black-on-red painting. In technological properties, most of the latter shards belong to the pithoi of Type 1 (**O 1/Pi**), which are common household items at Most na Soči (*Fig. 24*). Fragments of finer pottery with traces of painting and a cordon (**O 1a**) may also belong to the pedestal situlae of Type 3 or the goblets of Types 1 and 3 after Dular,[106] which are all

[106] Dular 1982, 97 f, Fig. 7: 14,15,17.

Sl. 20: Delež najdb okrašene keramike po osnovnih oblikah okrasa.
Fig. 20: Shares of the decorated ceramic finds according to the basic decorative technique.

keramike s sledmi barve in vodoravnim rebrom (**O 1a**) lahko pripadajo tudi situlam z nogo tipa 3 ali kelihom tipa 1 in 3 po Dularju,[106] ki pa so med naselbinskimi najdbami težko prepoznavni in zelo maloštevilno zastopani (prim. *t. 2: 13; 9: 9; 23: 20*). Okras vodoravnega rebra redko zasledimo še na primerkih loncev tipa 1 in 3 (*t. 8: 10; 88: 10*), skledah tipa 7 (*t. 35: 3; 63: 12,14*) in pekvah tipa 1 (*t. 3: 9*). Še bolj redek je okras navpičnega rebra, ki ga zasledimo le na posamičnih fragmentih, najverjetneje delih ostenja prenosnih pečk.

Najdbe: **O 1**: t. 8: 11; 25: 15; 38: 17; 43: 8; 61: 2; 66: 11; 71: 11; 94: 9; **O 1/Pi**: t. 11: 12,14; 14: 2; 23: 21; 41: 2; 59: 11; 61: 18; 90: 3; 92: 13; 100: 9,11; **O 1a**: t. 43: 12; 71: 10; 80: 14; 91: 15; 92: 14.

Na obravnavani keramiki redko zasledimo okras razčlenjenih reber (*sl. 19:* **O 2**). Običajno gre za vodoravno nalepljena ali modelirana rebra, ki so najpogosteje razčlenjena z vtisi šila ali narezana. Tovrsten okras zasledimo na nekaj tipološko neopredeljenih fragmentih posodja (*t. 35: 17; 38: 18,19*), na loncih tipa 8 (*t. 37: 8*) in 12 ter posamičnih drugih najdbah (*t. 29: 4; 38: 6; 100: 12*).

V primerjavi z razčlenjenimi rebri so še nekoliko manj številčno zastopana gladka rebra v obliki valovnice ali okras podkvastih aplik (*sl. 19:* **O 3**), ki v okviru dolenjskega kulturnega kroga veljajo za mladohalštatsko prvino.[107] Tovrsten okras zasledimo na posamičnem primerku keliha (*t. 14: 5*), loncih tipa 3 (*t. 23: 14; 42: 7*) in pa tipološko neopredeljenih kosih posodja (*t. 14: 7; 43: 7; 61: 16,17*).

Nalepljene ali iz ostenja izvlečene bradavice (*sl. 19:* **O 4**) običajno nastopajo kot samostojen okras. Izjeme zasledimo pri redkih najdbah loncev tipa 20 (*t. 14: 3*) in posamičnem primerku lonca tipa 11 (*t. 34: 19*). Okras bradavic, ki se največkrat pojavljajo posamično, najdemo še pri loncih tipa 1 (*t. 13: 1; 66: 12*), 3 (*t. 42: 6; 55: 4; 91: 1*), 5 (*t. 91: 2*), 8 (*t. 30: 14*), skledi tipa 7 (*t. 71: 4*) in tipološko neopredeljenih fragmentih, ki vsi izvirajo iz hiše 3, in to praviloma iz ostalin starejše gradbene faze (*t. 15: 2,6,10,16–18; 23: 24*). Med gradivom iz 2. gradbene faze hiše 3 pa je najden fragment z jezičastim držajem (*sl. 19:* **O 5**). Ti so med obravnavano keramiko zelo redki (*t. 23: 15; 30: 20; 89: 10*), saj jih zasledimo le še v hišah 8 (2) in 25.

VREZANI IN VTISNJENI OKRAS

Najznačilnejši okras za svetolucijsko naselbinsko keramiko se kaže metličenje. To je značilno za lonce tipa 17 in v kombinaciji z vodoravnim žlebljenjem ali plitkimi kanelurami za lonce tipa 18 (*sl. 12*: L 17, L 18). Njim kot dna tipa 4 in 5 (*sl. 14*: d 4, d 5) najverjetneje

[106] Dular 1982, 97 s, sl. 7: 14,15,17.

[107] Prim. Grahek 2016, 196 s; sl. 57: O 3,O 6.

very difficult to positively identify among the recovered finds and hence poorly represented (cf. *Pls. 2: 13; 9: 9; 23: 20*). A cordon may also adorn, albeit rarely, the jars of Types 1 and 3 (*Pls. 8: 10; 88: 10*), dishes of Type 7 (*Pls. 35: 3; 63: 12,14*) and baking lids of Type 1 (*Pl. 3: 9*). The ceramic finds from Most na Soči include rare shards with a vertical rib, only documented on individual fragments that probably belong to portable oven stands.

Finds: **O 1**: Pls. 8: 11; 25: 15; 38: 17; 43: 8; 61: 2; 66: 11; 71: 11; 94: 9; **O 1/Pi**: Pls. 11: 12,14; 14: 2; 23: 21; 41: 2; 59: 11; 61: 18; 90: 3; 92: 13; 100: 9,11; **O 1a**: Pls. 43: 12; 71: 10; 80: 14; 91: 15; 92: 14.

The cordons on the ceramic finds from Most na Soči rarely bear impressions (*Fig. 19:* **O 2**), which are most commonly made by an awl, or are slashed. Such decoration is present on several typologically undeterminable body shards (*Pls. 35: 17; 38: 18,19*), on the jars of Types 8 (*Pl. 37: 8*) and 12, as well as on individual other vessels or their parts (*Pls. 29: 4; 38: 6; 100: 12*).

Even rarer are the plain wavy cordons and horseshoe-shaped appliques (*Fig. 19:* **O 3**), which in the Dolenjska Hallstatt group represent a Late Hallstatt feature.[107] Such decoration at Most na Soči is present on a goblet, (*Pl. 14: 5*), on the jars of Type 3 (*Pls. 23: 14; 42: 7*) and on typologically undeterminable vessel shards (*Pls. 14: 7; 43: 7; 61: 16,17*).

Applied or drawn-out knobs (*Fig. 19:* **O 4**) usually occur as the sole decoration on vessels, in combination with other decorative techniques only on the rare finds of Type 20 jars (*Pl. 14: 3*) and on one Type 11 jar (*Pl. 34: 19*). Knobs also usually appear singly on the jars of Types 1 (*Pls. 13: 1; 66: 12*), 3 (*Pls. 42: 6; 55: 4; 91: 1*), 5 (*Pl. 91: 2*) and 8 (*Pl. 30: 14*), on a dish of Type 7 (*Pl. 71: 4*) and on typologically undeterminable fragments from House 3, mainly from its Phase 1 (*Pls. 15: 2,6,10,16–18; 23: 24*). The finds from Phase 2 of this house include a fragment with a tongue-shaped grip (*Fig. 19:* **O 5**), which are very rare at Most na Soči (*Pls. 23: 15; 30: 20; 89: 10*) and have only been found in Houses 3 (2), 8 (2) and 25.

INCISED OR IMPRESSED DECORATION

The decoration that seems to be most characteristic of the ceramic finds from Most na Soči is brushing. It is present on the jars of Type 17 and in combination with horizontal grooving on the jars of Type 18 (*Fig. 12*: L 17, L 18). Similarly as the base fragments of Types 4 and 5 (*Fig. 14*: d 4, d 5), all the typologically undeterminable shards with brushed decoration (*Fig. 19:* **O 6**) and the fragments with a combination of horizontal grooves and brushed decoration (*Fig. 19:* **O 7**) probably also belong to these jars. Apart from the typical brushed jars, brushing

[107] Cf. Grahek 2016, 196 f; Fig. 57: O 3,O 6.

pripadajo tudi vsi tipološko nerazvrščeni, z metličenjem okrašeni fragmenti (*sl. 19:* **O 6**) ali fragmenti s sestavljenim okrasom vodoravnih kanelur in metličenja (*sl. 19:* **O 7**). Poleg najznačilnejših loncev metličenje redko zasledimo še pri loncih tipa 1,[108] 9[109] in 15 (*t. 59: 3*), skledah tipa 2 (*t. 3: 1*), 4 (*t. 28: 23*), 6 (*t. 36: 5*) in 7 (*t. 35: 3; 36: 14*), na pokrovih (*t. 30: 11*), pekvah (*t. 3: 9*) ter prenosnih pečkah (*t. 33: 17*).

Najdbe: **O 6**: t. 25: 12–14; 54: 1,2; 60: 13,15; 61: 6; 63: 8–10; 99: 11; **O 7**: t. 23: 18; 31: 10; 36: 9; 63: 11; 94: 11.

Med okrasi, izdelanimi v tehniki vrezovanja,[110] je pri posodju razširjeno še vodoravno žlebljenje ali okras plitkih kanelur (*sl. 19:* **O 8**). Tovrsten okras je značilnost loncev tipa 19 (*sl. 12*: L 19), vodoravno nažlebljena ramena pa lahko imajo tudi pitosi (*t. 29: 13; 99: 4,5*). Posamični vodoravni topi vrezi ali kanelure zasledimo še pri loncih tipa 1 (*t. 71: 9*), 3 (*t. 72: 3; 80: 10*) in 8 (*t. 23: 16*). Kljub temu večina tipološko nerazvrščenih ostenij, ki izvirajo iz hiš 2(1), 3(2), 6(1), 8(2), 14(1,2), 15(2), 16(2), 21, 22A(1), 23(2) in 29(1), najverjetneje pripada prav loncem tipa 19 (*t. 8: 9; 30: 13; 34: 20; 36: 8; 61: 7; 91: 16*).

Vodoravno žlebljenje nastopa tudi skupaj z okrasi v tehniki vtiskovanja (prim. *t. 1: 1*). Vtisnjene okrase (*sl. 19:* **O 9**) sicer najpogosteje zasledimo pri svitkih. Poleg vtisnjenih krožcev, ki so značilnost svitkov tipa 6 in 7 (*sl. 16*: S 6, S 7), so pogosti še vtisi prsta, značilni za svitke tipa 9 do 12 (*sl. 16*: S 9–S 12). Vtisnjene okrase zasledimo tudi na posodju in drugih oblikah ognjiščne keramike, a so razmeroma redki. Medtem ko so pekve tipa 2 in 4 okrašene z vtisi nohta ali šila (*t. 33: 10; 94: 12,14; 96: 6,8–10; 100: 12*), so redki primeri vtisnjenega okrasa na posodju zelo raznovrstni (prim. *t. 3: 7; 28: 17; 29: 1; 32: 15,18; 34: 12; 37: 12; 55: 5; 58: 4; 59: 3; 60: 11; 62: 12*). Med njimi gre omeniti lonec tipa 11 iz 1. gradbene faze hiše 14 z žigosanim okrasom krožcev s sredinskim križem (*t. 34: 19*). Tovrsten okras je bolj značilen za štajerski kulturni krog, kjer ga obravnavamo še kot odraz starejših, žarnogrobiščnih vplivov;[111] enak okras pa zasledimo tudi na fragmentu velikega dolija/silosa iz istoimenske hiše v Montereale Valcellinu,[112] ki je datirana v 5. stol. pr. Kr., in pekvi iz Kranja, ki najverjetneje izvira iz mladohalštatskih ostalin.[113]

[108] Inv. št. P 2334 in 2354 iz hiše 1(1,2) ter P 5570 in 5579 iz hiše 22A(2).

[109] Inv. št. P 3999 iz hiše 16(2).

[110] Horvat 1999, 29 ss.

[111] Teržan 1990, 32 ss, t. 26: 4; 39: 6,7. Prim. Grahek 2016, 213, sl. 60: O 24c.

[112] Tasca 1996, 438, sl. 17: 64; Vitri 1996, 404.

[113] Urek, M., T. Podobnik, Š. Tomažinčič, S. Djokić 2016, *Končno strokovno poročilo o arheoloških raziskavah grobišča v Lajhu in prazgodovinske poselitve na območju Savske ceste in sejmišča v Kranju (EŠD 5145, Kranj – Arheološko najdišče Lajh; EŠD 274, Kranj - Mestno jedro*, t. 33: 8, (neobjavljeno poročilo, hrani ZVKDS OE Kranj). Prim. Grahek 2018 (2017), 267, op. 3.

rarely occurs on the jars of Types 1,[108] 9[109] and 15 (*Pl. 59: 3*), dishes of Types 2 (*Pl. 3: 1*), 4 (*Pl. 28: 23*), 6 (*Pl. 36: 5*) and 7 (*Pls. 35: 3; 36: 14*), on lids (*Pl. 30: 11*), baking lids (*Pl. 3: 9*) and portable ovens (*Pl. 33: 17*).

Finds: **O 6**: Pls. 25: 12–14; 54: 1,2; 60: 13,15; 61: 6; 63: 8–10; 99: 11; **O 7**: Pls. 23: 18; 31: 10; 36: 9; 63: 11; 94: 11.

Incised decoration[110] includes horizontal grooving (*Fig. 19:* **O 8**). Such decoration typically occurs on the jars of Type 19 (*Fig. 12*: L 19), while pithoi may also bear horizontal grooves on the shoulder (*Pls. 29: 13; 99: 4,5*). Individual U-sectioned incisions or grooves can be found on the jars of Types 1 (*Pl. 71: 9*), 3 (*Pls. 72: 3; 80: 10*) and 8 (*Pl. 23: 16*). Most of the typologically undeterminable body shards with such decoration from Houses 2(1), 3(2), 6(1), 8(2), 14(1,2), 15(2), 16(2), 21, 22A(1), 23(2) and 29(1) most probably also belong to the Type 19 jars (*Pls. 8: 9; 30: 13; 34: 20; 36: 8; 61: 7; 91: 16*).

Horizontal grooving also appears in combination with impressions (cf. *Pl. 1: 1*). Impressed decoration (*Fig. 19:* **O 9**) is most frequent on ceramic rings. Apart from circles that characterise Types 6 and 7 (*Fig. 16*: S 6, S 7), ceramic rings also bear finger impressions that are characteristic of Types 9–12 (*Fig. 16*: S 9–S 12). Impressed decoration is also present, albeit rarely, on pottery and hearth utensils. The baking lids of Types 2 and 4 bear fingernail or awl impressions (*Pls. 33: 10; 94: 12,14; 96: 6,8–10; 100: 12*), while the rare impressions on pottery are varied (cf. *Pls. 3: 7; 28: 17; 29: 1; 32: 15,18; 34: 12; 37: 12; 55: 5; 58: 4; 59: 3; 60: 11; 62: 12*). In connection with the latter we should mention a Type 11 jar from Phase 1 of House 14 that bears stamped decoration of encircled crosses (*Pl. 34: 19*). This is typical of the Štajerska cultural circle where it is seen as a reflection of earlier, Urnfield culture influences.[111] The motif is also known on a fragment of a large dolium/silo from the *Casa dei dolii* at Montereale Valcellina,[112] which is dated to the 5th century BC, and on a baking lid from Kranj, which most likely originates from a Late Hallstatt context.[113]

Similar observations as for the impressed decoration can also be made for the U-sectioned incisions (*Fig. 19:* **O 10**). This decoration as well most commonly

[108] Inv. Nos. P 2334 and 2354 from House 1(1,2), as well as P 5570 and 5579 from House 22A(2).

[109] Inv. No. P 3999 from House 16(2).

[110] Horvat 1999, 29 ff.

[111] Teržan 1990, 32 ff, Pls. 26: 4; 39: 6,7. Cf. Grahek 2016, 213, Fig. 60: O 24c.

[112] Tasca 1996, 438, Fig. 17: 64; Vitri 1996, 404.

[113] Urek, M., T. Podobnik, Š. Tomažinčič, S. Djokić 2016, *Končno strokovno poročilo o arheoloških raziskavah grobišča v Lajhu in prazgodovinske poselitve na območju Savske ceste in sejmišča v Kranju (EŠD 5145, Kranj – Arheološko najdišče Lajh; EŠD 274, Kranj - Mestno jedro*, Pl. 33: 8, (unpublished report, kept in the ZVKDS OE Kranj). Cf. Grahek 2018 (2017), 267, Fn. 3.

Podobno kot za vtisnjene velja tudi za okras (topih) vrezov (*sl. 19:* **O 10**). Tudi tovrsten okras najpogosteje zasledimo na svitkih, ki smo jih po obliki okrasa razvrstili med svitke tipa 3 do 6 in 13 (*sl. 16*: S 3–S 6, S 13). Topi vodoravni vrezi ali plitke kanelure, ki lahko oblikujejo vodoravno nažlebljena ramena, so značilnost loncev tipa 19 (*sl. 12*: L 19), v kombinaciji z metličenim okrasom pa loncev tipa 18 (*sl. 12*: L 18). Okras vodoravnega vreza redko zasledimo še pri loncih tipa 1 (*t. 71: 9*), 3 (*t. 72: 3; 80: 10*), 8 (*t. 23: 16*) in tipa 2, kjer zasledimo tudi vrezan cik-cak motiv (*t. 9: 2*). Še redkeje na loncih zasledimo okras poševnih vrezov (*t. 89: 20*), na tipološko nerazvrščenih fragmentih ostenij iz hiš 3 (2) in 11(2), ki bržkone pripadajo loncem, pa zasledimo vrezan motiv smrekove vejice (*t. 23: 17*). Z vrezi so redko okrašena tudi ustja skled (*t. 23: 19; 89: 14*); različne oblike vrezanih okrasov zasledimo še na posamičnih primerkih prenosnih pečk (*t. 65: 5; 89: 25*), motku (*t. 100: 17*) in vretencu (*t. 23: 12*).

BARVNI OKRAS

Sledi barvnih premazov (*sl. 19:* **O 11**) zasledimo na zelo majhnem deležu obravnavane keramike (4,57 % ali 93 kosov). Poleg slikane (*t. 25: 1*) oziroma barvane uvožene keramike je najpogosteje zastopano rdeče-črno barvanje, ki velja za izrazito mladohalštatsko prvino.[114] Tovrsten okras je seveda značilen za narebrene pitose, situle in kelihe (*sl. 9*: Pi; 12: Si; 13: K), ki pa so zaradi fragmentarnosti težko prepoznavni (prim. *sl. 14*: n 1, n 2; 18: o 1). Barvni okras je značilnost tudi loncev tipa 21 (*sl. 12*: L 21), ki so praviloma rdeče obarvani, pogosto pa še v pasovih premazani s črno smolnato ali grafitno barvo.[115] Sledi črnega smolnatega premaza zasledimo še pri lončku tipa 1 (*t. 28: 17*) in fragmentu skodele, ki jo prištevamo k skledam tipa 1 (*t. 98: 5*). Bolj je razširjen rdeč premaz, in sicer zasledimo sledi rdečega premaza tako na posamičnih primerkih raznolikih loncev (*t. 59: 1; 30: 13*)[116] in skled ali skodel (*t. 58: 5; 71: 3; 88: 12; 89: 24; 91: 13*)[117] kot tudi na fragmentu prenosne pečke (*t. 80: 4*).

[114] Prim. Dular 1982, 91.

[115] Za analizo barvnih premazov glej Grahek, Košir hic.

[116] K loncem tipa 13 prištevamo rdeče barvan fragment inv. št. P 2352 iz hiše 1(1).

[117] Da so med obravnavanim gradivom lahko zastopane tudi rdeče(-črno) barvani vrči ali skodele, dokazuje fragment trakastega, rdeče barvanega ročaja inv. št. P 5546 iz hiše 22A(2).

occurs on ceramic rings, of Types 3–6 and 13 (*Fig. 16*: S 3–S 6, S 13). U-sectioned incisions or shallow grooves that adorn the shoulders are characteristic of the jars of Type 19 (*Fig. 12*: L 19), in combination with brushed decoration of the jars of Type 18 (*Fig. 12*: L 18). In addition, horizontal incisions can be found on some jars of Types 1 (*Pl. 71: 9*), 3 (*Pls. 72: 3; 80: 10*), 8 (*Pl. 23: 16*) and 2, where they may form a zigzag motif (*Pl. 9: 2*). Even rarer on jars are oblique incisions (*Pl. 89: 20*), while the typologically undeterminable shards from Houses 3 (2) and 11(2) that most probably belong to jars include one that shows an incised pine-sprig motif (*Pl. 23: 17*). Incisions sometimes adorn the rims of dishes (*Pls. 23: 19; 89: 14*). Different forms of incised motifs are also known on portable ovens (*Pls. 65: 5; 89: 25*), a bobbin (*Pl. 100: 17*) and a spindle whorl (*Pl. 23: 12*).

PAINTED DECORATION

Traces of different paints (*Fig. 19:* **O 11**) have been documented on a very small number of the analysed ceramic finds (4.57% or 93 pieces). Apart from the imported painted pottery (*Pl. 25: 1*), the most common is black-on-red painting, which is a characteristic Late Hallstatt element.[114] Black-on-red painting is most common on cordoned pithoi, situlae and goblets (*Figs. 9*: Pi; 12: Si; 13: K), which are difficult to be identified due to their high degree of fragmentation (cf. *Figs. 14*: n 1, n 2; 18: o 1). Painting is also to be found on the jars of Type 21 (*Fig. 12*: L 21), which are usually painted red and often have a black resinous or graphite paint added in bands.[115] Traces of a black resinous paint have also been observed on a Type 1 beaker (*Pl. 28: 17*) and a fragment of a bowl, the latter discussed above under the dishes of Type 1 (*Pl. 98: 5*). The more frequent red paint occurs on individual examples of different jars (*Pls. 59: 1; 30: 13*),[116] on dishes or bowls (*Pls. 58: 5; 71: 3; 88: 12; 89: 24; 91: 13*)[117] and on a fragment of a portable oven (*Pl. 80: 4*).

[114] Cf. Dular 1982, 91.

[115] For an analysis of the paints see Grahek, Košir hic.

[116] The jars of Type 13 also include the red painted fragment of Inv. No. P 2352 from House 1(1).

[117] The fragment of a red painted strap handle of Inv. No. P 5546 from House 22A(2) proves that the finds under discussion may also include red (black-on-red) painted jugs or bowls.

SVETOLUCIJSKA NASELBINSKA KERAMIKA IN NJENE ZNAČILNOSTI

Izkopavanja na Mostu na Soči so prinesla najobsežnejšo in hkrati prvo stratigrafsko jasno umeščeno zbirko najdb svetolucijske naselbinske keramike. Datacija raziskanega naselja z Mosta na Soči v mladohalštatski čas ali stopnjo Sv. Lucija II je povsem jasna.[118] Ker gre za največje ali pa vsaj najbolje raziskano središče tega kulturnega kroga, ne preseneča bolj raznolika paleta najdb, kot jih poznamo iz redkih, vsaj delno raziskanih naselbinskih ostalin s svetolucijskega območja in širšega zaledja, kot so Gregorčičeva ulica v Kobaridu[119] ali Štalca nad Železniki,[120] Štanjel na Krasu,[121] Gradisce di Spilimbergo[122] in Pozzuolo del Friuli.[123]

Svetolucijska naselbinska keramika se v več pogledih močno razlikuje od kronološko mnogo bolje opredeljive grobne keramike, ki je že bila deležna sistematične obdelave.[124]

Četudi grobne najdbe s tehnološkega vidika niso bile obravnavane tako podrobno kot naselbinske, lahko povzamemo, da je naselbinska keramika pričakovano bolj grobe izdelave. Kot pri grobni keramiki močno prevladuje prostoročni način izdelave (*sl. 4*), bolj dovršena izdelava z uporabo lončarskega vretena pa je bila ugotovljena le pri redkih kosih (uvoženega) finega halštatskega posodja in najdbah iz mlajše železnodobnih hiš. Do enakih ugotovitev pridemo, če opazujemo zrnavost lončarske mase, obdelavo površine in trdoto (*sl. 5, 7*).

Bolj zagonetna je analiza načina žganja, pri katerem nedvomno prevladuje (nepopolna) oksidacijska atmosfera (*sl. 6*). Pri manjšem deležu posodja sta bila ugotovljena tudi redukcijski[125] ali reoksidacijski način žganja,[126] ki nakazujeta na uporabo lončarske peči. Analiza načina žganja omogoča razločevanje več variant posameznih tipov posodja, vendar smo to razločevanje opustili, saj ne prinaša pomenljivih rezultatov, ker so

[118] Prim. Mlinar et al. 2008.

[119] Vinazza 2015.

[120] Bogataj et al. 2016; prim. Grahek 2018 (2017).

[121] Fabec, Vinazza 2014.

[122] Càssola Guida, Balista 2007.

[123] Vitri et al. 1991.

[124] Dular 1982, 92 ss.

[125] Redukcijski način žganja, ki ni posledica uporabe ali prežganosti posode (prim. Grahek 2016, 104) zasledimo predvsem pri loncih tipa L 1–3, L 5, L 7–15, L 17–20, lončkih tipa Lo 1, Lo 3, Lo 4 in skledah tipa Sk 2, Sk 4, Sk 6 ter Sk 7, medtem ko predvsem pri loncih tipa L 17 in skledah tipa Sk 1 zasledimo tudi nepopolno oksidacijski način žganja s končnim dimljenjem.

[126] Redukcijski način žganja z oksidacijo z zaključni fazi zasledimo predvsem pri loncih tipa L 1, L 3–5, L 8, L 9, L 11–19, L 21, lončkih tipa Lo 2 in Lo 4, situlah (Si) ter skledah tipa Sk 2 in Sk 4.

POTTERY FROM THE SETTLEMENTS OF THE SVETA LUCIJA GROUP

Excavations at Most na Soči have yielded a collection of ceramic finds that is both most extensive and stratigraphically most clearly documented of all the assemblages from the Sveta Lucija group. The investigated part of the settlement at Most na Soči was most densely populated in the Late Hallstatt period or the Sv. Lucija II phase.[118] Being the largest, or at least the most extensively investigated centre of the cultural group, it is not surprising that it yielded a variety of small finds much wider in comparison with the assemblages from the rare partially investigated settlements of the Sveta Lucija area and wider, for instance at the Gregorčičeva ulica site in Kobarid,[119] Štalca above Železniki,[120] Štanjel in the Kras,[121] Gradisca di Spilimbergo[122] and Pozzuolo del Friuli.[123]

In the Sveta Lucija group, the pottery from settlements greatly differs from the chronologically better defined pottery from the cemeteries. The latter has already been systematically analysed, though the analyses did not include a detailed observation of the technological properties.[124]

Similarly as that from funerary contexts, the pottery from the settlement at Most na Soči is predominantly hand-built (*Fig. 4*) and the use of a potter's wheel has only been documented on the rare pieces of (imported) Hallstatt fineware and the finds from the Late Iron Age houses. Contrary to the funerary pottery, however, it is made of a much coarser fabric, but also less carefully shaped and fired. This observation is confirmed by the examination of the grain size of the fabric, the surface treatment and the hardness (*Figs. 5, 7*).

The pottery from the settlement was predominantly fired in an (incomplete) oxidising atmosphere (*Fig. 6*). A small share of the ceramic finds revealed firing in a reducing[125] or reoxidising atmosphere,[126] both of which

[118] Cf. Mlinar et al. 2008.

[119] Vinazza 2015.

[120] Bogataj et al. 2016; cf. Grahek 2018 (2017).

[121] Fabec, Vinazza 2014.

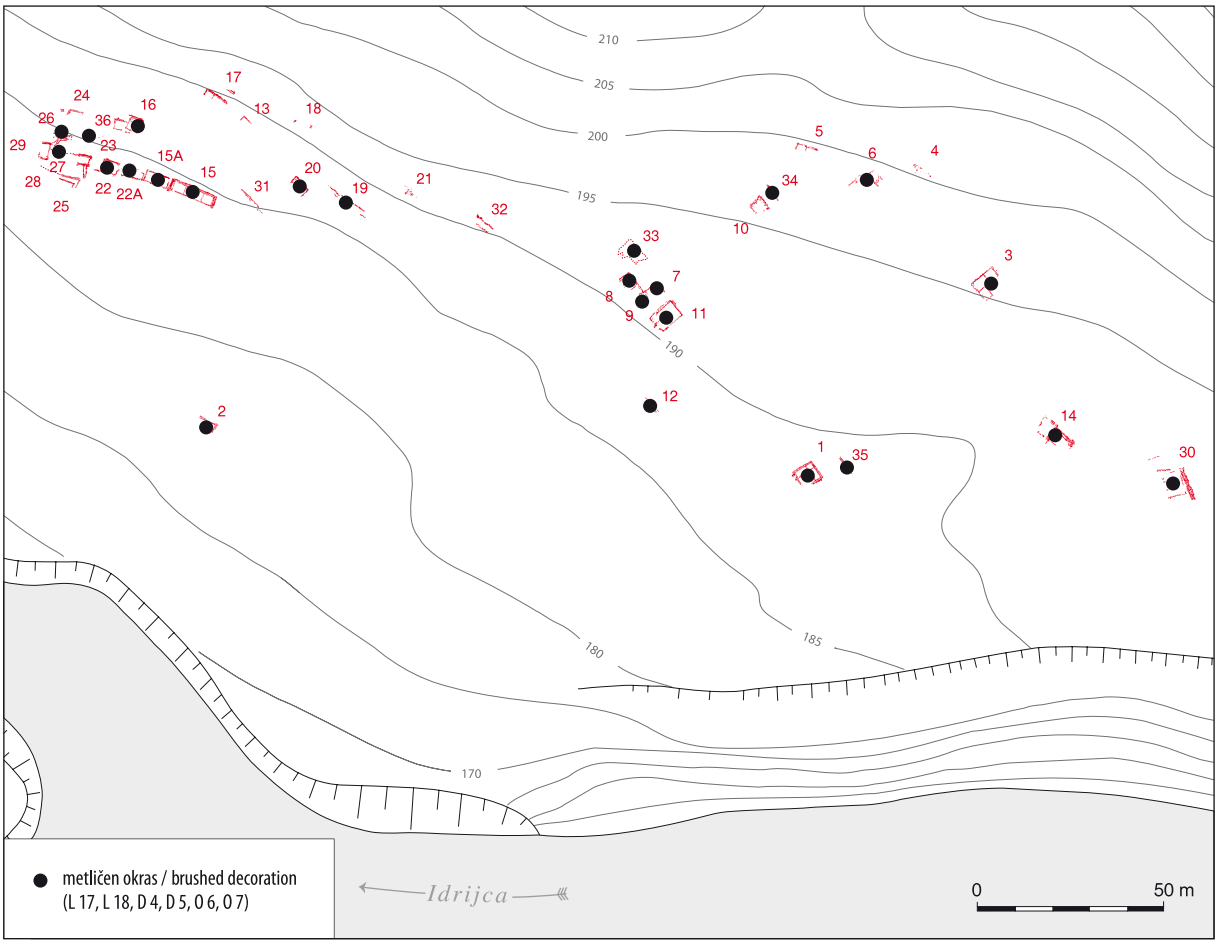
[122] Càssola Guida, Balista 2007.

[123] Vitri et al. 1991.

[124] Dular 1982, 92 ff.

[125] Firing in a reducing atmosphere (excluding secondary burning through use or fire damage; cf. Grahek 2016, 104) has mainly been documented for the jars of Types L 1–3, L 5, L 7–15, L 17–20, beakers of Types Lo 1, Lo 3, Lo 4 and dishes of Types Sk 2, Sk 4, Sk 6 and Sk 7. Of those, some jars of Type L 17 and dishes of Type Sk 1 were also fired in an incomplete oxidising atmosphere with smoking in the final phase.

[126] Firing in a reducing atmosphere with oxidation in the final phase has predominantly been documented on the jars of Types L 1, L 3–5, L 8, L 9, L 11–19, L 21, beakers Types Lo 2 and Lo 4, situlae (Si) and dishes of Types Sk 2 and Sk 4.



Sl. 21: Razprostranjenost posodja z metličenim okrasom.
Fig. 21: Distribution of the jars with brushed decoration.

lahko celo v okviru (ene gradbene faze) posamezne hiše pri istem tipu posodja zastopani različni načini žganja.[127]

Najpomembnejša tehnološka značilnost svetolucijske naselbinske keramike je sestava lončarske mase, ki vsebuje veliko, običajno drobnozrnatega kalcitnega peska.[128] Finozrnata lončarska glina brez večje primesi peska je značilna predvsem za bolj fino posodje kot ga predstavljajo lonci tipa 20 in 21 ter situle (Si). Med najdbami iz mlajše železnodobnih hiš pa je zastopana tudi grafitna keramika.

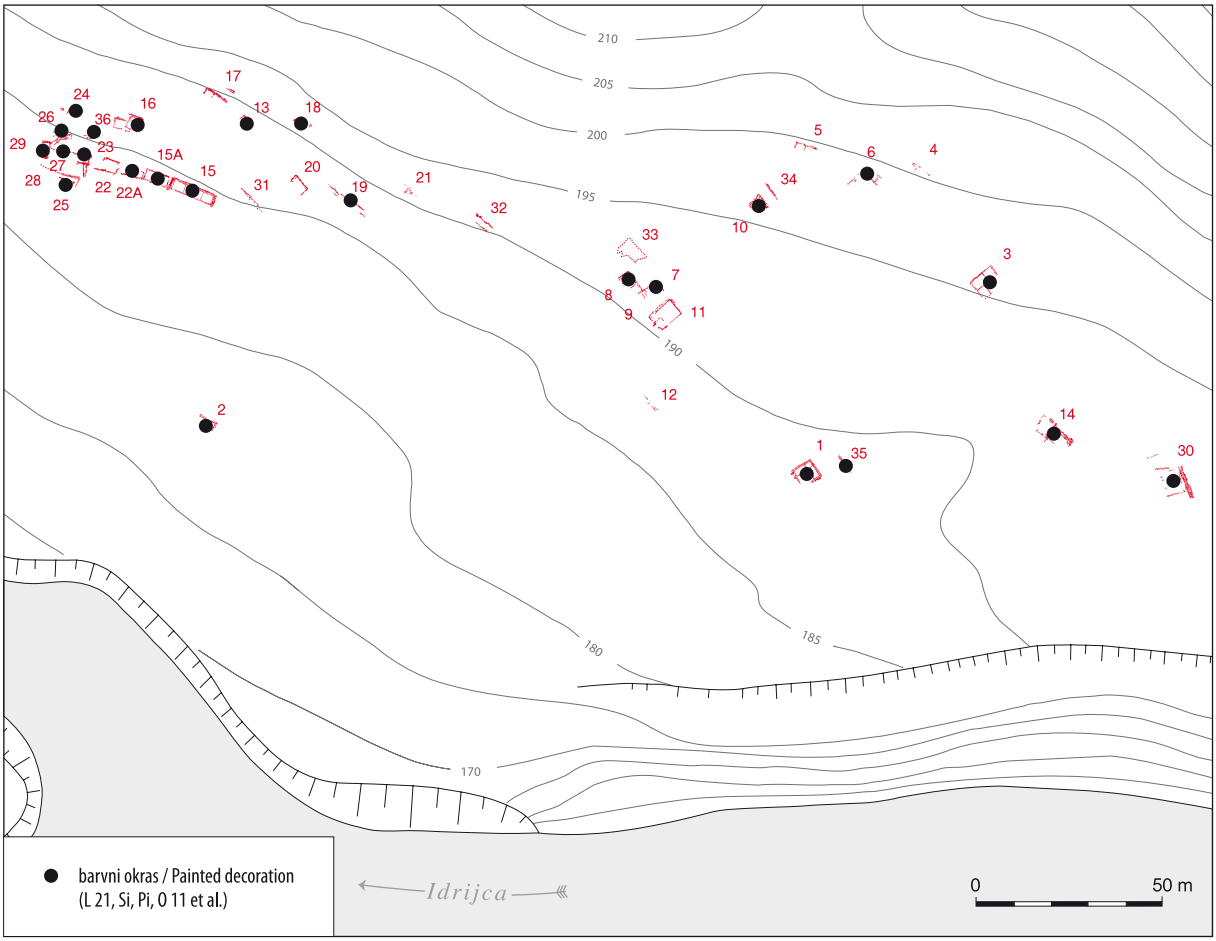
[127] Npr.: redukcijsko in oksidacijsko žgana lonca tipa L 1 iz hiše 18 (*t. 58: 7* in *8*); redukcijsko, reoksidacijsko in nepopolno oksidacijsko žgani lonci tipa L 5 iz hiše 15A *(t. 41: 5; 42: 4* in *t. 53: 7*); trije primerki redukcijsko in oksidacijsko ter reoksidacijsko žgani lonci tipa L 18 iz hiše 14 (*t. 34: 14; 35: 1,2* in *t. 35: 4* ter *t. 36: 3*); (nepopolno) oksidacijsko in redukcijsko žgana lonca tipa L 19 iz hiše 12 (*t. 33: (5),9* in *12*) ali redukcijsko, dve reoksidacijsko ter nepopolno oksidacijsko žgane sklede tipa Sk 2 iz hiše 1 (*t. 3: 4* in *t. 3: 3,6* ter *t. 3: 1*); oksidacijsko in redukcijsko žgani skledi tipa Sk 6 iz hiše 2 (*t. 9: 12* in *t. 10: 1*); redukcijsko in nepopolno oksidacijsko žgani skledi tipa Sk 7 iz hiše 22A (*t. 63: 12* in *14*) idr.

[128] Glej Grahek, Košir hic.

suggest the use of a pottery kiln. Analysing the firing technique did reveal differences within individual types of vessels, but these differences have not been interpreted as variants because vessels of the same type from the same house, even the same construction phase can show different firing techniques.[127]

The most prominent technological feature of the pottery from Most na Soči, but also other settlements of

[127] E.g. two jars Type L 1 from House 18 (*Pl. 58: 7* and *8*) fired in a reducing and oxidising atmosphere; three jars of Type L 5 from House 15A *(Pl. 41: 5* and *Pl. 42: 4* and *Pl. 53: 7*) fired in a reducing, reoxidising and incomplete oxidising atmosphere; jars of Type L 18 from House 14 (*Pls. 34: 14; 35: 1,2* and *Pl. 35: 4* and *Pl. 36: 3*) fired in a reducing, oxidising and reoxidising atmosphere; two jars of Type L 19 from House 12 (*Pl. 33: (5),9* and *12*) fired in a (incomplete) oxidising and reducing atmosphere; dishes of Type Sk 2 from House 1 (*Pl. 3: 4* and *Pl. 3: 3,6* and *Pl. 3: 1*) fired in a reducing, reoxidising and incomplete oxidising atmosphere; two dishes of Type Sk 6 from House 2 (*Pl. 9: 12* and *Pl. 10: 1*) fired in an oxidising and reducing atmosphere; two dishes of Type Sk 7 from House 22A (*Pl. 63: 12* and *14*) fired in a reducing and incomplete oxidising atmosphere and so forth.



Sl. 22: Razprostranjenost posodja z bravnim okrasom.
Fig. 22: Distribution of ceramics with painted decoration.

Najznačilnejši okras za svetolucijsko (mladohalštatsko) naselbinsko keramiko je zagotovo metličenje (*sl. 20, 21*). Pri posodju lahko kot zelo značilne omenimo še rdeče-črno barvanje (*sl. 22*) in pa okras vodoravnih topih vrezov ali plitkih kanelur, ki pri loncih tipa 21 ustvarjajo nažlebljena ramena. Če poleg teh odmislimo številne najdbe raznoliko okrašenih svitkov (prim. *sl. 20*) in uvožene kose, lahko povzamemo, da je obravnavana keramika zelo skromno in redko okrašena (15,36 % ali 313 kosi).

Najbolj razširjena oblika naselbinskega posodja so seveda lonci, ki jih razvrščamo v 21 tipov (*sl. 23*). Večini od njih najdemo posamezne primerjave tudi v grobovih, vendar to praviloma ne velja za najznačilnejše naselbinske oblike loncev.[129] To so zagotovo zelo razširjeni lonci z metličenim okrasom (*sl. 21*), ki jih po okrasu razvrščamo med lonce tipa 17 in 18, ter lonci z nažlebljenimi rameni, med katerimi prevladujejo lonci tipa 19,[130] ki imajo ramena bolj ali manj nažlebljena z

[129] Prim. Dular 1982, 93 ss, sl. 9: 5–10.

[130] Žlebljen ali okras plitkih kanelur je značilnost tudi

the Sveta Lucija group, is the composition of the fabric that contains a large amount of usually medium-grained calcite sand.[128] A fine-grained fabric without much sand temper is mainly characteristic of the finer pottery such as jars of Types 20 and 21, as well as situlae (Si). The Late Iron Age houses even yielded shards of graphite ware.

The most common decoration on the Late Hallstatt pottery from Most an Soči is certainly brushing (*Figs. 20, 21*). Some vessels bear black-on-red painting (*Fig. 22*), others horizontal U-sectioned incisions or shallow grooves that in the jars of Type 21 decorate the shoulder, there are also variously decorated ceramic rings (cf. *Fig. 20*) and decorated imported vessels. These decorated ceramics, however, are not numerous and we can conclude that the pottery from the settlement at Most na Soči is rarely and modestly decorated (15.36 % or 313 pieces).

As expected for household contexts, the most numerously represented form is jars. They have been classified into 21 types (*Fig. 23*), most of which have parallels among the pottery from funerary contexts except

[128] See Grahek, Košir hic.

Hiša / House	Tipi loncev / Types of jars (L)																				
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**
1	3		1	1	1			5		2			3	2			1		4		2
2	3	2	1	1	1				1	2	1						1		1	1	
3	11	1	1	1	2			5	4	1	2	3	2	1	1	1	1		2	1	
4																					
5																					
6	2	1	1				1	4		1	1		1				2	1	2	1	
7								2					5			1	1	2	1		
8	2				1		1	8	6	1				1	2		2	1	2		
9																					
10																					
11	1							1									1				
12	2				2			1					2	2	1	1		1	3		
13									1			1	1								
14	1					1		12	9	3	4	1	8		5		4	16	13	2	
15	3	1						4		1		4	1	1		1		4	3		
15A	10	1	5		6	1		2	1				1	2	2	1			1		1
16	1		1				2	9	2	1		3	2	1	2		1	1	2		1
17								1													
18	4											2									
19	2		1	1				1	1					1	2		1				
20									1												
21	2						1							1							
22	1					1	1		1				1								
22A	7						1	6	3	3	2	1	1		1	1	3	1	1		
23	29	6	11	2	1	2						2	3	4	2	3			1		3
24	1		1					1					1								
25	2				1								1	1							
26	6	2	1								1	1	1		2	1					
27																		1			
28																					
29	3	2	1		2	1		3		2		1	1	1	1						2
30	4			1				13	2		1		4		2	1					
31																					
32	2							1													
33												1					1				
34																	1				
35	4																	1			
36	1												1								
n = 580	**118**	**16**	**26**	**7**	**17**	**8**	**10**	**89**	**34**	**18**	**12**	**23**	**42**	**21**	**24**	**11**	**22**	**29**	**38**	**5**	**10**

Sl. 23: Tipi loncev po hišah (n = skupno število vseh analiziranih loncev).
Fig. 23: Types of jars in individual houses (n = total number of all analysed jars).

Hiša / House	Pi	Lo 1	Lo 2	Lo 3	Lo 4	K	Si	Sk 1	Sk 2	Sk 3	Sk 4	Sk 5	Sk 6	Sk 7
1	1	1					1		4		2	1		
2	1						1						3	
3	2	1				1	1	1	1		1			
4														
5														
6											1			2
7		1	1	1			1				2			1
8	2												2	
9														
10	1												1	
11														
12		1									1			
13	1				1							1		
14		1	1		2	2	1		2		1	1	7	4
15	1				1						2			
15A	9	1					1				1			
16	2	2	1	2	1			1					2	
17													1	
18							1							
19														
20														
21										1		1		
22				1										
22A					1							1		3
23			1				2		1			2	4	1
24	1										1		1	
25	1										1			1
26	2			1						1			1	
27														
28														
29	1		1				1		1		1	1		1
30					1				1				5	1
31														
32														
33														
34														
35	1							1						
36	6				1		1							
n = 157	**33**	**8**	**5**	**5**	**9**	**3**	**11**	**3**	**10**	**2**	**14**	**8**	**32**	**14**

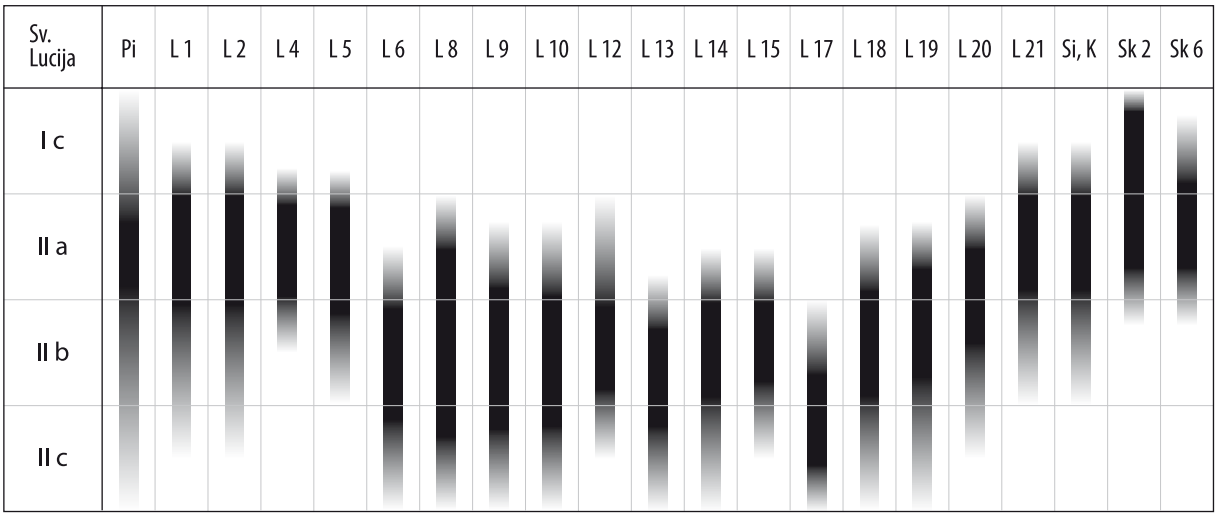
Sl. 24: Drugo posodje po hišah (n = skupno število vseh analiziranih kosov).
Fig. 24: Other pottery forms in individual houses (n = total number of all analysed pieces).
Pi = pitosi / pithoi, Lo = lončki / beakers, K = kelihi / goblets, Si = situle / situlae, Sk = sklede / dishes.

Hiša / House	Tipi svitkov (S) / Types of ceramic rings (S)												
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**
1	19	1	1		2			4	3			1	
2	5										1		
3	24	2		8				1	1	4	3		1
4													
5													
6	4												
7													
8	2		1								2		
9													
10	1								1				
11	1		1					1	1				
12													
13	2								1	1			
14	5								1				
15	11	1											
15A	22	1	1						1		2		
16	17				1			14					
17													
18	19	1	1								1		
19													
20													
21	3	1	2										1
22	2	1											
22A	11			1	1								
23	107	47	45		1	16	10	1	4	1	5	4	2
24	2												
25	2												
26	1	1											
27													
28													
29	7												
30	16												1
31													
32													
33													
34													
35													
36	4	1											
n = 519	**301**	**58**	**54**	**9**	**5**	**16**	**10**	**22**	**14**	**6**	**14**	**5**	**5**

Sl. 25: Tipi svitkov po hišah (n = skupno število vseh analiziranih svitkov).
Fig. 25: Types of ceramic rings in individual houses (n = total number of all analysed rings).

Hiša / House	Drugi keramični predmeti / Other ceramic objects									
	Pe	Pp	Pl	Ok	U	M	Vr	Liv*	Imp	LT-R
1	2	7		1	2					
2					1					
3							1			1
4								1		
5									1	
6	1			1					1	2
7	2									
8		1	1							
9										
10	1									
11										2
12		2					1			
13										
14	2	2	1	1						
15	2	2				1		1		
15A								3*		
16		3	1							
17										2
18		2								1
19	1						1			
20										
21										
22										
22A		1	2		1			1		2
23		27		3		7		1		
24		2				2				1
25										
26		3								
27										
28										
29	1	1								1
30	8	2	1					1		
31							1			3
32										
33										3
34										2
35										8
36		1								
n = 153	**23**	**57**	**7**	**6**	**4**	**13**	**4**	**8**	**2**	**31**

Sl. 26: Drugi predmeti po hišah (n = skupno število vseh analiziranih kosov).
Fig. 26: Other ceramic artefacts in individual houses (n = total number of all analysed pieces).
Pe = pekve / baking lids, Pp = prenosne pečke / portable ovens, Pl = pladnji / platters, Ok = ognjiščne koze / firedogs, U = uteži / weights, M = motki / bobbins, Vr = vretenca / spindle whorls, Liv* = livarski predmeti in keramične krogle (*) / casting utensils and ceramic balls (*), Imp = importi / imports, LT-Rim = latensko-rimska keramika / LT-Roman ceramics



Sl. 27: Razširjenost posameznih tipov posodja v mladohalštatskih stopnjah svetolucijske skupine.
Fig. 27: Occurrence of individual pottery types according to the Late Hallstatt phases of the Sveta Lucija group.

vodoravnimi topimi vrezi ali plitkimi kanelurami. V naselju so razmeroma razširjeni narebreni, rdeče-črno barvani pitosi (*sl. 24*), ki se v grobovih pojavijo v času stopnje Sv. Lucija Ic, najbolj priljubljeni pa so v stopnji IIa, pri čemer zlasti v bogatejših grobovih stopnje Sv. Lucija IIb in IIc nastopajo kot žare.[131] Na drugi strani sodijo med najznačilnejše oblike grobne keramike kelihi in situle,[132] ki pa so med naselbinsko keramiko zelo maloštevilno zastopani. Še bolj izrazita razlika se kaže pri oblikah nizkega posodja. To je v grobovih zastopano z različnimi oblikami skled in skodel ter latvicami (*sl. 24*). Slednje so celo najbolj razširjena oblika svetolucijske grobne keramike[133] – in kot kažejo najdbe iz Stične, so razmeroma razširjene tudi med dolenjsko naselbinsko keramiko.[134] Med naselbinsko keramiko z Mosta na Soči jih lahko prepoznamo le v zelo redkih primerkih skled tipa 2, pri čemer so latvice bolj številčno kot tu zastopane celo med v 6. in 5. stol. pr. Kr. datiranimi najdbami iz Gradisca di Spilimbergo.[135] Med redkimi in manj razširjenimi najdbami skled med naselbinsko keramiko z Mosta so še najštevilčnejše zastopani fragmenti ustij, ki smo jih opredelili kot sklede tipa 6 in 7, vendar lahko ti pripadajo tudi pekvam.

Kot potrjujejo najdbe iz Stične, so pekve najznačilnejša in najbolj razširjena oblika ognjiščne keramike v

loncev tipa 20 in tipološko nerazvrščenih fragmentov okrašene keramike (*Sl. 19:* O 8).

[131] Npr. Marchesetti 1893, t. 1: 4; Teržan et al. 1984–1985, t. 18: A/3; 49: G/5; 52: D/7; 56: A/5, B, F; 57: A/12; 58: B/2, C/7; 59: B/6 itd.; Mlinar 2008, t. 1; 3: 1; 24: 1; Gabrovec 1976, t. 1: 1; Kos 1973, t. 1: 1; Laharnar, Mlinar 2011, sl. 7: 1; idr.

[132] Dular 1982, 97 s, sl. 9: 12–18.

[133] Dular 1982, 101, sl. 9: 27–29.

[134] Grahek 2016, 223 ss, sl. 66: La.

[135] Crismani et al. 2007, t. 20: 184,185; 22: 206; 40: 373–375; 41: 376; 59: 605; 74: 768; 75: 767–771.

the types of jars most typical of settlement contexts.[129] Common among the latter are the jars with brushed decoration (*Fig. 21*) of Types 17 and 18, as well as jars with a grooved shoulder, predominantly of Type 19,[130] which bear horizontal U-sectioned incisions or shallow grooves on the shoulder. The settlement yielded fairly numerous cordoned black-on-red painted pithoi (*Fig. 24*). In graves, these first appear in the graves of the Sv. Lucija Ic phase and are most common in the following IIa phase, while those in the graves of the IIb and IIc phases, particularly in the rich graves, serve as urns.[131] The most common forms of funerary pottery are goblets and situlae,[132] which are rare in the settlement. An even more apparent difference is in the forms of low vessels. In graves, these comprise a variety of bowls and dishes (*Fig. 24*); the dishes with an inturned rim even represent the most common form of funerary pottery within the Sveta Lucija group.[133] The settlement at Most na Soči, however, yielded few such dishes that constitute Type 2. Outside the cultural group, the hillfort at Stična shows that such dishes were also very common finds in the settlements of the Dolenjska group.[134] At Gradisca di Spilimbergo, dishes with an inturned rim are also bet-

[129] Cf. Dular 1982, 93 ff, Fig. 9: 5–10.

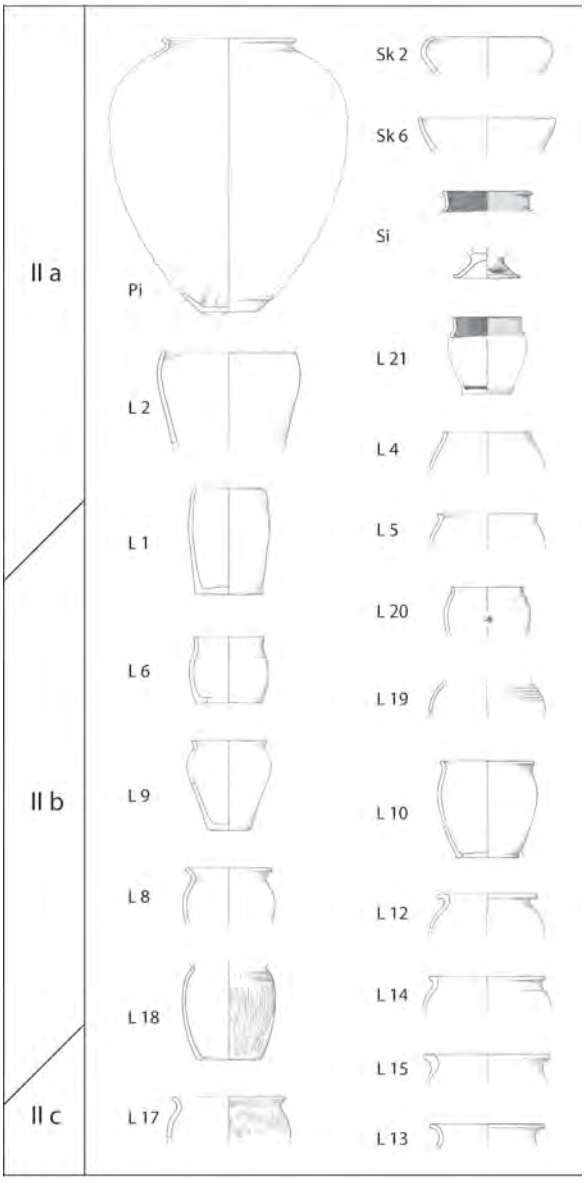
[130] Grooved decoration is also characteristic of the jars of Type 20 and has in addition been documented on some of the typologically undeterminable, but decorated pottery shards (*Fig. 19:* O 8).

[131] E.g. Marchesetti 1893, Pl. 1: 4; Teržan et al. 1984–1985, Pls. 18: A/3; 49: G/5; 52: D/7; 56: A/5, B, F; 57: A/12; 58: B/2, C/7; 59: B/6 and elsewhere; Mlinar 2008, Pls. 1; 3: 1; 24: 1; Gabrovec 1976, Pl. 1: 1; Kos 1973, Pl. 1: 1; Laharnar, Mlinar 2011, Fig. 7: 1 and elsewhere.

[132] Dular 1982, 97 f, Fig. 9: 12–18.

[133] Dular 1982, 101, Fig. 9: 27–29.

[134] Grahek 2016, 223 ff, Fig. 66: La.



Sl. 28: Značilnejše oblike posodja po mladohalštatskih stopnjah svetolucijske skupine.
Fig. 28: Characteristic forms of pottery according to the Late Hallstatt phases of the Sveta Lucija group.

dolenjskem kulturnem krogu. Pekve so zastopane tudi med naselbinsko keramiko z Mosta na Soči, vendar pa so podobno kot ognjiščne koze zelo redke. Bolj značilne in razširjene so prenosne pečke (*sl. 26*), pri čemer so med ognjiščno keramiko daleč najštevilčnejši in najbolj razširjeni svitki. Značilnost svetolucijskih svitkov je, da so pogosto okrašeni oziroma nosijo morda lastniške oznake. Takšno razlago oznak na svitkih nakazuje njihova razprostranjenost, saj so bili svitki tipa 3, 3a, 6, 7 in 12 praviloma najdeni le v hiši 23, svitki tipa 4 in 10 so značilni predvsem za hišo 3, svitki tipa 8 pa za hiši 1 in 16 (*sl. 25*).

Datacija naselbinske keramike z Mosta na Soči v največji meri temelji na primerjavi keramičnih najdb med posameznimi fazami ter hišami, pri čemer datacijo posameznih gradbenih faz hiš v večini narekujejo

ter represented, among the small finds dated to the 6th and 5th centuries BC.[135] The dishes best represented at the settlement at Most na Soči are those of Types 6 and 7, though it is possible that these rim shards actually belong to baking lids.

The baking lids from Stična confirm them to be the most characteristic and widely used form of hearth utensils in the Dolenjska group. Baking lids are also represented at Most na Soči, but are very rare, similarly as firedogs. More numerously represented and hence more characteristic are portable ovens (*Fig. 26*), though the most common hearth utensils are ceramic rings. They typically bear some sort of decoration, which may also be interpreted as marks of ownership. Such an interpretation is suggested by their distribution, as most of the rings of Types 3, 3a, 6, 7 and 12 was found in House 23, those of Types 4 and 10 mainly came to light in House 3, while those of Type 8 were found in Houses 1 and 16 (*Fig. 25*).

The chronological attribution of the ceramic finds from the settlement at Most na Soči is largely based on comparable finds from individual phases and houses, the dating of which is suggested by the associated metal artefacts.[136] Such dating also assumes that the construction phases of a particular house cannot be (completely) contemporaneous. The analysis of the distribution of individual pottery types also revealed a chronological framework for individual ceramic forms (*Fig. 27*), which enables a broad distinction between an early and a late phase. The early phase has been dated to the Sv. Lucija IIa phase. The late one has been attributed both to the Sv. Lucija IIb and IIc phases (*Fig. 28*), as it is not possible to set apart the finds only characteristic of the Sv. Lucija IIc phase.[137]

The forms of ceramic finds primarily characteristic of the early phase or Sv. Lucija IIa are the following:

- cordoned pithoi (Pi);
- jars (L) of Types 1, 2, 4, 5 and 21;
- rare goblets and situlae (Si);
- dishes (Sk) of Types 2 and 6.

[135] Crismani et al. 2007, Pls. 20: 184,185; 22: 206; 40: 373–375; 41: 376; 59: 605; 74: 768; 75: 767–771.

[136] See Laharnar hic; Dular hic.

[137] Teržan, Trampuž 1973, 428 ff.

kovinske najdbe.[136] Pri poskusu datiranja keramike so pomembne predvsem primerjave gradiva iz posameznih gradbenih faz v okviru posamične hiše, saj te v raziskanem naselju nikakor niso (povsem) sočasne. Z analizo razširjenosti posameznih tipov keramike po posameznih fazah hiš se tako izrisuje tudi kronološki okvir posameznih keramičnih form (*sl. 27*). Omogočajo nam vsaj shematično razlikovanje med starejšo in mlajšo stopnjo. Starejšo datiramo v stopnjo Sv. Lucija IIa, mlajšo pa tako v čas stopnje Sv. Lucija IIb kot tudi IIc (*sl. 28*), saj ne moremo izluščiti gradiva, ki bi bilo značilno zgolj za čas Sv. Lucija IIc.[137]

Za starejšo stopnjo ali čas Sv. Lucija IIa se kot bolj značilne oblike naselbinske keramike kažejo:

- narebreni pitosi (Pi);
- lonci (L) tipa 1, 2, 4, 5 in 21;
- redki kelihi in situle (Si) ter
- sklede (Sk) tipa 2 in 6.

V mlajši stopnji so še vedno razmeroma razširjeni pitosi ter lonci tipa 1 in 5, vendar pa lahko kot bolj značilne oblike omenimo:

- redke lonce s široko nažlebljenimi rameni tipa 20, ki se kažejo nekoliko bolj zgodnji od loncev tipa 19;
- manjše lonce tipa 6;
- lonce z izvihanim ustjem tipa 8, 10 (in 13);
- lonce s kratkim navzven zapognjenim ali preoblikovanim ustjem tipa 12, 14 in 15;
- lonce z metličenim okrasom, pri čemer se lonci tipa 18 kažejo zgodnejši od loncev tipa 17. Prav ti so skupaj z lonci tipa 13 najbolj razširjeni med gradivom iz ostalin, ki jih bržkone lahko datiramo v stopnjo IIc.

Keramično gradivo ne razkriva časovnega okvirja zatona halštatske naselbine, ponuja pa jasno datacijo mlajšeželeznodobnih ostalin. Tako lokalna, z metličenjem okrašena keramika kot tudi najdbe grafitnih loncev in keramika s črnim premazom kažejo na čas stopnje Sv. Lucija IV.[138] Najdbe uvožene rimske keramike pa kažejo, da latenske ostaline iz hiš 31, 33, 35 in bržkone tudi hiše 34, segajo še v avgustejsko obdobje. Enako datacijo omogočajo najdbe, ki bržkone izvirajo iz najstarejše gradbene faze edine že objavljene rimskodobne hiše.[139] Prav zato se postavlja vprašanje, ali so latenskodobne najdbe in ostaline sploh povezane s halštatskim naseljem ali pa jih moramo povezovati že z začetki rimskega naselja na Mostu na Soči.

[136] Laharnar hic; Dular hic.

[137] Teržan, Trampuž 1973, 428 ss.

[138] Guštin 1991, 92 ss. Prim. Božič 2008, 119 ss, tab. 5.

[139] Mlinar et al. 2012, 256, t. 1: 1.

Pithoi and the jars of Types 1 and 5 remain widely used in the late phase, though the forms that are more characteristic comprise the following:

- rare jars with a horizontally grooved shoulder of Type 20, which appear to be earlier that the jars of Type 19;
- small jars of Type 6;
- jars with an everted rim of Types 8, 10 (and 13);
- jars with a short everted and thickened rim of Types 12, 14 and 15;
- brushed jars, of which Type 18 appears to be earlier than Type 17. The latter and the jars of Type 13 are most numerously represented among the finds associated with the remains dated to the Sv. Lucija IIc phase.

The ceramic finds do not illuminate the time when the Hallstatt settlement went into decline, but do offer clear evidence as to the date of the Late Iron Age remains: the locally made brushed pottery, the graphite ware jars and the black-slipped pottery all point to the Sv. Lucija IV phase.[138] The finds of imported Roman pottery show that the La Tène remains from Houses 31, 33, 35 and probably also House 34 reach into the Augustan period. The same dating has been suggested by the finds that presumably originate from the earliest construction phase of the only already published Roman-period house.[139] Such dating raises the question of whether the La Tène finds are at all connected with the Hallstatt settlement or should rather be associated with the beginnings of the Roman-period settlement at Most na Soči.

[138] Guštin 1991, 92 ff. Cf. Božič 2008, 119 ff, Pl. 5.

[139] Mlinar et al. 2012, 256, Pl. 1: 1.

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Železnodobno naselje Most na Soči. Razprave / The Iron Age settlement at Most na Soči. Treatises. OIAS 34, 2018, 307–320

ANALIZA NASELBINSKE KERAMIKE Z MOSTA NA SOČI Z VRSTIČNIM ELEKTRONSKIM MIKROSKOPOM

SCANNING ELECTRON MICROSCOPY ANALYSIS OF THE POTTERY FROM THE SETTLEMENT AT MOST NA SOČI

Lucija GRAHEK, Adrijan KOŠIR

ANALIZE SESTAVE KERAMIKE

Ena glavnih značilnosti naselbinske keramike z Mosta na Soči je sestava lončarske gline (mase), za katero je bilo že z makroskopsko analizo celotne zbirke najdb ugotovljeno, da vsebuje veliko primešanega karbonatnega peska. Te rezultate smo podkrepili z mikroskopsko analizo osmih vzorcev keramike. Poleg vzorcev značilne drobnozrnate in bolj finozrnate ter grafitne keramike smo iz celotne zbirke keramičnih najdb izbrali in analizirali še nekaj fragmentov rdeče-črno barvanih pitosov in loncev z metličenim okrasom (*sl. 1*).[1]

[1] Vsi citati tabel se nanašajo na objavo gradbenih izvidov naselja z Mosta na Soči (Svoljšak, Dular 2016).

FABRIC ANALYSIS

One of the main characteristics of the ceramics from the settlement at Most na Soči is the fabric with a high amount of carbonate sand temper. This has first been observed macroscopically and confirmed by the results of microscopic analyses. More specifically, it has been confirmed by scanning electron microscopy (SEM) analyses, which have been applied to examine eight samples taken from shards of the characteristic medium-grained, fine-grained and graphite ware fabrics. Apart from these, we also selected and analysed several unprocessed shards of black-on-red painted pithoi and brushed jars (*Fig. 1*).[1]

[1] The drawings of all ceramic finds have been published in the first volume of the publication of the Iron Age settlement at Most na Soči (Svoljšak, Dular 2016).

Vzorec / sample	Inv. št. / Inv. No.	Objava / drawing	Opis / description
MNS A	-		fragment značilne drobnozrnate keramike (hiša 15A) / frg. of characteristic medium-grained fabric (House 15A)
MNS B	-		fragment značilne bolj finozrnate keramike (hiša 15A) / frg. of characteristic more fine-grained fabric (House 15A)
MNS C	P 4602		fragment grafitne keramike iz hiše 11(2) / frg. of graphite ware fabric from House 11(2)
MNS D	P 4007		frag. finozrnatega rdeče-črno barvanega lonca (L 21) iz hiše 16(2) / frg. of fine-grained, black on red painted jug (L21) from House 16 (2)
MNS E	P 4776		frag. drobnozrnatega ostenja z metličenim okrasom (O 7) iz hiše 14(2) / medium-grained frg. with brushed decoration (O 7) from House 14(2)
MNS F	P 5382		frag. finozrnatega pitosa (Pi) iz hiše 15A(1) / frg. of fine-grained pithoi (Pi) from House 15A(1)
MNS G	P 4240	*t. 23: 21*	frag. drobnozrnatega pitosa (Pi) iz hiše 3(2) / frg. of medium-grained pithoi (Pi) from House 3(2)
MNS H	P 2332		frag. drobnozrnatega lonca z metličenim okrasom (L 17) iz hiše 1(2) / frg. of medium-grained jug with brushed decoration (L 17) from House 1(2)

Sl. 1: Seznam vzorcev keramike za analizo sestave lončarske mase.
Fig. 1: List of samples subjected to fabric analyses.

MATERIAL IN METODE

Za mikroskopsko analizo smo vzorce keramike s precizno žago Buehler IsoMet nažagali na približno centimeter debele rezine, ki smo jih v vakuumski komori impregnirali in zalili z nizkoviskozno epoksidno smolo Epo-Tek 301-1. Iz zalitih primerkov smo izrezali planparalelne ploščice (*sl. 2*), ki smo jih na eni strani strojno izravnali ter sukcesivno obrusili in polirali na papirnih ploščah Kemet z abrazivom iz silicijevega karbida zrnavosti F1200, F2500 in F4000.

Vzorce smo proučili na vrstičnem elektronskem mikroskopu JEOL JSM-ITI100 v laboratoriju za mikroskopijo na Paleontološkem inštitutu ZRC SAZU v Ljubljani. Fragmente in obruse smo opazovali nenapršene (to je brez nanosa tanke prevodne plasti zlata ali ogljika) in fotografirali v grobovakuumskem načinu (od 20 do 40 Pa) s pospeševalno napetostjo 15 ali 20 kV in pri delovni razdalji od 9 do 11 mm. Vzorce smo fotografirali s signalom detektorja odbitih elektronov (BED) v senčnem (BES) načinu.

Kvalitativno in semikvantativno elementno analizo z energijsko disperzijsko spektroskopijo rentgenskih žarkov (EDS) smo izvedli pri enakih grobovakuumskih pogojih. Elementne spektre smo posneli točkovno ali ploskovno s prednastavljenim časom 100 sekund z avtomatskih načinom identifikacije elementov. Na vsakem vzorcu smo opravili vsaj tri analize celotnega vidnega polja reprezentativnih delov obrusa pri enaki povečavi (približno 3,5 x 2,5 mm pri povečavi 40x; *pril. 1*).

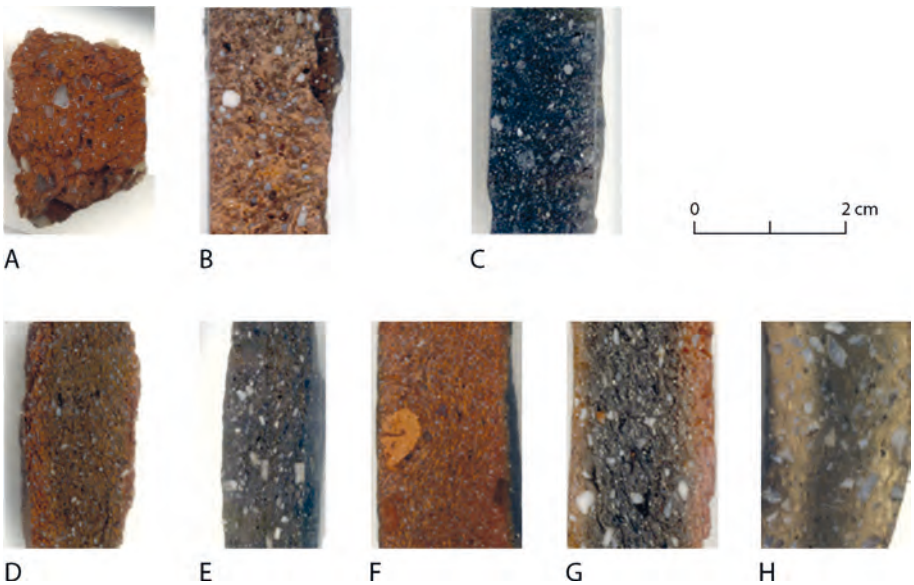
Poroznost keramike smo ocenili na podlagi vsebnosti klora v spektrih analiziranih površin, kar odraža delež smole, ki vsebuje približno 1,4 % Cl.

MATERIAL AND METHODS

Samples were prepared by cutting approximately one-centimetre thick slabs (*Fig. 2*) from the selected pottery shards using a Buehler IsoMet precise saw. The slabs were impregnated and embedded with a low-viscosity Epo-Tek 301-1 epoxy resin in a vacuum chamber. The embedded slabs were trimmed parallel and machine-lapped on one side, which was followed by manual fine lapping and polishing using Kemet silicon carbide abrasive pads of F1200, F2500 and F4000 grit size.

Each sample was examined under a JEOL JSM-IT100 LA scanning electron microscope at the microscopy lab of the Institute of Palaeontology ZRC SAZU in Ljubljana. We also examined unprocessed pottery shards. Both the unprocessed shards and the polished samples were observed uncoated, with elemental analysis and imaging performed in a low vacuum mode (20–40 Pa) at an accelerating voltage of 15 and 20 kV, and a working distance from 9 to 11 mm. Images were taken in topographic and shadow backscattered electron imaging (BED-T and BED-T) modes.

A qualitative and semi-quantitative Energy Dispersive X-ray Spectroscopy elemental analysis (EDS) was performed in the same low-vacuum conditions. Elemental spectra were obtained from uncoated specimens using point or small area analysis with 100 seconds preset (live) time and an automatic element identification mode. At least three whole-view elemental analyses were done on representative parts of each polished slab at the same magnification (at 40x showing approx. 3.5 x 2.5 mm large area; *App. 1*) and in constant operating conditions.



Sl. 2: Obrusi vzorcev keramike.
Fig. 2: Polished slabs.

SESTAVA IN STRUKTURA LONČARSKE GLINE

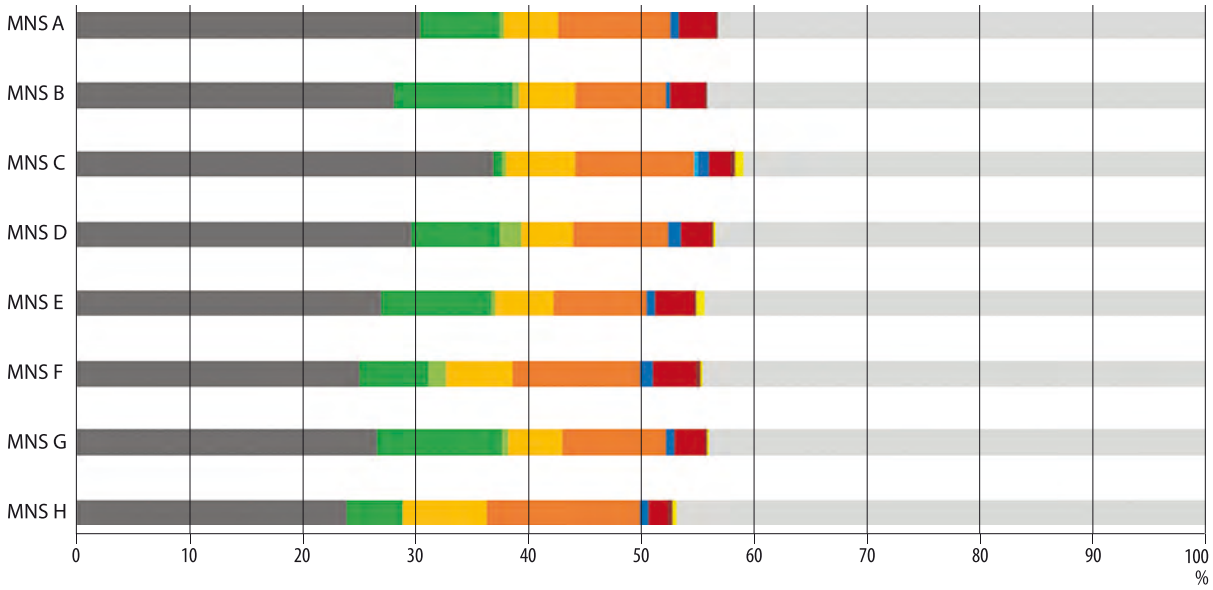
Iz rezultatov ploskovnih meritev na posameznih vzorcih (*sl. 3*) je razvidno, da je sestava naselbinske keramike z Mosta na Soči razmeroma enotna. Tako pri drobnozrnati kot pri bolj finozrnati lončarski glini zasledimo 5 do 11 % kalcija (Ca), ki je večinoma vezan na karbonatna zrna v velikosti peska in melja, kar pomeni od 10 do 25 % kalcijevega karbonata ($CaCO_3$) v celotni masi. Kot je razvidno iz mikroskopskih fotografij (*pril. 1*), v lončarsko glino ni bil primešan le apnenčev pesek, pač pa pogosto predvsem evhedralna in subhedralna zrna kristalnega kalcita (*pril. 1*: A, G, H; *sl. 4*: b). V vseh vzorcih smo zasledili le manjšo količino kremenovih zrn[2] (SiO_2), ki so praviloma velikosti melja (<63 µm)

[2] Deloma gre za verjetno za roženec ali delno silificirana karbonatna zrna.

Porosity of the pottery has been roughly estimated by the chlorine content in the analysed spectra, corresponding to the proportion of the resin impregnation in the sample (pure hardened resin contains approximately 1.4 wt% of Cl).

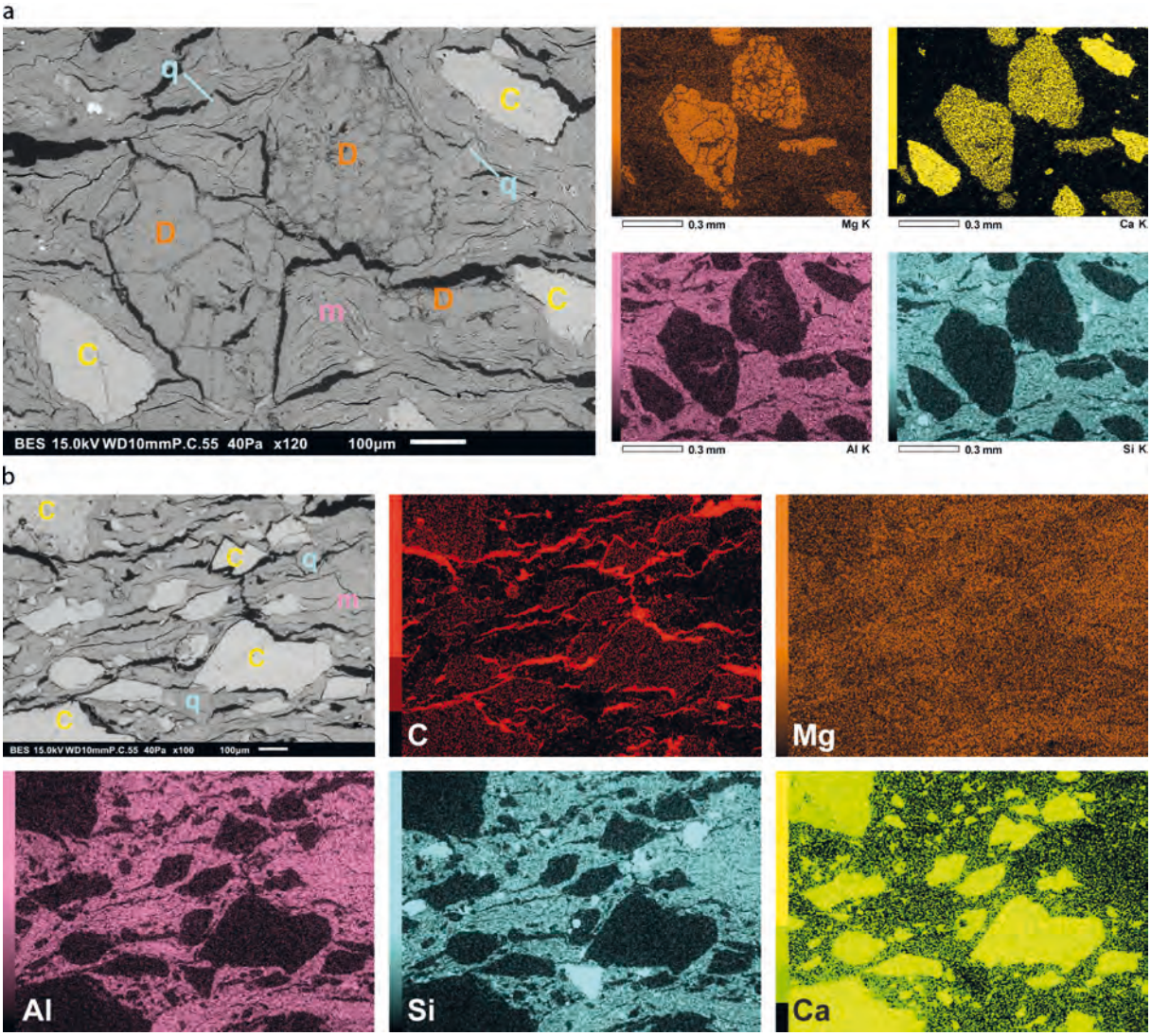
COMPOSITION AND STRUCTURE OF THE FABRIC

The results of the EDS analysis of individual samples (*Fig. 3*) indicate a relatively uniform composition of the pottery from Most na Soči. Both medium-grained and fine-grained fabrics contain from 5 to 11 wt% of calcium (Ca), which is generally associated with sand- and silt-size carbonate grains, corresponding to 10–25% of calcium carbonate ($CaCO_3$) in the total mass.



Vzorec / Sample	C	Ca	Mg	Al	Si	Na	K	Fe	Ti	P	O	Poroznost (%) / Porosity (%)
MNS A	30.43	6.94	0.49	4.69	9.99		0.74	3.19	0.20	0.04	42.96	18
MNS B	28.15	10.44	0.63	5.01	7.92		0.45	3.08	0.06	0.12	43.93	10
MNS C	36.96	0.80	0.33	6.13	10.50	0.31	1.06	1.91	0.36	0.76	40.79	9
MNS D	29.54	7.89	1.99	4.53	8.38		1.02	2.78	0.14	0.20	43.20	16
MNS E	27.06	9.63	0.39	5.20	8.18		0.80	3.36	0.23	0.71	44.35	13
MNS F	25.14	6.02	1.50	5.85	11.32		1.10	3.92	0.30	0.22	43.69	15
MNS G	26.57	10.98	0.70	4.71	9.20		0.75	2.64	0.19	0.28	43.69	15
MNS H	23.75	5.02		7.45	13.43		0.85	1.70	0.35	0.29	46.50	9

Sl. 3: Povprečje rezultatov ploskovnih analiz sestave vzorcev keramike (masni %).
Fig. 3: Mean results of the full image fabric analyses of pottery samples (mass %).



Sl. 4: (a) Levo: polirana površina vzorca MNS D, posneta z detektorjem odbitih elektronov v senčnem (BES) načinu. Desno: ustrezajoče karte elementov Mg, Ca, Al in Si. (b) BES slika polirane površine vzorca MNS E (levo zgoraj) in ustrezajoče karte elementov C, Mg, Al, Si in Ca.
Fig. 4: (a) Left: Backscattered shadow (BES) image of a polished surface of sample MNS D. Right: corresponding elemental maps of Mg, Ca, Al and Si. (b) BES image of a polished surface of sample MNS E (upper left) and corresponding elemental maps of C, Mg, Al, Si and Ca.
C – kalcit / calcite, D – dolomit / dolomite, q – kremen / quartz, m – osnova / matrix

(*sl. 4*). Znatnejša količina dolomitnih zrn je le v vzorcu MNS-D (*sl. 4*: a), sicer pa je količina magnezija (Mg) v drobnozrnati osnovi keramiki <1% (*sl. 3*; *sl. 4*: b). Tako pri kremenu kot dolomitu gre za majhne količine, sploh v primerjavi s kalcitnim peskom, zatorej se postavlja vprašanje, ali v njunem primeru sploh lahko govorimo o namenskem dodajanju pustil v lončarsko glino ali gre zgolj za nečistoči v surovini. Enako velja za delež železa (Fe), ki je bilo v obliki oksidih ali hidroksidnih mineralov prisotno v sami ilovici. Ker sta aluminij (Al) in kalij (K) vezana na minerale glin, bi bila s prihodnjimi analizami vzorcev ilovnatih sedimentov iz okolice možna identifikacija železnodobnega glinokopa.

Photomicrographs of many samples (*App. 1*) reveal that the admixture in the fabric is not only limestone sand, but also calcite euhedral and subhedral crystal particles (*App. 1:* A, G, H*; Fig. 4b*). Silt-size quartz grains are present in all samples, but only in small amounts (*Fig. 4a*). A substantial amount of dolomite grains is present in Sample MNS-D (*Fig. 4a*), whereas the magnesium content of the fine-grained clay matrix is generally <1% (*Figs. 3 and 4b*). Both quartz and dolomite occur in relatively small amounts, particularly in comparison with calcite grains, it is therefore not certain if they were added on purpose or merely represent natural impurities in the source clay. Similarly, the iron (Fe) content reflects

Vzorec / sample	Inv. št. / Inv. No.	Objava / drawing	Opis / description
Most 1	P 4602		frag. dna grafitnega lonca iz hiše 11(2) / base frg. of graphite jug from House 11(2)
Most 2	P 4168		frag. ustja grafitnega lonca iz hiše 3(2) / rim frg. of graphite jug from House 3(2)
Most 3	P 8241	*t. 91: 6*	frag. noge rdeče(-črno) barvane situle (Si) iz hiše 29 (1) / pedestal frg. of (black-on-) red painted situlae (Si) from House 29(1)
Most 4	P 4007		frag. ustja (rdeče-)črno barvanega lonca (L 21) iz hiše 16(2) / rim frg. of black (-on-red) painted jug (L 21) from House 16(2)
Most 5	P 2352	*t. 1: 2*	frag. ustja rdeče barvanega lonca (L 13) iz hiše 1 (1) / rim frg. of red painted jug (L 13) from House 1(1)
Most 6	P 5499	*(t. 59: 1)*	frag. ostenja rdeče barvanega lonca (L 14) iz hiše 19 / frg. of red painted jug (L 14) from House 19
Most 7	P 5882	*t. 80: 14*	frag. ostenja narebrene situle (O 1a) z rdeče slikanim okrasom iz hiše 23(2) / frg. of ribbed and red painted situlae (O1a) from House 23(2)
Most 8	P 5383	*t. 41: 1*	frag. črno premazanega ustja pitosa (Pi b) iz hiše 15A(1) / black painted rim frg. of pithoi (Pi b) from House 15A(1)
Most 9	P 2566	*t. 98: 5*	frag. skodele (Sk 1) s črnim premazom iz hiše 35(2) / frg. of black painted bowl (Sk 1) from House 35(2)
Most 10	P 5380		frag. ostenja (rdeče-)črno barvanega pitosa (Pi) iz hiše 15A(1) / frg. of black (-on-red) painted pithoi (Pi) from House 15A(1)
Most 11	P 5437	*t. 58: 1*	frag. dna sklede s črnim premazom (LT-Rim) iz hiše 17 (2) / base frg. of black painted dish (LT-Rim) from House 17(2)
Most 12	*33/1	*t. 97: 12*	frag. ustja sklede s črnim premazom (LT-Rim) iz hiše 33 / base frg. of black painted dish (LT-Rim) from House 17(2)

Sl. 5: Seznam vzorcev keramike za analizo zunanje površine in barvnih premazov.
Fig. 5: List of samples subjected to exterior surface and paint analyses.

Analiza rezultatov primerljivih vzorcev nakazuje, da lahko z elementno mikroskopsko analizo prepoznavamo tudi domnevno različne proizvodnje keramike. To kažejo rezultati analiz vzorcev MNS F in G (*sl. 1–3; pril. 1:* F, G), ki oba pripadata narebrenim, rdeče-črno barvanim pitosom (Pi). Ker se pitos z vzorcem MNS F od preostalih razlikuje že po prelomu, nekoliko pa tudi po kemijski sestavi (zlasti delež Ca, Si, Fe in Mg), domnevamo, da gre za estenski primerek.[3] Tudi petrografska analiza keramike z območja estenske kulture je namreč pokazala več lastnosti podobnih značilni naselbinski keramiki z Mosta na Soči. Analize sestave lončarske gline, ki so bile opravljene na vzorcih keramike iz Oppeana (Verona), so pokazale, da pride do večjih sprememb v sestavi nekje v 6. do 5. stol. pr. n. št., ko se tudi pri tamkajšnji keramiki občutno poveča delež primešanega apnenčevega peska oziroma kristalnega kalcita.[4]

[3] Prim. Saracino 2014, 131, 132.
[4] Saracino 2014, 144. Prim. Boschian, Floreano 2007.

the presence of Fe oxide and hydroxy-oxide minerals in the clay. As aluminum (Al) and potassium (K) are associated with clay minerals, it would be possible to identify the potential Iron Age clay pits if we were to analyse the clay deposits in the area of Most na Soči.

A comparative analysis indicates that the elemental microanalysis also enables the identification of different pottery productions. This is demonstrated by the composition of Samples MNS F and G (*Figs. 1–3; App. 1:* F, G) both taken from cordoned black-on-red painted pithoi (Pi). The pithos of Sample MNS F differs from other pithoi in the appearance of the fracture, but slightly also in its chemical composition (particularly the Ca, Si, Fe and Mg contents), which leads us to see the pithos as an import, presumably from Este.[2] Petrographic analyses of the pottery from the Este area has, in fact, shown several characteristics that are similar to those of the pottery from the settlement at Most na Soči. The fabric composition analyses performed on the sampled pottery from Oppeano (Verona), for example, have revealed that the significant changes in the fabric occurring sometime in the 6th–5th centuries BC involved an increased share of added limestone sand or calcite crystal particles.[3]

[2] Cf. Saracino 2014, 131, 132.
[3] Saracino 2014, 144. Cf. Boschian, Floreano 2007.

GRAFITNA KERAMIKA

Med mikroskopsko analiziranimi obrusi vzorcev keramike pričakovano najbolj izstopa vzorec MNS C, ki pripada grafitni keramiki (*sl. 1–4; pril. 1*: C).[5] Na istem vzorcu je bila opravljena tudi analiza zunanje površine (*sl. 5*: Most 1). Četudi rezultati meritev površine in obrusa vzorca grafitne keramike niso neposredno primerljivi[6], pa je pomenljiva primerjava s prav tako na površini analiziranim drugim vzorcem grafitne posode (*sl. 5*: Most 2). Za slednjega je bilo že pri makroskopski analizi ugotovljeno, da bržkone vsebuje več grafita, saj je keramika bolj mastna. Večja vsebnost grafita, to je mehkega ogljikovega minerala (C), ki se najpogosteje pojavlja v luskastih in lističastih agregatih, potrjuje mnogo večja vrednost ogljika v primerjavi z vzorcem 1 (*sl. 7*).

POROZNOST KERAMIKE

Mikroskopska analiza prepariranih vzorcev omogoča tudi oceno poroznosti keramike. Vzorci so bili impregnirani z nizkoviskozno smolo, ki učinkovito prodre tudi v najmanjše pore keramike. Delež por in njihova oblika sta lepo vidna na elementni karti ogljika (*sl. 4*: b C), saj pore, zalite s smolo, ki jo sestavlja več kot 70 % ogljika, izrazito izstopajo. Semikvantitativno smo poroznost izračunali iz deleža klora, ki ima v epoksidni smoli enakomeren delež (približno 1,4 %), v neimpregnirarni keramiki pa ga nismo zaznali. Videti je, da poroznost keramike ni odvisna od zrnavosti gline in primesi.

ANALIZE BARVNIH PREMAZOV

Ker še nimamo opravljenih kemijskih analiz barvnih premazov na prazgodovinski keramiki iz našega prostora, smo na izbranih vzorcih skušali premaze analizirati z elementno mikroskopsko analizo (SEM-EDS), čeprav se pri nas v restavratorstvu za analize pigmentov in glazur na keramiki uporablja predvsem metoda rentgenske fluorescenčne spektrometrije (XRF-EDS).[7] Z enako metodo kot v primeru pripravljenih zbruskov prelomov keramike smo na površini analizirali neobdelane fragmente (grafitne in) keramike z barvnimi premazi (*sl. 5, 6*). Ker smo pri vsakem vzorcu opravili ploskovne meritve tako površine s premazom kot brez njega, so rezultati opravljenih meritev[8] med seboj primerljivi.

[5] Prim. Friederich 2013, Abb. 4.

[6] Rezultati meritev na površini neobdelanih vzorcev keramike so kvalitativni in zaradi velikih napak ne omogočajo zanesljive primerjave z rezultati analiz na poliranih vzorcih.

[7] Nemeček 2011, 3–6, 13, 30; Menart et al. 2017, 158. Prim. Łaciak, Stoksik 2010.

[8] Cf. op. 4.

GRAPHITE WARE

The microscopically analysed samples include one (Sample MNS C) that stands out from the others, which is an expected result as it was taken from a graphite ware vessel (*Figs. 1–4; App. 1*: C).[4] The sample was also subjected to an exterior surface analysis (*Fig. 5*: Most 1). The results of the surface measurements are not directly comparable with those of the fabric analysis on the fracture,[5] but they are comparable with the surface measurements of another graphite ware sample (*Fig. 5*: Most 2). This shard has a greasy surface that suggests a higher amount of graphite, and has already been determined as graphite ware during macroscopic observation. The microscopic analysis revealed a considerably higher carbon content in comparison with Sample Most 1 (*Fig. 7*) and consequentially confirmed a higher graphite content (graphite is a soft carbon (C) mineral that most commonly occurs in flaky aggregates).

POROSITY

As a result of sample impregnation with low-viscosity epoxy resin that effectively penetrated even the smallest pores of the ceramics, the SEM analysis also enabled us to estimate the porosity of the pottery. The proportion and geometry of the pores are distinguishable on the element concentration map of carbon (*Fig. 4b:* C) due to the resin containing more than 70% carbon. Porosity was semi-quantitatively determined from the total Cl content in the analysed area, assuming a uniform 1.4% Cl concentration in the pure resin and its apparent absence in the ceramics. There is no significant correlation between porosity and grain size.

PAINT ANALYSES

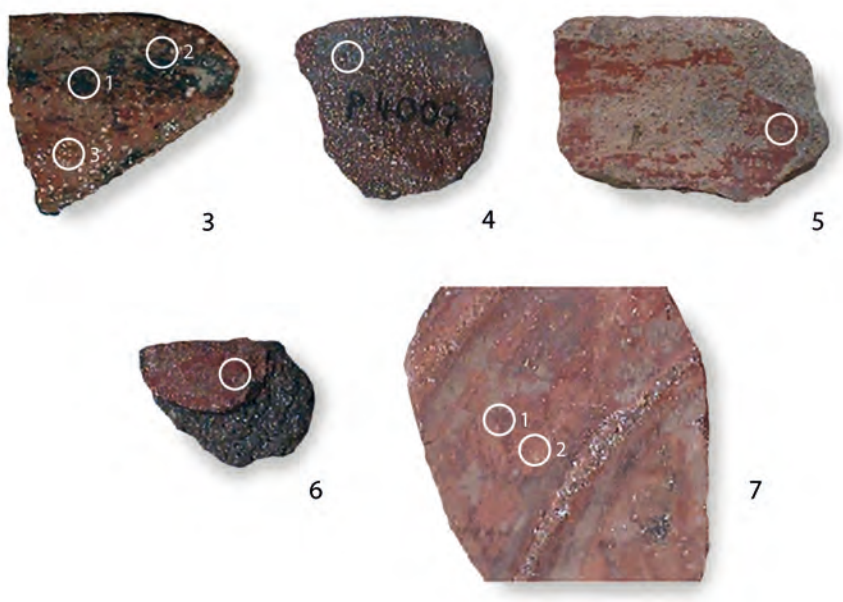
In Slovenia, the most commonly used method for analysing pigments and glazes on pottery is that of X-ray fluorescent spectrometry (XRF-EDS),[6] but it has never been applied to chemically analyse prehistoric pottery. For the shards from the prehistoric Most na Soči, a chemical analysis was performed using the SEM-EDS method to examine unprocessed shards of (graphite ware and) painted pottery (*Figs. 5, 6*). To obtain comparable results on the painted and non-painted parts a full image analysis was carried out on each sample.[7]

[4] Cf. Friederich 2013, Fig. 4.

[5] The elemental analyses done on unprocessed surfaces are merely qualitative and cannot be reliably used for a comparison with the results obtained from the polished samples.

[6] Nemeček 2011, 3–6, 13, 30; Menart *et al.* 2017, 158. Cf. Łaciak, Stoksik 2010.

[7] Cf. Fn. 4.



Sl. 6: Vzorci keramike Most 3–7 z označenim mestom analize.
Fig. 6: Samples Most 3–7 with marked paint analysis.

ČRNI PREMAZI

Pri črnih premazih razlikujemo med črno grafitno barvo (Čg), ki ima kovinski sijaj, in črno smolnato barvo (Č), ki je domnevno organske sestave.[9] Črna premaza na vzorcih Most 3 in 4 smo na makroskopskem nivoju opredelili kot grafitna, mikroskopska analiza pa je pričakovano pokazala večjo vsebnost ogljika (C) na premazu kot na neobarvanem delu površine (*sl. 6*: 3, 4). Še mnogo večji vrednosti ogljika (več kot 65 %) sta bili izmerjeni na črno (Č) premazanih vzorcih Most 8 in 9 (*sl. 7; pril. 2*: e). Ker pri njima vrednosti fosforja (P) in kalija (K) ne presegajo meritev na preostalih analiziranih vzorcev, z opravljeno analizo ne moremo potrditi, da so črni smolnati premazi domnevno izdelani iz oglja. Na Poljskem opravljene kemijske analize barvnih premazov na keramiki namreč kažejo, da so alkalni oksidi (K_2O, P_2O_5 in tudi CaO) lahko povezani tudi z uporabo v prah zdrobljenega lesnega oglja (listavcev), ki pa ni služil le kot barvilo, temveč za boljši oprijem barvnih nanosov na posodje.[10]

BLACK PAINTS

We distinguish between a black graphite paint (Čg), which has a metallic shine, and a black resinous paint (Č), which is presumably organic in origin.[8] The black paint on Samples Most 3 and 4 has been macroscopically determined as graphite. For both, microscopic analysis revealed a higher carbon (C) content in the painted part as opposed to the non-painted parts of the surface (*Fig. 6*: 3, 4). An even higher carbon content (more than 65%) has been measured on the black (Č) painted Samples Most 8 and 9 (*Fig. 7; App. 2*: e). The analysis showed that the phosphorus (P) and potassium (K) content in these samples does not exceed the measurements on other analysed samples, hence it is not possible to determine whether the black resinous paints are charcoal-based. Chemical analyses of paints carried out in Poland revealed that the alkali oxides (K_2O, P_2O_5 and also CaO) may be associated with the use of powdered wood charcoal (of deciduous trees), which served not only as a pigment, but also to ensure better adhesion of the paints onto the ceramic surface.[9]

[9] Prim. Grahek 2016, 216 s; Łaciak, Stoksik 2010, 145.
[10] Łaciak, Stoksik 2010, 145.

[8] Cf. Grahek 2016, 216 f; Łaciak, Stoksik 2010, 145.
[9] Łaciak, Stoksik 2010, 145.

Vzorec / Sample	Masa / Fabric	C	O	Na	Mg	Al	Si	P	S	K	Ca	Ti	Mn	Fe
Most 01	grafitna ker. / graphite ware	14,93	60,35		0,68	6,26	10,33	0,40		1,59	1,54	0,52		3,40
Most 02	grafitna ker. / graphite ware	34,41	41,26		0,87	4,30	7,47	1,19	0,16	0,86	4,62	0,31		4,56
Most 02*	zrno grafita / graphite-grain	83,52	13,08			1,00	1,13	0,53		0,14				
	Barva / Paint													
Most 03	Čg	18,92	44,41		0,99	8,28	8,17	1,33		2,00	2,73	0,82	1,18	11,17
Most 03	R	12,29	45,15		0,94	10,28	9,81	1,83		3,62	4,10	0,51	3,50	10,49
Most 03	brez / without	8,00	48,53		1,76	7,27	16,02	0,77		2,35	4,67	0,74		9,89
Most 04-2	Čg	**72,85**	20,87		0,21	1,44	1,91	0,24		0,31	0,77			1,39
Most 04-1	brez / without	34,84	40,67		0,86	5,58	8,78	0,51		1,24	2,40	0,35		4,77
Most 05	R	14,02	52,08	0,08	0,78	10,07	13,70	2,82		0,51	1,65	0,71		3,48
Most 06	R	6,62	56,77		0,92	10,23	15,51	0,00		0,98	2,60	0,57		5,79
Most 07	R-temna / dark	6,31	48,96		1,76	10,04	12,98	0,87		2,50	2,95	0,76	0,56	12,30
Most 07	R-svetla / light	5,28	49,70		1,80	10,08	13,72	0,81		2,61	3,02	0,67	0,43	11,88
Most 08	Č	68,56	27,18		0,17	0,71	1,17	0,20		0,30	1,73			
Most 09	Č	66,79	28,64			0,85	1,01	0,17		0,31	0,99			1,24
Most 10	Č	59,10	33,65		0,30	1,34	2,04	0,19		0,34	1,78			1,25
Most 11	Č	7,08	43,64		1,25	15,44	13,03			1,76	0,86	0,73	16,22	
Most 12-1	Č	7,30	43,20	0,77	1,53	12,71	16,40			4,70	1,54		11,52	
Most 12-2	brez / without	5,84	45,63	0,42	3,15	6,19	18,90			1,42	7,37		10,30	

Sl. 7: Rezultati ploskovnih analiz na zunanji površini grafitne keramike in keramike z barvnimi premazi.
Fig. 7: Results of the full image exterior surface analyses on graphite ware and painted pottery.
R – rdeča / red; Č – črna / black; Čg – črna grafitna barva / black graphite paint.

RDEČI PREMAZI

Rdeči premazi temeljijo na kovinskih, predvsem železovih oksidih, pri čemer pa je barvi odtenek premaza zelo odvisen tudi od temperature žganja.[11] Ker sta železo in titan običajno prisotna že v glini, smo vse izmerjene vrednosti železa (Fe) najprej primerjali z izmerami na neobarvani površini. Izkazalo se je, da se pri rdeče obarvanih vzorcih (*sl. 6*: 3, 5–7) delež železa dejansko poveča, pri čemer so izmere na vzorcu Most 7 pokazale, da vsebuje temnejši, iz več nanosov sestavljen okras večjo vsebnost (*sl. 7*). Po naslikanem motivu ima ta vzorec najboljše primerjave med estensko keramiko,[12] zato se zdi pomenljiva tudi izmerjena vsebnost mangana (Mn).

RED PAINTS

Red paints are based on metal, primarily iron oxides, with their hue greatly influenced by the firing temperature.[10] As iron and titanium are usually present in the source clay, all the measurements of iron (Fe) were first compared with the measurements on the non-painted surface. The results showed an increased quantity of iron in the red paint samples (*Fig. 6*: 3, 5–7), of which Sample Most 7 with a darker painted decoration applied in several layers revealed an even higher quantity of iron (*Fig. 7*). The closest parallels for the decorative motif can be found among the pottery from Este;[11] in this respect it is also worth mentioning that the sample showed the presence of manganese (Mn).

[11] Horvat 1999, 42.
[12] Capuis, Chieco Bianchi 2006, t. 94: 38; 136: 4; 210: 2; prim. XLVIII: d.

[10] Horvat 1999, 42.
[11] Capuis, Chieco Bianchi 2006, Pl. 94: 38; 136: 4; 210: 2; cf. XLVIII: d.

UVOŽENA KERAMIKA

Kot kažejo rezultati meritev na prelomih keramike manganovi oksidi v surovini niso bili prisotni, vsaj ne v izmerljivih količinah (*sl. 3*), zato lahko na površini keramike izmerjen mangan pripišemo sestavi barvnih premazov. Največji delež mangana je bil izmerjen na vzorcih črno barvane, uvožene rimske keramike (*sl. 6–7, pril. 2*: f). Ti premazi očitno temeljijo na manganovih oksidih kot je hausmanit (Mn_2O_4) in ne železovih kot so hercinit ($FeAl_2O_4$), magnetit (Fe_3O_4) ali hematit (Fe_2O_3), ki sestavljajo črne poslikave na atiški keramiki.[13] Rimska keramika s črnim premazom je na Most na Soči najverjetneje prišla iz severno italijanskih produkcijskih središč, zatorej lahko tudi za vzorca rdeče(-črno) barvane halštatske keramike (*sl. 6*: 3,7), pri katerih smo izmerili vsebnost mangana, domnevamo, da sta bila izdelana v estenskih delavnicah.

SKLEP

Mikroskopska analiza keramike iz Mosta na Soči je pokazala enotno sestavo lončarske gline, od katere pričakovano odstopa le vzorec grafitne keramike. Za sestavo halštatske keramike je najbolj značilno, da je bil lončarski masi dodan, verjetno skrbno izbran, kalcitni pesek. Podobna struktura lončarske gline s kalcitom je znana z območja estenske kulture. Z analizo kemijske sestave pa smo ugotovili pomenljiva odstopanja, ki omogočajo prepoznavanje izdelkov estenskih delavnic (vzorec MnS F).

Rezultati analiz površine grafitne keramike potrjujejo opažanja na makroskopskem nivoju. Spodbudne rezultate pa smo pridobili z elementno analizo barvnih premazov. Ta na eni strani podpira opažanja na makroskopskem nivoju, na drugi strani pa omogoča zaznavanje domnevno različnih načinov proizvodnje na osnovi različne sestave premazov. Kemijska sestava rdeče-črnih premazov z manganom (Mn) na halštatski keramiki (vzorca Most 3 in 7) namreč govori v prid estenskih delavnic, saj je bila prisotnost mangana izmerjena le še pri vzorcih rimske keramike s črnim premazom, ki je bila uvožena iz severnoitalijanskih delavnic.

Rezultati opravljenih analiz z vrstičnim elektronskim mikroskopom na naselbinski keramiki z Mosta na Soči so vzpodbudni. Ker pa je bil analiziran zelo majhen vzorec keramike, bomo za tehtnejše zaključke nadaljevali s sistematičnim vzorčenjem in analiziranjem večjega števila vzorcev, in sicer tako samih keramičnih izdelkov kot tudi vzorcev iz domnevno izvornih glinokopov.

[13] Prim. Bente, Sobott, Berthold 2013, tab. 1.

IMPORTED POTTERY

The results of the measurements on the pottery fractures show that manganese oxides were not present in the clay, at least not in detectable amounts (*Fig. 3*); the manganese measured on the surface may therefore be seen as an ingredient of the paint. The highest manganese content has been measured on the black-slipped samples of imported Roman pottery (*Figs. 6–7, App. 2*: f). These slips are apparently based on manganese oxides such as hausmannite (Mn_2O_4) and not on iron oxides such as hercynite ($FeAl_2O_4$), magnetite (Fe_3O_4) or hematite (Fe_2O_3) that are to be found in the black paints of the Attic pottery.[12] The Roman black-slipped pottery most probably came to Most na Soči from north Italian production centres; in parallel, we suggest that the pottery of the two samples of red (black-on-red) painted Hallstatt pottery (*Fig. 6*: 3,7) with a high manganese content also came from northern Italy, from the workshops at Este.

CONCLUSION

The microscopic analysis has shown a uniform fabric composition of the pottery from Most na Soči with only the graphite ware sample standing apart. The characteristic feature of the pottery dating to the Hallstatt period is the admixture of probably carefully selected calcite sand to the fabric. A similar structure of the fabric with added calcite is also known from the area of the Este culture and the analysis of the chemical composition of the fabric of Sample MNS F, which revealed significant deviations, allow us to identify a product of an Este workshop.

The results of the surface analysis of the graphite ware samples have confirmed the macroscopic observations. The results of the elemental analysis of the paints on these samples also support the macroscopic observations, but in addition indicate potentially different production manners based on the different compositions of the paints. The chemical composition of the black-on-red paints containing manganese (Mn) on the Hallstatt pottery (Samples Most 3 and 7) speaks in favour of production in the workshops at Este because, apart from these two samples, the presence of manganese has only been detected in the samples of the Roman black-slipped ware imported from northern Italy.

The results of the scanning electron microscopy analyses of the pottery from the settlement at Most na Soči are encouraging. Having said that, only a small portion of the recovered pottery has been sampled and systematic sampling coupled with a higher number of samples, both of the ceramic artefacts and the potential clay pits, is needed to be able to draw more relevant conclusion.

[12] Cf. Bente, Sobott, Berthold 2013, Pl. 1.

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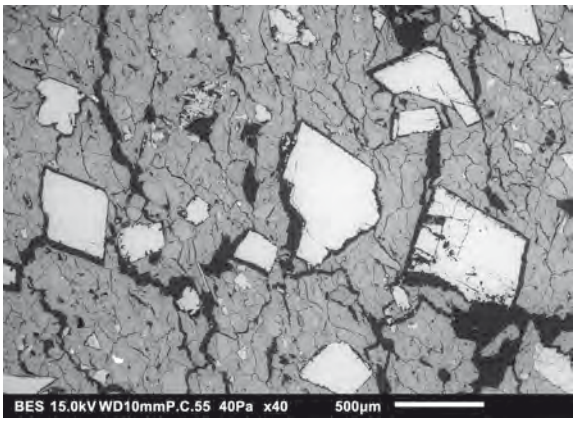
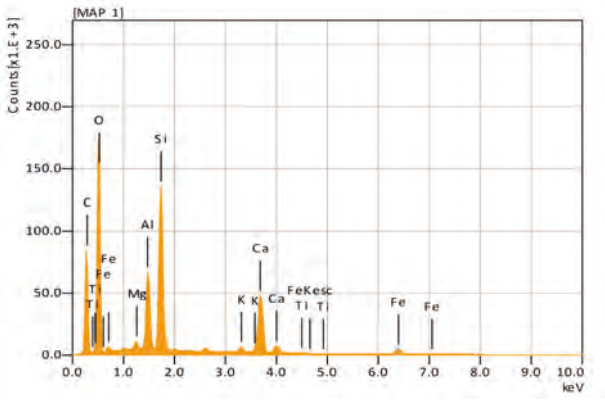
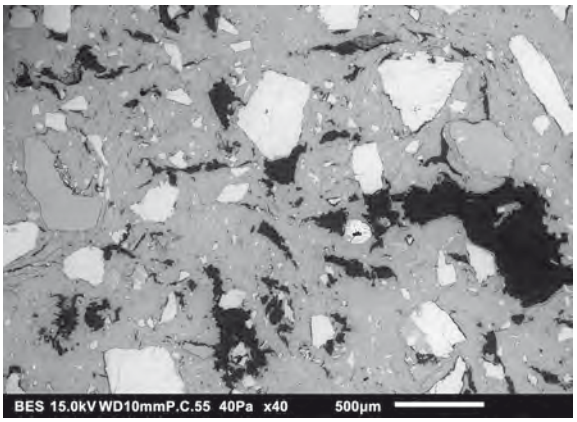
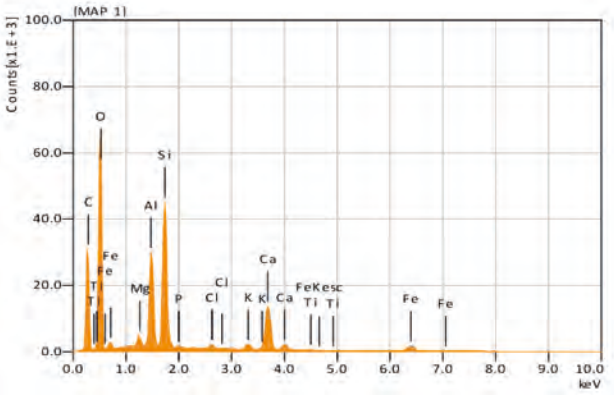




A





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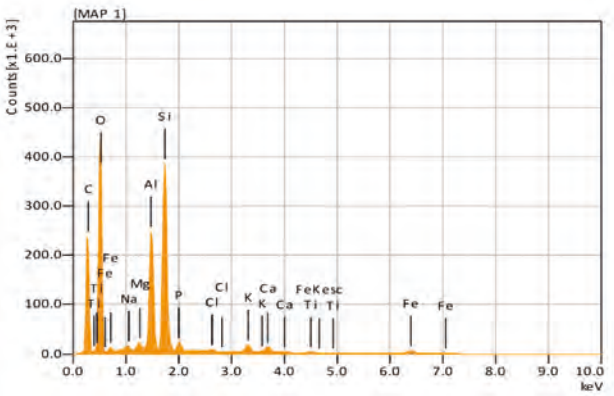
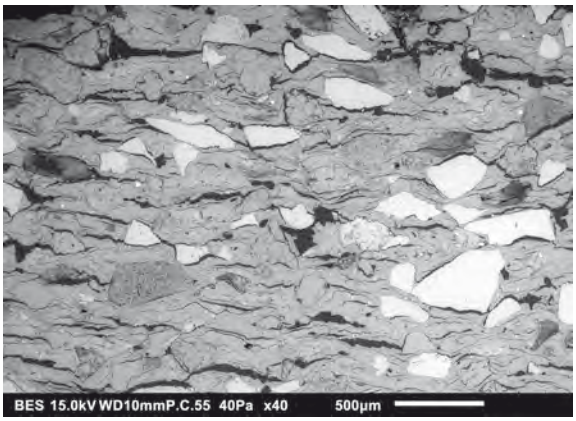
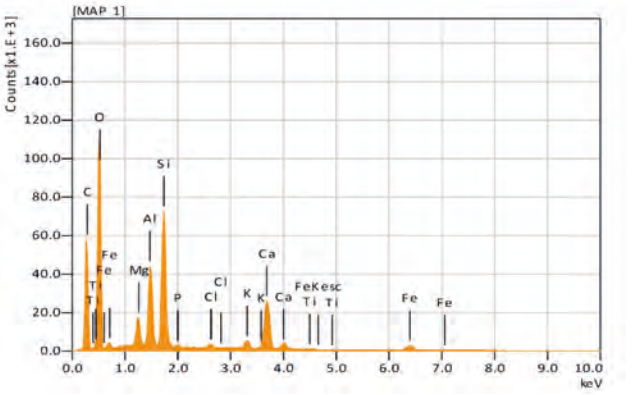


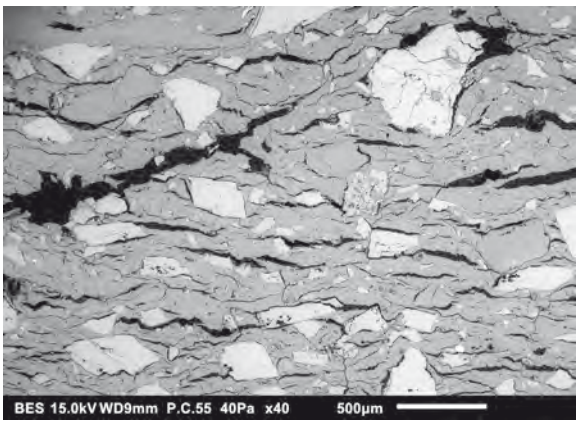
C

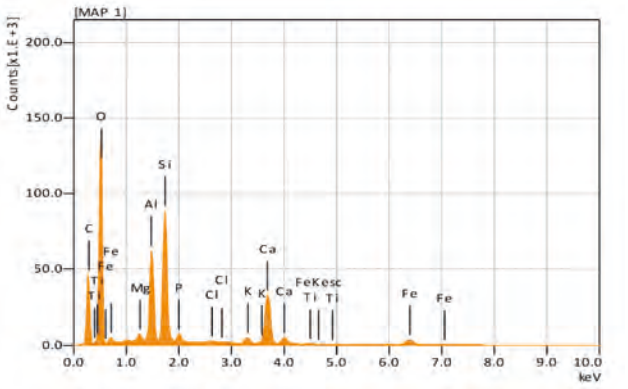
Pril. 1a: Obrusi vzorcev, posneti z detektorjem odbitih elektronov v senčnem (BES) načinu pri enaki povečavi, in ustrezajoči elementni spektri, posneti z EDS ploskovno analizo celotnega vidnega dela vzorca. Vzorci MNS A–C.
App. 1a: Backscattered shadow (BES) images of polished slabs, taken at the same magnification (40x) and corresponding elemental spectra obtained from whole-view EDS analyses. Samples MNS A–C.



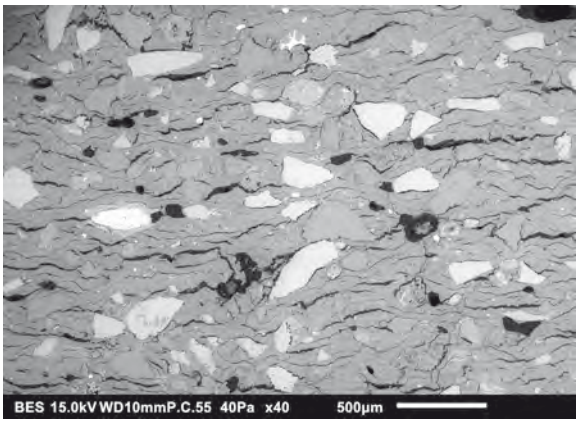


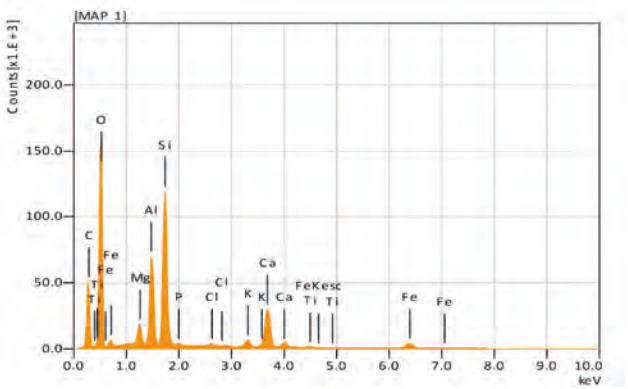
D





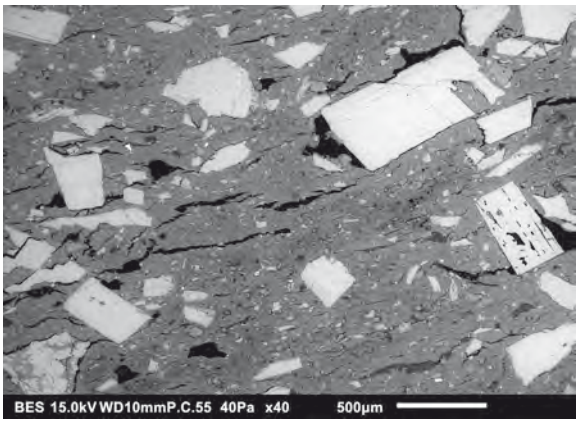
E

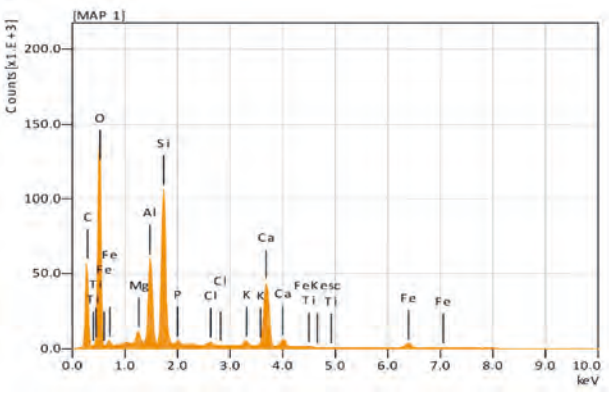




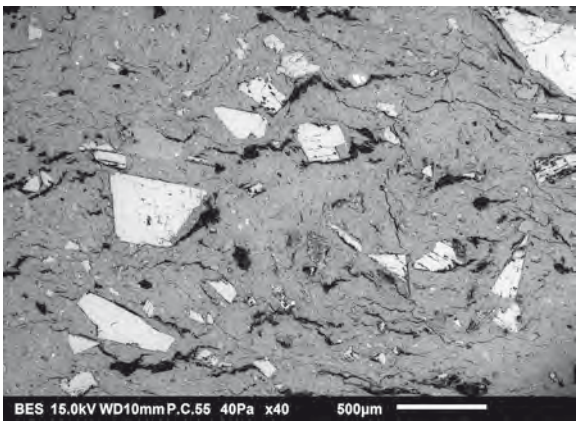
F

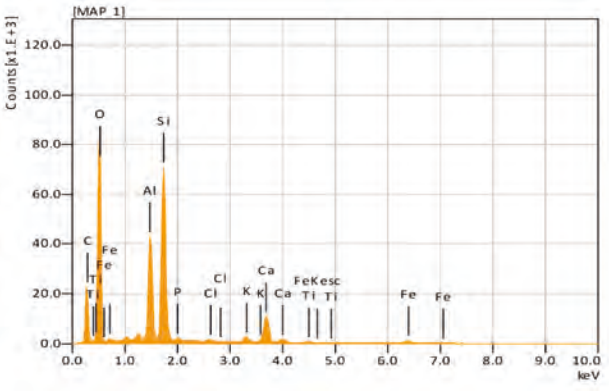
Pril. 1b: Obrusi vzorcev, posneti z detektorjem odbitih elektronov v senčnem (BES) načinu pri enaki povečavi in ustrezajoči elementni spektri, posneti z EDS ploskovno analizo celotnega vidnega dela vzorca. Vzorci MNS D–F.
App. 1b: Backscattered shadow (BES) images of polished slabs, taken at the same magnification (40x) and corresponding elemental spectra obtained from whole-view EDS analyses. Samples MNS D–F.



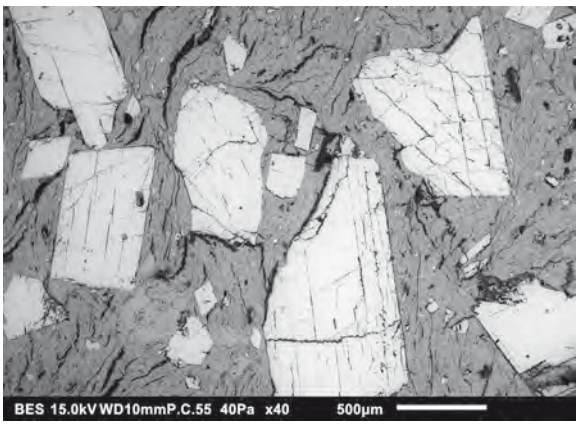


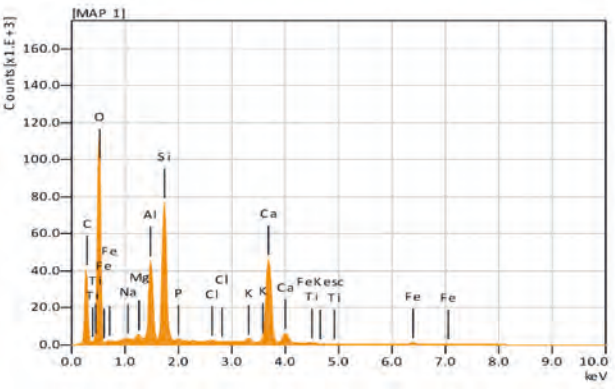
G





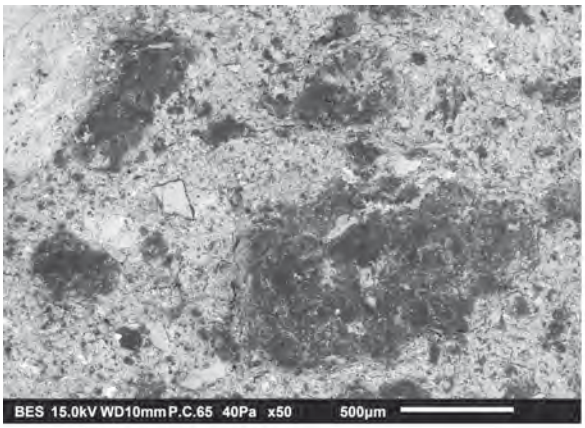
H 1



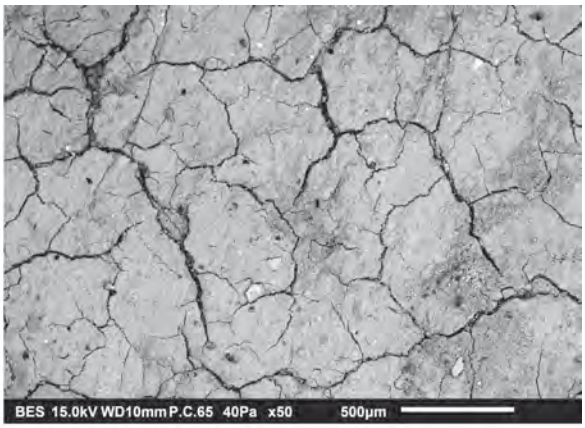


H 2

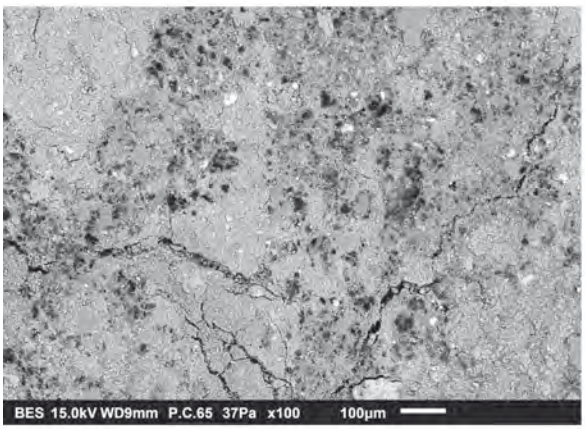
Pril. 1c: Obrusi vzorcev, posneti z detektorjem odbitih elektronov v senčnem (BES) načinu pri enaki povečavi, in ustrezajoči elementni spektri, posneti z EDS ploskovno analizo celotnega vidnega dela vzorca. Vzorci MNS G–H.
App. 1c: Backscattered shadow (BES) images of polished slabs, taken at the same magnification (40x) and corresponding elemental spectra obtained from whole-view EDS analyses. Samples MNS G–H.



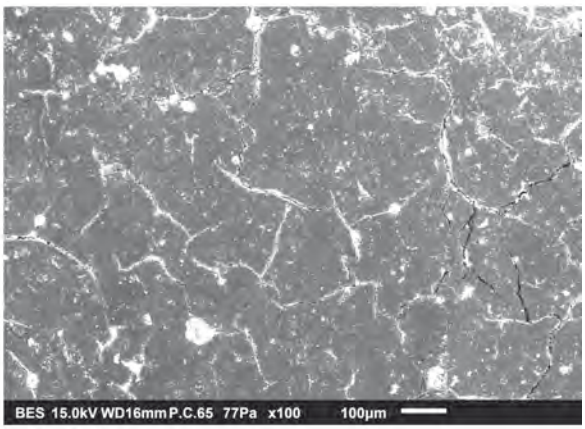
a: Most 2



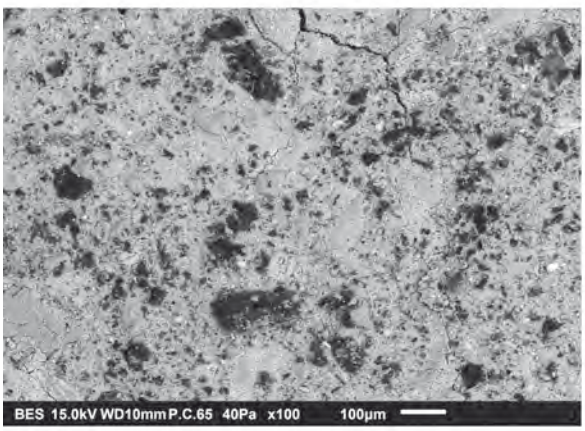
d: Most 5



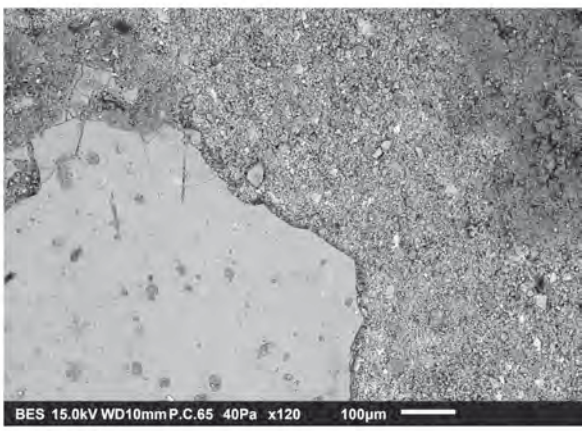
b: Most 3



e: Most 9



c: Most 4



f: Most 12

Pril. 2: BES slike površine vzorcev keramike Most 2–5, 9 in 12.
App. 2: BES images of surface of samples Most 2–5, 9 and 12.

Železnodobno naselje Most na Soči. Razprave / The Iron Age settlement at Most na Soči. Treatises. OIAS 34, 2018, 321–332

ANALIZA BRONASTIH SUROVCEV IZ ŽELEZNODOBNE NASELBINE NA MOSTU NA SOČI IN GROBNIH NAJDB Z MOSTA NA SOČI IN IZ BOHINJA

ANALYSIS OF RAW BRONZE FROM THE IRON AGE SETTLEMENT MOST NA SOČI AND OF GRAVE FINDS FROM MOST NA SOČI AND BOHINJ

Žiga ŠMIT, Boštjan LAHARNAR

UVOD

Za analizo z metodo protonsko vzbujenih rentgenskih žarkov (PIXE) je bilo izbranih nekaj primerkov surovega brona – gre za ostanke vlivanja, odlomke pogač, ingotov ali odlomke podrobneje nedoločljivih predmetov, najdene med izkopavanji železnodobne naselbine na Mostu na Soči konec sedemdesetih in v začetku osemdesetih let prejšnjega stoletja. Med meritve smo vključili tudi keramični livarski žlici oz. pripomočka za vlivanje, na katerih smo pričakovali ostanke kovine. Za primerjavo smo analizirali izbor končnih bronastih halštatskih izdelkov (fibule, dno situle, uhan) z grobišča na Mostu na Soči (Szombathyjeva izkopavanja) in iz grobov v Bohinju (grobišči Lepence in Bitnje), ki jih hrani Narodni muzej Slovenije. V preteklosti je bilo z Mosta na Soči že analiziranih nekaj predmetov[1] in ti so pokazali, da železnodobni bron vsebuje precejšnje količine svinca.

EKSPERIMENT

Meritve smo opravili s protonskim žarkom v zraku na Institutu "Jožef Stefan" v Ljubljani. Vir protonov je bil tandemski pospeševalnik, nominalna energija protonov je bila 3 MeV. Protoni so izstopali na prosto skozi 8 μm debelo aluminijasto folijo in po 1 cm dolgi poti po zraku zadeli tarčo z energijo 2,77 MeV. Profil žarka na tarči je bil Gaussov, s širino na polovični višini približno 0,8 mm. Površino predmetov smo za meritev rahlo obrusili v velikosti nekaj kvadratnih milimetrov, s čimer smo protonom izpostavili golo kovino. Rentgenske žarke

[1] Giumlia-Mair 1995; 2000.

INTRODUCTION

Several examples of raw bronze, representing remnants of casting, fragments of ingots, and fragments of precisely indeterminable objects, which were discovered during the excavations of the Iron Age settlement Most na Soči by the end of the 1970s and at the beginning of 1980s, were selected for the analysis by the method of proton-induced X-rays (PIXE). The measurements also included two casting spoons, which were expected to contain metal remains. For comparison, we also analysed a selection of the Early Iron Age products (fibulae, base of a situla, earrings) from the Most na Soči cemetery (excavations of J. Szombathy) and from the graves in Bohinj (cemeteries Lepence and Bitnje), which are held in the National Museum of Slovenia. Several objects from Most na Soči have already been analysed,[1] which revealed that the prehistoric bronze contains considerable amounts of lead.

EXPERIMENT

The measurements were performed using an in-air proton beam at the "Jožef Stefan" Institute in Ljubljana. The proton beam at 3 MeV nominal energy was generated by the Tandetron accelerator. The protons exited into the air through an 8 μm thick aluminium foil; after passing a 1 cm air-path, they hit the target with an energy of 2.77 MeV. The beam intensity profile at the target was Gaussian, with a width of 0.8 mm at half maximum. The surface of the measured objects was polished before the measurement in a size of a few square millimetres,

[1] Giumlia-Mair 1995; 2000.

smo zaznavali s Si(Li)-detektorjem z ločljivostjo 164 eV pri 5,89 keV, ki je bil od tarče oddaljen 6,5 cm. V vsaki merilni točki smo posneli dva spektra: prvega z absorberjem iz 0,3 mm debele aluminijeve folije, s katerim smo dobili ugodno razmerje med bakrovimi in kositrovimi črtami, drugega pa brez absorberja, s čimer smo določili koncentracije lažjih elementov med bakrom in manganom. Težava pri merjenju železa so namreč ubežni vrhovi bakrovih črt, ki sovpadajo s karakterističnimi črtami železa, pri meritvi brez absorberja (ali zelo tankim absorberjem) pa se razmerje med obema vrstama črt prevesi v korist železa, tako da ga lahko določimo z manjšo napako. Spektre smo obdelali s programom AXIL, elementne koncentracije pa smo izračunali s programom, ki upošteva sekundarno fluorescenco, in normirali dobljene koncentracije na 100 %.[2] Za kontrolo smo merili medeninast standard NIST 1107 in ocenili, da je natančnost meritev 3–5 %, pri koncentracijah pod 0,1 % pa se poslabša na približno 10 %.

REZULTATI

Rezultati meritev surovega brona z Mosta na Soči so zbrani v *tabeli 1*, rezultati analize predmetov pa v *tabeli 2*. Koncentracije so podane v masnih %. Ocenili smo, da so bile meje ločljivosti pri elementih med kromom in arzenom ter pri svincu in bizmutu, ki smo ju določili po črtah L, približno 200 μg/g, pri elementih, težjih od približno kadmija, pa so se zaradi manjših ionizacijskih presekov poslabšale na 500 μg/g. Pri cinku je bila meja ločljivosti približno 0,3 %, ker cinkova črta Kα sovpada z nizkoenergijskim repom bakrove črte Kβ.

DISKUSIJA

Pri analizah surovcev prevladujejo zlitine z velikimi koncentracijami svinca, ki kažejo na to, da kovina ni bila namenjena neposredni uporabi za vlivanje predmetov, ampak verjetno kot predmonetarno menjalno sredstvo.[3] To nakazuje na *sliki 1* prikazana porazdelitev elementov glede na koncentracijo svinca in kositra. Očitni sta dve skupini: za prvo (skupina A) so značilne velike koncentracije svinca (med 10 in 80 %) in zelo majhne koncentracije kositra (pod 5 % pri vzorcih, ki

[2] Šmit, Pelicon, Simčič, Istenič 2005.

[3] Trampuž-Orel, Heath 1998.

exposing bare metal to the proton beam. The excited X-rays were detected by a Si(Li) detector with a resolution of 164 eV at 5.89 keV; the detector-target distance was 6.5 cm. Two spectra were measured at each selected point: the first with an absorber of 0.3 mm aluminium foil, which provided a convenient ratio of copper and tin X-ray intensities. The second spectrum was measured without an absorber, providing concentrations of lighter elements between copper and manganese. The difficulty in detecting iron is found in the escape peaks of copper, which coincide with the characteristic lines of iron. The measurement without absorber (or with a very thin one) then relatively enhances the iron lines, which are thus determined with a smaller degree of uncertainty. Spectra were de-convoluted using the AXIL program, and the elemental concentrations were calculated using the code that considers secondary fluorescence and sets the sum of all concentrations to 100%.[2] For control purposes, we measured the naval brass standard NIST 1107 as unknown target. The measurement uncertainty was estimated to be around 3–5%, but it worsens to about 10% for elemental concentrations below 0.1%.

RESULTS

The analytical results of raw bronze from Most na Soči are collected in *Table 1*, and the results for the objects are shown in *Table 2*. The concentrations are given in mass percentage. The detection limits were estimated to be about 200 μg/g for the elements between chromium and arsenic and for lead and bismuth, determined according to their L lines, but for elements heavier than cadmium, which have smaller ionization cross sections, the detection limits deteriorated to about 500 μg/g. For zinc, the detection limit was about 0.3%, as the zinc Kα line coincides with the low-energy tail of the copper line Kβ.

DISCUSSION

The results of raw bronze show a prevailing number of alloys with large concentrations of lead, which suggests that the metal was not intended for immediate alloying into objects, but rather represented a

[2] Šmit, Pelicon, Simčič, Istenič 2005.

Tab. 1: Sestava surovcev, razlomljenih predmetov in strjene taline (v masnih %) iz železnodobne naselbine Most na Soči. Vrednosti pod mejo občutljivosti so označene z (-). Predmete hrani Goriški muzej. * slike in table glej v: Svoljšak, Dular 2016

Tab. 1: Chemical composition of raw bronze, fragmented artefacts and melted bits (in mass %) from the Iron Age settlement at Most na Soči. Immeasurable values are marked with (-). Artefacts are held in Goriški muzej. * Figures (sl.) and Plates (t.) see in: Svoljšak, Dular 2016.

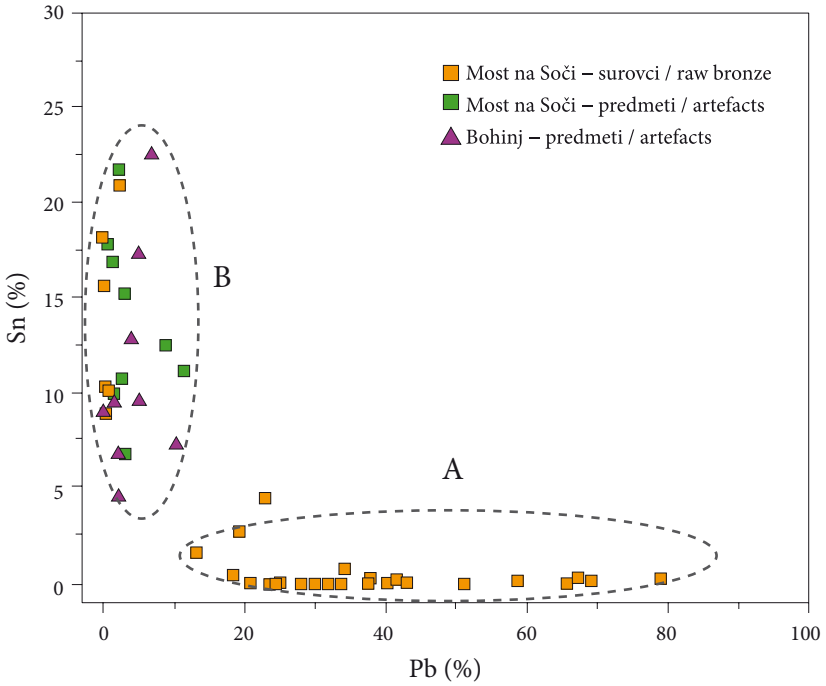
Most na Soči	Mn	Fe	Co	Ni	Cu	Zn	As	Ag	Cd	Sn	Sb	Pb	Bi
Hiša 15A, frag. uhate sekire (t. 40: 9*) / House 15A, frag. of a shaft-hole axe	-	5,58	-	-	68,7	2,08	3,05	0,24	-	0,40	1,41	18,5	-
Hiša 3, surovec (t. 23: 7) / House 3, raw bronze	-	0,074	-	0,161	76,3	-	2,21	0,06	-	-	0,47	20,8	-
Hiša 23, frag. pogače (t. 70: 1) / Hiša 23, frag. of an ingot	-	0,055	-	-	69,7	-	0,17	-	-	-	-	30,1	-
Sonda 36, frag. uhate sekire – P4700 / Trench 36, frag. of a shaft-hole axe	-	0,319	-	-	76,4	-	0,91	0,10	-	2,79	0,34	19,2	-
Hiša 31, surovec (t. 97: 1) / House 31, raw bronze	-	0,088	-	-	72,0	-	0,19	0,16	-	4,47	0,21	22,9	-
Hiša 31, surovec (t. 97: 2) / House 31, raw bronze	-	0,034	-	0,122	59,4	-	0,17	0,08	-	-	0,09	40,1	-
Hiša 8, surovec (t. 29: 2) / House 8, raw bronze	-	9,24	-	0,207	47,5	-	0,64	0,11	-	0,18	0,42	41,7	-
Hiša 2, surovec (t. 8: 1) / House 2, raw bronze	-	0,083	0,511	2,79	69,2	-	1,22	0,12	-	0,06	0,72	25,3	-
Hiša 13, jama I, surovec (sl. 96*) / House 13, Pit I, raw bronze	-	0,030	-	-	56,4	-	0,31	0,05	0,047	0,06	-	43,1	-
Hiša 13, jama I, surovec (sl. 96) / House 13, Pit I, raw bronze	-	0,016	-	0,201	75,0	-	0,43	0,64	-	-	0,15	23,6	-
Hiša 13, jama I, surovec (sl. 96) / House 13, Pit I, raw bronze	-	0,031	-	-	34,1	-	0	0,04	0,035	-	0,03	65,8	-
Hiša 13, jama I, surovec (sl. 96) / House 13, Pit I, raw bronze	-	0,029	-	0,078	31,9	-	0,19	0,11	-	0,31	-	67,4	-
Hiša 13, jama I, surovec (sl. 96) / House 13, Pit I, raw bronze	-	0,032	-	-	63,0	-	7,58	0,26	-	-	0,82	28,3	-
Hiša 13, jama I, surovec (sl. 96) / House 13, Pit I, raw bronze	-	0,028	-	0,098	48,3	-	0	0,10	0,038	-	0,19	51,3	-
Hiša 22A, strjena talina / House 22A, melted bit	0,14	5,85	-	0,264	78,5	-	0,19	0,12	-	1,68	-	13,2	-
Hiša 31, strjena talina / House 31, melted bit	0,18	33,4	-	-	39,0	9,10	0,05	0,19	-	18,1	-	0,02	-
Hiša 31, strjena talina / House 31, melted bit	-	2,57	0	-	79,9	1,16	0,42	0,18	-	15,6	-	0,16	-
Hiša 31, strjena talina / House 31, melted bit	-	5,34	-	0,173	69,6	1,24	0,14	0,28	-	20,9	-	2,40	-
zunaj tlorisa hiše 15, surovec / exterior of House 15, raw bronze	-	1,65	-	0,278	61,4	-	0,71	0,34	-	0,78	0,61	34,3	-
Hiša 29, ploščica (t. 90: 6) / House 29, small plate	-	0,695	-	0,204	60,1	-	0,68	0,07	-	0,23	0,15	37,9	-
Hiša 15, surovec (t. 37: 5) / House 15, raw bronze	-	0,023	0,199	5,38	21,7	-	6,74	1,60	-	0,17	5,38	58,8	-
Hiša 15, surovec (t. 37: 6) / House 15, raw bronze	-	0,026	0,011	0,647	26,1	-	1,61	0,53	-	0,18	1,57	69,3	-
Hiša 8, strjena talina / House 8, melted bit	-	0,357	0,279	0,175	88,1	-	0,11	0,18	-	10,1	-	0,72	-
Hiša 4, strjena talina / House 4, melted bit	-	0,052	-	-	20,6	-	0	-	-	0,27	-	79,1	-
Hiša 8, strjena talina / House 8, melted bit	-	0,283	0,205	0,117	89,9	-	0,08	0,14	-	8,88	-	0,43	-
Hiša 29, jama 2, strjena talina / House 29, Pit 2, melted bit	-	0,009	-	-	62,1	-	0,27	0,05	-	0,05	-	37,5	-
Hiša 29, jama 2, strjena talina / House 29, Pit 2, melted bit	-	0,065	-	1,45	68,8	-	1,01	2,11	-	0,05	2,02	24,5	-
Hiša 29, jama 1, strjena talina / House 29, Pit 1, melted bit	-	0,016	-	-	67,6	-	0,30	0,07	-	0,03	0,11	31,9	-
Hiša 29, jama 1, strjena talina / House 29, Pit 1, melted bit	-	0,034	-	1,20	59,3	-	1,75	0,53	-	0,09	3,13	33,9	-
Hiša 29, jama 1, strjena talina / House 29, Pit 1, melted bit	-	0,062	-	-	75,3	-	0,11	0,04	-	-	-	24,5	-
Hiša 4, strjena talina / House 4, melted bit	-	0,265	0,211	0,120	88,4	-	0,18	0,14	-	10,28	-	0,35	0,088

Najdišče / Site	Predmeti / Artefacts	Cr	Fe	Co	Ni	Cu	As	Ag	Sn	Sb	Pb	Bi
Lepence	certoška fibula X. vrste – P5090* / Certosa fibula of Type X	-	0,08	0,023	0,074	85,0	0,24	-	9,55	-	5,06	-
Bitnje	svetolucijska fibula – P10093, ležišče igle / bow fibula of Sv. Lucija Type, catch-plate for pin	-	0,08	-	0,187	92,0	0,33	0,15	4,55	0,37	2,29	-
Bitnje	svetolucijska fibula – P10093, kroglast obesek / bow fibula of Sv. Lucija Type, globular pendant	0,022	0,11	-	0,171	89,9	0,30	0,19	6,86	0,23	2,23	-
Bitnje	svetolucijska fibula – P10042 / bow fibula of Sv. Lucija Type	0,029	0,18	-	0,394	87,1	0,45	0,33	9,45	0,44	1,59	-
Bitnje	certoška fibula XIII. vrste – P10104 / Certosa fibula of Type XIII	-	0,07	-	0,247	79,8	1,13	0,41	7,30	0,64	10,4	-
Bitnje	drobna čolničasta fibula – P10059 / small boat fibula	-	0,18	-	0,208	76,5	0,23	0,38	17,3	0,15	4,97	-
Bitnje	nažlebljen uhan – P10003 / grooved earring	-	0,02	-	-	90,3	0,053	0,17	9,00	0,36	0,11	-
Most na Soči	kačasta fibula s krilci – P14299 / serpentine fibula with wings	-	0,08	0,056	0,201	87,8	0,41	0,18	9,92	-	1,40	-
Most na Soči	kačasta fibula s ploščicami – P14258 / serpentine fibula with discs	0,033	0,17	0,080	-	80,9	0,20	0,22	16,9	-	1,43	0,08
Most na Soči	trakasta fibula – P14292 / band bow fibula	-	0,17	-	-	75,0	0,65	0,26	21,7	-	2,18	-
Most na Soči	certoška fibula X. vrste – P13993 / Certosa fibula of Type X	-	0,28	0,026	0,677	71,3	3,11	1,07	12,5	2,31	8,72	-
Most na Soči	certoška fibula X. vrste – P14004 / Certosa fibula of Type X	-	0,17	0,038	-	85,9	0,27	0,18	10,7	-	2,70	-
Most na Soči	certoška fibula XIII. vrste – P14266 / Certosa fibula of Type XIII	-	0,93	-	0,236	74,5	0,98	0,39	11,1	0,45	11,5	-
Most na Soči	pavkasta fibula – P14037 / kettledrum fibula	0,043	0,32	-	0,059	80,7	0,46	0,18	15,2	-	3,03	-
Most na Soči	dolgonožna fibula z okrasom na loku – P14016 / long-footed fibula with ornamented bow	-	0,13	0,076	-	80,5	0,50	0,19	17,8	-	0,77	-
Most na Soči	dno situle – P14205 / base of a situla	-	0,05	0,046	0,170	88,7	0,45	0,19	6,83	0,20	3,37	-
Bitnje	samostrelna fibula s pečatno nogo – P10079, T1 crossbow fibula with a stamp foot terminal	-	0,94	-	0,334	64,5	1,80	1,15	22,5	1,74	6,86	0,17
Bitnje	samostrelna fibula s pečatno nogo – P10079, T2 crossbow fibula with a stamp foot terminal	-	0,68	-	0,554	78,8	1,46	0,66	12,8	1,06	3,94	0,07

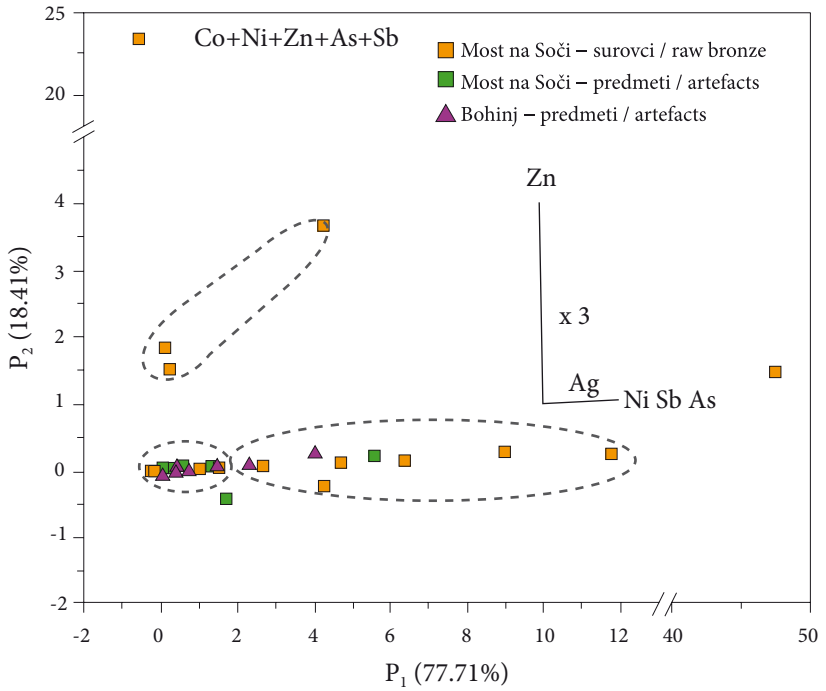
Tab. 2: Sestava analiziranih predmetov (v masnih %) z grobišč na Mostu na Soči in v Bohinju. Vrednosti pod mejo občutljivosti so označene z (-). Predmete hrani Narodni muzej Slovenije.
Tab. 2: Chemical composition of the analysed artefacts (in mass %) from the cemeteries at Most na Soči and Bohinj. Immeasurable values are marked with (-). Artefacts are held in the Narodni muzej Slovenije.
* inventarna številka predmeta / Inventary number of the artefact

vsebujejo okrog 20 % svinca), za drugo (skupina B) pa so značilne koncentracije kositra med 4 in 22 %, medtem ko je koncentracija svinca manjša od 12 %. Velike količine svinca se namreč v bakru ne raztopijo, ampak tvorijo samostojne skupke, zaradi česar je tak baker kot kovina neuporaben. Vsi gotovi izdelki tako spadajo v drugo skupino, kar kaže, da so za njihovo izdelavo uporabljali le baker z majhno koncentracijo svinca, ki so ga z dodajanjem kositra spremenili v bron. *Slika 1* nadalje kaže, da je večina surovcev z Mosta na Soči v skupini z veliko svinca, nekaj primerkov pa je tudi v skupini z gotovimi izdelki. To si razlagamo s tem, da ne gre za pre-monetary exchange item.[3] This is also displayed in *Figure 1*, which shows the distribution of measurements according to the concentrations of lead and tin. Two groups are evident: the first (group A) is characterized by large concentrations of lead (between 10 and 80%) and rather small concentrations of tin (below 5% in the objects that contain about 20% lead), while the second (group B) is characterized by tin concentrations between 4 and 22%, but with lead concentrations smaller than 12%. Large concentrations of lead are insoluble in copper, but form independent aggregates, making such an

[3] Trampuž-Orel, Heath 1998.



Sl. 1: Razdelitev vzorcev glede na koncentracijo svinca in kositra.
Fig. 1: Distribution of samples according to the concentrations of lead and tin.



Sl. 2: Porazdelitev vzorcev z metodo glavnih komponent glede na koncentracije primesi Co, Ni, Zn, As, Ag in Sb, preračunanih na vsebnost bakra.
Fig. 2: Distribution of samples according to the principal component analysis based on concentrations of the impurities Co, Ni, Zn, As, Ag and Sb normalized to the content of copper.

prave surovce, ampak za fragmente že uporabljenih predmetov. Verjetno so nekaj takih predmetov pretalili skupaj s surovci iz skupine A, s čimer bi pojasnili nekaj večjo koncentracijo kositra pri treh vzorcih v tej skupini.

Kovine smo nato poskusili ločiti na skupine po količinah primesi, pri čemer smo upoštevali kobalt, nikelj, arzen, cink, srebro in antimon. Glede na količino cinka izstopa en predmet iz hiše 31 s kar 9,1 % cinka. Tako visoka vrednost kaže na namerno izdelavo medenine v sredini 1. st. pr. n. št. ali kasneje,[4] ker pa je v tej kovini tudi 18,1 % kositra in 33,4 % železa, gre verjetno za pretaljevanje. Če se pri tem vzorcu omejimo le na baker in cink, bi bila koncentracija cinka 19 %, kar je zelo blizu medeninam, dobljenim s cementacijskim postopkom. Giumlia-Mair omenja v študiji predmetov z Mosta na Soči tudi kroglast obesek svetolucijske fibule s 7,00 % cinka, ker pa je v končni zbirni tabeli za isti predmet navedena nemerljiva količina cinka,[5] gre verjetno v prvi navedbi za napako. V treh predmetih smo zaznali tudi merljive količine kadmija. Ker vsi trije predmeti vsebujejo več kot 40 % svinca, gre verjetno za primes svinčeve rude. Za razporeditev meritev po metodi glavnih komponent smo koncentracije primesi preračunali glede na vsebnost bakra (*sl. 2*). Na sliki prepoznamo dve skupini in dva zelo oddaljena predmeta. V levem zgornjem kotu je predmet z veliko koncentracijo cinka, ki zelo verjetno izvira iz medenine, v desnem spodnjem pa predmet z visokimi koncentracijami niklja, arzena, srebra, antimona in svinca, ki ga lahko povezujemo s pojavom špajze.[6] Kot kaže zvezda lastnih vektorjev na *sliki 2*, je obe skupini mogoče ločiti po koncentraciji cinka. Manjša skupina treh predmetov vsebuje 1–2 % cinka, kar bi bilo lahko povezano s taljenjem bakrovih rud s primesmi cinkovih rud. Posebno skupino bakra, v kateri je bil kot značilna primes cink, smo namreč zaznali tudi pri študiju bronastih predmetov iz srednje bronaste dobe iz Koszydera na Madžarskem.[7] Druga, razpotegnjena skupina, se v splošnem loči po koncentracijah primesi Ag, Ni, As in Sb, vendar so pripadajoči lastni vektorji skoraj vzporedni in ne dopuščajo podrobnejšega ločevanja. Vir tega bakra je iskati v rudiščih severno od vzhodnih Alp.[8]

Račun z metodo glavnih komponent smo nato izvedli še tako, da smo izpustili oba skrajna predmeta, za preostale vrednosti pa smo uporabili logaritemsko transformacijo po Duewerju (*sl. 3*). Tudi v tem primeru opazimo dobro ločeno cinkovo skupino, od glavne skupine pa se vleče razpršen rep elementov, za katere so značilne približno korelirane primesi Ni, Ag in Sb. Pred-

[4] S tako datacijo se ujemajo tudi preostale najdbe, med njimi zlasti odlomki amfor, iz notranjosti in stavbnih ruševin hiše 31 (Svoljšak, Dular 2016, 213, t. 97: 3, 6–7; Laharnar v tej knjigi).

[5] Giumlia-Mair 1998, 107 in 126.

[6] Paulin, Spaić, Heath, Trampuž-Orel 2000.

[7] Šmit 2015.

[8] Giumlia-Mair 1998; 2000.

alloy unusable. All finished objects thus belong to the second group, which shows they were only produced from copper with a low content of lead, which was changed into bronze by the addition of tin. *Figure 1* further shows that the majority of raw bronzes from Most na Soči is in the group with a high lead content, yet some of them are also in the group with finished products. We can find an explanation that these objects are not true raw bronzes, but fragments of used out objects. Some of them were likely recycled with the raw bronzes from group A, which also explains that three objects of this group contain larger concentrations of tin.

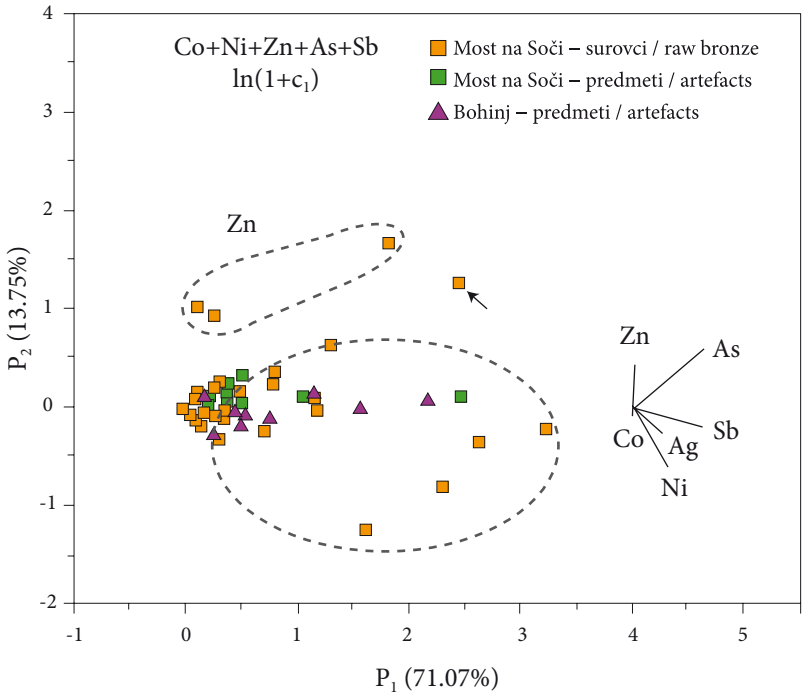
We further attempted to distinguish between different types of metals according to the content of impurities, taking into account cobalt, nickel, arsenic, zinc, silver and antimony. On account of the zinc content, one object from House 31 with 9.1% Zn is extant. Such a high zinc content may signify the intentional production of brass in the 1st century BC or later,[4] but as the metal also contains 18.1% tin and 33.4% iron, the alloy may be the result of remelting. If we only consider copper and zinc concentrations, the amount of zinc would be 19%, which is rather close to the brass obtained by the cementation procedure. In her study of the objects from Most na Soči, Giumlia-Mair also mentions a globular pendant from a bow fibula of Sveta Lucija Type with 7.00% zinc, but as an immeasurable amount of zinc in this object is given in the summary table,[5] the first number may be an error. We also detected measurable amounts of cadmium in three objects. However, as all three objects contain more than 40% lead, cadmium may be an impurity in the lead ore. For the classification of the measurements according to the principal component analysis, the impurity concentrations were normalized to the content of copper (*Fig. 2*). Two groups can be recognized in the figure, together with two distant individual objects. The left upper corner is kept by the object with a high zinc content, which very likely originates from brass, and in the right lower corner there is an object with a high content of nickel, arsenic, silver, antimony and lead, which we may identify as speiss.[6] As demonstrated with the star of eigenvectors in *Fig. 2*, the two groups differ by the content of zinc. The smaller group of three objects contain 1–2% zinc, which may be related to smelting of copper ores with an admixture of zinc ores. An individual group of copper exhibiting zinc as characteristic admixture was also detected in our study of Middle Bronze Age metal objects from Koszyder in Hungary.[7] The other, a slightly elongated group, differs by the concentrations of impurities Ag, Ni, As and Sb, but

[4] Such datation is supported by other finds, containg especially fragments of amphoras, from the inner part and from the outer ruins of House 31 (Svoljšak, Dular 2016, 213, t. 97: 3, 6–7; Laharnar in this book).

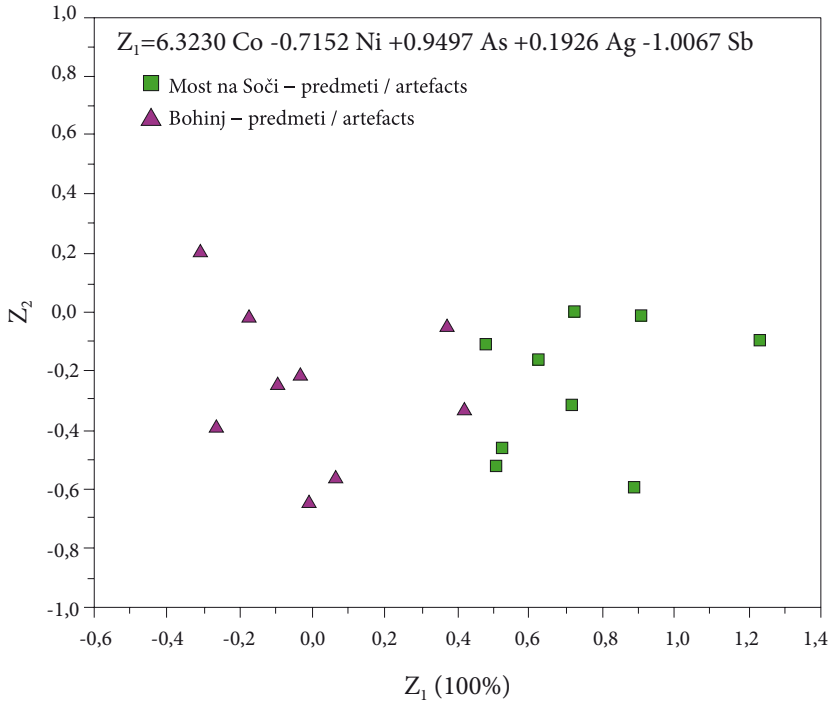
[5] Giumlia-Mair 1998, 107, 126.

[6] Paulin, Spaić, Heath, Trampuž-Orel 2000.

[7] Šmit 2015.



Sl. 3: Porazdelitev vzorcev z metodo glavnih komponent glede na koncentracijo primesi, pri čemer sta iz niza podatkov izpuščeni obe skrajni vrednosti, podatki pa so preračunani s transformacijo c'= ln(1+c). S puščico je označen predmet iz arzenovega brona.
Fig. 3: Distribution of samples according to the principal component analysis based on the impurity concentrations, omitting two outermost values and transforming the input data as c'= ln(1+c). The arrow marks an object made of arsenic bronze.



Sl. 4: Razdelitev izdelkov z Mosta na Soči in iz Bohinja z diskriminantno analizo.
Ločevanje med obema skupinama je mogoče z eno kanonično spremenljivko (Z_1).
Fig. 4: Distribution of finished objects from Most na Soči and Bohinj according to the linear discriminant analysis.
It is possible to distinguish between the two groups using one canonical variable (Z_1).

met, ki izstopa od obeh skupin (*sl. 3* – označen s puščico) vsebuje 7,58 % arzena, verjetno gre za arzenov bron.

Ali lahko med našim naborom predmetov razlikujemo med viri bakra, smo poskusili ugotoviti še z diskriminantno analizo. Prednost te analize v primerjavi z metodo glavnih komponent je v tem, da prva analiza že upošteva razdelitev predmetov v skupine in pokaže, ali so med skupinami pomembne razlike. Na *sliki 4* smo najprej preučili razliko med izdelki z Mosta na Soči in iz Bohinja. Ker v izdelkih nismo zasledili cinka, smo kot kriterij izbrali elemente Co, Ni, As, Ag in Sb. Tudi v tem primeru smo koncentracije primesi normirali na vsebnost bakra, nismo pa uporabili logaritemske transformacije. Iz slike je razvidno, da se med obema skupinama izdelkov pojavi jasna razmejitev, kar kaže na to, da sta obe skupini izdelani iz različnega brona. V račun smo nato vključili še surovce kot tretjo skupino, pri čemer smo izpustili predmet iz arzenovega brona, predmet z veliko cinka in predmet iz špajze. Na *sliki 5* se pojavi zanimiva razdelitev predmetov v dve skupini. Vsi izdelki iz Bohinja razen enega (točka T1 na fibuli s samostrelno peresovino in pečatno nogo) so v desni skupini, medtem ko so izdelki z Mosta na Soči razdeljeni med obema skupinama. Kot izdelke moramo upoštevati tudi tiste z veliko koncentracijo kositra, jasno izraženimi robovi in gladkimi površinami; skupno jih je pet (*sl. 1*). Trije med njimi so tako v levi skupini, dva pa v desni. Če te predmete izključimo kot surovce, v levi skupini ostanejo le trije surovci, vsi preostali so v desni. Eden od surovcev na levi je odlomek uhate sekire, drugi pa je zelo verjetno odlomek ingota vrste *ramo secco* (*sl. 6*).[9] Pri tem kaže omeniti, da je drugi surovec, ki po obliki roba morda prav tako pripada vrsti *ramo secco*, v desni skupini.

Delitev predmetov in surovcev v skupini kaže na dve vrsti brona. Ingote vrste *ramo secco* in uhate sekire v arheološki literaturi povezujejo z rudišči v Etruriji,[10] vendar primerjave ne temeljijo na analizah, temveč na številnih arheoloških sledovih metalurške dejavnosti v Etruriji, posebno v okolici Populonije.[11] Analize etruščanskih predmetov so omejene na končne in imenitne izdelke v muzejih, ne pa na surovce.[12] Avtorji, ki proučujejo sestavo zakladnih najdb v Furlaniji in Benečiji, ugotavljajo med surovinami tudi prisotnost bakra z alpskih najdišč,[13] o drugih virih surovin pa sklepajo predvsem po razprostranjenosti predmetov. Craddock navaja,[14] da je za baker iz Etrurije in Sardinije značilna visoka koncentracija kobalta (do 0,5 %), vendar se ta pri naših meritvah ne kaže kot odločilni diskriminatorni element. Med predmeti z razmeroma

[9] Laharnar v tej knjigi.
[10] Henderson 2016, 151.
[11] Modona 1955; Giardino 2015.
[12] Craddock 1986.
[13] Borgna 1992, 59–62; Pellegrini 1992, 349.
[14] Craddock 1986, 214.

the corresponding eigenvectors are nearly parallel and do not allow further classification. The source of this copper may be sought in ore deposits north of the eastern Alps.[8]

The principal component analysis was also performed in such a way that we omitted the two outmost objects and logarithmically transformed the remaining values according to the approach of Duewer (*Fig. 3*). This calculation also shows a distinct group of objects containing zinc, yet the main group spreads into a diffuse tail, whose objects are distinguished by approximately correlated impurities of Ni, Ag and Sb. The object that differs from the two groups (*Fig. 3* – marked by an arrow) contains 7.58% arsenic, so it very likely represents arsenic bronze.

The question of distinguishing different sources of copper among our analysed objects was also approached by linear discriminant analysis. In comparison with the principal component analysis, the discriminant analysis has the advantage that it considers the distribution of the elements into known groups and shows if any significant differences between the groups exist. In *Figure 4* we first studied the differences between the finished products from Most na Soči and Bohinj. Since zinc was not detected in these objects, Co, Ni, As, Ag and Sb were chosen as characteristic elements. We again normalized the impurity concentrations to the content of copper, although we did not apply the logarithmic transformation. The figure shows a clear distinction between the two types of objects, which indicates that they were made of different bronze. The calculation was then extended to the raw bronze as the third group, though we omitted the object made of arsenic bronze, the high zinc object and speiss. *Figure 5* reveals an interesting distribution of objects into two groups. All products from Bohinj except one (point T1 of the crossbow fibula with a stamp foot terminal) are in the right group, while the products from Most na Soči are separated between the two groups. We also must consider as products those raw bronzes with a high tin content and regular surfaces; altogether they are five (*Fig. 1*). Three of them are thus in the left group, and two in the right one. If we then exclude them as raw bronze, there are only three objects of raw bronze in the left group; the others are all in the right group. One of the raw bronzes in the left group is a fragment of a shaft-hole axe; the other is very likely a fragment of an ingot of the type *ramo secco* (*Fig. 6*).[9] It is necessary to note that the other piece of raw bronze, the edge of which indicates it could even be a *ramo secco* ingot, belongs to the right group.

The division of the objects and raw bronzes into groups suggests two types of bronze. In archaeological literature, *ramo secco* ingots and socketed axes are associated with the ore deposits in Etruria,[10] though not on the basis of analysis, but rather on the ample archaeological

[8] Giumlia-Mair 1998; 2000.
[9] Laharnar in this book.
[10] Henderson 2016, 151.

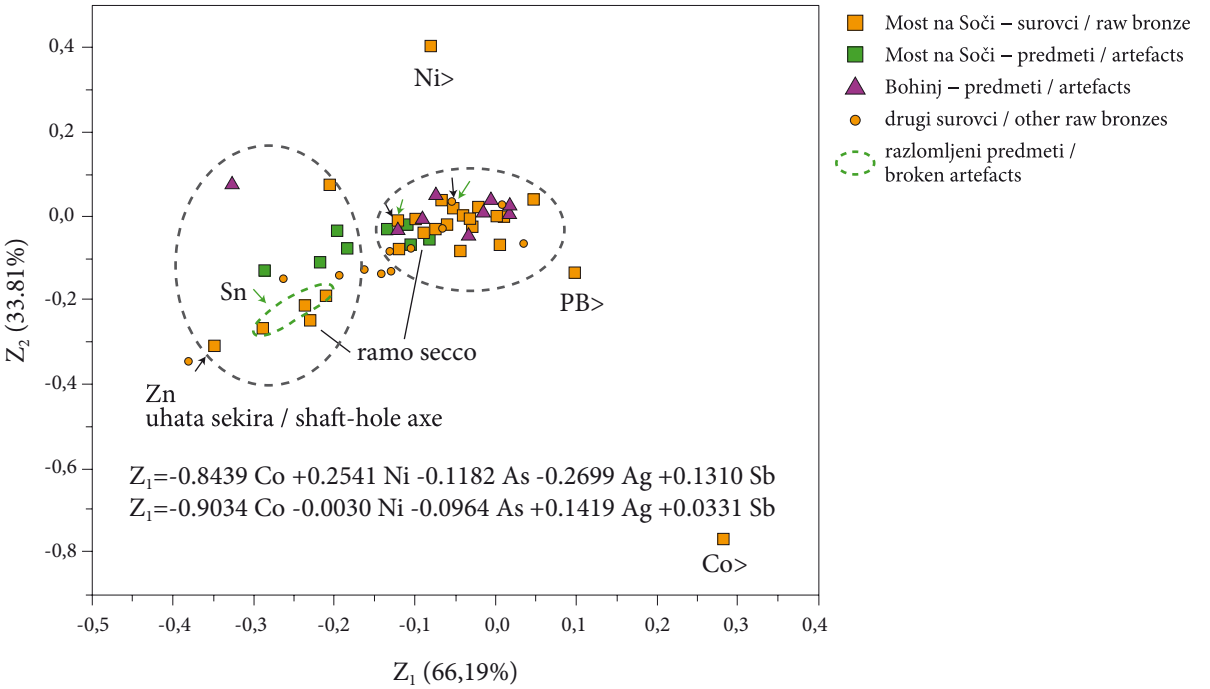
majhno koncentracijo pod 0,1 % ga zasledimo v šestih predmetih in enem surovcu z Mosta na Soči ter v enem predmetu iz Bohinja; v vrednostih, večjih od 0,1 % pa v šestih surovcih z Mosta na Soči. Pri surovcu, ki na *sliki 5* odstopa od vseh ostalih, je vsebnost kobalta celo 0,51 %. Nekateri ingoti iz slovite zakladne najdbe San Francesco v Bologni iz zgodnje železne dobe so iz zelo čistega bakra skoraj brez primesi.[15] Najdbe iz Gran Carra pa vsebujejo znatno količino arzena in antimona, ki bi po avtorjevih domnevah lahko kazale na bakrovo rudo, podobno tisti iz severnega Lacija in južne Toskane.[16] Samo iz prisotnosti arzena in antimona ni mogoče sklepati na izvor rud. Diskriminatorne parametre je treba iskati v skupnih razmerjih med posameznimi primesmi, kar smo v našem primeru dosegli z uporabo multivariantnih statističnih metod. Na *sliki 5* z izraženima spremenljivkama Z_1 in Z_2 lahko umestimo še rezultate drugih analiz. Za primerjavo smo izbrali naslednje predmete, analizirane z metodo AES: šest uhatih sekir iz zakladne najdbe Gastabil na Cerkljanskem,[17] ingote vrste *ramo secco* in njim podobne z Mosta na Soči – Repelc,[18] Semeniča,[19] Povirja, Šempetra pri Gorici ter tri iz Castelfranco Emilia.[20] Najbolj levo se uvršča uhata sekira iz Gastabila, v levi skupini sta še ingot *ramo secco* iz Semeniča in druga uhata sekira iz Gastabila. V desni skupini so vsi trije surovci iz Castelfranca, ki imajo največje vrednosti spremenljivke Z_2, skrajno desno je uhata sekira iz Gastabila. Ugotovimo lahko, da spremenljivka Z_1 opisuje predvsem razmerje med primesmi arzena in antimona: na levi strani (v smeri negativnih Z_1) prevladuje arzen, na desni (pri pozitivnih Z_1) antimon. Primerjava analiziranih najdb z Mosta na Soči in Bohinja kaže, da ima baker z Mosta na Soči veliko bolj raznovrstne primesi, kar lahko povežemo z več različnimi rudnimi viri. Teh pri sedanjem stanju raziskav ni mogoče identificirati, vprašanje pa je tudi, ali je samo iz primesi identifikacija sploh mogoča. Velike količine namensko dodanega svinca namreč onemogočajo analize s svinčevimi izotopi, ovirajo pa tudi primerjave po količini srebra in antimona v razmerju glede na prvotni svinec.[21]

Odprto ostaja vprašanje izvora bakra s primesmi cinka. Vsi trije predmeti s cinkom se namreč razdelijo (*sl. 5* – označeni s puščicami). Dva sta iz istega konteksta (hiša 31) kot predmet z 9,1 % cinka, tako da je prisotnost cinka posledica pretaljevanja. Tretji predmet z 2,08 % Zn je odlomek uhate sekire, ki je v isti skupini kot ingot *ramo secco* (*sl. 5*). Ta odlomek s primesjo cinka je

[15] Giardino 2015, 726.
[16] Giardino 2015, 728.
[17] Nanut 2011.
[18] Mlinar 2003, 29–30.
[19] Trampuž-Orel, neobjavljeno, arhiv Arheološkega oddelka Narodnega muzeja Slovenije.
[20] Trampuž-Orel et al. 2002, 63–75.
[21] Lutz, Schwab 2014.

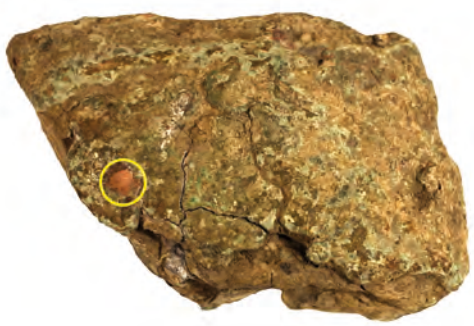
evidence of the metallurgical activity in Etruria, notably in the vicinity of Populonia.[11] The analyses of Etruscan objects are limited to the precious finished products in museum collections and do not include pieces of raw bronze.[12] The authors who study the composition of hoards from Friuli and Veneto state that copper from the Alpine deposits is present as raw material,[13] while other sources of raw materials are mainly inferred from the distribution of artefacts. Craddock writes that the copper from Sardinia and Etruria is characterised by a high cobalt concentration (up to 0.5%),[14] yet in our measurements cobalt does not appear as a discriminative element. It is present in relatively low concentrations, below 0.1%, in six pieces of raw bronze and one artefact from Most na Soči, as well as in one artefact from Bohinj, while concentrations above 0.1% have been documented in six raw bronzes from Most na Soči. One piece of raw bronze stands apart from all others in Fig. 5 in that the measured cobalt content is 0.51%. Some ingots from the well-known Iron Age hoard from San Francesco in Bologna were of a rather pure copper nearly without impurities.[15] The finds from Gran Carro contained significant admixtures of arsenic and antimony, which, according to the author's opinion, marked an ore similar to the one in northern Lazio and southern Tuscany.[16] The presence of arsenic and antimony impurities alone is not indicative of the ore origin. Discriminative properties have to be sought in the proportions of different impurities, which we examined by applying multivariate statistical methods. Using the Z_1 and Z_2 variables, *Figure 5* can be made to include the results of other analyses. For comparison, we chose the following objects analysed using the AES method: six socketed axes from the Gastabil hoard in the Cerkljansko region,[17] *ramo secco* and similar ingots from Most na Soči – Repelc,[18] Semenič,[19] Šempeter pri Gorici and three from Castelfranco Emilia.[20] A socketed axe from Gastabil keeps the extreme left position in *Figure 5*. The left group also contains the *ramo secco* ingot from Semenič and another socketed axe from Gastabil. The right group contains all three raw bronzes from Castelfranco (they also show the highest values of the Z_2 variable). At the far right, there is a socketed axe from Gastabil. The Z_1 variable mainly describes the ratio between the impurities of arsenic and antimony: arsenic predominates on the left (in the direction of the negative Z_1), antimony on the right (at the positive Z_1). Comparison of the analysed finds from Most na Soči

[11] Modona 1955; Giardino 2015.
[12] Craddock 1986.
[13] Borgna 1992, 59–62; Pellegrini 1992, 349.
[14] Craddock 1986, 214.
[15] Giardino 2015, 726.
[16] Giardino 2015, 728.
[17] Nanut 2011.
[18] Mlinar 2003, 29–30.
[19] Trampuž-Orel, unpublished, Archives of the Arcaheological Department at the National Museum of Slovenia.
[20] Trampuž-Orel et al. 2002, 63–75.



Sl. 5: Diskriminantna analiza izdelkov z Mosta na Soči in iz Bohinja ter surovcev z Mosta na Soči.
Ločevanje med skupinami omogočata dve kanonični spremenljivki (Z_1, Z_2). Z zelenimi puščicami so označeni predmeti z veliko kositra, ki predstavljajo fragmente izdelkov, s črnimi puščicami pa predmeti s primesmi cinka.
Fig. 5: Discriminant analysis of finished products from Most na Soči and Bohinj and raw bronzes from Most na Soči.
Distinguishing between the groups is possible using two canonical variables (Z_1, Z_2). Green arrows mark objects with high tin concentrations, which represent fragments of finished products, black arrows mark the objects containing zinc.

edini, ki ga lahko povežemo z bakrovo rudo, poleg tega je okrog 1 % cinka tudi v odlomkih dveh uhatih sekir z Gastabila. Čeprav se eden od njiju umešča tik zraven uhate sekire z Mosta na Soči, je število predmetov s cinkom premajhno, da bi lahko ugotavljali povezavo med cinkom in drugimi primesmi.



Sl. 6: Odlomek bronastega ingota vrste *ramo secco* iz naselbine Most na Soči (prim. Svoljšak, Dular 2016, t. 23: 7). M. = 1:1.
Fig. 6: Fragment of a bronze ingot of the type *ramo secco* from the settlement Most na Soči (cf. Svoljšak, Dular 2016, Pl. 23: 7). Scale = 1:1.

and Bohinj shows that copper from Most na Soči is much more heterogeneous with respect to impurities, which we can connect with a larger number of different sources of ore. At the present state of research, it is not possible to identify them and it is even questionable if identification according to impurities is at all possible. Large quantities of lead added on purpose prevent an analysis of lead isotopes and hinder comparisons according to silver and antimony with respect to the original lead.[21]

The question of the origin of copper marked with an admixture of zinc remains open. All the three objects with zinc separate in (*Fig. 5* – marked with arrows). Two of them are from the same context (House 31) as the object with 9.1% zinc, so the presence of zinc may be the result of remelting. The remaining object with 2.08% Zn is a fragment of a shaft-hole axe, which is located in the same group (*Fig. 5*) as the ingot of the type *ramo secco*. This fragment with an admixture of zinc is the only one we can connect with copper ore, yet a content of about 1% zinc is also observed in two fragments of socketed axes from Gastabil. Though the zinc content in one of the fragments is close to that established for the socketed axe from Most na Soči, the number of objects containing zinc is too small to indicate relations between zinc and other impurities.

[21] Lutz, Schwab 2014.

Rezultati meritev na keramičnih livarskih žlicah so potrdili metalurško dejavnost na tem najdišču. Na veliki žlici oz. livarskem pripomočku iz hiše 15 (Goriški muzej, inv. št. P4996; Svoljšak, Dular 2016, t. 38: 6) je bilo na notranji površini približno 0,9 % bakra in 0,6 % svinca, kar skupaj predstavlja zlitino iz 60 % bakra in 40 % svinca – podobno, kot jo imajo nekateri kosi surovega brona. Za primerjavo, na zunanji steni žlice je bila koncentracija bakra le 0,03 %, to je tridesetkrat manjša. Pri mali žlici oz. livarski posodici iz jame 3 v hiši 4 (Goriški muzej, inv. št. P4297; Svoljšak, Dular 2016, t. 24: 5) je bila notri drugačna kovina, sestavljena iz 82 % kositra, 13 % svinca in 5 % bakra. To verjetno ni točna sestava zlitine, ker se različni elementi lahko različno vežejo v keramiko, a gre v grobem za ulivanje predmetov iz poceni kositrovo-svinčeve litine, ki ima razmeroma nizko tališče.

ZAKLJUČEK

Meritve predmetov z Mosta na Soči in iz Bohinja so pokazale dve vrsti funkcionalnih zlitin: tiste z veliko koncentracijo svinca so verjetno krožile kot sredstvo za menjavo, medtem ko so za izdelavo bronastih predmetov uporabljali zlitine z največ 20 % svinca. Z diskriminantno analizo smo ugotovili veliko raznolikost posameznih vrst surovega bakra po primeseh Co, Ni, As, Ag in Sb. Baker iz Bohinja je bolj homogen od tistega z Mosta na Soči, kar bi lahko pomenilo, da so na Mostu na Soči prišli v stik ali uporabljali baker iz več različnih rudišč.

DODATEK

Seznam analiziranih predmetov z grobišč na Mostu na Soči in v Bohinju (predmete hrani Narodni muzej Slovenije)

Lepence, grobna najdba

1. Certoška fibula X. vrste; inv. št. P5090 (Gabrovec 1974, 296, t. 9: 11).

Bitnje, grobne najdbe

1. Svetolucijska fibula; inv. št. P10042 (Gabrovec 1974, 289, t. 2: 14).
2. Svetolucijska fibula; inv. št. P10093 (Gabrovec 1974, 293, t. 6: 24).
2. Certoška fibula XIII. vrste; inv. št. P10104 (Gabrovec 1974, 293, t. 7: 5).
3. Drobna čolničasta fibula; inv. št. P10059 (Gabrovec 1974, 290, t. 4: 1).
5. Fibula s samostrelno peresovino in pečatno nogo; inv. št. P10079 (Gabrovec 1974, 292, t. 5: 4).
5. Nažlebljen uhan; inv. št. P10003 (Gabrovec 1974, 293, t. 7: 4).

The measurements on ceramic casting spoons or utensils confirmed metallurgical activity at the site. The inner side of the bigger spoon from House 15 (Goriški muzej, Inv. No. P4996; Svoljšak, Dular 2016, Pl. 38: 6) contained approximately 0.9% copper and 0.6% lead, which would make an alloy of about 60% copper and 40% lead – similar to the composition of some pieces of raw bronze. For comparison, the outer side of the spoon contained 0.03 % copper only, which is thirty times less. The smaller casting spoon or utensil from Pit 3 in House 4 (Goriški muzej, Inv. No. P4297; Svoljšak, Dular 2016, Pl. 24: 5) contained a different metal; it was composed of 82% tin, 13% lead and 5% copper. This may not be exact composition of the alloy, as different metals bind differently to ceramics, but in general it reveals a non-expensive casting alloy with a low melting point.

CONCLUSION

The analysis of objects from Most na Soči and Bohinj showed two types of functional alloys: those with a high lead content circulated very likely as an exchange material, while those containing maximally 20% lead were used for manufacturing of practical objects. Discriminant analysis based on the impurities of Co, Ni, As, Ag and Sb has revealed a great heterogeneity of raw copper. The copper from Bohinj appears more homogeneous than that from Most na Soči, which may suggest that the latter came into contact or used copper from a larger number of different ore deposits.

APPENDIX

List of the Early Iron Age artefacts analysed from the Most na Soči and the Bohinj cemeteries (artefacts are held in the National Museum of Slovenia).

Lepence, a grave find

1. Certosa fibula of Type X; Inv. No. P5090 (Gabrovec 1974, 296, Pl. 9: 11).

Bitnje, grave finds

1. Bow fibula of Sveta Lucija Type; Inv. No. P10042, (Gabrovec 1974, 289, Pl. 2: 14).
2. Bow fibula of Sveta Lucija Type; Inv. No. P 10093 (Gabrovec 1974, 293, Pl. 6: 24).
2. Certosa fibula of Type XIII; Inv. No. P10104 (Gabrovec 1974, 293, Pl. 7: 5).
3. Small boat fibula; Inv. No. P10059 (Gabrovec 1974, 290, Pl. 4: 1).
5. Crossbow fibula with a stamp foot terminal; Inv. No. P10079 (Gabrovec 1974, 292, Pl. 5: 4).
5. Grooved earring; Inv. No. P10003 (Gabrovec 1974, 293, Pl. 7: 4).

Most na Soči, grobne najdbe

1. Kačasta fibula s krilci; inv. št. P14299 (Teržan, Lo Schiavo, Trampuž-Orel 1984, t. 68D: 2).
2. Kačasta fibula s ploščicami; inv. št. P14258 (Teržan, Lo Schiavo, Trampuž-Orel 1984, t. 68A: 1).
3. Trakasta fibula; inv. št. P14292 (Teržan, Lo Schiavo, Trampuž-Orel 1984, t. 58B: 1).
4. Certoška fibula X. vrste; inv. št. P13993 (Teržan, Lo Schiavo, Trampuž-Orel 1984, t. 7B: 1).
5. Certoška fibula X. vrste; inv. št. P14004 (Teržan, Lo Schiavo, Trampuž-Orel 1984, t. 8A)
6. Certoška fibula XIII. vrste; inv. št. P14266 (Teržan, Lo Schiavo, Trampuž-Orel 1984, t. 70D: 1)
7. Pavkasta fibula; inv. št. P14037 (Teržan, Lo Schiavo, Trampuž-Orel 1984, t. 13F: 1)
8. Dolgonožna ločna fibula z mrežastim okrasom na loku; inv. št. P14016 (Teržan, Lo Schiavo, Trampuž-Orel 1984, t. 10A: 2).
9. Dno situle; inv. št. P14205 (Teržan, Lo Schiavo, Trampuž-Orel 1984, t. 59B: 5).

Most na Soči, grave finds

1. Serpentine fibula with wings; Inv. No. P14299 (Teržan, Lo Schiavo, Trampuž-Orel 1984, Pl. 68D: 2).
2. Serpentine fibula with discs on the bow; Inv. No. P14258 (Teržan, Lo Schiavo, Trampuž-Orel 1984, Pl. 68A: 1).
3. Band bow fibula; Inv. No. P14292 (Teržan, Lo Schiavo, Trampuž-Orel 1984, Pl. 58B: 1).
4. Certosa fibula of Type X; Inv. No. P13993 (Teržan, Lo Schiavo, Trampuž-Orel 1984, Pl. 7B: 1).
5. Certosa fibula of Type X; Inv. No. P14004 (Teržan, Lo Schiavo, Trampuž-Orel 1984, Pl. 8A).
6. Certosa fibula of Type XIII; Inv. No. P14266 (Teržan, Lo Schiavo, Trampuž-Orel 1984, Pl. 70D: 1)
7. Kettledrum fibula; Inv. No. P14037 (Teržan, Lo Schiavo, Trampuž-Orel 1984, Pl. 13F: 1)
8. Long-footed fibula with reticular ornamentation on the bow; Inv. No. P14016 (Teržan, Lo Schiavo, Trampuž-Orel 1984, Pl. 10A: 2).
9. Base of a situla; Inv. No. P14205 (Teržan, Lo Schiavo, Trampuž-Orel 1984, Pl. 59B: 5).

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ANALIZA ŽELEZOVE ŽLINDRE IN ŽELEZNEGA KVADRA IZ NASELBINE NA MOSTU NA SOČI

ANALYSIS OF FERROUS SLAG AND A METAL BLOCK FROM THE SETTLEMENT AT MOST NA SOČI

Jakob LAMUT

UVOD

Med arheološkimi raziskavami na Mostu na Soči so v številnih hišah našli ostanke žlindre.[1] Večinoma gre za posamezne kose, ki so ležali v ruševinah, nekajkrat tudi v jamah oziroma na tlaku v notranjosti stavb. Večja količina žlindre je bila odkrita le na območju hiše 22A (gradbena faza 2) v skupni masi 11,8 kg. Glede na količino bi lahko sklepali, da se je nekje v bližini odvijal metalurški proces, čeprav ostankov ognjišča niso odkrili.[2] Za analizo so bili torej izbrani kosi iz tega objekta.

Hkrati z ostanki žlindre je bilo v naselju najdenih nekaj železnih predmetov. Gre za orodja različnih funkcij in oblik, v glavnem nože, dleta, sekač, rezilnik, srp in podobno, ki pa so bila že tako močno načeta od rje, da jih ni bilo mogoče vključiti v analizo.[3] Izjema je manjši kvader (blok) železa iz hiše 7. Ležal je v ovalni, 26 cm globoki jami, ki jo je zapolnjevala stavbna ruševina, to je mešanica oglja, koščkov prežgane ilovice, kamnitega drobirja in zemlje.[4]

MAKROPOSNETKI VZORCEV ŽLINDRE IZ HIŠE 22A

Vzorec 4

Kos žlindre je v tlorisu podoben elipsi (*sl. 1*). Daljša os meri 85 mm, krajša 65 mm. Njegova masa znaša 255 gramov. Na vzorcu je dobro vidna zaobljena (konveksna) oblika spodnje strani. Zgornja stran prav tako ni ravna, temveč so po površini tu in tam posejani posamezni izrastki rumeno-rjave (oker) barve. Prerez, narejen po

[1] Žlindro so registrirali v hišah 3, 6, 7, 8, 10, 11, 12, 14, 15, 15A, 16, 22, 22A, 23, 24, 27, 30, 31 in 32.

[2] Svoljšak, Dular 2016, 166.

[3] Glej tu Laharnar, 215 ss.

[4] Svoljšak, Dular 2016, 75, t. 28: 14.

PREFACE

Archaeological investigations of the settlement at Most na Soči revealed slag remains in many houses.[1] There are mostly scarce pieces among the ruins of the houses, some found in the pits and some on the ground floor inside the houses. The only higher quantity was found on the area of House 22A (Construction Phase 2) in total mass of 11.8 kg. From the amount of the slag found, it can be speculated that the metallurgical process must have been active somewhere in the vicinity, although the remains of the hearth (furnace) were never discovered.[2] For the purpose of further analysis, slags from that house were chosen.

Along with slag remains, ferrous objects of different shapes and functions were found. These were mostly knives, chisels, cutters, sickles and similar, which were not analysed since the corrosion process was too advanced.[3] However, the exception was the metal piece from House 7. It was found in an oval shaped pit, 26 cm deep, filled with debris consisting of a mixture of coal, pieces of burnt loam, stone gravel and dirt.[4]

MACRO SAMPLES OF SLAG FROM HOUSE 22A

Sample 4

Slag ground plan is in the form of an ellipse (*Fig. 1*). The longer axis is 85 mm and the shorter axis 65 mm, its mass is 255 grams. The convex shape of the lower sample part can be easily seen. The upper part is covered with yellow-brown individual outgrowths, making the surface

[1] The slag was found in Houses 3, 6, 7, 8, 10, 11, 12, 14, 15, 15A, 16, 22, 22A, 23, 24, 27, 30, 31 and 32.

[2] Svoljšak, Dular 2016, 166.

[3] See Laharnar, 216 ff.

[4] Svoljšak, Dular 2016, 75, t. 28: 14.

sredini vzorca žlindre, prikazuje *sl. 2*. Na njej je dobro vidna konkavno-konveksna oblika žlindre.[5] Na prerezu je na desni strani večja luknja, ki je ostanek plinske pore. V dokaj homogenem delu žlindre so številne manjše pore in drobne kovinske granule.

Vzorec 7

Žlindra ima v tlorisu obliko kroga s premerom 90 do 100 mm in maso 325 gramov (*sl. 3*). Na okrušenem robu, ki je rjave barve, se vidi, da je žlindra porozna z različno velikostjo posameznih por. Na sredini je kos debel med 30 in 35 mm, proti robu postaja tanjši in meri od 10 do 15 mm.

Na prvi pogled bi lahko rekli, da je zgornja stran z izjemo majhnih poglobitev ali izrastkov dokaj ravna. Njena barva je temno rjava, na nekaterih mestih prehaja v rjavkasto-rumeno (oker) barvo. Žlindra je bila izpostavljena dolgoletnim vremenskim razmeram, ki so vplivale na spremembe njene fazne sestave. Zaobljena (konveksna) oblika spodnje strani je hrapava, s porami temno rjave barve in s številnimi rumenkasto-rjavimi (oker) lisami ter majhnimi izrastki (*sl. 4*). Na prerezu, narejenem za mikroskopske raziskave, so vidne številne pore velikosti 1 do 2 mm.

Vzorec 14

Vzorec ima specifično obliko, saj ni niti krog niti izrazita elipsa. Daljša os meri 95 mm, krajša 80 mm. Njegova masa znaša 266 gramov. Nastal je v dveh stopnjah. Na dnu ognjišča je najprej nastajala osnovna kovaška žlindra debeline 10 do 16 mm s konveksno obliko spodnje strani. Na že oblikovano žlindro se je nato nalagala nova plast, s čimer se je kos žlindre odebelil. Naraščanje ni bilo enakomerno po celotni prvotni površini vzorca, temveč zgolj na dveh tretjinah desne strani (*sl. 5*). Debelina na sredini znaša okoli 30 mm, na najvišjem delu pa celo 45 mm.

Vzorec 14 A

Kos žlindre ima obliko kroga s premerom 100 mm in maso 166 gramov (*sl. 6*). Njegova površina je valovita s posameznimi izrazitimi vrhovi. Večji del površine je gladek in brez vidnih vplivov atmosferilij na njeno fazno sestavo. Najvišji vrh ima steklast sijaj. Gladek steklast sloj, ki prekriva osnovno žlindro, je nastal ob koncu tehnološkega procesa, pred odstranitvijo kolača iz ognjišča. Steklasta žlindra je bila viskozna in se je počasi razlivala po prvotni osnovi. Površina spodnje strani je

[5] Beck 1889–1903; Pleiner 1958; Pleiner 2000; Pleiner 2006.

rough as well. The cross section of slag sample is depicted in *Fig. 2*. The concave-convex slag shape is clearly seen.[5] On the right side of cross section there is a gap, which represents the remains of a gas pore. In the/a homogeneous slag part a number of smaller pores and some metal granules can be observed.

Sample 7

The slag ground plane has the shape of a circle with the diameter of 90 to 100 mm and a mass of 325 grams (*Fig. 3*). On the brown colour chipped edge, porosity with various sizes of pores can be seen. In the middle of the piece the width is between 30 mm to 35 mm, while towards edges it becomes thinner, 10 mm to 15 mm wide.

On the first glance, it could be said that the upper part is rather flat with some small outgrowths and dents. Its colour is dark brown with some yellow-brown parts. The slag was exposed to long-term weather conditions, which affected and altered its phase composition. The convex bottom shape is rough with dark brown pores, many yellow-brown spots and small outgrowths (*Fig. 4*). At the cross section made for microscopic analysis numerous pores 1 to 2 mm in size were observed.

Sample 14

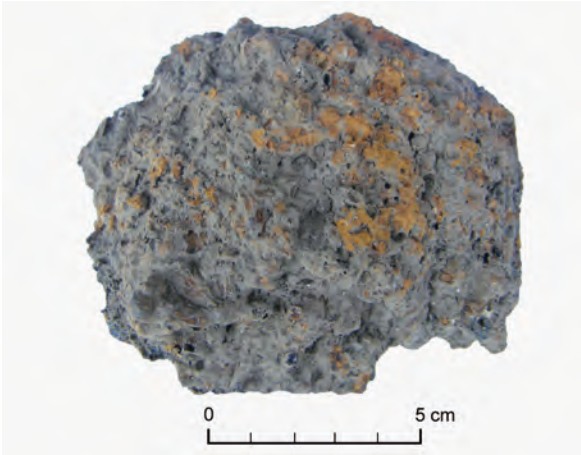
The sample, neither a circle nor an ellipse, has a specific shape. The longer axis is 95 mm and the shorter 85 mm long. Its mass is 266 grams. It was formed in two steps. Firstly, at the bottom of the hearth base-forging slag was formed, 10 to 16 mm thick with a convex shape of the bottom part. Secondly, on the pre-existing slag a new slag layer was deposited which made the original part thicker. The thickening was not constant throughout the original slag surface but only at the two thirds of the right part (*Fig. 5*). The thickness at the middle is about 30 mm while at the thickest part it reaches 45 mm.

Sample 14A

The slag sample has a circular shape with a diameter of 100 mm and a mass of 166 grams (*Fig. 6*). Its surface is corrugated with distinctive peaks. Most of the surface is smooth without visible atmospheric influence on the phase structure. The highest peak has a glassy texture. A smooth glassy layer, covering the base slag was formed at the end of technological process, when removing the cake from the hearth. The base slag was likely covered by glassy viscous slag during this step. The bottom surface was slightly ridged and was formed on the pit shaped

[5] Beck 1889–1903; Pleiner 1958; Pleiner 2000; Pleiner 2006.

Sl. 1: Vzorec 4; pogled od zgoraj.
Fig. 1: Sample 4; view from the top.



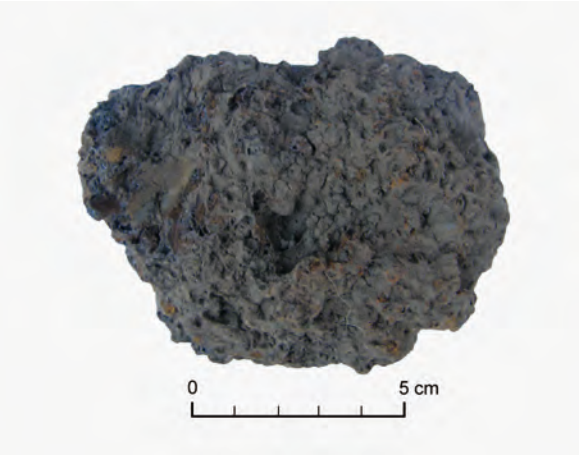
Sl. 4: Vzorec 7; spodnja stran žlindre.
Fig. 4: Sample 7; bottom view of slag.

Sl. 2: Vzorec 4; prerez po sredini vzorca.
Fig. 2: Sample 4; sample cross section.

Sl. 5: Vzorec 14; zgornja stran.
Fig. 5: Sample 14; upper side.

Sl. 3: Vzorec 7; zgornja stran.
Fig. 3: Sample 7; upper side.

Sl. 6: Vzorec 14 A; zgornja stran.
Fig. 6: Sample 14 A; upper side.



Sl. 7: Vzorec 14 A; spodnja stran.
Fig. 7: Sample 14 A; lower side.

Sl. 8: Vzorec 14 A; prerez.
Fig. 8: Sample 14 A; cross section.

rahlo hrapava in je nastajala na jamasto oblikovanem ognjišču, prekritim s pepelom in drobnimi ostanki goriva. Ima lepo konveksno obliko in je temno rjava s posameznimi rumenkasto rjavimi lisami (*sl. 7*).

Na prerezu čez sredino vzorca žlindre se vidi valovita površina in najvišji vrh s steklastim sijajem (*sl. 8*). Žlindra, ki je zelo porozna, ima dva sloja, vendar je stik med njima prekinjen z dvema večjima luknjama, dolgima 12 in 25 mm in širokima 5 do 6 mm. Porozni del žlindre okrog lukenj in nad njima leži na osnovnem tankem sloju debeline okrog 5 mm, nastalem na dnu ognjišča. Porozni del žlindre je steklast, zato se je med procesom zaradi plinov napihoval in obdržal tako obliko tudi po ohladitvi.

hearth, covered in ashes and fuel remains. It has a distinctive convex shape and dark brown colour with yellowish brown spots (*Fig. 7*).

At the cross section through the middle of a sample, a wavy surface can be observed together with the highest peak with a glassy texture (*Fig. 8*). The very porous slag has two layers where the contact between them is interrupted by two larger holes, 12 and 25 mm in length and 5 to 6 mm wide. The porous layer of the slag around the holes and above was placed on the 5 mm thin layer formed at the bottom of the hearth. The porous portion of the slag has a glassy structure was formed by exhaust fumes and retained its shape after cooling.

FAZNA SESTAVA ŽLINDRE

Za določanje fazne sestave žlindre smo uporabili optično mikroskopijo, vrstično elektronsko mikroskopijo (SEM) z detektorjem povratno slikanih elektronov (PSE), energijsko disperzijsko spektroskopijo rentgenskih žarkov (EDS) in rentgensko difraktometrijo (XRD).

Vzorec 4

Fazna sestava vzorca 4 je prikazana na *sl. 9*. Med wüstitom so večja področja s fajalitno sestavo in tudi steklasto fazo.[6] Na *sl. 10*, ki je detajl iz *sl. 9*, so vidne manjše pore v fajalitni sestavi žlindre. Temperature na ognjišču so bile nad tališčem fajalita, zato je lahko tekoča žlindra zapolnila prostor med zrni wüstita in jih povezala v bolj kompaktno obliko.

[6] Pleiner 2000; Pleiner 2006; Grassmann 2004; Selskiene 2007; Eekelers, Degryse, Muchez 2016.

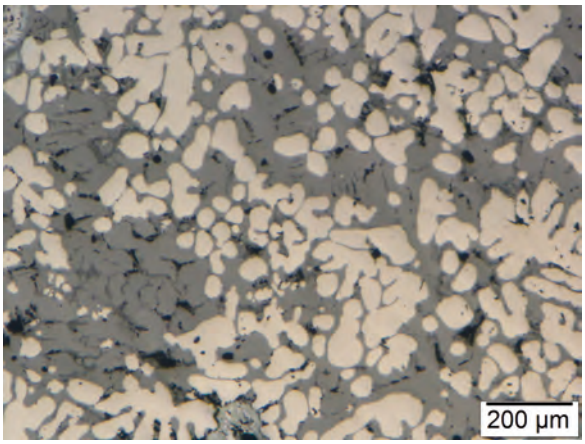
SLAG PHASE COMPOSITION

Phase analysis was conducted by means of optical microscopy, Scanning electron microscopy (SEM) with backscattered electron detector (BE), Energydispersive X-ray spectroscopy (EDS) and X-ray diffractometry (XRD).

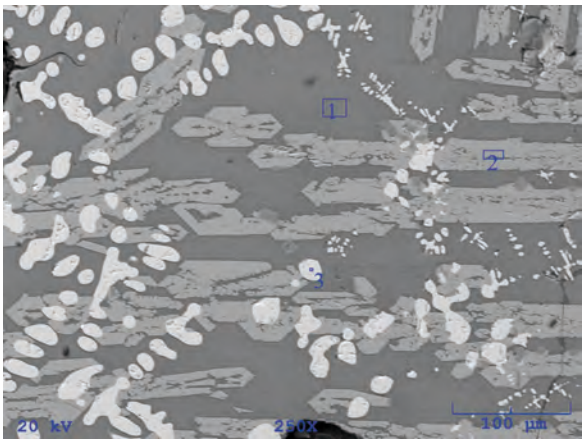
Sample 4

The phase composition of Sample 4 is shown in *Figure 9*. In-between wuestite there are large areas of fayalite and a glassy phase.[6] In *Figure 10*, which is a close up from *Figure 9*, small pores in the fayalite phase can be observed. The hearth temperatures were above the fayalite melting point, and liquid slag was able to fill the gaps between wuestite grains, forming a dense mixture.

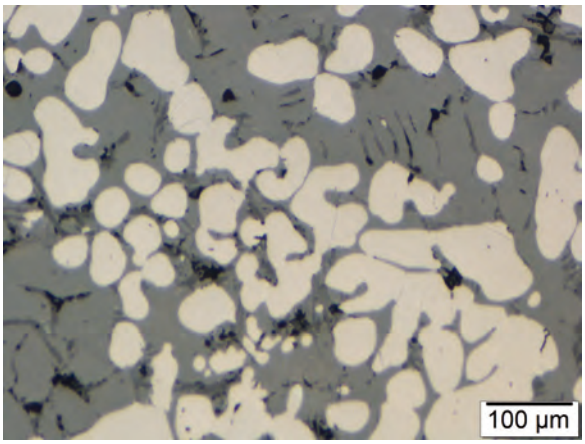
[6] Pleiner 2000; Pleiner 2006; Grassmann 2004; Selskiene 2007; Eekelers, Degryse, Muchez 2016.



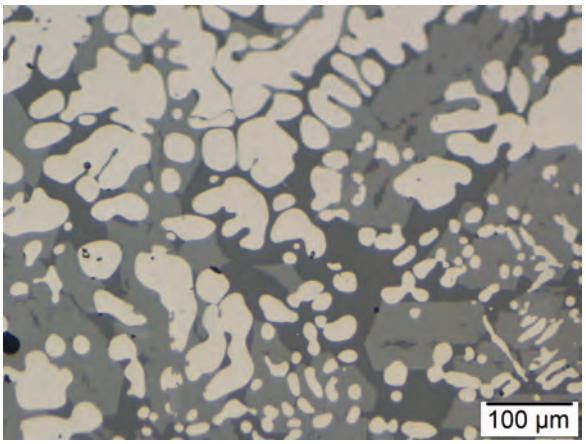
Sl. 9: Vzorec 4; wüstit (svetlo) in fajalit (sivo).
Fig. 9: Sample 4; wuestite (light) and fayalite (grey).



Sl. 11: Vzorec 7; steklasto strjena osnova (1), fajalit (2) in wüstit (3), (SEM).
Fig. 11: Sample 7; glassy solidified matrix (1), fayalite (2) and wuestite (3), (SEM).



Sl. 10: Vzorec 4; wüstit (svetlo), fajalit (sivo), pore in razpoke (temno).
Fig. 10: Sample 4; wuestite (light), fayalite (grey), pores and cracks (dark).



Sl. 12: Vzorec 7; wüstit (belo), fajalit, (svetlosivo), steklasta osnova (sivo).
Fig. 12: Sample 7; wuestite (white), fayalite (light grey), glassy groudmass (grey).

Vzorec 7

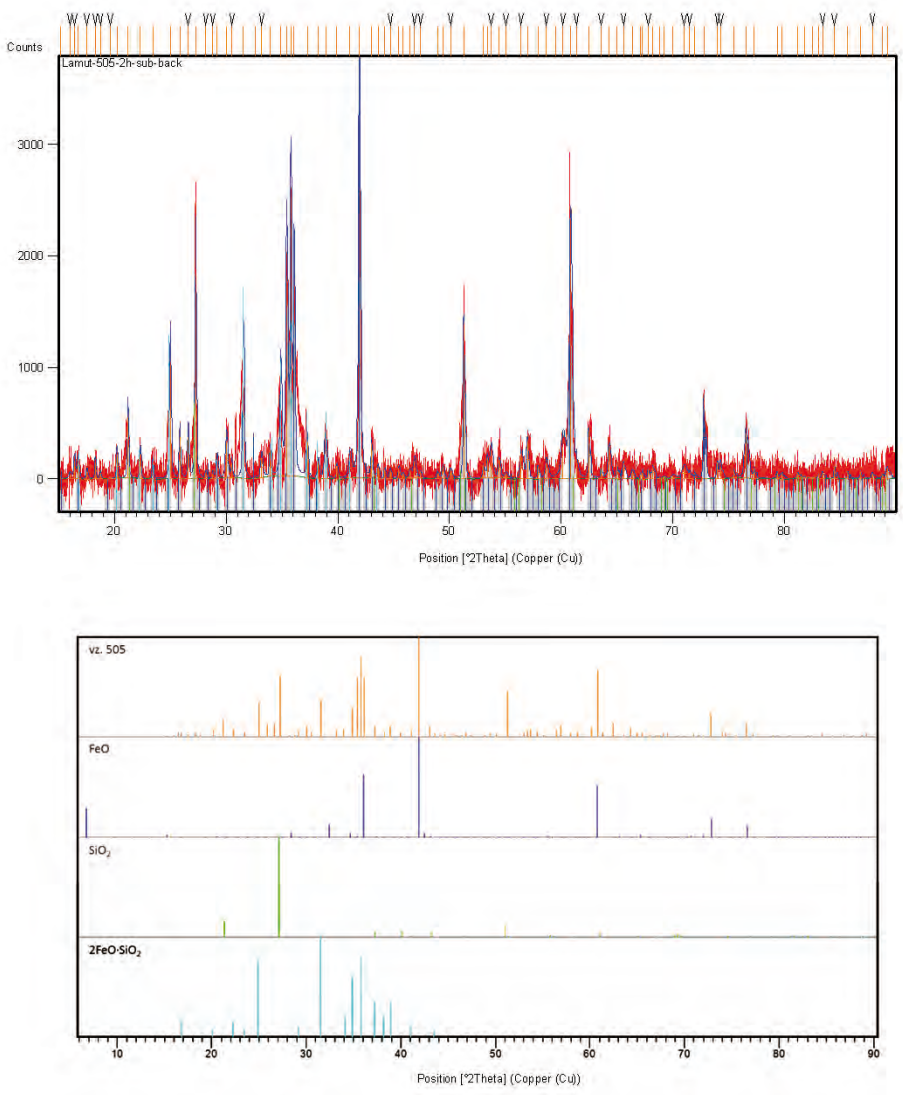
V osnovi, ki jo sestavljata fajalit in steklasto strjena faza, so primarno izločeni dendriti wüstita. Na *sl. 11* so s številkami označena analizirana mesta posameznih faz in sicer steklasto strjena osnova (1), fajalit v obliki lamel (2) in wüstit (3). Večina vzorcev žlindre vsebuje različne količine wüstita (FeO), fajalita ($2FeO.SiO_2$) in steklasto maso (*sl. 12*). Na *sl. 13* je rentgenogram žlindre vzorca 7. Posamezni vrhovi prikazujejo prisotnost wüstita, fajalita in kremena, ki je v steklasti fazi.

Sestava fajalita v mas. % je: FeO – 63,4, CaO – 3,8, MgO – 1,7, MnO – 0,6, SiO_2 – 29,3. Fajalit ($2FeO.SiO_2$) vsebuje še kalcijev in magnezijev oksid, ki v kristalni strukturi zamenjata dvovalentni železov oksid FeO.

Sample 7

In the matrix, composed of fayalite and an amorphously solidified phase, primary wuestite dendrites were formed. In *Figure 11* 1ocations where single phases were analysed are marked: amorphous solidified matrix (1), lamellar fayalite (2) and wuestite (3). Most slags samples contain variable amounts of wuestite (FeO), fayalite (2 $FeO.SiO_2$) and glassy groundmass (*Fig. 12*). X-ray diffraction data of Sample 7 are shown in *Figure 13*. Diffraction peaks confirm the presence of wuestite, fayalite and silica, which is bound in the glassy phase.

The fayalite composition in mass % is: 63.4-FeO, 3.8-CaO, 1.7-MgO, 0.6-MnO, 29.3-SiO_2. Fayalite ($2FeO{\cdot}SiO_2$) also contains calcium and magnesium oxides, which exchange ferrous oxide FeO in the crystal structure.



Sl. 13: Vzorec 7; rentgenogram žlindre.
Fig. 13: X-ray diagram of slag.

Najvišje tališče od prisotnih faz ima wüstit pri 1371° C. Fajalit 2FeO.SiO_2 ima tališče na 1205° C, toda prisotnost kalcijevega in magnezijevega oksida njegovo tališče znižuje, saj se njegova sestava premika v področje olivina,[7] katerega sestava je 2(FeO,CaO,MgO,MnO). SiO_2. Na *sl. 14* je EDS spekter fajalita (olivina).

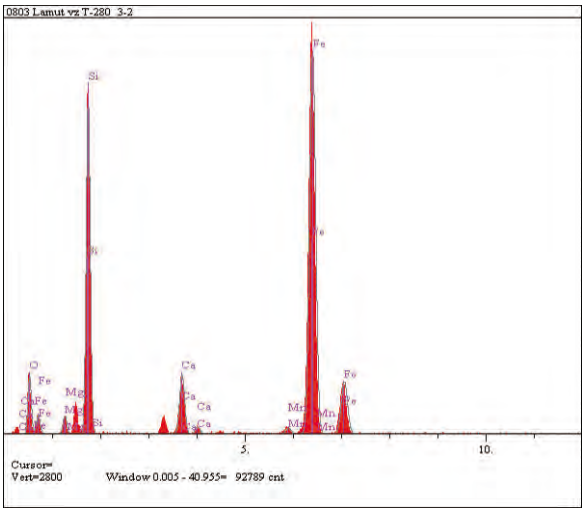
Najnižje tališče ima steklasta faza. Strdila se je zadnja in zapolnjuje prostore med wüstitom in fajalitom. Sestava steklaste faze v mas. % je: SiO_2 – 36,2, Al_2O_3 – 13,7, K_2O – 5,1, CaO – 14,2, FeO – 30,3. Iz podane sestave in likvidus ploskev diagramov K_2O - Al_2O_3 - SiO_2 in CaO - Al_2O_3 - SiO_2 - FeO ocenjujemo tališče steklaste faze na 1100 do 1150° C.

Among the phases present in the slag samples the highest melting point is that of wuestite with 1371°C. The melting point of fayalite is at 1205°C, which is further decreased by the presence of calcium and magnesium oxides which push its composition towards the olivine[7] phase with the formula 2(FeO,CaO,MgO,MnO)·SiO_2. The EDS spectrum of fayalite (olivine) is depicted in *Fig. 14.*

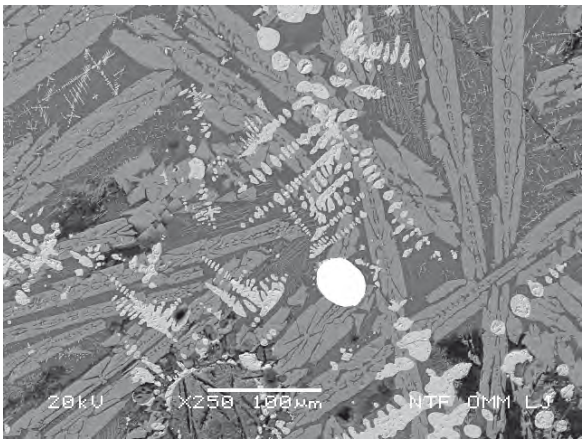
The glassy phase has the lowest melting point of all. It had solidified last and filled gaps between wuestite and fayalite. The glassy phase composition in mass % is: 36.2-SiO_2, 13.7-Al_2O_3, 5.1-K_2O, 14.2-CaO and 30.3-FeO. The melting point of the glassy phase based on the chemical composition and liquidus areas of ternary diagrams K_2O-Al_2O_3-SiO_2 and CaO-Al_2O_3-SiO_2-FeO is estimated to be between 1100°C and 1150°C.

[7] Trojer 1963; Allibert et al. 1995.

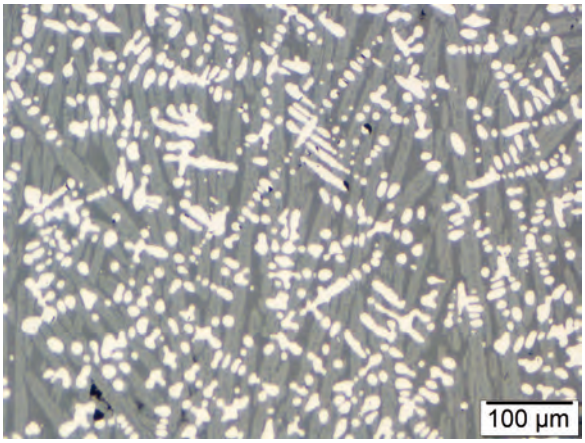
[7] Trojer 1963; Allibert et al. 1995.



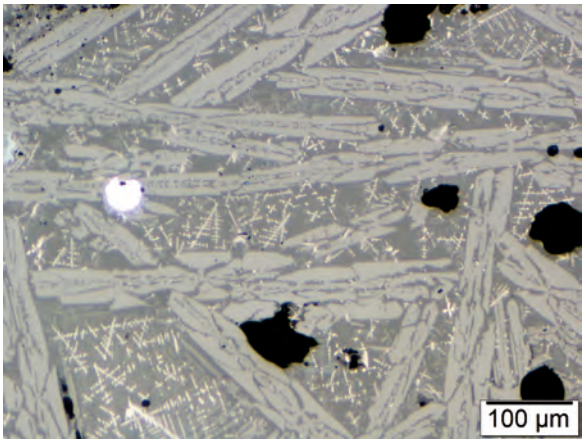
Sl. 14: Vzorec 7; EDS spekter fajalita.
Fig. 14: Sample 7; EDS spectrum of fayalite.



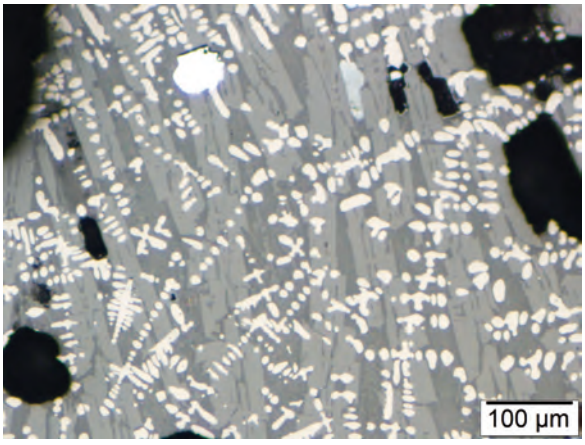
Sl. 17: Vzorec 14; granula železa, dendriti wüstita, fajalit v obliki lamel in steklasta faza (SEM).
Fig. 17: Sample 14; an iron granule, wuestite dendrites, lamellar fayalite and glassy phase (SEM).



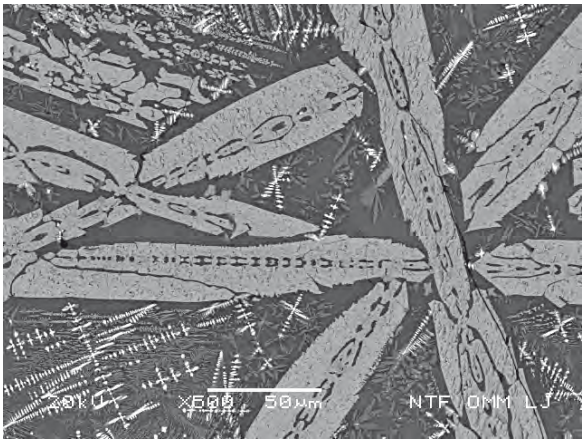
Sl. 15: Vzorec 14; dendriti wüstita; med lamelami fajalita je steklasta faza.
Fig. 15: Sample 14; wuestite dendrites; between the fayalite lamellae is a glassy phase.



Sl. 18: Vzorec 14 A; granula (kaplja) železa v žlindri z lamelami fajalita, steklasto fazo, dendriti wüstita in porami (temno).
Fig. 18: Sample 14 A; an iron granule (droplet) in slag with fayalite lamellae, glassy phase, wuestite dendrites and pores (dark).



Sl. 16: Vzorec 14; granula železa v wüstitno-fajalitni žlindri; pore so temne.
Fig. 16: Sample 14; an iron granule within the wuestite-fayalite slag; pores are dark.



Sl. 19: Lamele fajalita v steklasto strjeni osnovi z dendriti wüstita (SEM).
Fig. 19: Fayalite lamellae within the glassy solidified matrix with wuestite dendrites (SEM).

Vzorec 14

Na *sl. 15* je mikrostruktura vzorca 14 z dendriti wüstita, medtem ko tvorijo osnovo podolgovati, lamelam podobni kristali fajalita, med katerimi je steklasto strjena faza. Značilno za žlindro s fajalitno osnovo je, da jo ta povezuje v kompaktno obliko. Običajno vsebuje veliko plinskih por. Žlindra, ki vsebuje fajalit in tudi steklasto fazo, je zelo viskozna ter ovira izločanje plinov, ki nastajajo med gorenjem, najverjetneje lesnega oglja.

Plinski mehurčki so lahko nastali tudi med procesi rafinacije, če so jih izvajali na ognjišču. V taki viskozni žlindri so se zadržale tudi drobne granule (kapljice) železa (*sl. 16*).

Na SEM sliki vidimo lamele fajalita, večje dendrite wüstita in granulo (kapljo) železa, poleg tega so v steklasti fazi vidni še fini dendriti wüstita (*sl. 17*). Na njeni površini so vidni izrastki, nastali ob združevanju manjših kapljic z večjo.

Vzorec 14 A

Žlindra je zelo porozna, zato se razlikuje od ostalih bolj kompaktnih kosov. Na nekaterih mestih ima na površini steklast sijaj. Osnovo tvori steklasta faza, v njej je fajalit v obliki lamel in dendriti wüstita (*sl. 18*). Ti so nastali med ohlajanjem in strjevanjem žlindre. Na sliki vidimo tudi granulo (kapljo) železa ter posamezne pore (temno). Žlindra s prikazano fazno sestavo je zelo viskozna in zadržuje izhajanje plinov. Plinski mehurji povečujejo volumen ali pa povzročajo celo penjenje.[8] Po ohladitvi ostane žlindra porozna.

Dendrite wüstita, izločene v steklasti fazi med lamelami fajalita, vidimo tudi na SEM posnetku (*sl. 19*).

KOVINSKI BLOK IZ HIŠE 7

Med najdbami z Mosta na Soči je bil tudi močno zarjavel kovinski predmet. Označen je bil kot fragment železnega ingota (inv. št. 4405). Našli so ga v hiši 7, in sicer v eni od jam, ki jo je zapolnjevala požarna ruševina.[9]

Opis

Kovinski blok je pravokotne oblike z zaobljenimi robovi (45 x 38 x 70 mm) in maso 443 gramov. Na eni strani je bil od njega odluščen debel sloj rje.

Za uvodno metalografsko analizo smo na čelni strani odrezali tanjši kovinski sloj (rezino), obdan z rjo ali škajo (*sl. 20*). Kovinski blok so namreč našli v

[8] Schliephake et al. 1993; Koch et al. 1995.

[9] Svoljšak, Dular 2016, 75, t. 28: 14.

Sample 14

Figure 15 shows the microstructure of Sample 14 with wuestite dendrites within the base of lamellar fayalite crystals filled with the amorphous phase. Typically, slags with a fayalite base are bound into compact shape, but with numerous gaseous pores. Slags composed of fayalite and a glassy phase are extremely viscous which constrains the removal of exhaust fumes formed as charcoal combustion products.

Gaseous pores may also arise during the refining process if it took place at the hearth. In this viscous slag small granules or droplets of steel can be found (*Fig. 16*).

On the SEM micrograph lamellae of fayalite, dendritic wuestite, and an iron droplet are visible in the glassy matrix are also fine wuestite dendrites (*Fig. 17*). On its surface small outgrowths can be seen, formed when smaller droplets attached to a larger one.

Sample 14A

This slag is very porous, unlike other slag samples. In some places, a glassy texture can be observed. The glassy phase forms a matrix within lamellar fayalite and dendrites of wuestite can be observed (*Fig. 18*). The crystalline phases formed during cooling and solidification process. An iron droplet and pores (dark) can be seen in the figure. Slags with such a phase structure are very viscous and inhibit gas release. Gas bubbles can significantly increase the slag volume or even lead to foaming.[8] Once the slag is cooled down, it retains its porosity.

Precipitated wuestite dendrites in the glassy phase between the fayalite lamellae are depicted in SEM micrograph (*Fig. 19*).

METAL BLOCK FOUND IN HOUSE 7

Among the finds from Most na Soči, a heavily corroded metal block was found in House 7 among the burnt remains in a pit.[9] It was labelled as a fragment of a ferrous ingot with the inventory number 4405.

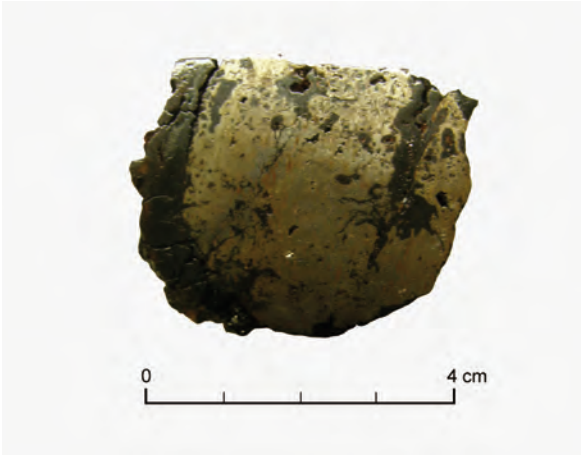
Description

The metal block has a rectangular shape with rounded edges (45 x 38 x 70 mm) and mass 443 grams. On one side a thick layer of rust was removed. For preliminary metallographic analysis, a thin slice was cut from the sample forehead, encased with rust or scale (*Fig. 20*). Since the metal block was found in burnt remains scale could be formed on the block surface. Due to long-term

[8] Schliephake et al. 1993; Koch et al. 1995.

[9] Svoljšak, Dular 2016, 75, t. 28: 14.

Sl. 20: Zarjavela površina kovinskega bloka. Na desni strani je vidno mesto odvzema vzorca za metalografsko analizo.
Fig. 20: Corroded surface of the metal block. On the right side is visible cut of sample for metallographic analysis.



Sl. 21: Makroposnetek prereza kovinskega bloka.
Fig. 21: Macrostructure of the metal block cross section.

požarni ruševini, zato je lahko na površini nastala tudi škaja. Zaradi dolgotrajnega vpliva vremenskih razmer in korozijskih procesov je površina bloka rjaste barve.

Makro- in mikrostruktura na preseku bloka

Na makroposnetku (*sl. 21*) je prikazana površina prereza kovinskega bloka v izmeri 30 x 35 mm. Na levi strani se vidi okrog 3 mm debela korozijska plast. Že na makroposnetku so v navidez homogeni kovinski osnovi vidni nekovinski vključki in manjše pore. Na desni strani zgoraj je viden začetek večjega nekovinskega vključka širine 2 do 3 mm, ki se razteza ter oži proti spodnjemu delu in se konča slab centimeter pred robom. Ta makro vključek je podoben špranji, napolnjeni z žlindro različne sestave in ostanki talil, ki so jih uporabljali med kovanjem in kovaškim varjenjem. Ob njem je večji okrogel nekovinski vključek.

Na malo širšem delu kovinskega bloka, ki meri 40 x 35 mm (*sl. 22*), je na desni strani zgoraj vidna ozka podolgovata špranja, ki ločuje ožji zgornji del od ostalega, na videz bolj kompaktnega dela. Špranja je delno zapolnjena z ostanki žlindre. Po vsem sodeč je nastala med kovanjem volka, ker se ni sprijel z osnovo med kovaškim varjenjem. Na stični površini je bilo preveč žlindre ali prenizka temperatura za dober kovaški zvar.

Na *sl. 22* so vidne tudi 4 luknje, nastale pri izdelavi ostružkov za kemično analizo. Izvrtane so bile na tistih mestih, kjer je bilo pričakovati pretežno kovinsko osnovo brez nekovinskih vključkov ali le malo teh. Pred kemično analizo smo ostružke separirali z magnetom. V *tab. 1* je navedena kemična analiza jekla na tem mestu.

Na nekaj naslednjih mikroposnetkih je prikazana raznolikost zgradbe kovinskega bloka. Najprej je pri-

environmental effects and corrosion processes, the block surface colour is rusty brown.

Macro and microstructure of the metal block cross section

In *Figure 21* the metal brick cross section (30 x 35 mm) is shown. On the left hand side, a 3 mm thick corrosion layer can be seen. In the picture, non-metallic inclusions and small pores are visible in the otherwise apparently homogeneous metal. On the upper right hand side, the beginning of a relatively large non-metallic inclusion, about 2 to 3 mm in size is present. The inclusion spreads towards the bottom, becoming thinner and ends 1 cm before the edge. This macro inclusion resembles a small cavity filled with several different slag compositions and other fluxes used during forging and forge-welding. Next to it, a circular non-metallic inclusion can be observed.

On the slightly wider section of the metal block, measuring 40 x 35 mm (*Fig. 22*), a thin long gap is present, separating the thinner upper part from what seems to be a homogeneous compact part. The gap is partly filled with slag remains, and it was most likely formed while lump forging, since it was not bound to the basis during forge welding. The contact surface must have contained excess slag or the forging temperature was not high enough for a proper forge weld.

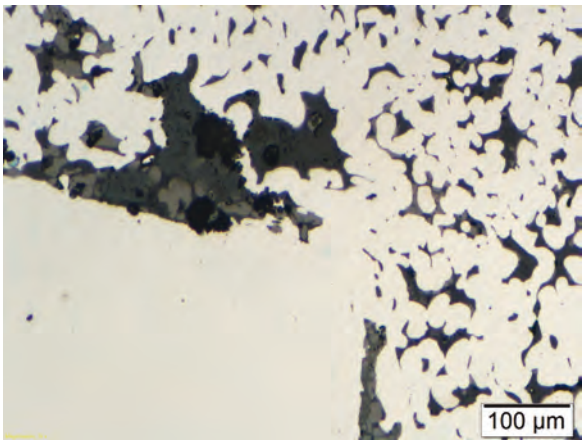
In *Figure 22* four holes produced during the extraction of metal chips for chemical analysis can be seen. They were drilled at places where only the metal phase was expected with no or limited amount of non-metallic inclusions. A magnet was used to separate the metal chips before chemical analysis. *Table 1* characterizes the chemical composition of steel at the points considered.

C	Si	Mn	P	S	Cu	Al	Cr	Ni	Fe
0,58	0,04	0,03	?	0,010	0,010	0,034	0,01	0,022	ostalo / other

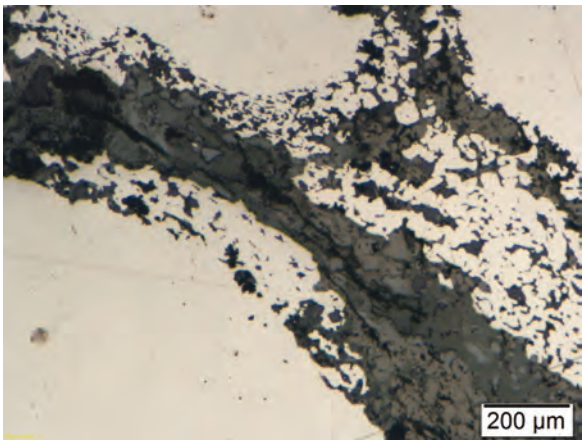
Tab. 1: Kemična analiza kovinskega bloka.
Tab. 1: Chemical analysis of the metal block.

←

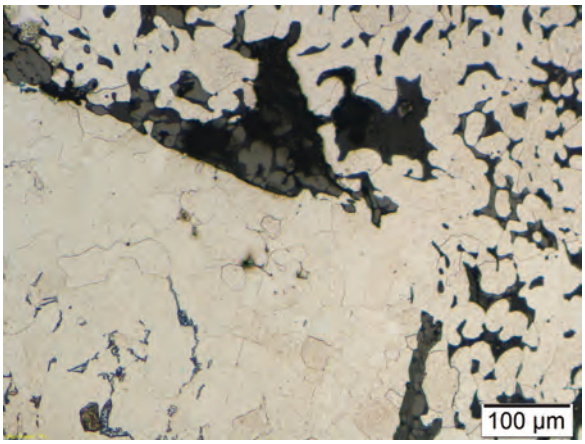
Sl. 22: Pozicije vrtin, nastale pri izdelavi vzorcev za kemično analizo.
Fig. 22: Position of the bores formed where samples for the chemical analysis of the metal block were taken.



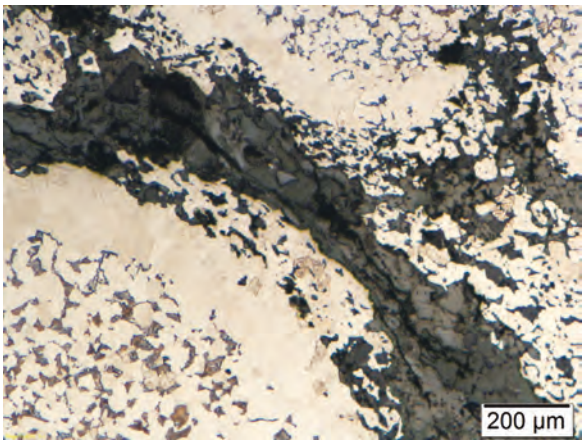
Sl. 23: Nejedkana mikrostruktura: železo (svetlo), žlindra kot nekovinski vključki (temno).
Fig. 23: Microstructure before etching: iron (light), slag as non-metallic inclusion (dark).



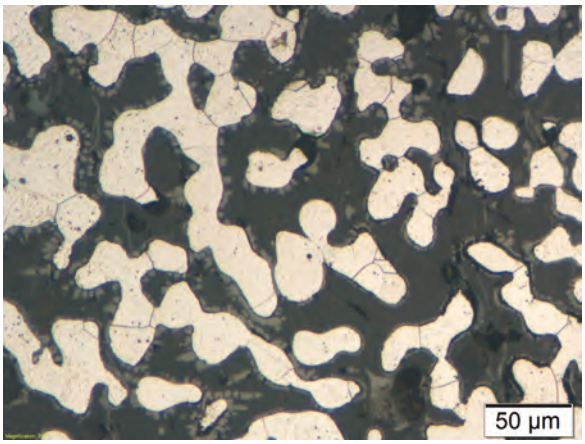
Sl. 25: Nejedkana mikrostruktura v in ob špranji.
Fig. 25: Microstructure before etching inside and next to the gap.



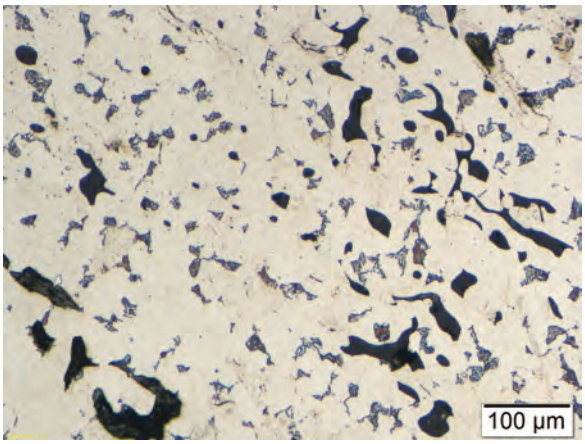
Sl. 24: Mikrostruktura po jedkanju: homogeni pas poligonalnih feritnih zrn (leva stran), ki se širi v heterogeno feritno-perlitno področje.
Fig. 24: Microstructure after etching: homogeneous band of ferrite (left), spreading into heterogeneous ferrite-pearlite matrix.



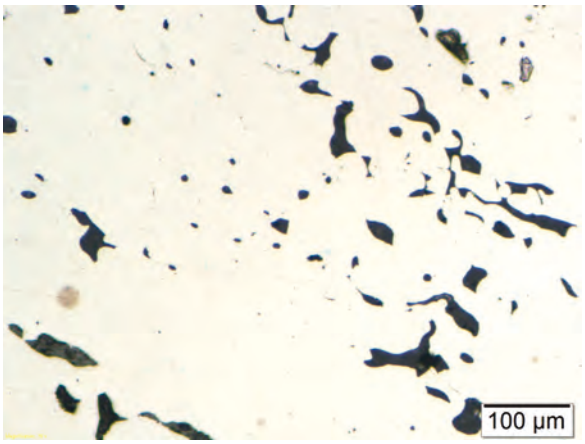
Sl. 26: Mikrostruktura vzorca po jedkanju.
Fig. 26: Sample microstructure after etching.



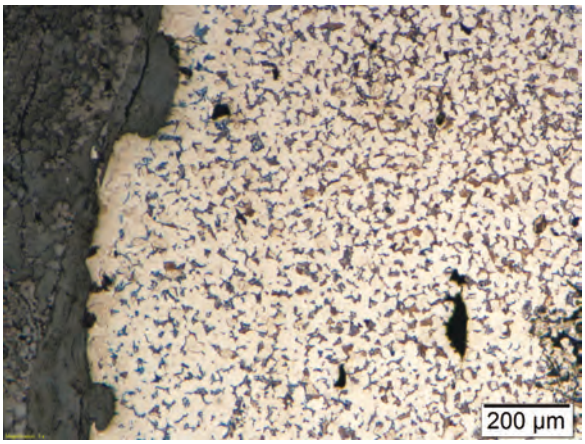
Sl. 27: Dvofazno področje železa (ferit) in žlindre.
Fig. 27: Two-phase area of the metal iron (ferrite) and slag.



Sl. 29: Železo je malo naogljičeno s feritno-perlitno mikrostrukturo. Vsebnost ogljika je okrog 0,10 mas. %.
Fig. 29: Low carbon iron with ferritic-pearlitic microstructure. The carbon content is around 0.10 mass %.



Sl. 28: V železu (svetlo) so številni vključki žlindre (temno).
Fig. 28: Iron (light) with numerous non-metallic inclusions slag (dark).



Sl. 30: Feritno-perlitna mikrostruktura z 0,24 do 0,28 mas. % ogljika.
Fig. 30: Ferritic-pearlitic microstructure with 0.24 to 0.28 mass % of carbon.

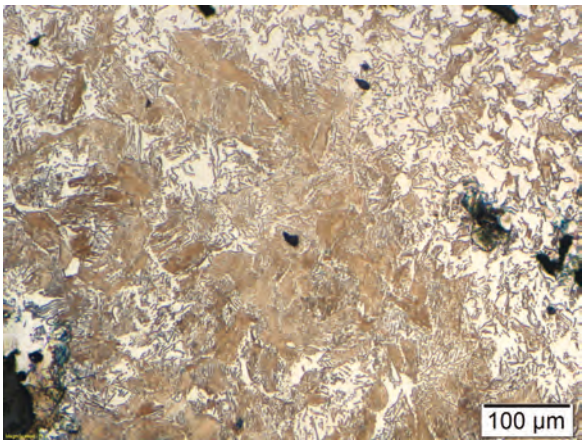
kazan posnetek polirane površine, nato pa približno na istem mestu še stanje po jedkanju z nitalom.

Na *sl. 23* na desni strani in zgoraj je izrazito nekompaktno področje, ki ga sestavljata železo in žlindra. Na spodnji levi strani je homogeno feritno področje, ki po jedkanju (*sl. 24*) potrdi enofazni značaj. Ostalo kovinsko področje pokaže po jedkanju izrazit heterogeni značaj s prisotnostjo ferita in perlita, kar pomeni, da vsebuje zadosten delež ogljika, zaradi česar je prišlo do takšnega razvoja mikrostrukture.

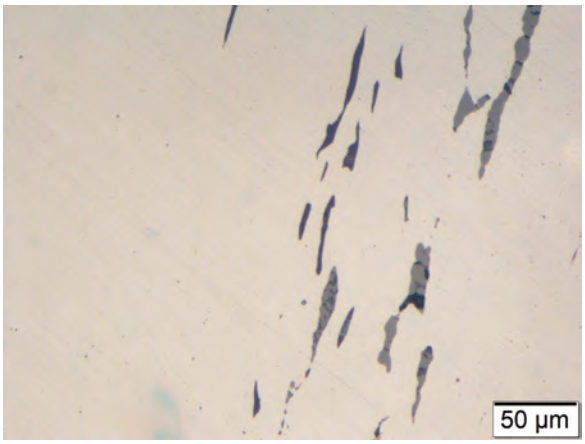
Naslednji mikroposnetek je narejen na stičišču med dvema kovinskima področjema. Špranja, nastala na tem stičišču, je napolnjena z žlindro in korozijskimi produkti (*sl. 25*). V špranji je poleg žlindre še dvofazno področje železa in žlindre (gobasto železo). Ob špranji je ozek pas homogenega ferita (*sl. 26*). Takšen vrstni red mikrostrukturnih sestavin kaže na to, da je špranja

Further images are showing the diversity of the composition of the metal block. First, the polished surface is presented, followed by an image of roughly the same area after etching with nital. In *Figure 23* on the right hand side and upwards, a very inhomogeneous area is visible, composed of iron and slag. The left bottom side consists of a homogeneous ferritic area, which after etching reveals a single-phase character (*Fig. 24*). After etching, the rest of the metal block shows a distinct heterogeneous character with the presence of ferrite and pearlite, which could indicate that carbon content was high enough to support the development of such microstructure.

Next images of the microstructure are taken at the contact point of two metal areas. The gap formed at the contact point is filled with slag and corrosion products (*Fig. 25*). In the gap is beside the slag also a



Sl. 31: Mikroposnetek jedkanega vzorca, ki kaže izrazito povečano koncentracijo ogljika (0,53 mas. %) in s tem na visok delež perlita.
Fig. 31: Microscopic image of etching sample shows highly increased carbon concentration (0.53 mass %) resulting into higher share of pearlite.



Sl. 32: Vključki žlindre so usmerjeni v smeri širjenja železa med kovanjem.
Fig. 32: The slag inclusions are elongated into the direction of iron spreading during forging.

verjetno nastala pri kovanju. Med segrevanjem in kovanjem je potekalo razogljičenje ožjega pasu železa ob špranji, kar je vodilo v nastanek homogenega feritnega področja (*sl. 26*). V železu, ki meji na žlindro, je feritna mikrostruktura. Homogeni del je naogljičen in vsebuje okrog 0,22 mas. % ogljika. Na mejah feritnih zrn je perlit.

V kovinskem bloku so tudi dvofazna področja kovinskega železa in žlindre. Takšna oblika je podobna strukturi gobe, zato govorimo o gobastem železu (*sl. 27*). Prehodna struktura nastaja med redukcijo železove rude v temperaturnem območju okrog 1100 do 1200° C, ko se reducirano železo združuje v homogeno celoto. V žlindri, ki zapolnjuje prostor med kovinskim železom s feritno mikrostrukturo, so drobni okrogli kristali wüstita (FeO) v steklasto strjeni osnovi.

V na videz homogenem železu je veliko nekovinskih vključkov (*sl. 28*). Po jedkanju z nitalom vidimo, da vsebuje tudi to železo malo ogljika, saj ima feritno-perlitno mikrostrukturo (*sl. 29*). Jeklo s številnimi nekovinskimi vključki vsebuje okrog 0,10 mas. % ogljika.

Na nekaterih mestih v kovinskem bloku (*sl. 30*) je vsebnost perlita v feritni osnovi od 30 do 35 % (0,24 do 0,28 mas. % ogljika). Na drugih mestih prevladuje perlit, kar pomeni, da je železo naogljičeno na okrog 0,53 mas. % ogljika (*sl. 31*). To potrjuje izrazito kemijsko heterogenost artefakta od praktično čistega železa do podevtektoidnega jekla z vključki žlindre.

two phase area of iron and slag (sponge iron). Considering the sequence of microstructural components, the gap may have occurred during forging. During heating and forging, decarburization of the thin layer around the gap occurred which resulted in the formation of a homogeneous ferritic area (*Fig. 26*). Iron facing the slag has a ferritic microstructure, and the homogeneous area contains about 0.22 mass % of carbon. At ferritic grain boundaries, pearlite is observed.

In the metal block, the presence of a two-phase area of iron and slag can be observed. Its structure resembles a sponge and is typically called sponge iron (*Fig. 27*). This transitional structure is formed during the reduction proces of iron ore in the temperature window between 1100°C and 1200°C, when reduced iron is converging into a homogeneous form. Slag filling the space around metallic iron with ferritic microstructure contains tiny circular crystals of wuestite (FeO) in a glassy solidified matrix.

Apparently, homogeneous iron in fact contains numerous non-metallic inclusions (*Fig. 28*). Low carbon content is revealed after etching, since the microstructure consists of ferritic-pearlitic phases (*Fig. 29*). The steel with numerous non-metallic inclusions contains around 0.1 mass % of carbon.

In particular areas of the metal block (*Fig. 30*) the content of pearlite in the ferritic matrix is about 30 to 35% (0.24 to 0.28 mass % of carbon) while in others the pearlitic phase prevails, which consequently means that the carbon content is around 0.53 mass % (*Fig. 31*). The chemical composition is therefore highly inhomogeneous and ranges from pure iron to hypoeutectoide steel with slag inclusions.

Kovanje

Manjši vzorec, odrezan od kovinskega bloka, smo segreli na temperaturo plastičnega preoblikovanja in ga s kovanjem deformirali v kvadrat 3 x 3 mm in v ploščato obliko debeline 1,5 mm. Med kovanjem se je iztisnilo nekaj žlindre, ostala se je skupno z jeklom preoblikovala v podolgovate vključke (*sl. 32*). S tem poskusom smo potrdili, da jeklo v kovinskem bloku lahko preoblikujemo tudi v zelo tanke profile.

SKLEP

Žlindro, ki je vmesni (stranski) produkt pri današnji proizvodnji jekla, delimo na dve glavni skupini, plavžno in jeklarsko. Plavžna nastaja pri proizvodnji grodlja med redukcijo železove rude v plavžu, jeklarska pa med proizvodnjo jekla v kisikovem konvertorju ali električni obločni peči ter med sekundarno rafinacijo. Grodelj, jeklo in žlindra so med procesom v tekočem stanju.

Pridobivanja železa in jekla v davni preteklosti je potekalo z direktno redukcijo železove rude pri temperaturah okrog 1200° C v enostavnih metalurških reaktorjih.[10] Reducirano železo pomešano z žlindro se je v obliki grude (volk) kopičilo na dnu enostavnih redukcijskih peči. Reducirano železo je bilo v trdnem (testastem) stanju, žlindra pa praviloma tekoča. Temperature redukcije so bile precej nižje od tališča železa (1538° C). Železo je lahko bilo brez ogljika (tehniško čisto železo) ali pa je vsebovalo različne količine ogljika in postalo jeklo.

Vročega volka (grudo železa in žlindre) so morali prekovati, da so iz njega iztisnili žlindro in dobili čim bolj homogen material, sposoben nadaljnjega vročega ali celo hladnega preoblikovanja. Kovali so ga v različne profile: kvadratni, pravokotni in okrogli.[11] Kovači so iz teh polproduktov izdelovali različne predmete. Za izdelke narejene iz volka je značilno, da vsebujejo okoli 3 mas. % žlindre v obliki nekovinskih vključkov.[12]

Med segrevanjem železa (jekla) nastaja na njegovi površini škaja. Z dodatkom kremena ali materialov, ki vsebujejo silicijev dioksid, so škajo (FeO) prevedli v fajalit ($2FeO.SiO_2$), ki ima nižje tališče od wüstita. Fajalit je zaviral oksidacijo železa in ga je bilo med kovanjem lažje odstraniti s površine.

Na sestavo žlindre, ki nastaja na kovaškem ognjišču, vplivajo wüstit, fajalit, pepel goriva, ognjevzdržno gradivo (glina) in dodana talila za tvorbo žlindre. Na njeno sestavo so vplivali tudi vključki žlindre v železu,

[10] Johannsen 1954; Olsen, Schürmann 1954; Schürmann 1958; Tylecote, Austin, Wrath 1971; Tylecote 1992; Koch, Janke 1992;

[11] Šorn 1984.

[12] Božić 1973.

Forging

A small specimen was cut from the metal block. It was heated to the temperature of plastic forming and forged into a 1.5 mm thick and 3 x 3 mm square sheet. While forming, some slag was extruded out and the rest was deformed into elongated inclusions (*Fig. 32*). This test confirmed that the steel from the metal block can be deformed into thin profiles.

CONCLUSIONS

In today's steel production slags known as by products can be classified into two main groups: blast furnace slags and steel slags. Blast furnace slags are formed during iron ore reduction when pig iron is produced in a blast furnace and steel slags are formed while making steel in an oxygen converter, electrical arc furnace or during secondary refining. Pig iron, steel and slag are all liquid during processing.

Production of iron and steel in ancient history was performed by a direct reduction of iron ore at temperatures around 1200°C in simple metallurgical reactors.[10] Reduced iron mixed with slag was formed into clads of lump (bloomery iron) which accumulated at the bottom of these basic reduction reactors. The reduced iron was in a solid or semi solid state whereas slag was normally in liquid state. The reduction temperature was quite under the melting point of iron (1538°C). Iron can be without carbon (technically clean iron) or it contained different amount of carbon and became steel.

A hot lump had to be forged in order to remove the slag and to obtain a more homogeneous material capable of further hot or even cold forming. Lumps were generally forged into several profiles: square, rectangle and circular shape.[11] From these semi products, smiths were able to produce different objects. Products made from bloomery iron (wrought iron) typically contain 3 mas.% of slag in form of non-metallic inclusion.[12]

During heating, scale was inevitably formed on the iron surface. Adding silica or materials containing silicon dioxide, the iron scale (FeO) resulted in the formation of fayalite ($2FeO{\cdot}SiO_2$), which has a lower melting point than wuestite. Fayalite hindered further iron oxidation and was easily removed from the surface during later forging.

The slag piling up in the smiths hearth was formed from wuestite, fayalite, fuel ashes, refractory material (clay) and fluxes added for forming of slag. Its composi-

[10] Johannsen 1954; Olsen, Schürmann 1954; Schürmann 1958; Tylecote, Austin, Wrath 1971; Tylecote 1992; Koch, Janke 1992;

[11] Šorn 1984.

[12] Božić 1973.

dobljenem iz volka. Oblika žlindre je odvisna od velikosti ognjišča in dovoda zraka za zgorevanje. Premer vzorcev je obsegal okrog 100 mm, masa pa od 160 do 300 gramov.

Večina vzorcev žlindre ima na tisti strani, ki je nastala na ognjišču, konveksno obliko. Večje razlike so na zgornji površini. Pri posameznih vzorcih je zgornja stran ravna, le na nekaterih mestih proti sredini je lahko malo udrta, tako da opazimo konkavno obliko. Različni zaobljeni ali koničasti vrhovi so nastali potem, ko je viskozna žlindra počasi kapljala ali v tankih curkih tekla in se razlivala po površini že nastale osnove.

V kovinskem bloku (blum bar, block, vorblock) so področja železa s feritno mikrostrukturo in številnimi nekovinskimi vključki primarne žlindre. Prav tako so področja z različno vsebnostjo ogljika in dvema mikrostrukturnima sestavinama ferita in perlita. Dvofazni perlit (ferit + cementit)[13] prispeva k povečanju trdnosti in obrabne obstojnosti jekla. Vsebnost ogljika na posameznih mestih je od 0,2 do 0,53 ali celo 0,58 mas. %. Jeklo s tako sestavo mikrostrukture je primerno za izdelavo različnih predmetov in orodij (nož, sekira, srp, kosa) ter različnega orožja. Špranja v kovinskem bloku je napolnjena z žlindro različne sestave in talili, ki so jih uporabljali na ognjišču med vročim kovanjem. Na nekaterih mestih so tudi heterogena feritna področja železa in žlindre.

Na podlagi opisane raznolike sestave kovinskega bloka lahko domnevamo, da je bil skovan iz volka. Ker izkopavanja niso odkrila sledov, da bi v naselju reducirali železovo rudo in pridobivali volka, je bil kovinski blok najverjetneje narejen drugje. Možno je tudi, da so v naselje prinesli volka in nato iz njega kovali polizdelke ter z njimi trgovali.

[13] Spaić 2000.

tion was also affected by the slag inclusions in the iron obtained from bloomer iron. The slag microstructure was conditioned by the hearth size and combustion air availability. The sample diameter was about 100 mm and weighted from 160 to 300 grams.

Most samples found were convex in shape on the side that formed facing the hearth and more diverse on the upper side. Some samples were straight at the upper side and some were slightly bowed down forming a concave shape. Round or sharp peaks were formed when a viscous slag slowly dripped or poured in thin jets on the previously formed slag basis.

In the metal block, there are areas with iron, containing a ferritic microstructure mixed with numerous non-metallic inclusions of the primary slag. On the other hand, there are also areas including different carbon content forming two characteristic microstructures of ferrite and pearlite. Pearlite made from two phases (ferrite and cementite)[13] contributes to a higher tensile strength and increased wear resistance of steel. The carbon content varies in distinctive areas from 0.2 to as high as 0.58 mass %. Steel having such microstructure is suitable for production of many tools such as knives, axes, sickles, scythes and weapon. A gap in metallic block was filled with slag of varying composition and with fluxes used at hearth during hot forging. Some sample parts also contain heterogeneous ferritic areas of iron and slag.

Based on the described composition of the metal block, it is assumed that it was forged from a lump. Since archaeological excavations found no indications that the iron ore reduction had taken place in the area, the metallic block must have been produced elsewhere. Another possible explanation would be that the lump was brought to the place for further processing into semi-products used as a trading goods.

[13] Spaić 2000.

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PETROLOŠKE ANALIZE IN PROVENIENCA KAMNITIH ARTEFAKTOV IZ ŽELEZNODOBNE NASELBINE MOST NA SOČI

PETROLOGY AND PROVENANCE OF THE RAW MATERIAL OF STONE ARTEFACTS FROM THE MOST NA SOČI IRON AGE SETTLEMENT

Aleksander HORVAT

UVOD

Izvor in izbor surovin za kamnite arheološke artefakte sta osnova za razumevanje socialne strukture prazgodovinskih družb. Rekonstrukcija oskrbe s surovinami prinaša pomembne informacije o socio-ekonomskem okviru, vzorcih mobilnosti, pa tudi tehnični, simbolni in kulturni usmeritvi družbe (Pradeau et al. 2016). Študije provenience surovinskega materiala so se izkazale za uporabno orodje pri razumevanju interakcij človeka z okoljem in drugimi skupnostmi ter za približke obsega pričakovanih interakcij omrežja kot del preživetja in družbenega procesa (Féblot-Augustins 2009). Petrološka analiza surovinskega materiala, uporabljenega za kamnite artefakte, in določitev njegove provenience igrata pomembno vlogo pri ugotavljanju proizvodnih, trgovinskih in distribucijskih sistemov v preteklosti. Analize kamnitih artefaktov nas pogosto lahko pripeljejo do virov surovin. V splošnem je določena vrsta kamnine izbrana za proizvodnjo točno določenega orodja, kar kaže na prednost, ki leži v izboru kakovosti materialov in raznih drugih povezanih tehnoloških lastnosti, kot so trpežnost, trdota, odpornost proti abraziji orodij ali možnost kontrolirane proizvodnje surovin v kamnolomih. Včasih pa izbor določene surovine leži onkraj funkcionalne zahteve, kar kaže na upoštevanje tradicije pri proizvodnih procesih. Hkrati lahko izbor točno določene surovine za določeno vrsto orodja daje prednost ne-lokalnim surovinam. To pa lahko posledično pomeni kompleksnejši sistem naročil in distribucije. Razkrivanje teh sistemov lahko dosežemo zgolj z zanesljivo petrološko analizo in analizo provenience uporabljenih surovin (Wefers, Gluhak 2016).

Pri izkopavanjih prazgodovinskega najdišča Most na Soči je bila najdena sorazmerno velika količina kam-

INTRODUCTION

The provenance and selection of raw material are key features for the understanding of the social structure of prehistoric societies. The reconstruction of raw material supply strategies yields information on the socio-economic framework and mobility patterns, as well as technical, symbolic, and cultural orientations (Pradeau et al. 2016). Raw material provenance studies have proved useful for investigation of the way people interact with their environment and other human communities and proxies for the extent of interaction networks expected as a part of survival and social process (Féblot-Augustins 2009). The petrological characterization of raw materials used for stone tools together with the determination of their provenance plays a significant role in promoting our understanding of production, trade and distribution systems in the past. The analyses of stone artefacts often have the potential to lead us to their raw material sources. In general, specific rock types are chosen to produce certain tools, reflecting a preference in the quality of the materials and various other technological-related characteristics, such as durability, hardness, resistance to abrasion of the tools, or the possibility of a controlled raw material extraction in the quarry. Sometimes, however, the selection of a certain raw material lies beyond the functional requirement, which indicates traditions for their manufacture. Furthermore, the specific raw material selection for specific tool types often means favouring non-local raw material, which consequently implies complex procurement and distribution systems. The untangling of these systems can only be achieved by reliable petrological provenance analyses of the raw materials used (Wefers, Gluhak 2016).

Tab. 1: Kvantitativna tipološka in petrološka sestava kamnitih artefaktov iz železnodobne naselbine Most na Soči.
Tab. 1: Quantitative typological and petrological composition of stone artefacts from the Most na Soči Iron Age settlement.

Tipologija / Typology Petrologija / Petrology	žrmlje / querns	brusni kamni / whetstones	kalupi / moulds	kamnite krogle / stone-balls	uteži / weights	skupaj / total	
kremenov konglomerat/ quartz conglomerate	39			1		40	52 %
kremenov peščenjak/ quartz sandstone	7				1	8	10 %
flišni peščenjak/ flysch sandstone		14	5			19	25 %
flišni laporovec/ flysch marl		4	1			5	6 %
flišni muljevec/ flysch mudstone		2				2	3 %
trahit/ trachyte				2		2	3 %
kalkarenit/ calcarenite				1		1	1 %
skupaj / total	46	20	6	4	1	n = 77	100 %

nitih artefaktov. V prispevku je predstavljena petrološka determinacija dokumentiranih kamnitih artefaktov in določeno potencialno izvorno območje surovinskega materiala. Z interpretacijo teh podatkov bomo skušali podati razlago proizvodnih, trgovinskih in distribucijskih sistemov prazgodovinske družbe.

METODE

Makroskopsko smo petrološko analizirali 77 kamnitih artefaktov različne tipologije (žrmlje, brusni kamni in koluti, kalupi, kamnite krogle in uteži) iz stalne postavitve in depojev v Goriškem in Tolminskem muzeju. Glede na regionalno razširjenost ugotovljenih litoloških tipov kamnin smo ocenili najbližje potencialno izvorno območje uporabljenega surovinskega materiala.

Tipološko klasifikacijo kamnitih artefaktov in oznake kontekstov smo povzeli po Svoljšak in Dular (2016).

REZULTATI

Rezultati petroloških analiz kamnitih artefaktov, stratigrafski položaj surovinskega materiala in razdalja do najbližjega izvornega območja so podani v *tabeli 2*.

Najpogosteje uporabljena surovina za izdelavo kamnitih artefaktov so zgornjepaleozojski klastiti (kremenov konglomerat in kremenov peščenjak). Sledijo različni tipi zgornjekrednih flišnih kamnin, redko pa se kot surovina pojavljata trahit in kalkarenit (*sl. 1B; tab. 1, 2*).

At the Most na Soči prehistoric site stone artefacts are quite common finds. The purpose of the paper is to analyse petrological composition and potential raw material provenance of stone artefacts to answer about the stone tools production management, trade and distribution systems, and interaction social processes.

METHODS

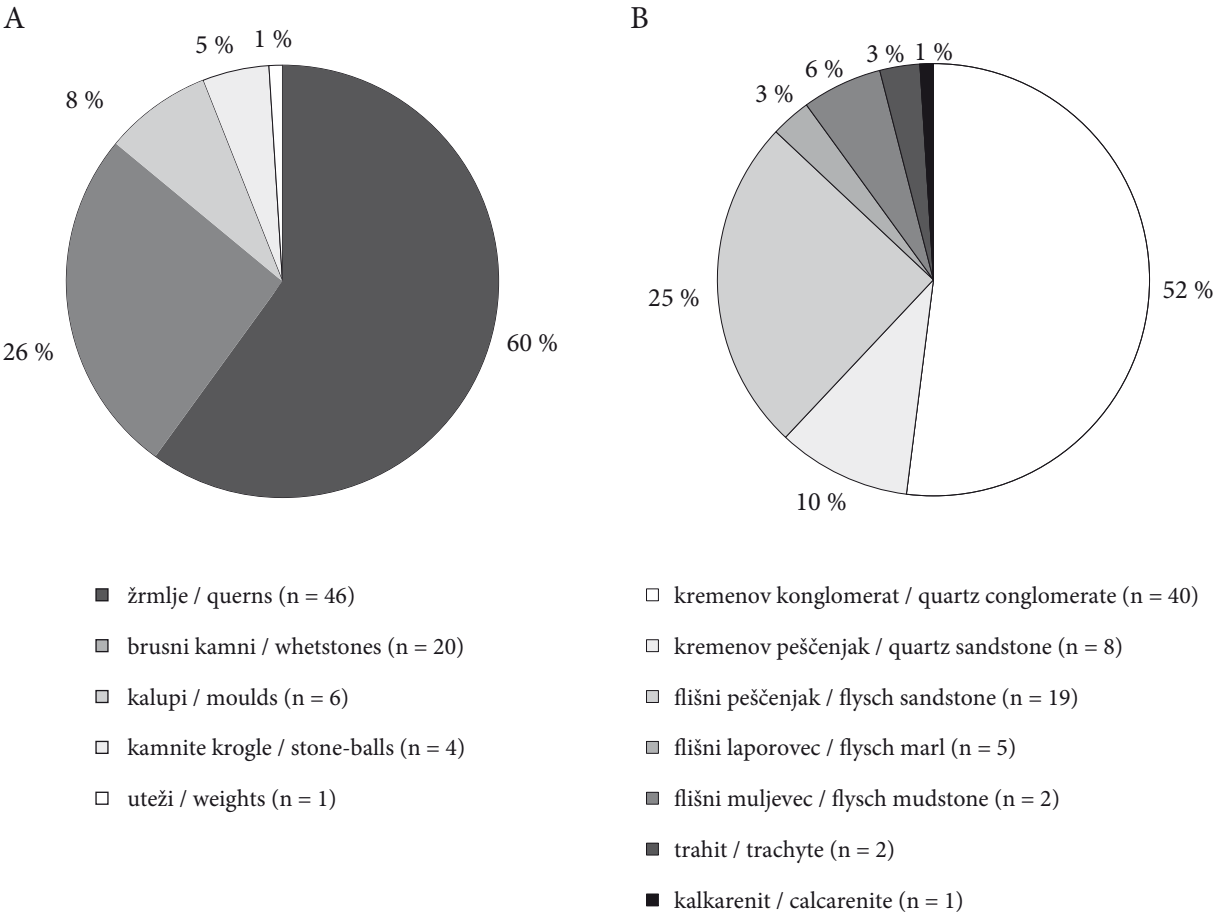
All stone artefacts from the exhibition and depot from Goriški muzej and Tolminski muzej were included in the study. Altogether, 77 stone artefacts of different typology (querns, whetstones and grinding wheels, moulds, stone pestles, stone-balls, and weights) were analysed. For petrological determination, only macroscopic petrological analysis was performed. According to the knowledge of regional geology, the assessment of the nearest raw material source was provided.

The typological classification of artefacts and also their contexts used in the article is summarized according to the work of Svoljšak and Dular (2016).

RESULTS

The whole petrological description of stone artefacts' raw material, stratigraphic provenance, and distance to the nearest source are given in *Table 2*.

The most commonly used stone artefacts raw material was Upper Paleozoic clastics (quartz conglomerate and quartz sandstone). Often used raw material was also different types of flysch rocks, rarely used raw material were trachyte and calcarenite *(Fig. 1B; Tabs. 1, 2*).



Sl. 1: Kvantitativna tipološka (*A*) in petrološka sestava (*B*) kamnitih artefaktov iz železnodobne naselbine Most na Soči.
Fig. 1: Quantitative typological (*A*) and petrological composition (*B*) of stone artefacts from the Most na Soči Iron Age settlement.

Večina, 60 % vseh artefaktov, pripada žrmljam (*tab. 1; sl. 1A*). Petrološka sestava vseh preiskanih žrmelj je podobna (glej npr. Svoljšak, Dular 2016, sl. 113, 120, 128 in tu Dular, Tecco Hvala, sl. 64). Surovinski material sta kremenov konglomerat (85 %) in kremenov peščenjak (15 %). Glede na vrsto veziva in klastov lahko ločimo tri vrste kremenovih konglomeratov (*tab. 2*), podobno kot je pokazala že prejšnja študija (Horvat, Župančič 1987):

1. srednje- do debelozrnat kremenov konglomerat s sljudnato peščenim vezivom;

2. drobno- do debelozrnat kremenov konglomerat s kremenovim peščenim vezivom;

3. drobno- do debelozrnat kremenov konglomerat s kalcitnim vezivom.

V prvo skupino smo uvrstili konglomerate z belimi in sivimi klasti kremena, lidita in redkimi klasti hematita, ki običajno rdeče obarvajo vzorec s sljudnato peščenim vezivom. V drugo skupino smo uvrstili vzorce z belimi in sivimi klasti kremena, redkimi klasti lidita in peščenim kremenovim vezivom. V tretjo skupino smo uvrstili vzorce s kalcitnim cementom.

The majority (60%) of all artefacts belong to querns (*Tab. 1; Fig. 1A*). Their petrological composition is unique (see e.g. Svoljšak, Dular 2016, Figs. 113, 120, 128 and here Dular, Tecco Hvala, Fig. 64). All are made from quartz conglomerate (85%) and quartz sandstones (15%). As was established in a previous study (Horvat, Župančič 1987), three types of quartz conglomerate can be distinguished according to clast and matrix type (*Tab. 2*):

1. medium- to coarse-grained quartz conglomerate with micaceous-sandy matrix;

2. fine- to medium-grained quartz conglomerate with quartz sandy matrix;

3. fine- to medium-grained quartz conglomerate with calcite cement.

The first group represents conglomerates with clasts of white and grey quartz, lydite, and rare clasts of hematite, which usually give a reddish colour to the sample and a characteristic sandy matrix with mica. In the second group, samples with white and grey quartz clasts and rare lydite clasts and sandy quartz matrix were

Žrmlje iz peščenjaka sestavljajo srednje-zrnati sivkasti do rjavkasti kremenovi peščenjaki s kremenovim vezivom, kar je bilo ugotovljeno že v predhodni študiji (Horvat, Župančič 1987).

Surovino za brusne kamne predstavljajo izključno različki flišnih kamnin (*tab. 1, 2; sl. 1B* in tu Dular, Tecco Hvala, sl. 71). Najpogosteje uporabljena surovina so sivi do rjavkasti flišni peščenjaki (70 %), redkeje sivi in rdeči flišni muljevci (10 %) in laporji (20 %).

Podobno velja za kalupe (*tab. 1, 2* in tu Dular, Tecco Hvala, sl. 69). Tudi ti so narejeni izključno iz flišnih peščenjakov (83 %) in laporovcev.

Večja raznolikost uporabljenih kamnin je opazna pri kamnitih kroglah. Petdeset odstotkov teh je narejenih iz trahita (glej npr. Svoljšak, Dular 2016, sl. 128), ki je edina nesedimentna surovina. Poleg te so za izdelavo kamnitih krogel uporabljali še kremenov konglomerat in kalkarenit (*tab. 1, 2*).

Ob kamnitih arheoloških artefaktih omenjenih tipologij je bila najdena tudi utež (glej npr. Svoljšak, Dular 2016, sl. 120), narejena iz kremenovega peščenjaka (*tab. 1, 2*).

DISKUSIJA

Petrološka analiza kamnitih artefaktov z najdišča Most na Soči je pokazala enotno petrološko sestavo posameznih tipoloških skupin (*tab. 1*). Vsak izdelek iz iste tipološke skupine je bil narejen iz podobne surovine. Žrmlje so narejene izključno iz kremenovih konglomeratov in podrejeno kremenovih peščenjakov. Ostali tipološki različki so narejeni iz lokalnih drobnozrnatih flišnih sedimentov (flišni peščenjaki, muljevci in laporovci). Izjema so kamnite krogle, za katere so kot surovino uporabljali magmatske kamnine.

Petrološke analize so še pokazale, da so bili artefakti povezani s pripravo hrane narejeni iz surovin ne-lokalnega izvora, medtem ko je bila za vse ostale produkte uporabljena surovina lokalnega izvora.

Najpogosteje uporabljena surovina (63 %) za izdelavo kamnitih artefaktov iz prazgodovinske naselbine Most na Soči so bili zgornje paleozojski kremenovi konglomerati in peščenjaki. Najbližja najdišča karbonskih in permskih klastitov so v okolici Cerknega (Buser 1986a; id. 1986b; id. 2009), ki so od Mosta na Soči oddaljena okoli 20 km (*tab. 2*) ter v Poljanski in Selški dolini, ki so oddaljena 25–30 km od najdišča Most na Soči (Buser 2009; Demšar 2016; Grad, Ferjančič 1976). Podobne kamnine, primerne za surovino, najdemo tudi v Karavankah (okolica Jezerskega in Tržiča) in v Karnijskih Alpah (Buser 1980; Novak 2007; Venturini 2002). Omenjene lokacije so od najdišča Most na Soči oddaljene 45–65 km. Kot surovinska baza se nam zdijo verjetnejše bližnje lokacije okolice Cerknega ter še posebej Poljanske ter Selške doline (*sl. 2*), saj je tam poznana

placed. In the third group, conglomerates with calcite cement were placed.

Sandstone samples of querns are medium-grained greyish to brownish and reddish quartz sandstone with quartz matrix, which is similar as in previous studies (Horvat, Župančič 1987).

Whetstones are made exclusively from flysch lithology (*Tabs. 1, 2* and here Dular, Tecco Hvala, Fig. 71). The most common used lithology is flysch grey to brownish sandstone (77%), rarely grey and red mudstones (10%) and marls (20%).

The same could be applied to moulds which are also made exclusively from flysch sandstones (83%) and marls (*Tabs. 1, 2* and here Dular, Tecco Hvala, Fig. 69).

Greater diversity could be observed in the lithology used for stone-balls; 50% of them are made from trachyte (see e.g. Svoljšak, Dular 2016, Fig. 128), which is the only non-sedimentary raw material. Other lithologies used for stone balls are quartz conglomerate and calcarenite (*Tabs. 1, 2*).

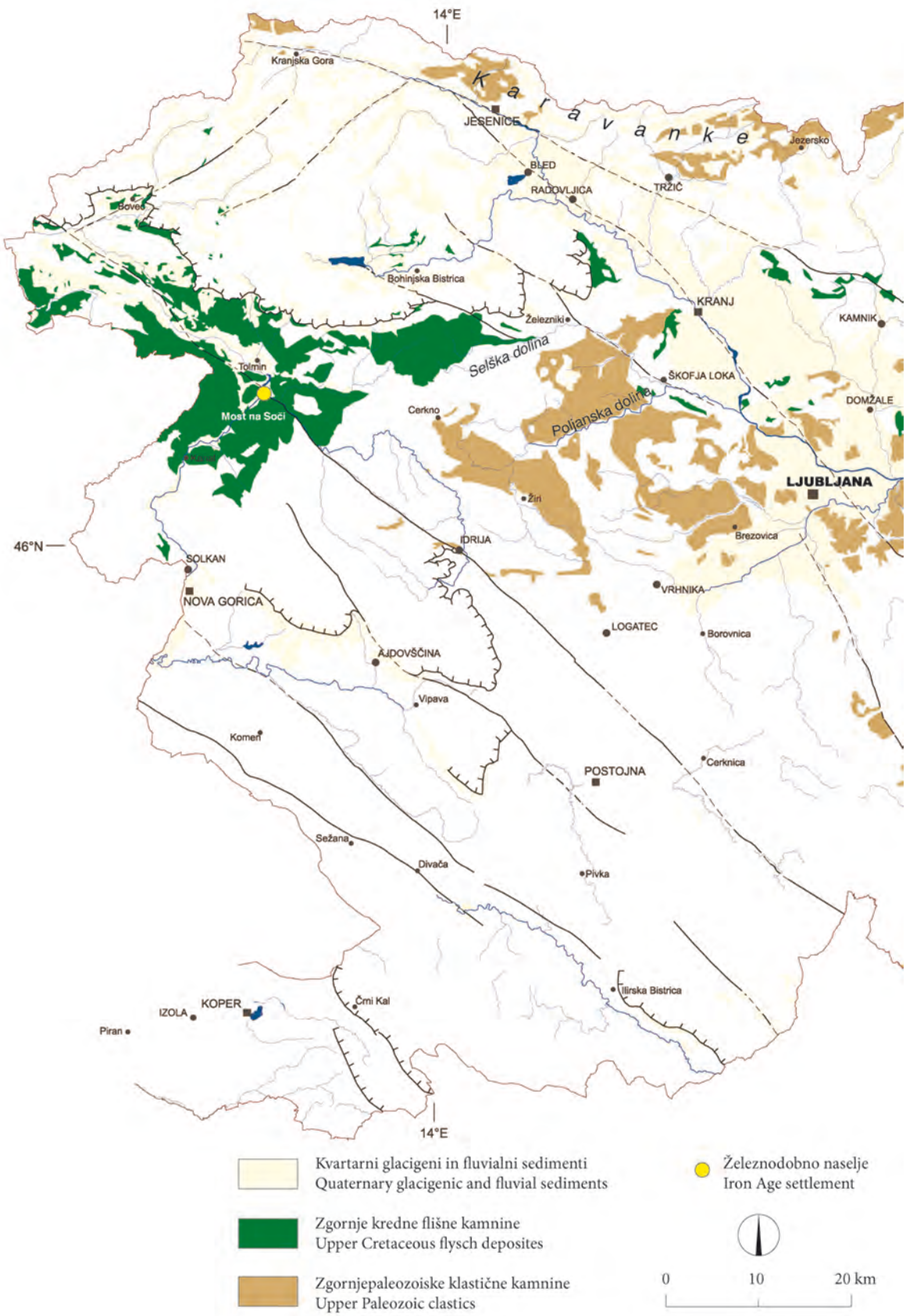
In addition to the mentioned stone artefacts, one sample of weight is also found (see e.g. Svoljšak, Dular 2016, Fig. 120). It is made from quartz sandstone (*Tabs. 1, 2*).

DISCUSSION

The petrological analyses showed a very uniform petrological composition of each typological group (*Tab. 1*), which means that every single typological type is made of similar raw materials. Querns are made exclusively from quartz conglomerates and rarely sandstones. Other typological types are made from local fine-grained flysch material (flysch sandstones and marls). Exceptions are stone-balls which are made from magmatic raw material.

Analyses also indicate that for cooking facilities non-local raw material was used while for all other devices local raw material was used.

The most commonly used raw material for stone artefacts (63%) in the Most na Soči site are Upper Paleozoic quartz conglomerate and sandstone. The nearest source of Carboniferous-Permian clastics is around Cerkno (Buser 1986a; *id*. 1986b; *id*. 2009), which is about 20 km from the Most na Soči site (*Tab. 2*), and in Poljanska and Selška Valley, which is about 25–30 km from the Most na Soči site (Buser 2009; Demšar 2016; Grad, Ferjančič 1976). Similar lithologies also occur in the Karavanke mountains (around Jezersko and Tržič) and in the Carnic Alps (Buser 1980; Novak 2007; Venturini 2002) which is around 45–65 km away from the site. The nearest deposits near Cerkno and particularly Poljanska and Selška Valley were the most likely (*Fig. 2*), also because that is an area with a long tradition of millstone production in historical times (Ramovš 1979).



Sl. 2: Nahajališča zgornjepaleozojskih klastitov, krednega fliša in kvartarnih sedimentov v zahodni Sloveniji.
Fig. 2: Outcrops of Upper Paleozoic clastics, Cretaceous flysch and Quaternary deposits in western Slovenia.
(Prirejeno po / Modified after Bavec, Novak, Poljak 2012).

časovno dolga tradicija izdelave mlinskih kamnov, segala je še v petdeseta leta 20. stoletja (Ramovš 1979).

Iz surovinske prevlade kremenovih konglomeratov nad kremenovimi peščenjaki pri izdelavi žrmelj lahko sklepamo, da so bili peščenjaki manj primeren material za pripravo hrane ali pa je izbor prehrane za proizvodnjo žrmelj favoriziral debelo zrnato surovino.

Velik delež surovin ne-lokalnega izvora najbolj ustreza prilagoditveni strategiji, za katero sta značilna visoka stopnja mobilnosti prebivalstva in trgovanje na dolge razdalje. Ker so žrmlje dokaj veliki in fizično težki uporabni predmeti, se zdi verjetnejša trgovina z že narejenimi izdelki kot pa transport večjih surovinskih blokov in njihova proizvodnja na samem najdišču. To nakazuje, da je bil prostor osrednje Slovenije nekakšen center "kamnarske industrije" ne samo v rimskih časih (Horvat, Župančič 1987), ampak že v prazgodovini.

Edini tipološki različek, za katerega so uporabljali surovinski material lokalnega in ne-lokalnega izvora, so kamnite krogle (*tab. 1, 2*). Kremenov konglomerat izvira verjetno iz istih območij kot surovina za izdelavo žrmelj. Kalkarenit je lokalna surovina, ki jo najdemo v spektru flišnih kamnin ali v produ reke Soče. Trahita, podobnega uporabljeni surovini za izdelavo kamnitih krogel na najdišču Most na Soči, v Sloveniji ne poznamo. Verjetno je bila surovina uvožena z zahoda, z območja severne in/ali osrednje Italije. Najbližje poznano izvorno območje trahita je Evganijsko gričevje (Colli Euganei) v bližnji okolici Padove. Tam izkoriščajo trahit že od 7.–6. stoletja pr. n. št. Proizvodnja trahita je postala pomembna v rimskem obdobju in traja vse do danes. Glede na arheološke vire se je trgovina s trahitom zaradi njegove široke uporabe in trgovine na dolge razdalje širila na sever in vzhod na območje med Pavio in Riminijem, občasno pa vse do Ogleja (Capedri et al. 2000; Antonelli, Lazzarini 2012). Razdalja do omenjenih najdišč trahita znaša 150–200 km.

Surovine za vse ostale tipološke različke kamnitih artefaktov so lokalnega izvora. Zgornje kredne flišne kamnine (peščenjaki, kalkareniti, muljevci, laporovci) izdanjajo v razdalji do 10 km od najdišča (*sl. 4*). Pogoste so tudi v okoliških sedimentih kvartarnih tilov in v produ reke Soče.

Vsi ostali tipološki različki artefaktov, razen žrmelj, kažejo na lokalni izvor surovinskega materiala in na "in situ" proizvodnjo ter lokalno ekonomijo.

The prevalence of quartz conglomerate above quartz sandstones suggests that sandstone raw material was not suitable enough for querns manufacturing or the diet favoured coarse-grained raw material for quern production.

The high amount of non-local raw material at the Most na Soči site best corresponds to an adaptive strategy characterized by a high degree of residential mobility and long-distance trade economy. While querns are quite big and heavy facilities, it was more likely trading with already manufactured products than just transporting the raw material and *in situ* manufacturing. This indicates that in central Slovenia, a kind of centre of "stone industry" existed not just in Roman times (Horvat, Župančič 1987) but as early as in Prehistoric times.

Stone-balls are the only typology for which the use of local and non-local raw material is detected (*Tabs. 1, 2*). The quartz sandstone raw material source is probably the same as that used for querns. Calcarenite is a local flysch raw material but can also be found in the Soča River gravel deposits. Trachyte raw material is not known in Slovenia, so it was probably imported from the west, from northern-central Italy. The nearest known area of trachyte outcrops is in the Euganean Hills in the vicinity of Padua (NE Italy). There trachyte has been extensively quarried since the 7th–6th century BC; its exploitation became more important in the Roman period and continues until the present day. Archaeological evidence shows that the trade in Euganean trachyte was mainly conducted in the area between Pavia and Rimini, occasionally as far as Aquileia (Capedri et al. 2000; Antonelli, Lazzarini 2012). The distance from the trachyte quarry area to the Iron Age settlement at Most na Soči is around 150–200 km.

The raw material for other typological types is of a local source. The Upper Cretaceous flysch deposits (sandstones, calcarenites, mudstones, marls) outcropping in distances 0–10 km around the Most na Soči site (*Fig. 4*) or they can be found in nearby Quaternary till deposits and in the Soča River gravel.

All other stone artefacts, except querns point out on the local source of raw material, *in situ* manufacturing, and local economy.

Tab. 2: Petrološka sestava kamnitih artefaktov iz železnodobne naselbine Most na Soči.
* vrsta konglomerata se nanaša na zaporedne številke opisov konglomeratov v tekstu.
Tab. 2: Petrology of stone artefacts (n = 78) from the Most na Soči Iron Age settlement.
* conglomerate type refers to a serial number described in the text.

Vzorec / Sample	**Objava / Publication** Dular, Svoljšak 2016	**Tipologija / Typology**	**Petrologija / Petrology**	**Stratigrafska pripadnost / Stratigraphic provenance**	**Najbližji vir / Nearest source**
Hiša 1 / House 1					
1 / 3		žrmlje / quern	kremenov konglomerat s kalcitnim vezivom – tip 3* / quartz conglomerate with calcitic matrix – type 3*	karbon-perm / Carboniferous-Permian	20–30 km
1 / 11		žrmlje / quern	kremenov konglomerat s kalcitnim vezivom – tip 1 / quartz conglomerate with calcitic matrix – type 1	karbon-perm / Carboniferous-Permian	20–30 km
P2467		žrmlje / quern	kremenov konglomerat s kalcitnim vezivom – tip 3 / quartz conglomerate with calcitic matrix – type 3	karbon-perm / Carboniferous-Permian	20–30 km
Hiša 3 / House 3					
P4226		žrmlje / quern	kremenov konglomerat s kalcitnim vezivom – tip 1 / quartz conglomerate with calcitic matrix – type 1	karbon-perm / Carboniferous-Permian	20–30 km
P4265		krogla / stone-ball	kremenov konglomerat s kalcitnim vezivom – tip 3 / quartz conglomerate with calcitic matrix – type 3	karbon-perm / Carboniferous-Permian	20–30 km
Hiša 4 / House 4					
P4300	T. / Pl. 24: 6	kalup / mould	flišni peščenjak / flysch sandstone	zgornja kreda / Upper Cretaceous	0–10 km
P4301	T. / Pl. 24: 9	kalup / mould	flišni peščenjak / flysch sandstone	zgornja kreda / Upper Cretaceous	0–10 km
P4298	T. / Pl. 24: 7	kalup / mould	rdečkasti flišni sljudnati peščenjak / reddish flysch micaceous sandstone	zgornja kreda / Upper Cretaceous	0–10 km
P4299	T. / Pl. 24: 8	kalup / mould	sivkasti flišni sljudnati peščenjak / greyish flysch micaceous sandstone	zgornja kreda / Upper Cretaceous	0–10 km
P4302	T. / Pl. 24: 13	brusni kolut / grinding wheel	rdečkasti flišni sljudnati peščenjak / reddish flysch micaceous sandstone	zgornja kreda / Upper Cretaceous	0–10 km
P4303	T. / Pl. 24: 12	brusni kolut / grinding wheel	rdečkasti flišni sljudnati peščenjak / reddish flysch micaceous sandstone	zgornja kreda / Upper Cretaceous	0–10 km
P4310	T. / Pl. 24: 10	brus / whetstone	rdeč flišni laporovec / reddish flysch marl	zgornja kreda / Upper Cretaceous	0–10 km
233		brus / whetstone	siv flišni muljevec / gray flysch mudstone	zgornja kreda / Upper Cretaceous	0–10 km
P4311	T. / Pl. 24: 11	brus / whetstone	sljudnati peščenjak s kalcitnim vezivom / micaceous sandstone with calcite matrix	zgornja kreda / Upper Cretaceous	0–10 km

Vzorec / Sample	Objava / Publication Dular, Svoljšak 2016	Tipologija / Typology	Petrologija / Petrology	Stratigrafska pripadnost / Stratigraphic provenance	Najbližji vir / Nearest source
Hiša 5 / House 5					
P4318		žrmlje / quern	kremenov konglomerat s kalcitnim vezivom – tip 3 / quartz conglomerate with calcitic matrix – type 3	karbon-perm / Carboniferous-Permian	20–30 km
P4317	T. / Pl. 25: 2	brus / whetstone	sljudnat kremenov peščenjak s kalcitnim vezivom / micaceous quartz sandstone with calcite matrix	zgornja kreda / Upper Cretaceous	0–10 km
Hiša 6 / House 6					
P4357		žrmlje / quern	kremenov konglomerat s sljudnato-peščenim vezivom – tip 1 / quartz conglomerate with micaceous sandy matrix – type 1	karbon-perm / Carboniferous-Permian	20–30 km
Hiša 7 / House 7					
P4409		žrmlje / quern	kremenov konglomerat s sljudnato-peščenim vezivom – tip 1 / quartz conglomerate with micaceous sandy matrix – type 1	karbon-perm / Carboniferous-Permian	20–30 km
Hiša 8 / House 8					
P4480		žrmlje / quern	rdečkast debelozrnat kremenov peščenjak / reddish coarse-grained quartz sandstone	karbon-perm / Carboniferous-Permian	20–30 km
P4481		žrmlje / quern	rdečkast debelozrnat kremenov peščenjak / reddish coarse-grained quartz sandstone	karbon-perm / Carboniferous-Permian	20–30 km
P4482		žrmlje / quern	rdečkast debelozrnat kremenov peščenjak / reddish coarse-grained quartz sandstone	karbon-perm / Carboniferous-Permian	20–30 km
P4482 / 1		žrmlje / quern	kremenov konglomerat s sljudnato-peščenim vezivom – tip 1 / quartz conglomerate with micaceous sandy matrix – type 1	karbon-perm / Carboniferous-Permian	20–30 km
P4482 / 2		žrmlje / quern	kremenov konglomerat s sljudnato-peščenim vezivom – tip 1 / quartz conglomerate with micaceous sandy matrix – type 1	karbon-perm / Carboniferous-Permian	20–30 km
P4482 / 3		žrmlje / quern	kremenov konglomerat s sljudnato-peščenim vezivom – tip 1 / quartz conglomerate with micaceous sandy matrix – type 1	karbon-perm / Carboniferous-Permian	20–30 km
P4482 / 4		žrmlje / quern	kremenov konglomerat s sljudnato-peščenim vezivom – tip 1 / quartz conglomerate with micaceous sandy matrix – type 1	karbon-perm / Carboniferous-Permian	20–30 km
P4482 / 5		žrmlje / quern	rdečkast srednjezrnat kremenov peščenjak / reddish medium-grained quartz sandstone	karbon-perm / Carboniferous-Permian	20–30 km
P4456		krogla / stone-ball	trahit / trachyte	paleocen-oligocen / Paleocene-Oligocene	150–200 km

Vzorec / Sample	**Objava / Publication** Dular, Svoljšak 2016	**Tipologija / Typology**	**Petrologija / Petrology**	**Stratigrafska pripadnost / Stratigraphic provenance**	**Najbližji vir / Nearest source**
Hiša 12 / House 12					
brez št. / without no.		žrmlje / quern	kremenov konglomerat s sljudnato-peščenim vezivom – tip 1 / quartz conglomerate with micaceous sandy matrix – type 1	karbon-perm / Carboniferous-Permian	20–30 km
brez št. / without no.		žrmlje / quern	kremenov konglomerat s sljudnato-peščenim vezivom – tip 1 / quartz conglomerate with micaceous sandy matrix – type 1	karbon-perm / Carboniferous-Permian	20–30 km
P4627 / 1		žrmlje / quern	rdečkast debelozrnat kremenov peščenjak / reddish coarse-grained quartz sandstone	karbon-perm / Carboniferous-Permian	20–30 km
Hiša 15 / House 15					
brez št. / without no.		žrmlje / quern	kremenov konglomerat s kalcitnim vezivom – tip 3 / quartz conglomerate with calcitic matrix – type 3	karbon-perm / Carboniferous-Permian	20–30 km
brez št. / without no.		žrmlje / quern	kremenov konglomerat s kalcitnim vezivom – tip 3 / quartz conglomerate with calcitic matrix – type 3	karbon-perm / Carboniferous-Permian	20–30 km
P4975		žrmlje / quern	kremenov konglomerat s kremenovim peščenim vezivom – tip 2 / quartz conglomerate with quartz sandy matrix – type 2	karbon-perm / Carboniferous-Permian	20–30 km
P5012		žrmlje / quern	debelozrnat kremenov peščenjak / coarse-grained quartz sandstone	karbon-perm / Carboniferous-Permian	20–30 km
P5072		žrmlje / quern	kremenov konglomerat s sljudnato-peščenim vezivom – tip 1 / quartz conglomerate with micaceous sandy matrix – type 1	karbon-perm / Carboniferous-Permian	20–30 km
P5073		žrmlje / quern	kremenov konglomerat s kalcitnim vezivom – tip 3 / quartz conglomerate with calcitic matrix – type 3	karbon-perm / Carboniferous-Permian	20–30 km
P5073 / 1		žrmlje / quern	kremenov konglomerat s sljudnato-peščenim vezivom – tip 1 / quartz conglomerate with micaceous sandy matrix – type 1	karbon-perm / Carboniferous-Permian	20–30 km
P5074		žrmlje / quern	kremenov konglomerat s sljudnato-peščenim vezivom – tip 1 / quartz conglomerate with micaceous sandy matrix – type 1	karbon-perm / Carboniferous-Permian	20–30 km
P5074 / 1		žrmlje / quern	kremenov konglomerat s kremenovim peščenim vezivom – tip 2 / quartz conglomerate with quartz sandy matrix – type 2	karbon-perm / Carboniferous-Permian	20–30 km
P5074 / 2		žrmlje / quern	kremenov konglomerat s sljudnato-peščenim vezivom – tip 1 / quartz conglomerate with micaceous sandy matrix – type 1	karbon-perm / Carboniferous-Permian	20–30 km

Vzorec / Sample	Objava / Publication Dular, Svoljšak 2016	Tipologija / Typology	Petrologija / Petrology	Stratigrafska pripadnost / Stratigraphic provenance	Najbližji vir / Nearest source
Hiša 15 / House 15					
46		žrmlje / quern	kremenov konglomerat s kremenovim peščenim vezivom – tip 2 / quartz conglomerate with quartz sandy matrix – type 2	karbon-perm / Carboniferous-Permian	20–30 km
299		žrmlje / quern	kremenov konglomerat s kalcitnim vezivom – tip 3 / quartz conglomerate with calcitic matrix – type 3	karbon-perm / Carboniferous-Permian	20–30 km
brez št. / without no.		žrmlje / quern	sivkast srednjezrnat kremenov peščenjak / greyish medium-grained quartz sandstone	karbon-perm / Carboniferous-Permian	20–30 km
Hiša 15A / House 15A					
P5391	T. / Pl. 40: 11	brus / whetstone	flišni laporovec / flysch marl	zgornja kreda / Upper Cretaceous	0–10 km
P5392	T. / Pl. 53: 10	brus / whetstone	flišni laporovec / flysch marl	zgornja kreda / Upper Cretaceous	0–10 km
P5324	T. / Pl. 53: 11	brus / whetstone	laminirani flišni peščenjak / laminated flysch sandstone	zgornja kreda / Upper Cretaceous	0–10 km
P5325	T. / Pl. 53: 12	brus / whetstone	flišni laporovec / flysch marl	zgornja kreda / Upper Cretaceous	0–10 km
P5434		utež / weight	kremenov peščenjak / quartz sandstone	karbon-perm / Carboniferous-Permian	20–30 km
P5435		žrmlje / quern	kremenov konglomerat s kalcitnim vezivom – tip 3 / quartz conglomerate with calcitic matrix – type 3	karbon-perm / Carboniferous-Permian	20–30 km
P5436		žrmlje / quern	kremenov konglomerat s sljudnato-peščenim vezivom – tip 1 / quartz conglomerate with micaceous sandy matrix – type 1	karbon-perm / Carboniferous-Permian	20–30 km
P5436 / 1		žrmlje / quern	kremenov konglomerat s kalcitnim vezivom – tip 3 / quartz conglomerate with calcitic matrix – type 3	karbon-perm / Carboniferous-Permian	20–30 km
P5077	T. / Pl. 54: 9	kalup / mould	rjavkasti do rdečkasti flišni laporovec / brownish to reddish flysch marl	zgornja kreda / Upper Cretaceous	0–10 km
Hiša 16 / House 16					
P4032 / 1		žrmlje / quern	kremenov konglomerat s kalcitnim vezivom – tip 3 / quartz conglomerate with calcitic matrix – type 3	karbon-perm / Carboniferous-Permian	20–30 km
P4097 / 1		žrmlje / quern	kremenov konglomerat s sljudnato-peščenim vezivom – tip 1 / quartz conglomerate with micaceous sandy matrix – type 1	karbon-perm / Carboniferous-Permian	20–30 km
P4097 / 2		žrmlje / quern	kremenov konglomerat s sljudnato-peščenim vezivom – tip 1 / quartz conglomerate with micaceous sandy matrix – type 1	karbon-perm / Carboniferous-Permian	20–30 km

Vzorec / Sample	Objava / Publication Dular, Svoljšak 2016	Tipologija / Typology	Petrologija / Petrology	Stratigrafska pripadnost / Stratigraphic provenance	Najbližji vir / Nearest source
Hiša 16 / House 16					
P5419	T. / Pl. 55: 17	brus / whetstone	laminirani flišni peščenjak / laminated flysch sandstone	zgornja kreda / Upper Cretaceous	0–10 km
P5420	T. / Pl. 55: 16	brus / whetstone	flišni peščenjak / flysch sandstone	zgornja kreda / Upper Cretaceous	0–10 km
P4038		krogla / stone-ball	trahit / trachyte	paleocen-oligocen / Paleocene-Oligocene	150–200 km
brez št. / without no.		žrmlje / quern	kremenov konglomerat s sljudnato-peščenim vezivom – tip 1 / quartz conglomerate with mica-ceous sandy matrix – type 1	karbon-perm / Carboniferous-Permian	20–30 km
Hiša 20 / House 20					
P5503		žrmlje / quern	kremenov konglomerat s sljudnato-peščenim vezivom – tip 1 / quartz conglomerate with mica-ceous sandy matrix – type 1	karbon-perm / Carboniferous-Permian	20–30 km
Hiša 22A / House 22A					
P5533	T. / Pl. 61: 10	brus / whetstone	flišni peščenjak / flysch sandstone	zgornja kreda / Upper Cretaceous	0–10 km
P5624	T. / Pl. 61: 9	brus / whetstone	flišni peščenjak / flysch sandstone	zgornja kreda / Upper Cretaceous	0–10 km
55		brus / whetstone	flišni peščenjak / flysch sandstone	zgornja kreda / Upper Cretaceous	0–10 km
brez št. / without no.		krogla / stone-ball	kalkarenit (rečni prodnik) / calcarenite (river pebble)	kvartar / Quaternary	0–10 km
brez št. / without no.		brus / whetstone	flišni muljevec / flysch mudstone	zgornja kreda / Upper Cretaceous	0–10 km
Hiša 29 / House 29					
29 / 66		brus / whetstone	flišni peščenjak / flysch sandstone	zgornja kreda / Upper Cretaceous	0–10 km
29 / 24		kalup / mould	flišni peščenjak flysch sandstone	zgornja kreda / Upper Cretaceous	0–10 km
29 / 21		brus / whetstone	flišni peščenjak flysch sandstone	zgornja kreda / Upper Cretaceous	0–10 km
29 / 1		brus / whetstone	laminirani flišni peščenjak / laminated flysch sandstone	zgornja kreda / Upper Cretaceous	0–10 km
Hiša 30 / House 30					
30 / 82		brus / whetstone	flišni peščenjak / flysch sandstone	zgornja kreda / Upper Cretaceous	0–10 km
brez št. / without no.		žrmlje / quern	kremenov konglomerat s kalcitnim vezivom – tip 3 / quartz conglomerate with calcitic matrix – type 3	karbon-perm / Carboniferous-Permian	20–30 km
Munihov vrt: Sonda 1 / Trench 1					
P2627		žrmlje / quern	kremenov konglomerat s kremeno-vim peščenim vezivom – tip 2 / quartz conglomerate with quartz sandy matrix – type 2	karbon-perm / Carboniferous-Permian	20–30 km
Sonda 1A / R / Trench 1A / R					
P4554 / 1		žrmlje / quern	kremenov konglomerat s sljudnato-peščenim vezivom – tip 1 / quartz conglomerate with mica-ceous sandy matrix – type 1	karbon-perm / Carboniferous-Permian	20–30 km

Vzorec / Sample	Objava / Publication Dular, Svoljšak 2016	Tipologija / Typology	Petrologija / Petrology	Stratigrafska pripadnost / Stratigraphic provenance	Najbližji vir / Nearest source
Sonda 4 / Trench 4					
P4565 / 1		žrmlje / quern	kremenov konglomerat s kalcitnim vezivom – tip 3 / quartz conglomerate with calcitic matrix – type 3	karbon-perm / Carboniferous-Permian	20–30 km
Sonda 5 / Trench 5					
brez št. / without no.		žrmlje / quern	kremenov konglomerat s kalcitnim vezivom – tip 3 / quartz conglomerate with calcitic matrix – type 3	karbon-perm / Carboniferous-Permian	20–30 km
brez št. / without no.		žrmlje / quern	kremenov konglomerat s kalcitnim vezivom – tip 3 / quartz conglomerate with calcitic matrix – type 3	karbon-perm / Carboniferous-Permian	20–30 km
Osnovna šola Most na Soči / Elementary school Most na Soči					
brez št. / without no.		žrmlje / quern	kremenov konglomerat s sljudnato-peščenim vezivom – tip 1 / quartz conglomerate with micaceous sandy matrix – type 1	karbon-perm / Carboniferous-Permian	20–30 km

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ARHEOBOTANIČNE RAZISKAVE Z NAJDIŠČA MOST NA SOČI: UPORABA LESA, POKRAJINA IN GOSPODARSTVO MED 6. IN 1. STOLETJEM PR. KR.

INDAGINI ARCHEOBOTANICHE A MOST NA SOČI: TECNOLOGIA DEL LEGNO, PAESAGGIO ED ECONOMIA TRA VI SEC. E I SEC. A. C.

Sila MOTELLA DE CARLO

UVOD

V okviru sodelovanja med Goriškim muzejem v Novi Gorici, Narodnim muzejem Slovenije v Ljubljani in italijanskim laboratorijem za arheobiologijo v Comu (Laboratorio di Archeobiologia dei Musei Civici), ki se je začelo v začetku devetdesetih let prejšnjega stoletja, so bile opravljene arheobotanične analize vzorcev oglja, semen in zoglenelih sadežev z izkopavanj naselbine Most na Soči. Ta so izvedli pod vodstvom Draga Svoljšaka med letoma 1971 in 1984.

Vzorce oglja, shranjene v Goriškem muzeju, sem z vodjem izkopavanj prvič pregledala aprila leta 1995, analizo zoglenelih ostankov sem opravila med letoma 1996 in 1997 v laboratoriju za arheobiologijo v muzeju Civici di Como in jo dopolnila leta 2015. V razpravi so upoštevani tudi rezultati antrakoloških analiz, ki jih je opravil Alojz Šercelj med letoma 1974 in 1975.[1]

Pred dokončno pripravo tega prispevka sem pridobljene podatke znova pregledala in dopolnila v zvezi z objavo naselbinskih ostankov in najdb (Svoljšak, Dular 2016).

[1] Šercljevo poročilo hrani Goriški muzej v Novi Gorici.

INTRODUZIONE

La collaborazione avviata all'inizio degli anni novanta del secolo scorso tra il Goriški muzej di Nova Gorica, il Narodni muzej Slovenije di Ljubljana (Slovenia) e il Laboratorio di Archeobiologia dei Musei Civici di Como (Italia) ha permesso lo studio archeobotanico dei carboni, dei semi e dei frutti bruciati rinvenuti nell'abitato di Most na Soči, campionati durante le campagne di scavo condotte tra il 1971 e il 1984, con la direzione di Drago Svoljšak.

Un primo sopralluogo per l'osservazione dei campioni di carbone è stato effettuato dalla scrivente nel mese di aprile del 1995 presso il il Goriški muzej di Nova Gorica insieme a D. Svoljšak; l'analisi dei reperti carbonizzati è stata effettuata dalla scrivente tra il 1996 e il 1997 presso il Laboratorio di Archeobiologia dei Musei Civici di Como (Italia) e successivamente ultimata nel 2015 con l'aggiunta di alcune analisi, come perfezionamento delle precedenti. A completamento del lavoro sono stati utilizzati i risultati delle analisi antracologiche effettuate da Alojz Šercelj tra il 1974 e il 1975.[1]

I dati ottenuti sono stati riesaminati e perfezionati alla luce dello studio effettuato sull' insediamento e sui reperti (Svoljšak, Dular 2016), prima della stesura del presente contributo.

[1] Rapporto di A. Šercelj, conservato nel Goriški muzej di Nova Gorica.

ŠTUDIJ RASTLINSKIH MAKROOSTANKOV: HIPOTEZA

Raziskave vegetacije oz. flore pretekle pokrajine sodijo med ustaljene pristope v okviru arheoloških raziskav. Rastlinske ostanke, ki jih najdemo v arheoloških kontekstih, delimo na dve skupini: mikroostanke (cvetni prah in spore) in makroostanke (oglje, semena itd.). Pojav mikroostankov je največkrat posledica naravne distribucije in tafonomije, medtem ko makroostanke povezujemo s človekovim delovanjem. Izjema so nanosi sedimentov naravnega nastanka (kot npr. posledica gozdnih požarov). Zaradi tega so rezultati raziskav sedimentnih nanosov cvetnega prahu drugačni od raziskav, ki preučujejo le oglje oz. kose sežganega lesa. Raziskave cvetnega prahu odsevajo vegetacijo območja, velikega tudi do 10 kvadratnih kilometrov, medtem ko analize kosov zoglenelega lesa, ki so del takratnih drevesnih vrst ali grmovnic, dajejo drugačne informacije: poleg podatkov o lesnih vrstah, ki jih je uporabil človek za gradnjo in kurjenje, še o vegetacijskih razmerah v bližini naselbine. Hkrati izključujejo naravna prenašanja po kopnem in vodi (Castelletti, Motella De Carlo 1999). Antrakološke analize skupaj s palinološkimi lahko pripomorejo k spoznanju nekaterih sprememb v vegetaciji pokrajine.

Vzorci oglja so bili na Mostu na Soči odvzeti iz arheoloških plasti, npr. iz ostankov pogorelih hiš, ognjišč ali tal. V prvem primeru smo vzorčili ostanke brun, podnic ali drugih delov objekta, v drugem oglje zadnjega kurjenja oziroma sežiga, v tretjem pa oglje, ki ga povezujemo s čiščenjem različnih ognjišč, na katerih so večkrat kurili. V ognjiščih je mogoče odkriti tudi karpološke ostanke, ne nujno skupaj s kosi zoglenelega lesa. Pogosto gre za žitna zrna, ostanke semen ali plodov sadnih vrst in oreškov, ki so bili namerno ali nenamerno izpostavljeni ognju. Te ostanke najdemo tudi v objektih in posodah, namenjenih shranjevanju, npr. shrambnih jamah, silosih, vodnjakih, kaščah, keramičnih ali kovinskih posodah.

V okviru arheobotaničnih raziskav naselbine Most na Soči je vzorčenje zaobjelo precejšnjo količino oglja; večinoma gre za delno ohranjene gradbene elemente hiš in druge kose zoglenelega lesa, ki jih ni bilo mogoče opredeliti kot dele hiš, temveč kot ostanke vsakodnevnih dejavnosti v njih.

Raziskave zoglenelih ostankov v hišah so razkrile tehnologijo obdelave lesa ter pokazale, katere vrste so uporabili pri gradnji naselbine ali za druge namene. Po drugi strani nam rezultati analiz ponudijo informacijo o sestavi gozda bližnje okolice. Številna semena in ostanki plodov, najdeni v dveh hišah, so razkrili zanimive vidike gospodarstva, od začetka 6. stol. pr. Kr., ko se kaže predvsem močan antropogen vpliv na okoliško vegetacijo.

LO STUDIO DEI MACRORESTI VEGETALI: PREMESSA

Indagini volte a ricostruire l'assetto della vegetazione e della flora di un paesaggio antico sono una procedura costante nella ricerca archeologica.

I resti botanici rinvenuti nei contesti archeologici vengono distinti in due fondamentali categorie: i microresti, cioè pollini e spore, e i macro-resti, carboni, semi ecc. I primi sono quasi sempre il risultato di una diffusione e conservazione naturale nel terreno, mentre i secondi, tranne nei casi di accumuli di origine non antropica (ad esempio tracce di passaggi di incendi boschivi), sono il risultato di deposizioni dovute ad azioni umane. Pertanto le informazioni prodotte dallo studio dei depositi pollinici nei sedimenti sono diverse da quelle fornite, ad esempio, dai "carboni", cioè da porzioni di legno bruciato; mentre i primi possono riflettere l'ambiente vegetale di una zona anche dell'ordine di qualche decina di chilometri quadrati, i carboni di legno, che possono derivare da piante arboree e arbustive, non solo forniscono un elenco più ristretto di specie, ma denunciano le condizioni della vegetazione di territori limitrofi ai luoghi di ritrovamento, escludendo qualsiasi trasporto naturale via terra o via acqua (Castelletti, Motella De Carlo 1999). È tuttavia possibile cogliere alcune modificazioni del paesaggio vegetale mediante la disamina dei dati antracologici integrati con quelli palinologici.

E' noto che i carboni vengono messi in luce quando i livelli archeologici li rivelano al loro interno, ad esempio, resti di edifici incendiati, di focolari o di paleosuperfici. Nel primo caso si raccoglie ciò che rimane di travi, pavimenti o altro provenienti da strutture adibite ad abitazione o a diverso uso; nel secondo caso si raccolgono i carboni dell'ultimo fuoco acceso ed infine, nel terzo, quelli provenienti dalla pulizia di più fuochi, accesi ripetutamente. Frequentemente, in concomitanza di focolari, ma non necessariamente associati ai carboni di legno, si rinvengono resti carpologici, cioè cariossidi, semi e frutti, conservatisi proprio perché, per motivi accidentali o intenzionali, sono venuti a contatto con il fuoco; in altri casi questi vengono scoperti in strutture adibite alla conservazione come fosse, silos, pozzetti, granai, contenitori ceramici o metallici.

Nel caso di Most na Soči, l'eccezionale campionatura a disposizione interessa un cospicuo numero di carboni rinvenuti nell'insediamento; si tratta prevalentemente di elementi strutturali delle case, parzialmente conservati, e di altri frammenti di legno combusto che non sono parte degli edifici, ma il riflesso di attività quotidiane che si svolgevano al loro interno.

Lo studio dei resti combusti delle case ha permesso, da un lato, di avere informazioni sulla tecnologia del legno e sulla scelta delle specie impiegate per la costruzione dell'insediamento o per altri usi; dall'altro, queste analisi hanno consentito di riconoscere alcune

ŠTUDIJ OGLJA IZ HIŠ: PROCES V LABORATORIJU

Ohranjenost gradbenih elementov hiš iz naselbine Most na Soči je edinstvena, zato je bila antrakološka študija namenjena opredelitvi tipa (vrste) uporabljenega lesa in tehnik njegove obdelave. Hkrati smo želeli ugotoviti makroskopske značilnosti, s katerimi je mogoče določiti uporabo (namembnost) posameznih artefaktov *in situ*, pri čemer smo se oprli na rezultate arheoloških izkopavanj. S primerjavo podatkov terenskih izvidov smo namreč lahko določili uporabo zoglenelih vzorcev lesa v hišah z vidika tesarstva, kot les za kurjenje ali pa za izdelavo drobnih predmetov.

Na obrazce in nato tudi v katalog (glej str. 385 ss) smo vpisali naslednje podatke:

- številko vzorca, ki ustreza tisti v terenski dokumentaciji;
- vsebino vzorca (ali gre za več kosov oglja v enem vzorcu);
- število fragmentov analiziranega oglja;
- velikosti vzorca oz. fragmentov analiziranega oglja (če je bilo mogoče);
- smer rezanja lesa in gostota branik (če smo jo prepoznali);
- opis sledov obdelave lesa ali napak oz. sprememb v lesu;
- tip najdbe (namembnost) posameznega vzorca zoglenelega lesa, določen na podlagi arheoloških podatkov in izsledkov analize.

Pri mikroskopski analizi, s katero smo želeli določiti vrsto lesa pri vsakem vzorcu, smo v večini primerov pregledali več kosov oglja iz posameznega vzorca, zato je včasih več taksonov. Tudi pri le enem taksonu smo pregledali vse fragmente v vzorcu.

Pri prepoznavanju taksonov in določitvi anatomskih lastnosti lesa smo pregledali prelome kosov oglja s svetlobnim mikroskopom Nikon Optiphot, ki ga uporablja laboratorij muzeja v Comu. Rezultati so predstavljeni in povzeti v tabelah, te smo grafično obdelali in jih interpretirali.

REZULTATI ANTRAKOLOŠKIH ANALIZ: ASPEKTI POGOZDENOSTI POKRAJINE

V *tabeli 1* so numerično in v odstotkih prikazani rezultati antrakološke analize vzorcev iz posamezne hiše. Pregledanih je bilo 291 vzorcev, od katerih jih je 36 iz hiše 1 in 2 analiziral Alojz Šercelj, ostalih 255 vzorcev iz 22 hiš je analizirala avtorica tega prispevka. Skupno je bilo pregledanih 480 kosov oglja.

Vzorci izhajajo iz 24 hiš, in sicer 1, 2, 3, 5, 6, 7, 8, 9, 11, 12, 13, 14, 15, 15A, 16, 20, 22, 23, 24, 27, 29, 30, 31, 33.

Prepoznanih je bilo skupno 16 taksonov:

caratteristiche della copertura boschiva della zona. Inoltre, il rinvenimento di un cospicuo quantitativo di semi e frutti in due case ha chiarito alcuni aspetti peculiari dell'economia di sussistenza a partire dal VI sec. a.C., denunciando un forte impatto antropico che ha prodotto modificazioni sulla vegetazione del territorio.

LO STUDIO DEI CARBONI DELLE CASE: PROCEDURA IN LABORATORIO

Lo studio antracologico degli elementi strutturali delle case di Most na Soči, che costituiscono nel loro insieme un caso assai singolare di conservazione, ha lo scopo di definire il tipo di legname utilizzato, le tecniche di taglio del legno e di rilevare tutte le caratteristiche macroscopiche utili a ricostruire le operazioni di allestimento dei manufatti e la loro destinazione *in situ*, in indiscutibile sinergia con quanto emerso dallo scavo archeologico. Attraverso un continuo confronto con i dati di scavo è stato possibile ricostruire l'impiego dei campioni di legno combusto nelle case: per carpenteria, come legname da ardere o per la fabbricazione di piccoli manufatti.

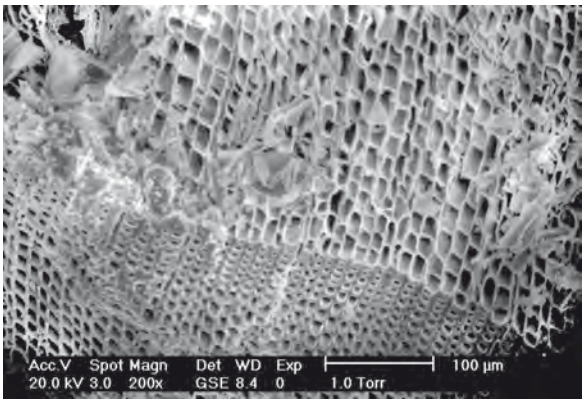
In particolare sono stati registrati in apposite schede, poi confluite nel catalogo (cfr. 385 ff), i seguenti dati:

- la numerazione dei campioni, che corrisponde a quella registrata durante gli scavi,
- il contenuto degli stessi (si tratta di più frammenti di carbone in ogni campione),
- il numero di frammenti di carbone esaminati,
- le misure di alcune dimensioni del reperto intero, quando possibile, oppure dei frammenti analizzati,
- la direzione del taglio nel legno originario e la densità anulare, quando rilevabili,
- eventuali tracce di lavorazione, difetti e/o alterazioni del legno, quando presenti;
- il tipo di reperto a cui è riferito il campione di legno combusto, dedotto dai dati archeologici di scavo, con l'integrazione dei dati di analisi.

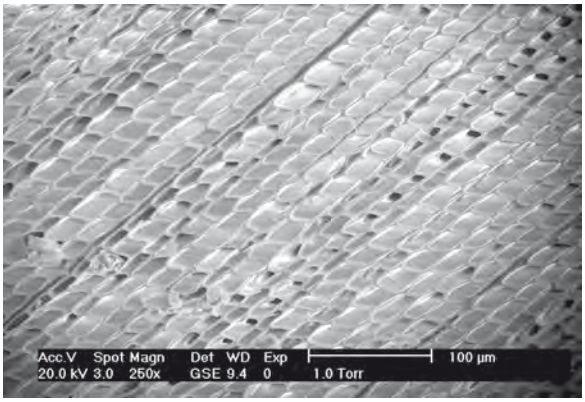
L'analisi al microscopio, volta a definire il tipo di legno presente in ciascun campione, è stata realizzata, nella maggior parte dei casi, analizzando più di un frammento di carbone, per l'accertamento della presenza di uno o più *taxon*. Anche in presenza di un solo *taxon,* tutti i frammenti presenti nel campione sono stati analizzati. Per identificare i *taxa* di appartenenza e per rilevare peculiarità anatomiche riguardanti il legno, i carboni sono stati esaminati in frattura mediante il microscopio episcopico in luce riflessa Nikon Optiphot, in dotazione presso il Laboratorio di Archeobiologia dei Musei Civici di Como, Italia. I dati di analisi sono poi confluiti in tabelle riassuntive e successivamente elaborati in grafici e interpretati.

	CASE / HIŠE																												
	1	2	3	5	6	7	8	9	11	12	13	14	15	15A	16	20	22	23	24	27	29	30	31	33					
																									Tot. camp. / Skupno vzorcev				
Numero di campioni esaminati / Število pregledanih vzorcev	22	14	10	10	29	1	3	2	41	2	7	1	15	23	51	9	3	24	3	9	4	2	4	2	291				
Taxa / Taksoni																									T. N.	T.%	T %		
GYMNOSPERMAE / GOLOSEMENKE																													
Abies alba (abete bianco / navadna jelka)	10	11	23		26	1		2	1	1	5		17	14	25	4		6	1						147	59,75	30,62		
Picea abies (abete rosso / navadna smreka)	11	1				1									1			3							17	6,91	3,54		
Picea/Larix (abete rosso/larice / smreka/macesen)															2										2	0,81	0,41		
Pinus sylvestris/montana (pino silvestre/montano / rdeči bor/rušje)	2			10								4		8	19		1	22	7	2	5				80	32,52	16,66		
Totali parziali / Delne vsote	23	12	23	10	26	2		2	1	1	5	4	17	22	47	4	1	31	8	2	5				246	ca 100%	51,23%		
ANGIOSPERMAE DICOTYLEDONES / KRITOSEMENKE																													
Alnus glutinosa/incana (ontano / črna/siva jelša)					1																				1	0,42	0,2		
Carpinus betulus (carpino bianco / beli gaber)	1																								1	0,42	0,2		
Ostrya carpinifolia (carpino nero / črni gaber)	1																								1	0,42	0,2		
Corylus avellana (nocciolo / navadna leska)					1										1										2	0,85	0,41		
Fagus sylvatica (faggio / navadna bukev)	9	1			13	3					3		1	2	5		3			2					42	17,94	8,75		
Quercus robur/petraea (farnia/rovere / dob/graden)	7	1	1	1	29	2	4		51	1	1		12	2	5	6	5	5		9	1	4	4	3	154	65,81	32,08		
Ulmus cfr. minor (olmo campestre / poljski brest)				6	6									1											13	5,55	2,7		
Laburnum sp. (maggiociondolo / nagnoj)											2														2	0,85	0,41		
Pomoideae (pero/melo/biancospino/sorbo / hruška/jablana/glog/jerebika)															5										5	2,13	1,04		
Acer sp. (acero / javor)	1								1		1														3	1,28	0,6		
Cornus mas/sanguinea (corniolo / rumeni/rdeči dren)					4																				4	1,7	0,83		
Fraxinus sp. (frassino / jesen)		1									3					2									6	2,56	1,25		
Totali parziali / Delne vsote	19	3	1	7	54	5	4		52	1	10		13	5	16	8	8	5		11	1	4	4	3	234	ca 100%	48,67%		
Totale numero di carboni esaminati / Skupno število analiziranih kosov oglja	42	15	24	17	80	7	4	2	53	2	15	4	30	27	63	12	9	36	8	13	6	4	4	3	480		ca 100%		

Tabela 1: Most na Soči. Prisotnost taksonov v vzorčenem oglju hiš.
Tabella 1: Most na Soči. Presenza dei taxa nei carboni delle case.



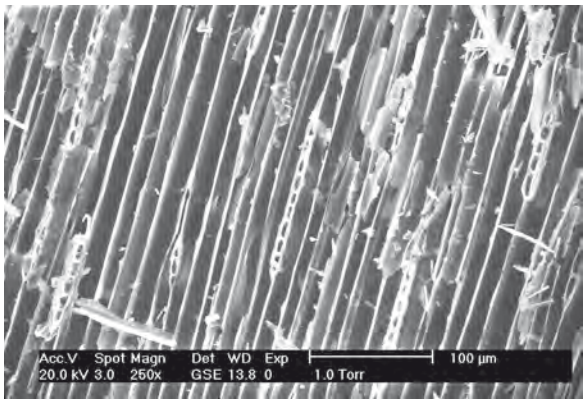
Sl. 1: Hiša 15A, vzorec 7, *Abies alba* (navadna jelka); prečni prerez oglja z vidim prehodom kasnega lesa v rastni braniki k ranemu lesu v naslednji braniki.
Fig. 1: Casa 15A, campione 7, *Abies alba* (abete bianco); sezione trasversale di carbone in cui è visibile il passaggio dal legno tardivo di un anello di accrescimento al legno iniziale dell'anello successivo.



Sl. 2: Hiša 15A, vzorec 7, *Abies alba* (navadna jelka); detajl celic na sl. 1.
Fig. 2: Casa 15A, campione 7, *Abies alba* (abete bianco); particolare delle cellule della fig 1.

- *Abies alba* (navadna jelka – *sl. 1–3*),[2]
- *Picea abies* (navadna smreka),
- *Picea/Larix* (smreka/macesen),
- *Pinus sylvestris/montana* (rdeči bor/rušje),
- *Alnus glutinosa/incana* (črna/siva jelša – *sl. 4–6*),
- *Carpinus betulus* (beli gaber),
- *Ostrya carpinifolia* (črni gaber),
- *Corylus avellana* (navadna leska),
- *Fagus sylvatica* (navadna bukev),
- *Quercus robur/petraea* (hrast dob/graden),
- *Ulmus* cfr. *minor* (poljski brest),
- *Laburnum* sp. (nagnoj),

[2] Fotografiranje vzorcev oglja smo opravili v Dipartimento di Scienza e Alta Tecnologia dell'Università degli Studi dell'Insubria – sede di Como (Italia) z uporabo ESEM XL 30.



Sl. 3: Hiša 15A, vzorec 7, *Abies alba* (navadna jelka); tangencialni prerez oglja, enoredni trakovi.
Fig. 3: Casa 15A, campione 7, *Abies alba* (abete bianco); sezione tangenziale di carbone, raggi uniseriati.

RISULTATI DELL'ANALISI ANTRACOLOGICA: ASPETTI DELLA COPERTURA FORESTALE DEL TERRITORIO

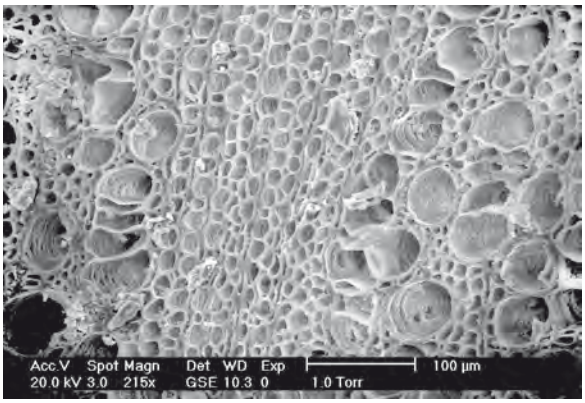
I risultati complessivi dell'analisi antracologica sono presentati nella *tabella 1*, in termini numerici, per percentuali totali e per ciascuna casa: sono stati esaminati complessivamente 291 campioni, di cui 36 analizzati da Alojz Šercelj relativi alle case 1 e 2, e 255 dalla scrivente, relativi ad altre 22 case, per un totale di 480 carboni.

Le 24 case da cui provengono i campioni sono le seguenti: 1, 2, 3, 5, 6, 7, 8, 9, 11, 12, 13, 14, 15, 15A, 16, 20, 22, 23, 24, 27, 29, 30, 31, 33.

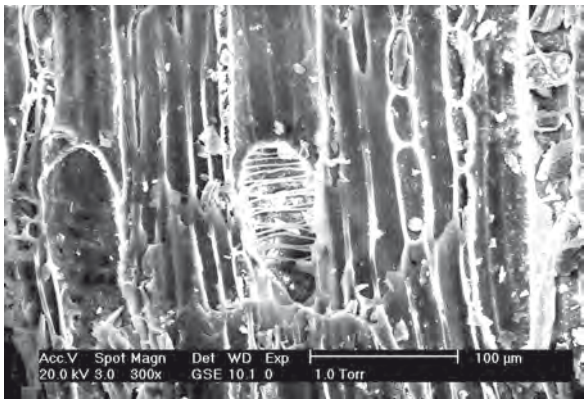
Le entità tassonomiche classificate sono 16 e precisamente:

- *Abies alba* (abete bianco – *fig. 1–3*)[2],
- *Picea abies* (abete rosso),
- *Picea/Larix* (abete rosso/larice),
- *Pinus sylvestris/montana* (pino silvestre/montano),
- *Alnus glutinosa/incana* (ontano – *fig. 4–6*),
- *Carpinus betulus* (carpino bianco),
- *Ostrya carpinifolia* (carpino nero),
- *Corylus avellana* (nocciolo),
- *Fagus sylvatica* (faggio),
- *Quercus robur/petraea* (farnia/rovere),
- *Ulmus* cfr. *minor* (olmo campestre),
- *Laburnum* sp. (maggiociondolo),
- *Pomoideae* (pero/melo/biancospino/sorbo – *fig. 7*),
- *Acer* sp.(acero – *fig. 8–11*),
- *Cornus mas/sanguinea* (corniolo),
- *Fraxinus* sp. (frassino).

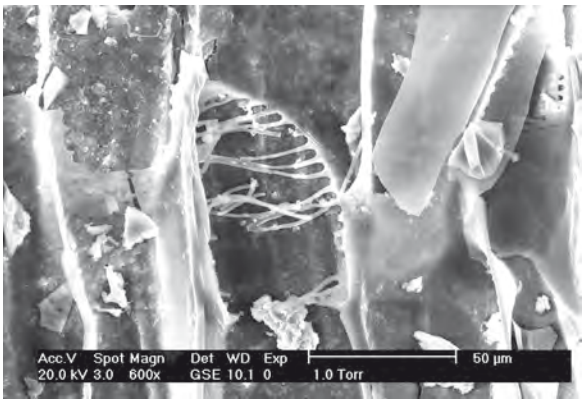
[2] Le foto dei carboni sono state eseguite mediante ESEM XL 30 presso il Dipartimento di Scienza e Alta Tecnologia dell'Università degli Studi dell'Insubria – sede di Como, Italia.



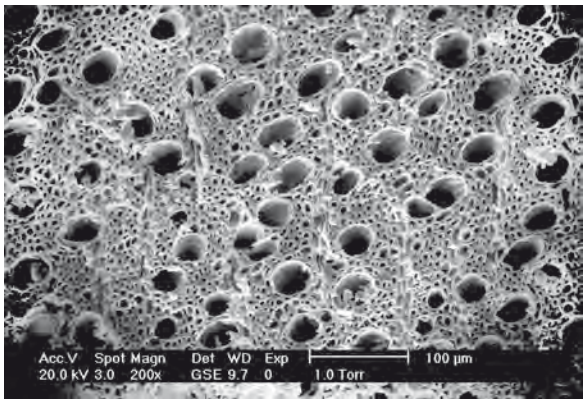
Sl. 4: Hiša 6, vzorec 15/7, *Alnus glutinosa/incana* (črna/siva jelša); prečni prerez oglja z agregiranimi trakovi vidnimi na sredini posnetka; na straneh značilne vrste por.
Fig. 4: Casa 6, campione 15/7, *Alnus glutinosa/incana* (ontano); sezione trasversale di carbone con evidente raggio aggregato al centro della foto; ai lati le tipiche file di pori.



Sl. 6: Hiša 6, vzorec 15/7, *Alnus glutinosa/incana* (črna/siva jelša); radialen prerez oglja, na sredini lestvičasta perforacija z več kot 15 prečkami; na desni nekatere celice enorednih trakov.
Fig. 6: Casa 6, campione 15/7, *Alnus glutinosa/incana* (ontano); sezione radiale di carbone, al centro perforazione scalariforme con più di 15 barre; a destra alcune cellule di raggi uniseriati.



Sl. 5: Hiša 6, vzorec 15/7, *Alnus glutinosa/incana* (črna/siva jelša); radialen prerez oglja s počeno lestvičasto perforacijo.
Fig. 5: Casa 6, campione 15/7, *Alnus glutinosa/incana* (ontano); sezione radiale di carbone con perforazione scalariforme spezzata.



Sl. 7: Hiša 16, vzorec 47, *Pomoideae* (hruška/jablana/glog/jerebika); prečni prerez oglja: les z razširjenimi porami s prevladujočimi solitarnimi porami okrogle oblike.
Fig. 7: Casa 16, campione 47, *Pomoideae* (pero/melo/biancospino/sorbo); sezione trasversale di carbone: legno a pori diffusi con pori prevalentemente singoli di forma circolare.

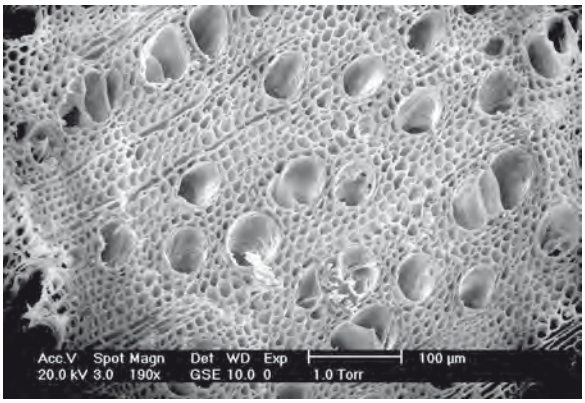
- *Pomoideae* (hruška/jablana/glog/jerebika – *sl. 7*),
- *Acer* sp. (javor – *sl. 8–11*),
- *Cornus mas*/*sanguinea* (rumeni/rdeči dren),
- *Fraxinus* sp. (jesen).

K izrazom *Pinus sylvestris, Acer platanoides* in *Fraxinus ornus*, ki jih je uporabil Šercelj, je treba dodati pojasnilo: vzorci oglja, opredeljeni kot *Pinus sylvestris*, so vključeni v *tabeli 1* kot *Pinus sylvestris/montana*, kajti na podlagi njihovih ksilotomskih značilnosti ni mogoče razlikovati med *Pinus sylvestris* in *Pinus montana* (= *Pinus mugo*).[3] Pri vzorcih vrste *Acer*, katerih podvrste *campestre*, *platanoides* in *pseudoplatanus* lahko ločimo

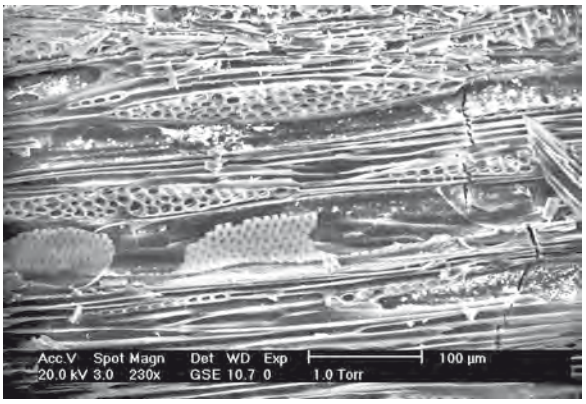
Per quanto riguarda le diciture utilizzate da A. Šercelj, *Pinus sylvestris, Acer platanoides e Fraxinus ornus*, i carboni che si riferiscono a *Pinus sylvestris* sono stati inseriti nella *tabella 1* come *Pinus sylvestris/montana* in quanto *Pinus sylvestris* e *Pinus montana* (= *Pinus mugo*) non sono distinguibili tra loro a livello silotomico.[3] Per quanto concerne il genere *Acer*, poiché le specie *campestre*, *platanoides* e *pseudoplatanus* sono solo in parte distinguibili in base ai caratteri dei raggi in sezione tangenziale si è preferito accorpare *Acer platanoides* con *Acer* sp. Infine *Fraxinus ornus*, difficilmente distinguibile da *Fraxinus excelsior*, è stato accorpato in *Fraxinus* sp., in linea con

[3] Oglje, opredeljeno kot *Pinus sylvestris/montana*, se glede na to, da gre za uporaben les, najverjetneje nanaša na vrsto *Pynus sylvestris*.

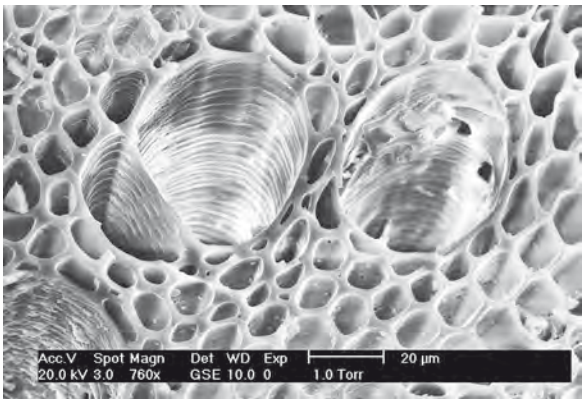
[3] I carboni classificati con la dicitura *Pinus sylvestris/montana,* data la loro destinazione come legname da opera, si riferiscono con tutta probabilità alla specie *Pinus sylvestris*.



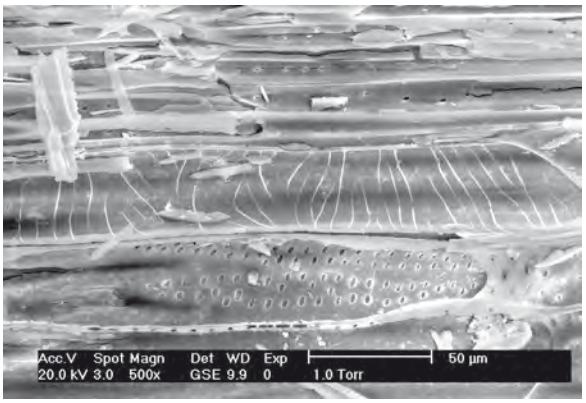
Sl. 8: Hiša 13, vzorec 2/2, *Acer* sp. (javor); prečni prerez oglja: difuzno porozen s solitarnimi porami ali združenimi v skupine po 2–3.
Fig. 8: Casa 13, campione 2/2, *Acer* sp. (acero); sezione trasversale di carbone: porosità diffusa con pori isolati o riuniti in gruppi di 2–3.



Sl. 10: Hiša 13, vzorec 2/2, *Acer* sp. (javor); tangencialen prerez z 1–4 rednimi trakovi in enostavnimi perforacijami (nad enorednim trakom).
Fig. 10: Casa 13, campione 2/2, *Acer* sp. (acero); sezione tangenziale con raggi 1–4 seriati e perforazioni semplici (sopra il raggio uniseriato).



Sl. 9: Hiša 13, vzorec 2/2, *Acer* sp. (javor); prečni prerez oglja; detajl sl. 8 s parom por.
Fig. 9: Casa 13, campione 2/2, *Acer* sp. (acero); sezione trasversale di carbone: particolare della foto 8 con una coppia di pori a sinistra e un poro singolo a destra.



Sl. 11: Hiša 13, vzorec 2/2, *Acer* sp. (javor); radialen prerez; na spodnjem delu: enostavne perforacije in helikalne odebelitve.
Fig. 11: Casa 13, campione 2/2, *Acer* sp. (acero); sezione radiale; dal basso: perforazioni semplici seguite da ispessimenti spiralati.

le na podlagi oblike lesnih trakov v tangencialnem prerezu, smo vrsto *Acer platanoides* preimenovali v širšo taksonomsko skupino *Acer* sp. Ker tudi vrsto *Fraxinus ornus* težko razlikujemo od vrste *Fraxinus excelsior*, smo uporabili širšo taksonomsko opredelitev, to je *Fraxinus* sp., v skladu s preučenimi atlasi mikroskopske zgradbe lesa (Schweingruber 1990a, 1990b).

Kot *Picea/Larix* je opredeljeno oglje, za katerega ni bilo mogoče natančneje opredeliti taksona, kajti na njem nam ni uspelo prepoznati prehoda med ranim in kasnim lesom ter t. i. Sanijevih odebelitev (it. *barre di Sanio*).

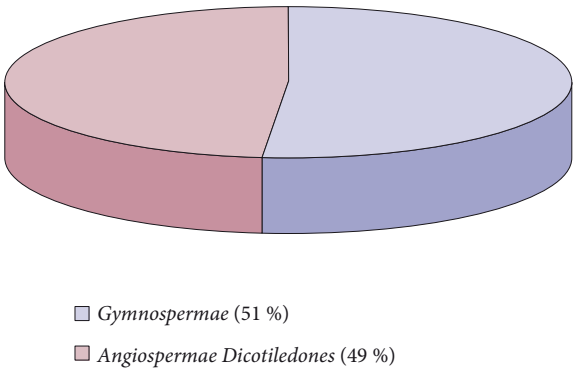
Glede na ksilotomsko opredelitev ni mogoče razlikovati črne (*Alnus glutinosa*) od sive jelše (*Alnus incana*), prav tako ne med rumenim in rdečim drenom (*Cornus mas*/*sanguinea*).

quanto emerge dagli atlanti di microscopia del legno consultati (Schweingruber 1990a, 1990b).

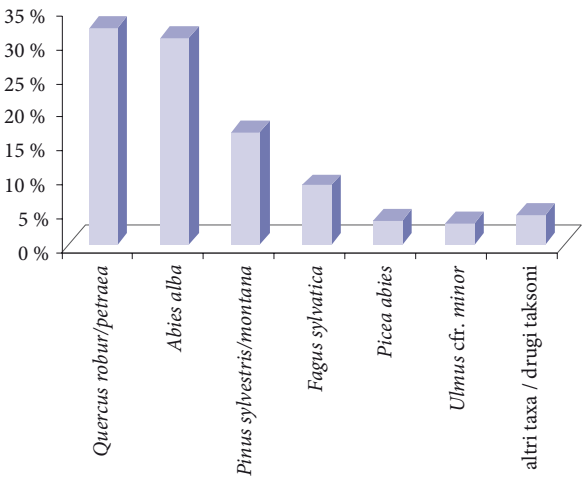
Si indica con *Picea/Larix* un carbone di cui non è stato possibile definire l'attribuzione tassonomica in modo più specifico, a causa della difficile identificazione del passaggio da legno primaverile a legno tardivo in sezione trasversale e del mancato riconoscimento delle barre di Sanio.

Alnus glutinosa (ontano nero) non si può differenziare da *Alnus incana* (ontano bianco) per via silotomica; altrettanto dicasi per *Cornus mas* (corniolo) e *Cornus sanguinea* (sanguinella).

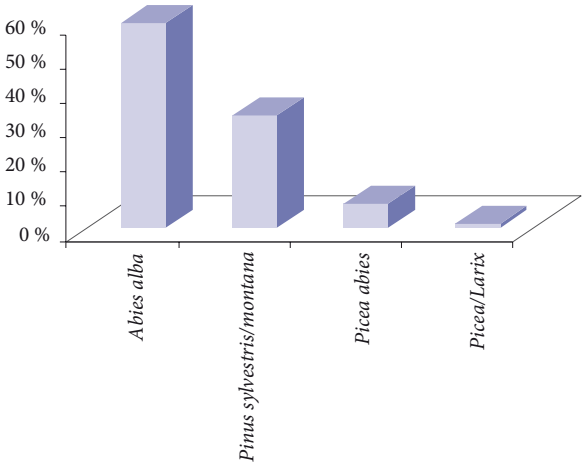
Per quanto riguarda il genere *Quercus*, il gruppo delle querce caducifoglie (*Quercus* sez. *Robur*) comprende *Q. robur* , *Q. petraea* e *Q. pubescens*, non distinguibili



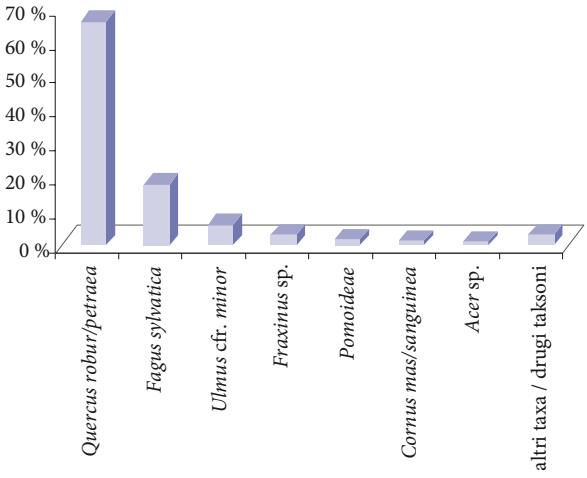
Graf 1: Most na Soči. Delitev na golosemenke (Gymnospermae) in kritosemenke (Angiospermae Dicotiledones) v vzorčenem oglju hiš.
Grafico 1: Most na Soči. Suddivione tra Gymnospermae e Angiospermae Dicotiledones nei carboni delle case.



Graf 2: Most na Soči. Rezultati antrakološke analize: najpogostejši taksoni v okviru vzorčenega oglja, v padajočem odstotkovnem vrstnem redu.
Grafico 2: Most na Soči. Risultati dell'analisi antracologica: i taxa più rappresentati nei carboni, in ordine percentuale decrescente.



Graf 3: Most na Soči. Rezultati antrakološke analize: pogostost taksonov v okviru vzorčenega oglja skupine golosemenk.
Grafico 3: Most na Soči. Risultati dell'analisi antracologica: i taxa in ordine di presenza percentuale decrescente nei carboni del gruppo delle gimnosperme.



Graf 4: Most na Soči. Rezultati antrakološke analize: pogostost taksonov v okviru vzorčenega oglja skupine kritosemenk.
Grafico 4: Most na Soči. Risultati dell'analisi antracologica: i taxa in ordine di presenza percentuale decrescente nei carboni del gruppo delle angiosperme dicotiledoni.

Podobno ni mogoče razlikovati med *Q. robur*, *Q. petraea* in *Q. pubescens*, ki jih prištevamo k vrsti listopadnih hrastov (*Quercus*); zaradi naravnih razmer v okolici Mosta na Soči lahko od naštetih treh izločimo le *Q. pubescens*.

Kot *Pomoideae* so označene vrste iz družine *Rosaceae* (rožnice), v katero so vključene *Pyrus*, *Malus*, *Crataegus* in *Sorbus* (hruška/jablana/glog/jerebika), ki jih prav tako ni mogoče razlikovati med seboj po ksilotomskih značilnostih.

V *tabeli 1* so navedeni numerični in odstotni rezultati za vsako hišo posebej in za vse analizirano oglje; 51 % vseh analiziranih odlomkov oglja, tj. 246 fragmentov,

tra loro a livello silotomico; a Most na Soči si esclude *Q. pubescens* per motivi ecologici, facendo riferimento a farnia/rovere (*Quercus robur/petraea*).

Pomoideae si riferisce a un gruppo di piante all'interno della famiglia delle *Rosaceae*, che comprende *Pyrus, Malus, Crataegus, Sorbus* (pero, melo, biancospino e sorbo), non distinguibili a livello silotomico.

La *tabella 1* evidenzia i risultati delle analisi in termini numerici e percentuali totali casa per casa. Sul totale dei carboni esaminati, il 51%, pari a 246 frustoli, appartiene alle gimnosperme, il 49%, pari a 234 frammenti è riferito alle angiosperme dicotiledoni

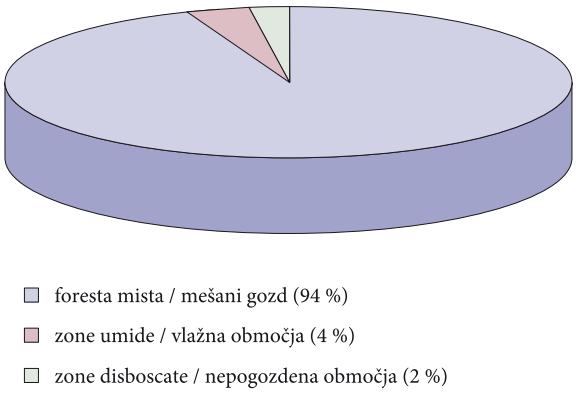
pripada golosemenkam, preostalih 49 % pa kritosemenkam (*graf 1*). Na *grafu 2* so prikazani identificirani taksoni vseh 480 analiziranih kosov oglja v odstotkih v padajočem vrstnem redu. Prevladuje *Quercus robur/petraea* (32,08 %), sledijo *Abies alba* (30,62 %), *Pinus sylvestris/montana* (16,66 %), *Fagus sylvatica* (8,75 %) in *Picea abies* (3,54 %). Vse ostale vrste lesa skupaj zastopajo le 8,35 %. *Grafa 3* in *4* prikazujeta prisotnost posameznih vrst v okviru golosemenk in kritosemenk; pri prvih prevladuje navadna jelka, pri drugih pa hrast (dob/graden).

Rezultati analize kažejo na mešani listopadni gozd s predeli iglavcev, značilen za ravninska in hribovita območja. Gre torej za mešani sestoj gozda s hrastom, bukvijo, gabrom, nagnojem, javorjem in jelko, ki se jim na hladnejših območjih pridružita smreka in rdeči bor ter v vlažnih in zatišnih legah poljski brest, jelša, črni gaber in jesen, na nepogozdenih območjih pa leska, rožnice (hruška/jablana/glog/jerebika) in dren.

V preteklosti so bile v Posočju opravljene palinološke raziskave številnih sedimentov iz obdobja med riškim glacialom, kasnim glacialom in holocenom (Šercelj 1981). Na primer, v kasnem glacialu je v Srpenici (12490 +/- 70 BP) ugotovljen pelod drevesnih vrst *Pinus, Picea, Abies* in *Betula*. V Kobaridu se je les ohranil le v obliki fragmentov oglja. V holocenski plasti v Kobaridu (referenčna datacija izvira z najdišča Smrekova draga; 847+/–70 BP) je zastopan cvetni prah drevesnih vrst *Pinus*, *Picea*, *Abies*, *Alnus*, *Carpinus*, *Quercus* in *Fagus*, s prevladujočim pelodom jelke, bora in bukve. Sorazmerno visoka prisotnost jelke in bora kaže na subalpski gozd jelk z *Abieti-Fagetum*, ki je dosegel svojo zaključno razvojno fazo v prvem postglacialnem obdobju. Po mnenju Šerclja naj bi se jelka in bukev razširili kot pionirski vrsti na degradirana in antropoizirana območja Soške doline prav zaradi vpliva železnodobnega prebivalstva Tolmina in Mosta na Soči.

Tudi druge palinološke raziskave, opravljene v 20. in 21. stoletju, ponujajo številne podatke o holocenski vegetaciji na ozemlju današnje Slovenije. Analize vzorcev z nekaterih najdišč na Ljubljanskem barju, npr. Podpeškega jezera (Gardner 1997 in 1999), kažejo na krčenje gozdov in spreminjanje drevesnih vrst v njihovem sestoju od približno 4000 pr. Kr. (Andrič 2016). Človekov vpliv na okolje je še občutnejši od prvega tisočletja pr. Kr. Obsežnejše krčenje gozdov se je pojavilo po letu 300 pr. Kr. Takrat je nastala današnji podobna odprta pokrajina, kar se izraža v polovico manjšem deležu drevesnega peloda. Podobne spremembe kaže pelodni diagram z najdišča Resnikov prekop (Andrič 2006), na katerem je okoli leta 200 pr. Kr. zaznati podobno sestavo vegetacije.

Pelodni diagram z Vrhnike kaže na mešani gozd (*Fagus*, *Abies*, *Quercus*, *Carpinus betulus* in *Alnus*) od približno leta 970 pr. Kr. Tak gozd se je ohranil vse do 3. oziroma 2. stol. pr. Kr., vendar je bila pokrajina delno pogozdena zlasti z lesko (*Corylus*) in drugimi taksoni odprtih površin (Andrič 2016).



Graf 5: Most na Soči. Območja poseka lesa.
Grafico 5: Most na Soči. Ambiti di prelievo del legname.

(*grafico 1* – aerogramma); più in dettaglio, il *grafico 2* (istogramma) mette in evidenza, in ordine percentuale decrescente, la presenza dei *taxa* riferiti ai 480 carboni esaminati: domina *Quercus robur/petraea* con il 32,08%, seguita da *Abies alba* con il 30,62%, *Pinus sylvestris/montana* con il 16,66%, *Fagus sylvatica* con l'8,75%, *Picea abies* con il 3,54%; i restanti tipi di legno sono rappresentati con l'8,35% complessivamente. I *grafici 3 e 4* (istogrammi) mostrano la situazione delle specie rispettivamente all'interno delle gimnosperme e delle angiosperme dicotiledoni; nel primo gruppo domina l'abete bianco, nel secondo la farnia/rovere.

Il quadro ottenuto mostra la presenza di una foresta mista di latifoglie caratteristica della pianura e in parte del piano submontano, con inserti di conifere (cioè *Quercus, Fagus*, *Carpinus*, *Laburnum*, *Acer* con *Abies*); a questa compagine boschiva si aggiungono nelle zone più fresche *Picea abies e Pinus sylvestris/montana*, nelle zone umide e ripariali *Ulmus* cfr. *minor*, *Alnus* , *Ostrya carpinifolia*, *Fraxinus* e nelle aree disboscate *Corylus avellana*, *Pomoideae*, *Cornus*.

Studi palinologici effettuati in passato riguardano numerosi depositi della Valle dell'Isonzo collocati tra glaciazione del Riss, Tardiglaciale e Olocene (Šercelj 1981). Ad esempio, nel Tardiglaciale, a Srpenica (12490 +/- 70 BP) sono attestati pollini di *Pinus, Picea, Abies* e *Betula*. Nel tardo-Olocene a Kobarid - la data ^{14}C di riferimento è quella di Smrekova Draga: 847+/-70 BP - è confermata la presenza di pollini (PA) di *Pinus, Picea, Abies, Alnus, Carpinus, Quercus, Fagus*, tra i quali dominano abeti, pini e faggi. Il valore relativamente alto di abete e di pino riflette la presenza della foresta subalpina di abeti insieme all'*Abieti-Fagetum*, che ha raggiunto la sua fase finale di sviluppo durante il primo post-glaciale: Šercelj non esclude che l'abete rosso e il faggio si fossero diffusi nella Valle dell'Isonzo come piante pioniere in aree degradate o antropizzate, proprio sotto l'influenza delle popolazioni dell'età del Ferro di Tolmino e di Most na Soči.

	CASE / HIŠE																								
Taxa / Taksoni	1	2	3	5	6	7	8	9	11	12	13	14	15	15A	16	20	22	23	24	27	29	30	31	33
GYMNOSPERMAE / GOLOSEMENKE																								
Abies alba (abete bianco / navadna jelka)	■	■	■		■	■		■	■	■	■		■	■	■	■		■	■					
Picea abies (abete rosso / navadna smreka)	■	■				■									■			■						
Picea/Larix (abete rosso/larice / smreka/macesen)															■									
Pinus sylvestris/montana (pino silvestre/montano / rdeči bor/rušje)	■			■								■		■	■		■	■	■	■	■			
ANGIOSPERMAE DICOTYLEDONES / KRITOSEMENKE																								
Alnus glutinosa/incana (ontano / črna/siva jelša)					■																			
Carpinus betulus (carpino bianco / beli gaber)	■																							
Ostrya carpinifolia (carpino nero / črni gaber)	■																							
Corylus avellana (nocciolo / navadna leska)					■										■									
Fagus sylvatica (faggio / navadna bukev)	■	■			■	■					■		■	■	■		■			■				
Quercus robur/petraea (farnia/rovere / dob/graden)	■	■	■	■	■	■	■		■	■	■		■	■	■	■	■	■		■	■	■	■	■
Ulmus cfr. *minor* (olmo campestre / poljski brest)				■	■									■										
Laburnum sp. (maggiociondolo / nagnoj)											■													
Pomoideae (pero/melo/biancospino/sorbo / hruška/jablana/glog/jerebika)															■									
Acer sp. (acero / javor)	■								■		■													
Cornus mas/sanguinea (corniolo / rumeni/rdeči dren)					■																			
Fraxinus sp. (frassino / jesen)		■									■					■								
Numero *taxa* identificati / *Število prepoznanih taksonov*	8	5	2	3	7	4	1	1	3	2	6	1	3	5	8	3	3	4	2	3	2	1	1	1

Tabela 2: Most na Soči. Prisotnost taksonov v vzorčenem oglju hiš.
Tabella 2: Most na Soči. Presenza dei taxa nei carboni delle case.

V rimskem pristanišču Nauportus, kjer so odkrili številne ostanke obdelanega in naravnega lesa iz debel in vej iz časa med 4. in 1. stol. pr. Kr. (Horvat et al. 2016), so zastopane vrste *Quercus*, *Alnus*, *Corylus*, *Acer*, *Tilia*, *Fagus*, *Salix*, *Populus*, *Carpinus*, *Ulmus*, *Rosaceae* in *Abies*. Iz pelodne analize je razbrati, da se je vegetacija na tem območju močno spremenila v drugi polovici 1. tisočletja pr. Kr., že pred rimsko osvojitvijo, kar se časovno ujema z močnim krčenjem gozdov v železni dobi v Soški dolini, ki ga gre pripisati prebivalcem Mosta na Soči. Izraža se v zoglenelih ostankih lesa, odkritega v naselbini (6.–1. stol. pr. Kr.).

Tudi številne študije botaničnih ostankov z najdišč v severni Italiji prispevajo relevantne podatke o sestavi takratne vegetacije. Po antrakoloških analizah z območja Furlanije je bil gozd v železni dobi podvržen intenzivnemu krčenju. Na najdišču Gradisca di Spilimbergo (pokrajina Pordenone) so odkrili ostanke palisade iz stojk (konec 10.–8. stol. pr. Kr.), na katero so se navezovali nasip in drugi prostori iz konca 7. in 6.–5. stol. pr. Kr. Pri gradnji palisade je bil uporabljen le les hrasta (dob/graden) (Motella De Carlo 2007). V Palse di Porcia, v bližini S. Ruffina, so našli ostanke različnih lesenih struktur, med njimi odpadni material peči iz obdobja med 9. in 8. stol. pr. Kr., identificiran kot jelša, navadna leska, bukev, hrast, brest, pečkatoplodne rožnice in jesen. Hrast je zastopan tudi med ostanki lesa med 6. in 4. stol. pr. Kr. (Castiglioni et al. 1996).

Na najdišču Montereale Valcellina so v plasteh 5. stol. pr. Kr. odkrili ostanke lesa nižinskega gozda s prevladujočim hrastom in tudi višinskih gozdov z vrstami, kot so jelka, bor in macesen (Castiglioni et al. 1996). Na veliko izkoriščenje gozdov kažejo tudi najdbe v Pozzuolo del Friuli (Udine/Videm), kjer so ugotovili, da so hrastov les in les drugih vrst uporabljali pri pripravi grmad v bližini grobišč in v gradiščih (Motella De Carlo 1998a). Na uporabo hrasta in bresta skupaj z jesenom v 6.–5. stol. pr. Kr. kažejo tudi raziskave na najdišču Gradiscutta di Varmo (Udine/Videm) (Castiglioni et al. 2002).

Za rekonstrukcijo gozdne vegetacije ni nič manj pomembna baza mikroostankov z žarnih grobišč v severni Italiji. Z analizami na grobišču v bližini Casa di Ricovero v Estah (Padova) v Venetu smo npr. ugotovili nepretrgano krčenje gozdov v obdobju med 7. in 3. stol. pr. Kr. Prevladoval naj bi mešani hrastov gozd z značilnimi vrstami za obrežja in območja odprte pokrajine (Motella De Carlo 1998b). Krčenje nižinskega listopadnega gozda kot posledica človekovega vpliva je bilo ugotovljeno tudi na drugih, podobno raziskanih najdiščih, npr. na grobiščih v Padovi: v ulici Tiepolo (6. stol. pr. Kr.), na delu med ulicama Tiepolo in S. Massimo (8.–3. stol. pr. Kr.) in na območju pokopališča Palazzo Emo Capodilista (8.–1. stol. pr. Kr.). Ta najdišča so delno sočasna z naselbino Most na Soči (Motella De Carlo 2005).

La storia della vegetazione in territorio sloveno durante l'Olocene è stata ricostruita grazie a numerosi studi palinologici effettuati tra il XX e il XXI secolo; tra questi si citano in particolare le ricerche che hanno interessato alcuni siti collocati nella Palude di Lubiana (Ljubljansko barje). Le ricerche su Podpeško jezero (Gardner 1997, 1999) evidenziano che il diradamento delle foreste, con cambiamenti nella loro composizione, inizia su piccola scala a partire da circa 4000 anni cal. a.C. (Andrič 2016) e che, dall'inizio del primo millennio a.C. circa, si assiste a un'intensa pressione antropica sull'ambiente. Successivamente, dopo il 300 cal. a.C., momento in cui si forma l'attuale paesaggio aperto, avviene una deforestazione su vasta scala, dimostrata dalla riduzione al 50% del polline AP. Ciò è suggerito anche dal diagramma pollinico di Resnikov prekop (Andrič 2006) che manifesta una composizione analoga della vegetazione attorno al 200 a.C. circa.

A Vrhnika il diagramma pollinico evidenzia una foresta mista di *Fagus, Abies, Quercus, Carpinus betulus* e *Alnus* a partire dal 970 circa cal. a.C., che perdura nei secoli seguenti fino al III-II a.C.; tuttavia il paesaggio risulta essere solo in parte forestato, con un'elevata percentuale di *Corylus* e di *taxa* di piante erbacee (Andrič 2016).

Ancora a proposito di Vrhnika, l'area portuale romana di Nauportus, ha restituito legni allo stato naturale di *Quercus, Alnus, Alnus, Corylus, Acer, Tilia, Fagus, Salix, Populus,Carpinus, Ulmus, Rosaceae, Abies*, inquadrabili cronologicamente fra il IV e il I sec. a.C. (Horvat *et al*. 2016).

I risultati delle indagini polliniche rivelano un significativo cambio di vegetazione in questo territorio nella seconda metà del primo millennio cal. a.C., precedente all'occupazione romana; ciò è in sintonia con l'intensa deforestazione che le popolazioni di Most na Soči hanno imposto nella Valle dell'Isonzo durante l'età del Ferro, come testimoniato dallo studio dei reperti lignei combusti rinvenuti nell'insediamento (VI sec. - I sec. a. C.).

L'analisi dei reperti botanici per la ricostruzione della vegetazione è stata applicata in numerosi contesti archeologici anche in Italia settentrionale; per quanto riguarda, ad esempio, il Friuli nell'età del Ferro, l'immagine che emerge dai dati antracologici è quella di un bosco che ha subito un'intensa deforestazione.

In provincia di Pordenone, a Gradisca di Spilimbergo, i resti di un fronte strutturato a pali (fine X-VIII sec. a.C.) che contenevano un aggere e ambienti addossati all'aggere stesso (fine VII e VI-V sec. a.C.) hanno rivelato l'utilizzo esclusivo della quercia caducifoglie (farnia/rovere) (Motella De Carlo 2007). A Palse di Porcia, in località S. Ruffina, resti di legno, in parte pertinenti a strutture, in parte a scarichi di focolare, risalenti ad un'epoca compresa fra IX e VIII sec. a.C., hanno dimostrato la presenza di ontano, nocciolo, faggio, quercia

KATEGORIJE VZORCEV OGLJA TER TEHNOLOGIJA OBDELAVE IN UPORABE LESA

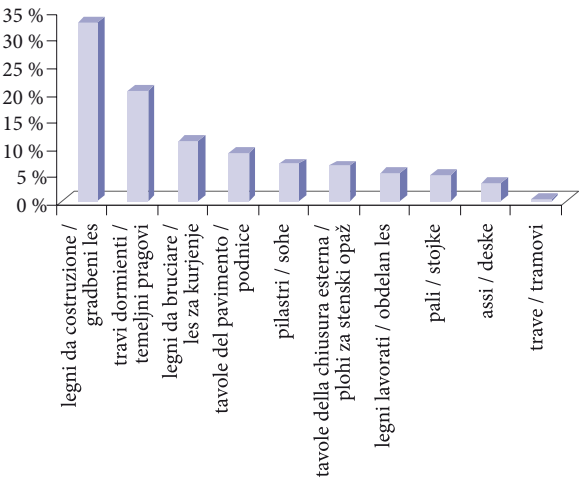
Vzorce zoglenelega lesa iz naselbine na Mostu na Soči smo razdelili v več kategorij zato, da bi izdelali konstrukcijski model hiš in predstavili dejavnosti, ki so se v njih odvijale.

Identificirani ostanki oglja iz 22 hiš (iz analize sta izključeni hiši 1 in 2) so številčno predstavljeni v *tabeli 3*, povzeto pa še na *grafu 6*. V 255 pregledanih vzorcih smo ugotovili 263 tipov najdb. Razlika je nastala zato, ker vsebuje vzorec 40 iz hiše 11 dva tipa najdb, in sicer temeljni prag in obdelan les, kar znese ob skupno 41 pregledanih vzorcih 42 tipov najdb. Po dva različna tipa vsebujejo tudi vzorci 4, 9 in 14 iz hiše 15, v kateri je bilo pregledanih 15 vzorcev, prepoznanih pa 18 tipov najdb. Podobno velja za vzorce 14, 15, 35 in 38 iz hiše 16, iz katere je bilo analiziranih 51 vzorcev ter prepoznanih 55 tipov najdb.

Večina vzorcev predstavlja gradbene elemente hiš, in sicer temeljne pragove, plohe za stene, deske, vmesne in vogalne sohe, stojke ter gradbeni les. Preostale najdbe smo opredelili kot obdelani les in les za kurjenje. Precejšen delež vseh pregledanih vzorcev pomenijo "gradbeni les" (32,70 %) in "temeljni pragovi" (20,15 %) (*graf 6*).

Med 255 pregledanimi vzorci jih je 84 % pripadalo gradbenim elementom hiš, pri preostalih 16 % gre za kose oglja, ki niso deli hiš, temveč les za kurjenje oziroma oglje s sledmi obdelave (obdelani les). Nekaj je tudi primerov, ko so obdelani les sekundarno uporabili za kurjavo (*graf 7*).

V nadaljevanju si bomo ogledali kategorije najdb in nekatere njihove značilnosti.



Graf 6: Most na Soči. Pogostost posameznih kategorij artefaktov.
Grafico 6: Most na Soči. Percentuali relative alle categorie di reperti.

caducifoglie, olmo, pomoidee e frassino maggiore; la quercia è documentata anche tra VI e IV sec. a.C. (Castiglioni *et al.* 1996).

A Montereale Valcellina, in livelli di V sec. a.C., sono documentate tracce della foresta di pianura con la quercia dominante, ma anche quelle del bosco di quote più elevate, con abete bianco, abete rosso, pino silvestre e larice (Castiglioni *et al.* 1996). Un intenso sfruttamento del patrimonio boschivo è stato accertato anche a Pozzuolo del Friuli (Udine): l'utilizzo del legno di quercia, insieme ad altre specie, per allestire i roghi crematori è dimostrato sia presso la necropoli che presso il castelliere (Motella De Carlo 1998a).

Anche gli studi condotti a Gradiscutta di Varmo (Udine) segnalano la presenza di resti di quercia e olmo insieme a frassino ed acero nel VI-V sec. a.C. (Castiglioni *et al.* 2002).

In altre località dell'Italia settentrionale la presenza di necropoli a incinerazione costituisce una riserva di dati antracologici per la ricostruzione della copertura forestale nel passato; in Veneto, per citare un esempio, la necropoli presso la Casa di Ricovero di Este (Padova) ha permesso di accertare che la vegetazione è stata sfoltita con una certa continuità tra il VII e il III sec. a.C., mettendo in evidenza tracce del querceto misto con specie di ambito perialveale e di alberi tipici delle zone di diradamento (Motella De Carlo 1998b). Nel territorio di Padova si annoverano casi di studio quali le necropoli di via Tiepolo (VI sec. a.C.), quelle dell'area tra via Tiepolo e via S. Massimo (VIII-III sec. a.C.) e dell'area cimiteriale di Palazzo Emo Capodilista (VIII-I sec. a.C.), che dimostrano forti riduzioni della foresta planiziale di latifoglie, ad opera delle popolazioni insediate (Motella De Carlo 2005) in un periodo concomitante alla frequentazione del villaggio di Most na Soči.

CATEGORIE DI REPERTI NEI CARBONI E TECNOLOGIA DEL LEGNO

I campioni di legno combusto rinvenuti a Most na Soči sono stati classificati in categorie al fine di poter realizzare un modello costruttivo delle case stesse e interpretare alcune attività svolte al loro interno.

I tipi di reperti classificati nelle 22 case analizzate (sono escluse le case 1 e 2) si osservano nella *tabella 3* e i dati riassuntivi nel *grafico 6* (istogramma). Nella *tabella 3* i tipi di reperto risultano essere 263 su 255 campioni esaminati: infatti nella casa 11 il camp. 40 può essere riferito a due distinti tipi di reperto, trave dormiente e legno lavorato, per un totale di 41 campioni esaminati e 42 tipi di reperto; a due distinti tipi di reperto possono essere associati anche i camp. 4, 9, 14 della casa 15, per la quale risultano 15 campioni esaminati e 18 tipi di reperto. La stessa situazione si verifica per i campioni 14, 15, 35 e 38 della casa 16, che presenta 51 campioni esaminati e 55 tipi di reperto.

CASE / HIŠE

CATEGORIE NEI REPERTI CARBONIZZATI / KATEGORIJE ZOGLENELIH NAJDB	3	5	6	7	8	9	11	12	13	14	15	15A	16	20	22	23	24	27	29	30	31	33	T. N. / skupno	%
trave dormiente / temeljni prag	2	6			3	1	8	2		1	8	4	4	3		1	2	2	1	1	3	1	53	20,15
trave / tram							1																1	0,38
tavola della chiusura esterna / ploh za stenski opaž							14				1			2									17	6,46
tavola del pavimento / podnica							4				5		14										23	8,75
asse / deska													9										9	3,42
pilastro / soha	1						9		1		1			1		4	1						18	6,84
palo / stojka													12							1			13	4,94
legno da costruzione / gradbeni les	7	4	1			1	5		6		3	19	3	3	3	19		7	3		1	1	86	32,7
legno lavorato / obdelan les							1						13										14	5,32
legno da bruciare / les za kurjenje			28	1																			29	11,02
																								ca 100%
totale “tipi di reperto” / skupno “tipi najdb”	10	10	29	1	3	2	42	2	7	1	18	23	55	9	3	24	3	9	4	2	4	2	263	
totale campioni esaminati / skupno pregledani vzorci	10	10	29	1	3	2	41	2	7	1	15	23	51	9	3	24	3	9	4	2	4	2	255	

Tabela 3: Most na Soči. Tipi identificiranih ostankov v vzorčenem oglju hiš.
Tabella 3: Most na Soči. Tipi di reperti identificati nei carboni delle case.

Temeljni pragovi: so tramovi, položeni vodoravno na kamnit temelj. Iz 18 od skupno 22 hiš je bilo 53 vzorcev opredeljenih kot temeljni prag; največ, po 8 vzorcev, v hiši 11 in 15. Veliko pragov je bilo izdelanih iz hrasta (doba/gradna), nekaj iz jelke, bora in nagnoja (*tabela 3*). Vzorec 3 iz hiše 5 je iz bora in ima okrogel presek (*sl. 28*). Fragmenti vzorca 1 iz hiše 8 (hrast dob/graden) so precej veliki, zato smo lahko izmerili dolžino radialnega reza[4] temeljnega praga (*sl. 36*); branike so namreč ohranjene le toliko, da ni mogoče določiti največjega obsega. Vzorec ima na izmerjenem delu gostoto branik 4,34. Radialni prerez je viden tudi na vzorcu 6 iz hiše 11 (*sl. 40A*) z gostoto branik 3,38 in okvirno največjim premerom več kot 20 cm ter na vzorcu 34 iz hiše 11. Pri vzorcu 13 iz hiše 15 (*sl. 46*) gre za odsekan kos lesa, ki predstavlja najverjetneje četrtino debla, podobno kot pri vzorcu 2 iz hiše 8 (*sl. 37*). V hiši 24 kaže vzorec št. 3, da je bil temeljni prag najverjetneje izdelan iz četrtine debla (*sl. 56*). V *tabeli 5* so prikazani tipi lesa, uporabljeni za temeljne pragove v hišah, med katerimi močno prevladujeta hrast in jelka.

Plohi za stenski opaž: gre za vodoravno položene plohe, iz katerih so narejene zunanje stene hiš; štirinajst jih je bilo prepoznanih v hiši 11, ena v hiši 15 in dve v hiši 20. Način prereza je viden na vzorcih iz hiše 11; vzorca 5 (*sl. 40B*) in 15 kažeta tangencialni rez, nekateri plohi so bili pridobljeni z radialnim rezom (vzorci 12, 13, 14, 19, 21 in 30). Vzorec 14 iz hiše 15 vsebuje poleg ploha še ostanke sohe. Plohi so bili izdelani iz jelke, hrasta in jesena (*tabela 4*).

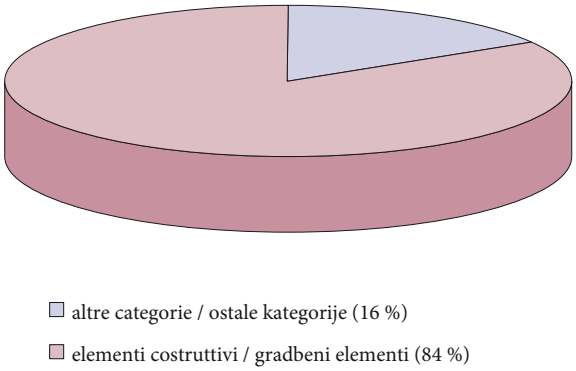
Podnice: so elementi hišnega poda. Prisotne so bile v hišah 16 (14 desk), 15 (5) in 11 (4). Večinoma gre za manjše kose oglja oziroma njihove sledi, na katerih ni mogoče prepoznati vrste reza. V hiši 11 je na vzorcu 36 prepoznaven tangencialni rez, medtem ko je na vzorcu 38 radialni rez. Podnice so izdelane iz jelke, smreke/macesna, bora in hrasta (*tabela 4*).

Deske:[5] skupno je bilo najdenih 9 desk, vse v hiši 16. Gre za del ograje, postavljene okoli hiše; deske so iz lesa jelke in bora.

Vmesne sohe: so pokončni elementi s prečnim prerezom kvadratne oblike, postavljeni na sredini stene in zasidrani v temeljni prag. Osem primerov je bilo najdenih v hiši 11, od teh trije *in situ*: dva v severozahodni steni (vzorci 20, 10–11) in eden v jugovzhodni steni (vzorec 23). En vzorec vmesne sohe je bil najden tudi v hiši 15.

[4] Radialni rez poteka po osrednji osi debla in enega traku, tangencialni prerez poteka po sečnici transverzalnega dela in je vzporeden osi debla (Giordano 1981).

[5] Ločevanje med plohi in deskami je bilo določeno glede na velikosti (Arosio 1965); če je debelina artefakta znašala manj kot 2,5 cm, smo vzorec opredelili za desko, pri debelini, večji od 2,5 cm, pa za ploh.



Graf 7: Most na Soči. Primerjava pogostosti gradbenih elementov in drugih kategorij (les za kurjenje in obdelan les).
Grafico 7: Most na Soči. Confronto fra elementi costruttivi e altre categorie di reperti (legni da bruciare e legni lavorati).

La maggior parte dei campioni si riferisce a elementi strutturali degli edifici e precisamente a parti di travi dormienti, tavole della chiusura esterna, assi, pilastri intermedi, pilastri angolari, pali, legni da costruzione; altri reperti sono stati riconosciuti come legni lavorati o legni da bruciare. Una parte consistente dei campioni è rappresentata dalle categorie "legno da costruzione" (30,70%) e "travi dormienti" (20,15%) (*grafico 6* – istogramma).

Dei 255 campioni esaminati, l'84% rappresenta elementi strutturali degli edifici, il restante 16% si riferisce a carboni che non sono parte degli edifici, bensì legname da ardere (legno da bruciare) o carboni con tracce di lavorazione (legno lavorato); in qualche caso si tratta anche di manufatti riutilizzati come legname da ardere (*grafico 7* – aerogramma).

Di seguito si analizza il significato di ciascuna categoria di reperti e alcune caratteristiche evidenziate durante il lavoro di analisi.

Travi dormienti: travi collocate in posizione orizzontale sulle fondazioni di pietra; sono in tutto 53 i campioni riferiti alle travi dormienti, presenti in 18 case su 22; 8 nella casa 11 e nella casa 15. Molte sono in legno di farnia/rovere, alcune in abete bianco, altre in pino e maggiociondolo (*tabella 3*). Nella casa 5 si osserva la sezione circolare del camp. 3 (*fig. 28*), in legno di pino. Le dimensioni dei frammenti del camp. 1 della casa 8 consentono di individuare il taglio radiale[4] della trave dormiente all'interno di un tronco di notevoli dimensioni in legno di quercia (farnia/rovere) (*fig. 36*); gli anelli, molto ravvicinati e con densità anulare 4.34 sul campione a disposizione, sono rettilinei e pertanto non è possibile determinare il diametro massimo apparente. Il taglio radiale si osserva anche nei camp. 6 (*fig. 40A*),

[4] La sezione radiale passa per l'asse midollare del fusto e per un raggio, la sezione tangenziale passa per una secante della sezione trasversale ed è parallela all'asse del fusto (Giordano 1981).

CATEGORIE DI REPERTI / KATEGORIJE ARTEFAKTOV / Taxa / Taksoni	*Abies alba*	*Picea abies*	*Picea/Larix*	*Pinus sylvestris/montana*	*Alnus glutinosa/incana*	*Corylus avellana*	*Fagus sylvatica*	*Quercus robur/petraea*	*Ulmus* cfr. *minor*	*Laburnum* sp.	*Pomoideae*	*Acer* sp.	*Cornus mas/sanguinea*	*Fraxinus* sp.
trave dormiente / temeljni prag	*			*				*						
trave / tram								*						
tavola della chiusura esterna / ploh za stenski opaž	*							*						*
tavola del pavimento / podnica	*		*	*				*						
asse / deska	*			*										
pilastro / soha	*	*		*				*						
palo / stojka	*			*				*						
legno da costruzione / gradbeni les	*	*		*			*	*	*	*		*		*
legno lavorato / obdelan les	*					*	*	*			*	*		
legno da bruciare / les za kurjenje	*	*		*	*	*	*	*	*				*	

Tabela 4: Most na Soči. Razmerja med lesenimi artefakti in taksoni.
Tabella 4: Most na Soči. Corrispondenza tra reperti di legno e taxa.

Vogalne sohe: so zasidrane v temeljna pragova, ki se križata v vogalu dveh sten. V hiši 11 sta bili najdeni dve, še pet so jih našli v hišah 3, 13, 20, 23 in 24.

Na splošno smo pri sohah opazili, da so radialno rezane (npr. pri vzorcih 10–11, 23, 25 in 26 iz hiše 11). Izdelane so iz jelke, smreke, bora in hrasta.

Stojke: so navpični gradbeni elementi s praviloma okroglim prečnim prerezom, zabiti v tla. Našli so jih v hiši 16 in so del zunanje ograde. Izdelane so iz jelke in bora. Iz hiše 30 izhaja hrastov vzorec (vzorec 2), ki je bil postavljen v luknjo, izkopano v tla.

Gradbeni les: v to kategorijo smo uvrstili precejšnje število zoglenelih kosov (86). Ker se ti lesni ostanki niso vedno najbolje ohranili, ni bilo mogoče natančneje določiti njihove prvotne lege in uporabe pri gradnji. Les te vrste je bil prepoznan v šestnajstih hišah. V nekaterih primerih smo ostanke opredelili kot dele gradbenih elementov, katerih konteksta ni bilo mogoče natančneje določiti. Pri vzorcu 5a iz hiše 3 gre najverjetneje za del temeljnega praga in sohe, pri vzorcu 6 iz hiše 6 pa za del stojke z okroglim prečnim prerezom. Kot dele stojk smo opredelili tudi vzorca 2 in 3 iz hiše 15A. Iz te izvirata tudi vzorca 6 in 20, gre za dela tramov. Vzorec 3 iz hiše 11 predstavlja del trama (*sl. 40C*), vzorec 24 je verjetno soha, medtem ko bi vzorec 28 lahko bil del sohe (viden je radialni prerez). Pri vzorcu 14 iz hiše 16 (*sl. 50*) so vidni nekateri kosi s tangencialnim, drugi z radialnim prerezom. Fragment vzorca 1 iz hiše 22 ima luknjo (premer 0,6 cm). Vzorec 5 iz hiše 23 je najverjetneje pripadal

con densità anulare 3.38 e diametro massimo apparente > di 20 cm, e 34 della casa 11; nel camp. 13 della casa 15 (*fig. 46*) la porzione di legno tagliata riguarda con tutta probabilità un quarto di tronco, come quello evidenziato nel camp. 2 della casa 8 (*fig. 37*). Infine nella casa 24 il camp. 3 mostra che la trave dormiente è stata con tutta probabilità ricavata da un quarto di tronco (*fig. 56*). La *tabella 5* mostra i tipi di legno utilizzati per realizzare le travi dormienti delle case, con una netta prevalenza della farnia/rovere e dell'abete bianco.

Tavole della chiusura esterna: si tratta delle tavole, collocate orizzontalmente, che rivestivano esternamente le pareti delle case; 14 sono state identificate nella casa 11, 1 nella 15 e 2 nella 20. Si osserva il tipo di taglio nei campioni della casa 11; i camp. 5 (*fig. 40B*) e 15 presentano taglio tangenziale, altre tavole sono state ricavate con taglio radiale (camp. 12, 13, 14, 19, 21, 30). Il camp. 14 della casa 15 contiene anche resti di un pilastro; questi ultimi sono in legno di abete bianco, quercia e frassino (*tabella 4*).

Tavole del pavimento: elementi del pavimento delle case; presenti nelle case 16 (14 tavole), 15 (5) e 11 (4). La maggior parte consiste in frammenti di carbone di dimensioni molto modeste o di spalmature dalle quali non è possibile dedurre il tipo di taglio. Nel camp. 36 della casa 11 è visibile il taglio tangenziale, mentre nel camp. 38 della stessa casa il taglio radiale. I campioni sono in legno di abete bianco, peccio/larice, pino e farnia/rovere (tabella 4).

TAXA / Taksoni	*Abies alba*	*Pinus sylvestris/montana*	*Quercus robur/petraea*	*Ulmus* cfr. *minor*
CASE / HIŠE				
3	*			
5		*		*
8			*	
9	*			
11			*	
12	*		*	
14		*		
15	*		*	
15A	*	*		
16			*	
20			*	
23	*			
24		*		
27			*	
29			*	
30			*	
31			*	
33			*	

Tabela 5: Most na Soči. Tipi lesa za izdelavo temeljnih pragov hiš.
Tabella 5: Most na Soči. Tipi di legno utilizzati per la lavorazione delle travi dormienti delle case.

tramu, vzorec 6 pa stojki. V hiši 27 smo prepoznali dele stojke (vzorec 2) in nepravilne dele sohe (vzorec 8) (*sl. 58*). Za gradbeni les so uporabili vse prepoznane vrste lesa, z izjemo jelše, leske, rožnic in drena.

V hišah 3 in 5 so našli tudi veliko kosov oglja, gre za ostanke borovih in jelovih vej, s premerom od 1,5 do 5 cm.

Obdelani les: so artefakti nenavadnih oblik s sledmi obdelave. V hiši 16 so našli trinajst takšnih primerov in enega v hiši 11; primer obdelanega lesa (vzorec 11 iz hiše 6) je tudi med "lesom za kurjenje".

Vzorec 35/A iz hiše 16 predstavlja del podnice, v katerega je navpično zabit kos lesa rožnic (vzorec 35/B). Vzorec 36 je del veje brez skorje z vidnimi sledovi obdelave na neošiljenem koncu. Vzorec 38/B je po obliki podoben majhni zagozdi, izdelani iz osrednjega dela veje (*sl. 51*). Pri vzorcu 41 nismo zasledili sledov obdelave,

Assi:[5] sono 9 nella casa 16 e si riferiscono a uno steccato costruito esternamente alla casa; sono in legno di abete bianco e pino.

Pilastri intermedi: elementi verticali con sezione trasversale quadrangolare, posti a metà parete, conficcati nel dormiente; 8 sono attestati nella casa 11 e tre di questi sono stati rinvenuti *in situ* (due nella parete NE, camp. no. 20, 10–11, uno nella parete SE, camp. no. 23), uno nella casa 15.

Pilastri angolari: incastrati nelle due travi dormienti che si incrociano all'angolo tra due pareti: 2 nella casa 11, altri 5 distribuiti nelle case 3, 13, 20, 23 e 24.

In generale, nei pilastri è stato riconosciuto il taglio radiale nei camp. 10–11, 23, 25 e 26 della casa 11; questi sono in legno di abete bianco, peccio, pino, quercia.

Pali: elementi verticali di norma con sezione trasversale circolare, conficcati nel terreno; sono in legno di abete bianco e pino, sono presenti nella casa 16 e fanno parte del sostegno dello steccato esterno alla casa. Il camp. 2 della casa 30 è in legno di farnia/rovere, posto in una buca scavata nel terreno.

Legni da costruzione: un buon numero di carboni (86) è stato incluso in questa categoria, non potendo meglio definire la loro collocazione in scavo, e quindi il loro utilizzo durante la costruzione, a causa delle modalità di conservazione del legno in strato, non sempre ottimale; sono stati identificati in 16 case su 22. In alcuni casi sono stati riconosciuti come parti di elementi costruttivi, anche se parziali, non definibili con precisione in relazione al contesto: nella casa 3 il camp. 5a comprende con tutta probabilità parte di una trave dormiente e di un pilastro, mentre nella casa 6 (camp. 6) una porzione di palo (sezione trasversale circolare). Porzioni di palo sono anche i campioni 2 e 3 della casa 15A; nella stessa casa i campioni 6 e 20 sono frammenti di travi. Nella casa 11 il camp. 3 è un frammento di trave (*fig. 40C*); il camp. 24 è probabilmente un pilastro e il camp. 28 potrebbe esserne una parte (mostra taglio radiale). Nella casa 16 il camp. 14 (*fig. 50*) mostra alcuni frammenti con taglio tangenziale, altri con taglio radiale; nella 22 un carbone del camp.1 presenta un foro passante (Ø cm 0.6). Nella casa 23 il camp. 5 è con tutta probabilità una trave, mentre il camp. 6 un palo. Anche nella casa 27 sono presenti i resti di un palo nel camp. 2 e, infine, nel camp. 8 si osservano parti irregolari di tronchi (*fig. 58*). Per questa categoria di reperti sono stati utilizzati tutti i *taxa* rilevati, ad eccezione dell'ontano, del nocciolo, delle pomoidee e del corniolo.

[5] La distinzione degli elementi strutturali in tavola o asse è stata realizzata tenendo in considerazione le dimensioni (Arosio 1965); in particolare, quando lo spessore all'origine è al massimo di 2.5 cm si tratta di assi, se lo spessore è maggiore di 2.5 cm sono tavole; le "tavole" nel caso di Most na Soči sono quasi sempre i reperti di cui è stato conservato uno spessore (La) maggiore di 2.5 cm.

vendar gre kljub temu najverjetneje za del stene posode (kad?). Vzorec 40/2 iz javorja, najden v hiši 11, je kvadratne oblike, s skoraj ravnimi gladkimi stranicami; podobne oblike so še trije fragmenti. Vzorec 11 iz hiše 6 iz jelke smo kljub posebni obliki v katalogu opredelili kot "les za kurjenje" (*sl. 31*); tudi na vzorcu 32/B iz iste hiše, ki je iz hrasta, so vidni sledovi obdelave.

Les za kurjenje: gre za kose lesa, ki so jih uporabili za kurjenje oziroma sežig, najverjetneje pri ritualnem obredju. Večina je bila namreč najdenih v hiši 6 (kosi pripadajo drugi gradbeni fazi) in en kos v hiši 7. Gre za oglje različnih vrst lesa (od 1 do 4), ki izvirajo iz debel (vzorec 31 iz hiše 6) ali vej (npr. vzorec 15 iz hiše 6). Dva kosa oglja vej iz hiše 6 (vzorca 2 in 13) sta iz drena. Dva vzorca (vzorec 26 in en kos oglja iz vzorca 32) kažeta sledove obdelave. Nekateri kosi oglja iz vzorca 34 so najverjetneje odpadki pri obdelavi lesa. Pri drugih najdbah gre za izdelke, ki so jih sekundarno uporabili kot les za kurjenje: predvsem vzorec 11 (*sl. 31*) in vzorec 32 iz hiše 6.

Nekateri vzorci pripadajo deskam ali tramovom z ohranjenim radialnim prerezom, npr. vzorci 7, 14, 10 iz hiše 6; radialni prerezi so predvsem pri vzorcu 10 zelo blizu osrednjega dela debla (*sl. 29*). Vzorec 1 iz hiše 7 je iz radialnih sekcij različnih vrst (*sl. 34*). Nekaj kosov je pripadalo stojkam (vzorca 17 in 25 iz hiše 6). V tej kategoriji najdb so zastopane vse prepoznane vrste lesa, z izjemo nagnoja, rožnic, javorja in jesena.

Posebno pomembno je odkritje 42 gradbenih elementov v hiši 11: med njimi so deli temeljnih pragov, plohi za stene, podnice, vmesne in vogalne sohe ter nekaj kosov, označenih kot "gradbeni les", ter vzorec s sledmi obdelave. Vsi kosi oglja so iz hrasta (dob/graden), z izjemo kosa s sledovi obdelave, ki je iz javorja (*tabela 3*).

V številnih primerih smo lahko z makroskopskim pregledom vzorcev določili tehniko obdelave. Večinoma gre za gradbene elemente z radialnimi prerezi (vzorec 6; *sl. 40A*), ki so jih skoraj vedno odrezali stran od sredine debla. Pri nekaterih primerih poteka radialni prerez od osrednjega proti zunanjemu delu debla (vzorec 3, *sl. 40C*, vzorec 26, *sl. 41A*, vzorec 10, *sl. 41B*). Pri drugi skupini vzorcev opazimo tangencialne prereze (vzorec 4, *sl. 40B*). Po ukrivljenosti branik prepoznamo prereze, izvedene proti zunanjemu delu debla.

Največji izmerjeni premeri znašajo v povprečju od 10 do 20 cm, nekateri tudi več kot 20 cm, gre torej za debla odraslih dreves. Vendar so ti premeri navidezni, izmerjeni v laboratoriju na vzorčenih fragmentih, kajti na njih ni ohranjena zadnja branika. Branike prirasta so vedno dobro vidne in glede na širino precej homogene. Srednja vrednost gostote branik na vseh artefaktih iz lesa hrasta (dob/graden) je 4,98 branike na centimeter.

Na podlagi značilnosti hiše 11 in drugih analiziranih hiš je bilo mogoče pojasniti model gradbenih tehnik.

V hišah 6 (druga faza, kultni prostor), 15, 15A in 23 smo prepoznali 29, 18, 23 in 24 tipov najdb (*tabela 3*). V

Si segnala inoltre che nelle case 3 e 5 molti carboni, di pino e abete bianco, sono frammenti di rami con Ø da un minimo di cm 1,5 a un massimo di cm 5.

Legni lavorati: reperti che presentano una forma particolare e/o sui quali si osservano tracce di lavorazione; ne sono stati rinvenuti 13 nell'edificio 16 e 1 nella casa 11; un caso di legno lavorato è anche un esemplare tra i "legni da bruciare" nella casa 6 (camp. 11).

Nella casa 16 il camp. 35/A consiste in una parte di una tavola del pavimento nella quale è conficcato perpendicolarmente un frammento di legno in pomoidea (camp. 35/B); il camp. 36 è un frammento di ramo scortecciato che presenta tracce di lavorazione all'estremità non appuntita. Il camp. 38/B somiglia a un piccolo cuneo ricavato dalla parte centrale di un ramo (*fig. 51*); per quanto riguarda il camp. 41, benché non siano state riscontrate tracce di lavorazione, potrebbe trattarsi di un frammento della parete di un contenitore (mastello?). Nella casa 11 il camp. 40/2 in acero, è una porzione circa cubica, con basi quasi piatte, lisciate; altri tre frammenti sono simili a questo. Nella casa 6 il camp. 11, in abete bianco, indicato come "legno da bruciare" nel catalogo, presenta tuttavia una forma particolare (*fig. 31*); anche il camp. 32/B, in farnia/rovere, presenta tracce di lavorazione.

Legni da bruciare: si riferisce a frammenti di legno da ardere, con tutta probabilità utilizzati a scopo rituale; la maggior parte si trovano infatti nella casa 6 (tutti riferiti alla seconda fase costruttiva) e uno nella casa 7. Si tratta di norma di gruppi di carboni riferibili a legni di diverse specie (da 1 a 4) che derivano da frammenti di tronchi (casa 6 camp. 31) o di rami utilizzati (ad esempio camp. 15 della casa 6): due frammenti di ramo della casa 6 (camp. 2 e camp. 13) sono in corniolo; altri due, il camp. 26 e un carbone del camp. 32, mostrano tracce di lavorazione, mentre alcuni carboni del camp. 34 sono con tutta probabilità scarti della lavorazione del legno. Altri reperti sono manufatti reimpiegati come legname da ardere, in particolare il camp. 11 della casa 6 (*fig. 31*) e il camp. 32.

Alcuni sono porzioni di assi o travi: ad esempio nella casa 6 i camp. 7, 14, 10 mostrano un taglio radiale; in particolare nel campione 10 i tagli radiali sono molto vicino al centro (*fig. 29*). Nella casa 7 il camp. 1 è costituito da porzioni radiali di diverse specie (*fig. 34*), mentre altri rappresentano parti di pali (casa 6 camp. 17 e 25). In questa categoria di reperti sono presenti tutti i tipi di legno individuati nei carboni tranne maggiociondolo, pomoidee, acero e frassino.

Particolarmente significative le condizioni di ritrovamento della casa 11 che ha restituito 42 elementi strutturali: sono presenti resti di travi dormienti, tavole della chiusura esterna, tavole del pavimento, pilastri intermedi e angolari, oltre ad alcuni reperti indicati con la dicitura "legno da costruzione" e a un campione con tracce di lavorazione. Tutti i carboni sono in legno di farnia/rovere, tranne il campione con tracce di lavorazione che è in acero (*tabella 3*).

hiši 6 so skoraj vsi opredeljeni kot les za kurjenje. V hiši 15 smo poleg 8 temeljnih pragov našteli še ploh za stenski opaž, 5 podnic, sredinsko soho in 3 natančneje nedoločljive gradbene elemente. Iz hiše 15A izvirajo 4 temeljni pragovi in 19 nedoločljivih gradbenih elementov, iz hiše 23 pa temeljni prag, 3 sredinske sohe, vogalna soha in 19 nedoločljivih gradbenih elementov. V preostalih hišah smo prepoznali od 1 do 13 artefaktov, gre predvsem za dele temeljnih pragov in kose, označene kot "gradbeni les".

Posebna je predvsem hiša 16, v kateri je bilo dokumentiranih veliko število vzorcev. Pripisali smo jih šestim različnim kategorijam najdb (temeljni prag, podnica, deska, stojka, obdelani les in gradbeni les); deske in stojke so bile del zunanje ograje.

Očitno je, da so prebivalci naselbine dobro poznali tehnološke značilnosti drevesnih vrst v bližnji pokrajini in jih skrbno izbirali za gradnjo hiš. Videti je, da so uporabljali predvsem les iz mešanih gozdov iglavcev in listavcev (96 %), v manjšem obsegu pa iz zatišnih leg ali neporaščenih območij (skupno 4 %; glej *graf 5*).

Glede na izbiro vrste (*tabela 2*) je v vsaki hiši zastopanih od 1 do 8 tipov lesa. Najpogosteje sta bila uporabljena les hrasta (dob/graden) in jelke. Hrast je prisoten v 21 od 24 hiš, jelka v 15. Sledijo bor v 10, bukev v 10 in smreka v 5. Ostale vrste lesa so redkeje zastopane.

Velik delež hrastovega lesa kaže na njegovo namerno izbiro, k tej so pripomogle tudi dobra zastopanost v pokrajini in karakteristike lesa (trdota, odpornost, elastičnost in trajnost v suhem ali vlažnem okolju). Veliki lesni trakovi v hrastovem lesu omogočajo klanje z zagozdami (Castelletti et al. 1990). Glede na široko uporabo hrastovega lesa tako za kurjenje kot za gradnjo je zelo verjetno, da so hrast namerno gojili in ga tudi varovali, zato je bil njegov delež v gozdovih okrog Mosta na Soči vedno velik.

Navadna jelka je homogen les z odličnimi mehaničnimi lastnostmi: dobro prenaša upogibanje, kompresijo, vleko in udarce. Njene značilnosti so odvisne od rastnih razmer. Prepoznane branike na zoglenelih fragmentih so ozke in pravilne, iz česar sledi, da so drevesa rasla v okolju z malo svetlobe in je zaradi tega les kompakten in gost. Korelacije med posameznimi tipi artefaktov in taksoni so prikazane v *tabeli 4*.

Edino primerjavo v Italiji najdemo v t. i. "Casa Retica" v Stufles-Bressanone, kjer so bili vsi ohranjeni zogleneli ostanki lesene konstrukcije iz macesna (*Larix decidua*), z izjemo dveh artefaktov iz navadne jelke (*Abies alba*) (Castelletti 1987).

Sicer pa gradbene tehnike železnodobnih hiš v severni Italiji, še zlasti t. i. retijskih hiš, obravnavajo številne študije (Cattani 2009; Messner 2011–2012; Migliavacca 1991, 1995–1996, 2012). Primerljive so po gradbenih tehnikah, poročilo o antrakoloških analizah pa je le za retijsko hišo iz Sanzena (Valle di Non, Trento), kjer so našli ostanke poda iz macesna in druge strukture iz jelovega lesa (Madella, Rottoli 1999).

L' esame macroscopico dei campioni consente di dedurre in molti casi le modalità con cui sono stati foggiati; si tratta soprattutto di elementi strutturali ottenuti con tagli radiali (camp. 6, *fig. 40A*), praticati quasi sempre lontano dal centro del tronco; in alcuni reperti il taglio radiale va dalla porzione centrale del tronco verso la periferia (camp. 3, *fig. 40C*, camp. 26, *fig. 41A*, camp. 10, *fig. 41B*). In un altro gruppo si osserva che le direzioni del taglio sono tangenziali (camp.5, *fig. 40B*); dalla curvatura degli anelli si deduce che i tagli sono stati praticati verso la periferia del tronco.

Le misurazioni dei diametri massimi sono in genere tra 10 e 20 cm, anche maggiori di 20, derivati cioè da tronchi di esemplari adulti; si tratta comunque di diametri apparenti, misurati in laboratorio sui frammenti campionati e quindi di significato relativo, in quanto non è presente l'ultimo anello di crescita.

Gli anelli di accrescimento sono sempre ben leggibili e piuttosto omogenei nella loro ampiezza; la densità anulare media, misurata su tutti i reperti in farnia/rovere, è di 4.98 anelli per cm.

Le caratteristiche della casa 11, insieme a quelle desunte dallo studio delle altre case, hanno permesso la realizzazione di un modello esplicativo delle tecniche di costruzione.

Nelle case 6 (seconda fase, luogo di culto), 15, 15A e 23 sono stati riconosciuti rispettivamente 29, 18, 23 e 24 tipi di reperto – (*tabella 3*): nella casa 6 si tratta per la quasi totalità di legni da ardere; la 15, oltre a 8 travi dormienti, ha conservato una tavola della chiusura esterna, 5 tavole del pavimento, un pilastro intermedio e 3 elementi costruttivi non meglio identificati. L'edificio 15A ha fornito 4 travi dormienti e 19 elementi costruttivi; la 23 una trave dormiente, 3 pilastri intermedi, un pilastro angolare, e 19 elementi costruttivi, non meglio classificabili. Le case rimanenti hanno consentito di identificare da uno a 13 reperti, restituendo principalmente parti di travi dormienti e reperti identificati come "legno da costruzione".

Peculiare la casa 16 che ha conservato un cospicuo numero di campioni attribuiti a sei categorie di reperti (trave dormiente, tavola del pavimento, asse, palo, legno lavorato e legno da costruzione); assi e pali sono riferiti a uno steccato costruito esternamente alla casa.

E' logico pensare che gli abitanti del villaggio avessero buona conoscenza delle caratteristiche tecnologiche delle specie arboree presenti nel territorio e che, di conseguenza, abbiano operato delle scelte per la costruzione degli edifici; risulta infatti preferenziale l'utilizzo di legname proveniente dalla foresta mista di conifere e latifoglie (96%), in minima parte dalla vegetazione ripariale o dalle zone disboscate (4% complessivamente; vedi *grafico 5*).

Per quanto riguarda la scelta delle specie (*tabella 2*) sono attestati da uno a otto tipi di legno per casa. Il legno di farnia/rovere e quello di abete bianco risultano i più utilizzati: infatti *Quercus* è presente in 21 case su 24,

SEMENA IN PLODOVI V HIŠAH 6 IN 7

Karpološke ostanke so odkrili v hišah 6 in 7 (*tabela 6*). V hiši 6 so našli številna zrna zoglenelega prosa (*Panicum miliaceum*), ki kažejo različne deformacije: večina zrn ni ohranila prvotne oblike, saj so delno zdrobljena ali pa imajo spremenjeno zunanjo površino (primerjaj katalog z opisi posameznih najdb). Zrna so stisnjena drugo ob drugo (*sl. 12–14*), vendar med njimi ni ohranjenega "veziva" (označena so bila kot "kruh", vendar zmesi iz moke nismo zasledili). Zrna so stisnjena tako, da sestavljajo majhne skupke, kar je verjetno posledica stika z ognjem, in ne z vodo, ker bi zrna sicer razpadla.[6] Skupki zrn merijo od 1 do 8 cm. Poleg zrn prosa je bilo prepoznano še zrno lečnate grašice (*Vicia ervilia*).

V vzorcu 2 iz hiše 7, ki je bil morda shranjen v bronasti posodi, je bilo približno 6000 zrn prosa (*sl. 15*) in 395 zrn drugih vrst žit, od katerih jih več kot 300 pripada rži (*Secale cereale*) (*sl. 16, 17*). Ostala so pripisana štirim vrstam, in sicer navadni pšenici (*Triticum aestivum – sl. 18*), enozrni pšenici (*Triticum monococcum – sl. 19*), dvozrni pšenici (*Triticum dicoccum*) in piri oz. pšenici sevki (*Triticum spelta*).

Našli so tudi zrna dveh vrst gojenega ječmena, in sicer dvorednega ječmena (*Hordeum vulgare subsp. Distichum*) in navadnega večrednega ječmena (*Hordeum vulgare subsp. vulgare – sl. 20, 21*) ter zrno žitne stoklase (*Bromus secalinus – sl. 23*), ki je značilen žitni plevel. Med stročnicami je zastopano le zrno rodu *Vicia*.

Prav tako so prepoznali sadna drevesa oz. drevesa z oreščki: navadni oreh (*Juglans regia – sl. 22*), navadna leska (*Corylus avellana*) in figovec (*Ficus carica – sl. 24, 25*).

Identificirani botanični makroostanki so primerljivi s tistimi iz Furlanije - Julijske krajine in širšega italijanskega prostora. Na primer iz severnega zaledja Akvileje, kjer so v železnodobnih plasteh (8.–5. stol. pr. Kr.) v bližini nekdanje sušilnice odkrili ostanke enozrne pšenice (*Triticum monococcum*), navadne/trde pšenice (*Triticum aestivum/durum*), prosa (*Panicum miliaceum*), laškega muhviča (*Setaria italica*), dvozrne pšenice (*Triticum dicoccum*), ječmena (*Hordeum vulgare*), pire (*Triticum spelta*), rži (*Secale cereale*) in navadnega ovsa (*Avena* cfr. *sativa*) (Maselli, Scotti, Rottoli 2007). V prazgodovinskih plasteh prevladujejo ostanki plevencev in ječmena nad golci in piro, številni so tudi ostanki laškega muhviča in prosa. Najdba rži v prazgodovinskih plasteh je nov podatek o uvajanju te vrste v Italiji, toda njena popolna odsotnost v rimskodobnih plasteh kaže na obrobni pomen tega žita v poljedelstvu Akvileje, kjer je bil preprosto le plevel. Gre torej za obrnjeni fenomen, kot ga kažejo arheobotanične analize na Mostu na Soči, kjer smo ugotovili precejšnjo

[6] Glej tudi članek Tolarjeve, 448.

Abies in 15; seguono *Pinus* in 10, *Fagus* in 10, *Picea abies* in 5 case, gli altri tipi di legno sono presenze sporadiche.

Il legno di quercia fa pensare a una scelta intenzionale, sia per la sua disponibilità nel territorio sia per le sue caratteristiche di durezza, resistenza, elasticità e durabilità in ambiente asciutto o umido. La presenza di grandi raggi midollari rende inoltre il legno adatto alla lavorazione a spacco mediante cunei (Castelletti *et al.* 1990). Dato il valore elevato del legno di quercia come combustibile e come legname da opera, non si può escludere che questo *taxon* sia stato anche favorito, piantato e protetto in modo da costituire sempre una parte saliente dei boschi attorno a Most na Soči.

L'abete bianco è un legno omogeneo, dotato di qualità meccaniche eccellenti: resiste notevolmente alla flessione, alla compressione, alla trazione, agli urti. La sua qualità è legata alle condizioni di crescita: gli anelli evidenziati sui carboni sono stretti e regolari; ciò significa che gli alberi hanno vissuto con poca luce formando un legno consistente e denso. La corrispondenza tra tipi di reperti e *taxa* si osserva nella *tabella 4*.

L'unico caso italiano di confronto è fornito dai resti carbonizzati della struttura lignea della "Casa Retica" di Stufles-Bressanone (Castelletti 1987), tutti in legno di larice (*Larix decidua*), tranne due reperti in abete bianco (*Abiesa alba*).

Per quanto riguarda le tecniche di costruzione delle case dell'età del Ferro sono numerosi gli studi effettuati sui ritrovamenti in Italia settentrionale, in particolare per quanto riguarda le case retiche (Cattani 2009; Messner 2011–2012; Migliavacca 1991, 1995–1996, 2012); questi studi sono confrontabili in relazione alle tecniche costruttive; ci sono riferimenti per l'analisi antracologica solo per la casa retica di Sanzeno, in Valle di Non (Trento) dove sono stati identificati resti del pavimento in legno di larice e altre strutture in abete bianco (Madella, Rottoli 1999).

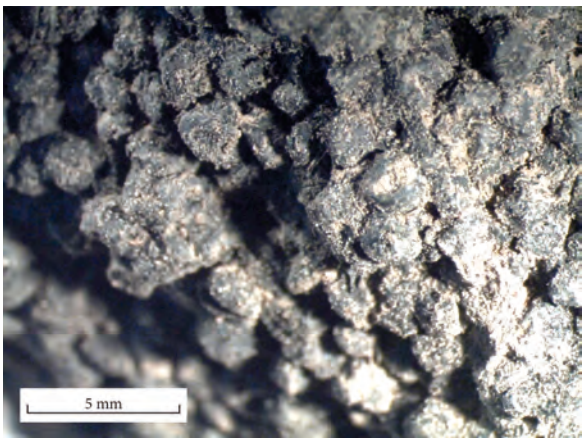
SEMI E FRUTTI NELLE CASE 6 E 7

I resti carpologici sono stati rinvenuti nelle case 6 e 7 (*tabella 6*); nella casa 6 i campioni prelevati in scavo hanno restituito un cospicuo numero di aggregati di semi di miglio (*Panicum miliaceum*) con deformazione delle cariossidi: la forma originaria dei chicchi è in molti casi alterata da schiacciamenti e modificazioni sulla superficie esterna (cfr. catalogo per descrizione dei singoli reperti). I chicchi risultano compressi gli uni contro gli altri (*fig. 12–14*) ma non è presente una matrice che li tiene uniti: vengono descritti come "pani" ma in realtà non è presente un impasto di farine.[6] Le cariossidi sono rimaste attaccate assieme a formare dei piccoli aggregati perché con tutta probabilità sono venute a contatto col fuoco; si disgregano a contatto con l'acqua. Gli accumuli

[6] Vedi anche l'articolo di Tolar in questa pubblicazione, 448.

zastopanost te vrste. Poleg tega sta oreh (*Juglans regia*) in figa (*Ficus carica*) skupaj z bobom (*Vicia faba spp. minor*) v Akvileji zastopana le v rimskodobnih kontekstih. Bob (*Vicia faba*) na Mostu na Soči najverjetneje ni bil pogosta rastlina, saj razen petih domnevnih odlomkov zoglenelih semen iz hiše 15A (glej Tolar v tem delu, str. 450) večjih količin niso odkrili, medtem ko je v Gradisca di Spilimbergo zelo pogost skupaj z drugimi stročnicami, ječmenom, navadno pšenico, eno- in dvozrno pšenico, piro in prosom (Motella De Carlo 2007). Tudi na najdišču Centes pri Gradiscutta di Varmo (6.–5. stol. pr. Kr.) so našli ječmen, eno- in dvozrno pšenico, piro, proso, bob, lečnato grašico, grah ter lečo (Castiglioni et al. 2002). Na najdišču Palse so ugotovili ječmen, dvozrno in navadno pšenico, oves, proso in laški muhvič (Castiglioni et al. 1996), v Montereale Valcellina pa gojeni ječmen, navadno pšenico, oves in laški muhvič (Castiglioni et al. 1996).

Sl.12: Hiša 7, grupacije zrn prosa (*Panicum miliaceum*).
Fig. 12: Casa 7, raggruppamento di cariossidi di miglio (*Panicum miliaceum*).



Sl. 13: Hiša 7, skupek zrn prosa.
Fig. 13: Casa 7, aggregato di cariossidi di miglio.

hanno dimensioni massime comprese tra un minimo di 1 cm ed un massimo di 8 cm. A questi reperti si associano poi diverse migliaia di chicchi di miglio e un seme di ervo (*Vicia ervilia*).

Nella casa 7 il campione proveniente da un supposto recipiente bronzeo ha restituito circa 6000 chicchi di miglio (*fig. 15*), insieme a 395 cariossidi di cereali, di cui oltre 300 sono di segale (*Secale cereale*) (*fig. 16, 17*); le rimanenti sono attribuite a quattro specie di frumento e precisamente a frumento estivo (*Triticum aestivum – fig. 18*), monococco o piccolo farro (*Triticum monococcum – fig. 19*), diococco o farro (*Triticum dicoccum*), spelta (*Triticum spelta*).

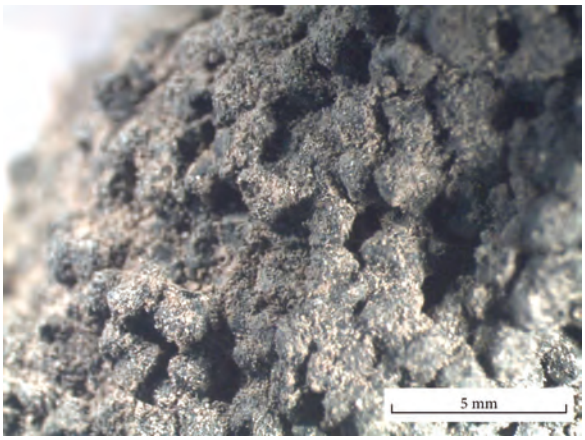
Sono inoltre presenti le cariossidi di due tipi di orzo coltivato: l'orzo distico (*Hordeum vulgare subsp. distichum*), l'orzo esastico/tetrastico (*Hordeum vulgare subsp. vulgare – fig. 20, 21*) e una cariosside di forasacco (*Bromus secalinus – fig. 23*), pianta infestante le colture. Le leguminose sono rappresentate da un solo seme attribuito al genere *Vicia*.

L'analisi carpologica ha restituito anche testimonianze che riguardano la presenza di alberi da frutta: noci (*Juglans regia – fig. 22*), noccioli (*Corylus avellana*) e fichi (*Ficus carica – fig. 24, 25*).

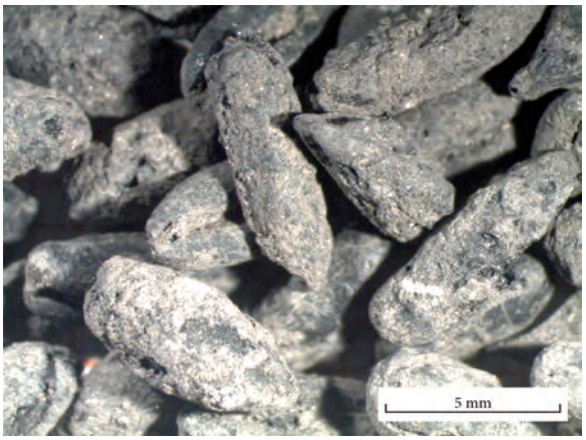
Alcuni confronti su base carpologica sono possibili con il vicino Friuli Venezia Giulia in territorio italiano: ad esempio presso l'ex essicatoio Nord di Aquileia, nei livelli dell'età del Ferro (VIII-V sec. a.C.) (Maselli Scotti, Rottoli 2007), compaiono *Triticum monococcum, Triticum aestivum/durum* (grano tenero/duro), *Panicum miliaceum, Setaria italica, Triticum dicoccum, Hordeum vulgare, Triticum spelta, Secale cereale, Avena* cfr. *sativa*. I dati protostorici indicano la prevalenza dei frumenti vestiti e dell'orzo sui frumenti nudi e sullo spelta, e un massiccio impiego di panìco e di miglio. L'attestazione della segale nei livelli protostorici costituisce un nuovo tassello per la conoscenza dell'introduzione di questa specie in Italia, ma la sua mancanza nei livelli di età romana sembra far propendere ancora per un ruolo di semplice infestante dei campi coltivati ad Aquileia, contrariamente a quanto emerso a Most na Soči, dove è presente un discreto quantitativo di questo cereale. *Juglans regia* e *Ficus carica*, insieme a *Vicia faba ssp.minor*, sono attestati solo nei livelli romani ad Aquileia. Il favino non era molto frequente a Most na Soči, dove sono stati trovati presumibilmente solo cinque frammenti carbonizzati dalla casa 15A (vedi Tolar, pag. 450), mentre è abbondantissimo a Gradisca di Spilimbergo (Motella De Carlo 2007) insieme ad altre leguminose e a orzo coltivato, frumento estivo, monoccoco, dicocco, dicocco/spelta e tracce di miglio. A Gradiscutta di Varmo, località Centes (VI-V sec. a C.) è segnalato orzo coltivato, monococco, dicocco, spelta, miglio, panico, favino, ervo, pisello, lenticchia (Castiglioni *et al.* 2002). A Palse l' orzo coltivato, farro dicocco, frumento estivo, avena, miglio e panìco (Castiglioni *et al.* 1996); a Montereale Valcellina orzo coltivato, frumento estivo, avena e panìco (Castiglioni *et al.* 1996).

TAXA / Taksoni			Casa / Hiša 7	Casa / Hiša 6
Juglans regia	noce / navadni oreh	frammenti di gheriglio / fragmenti plodu	50	
Corylus avellana	nocciolo / navadna leska	frammenti del pericarpo / fragmenti perikarpa	60	4
Ficus carica	fico / figa	frammento di siconio / fragment sikonija	1	
Bromus secalinus	forasacco / žitna stoklasa	seme / seme	1	
Hordeum vulgare subsp. distichum	orzo distico / dvoredni ječmen	cariossidi / zrna	6	
Hordeum vulgare subsp. vulgare	orzo esastico/tetrastico / navadni večredni ječmen	cariossidi / zrna	4	
Hordeum vulgare	orzo coltivato / ječmen	cariossidi frammentarie / deli zrn	2	
Secale cereale	segale / rž	cariossidi / zrna	323	
Triticum aestivum	frumento estivo / navadna pšenica	cariossidi / zrna	7	
Triticum monococcum	monococco / enozrna pšenica	cariossidi / zrna	9	
Triticum dicoccum	dicocco / dvozrna pšenica	cariossidi / zrna	27	
Triticum spelta	spelta / pira	cariossidi / zrna	19	
Triticum dicoccum/spelta	dicocco/spelta / dvozrna pšenica/pira	spighette frammentarie / deli klasov	2	
Panicum miliaceum	miglio / proso	cariossidi / zrna	ca 6000	ca 10000
Cerealia	cereali / žitarice	frammenti di cariossidi n.d. / fragmenti nedoločljivih zrn	70	
Vicia sp.	veccia / grašica	semi / semena	1	
Vicia ervilia	ervo / lečnata grašica	seme		1
		scorie n.d. / nedoločljive ovojnice	5	
		Totali / Skupaj	ca 6587	ca 10000

Tabela 6: Most na Soči. Karpološki ostanki.
Tabella 6: Most na Soči. Resti carpologici.



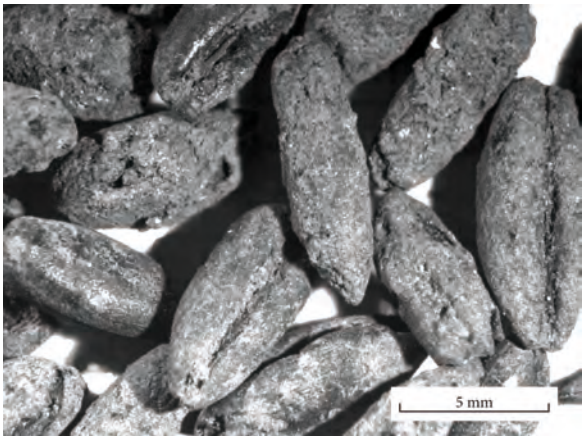
Sl. 14: Hiša 6, skupek zrn prosa.
Fig. 14: Casa 6, aggregato di cariossidi di miglio.



Sl. 17: Hiša 7, rž (*Secale cereale*).
Fig. 17: Casa 7, segale (*Secale cereale*).

Sl. 15: Hiša 7, zrna prosa.
Fig. 15: Casa 7, cariossidi di miglio.

Sl. 18: Hiša 7, zrno navadne pšenice (*Triticum aestivum*).
Fig. 18: Casa 7, cariosside di frumento estivo (*Triticum aestivum*).



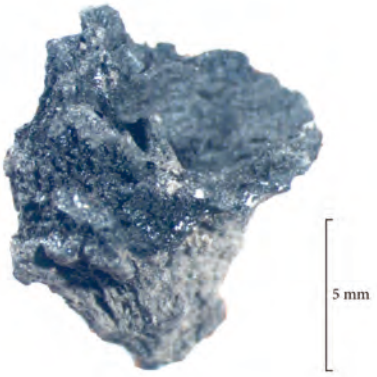
Sl. 16: Hiša 7, rž (*Secale cereale*).
Fig. 16: Casa 7, segale (*Secale cereale*).

Sl. 19: Hiša 7, zrno enozrne pšenice (*Triticum monococcum*).
Fig. 19: Casa 7, cariosside di monococco (*Triticum monococcum*).

Sl. 20: Hiša 7, zrno navadnega večrednega ječmena (*Hordeum vulgare subsp. vulgare*).
Fig. 20: Casa 7, cariosside di *Hordeum vulgare subsp. vulgare* (orzo esastico/tetrastico).

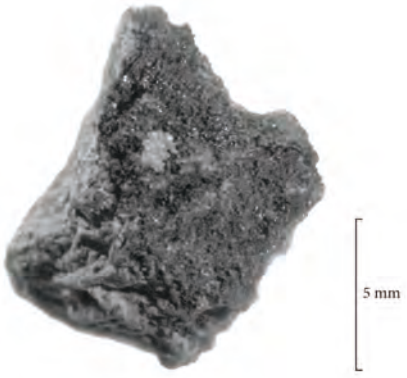
Sl. 23: Hiša 7, *Bromus secalinus* (žitna stoklasa).
Fig. 23: Casa 7, *Bromus secalinus* (forasacco).

Sl. 21: Hiša 6, zgoraj: dve zrni *Hordeum vulgare subsp. distichum* (dvoredni ječmen), spodaj: dve zrni *Hordeum vulgare subsp. vulgare* (navadni večredni ječmen).
Fig. 21: Casa 6, sopra: due cariossidi di *Hordeum vulgare subsp. distichum* (orzo distico), sotto: due cariossidi di *Hordeum vulgare subsp. vulgare* (orzo esastico/tetrastico).



Sl. 24: Hiša 7, figa (*Ficus carica*).
Fig. 24: Casa 7, fico (*Ficus carica*).

Sl. 22: Hiša 7, fragment plodu navadnega oreha (*Juglans regia*).
Fig. 22: Casa 7, frammento di gheriglio di noce (*Juglans regia*).



Sl. 25: Hiša 7, figa (*Ficus carica*).
Fig. 25: Casa 7, fico (*Ficus carica*).

ZAKLJUČEK

Antrakološke analize so pokazale na močno izkoriščanje gozdov v obdobju 600 let ne le okrog naselbine Most na Soči, temveč po vsej Soški dolini. V tem časovnem razponu so za pripravo konstrukcijskih elementov hiš uporabljali predvsem les hrasta (doba/gradna) in jelke. Zaradi izjemno velike količine odkritega lesa je zelo verjetno, da so ga pridobivali tudi iz okoliških, od naselbine nekoliko bolj oddaljenih gozdov in ga prevažali po reki.

Rezultati analiz kažejo na mešani listopadni gozd, v katerem so rasli predvsem hrast (*Quercus* sp.) in bukev (*Fagus sylvatica*), z nekaj območji iglavcev (jelka – *Abies alba*, smreka – *Picea abies* in bor – *Pinus sylvestris/montana*), ter drevesno-grmovne vrste vlažnih in zatišnih leg (npr. brest – *Ulmus minor*, jelša – *Alnus* sp.) oziroma vrste, značilne za odprto krajino (npr. leska – *Corylus,* rožnice – *Pomoideae* in dren – *Cornus* sp.). Podobno kot palinološke študije z obrobnih območij Mosta na Soči so tudi analize botaničnih makro ostankov pokazale na obstoj odprtih površin za pridelovanje poljščin. Rezultati analiz semen in ostankov sadežev, najdenih morda v bronasti posodi iz hiše 7, kažejo na obdelano pokrajino, v kateri so gojili predvsem različne vrste pšenice in sadno drevje. Značilno je bilo polikulturno poljedelstvo, v okviru katerega so gojili štiri vrste pšenice (navadna, eno- in dvozrna pšenica ter pira), dve vrsti gojenega ječmena in precej rži. Slednjo so na Mostu na Soči začeli gojiti mnogo prej kot v Italiji, kjer je pogostejša šele v obdobjih po železni dobi. Veliko je tudi zrn prosa, ki so jih v večjem številu našli v hiši 6, najverjetneje je bilo proso uporabljeno pri ritualnih obredih.

Med ostanki sadnih drevesnih vrst so poleg zoglenelih ostankov pečkatoplodnih rožnic našli ostanke lešnikovih in orehovih lupinic. V Italiji so najdbe ostankov orehov poznane šele od rimske dobe, z opaznim povečanjem v srednjem veku.

Nazadnje omenimo še najdbo koščka fige (*Ficus carica*), ki se je ohranil zaradi požara naselja, iz česar sklepamo, da se je to zgodilo najverjetneje sredi poletja.

CONCLUSIONI

I dati antracologici si riferiscono a un periodo lungo sei secoli durante i quali il territorio forestato, non solo attorno a Most na Soči ma in tutta la Valle dell'Isonzo ha subito un intenso sfruttamento, mostrando l'utilizzo preferenziale di farnia/rovere e abete bianco per l'allestimento degli elementi costruttivi delle case; dato il cospicuo materiale ligneo impiegato non possiamo rifiutare l'idea che i tronchi degli alberi fossero prelevati anche da boschi posti a una certa distanza dal villaggio e che venissero trasportati via fiume.

I risultati ottenuti dall'indagine riflettono il bosco misto di caducifoglie, con *Quercus* e *Fagus* prevalenti, insieme a inserti di conifere (*Abies alba – Picea abies* e *Pinus sylvestris/montana*) e di piante tipiche delle zone umide e ripariali, come *Ulmus* cfr. *minor*, *Alnus* e delle aree disboscate, come *Corylus, Pomoideae* e *Cornus.* I dati emersi, in sintonia con gli studi di palinologia effettuati in zone limitrofe a Most na Soči, dimostrano anche la presenza di aree destinate a colture; infatti gli esiti dell'analisi dei semi e i frutti, rinvenuti all'interno di un probabile contenitore di bronzo nella casa 7, confermano un paesaggio fortemente antropizzato a cui hanno dato forte impulso le coltivazioni di cereali e la messa a coltura di alberi da frutto. Veniva praticata una pluricoltura di cereali con quattro specie di frumento (estivo, monococco, dicocco, spelta), due tipi di orzo coltivato, oltre a un discreto quantitativo di segale, la cui presenza a Most na Soči risulta precoce rispetto a quanto rinvenuto in Italia, dove risulta più abbondante in epoche successive all'età del Ferro. Notevole inoltre la presenza numerica di cariossidi di miglio che sembra destinato, nella casa 6, a qualche sorta di rituale.

Quanto agli alberi da frutto, oltre alle pomoidee, rinvenute sotto forma di carboni, sono presenti resti di gusci di nocciole e di noci; resti di noci sono ritrovati in Italia di norma a partire dall'età romana con un incremento in epoca medievale.

Da ultimo merita una citazione il rinvenimento di un frammento di fico (*Ficus carica*), sopravvissuto all'incendio del villaggio, avvenuto con tutta probabilità in piena estate.

KATALOG

HIŠA 3 (*sl. 26*).

***Vzorec:* 1.**
Faza: 1.
Vsebina: zdrobljeno oglje, pomešano z zemljo.
Vzorčeni primerki: 1.
Takson: Abies alba (navadna jelka).
Namembnost: gradbeni les, verjetno bruno.

***Vzorec:* 1b.**
Faza: 1.
Vsebina: drobci oglja, pomešani s sedimentom.
Vzorčeni primerki: 1.
Takson: Abies alba (navadna jelka).
Namembnost: vogalna soha.

***Vzorec:* 2.**
Faza: 1
Vsebina: oglje v dveh vrečkah (A, B), fragmenti in luske.
Vzorčeni primerki: 2.
Velikost: A-, B- dl. 2,4 cm; Ø > 0,7 cm; viš. 2,5 cm.
Takson: A-, B- *Abies alba* (navadna jelka.
Namembnost: temeljni prag.

***Vzorec:* 3.**
Faza: 1.
Vsebina: tri vrečke (A, B, C).
A- brezoblični fragmenti in luske oglja, vsi ista vrsta lesa.
B- kot A, le nekaj večji kosi.
C- luske in fragmenti.
Vzorčeni primerki: 2 (A, C).
Velikost: C- šir. 1,3 cm; Ø 4 cm; viš. 1,8 cm; B- različni taksoni, nepreiskani.
Takson: A-, C- *Abies alba* (navadna jelka).
Namembnost: temeljni prag (A, C).

***Vzorec:* 4.**
Faza: 1.
Vsebina: tri vrečke (A, B, C).

A: vsebuje več drobnih delcev oglja.
Vzorčeni primerki: 4.
Velikost:
1- viš. 2,7 cm; prečen presek, psevdo krožen.
2- del veje; Ø 3 cm.
3- del veje; Ø 1,2 cm; luknjice parazitov.
4- del veje; Ø 1,5 cm; luknjice parazitov.
Takson: 1, 2, 3, 4 *Abies alba* (navadva jelka).
Namembnost: gradbeni les.

B: vsebuje dva fragmenta vej.
Vzorčeni primerki: 2.
Velikost:
1- Ø 3 cm; viš. 3 cm.
2- Ø 3 cm; viš. 5,6 cm.
Takson: Abies alba (navadna jelka).
Namembnost: gradbeni les.

CATALOGO

CASA 3 (*fig. 26*)

***Campione:* 1.**
Fase: 1.
Contenuto: carbone sbriciolato, misto a sedimento.
Carbone esaminato: 1.
Taxon: Abies alba (abete bianco).
Tipo di reperto: legno da costruzione, probabile trave.

***Campione:* 1b.**
Fase: 1.
Contenuto: carbone sbriciolato, misto a sedimento.
Carbone esaminato: 1.
Taxon: Abies alba (abete bianco).
Tipo di reperto: pilastro.

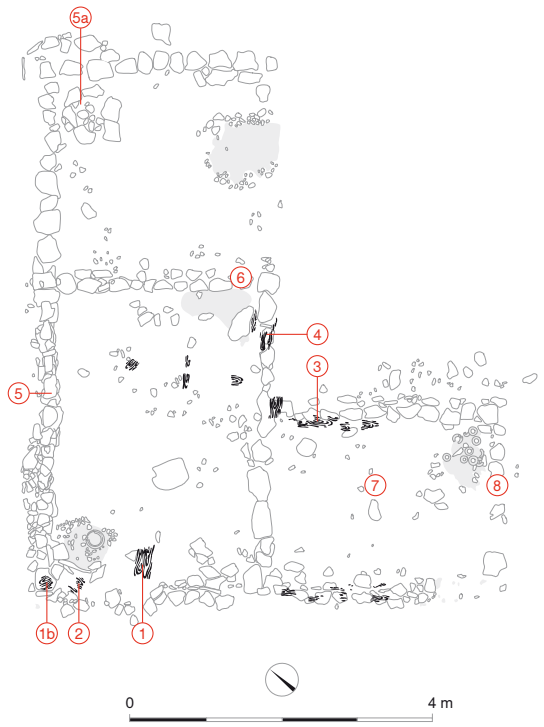
***Campione:* 2.**
Fase: 1.
Contenuto: 2 sacchetti con carboni sparsi (A, B), frammenti e scaglie.
Carboni esaminati: 2.
Dimensioni: A-, B- La cm 2,4; Ø > cm 0,7; h cm 2,5.
Taxon: A-, B- *Abies alba* (abete bianco).
Tipo di reperto: trave dormiente.

Campione: 3.
Contenuto: 3 sacchetti (A, B, C).
A- frammenti informi e scaglie di carbone; tutti di uno stesso *taxon.*
B- come A, con frammenti un po' più grossi.
C- scaglie e frammenti.
Carboni esaminati 2 (A, C).
Dimensioni: C- La cm 1,3; Ø cm 4; h cm 1,8.
Taxon: A-, C- *Abies alba* (abete bianco); B-diversi *taxa* non esaminati.
Tipo di reperto: trave dormiente (A, C).

***Campione:* 4.**
Fase: 1.
Contenuto: 3 sacchetti (A, B, C).

A- contiene piccoli carboni.
Carboni esaminati: 4.
Dimensioni:
1- h cm 2,7; sezione trasversale pseudo circolare.
2- porzione di ramo; Ø cm 3.
3- porzione di ramo; Ø cm 1,2; fori di parassiti.
4- porzione di ramo; Ø cm 1,5; fori di parassiti.
Taxon: 1-, 2-, 3-, 4- *Abies alba* (abete bianco).
Tipo di reperto: legno da costruzione.

B- contiene 2 frammenti di rami.
Carboni esaminati: 2.
Dimensioni:
1- Ø cm 3; h cm 3.
2- Ø cm 3; h cm 5,6.



Sl. 26: Hiša 3 (fazi 1 in 2); pozicije vzorcev.
Fig. 26: Casa 3 (fase 1 e 2); posizioni dei campioni.

C: vsebuje tri zavojčke (C1, C2, C3).
C1- fragmenti vej.
C2- dva fragmenta istega primerka.
C3- tri fragmenti veje, pomešani s sedimentom.
Vzorčeni primerki: 3.
Velikost:
C1-1 šir. 2 cm s 14 branikami; Ø 4 cm, viš. 4,2 cm.
C2-2 dl. 1 cm; šir. 3,2 cm; viš. 5 cm.
C3-3 šir. 1,1 cm z 8 branikami; Ø 4,5 cm; viš. 4,5 cm.
Takson: 1-, 2-, 3- *Abies alba* (navadna jelka).
Namembnost: gradbeni les.

***Vzorec:* 5.**
Faza: 1.
Vsebina: dve speti vrečki (A, B).

A - okrogel les, fragmenti kola/veje.
Velikost: Ø 5 cm, 9 branik; viš. 6,6 cm; zraven je bila skupina primerkov oglja s širšimi branikami; skupna dl. 4 cm; luknjice parazitov.

B – fragmenti različnih oblik (veje in drugo).
Vzorčeni primerki: 3.
Velikost:
1- veja, Ø 2,5 cm; 2. braniki v 0,7 cm; viš. 2,7 cm;
2- veja, Ø 3,5 cm; viš. 3 cm;
3- Ø 2,5 cm.
Takson: 1-, 2-, 3- *Abies alba* (navadna jelka).
Namembnost: gradbeni les.

Taxon: 1-, 2- *Abies alba* (abete bianco).
Tipo di reperto: legno da costruzione.

C- contiene tre pacchetti (C1, C2, C3).
C1- frammenti di rami.
C2- due frammenti di un unico campione.
C3- 3 frammenti di ramo misto a sedimento.
Carboni esaminati: 3.
Dimensioni:
C1-1 La cm 2 con 14 anelli di accrescimento; Ø cm 4; h cm 4,2.
C2-2 l cm 1; La cm 3,2; h cm 5.
C3-3 La cm 1,1 con 8 anelli di accrescimento; Ø cm 4,5; h cm 4,5.
Taxon: 1-, 2-, 3- *Abies alba* (abete bianco).
Tipo di reperto: legno da costruzione.

***Campione:* 5.**
Fase: 1.
Contenuto: due sacchetti attaccati assieme (A, B).

A - frammenti di palo/ramo.
Dimensioni: Ø cm 5 con 9 anelli di accrescimento; h cm 6,6; attaccata a questo frammento c'è una porzione con anelli più larghi; l totale cm 4; fori di parassiti.

B - frammenti di diversa foggia (rami e non).
Carboni esaminati: 3.
Dimensioni:
1- ramo Ø cm 2,5; 2 anelli in 0,7 cm; h cm 2,7.
2- ramo Ø cm 3,5; h cm 3.
3- Ø cm 2,5.
Taxon: 1-, 2-, 3- *Abies alba* (abete bianco).
Tipo di reperto: legno da costruzione.

***Campione:* 5a.**
Fase: 2.
Contenuto: 3 sacchetti (A, B, C);
A- B- C- piccoli carboni misti a sedimento.
Carboni esaminati: 3.
Dimensioni: A1- h cm 0,9; B1- h cm 2; C1- h cm 1.
Taxa:
A1-, C1- *Abies alba* (abete bianco); B1- *Quercus robur/petraea* (farnia/rovere).
Tipo di reperto: legno da costruzione, probabile trave dormiente e pilastro.

***Campione:* 6.**
Fase: 1.
Contenuto: pezzo di probabile piccolo palo.
Carbone esaminato: 1.
Dimensioni: Ø cm 8; La cm 3 con 35 anelli di accrescimento; h cm 3.
Taxon: Abies alba (abete bianco).
Tipo di reperto: legno da costruzione.

***Campione:* 7.**
Fase: 1.
Contenuto: diversi frammenti.

***Vzorec:* 5a.**
Faza: 2.
Vsebina: tri vrečke (A, B, C);
A-, B-, C- drobni koščki oglja, pomešani s sedimentom.
Vzorčeni primerki: 3.
Velikost: A1- viš. 0,9 cm; B1- viš. 2 cm; C1- viš. 1 cm.
Taksoni: A1-, C1- *Abies alba* (navadna jelka); B1- *Quercus robur/petraea* (dob/graden).
Namembnost: gradbeni les, verjetno temeljni prag in soha.

***Vzorec:* 6.**
Faza: 1.
Vsebina: verjetno kos manjšega kola.
Velikost: Ø 8 cm, šir. 3 cm s 35 branikami; viš. 3 cm.
Takson: Abies alba (navadna jelka).
Namembnost: gradbeni les.

***Vzorec:* 7.**
Faza: 1.
Vsebina: različni fragmenti; ni gotovo, če so bili del istega kosa.
Vzorčeni primerki: 1.
Velikost: Ø 2,5 cm; viš. 2,3 cm; luknje parazitov.
Takson: Abies alba (navadna jelka).
Namembnost: gradbeni les.

***Vzorec:* 8.**
Faza : 1.
Vsebina: fragmenti oglja.
Vzorčeni primerki: 1.
Velikost: šir. 2,2 cm z 18 branikami; Ø 0,6 cm; viš. 4 cm.
Takson: Abies alba (navadna jelka).
Namembnost: gradbeni les.

HIŠA 5 (*sl. 27*)

***Vzorec:* 1.**
Vsebina: mešani sediment drobcev oglja.
Število vzorčenj: 1.
Velikost: viš. 1 cm; zelo stisnjen.
Takson: Ulmus cfr. *minor* (poljski brest).
Namembnost: gradbeni les.

***Vzorec:* 2.**
Vsebina: skupina fragmentov oglja.
Število vzorčenj: 1.
Velikost: Ø 4,5 cm, šir. 1,8 cm z okoli 19 branikami.
Takson: *Pinus sylvestris/montana* (rdeči bor/rušje).
Namembnost: temeljni prag.

***Vzorec:* 3.**
Vsebina: verjetno edina najdba.
Vzorčeni primerki: 1.
Velikost: viš. 6 cm; 10 branik na šir. 0,1 cm; Ø 5 x 3 cm.
Takson: Pinus sylvestris/montana (rdeči bor/rušje).
Namembnost: temeljni prag (*sl. 28*).

Carbone esaminato: 1(ramo).
Dimensioni: Ø cm 2,5; h cm 2,3; fori di parassiti.
Taxon: Abies alba (abete bianco).
Tipo di reperto: legno da costruzione.

***Campione:* 8.**
Fase: 1.
Contenuto: frammenti di carbone.
Carbone esaminato: 1.
Dimensioni: La cm 2,2 con 18 anelli di accrescimento; Ø cm 0,6; h cm 4.
Taxon: Abies alba (abete bianco).
Tipo di reperto: legno da costruzione.

CASA 5 (*fig. 27*)

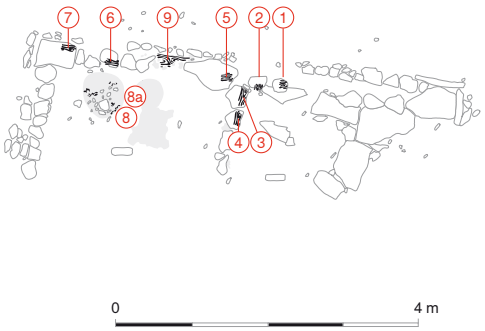
***Campione:* 1.**
Contenuto: sedimento misto a frammenti di carbone.
Carbone esaminato: 1.
Dimensioni: h cm 1; molto schiacciato.
Taxon: Ulmus cfr. *minor* (olmo campestre).
Tipo di reperto: legno da costruzione.

***Campione:* 2**.
Contenuto: serie di frammenti di carbone.
Carbone esaminato: 1.
Dimensioni: Ø cm 4,5; La cm 1,8 con ca 19 anelli di accrescimento.
Taxon: Pinus sylvestris/montana (pino silvestre/montana).
Tipo di reperto: trave dormiente.

***Campione:* 3.**
Contenuto: probabile unico reperto.
Carbone esaminato: 1.
Dimensioni: h cm 6; 10 anelli in cm 0,1 di La; Ø cm 5 x 3.
Taxon: Pinus sylvestris/montana (pino silvestre/montano).
Tipo di reperto: trave dormiente (*fig. 28*).

***Campione:* 4.**
Contenuto: frammento in scaglie.
Carbone esaminato: 1.
Dimensioni: ca. 10 anelli di accrescimento in cm 1 di spessore (La).
Taxon: *Pinus sylvestris/montana* (pino silvestre/montano).
Tipo di reperto: trave dormiente.

***Campione:* 5.**
Contenuto: alcuni carboni.
Carboni esaminati: 2.
Dimensioni: 1-, 2- h cm 1,5; fori di parassiti.
Taxon: 1-, 2- *Ulmus* cfr. *minor* (olmo campestre).
Tipo di reperto: trave dormiente.



Sl. 27: Hiša 5; pozicije vzorcev.
Fig. 27: Casa 5; posizioni dei campioni.

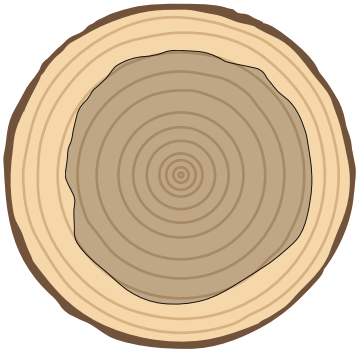
***Vzorec:* 4.**
Vsebina: odlomek v luske razpadlega oglja.
Vzorčeni primerki: 1.
Velikost: okoli 10 branik v 1 cm (šir.).
Takson: Pinus sylvestris/montana (rdeči bor/rušje).
Namembnost: temeljni prag.

***Vzorec:* 5.**
Vsebina: nekaj drobcev oglja.
Vzorčeni primerki: 2.
Velikost: 1-, 2- viš. 1,5 cm; luknjice parazitov.
Takson: *Ulmus* cfr. *minor* (poljski brest).
Namembnost: temeljni prag.

***Vzorec:* 6.**
Vsebina: edina najdba, zdrobljena in pomešana s sedimentom.
Število vzorčenj: 1.
Velikost: viš. 1,5 cm; četverokoten presek.
Takson: Ulmus cfr. *minor* (poljski brest).
Namembnost: temeljni prag.

***Vzorec:* 7.**
Vsebina: edina najdba, zdrobljena v majhne koščke.
Vzorčeni primerki: 2.
Takson: Ulmus cfr. *minor* (poljski brest).
Namembnost: temeljni prag.

***Vzorec:* 8.**
Vsebina: 5 primerkov vej, pri katerih je viden središčni cilinder, drugi primerki imajo četverokoten presek.
Vzorčeni sprinerki: 4 (veje).
Velikost:
1- viš. 3 cm; Ø 3 cm z 12 branikami.
2- viš. 2,2 cm; Ø 2 cm s 5 branikami.
3- viš. 2 cm; Ø 2,2 cm.
4- viš. 1,9 cm; pr. 1,7 cm s 6 branikami.
Takson: 1-, 2-, 3-, 4- *Pinus sylvestris/montana* (rdeči bor/rušje).
Namembnost: gradbeni les.



Sl. 28: Hiša 5; vzorec 3.
Fig. 28: Casa 5; campione 3.

***Campione:* 6.**
Contenuto: reperto unico, sbriciolato misto a sedimento.
Carbone esaminato: 1.
Dimensioni: h cm 1,5; sezione quadrangolare.
Taxon: *Ulmus* cfr. *minor* (olmo campestre).
Tipo di reperto: trave dormiente.

***Campione:* 7.**
Contenuto: unico reperto sbriciolato in piccoli carboni.
Carboni esaminati: 2.
Taxon: Ulmus cfr. *minor* (olmo campestre).
Tipo di reperto: trave dormiente.

***Campione:* 8.**
Contenuto: 5 porzioni di rami in cui è visibile il cilindro centrale, altri carboni sono con sezione trasversale quadrangolare.
Carboni esaminati: 4 (rami).
Dimensioni:
1- h cm 3; Ø cm 3 con 12 anelli di accrescimento.
2- h cm 2,2; Ø cm 2 con 5 anelli di accrescimento.
3- h cm 2; Ø cm 2,2.
4- h cm 1,9; Ø cm 1,7 con 6 anelli di accrescimento.
Taxon: 1-, 2-, 3-, 4- *Pinus sylvestris/montana* (pino silvestre/montano).
Tipo di reperto: legno da costruzione.

***Campione:* 8a.**
Contenuto: 3 frammenti di rami.
Carboni esaminati: 3.
Dimensioni:
1- La cm 4 x 3,6; h cm 4,5; Ø cm 5 con 16 anelli di accrescimento.
2- h cm 4,7; Ø cm 3 con 9 anelli di accrescimento in cm 1,5.
3- h cm 1,7; Ø cm 3 con 9 anelli di accrescimento in cm 0,7.
Taxon: 1-, 2-, 3- *Pinus sylvestris/montana* (pino silvestre/montana).
Tipo di reperto: legno da costruzione.

***Vzorec:* 8a.**
Vsebina: trije fragmenti vej.
Vzorčeni primerki: 3.
Velikost:
1- šir. 4 x 3,6 cm; viš. 4,5 cm; Ø 5 cm s 16 branikami.
2- viš. 4,7 cm; Ø 3 cm z 9 branikami v 1,5 cm.
3- viš. 1,7 cm; Ø 3 cm z 9 branikami v 0,7 cm.
Takson: 1-, 2-, 3- *Pinus sylvestris/montana* (rdeči bor/rušje).
Namembnost: gradbeni les.

***Vzorec:* 9.**
Vsebina: več koščkov oglja.
Vzorčeni primerki: 1.
Takson: Quercus robur/petraea (dob/graden).
Namembnost: gradbeni les, verjetno temeljni prag ali ploh stenske obloge.

HIŠA 6 (*sl. 30*)

***Vzorec:* 1.** (glej seznam semen na str. 441).

***Vzorec:* 2.**
Faza: 2.
Vsebina: oglje različne razkosanosti in oblik.
Vzorčeni primerki: 4.
Velikost:
1- dl. 3,1cm; šir. 1,1 cm; viš. 3,5 cm.
2- dl. 2,4 cm; šir. 2 cm; 14 branik na širini 0,9 cm; viš. 2 cm.
3- dl. 2,4 cm; šir. 2 cm s 7 branikami; viš. 2 cm.
4- del veje; Ø 2,7 cm; šir. 1,8 cm; viš. 2,3 cm.
Taksoni: 1-, 2-, 3- *Fagus sylvatica* (bukev); 4- *Cornus mas/sanguinea* (dren).
Namembnost: les za kurjenje.

***Vzorci:* 3-5** (glej seznam semen na str. 441).

Vzorec: 6.
Faza: 1.
Vsebina: del kola (okrogel presek) z zelo stisnjenimi branikami.
Vzorčeni primerki: 1.
Velikost: viš.8 cm; Ø na eni strani 5 x 4,5 cm, na drugi max. 7 x 5 cm.
Takson: Abies alba (navadna jelka).
Namembnost: gradbeni les.

Vzorec: 7.
Faza: 2.
Vsebina: kos bruna ali veje.
Vzorčeni primerki: 1.
Velikost: dl. 8 cm; šir. 2,3 cm s 26 branikami; Ø max. >10 cm; viš. 9 cm.
Takson: Abies alba (navadna jelka).
Namembnost: les za kurjenje.

***Vzorec:* 8.** (glej seznam semen na str. 441).

***Campione:* 9.**
Contenuto: serie di carboni
Carboni esaminati: 1.
Taxon: *Quercus robur/petraea* (farnia/rovere).
Tipo di reperto: legno da costruzione (probabile trave dormiente o tavola di rivestimento della parete.

CASA 6 (*fig. 30*)

***Campione:* 1** (vedi elenco di semi, pag. 441).

***Campione:* 2.**
Fase: 2.
Contenuto: carboni di diversa pezzatura e forma.
Carboni esaminati: 4.
Dimensioni:
1- l cm 3,1; La cm 1,1; h cm 3,5.
2- l cm 2,4; La cm 2; 14 anelli di accrescimento in cm 0,9 di larghezza; h cm 2.
3- l cm 2,4; La cm 2 con 7 anelli di accrescimento; h cm 2.
4- porzione di ramo; Ø cm 2,7; La cm 1,8; h cm 2,3.
Taxa: 1-, 2-, 3- *Fagus sylvatica* (faggio); 4- *Cornus mas/sanguinea* (corniolo).
Tipo di reperto: legno da bruciare.

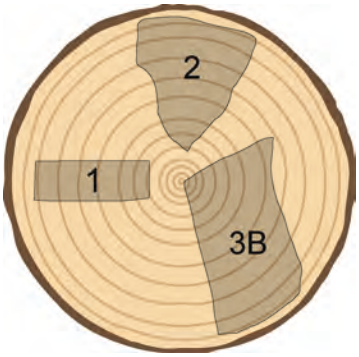
***Campioni:* 3-5** (vedi elenco di semi, pag. 441).

***Campione:* 6.**
Fase: 1.
Contenuto: porzione di palo (sezione trasversale circolare) con anelli di accrescimento molto stretti.
Carbone esaminato: 1.
Dimensioni: h cm 8; ad una estremità Ø cm 5 x 4,5 all'altra Ø max cm 7 x 5.
Taxon: Abies alba (abete bianco).
Tipo di reperto: legno da costruzione.

***Campione:* 7.**
Fase: 2.
Contenuto: porzione di trave o asse.
Carbone esaminato: 1.
Dimensioni: l cm 8; La cm 2,3 con 26 anelli di accrescimento; Ø max > cm 10; h cm 9.
Taxon: Abies alba (abete bianco).
Tipo di reperto: legno da bruciare.

***Campione:* 8.** (vedi elenco di semi, pag. 441).

***Campione:* 9.**
Fase: 2.
Contenuto: 2 pacchetti (A, B); A- 3 carboni grossi (esaminati) e alcuni piccoli; B- unico grosso carbone.
Carboni esaminati: 4.
Dimensioni:
A1- l cm 1,2; La cm 3 con 7 anelli di accrescimento; h cm 2,8.
A2- l cm 2,1; La cm 1,2 con 10 anelli di accrescimento.

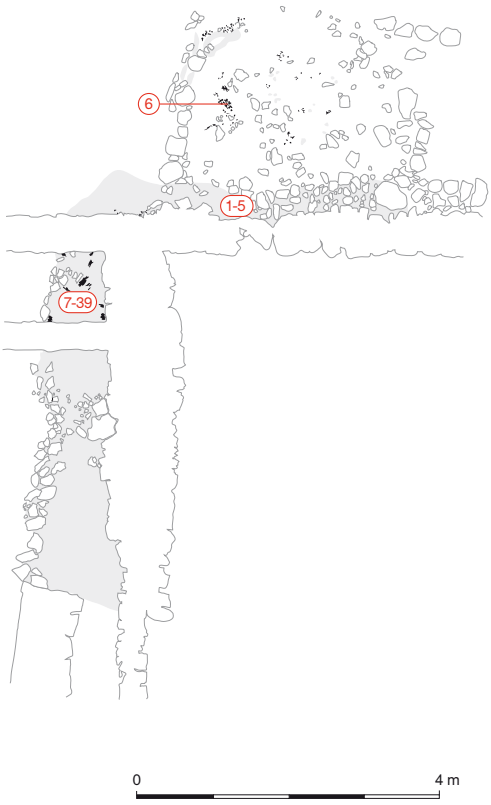


Sl. 29: Hiša 6; vzorec 10.
Fig. 29: Casa 6; campione 10.

Vzorec: 9.
Faza: 2.
Vsebina: dve vrečki oglja (A, B): A- trije večji kosi oglja (vzorčeni) in nekaj manjših; B- en sam večji kos oglja.
Vzorčeni primerki: 4.
Velikost:
A1- dl. 1,2 cm; šir. 3 cm s 7 branikami; viš. 2,8 cm.
A2- dl. 2,1 cm; šir. 1,2 cm z 10 branikami.
A3- dl. 2,8 cm; šir. 2,8 cm; viš. 1,5 cm.
B1- šir. 1,7 cm; r. 6 cm; 30 branik v 3,5 cm; viš. 5 cm.
Taksoni: A1-, B1- *Quercus robur/petraea* (dob/graden); A2- *Fagus sylvatica* (bukev); A3- *Abies alba* (navadna jelka).
Namembnost: les za kurjenje.

***Vzorec:* 10.**
Faza: 2.
Vsebina: oglje različnih vrst lesa; štiri vrečke (1, 2, 3, 4).
Vzorčeni primerki: 5.
Velikost:
1. vrečka- primerki oglja različnih mer in vrst (ni bilo vzorčeno).
2. vrečka- en sam kos, verjetno del kola; najmanjša šir. 1,5 cm, max. 4,3 cm; r. 5,5 cm z 20 branikami; Ø max. > 20 cm.
3 vrečka- 2 zavojčka: A, B.
A: verjetno del bruna; viš. 6,6 cm; dl. 1 cm; šir. 3,2 cm, z 12 branikami; viš. 6,6 cm.
B: verjetno del obdelanega lesa različne širine, na konceh 2,2 cm, v sredini 5,5 cm z okoli 20 branikami; viš. 4 cm.
4 vrečka- večji in manjši primerki oglja:
1- kos oglja nepravilne oblike, zvit les?
2- dl. 3,4 cm; šir. 2 cm s 15 branikami; Ø max. 9 cm; viš. 5,5 cm.
Taksoni:
2-, 3B- *Fagus sylvatica* (bukev).
3A- *Abies alba* (navadna jelka).
4/1- *Quercus robur/petraea* (dob/graden).
4/2- *Abies alba* (navadna jelka).
Namembnost: les za kurjenje (*sl. 29*).

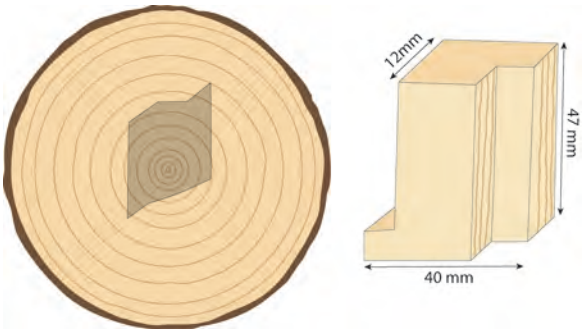
***Vzorec* 11.**
Faza: 2.
Vsebina: 2 vrečki oglja različnih vrst lesa.



Sl. 30: Hiša 6 (fazi 1 in 2); pozicije vzorcev.
Fig. 30: Casa 6 (fase 1 e 2); posizioni dei campioni.

A3- l cm 2,8; La cm 2,8; h cm 1,5.
B1- La cm 1,7; r cm 6; 30 anelli di accrescimento in cm 3,5; h cm 5.
Taxa: A1-, B1- *Quercus robur/petraea* (farnia/rovere); A2- *Fagus sylvatica* (faggio); A3- *Abies alba* (abete bianco).
Tipo di reperto: legno da bruciare.

***Campione:* 10.**
Fase: 2.
Contenuto: 4 sacchetti (1, 2, 3, 4) con carboni di diverse specie di legno.
Carboni esaminati: 5.
Dimensioni:
1 sacchetto- carboni di diverse misure e specie. Non esaminato.
2 sacchetto- carbone unico, probabile frammento di palo; La min. cm 1,5; La max cm 4,3; r cm 5,5 con 20 anelli di accrescimento; Ø max > cm 20.
3 sacchetto- 2 pacchetti: A, B.
A- porzione di probabile trave; h cm 6,6; l cm 1; La cm 3,2 con 12 anelli di accrescimento.
B- carbone probabilmente lavorato; La variabile, alle estremità cm 2,2 al centro cm 5,5 con ca. 20 anelli di accrescimento; h cm 4.
4 sacchetto- carboni grossi e piccoli:
1- carbone con forma irregolare, legno contorto?
2- l cm 3,4; La cm 2 con 15 anelli di accrescimento; Ø max. cm 9; h cm 5,5.



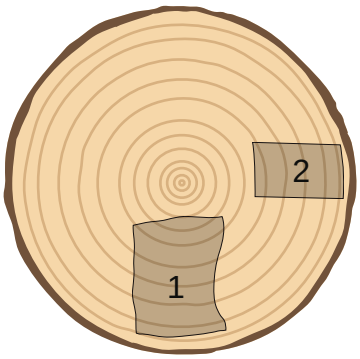
Sl. 31: Hiša 6; vzorec 11.
Fig. 31: Casa 6; campione 11.

Vzorčeni primerki: 1; s sledovi obdelave.
Velikost: dl. 1 cm; šir. 4,7 cm; viš, 4 cm.
Takson: Abies alba (navadna jelka).
Namembnost: les (obdelan) za kurjenje (*sl. 31*).

***Vzorec:* 12.**
Faza: 2.
Vsebina: 2 vrečki oglja različnih vrst.
Vzorčeni primerki: 2.
Velikost:
1- deformiran in stisnjen kos; dl. 1,8 cm; šir. 7 cm s 26 branikami; Ø max. > 15 cm; viš. 5,5 cm.
2- dl. 1cm; šir. 2,1 cm s 6 branikami; viš. 1,5 cm.
Takson: 1-, 2- *Quercus robur/petraea* (dob/graden).
Namembnost: les za kurjenje.

***Vzorec:* 13.**
Faza: 2.
Vsebina: dva primerka oglja (A, B); A- cilindrični kosi, štirje so povezljivi (manjša olupljena veja); B- en kos oglja.
Vzorčeni primerki: 2.
Velikost:
A- skupna viš. 6,5 cm (1,7+1,8+0,7+2,3 cm); Ø 0,9 cm.
Taksoni: A- *Cornus mas/sanguinea* (dren); B- *Corylus avellana* (leska).
Namembnost: les s za kurjenje.

***Vzorec:* 14.**
Faza: 2.
Vsebina: vsebuje 2 vrečki; 1- kos bruna s sledovi obdelave.
Vzorčeni primerki: 2.
Velikost:
1- dl. 1,8 cm; šir. 4,5 cm z 19 branikami; viš. 5,2 cm.
2- dl. 1,8 cm; šir. 3,6 cm z 18 branikami; Ø max. 15 cm; viš. 5,7 cm.
Takson: 1-. 2- *Abies alba* (navadna jelka).
Namembnost: les za kurjenje (*sl. 32*).



Sl. 32: Hiša 6; vzorec 14.
Fig. 32: Casa 6; campione 14.

Taxa:
2-, 3B- *Fagus sylvatica* (faggio).
3A- *Abies alba* (abete bianco).
4/1- *Quercus robur/petraea* (farnia/rovere).
4/2- *Abies alba* (abete bianco).
Tipo di reperto: legno da bruciare (*fig. 29*).

***Campione:* 11.**
Fase: 2.
Contenuto: 2 sacchetti con campioni di diverse specie di legno.
Carbone esaminato: 1; tracce di lavorazione.
Dimensioni: l cm 1,2; La cm 4,7; h cm 4.
Taxon: Abies alba (abete bianco).
Tipo di reperto: legno (lavorato) da bruciare (*fig. 31*).

***Campione:* 12.**
Fase: 2.
Contenuto: 2 sacchetti di carboni di specie diverse.
Carboni esaminati: 2.
Dimensioni:
1- carbone deformato e schiacciato; l cm 1,8; La cm 7 con 26 anelli di accrescimento; Ø max. > cm 15; h cm 5,5.
2- l cm 1; La cm 2,1 con 6 anelli di accrescimento; h cm 1,5.
Taxon: 1-, 2- *Quercus robur/petraea* (farnia/rovere).
Tipo di reperto: legno da bruciare.

***Campione:* 13.**
Fase: 2.
Contenuto: campioni (A, B); A- carboni cilindrici, 4 sono in connessione, (rametto scortecciato);
B- un carbone.
Carboni esaminati: 2.
Dimensioni:
A- h totale cm 6,5 (1,7+1,8+0,7+2,3); Ø cm 0,9.
Taxa: A- *Cornus mas/sanguinea* (corniolo); B- *Corylus avellana* (nocciolo).
Tipo di reperto: legno da bruciare.

***Vzorec:* 15.**
Faza: 2.
Vsebina: številni fragmenti stebel in vej različnih rezov in oblik, ki pa ne dajejo videza ročne obdelave.
Vzorčeni primerki: 10.
Velikost:
1- viš. 6,1 cm; brezobličen.
2- dl. 3,6 cm; šir. 3,7 cm, z 22 branikami; viš. 2 cm.
3- šir. 2,7 cm s 17 branikami; Ø max. > 10 cm; viš. 2,7 cm.
4- dl. 5 cm; šir. 3,6 cm z 20 branikami; Ø max. > 10 cm; viš. 2,2 cm.
5- dl. 3,5 cm; šir. 4 cm s 24 branikami; Ø> 10 cm; viš. 2,6 cm.
6- osrednji predel kola; Ø 3 cm; viš. 2,8 cm; spore gliv.
7- dl. 1,8 cm; 10 branik v 0,9 cm; viš. 1 cm.
8- Ø 3 cm; 12 branik; luknjice parazitov.
9- dl. 1,8 cm; šir. 1,4 cm; 30 branik različne gostote; Ø max. 5 cm; viš. 2,6 cm.
10- viš. 4,3 cm; brezobličen.
Taksoni:
1- *Fagus sylvatica* (bukev)
2-, 3-, 4-, 5- *Ulmus* cfr. *minor* (brest).
6-, 8-, 9-, 10- *Abies alba* (navadna jelka).
7- *Alnus glutinosa/incana* (črna jelša/siva jelša).
Namembnost: les za kurjenje.

***Vzorec:* 16.**
Faza: 2.
Vsebina: nekaj fragmentov oglja.
Vzorčeni primerki: 3.
Velikost: 1- viš. 4 cm; 2- viš. 5 cm; 3- viš. 3 cm.
Taksoni:
1- *Quercus robur/petraea* (dob/graden).
2- *Fagus sylvatica* (bukev).
3- *Abies alba* (navadna jelka).
Namembnost: les za kurjenje.

***Vzorec:* 17.**
Faza: 2.
Vsebina: del kola?
Vzorčeni primerki: 1.
Velikost: dl. 3,5 cm; r. 4,5 cm s 23 branikami; Ø max. 13 cm; viš. 2 cm.
Takson: Abies alba (navadna jelka).
Namembnost: les za kurjenje.

***Vzorec:* 17a.**
Faza: 2.
Vsebina: majhna semena in oglje.
Vzorčeni primerki: 1.
Takson: Quercus robur/petraea (dob/graden).
Namembnost: les za kurjenje.

***Vzorci:* 18-20** (glej seznam semen na str. 441).

***Vzorec:* 21.**
Faza: 2.
Vsebina: drobci oglja.
Takson: ni določljiv.
Namembnost: les za kurjenje.

***Campione:* 14.**
Fase: 2.
Contenuto: contiene 2 pacchetti; 1- porzione di trave, tracce di lavorazione, simile al campione 10 con incavo; 2- porzione di trave.
Carboni esaminati: 2
Dimensioni:
1- l cm 1,8; La cm 4,5 con 19 anelli di accrescimento; h cm 5,2.
2- l cm 1,8; La cm 3,6 con 18 anelli di accrescimento; Ø max cm 15; h cm 5,7.
Taxon: 1-, 2- *Abies alba* (abete bianco).
Tipo di reperto: legno da bruciare (*fig. 32*).

***Campione:* 15.**
Fase: 2.
Contenuto: numerosi frammenti di tronchi e rami di diverso taglio e foggia; non sembrano riferirsi a nessun particolare manufatto.
Carboni esaminati: 10.
Dimensioni:
1- h cm 6,1; privo di forma particolare.
2- l 3,6; La cm 3,7 con 22 anelli di accrescimento; h cm 2.
3- La cm 2,7 con 17 anelli di accrescimento; Ø max > cm 10; h cm 2,7.
4- l cm 5; La cm 3,6 con 20 anelli di accrescimento; Ø > cm 10; h cm 2,2.
5- l cm 3,5; La cm 4 con 24 anelli di accrescimento; Ø> cm 10; h cm 2,6.
6- porzione centrale di palo; Ø cm 3; h cm 2,8; ife fungine.
7- l cm 1,8; 10 anelli di accrescimento in cm 0,9; h cm 1.
8- Ø cm 3; anelli 12; h cm 3,7; fori di parassiti.
9- l cm 1,8; La cm 1,4; 30 anelli di diverso spessore; Ø max cm 5; h cm 2,6.
10- h cm 4,3; senza forma particolare.
Taxa:
1- *Fagus sylvatica* (faggio).
2-, 3-, 4-, 5- *Ulmus* cfr. *minor* (olmo campestre).
6-, 8-, 9-, 10- *Abies alba* (abete bianco).
7- *Alnus glutinosa/incana* (ontano).
Tipo di reperto: legno da bruciare.

***Campione:* 16.**
Fase: 2.
Contenuto: alcuni frammenti di carbone.
Carboni esaminati: 3.
Dimensioni: 1- h cm 4; 2- h cm 5; 3- h cm 3.
Taxa:
1- *Quercus robur/petraea* (farnia/rovere).
2- *Fagus sylvatica* (faggio).
3- *Abies alba* (abete bianco).
Tipo di reperto: legno da bruciare.

***Campione:* 17.**
Fase: 2.
Contenuto: porzione di palo?
Carbone esaminato: 1.
Dimensioni: l cm 3,5; r cm 4,5 con 23 anelli di accrescimento; Ø max cm 13; h cm 2.
Taxon: Abies alba (abete bianco).
Tipo di reperto: legno da bruciare.

***Vzorec:* 22.**
Faza: 2.
Vsebina: dva fragmenta oglja.
Vzorčeni primerki: 2.
Velikost:
1- dl. 1,5 cm; šir. 2,2 cm s 4 branikami; Ø max. 9 cm; viš, 5,5 cm.
2- dl. 4,5 cm; šir. 3 cm (goste branike); viš. 3,6 cm.
Takson: Abies alba (navadna jelka).
Namembnost: les za kurjenje.

***Vzorec:* 23.**
Faza: 2.
Vsebina: odlomki keramike in oglja.
Vzorčeni primerki: 3.
Velikost: 1- viš. 2,2 cm; 2- viš. 2,1 cm; 3- viš. 2,6 cm.
Takson: Quercus robur/petraea (dob/graden).
Namembnost: les za kurjenje.

***Vzorec:* 24.**
Faza: 2.
Vsebina: različni fragmenti oglja.
Vzorčeni primerki: 1.
Takson: Quercus robur/petraea (dob/graden).
Namembnost: les za kurjenje.

***Vzorec:* 25.**
Faza: 2.
Vsebina: del kola.
Vzorčeni primerki: 1.
Velikost: dl. 2,7 cm, šir. 2,5 cm s 24 branikami; Ø max. 6 cm; viš. 3,6 cm.
Takson: Abies alba (navadna jelka).
Namembnost: les za kurjenje.

***Vzorec:* 26.**
Faza: 2.
Vsebina: nekaj koščkov oglja.
1- obdelana veja.
2- fragment brez posebnih oblik.
3-, 4- oglje brez posebnih oblik.
5- sprimek zrn prosa (glej poseben seznam, str. 442).
Vzorčeni fragmenti: 4.
Velikost:
1- dl. max. 2,7 cm; r. 3,9 cm z 18 branikami; Ø max. 8 cm; viš. 2,7 cm.
2- dl. 5 cm; šir. 2,2 cm s 17 branikami; viš. 5,5 cm.
Taksoni:
1- *Fagus sylvatica* (bukev).
2- *Abies alba* (navadna jelka).
3-, 4- Quercus robur/petraea (dob/graden).
Namembnost: les za kurjenje.

***Vzorec:* 27.**
Faza: 2.
Vsebina: odlomki oglja.
Vzorčeni primerki: 5.
Velikost:

***Campione:* 17a.**
Fase: 2.
Contenuto: semi piccoli, carboni.
Carbone esaminato: 1.
Taxon: Quercus robur/petraea (farnia/rovere).
Tipo di reperto: legno da bruciare.

***Campioni:* 18-20** (vedi elenco di semi, pag. 441, 442).

***Campione:* 21.**
Fase: 2.
Contenuto: piccolo carbone in frantumi.
Taxon: n.d.
Tipo di reperto: legno da bruciare.

***Campione:* 22.**
Fase: 2.
Contenuto: due frammenti di carbone.
Carboni esaminati: 2.
Dimensioni:
1- l cm 1,5; La cm 2,2 con 4 anelli di accrescimento; Ø max cm 9; h cm 5,5.
2- l cm 4,5; La cm 3 (anelli fitti); h cm 3,6.
Taxon: 1-, 2- *Abies alba* (abete bianco).
Tipo di reperto: legno da bruciare.

***Campione:* 23.**
Fase: 2.
Contenuto: frammenti di ceramica e carbone.
Carboni esaminati: 3.
Dimensioni: 1- h cm 2,2; 2- h cm 2,1; 3- h cm 2,6.
Taxon: 1-, 2-, 3- *Quercus robur/petraea* (farnia/rovere).
Tipo di reperto: legno da bruciare.

***Campione:* 24.**
Fase: 2.
Contenuto: diversi frammenti di carbone.
Carbone esaminato: 1.
Taxon: Quercus robur/petraea (farnia/rovere).
Tipo di reperto: legno da bruciare.

***Campione:* 25.**
Fase: 2.
Contenuto: frammento di palo.
Carbone esaminato: 1.
Dimensioni: l cm 2,7; La cm 2,5 con 24 anelli di accrescimento; Ø max cm 6; h cm 3,6.
Taxon: Abies alba (abete bianco).
Tipo di reperto: legno da bruciare.

***Campione:* 26.**
Fase: 2.
Contenuto: alcuni carboni.
1- ramo lavorato.
2- frammento senza forma particolare.

1- dl. 4,5 cm; šir. 2,5 cm; viš. 2,5 cm.
2- dl. 2 cm; šir. 1,5 cm; viš. 2,8 cm.
3- dl. 1,5 cm; šir. 1 cm; viš. 1,5 cm.
Taksoni:
1-, 3- *Cornus mas/sanguinea* (dren).
2- *Abies alba* (navadna jelka).
4-, 5- Quercus robur/petraea (dob/graden).
Namembnost: les za kurjenje.

***Vzorec:* 28.**
Faza: 2.
Vsebina: odlomki oglja.
Vzorčeni primerki: 2.
Velikost:
1- dl. 3 cm; šir. 2,2 cm; viš. 3,5 cm.
2- dl. 2 cm; šir. 2 cm; viš. 3 cm.
Taksoni:
1- *Fagus sylvatica* (bukev).
2- *Ulmus* cfr. *minor* (poljski brest).
Namembnost: les za kurjenje.

***Vzorec:* 29.**
Faza: 2.
Vsebina: trije odlomki oglja.
Vzorčeni primerki: 3.
Velikost:
1- dl. 5,5 cm; šir. 3,2 cm z 18 branikami; Ø max. 20; cm, viš. 2,1 cm.
2- dl. 1,8 cm; šir. 2,6 cm s 14 branikami; Ø 7 cm; viš. 3 cm.
3- dl. 1,7 cm; šir. 2 cm s 13 branikami; viš. 1,2 cm.
Taksoni:
1- *Ulmus* cfr. *minor* (brest).
2-, 3- *Fagus sylvatica* (bukev).
Namembnost: les za kurjenje.

***Vzorec:* 30.** (glej seznam semen na str. 442).

***Vzorec:* 31.**
Faza: 2.
Vsebina: številni deli stebel in vej različnih rezov in oblik; tudi veje različnih vrst.
Vzorčeni primerki: 6.
Velikost:
1- kos manjšega debla; Ø 2 cm, 18 branik; viš. 4 cm.
2- šir. 3 cm s 17 branikami; Ø 2 cm; viš. 2,9 cm.
3- šir. 4,5 cm; viš. 3,3 cm.
Taksoni:
1- 2- *Abies alba* (navadna jelka).
3-, 4-, 5-, 6- *Quercus robur/petraea* (dob/graden).
Namembnost: les za kurjenje.

***Vzorec:* 32.**
Faza: 2.
Vsebina: dva primerka oglja (A, B).
Vzorčni primerki: 2.
Velikost:
A- dl. 1,8 cm; šir. 3 cm 14 branikami; viš. 5,7 cm.

3-, 4- carboni senza forma particolare.
5- aggregato di cariossidi di miglio (vedi elenco separato, pag. 442).
Carboni esaminati: 4.
Dimensioni:
1- l max cm 2,7; r cm 3,9 con 18 anelli di accrescimento; Ø max cm 8; h cm 2,7.
2- l cm 5; La cm 2,2 con 17 anelli di accrescimento; h cm 5,5.
Taxa:
1- *Fagus sylvatica* (faggio).
2- *Abies alba* (abete bianco).
3-, 4- *Quercus robur/petraea* (farnia/rovere).
Tipo di reperto: legno da bruciare.

***Campione:* 27.**
Fase: 2.
Contenuto: frammenti di carbone.
Carboni esaminati: 5.
Dimensioni:
1- l cm 4,5; La cm 2,5; h cm 2,5.
2- l cm 2; La cm 1,5; h cm 2,8;
3- l cm 1,5; La cm 1; h cm 1,5.
Taxa:
1-, 3- *Cornus mas/sanguinea* (corniolo).
2- *Abies alba* (abete bianco).
4-, 5- *Quercus robur/petraea* (farnia/rovere).
Tipo di reperto: legno da bruciare.

***Campione:* 28.**
Fase: 2.
Contenuto: frammenti di carbone.
Carboni esaminati: 2.
Dimensioni:
1- l cm 3; La cm 2,2; h cm 3,5.
2- l cm 2; La cm 2; h cm 3.
Taxa:
1- Fagus sylvatica (faggio).
2- *Ulmus* cfr. *minor* (olmo campestre).
Tipo di reperto: legno da bruciare.

***Campione:* 29.**
Fase: 2.
Contenuto: 3 frammenti.
Carboni esaminati: 3.
Dimensioni:
1- l cm 5,5; La cm 3,2 con 18 anelli di accrescimento; Ø max cm 20; h cm 2,1.
2- l cm 1,8; La 2,6 con 14 anelli; Ø cm 7; h cm 3.
3- l cm 1,7; La cm 2 con 13 anelli; h cm 1,2.
Taxa:
1- *Ulmus* cfr. *minor* (olmo campestre).
2-, 3- *Fagus sylvatica* (faggio).
Tipo di reperto: legno da bruciare.

***Campione:* 30** (vedi elenco di semi, pag. 442).

B- dl. 3,2 cm; šir. 2 cm z 20 branikami; viš. 5,2 cm.
Takson: A-, B- *Quercus robur/petraea* (dob/graden).
Namembnost: les za kurjenje, B- les za kurjenje (obdelan).

***Vzorec:* 33.**
Faza: 2.
Vsebina: dve zavojčka (A, B) s številnimi fragmneti oglja.
Vzorčeni primerki: 4.
Velikost:
A1- dl. 4 cm; šir. 1,9 cm z 8 branikami v 1 cm; viš. 4,5 cm.
A2- dl. 2 cm; šir. 2 cm; viš. 3,3 cm.
B1- dl. 6 cm; šir. 2 cm; viš. 2,8 cm.
B2- dl. 1,6 cm; šir. 5,2 cm; viš. 4 cm.
Takson: A1-, A2-, B1-, B2- *Abies alba* (navadna jelka).
Namembnost: les za kurjenje.

***Vzorec:* 34.**
Faza: 2.
Vsebina: precej veliki kosi oglja, nekateri med njimi so videti kot odpadek pri obdelavi lesa.
Vzorčeni primerki: 4.
Velikost:
1- dl. 1,6 cm; šir. 4,5 cm z 9 branikami.
2- del večje obdelane veje; dl. 2,6 cm; šir. 2,7 cm z 11 branikami; Ø max. 3,5 cm; viš. 3,2 cm.
3- šir. 2,1 cm; Ø max. 3,5 cm; viš. 3,3 cm.
4- dl. 4,5 cm; 13 branik v 1,5 cm; viš. 3,3 cm.
Taksoni:
1-, 2- *Quercus robur/petraea* (dob/graden).
3- *Fagus sylvatica* (bukev).
4- *Abies alba* (navadna jelka).
Namembnost: les za kurjenje.

***Vzorec:* 35.** (glej seznam semen na str. 442).

***Vzorec:* 36.**
Faza: 2.
Vsebina: 2 zavojčka oglja (A, B).
Vzorčeni primerki: 2.
Velikost:
A- del manjšega bruna štirikotnega preseka; dl. 3,2 - 2,6 cm; šir. 2,7 cm z 10 branikami; Ø max. 1,6 cm; viš. 5 cm.
B- prizmatično oglje, na bazi nepravilno štirikotnega preseka; dl. 2,2 cm; šir. 3,2 cm s 14 branikami; Ø max. > 10 cm; viš. 5,5 cm.
Takson: A-, B- *Quercus robur/petraea* (dob/graden).
Namembnost: les za kurjenje.

***Vzorec:* 37.**
Faza: 2.
Vsebina: vzorci oglja v eni vrečki in še dveh pripetih.
1- različni odlomki veliki do max. 2 cm.
2- del bruna.
3- zdi se, da pripada dvema deskama (odlomka A in B), ležečima ena vrh druge.
Vzorčeni primerki: 3.
Velikost:

***Campione:* 31.**
Fase: 2.
Contenuto: numerosi frammenti di tronchi e rami di diverso taglio e foggia; anche rami di diverse specie.
Carboni esaminati: 6.
Dimensioni:
1- frammento di piccolo tronco; Ø cm 2; 18 anelli; h cm 4.
2- La cm 3 con 17 anelli di accrescimento; Ø cm 2; h cm 2,9.
3- La cm 4,5; h cm 3,3.
Taxa:
1-, 2- *Abies alba* (abete bianco).
3-, 4-, 5-, 6- *Quercus robur/petraea* (farnia/rovere).
Tipo di reperto: legno da bruciare.

***Campione:* 32.**
Fase: 2.
Contenuto: due carboni (A, B).
Carboni esaminati: 2.
Dimensioni:
A- l cm 1,8; La cm 3 con 14 anelli di accrescimento; h cm 5,7.
B- l cm 3,2; La cm 2 con 20 anelli; h cm 5,2.
Taxon: A-, B- *Quercus robur/petraea* (farnia/rovere).
Tipo di reperto: A- legno da bruciare, B- legno da bruciare lavorato.

***Campione:* 33.**
Fase: 2.
Contenuto: due pacchetti (A, B) con molti frammenti di carbone.
Carboni esaminati: 4.
Dimensioni:
A1- l cm 4; La m 1,9 con 8 anelli di accrescimento in cm 1; h cm 4,5.
A2- l cm 2; La cm 2; h cm 3,3.
B1- l cm 6; La cm 2; h cm 2,8.
B2- l cm 1,6; La cm 5,2; h cm 4.
Taxon: A1-, A2-, B1-, B2- *Abies alba* (abete bianco).
Tipo di reperto: legno da bruciare.

***Campione:* 34.**
Fase: 2.
Contenuto: pezzi piuttosto grossi di carbone, alcuni sembrano scarti di lavorazione.
Carboni esaminati: 4.
Dimensioni:
1- l cm 1,6; La cm 4,5 con 9 anelli di accrescimento.
2- porzione di grosso ramo lavorato; l cm 2,6; La cm 2,7 con 11 anelli di accrescimento; Ø max cm 3,5; h cm 3,2.
3- La cm 2,1; Ø max cm 3,5; h cm 3,3.
4- l cm 4,5; 13 anelli di accrescimento in cm 1,5; h cm 3,3.
Taxa:
1-, 2- *Quercus robur/petraea* (farnia/rovere).
3- *Fagus sylvatica* (faggio).
4- *Abies alba* (abete bianco).
Tipo di reperto: legno da bruciare.

***Campione:* 35** (vedi elenco di semi, pag. 442).

Sl. 33: Hiša 7; poziciji vzorcev.
Fig. 33: Casa 7; posizioni dei campioni.

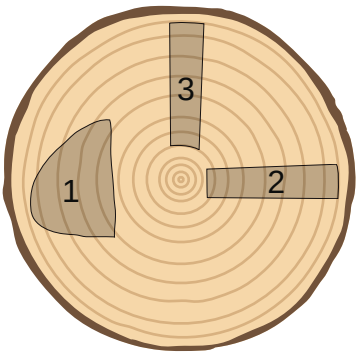
3- dl. 8 cm; šir. 2,7 cm; viš. 10 cm.
A: Ø max. >16 cm; šir. 1,8 cm s 15 branikami.
B: Ø max. >16 cm; šir. 3 cm s 16 branikami.
Takson: 1-, 2-, 3- *Quercus robur/petraea* (dob/graden).
Namembnost: Les za kurjenje.

***Vzorec:* 38.** (glej seznam semen na str. 442).

***Vzorec:* 39.**
Faza: 2.
Vzorčeni primerki: 1.
Velikost: dl. 0,5 cm; šir. 2,5 cm; Ø max. 6 cm; viš. 3,9 cm.
Takson: Quercus robur/petraea (dob/graden).
Namembnost: les za kurjenje.

HIŠA 7 (*sl. 33*)

***Vzorec:* 1.**
Vsebina: primerki oglja zelo majhnih dimenzij.
Vzorčeni primerki: 7.
Velikost:
1- Ø 3 x 1,7 cm; 5 branik v 1,2 cm; viš. 4 cm.
2- skupek oglja, ki vsebuje tudi del manjše zgorele veje; Ø 2,5 cm; dl. 2,7 cm.
3- dl. 2,8 cm s 17 branikami; šir. 1 cm; viš. 1 cm.
4- enako kot 3.
5- rahlo ukrivljen kos; dl. 1,3 cm s 3,5 branikami; šir. 1,2 cm; viš, 4 cm.
6- dl. 2,5 cm z 11 branikami; šir. 1,3 cm; viš. 1,5 cm.
7- Ø 2,1 x 1,4 cm; viš. 2,1 cm.
Taksoni:
1- *Fagus sylvatica* (bukev).
2- *Abies alba* (navadna jelka.
3- *Quercus robur/petraea* (dob/graden).
4- *Fagus sylvatica* (bukev).



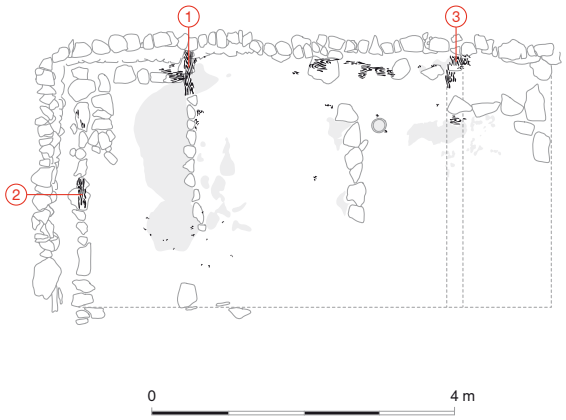
Sl. 34: Hiša 7; vzorec 1.
Fig. 34: Casa 7; campione 1.

***Campione:* 36.**
Fase: 2.
Contenuto: 2 pacchetti (A, B).
Carboni esaminati: 2.
Dimensioni:
A- porzione di piccola trave a sezione quadrangolare l cm 3,2 - 2,6; La cm 2,7 con 10 anelli di accrescimento; Ø max cm 1,6; h cm 5.
B- carbone prismatico, a base quadrangolare irregolare; l cm 2,2; La cm 3,2 con 14 anelli di accrescimento; Ø max > cm 10; h cm 5,5.
Taxon: A-, B- *Quercus robur/petraea* (farnia/rovere).
Tipo di reperto: legno da bruciare.

***Campione:* 37.**
Fase: 2.
Contenuto: 1 sacchetto + 2 attaccati assieme.
1- diversi carboni con dimensione massima di cm 2.
2- porzione di trave.
3- sembrano due assi sovrapposte: si tratta del frammento A e del frammento B.
Carboni esaminati: 3.
Dimensioni:
3- l cm 8; La cm 2,7; h cm 10.
Ø max di A > cm 16; La cm 1,8 con 15 anelli di accrescimento.
Ø max di B > cm 16; La cm 3 con 16 anelli di accrescimento.
Taxon: 1-, 2-, 3- *Quercus robur/petraea* (farnia/rovere).
Tipo di reperto: legno da bruciare.

***Campione:* 38** (vedi elenco di semi, pag. 442).

***Campione:* 39.**
Fase: 2.
Contenuto: campione sbriciolato, forse originariamente unico.
Carbone esaminato: 1.
Dimensioni: l cm 0,5; La cm 2,5; Ø max cm 6; h cm 3,9.
Taxon: Quercus robur/petraea (farnia/rovere).
Tipo di reperto: legno da bruciare.



Sl. 35: Hiša 8 (fazi 1 in 2); pozicije vzorcev.
Fig. 35: Casa 8 (fase 1 e 2); posizioni dei campioni.

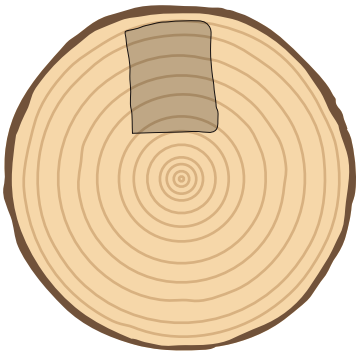
5- *Picea abies* (navadna smreka)..
6- *Quercus robur/petraea* (dob/graden).
7- *Fagus sylvatica* (bukev); drugi primerki pripadajo bukvi in hrastu.
Opomba: v ruševinskem polnilu jame.
Namembnost: les za kurjenje (*sl. 34*).

***Vzorec:* 2.** (glej seznam semen na str. 442).

HIŠA 8 (*sl. 35*)

***Vzorec:* 1.**
Faza: 2.
Vsebina: veliki primerki oglja kvadratne oblike, ki so bili verjetno del istega kosa; v prečnem prerezu je prepoznavnih nekaj branik, ni pa določljiva njihova krivina.
Vzorčeni primerki: 1.
Velikost: dl. 4,5 cm; šir. 3,6 cm z okoli 10 branikami; viš. 2,3 cm.
Takson: Quercus robur/petraea (dob/graden).
Namembnost: temeljni prag (*sl. 36*).

***Vzorec:* 2.**
Faza: 2.
Vsebina: zdrobljeno oglje.
Vzorčeni primerki: 2.
Velikost:
1- r. 4,5-6 cm; Ø max. ni določljiv; 10 branik v 2,3 cm; dl. 6,5 cm; šir. 7 cm; razpoke kot posledica gorenja.
2- 9 branik v 1,9 cm.
Takson: Quercus robur/petraea (dob/graden).
Namembnost: temeljni prag (*sl. 37*).



Sl. 36: Hiša 8; vzorec 1.
Fig. 36: Casa 8; campione 1.

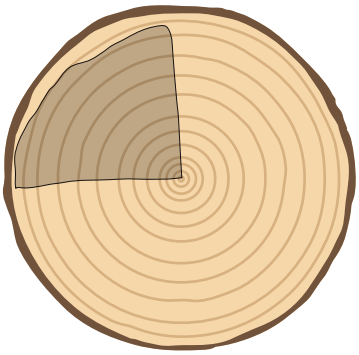
CASA 7 (*fig. 33*)

***Campione:* 1.**
Contenuto: carboni con dimensioni centimetriche.
Carboni esaminati: 7.
Dimensioni:
1- Ø cm 3 x 1,7; 5 anelli di accrescimento in 1,2 cm; h cm 4.
2- porzione di carbone con all'interno piccolo rametto bruciato; Ø cm 2,5; l cm 2,7.
3- l cm 2,8 con 17 anelli di accrescimento; La cm 1; h cm 1.
4- analogo al precedente.
5- l cm 1,3 con 3,5 anelli; La cm 1,2; h cm 4; debole curvatura.
6- l cm 2,5 con 11 anelli di accrescimento; La cm 1,3; h cm 1,5.
7- Ø cm 2,1 x 1,4; h cm 2,1.
Taxa:
1- *Fagus sylvatica* (faggio).
2- *Abies alba* (abete bianco).
3- *Quercus robur/petraea* (farnia/rovere).
4- *Fagus sylvatica* (faggio).
5- *Picea abies* (abete rosso).
6- *Quercus robur/petraea* (farnia/rovere).
7- *Fagus sylvatica* (faggio); osservazioni gli altri carboni: sono di *Quercus robur/petraea* (farnia/rovere) e *Fagus sylvatica* (faggio).
Osservazione: nello strato di bruciaticcio nella fossa.
Tipo di reperto: legno da bruciare (*fig. 34*).

***Campione:* 2** (vedi elenco di semi, pag. 442).

CASA 8 (*fig. 35*)

***Campione:* 1.**
Fase: 2.
Contenuto: frammenti di carbone piuttosto grossi, quadrangolari, forse pertinenti a un unico frammento; la sezione trasversale mostra alcuni anelli di accrescimento, non è definibile la curvatura.
Carboni esaminati: 1.
Dimensioni: l cm 4,5; La cm 3,6 con ca 10 anelli di accrescimento; h cm 2,3.



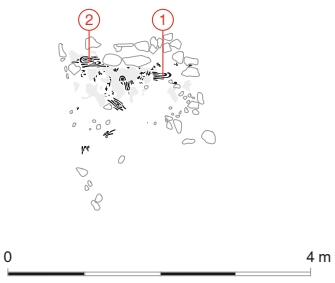
Sl. 37: Hiša 8; vzorec 2.
Fig. 37: Casa 8; campione 2.

***Vzorec:* 3.**
Faza: 1.
Vsebina: fragmenti oglja, verjetno del istega kosa.
Vzorčeni primerki: 1.
Velikost: dl. 1,5 cm; šir. 1,5 cm s 5 branikami; viš. 3 cm.
Takson: Quercus robur/petraea (dob/graden).
Namembnost: temeljni prag.

HIŠA 9 (*sl. 38*)

***Vzorec* 1.**
Vsebina: zdrobljeno oglje ploščatih oblik s skromno prepoznavnimi krivinami branik.
Vzorčeni primerki: 1.
Velikost: dl. 1 cm; 6 branik v 0,6 cm; viš. 1,5 cm.
Takson: Abies alba (navadna jelka).
Namembnost: gradbeni les.

***Vzorec:* 2.**
Vsebina: zdrobljen primerek oglja.
Vzorčeni primerki: 1.
Velikost: težko določljiva, Ø največ > 10 cm; branike so tesno skupaj; 3 branik v šir. 1,4 cm; spore gliv; luknjice parazitov.
Takson: Abies alba (navadna jelka).
Namembnost: temeljni prag.



Sl. 38: Hiša 9; poziciji vzorcev.
Fig. 38: Casa 9; posizioni dei campioni.

Taxon: Quercus robur/petraea (farnia/rovere).
Tipo di reperto: trave dormiente (*fig. 36*).

***Campione:* 2.**
Fase: 2.
Contenuto: reperto sbriciolato.
Carboni esaminati: 2.
Dimensioni:
1- raggio cm 4,5-6; Ø max non definibile; 10 anelli di accrescimento in cm 2,3; l cm 6,5; La cm 7; cretti da combustione.
2- 9 anelli in cm 1,9 di spessore.
Taxon: 1-, 2- *Quercus robur/petraea* (farnia/rovere).
Tipo di reperto: trave dormiente (*fig. 37*).

***Campione:* 3.**
Fase: 1.
Contenuto: frammenti centimetrici che derivano molto probabilmente da uno stesso pezzo.
Carboni esaminati: 1.
Dimensioni: l cm 1,5; La cm 1,5 con 5 anelli di accrescimento; h cm 3.
Taxon: Quercus robur/petraea (farnia/rovere).
Tipo di reperto: trave dormiente.

CASA 9 (*fig. 38*)

***Campione:* 1.**
Contenuto: piccoli carboni tabulari (sbriciolati) alcuni con debole curvatura degli anelli.
Carbone esaminato: 1.
Dimensioni: l cm 1; 6 anelli in cm 0,6 di spessore; h cm 1,5.
Taxon: Abies alba (abete bianco).
Tipo di reperto: legno da costruzione.

***Campione:* 2.**
Contenuto: unico reperto sbriciolato.
Carbone esaminato: 1.
Dimensioni: difficile definire le dimensioni; Ø max > cm 10; anelli di accrescimento molto ravvicinati; 13 anelli in cm 1,4 di spessore (La); ife fungine; fori di parassiti.
Taxon: Abies alba (abete bianco).
Tipo di reperto: trave dormiente.

CASA 11 (*fig. 39*)

***Campione:* 1.**
Fase: 2.
Contenuto: moltissimi frammenti di varie dimensioni, forse derivanti da un solo
reperto.
Carbone esaminato: 1.
Dimensioni: l cm 1,6; La cm 2,3 con 10 anelli di accrescimento; h cm 1,6.
Taxon: Quercus robur/petraea (farnia/rovere).
Tipo di reperto: trave dormiente.

HIŠA 11 (*sl. 39*)

***Vzorec:* 1.**
Faza: 2.
Vsebina: številni, različno veliki primerki oglja, ki so lahko bili del istega kosa lesa.
Vzorčeni primerki: 1.
Velikost: dl. 1,6 cm; šir. 2,3 cm z 10 branikami; viš. 1,6 cm.
Takson: Quercus robur/petraea (dob/graden).
Namembnost: temeljni prag.

***Vzorec:* 2.**
Faza: 2.
Vsebina: dva vzorca v eni vrečki; oglje različnih dimenzij.
Vzorčeni primerki: 2.
Velikost:
1- večji odlomek, rezan radialno; Ø največ 17 cm; dl. 8,6 cm; šir. 3 cm s 27 branikami; viš. 5 cm.
2- dl. 2 cm; šir. 9 cm z 38 branikami.
Takson: 1-, 2- *Quercus robur/petraea* (dob/graden).
Pripomba: vidne so sledi oganizmov lesnih zajedalcev.
Namembnost: ploh za stenski opaž.

***Vzorec:* 3.**
Faza: 2.
Vsebina: dva zavojčka (A, B).
Zavojček A vsebuje oglje različnih oblik, večinoma četverokotnega preseka z izrazito zaobljenostjo (morda so deli obdelanih vej ali odpadek pri obdelavi lesa); radialni rez.
Vzorčeni primerki: 3.
Velikost:
1- dl. 2,4 cm; šir. 2,7 cm s 6 branikami; viš. 2,4 cm.
2- dl. 2,4 cm; šir. 2,1 cm s 7 branikami; viš. 2,3 cm.
3- dl. 1,2 cm; šir. 3,6 cm z 11 branikami; viš. 4,8 cm; ima štirikoten, pravokoten presek (morda del trama ali grede).
Zavojček B vsebuje odlomek oglja trikotnega preseka, rez je radialen (*sl. 40C*).
Vzorčeni primerki: 1.
Velikost: Ø največ 12 cm; dl. 3 cm; šir. 4,7 cm,s 17 branikami; viš. 3,4 cm.
Takson: 1-, 2-, 3-, 4- *Quercus robur/petraea* (dob/graden).
Namembnost: gradbeni les.

***Vzorec:* 4.**
Faza: 2.
Vsebina: zdrobljeno oglje, posamični fragmenti so nesestavljivi.
Vzorčeni primerki: 1.
Velikost: največji Ø > 10 cm, dl. 1,5 cm; šir. 2,5 cm z 20 pravilno med seboj razmaknjenimi branikami; viš. 3,6 cm.
Takson: Quercus robur/petraea (dob/graden).
Namembnost: vogalna soha.

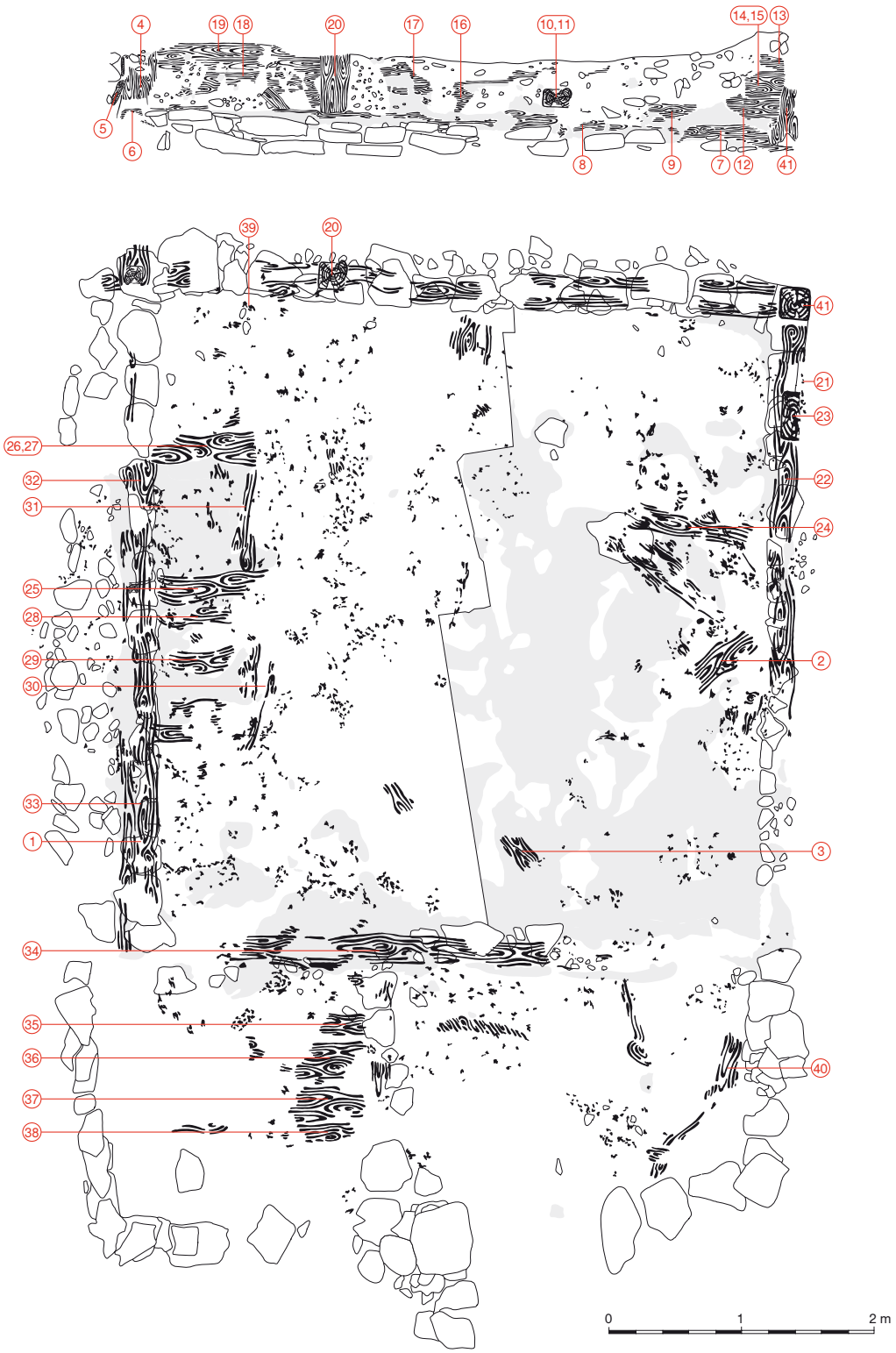
***Vzorec:* 5.**
Faza: 2.
Vsebina: verjetno fragmenti istega kosa oglja, tangencialni rez.
Vzorčeni primerki: 1.

***Campione:* 2.**
Fase: 2.
Contenuto: 2 campioni in un sacchetto; carboni di diverse dimensioni.
Carboni esaminati: 2.
Dimensioni:
1- si tratta del frammento più grosso, tagliato radialmente; Ø massimo cm 17; l cm 8,6; La cm 3 con 27 anelli di accrescimento; h cm 5.
2- l cm 2; La cm 9 con 38 anelli di accrescimento; h cm 10.
Taxon: 1-, 2- *Quercus robur/petraea* (farnia/rovere).
Osservazioni: tracce di organismi lignivori.
Tipo di reperto: tavola della chiusura esterna.

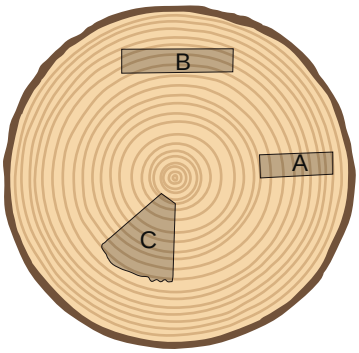
***Campione:* 3.**
Fase: 2.
Contenuto: contiene due pacchetti (A, B).
Pacchetto A- contiene carboni di diverse forme, prevalentemente con sezione quadrangolare con spiccato arrotondamento (frammenti di rami lavorati? scarti di lavorazione?); taglio radiale.
Carboni esaminati: 3.
Dimensioni:
1- l cm 2,4; La cm 2,7 con 6 anelli di accrescimento; h cm 2,4.
2- l cm 2,4; La cm 2,1 con 7 anelli di accrescimento; h cm 2,3.
3- ha sezione quadrangolare rettangolare (frammento di trave?), l cm 1,2; La cm 3,6 con 11 anelli di accrescimento; h cm 4,8.
Pacchetto B- contiene un frammento a sezione triangolare, taglio radiale (*fig. 40C*).
Carbone esaminato: 1.
Dimensioni: 1- Ø massimo cm 12; l cm 3; La cm 4,7 con 17 anelli di accrescimento; h cm 3,4.
Taxon: 1-, 2-, 3-, 4- *Quercus robur/petraea* (farnia/rovere).
Tipo di reperto: legno da costruzione.

***Campione:* 4.**
Fase: 2.
Contenuto: reperto sbriciolato, frammenti di carbone non in connessione.
Carbone esaminato: 1
Dimensioni: Ø massimo > cm 10; l cm 1,5; La cm 2,5 con 20 anelli di accrescimento con distanza regolare tra loro; h cm 3,6.
Taxon: Quercus robur/petraea (farnia/rovere).
Tipo di reperto: pilastro.

***Campione:* 5.**
Fase: 2.
Contenuto: probabile unico campione in frammenti; taglio tangenziale.
Carbone esaminato: 1.
Dimensioni: l cm 2,1; La cm 1,4 con 4 anelli di accrescimento; h cm 3.
Taxon: Quercus robur/petraea (farnia/rovere).
Tipo di reperto: tavola della chiusura esterna (*fig. 40B*).



Sl. 39: Hiša 11 (faza 2); pozicije vzorcev.
Fig. 39: Casa 11 (fase 2); posizioni dei campioni.



Sl. 40: Hiša 11; A: vzorec 6; B: vzorec 5; C: vzorec 3.
Fig. 40: Casa 11; A: campione 6; B: campione 5; C: campione 3.

Velikost: dl. 2,1 cm, šir. 1,4 cm, s 4 branikami; viš. 3 cm.
Takson: Quercus robur/petraea (dob/graden).
Namembnost: ploh za stenski opaž (*sl. 40B*).

***Vzorec:* 6.**
Faza: 2.
Vsebina: kos bruna z radialnim rezom.
Vzorčeni primerki: 1.
Velikost: Ø največ > 20 cm; dl. 2,5 cm; šir. 13 cm s 44 enakomerno med seboj razmaknjenimi branikami; viš. 8 cm.
Takson: Quercus robur/petraea (dob/graden).
Namembnost: temeljni prag (*sl. 40A*).

***Vzorec:* 7.**
Faza: 2.
Vsebina: zdrobljeni deli istega kosa oglja.
Vzorčeni primerki: 1 (največji odlomek).
Velikost: dl. 2,2 cm; šir. 2,7 cm z 10 branikami; viš. 2,9 cm.
Takson: Quercus robur/petraea (dob/graden).
Opomba: prečni presek tega odlomka je združljiv s presekom drugega odlomka, pri katerem je razporeditev branik povsem enaka.
Namembnost: temeljni prag.

***Vzorec* 8.**
Faza: 2.
Vsebina: 6 odlomkov verjetno istega kosa, trije so morda združljivi.
Vzorčeni primerki: 1.
Velikost: dl. 2,7 cm; šir. 3 cm s 13 branikami; razdalja med njimi je dokaj pravilna; viš. 2 cm.
Takson: Quercus robur/petraea (dob/graden).
Namembnost: temeljni prag.

***Vzorec:* 9.**
Faza: 2.
Vsebina: številni neskladni odlomki oglja.
Vzorčeni primerki: 2.
Velikost:
1- dl. 3,2 cm; šir. 4,6 cm s 16 branikami; viš. 2,5 cm.

***Campione:* 6.**
Fase: 2.
Contenuto: porzione di trave con taglio radiale.
Carbone esaminato: 1.
Dimensioni: Ø massimo > cm 20; l cm 2,5; La cm 13 con 44 anelli di accrescimento con distanza regolare tra loro; h cm 8.
Taxon: Quercus robur/petraea (farnia/rovere).
Tipo di reperto: trave dormiente (*fig. 40A*).

***Campione:* 7.**
Fase: 2.
Contenuto: pezzo unico, ma sbriciolato.
Carbone esaminato: 1 il più grosso.
Dimensioni: l cm 2,2; La cm 2,7 con 10 anelli di accrescimento; h cm 2,9.
Taxon: Quercus robur/petraea (farnia/rovere).
Osservazioni: la sezione trasversale di questo frammento è riconnettibile con quella di un altro frammento (la disposizione degli anelli è la medesima).
Tipo di reperto: trave dormiente.

***Campione:* 8.**
Fase: 2.
Contenuto: 6 frammenti da probabile frammento unico, di cui 3 sembrano essere in continuità.
Carbone esaminato: 1.
Dimensioni: l cm 2,7; La cm 3 con 13 anelli di accrescimento; distanza tra gli anelli abbastanza regolare; h cm 2.
Taxon: Quercus robur/petraea (farnia/rovere).
Tipo di reperto: trave dormiente.

***Campione:* 9.**
Fase: 2.
Contenuto: molti frammenti sconnessi.
Carboni esaminati: 2.
Dimensioni:
1- l cm 3,2; La cm 4,6 con 16 anelli di accrescimento; h cm 2,5.
2- Ø massimo cm 8,5; l cm 2,8; La cm 2; h cm 2.
Taxon: 1-, 2- *Quercus robur/petraea* (farnia/rovere).
Tipo di reperto: tavola della chiusura esterna.

***Campione:* 10.**
Fase: 2.
Contenuto: grosso carbone ancora intero; taglio radiale.
Carboni esaminati: 1.
Dimensioni: Ø massimo > cm 20; l cm 7; r cm 14 con 56 anelli di accrescimento; h cm 7.
Taxon: Quercus robur/petraea (farnia/rovere).
Tipo di reperto: pilastro (*fig. 41B*).

***Campione:* 11.**
Fase: 2.
Contenuto: pezzo forse unico ma sbriciolato in piccoli frammenti; probabile taglio radiale.
Carbone esaminato: 1.

2- Ø največ 8,5 cm; dl. 2,8 cm; šir. 2 cm, viš. 2 cm.
Takson: 1-, 2- *Quercus robur/petraea* (dob/graden).
Namembnost: ploh za stenski opaž.

***Vzorec:* 10.**
Faza: 2.
Vsebina: velik nerazpadel kos oglja, radialni rez.
Vzorčeni primerki: 1.
Velikost: Ø največ > 20 cm; dl. 7 cm; r. 14 cm s 56 branikami; viš. 7 cm.
Takson: Quercus robur/petraea (dob/graden).
Namembnost: soha (*sl. 41B*).

***Vzorec:* 11.**
Faza: 2.
Vsebina: v majhne fragmente zdrobljeno oglje, verjetno del istega kosa oglja; verjetno radialni rez.
Vzorčeni primerki: 1.
Velikost: dl. 0,6 cm; šir. 1,4 cm z 10 branikami; viš. 2,6 cm.
Takson: Quercus robur/petraea (dob/graden).
Namembnost: soha.

***Vzorec:* 12.**
Faza: 2.
Vsebina: kos oglja, zdrobljen v majhne dobce, rez je radialen.
Vzorčeni primerki: 2.
Velikost:
1- dl. 1,5 cm; šir. 2,3 cm s 13 branikami bolj zbližanimi na enem koncu; viš. 8 cm.
2- dl. 1,7 cm; šir. 4,3 cm z 22 branikami; imajo dokaj pravilnime razmake, vendar z različnim potekom kot pri prvem primerku.
Takson: 1-, 2- *Quercus robur/petraea* (dob/graden).
Opomba: oba vzorčena primerka imata štirioglat prečen presek; ostali fragmenti so manjših dimenzij.
Namembnost: ploh za stenski opaž.

***Vzorev:* 13.**
Faza: 2.
Vsebina: v več fragmentov zdrobljen kos oglja, prečen štirikoten presek, radialni rez.
Vzorčeni primerki: 1(največji primerek).
Velikost: Ø največ 6 cm; dl. 2,3 cm; šir. 3,2 cm z 10 branikami; viš. 3,6 cm.
Takson: Quercus robur/petraea (dob/graden).
Namembnost: ploh za stenski opaž.

***Vzorec:* 14.**
Faza: 2.
Vsebina: del lesene konstrukcije.
Vzorčeni primerki: 1.
Velikost: dl. 2,6 cm; šir. 2,8 cm z 18 branikami; viš. 3,5 cm.
Takson: Quercus robur/petraea (dob/graden).
Namembnost: ploh za stenski opaž.

Dimensioni: l cm 0,6; La cm 1,4 con 10 anelli di accrescimento; h cm 2,6.
Taxon: Quercus robur/petraea (farnia/rovere).
Tipo di reperto: pilastro

***Campione:* 12.**
Fase: 2.
Contenuto: unico frammento sbriciolato; taglio radiale.
Carboni esaminati: 2.
1- l cm 1,5; La cm 2,3 con 13 anelli di accrescimento, più ravvicinati ad un'estremità; h cm 8.
2- l cm 1,7; La cm 4,3 con 22 anelli di accrescimento; hanno distanza piuttosto regolare tra loro e andamento diverso rispetto al campione 1.
Taxon: 1-, 2- *Quercus robur/petraea* (farnia/rovere).
Osservazioni: i due carboni esaminati hanno sezione trasversale quadrangolare; tutti gli altri frammenti sono di dimensioni minori.
Tipo di reperto: tavola della chiusura esterna.

***Campione:* 13.**
Fase: 2.
Contenuto: unico carbone sbriciolato in più pezzi, sezione trasversale quadrangolare; taglio radiale.
Carbone esaminato: 1, il pezzo con dimensioni maggiori.
Dimensioni: Ø massimo cm 6; l cm 2,3; La cm 3,2 con 10 anelli di accrescimento. h cm 3,6.
Taxon: Quercus robur/petraea (farnia/rovere).
Tipo di reperto: tavola della chiusura esterna.

***Campione:* 14.**
Contenuto: porzione di elemento costruttivo.
Carbone esaminato: 1.
Dimensioni: l cm 2,6; La cm 2,8 con 18 anelli di accrescimento; h cm 3,5.
Taxon: Quercus robur/petraea (farnia/rovere).
Tipo di reperto: tavola della chiusura esterna.

***Campione:* 15.**
Fase: 2.
Contenuto: serie di frammenti appartenenti a un unico carbone a sezione trasversale quadrangolare; taglio tangenziale.
Carboni esaminati: 2.
Dimensioni:
1- reperto intero: l cm 9; La cm 3,3 con 22 anelli di accrescimento; h cm 5,4.
2- frammento più grosso: Ø massimo cm 11; l cm 4,2; La cm 3 con 22 anelli di accrescimento; h cm 3,6.
Taxon: 1-, 2- *Quercus robur/petraea* (farnia/rovere).
Tipo di reperto: tavola della chiusura esterna.

***Campione:* 16.**
Fase: 2.
Contenuto: unico reperto frammentato.
Carbone esaminato: 1.

***Vzorec:* 15.**
Faza: 2.
Vsebina: več odlomkov istega kosa oglja, štirioglatega prečnega preseka, tangencialni rez.
Vzorčeni primerki: 2.
Velikost:
1- celotni primerek, dl. 9 cm; šir. 3,3 cm z 22 branikami; viš. 5,4 cm.
2- večji odlomek, največji Ø 11 cm; dl. 4,2 cm; šir. 3 cm z 22 branikami; viš. 3,6 cm.
Takson: Quercus robur/petraea (dob/graden).
Namembnost: ploh za stenski opaž.

***Vzorec:* 16.**
Faza: 2.
Vsebina: razlomljen primerek oglja.
Vzorčeni primerki: 1.
Velikost: dl. 2 cm; šir. 5 cm s 16 branikami; viš. 3,4 cm.
Takson: Quercus robur/petraea (dob/graden).
Namembnost: ploh za stenski opaž.

***Vzorec:* 17.**
Faza: 2.
Vsebina: več vrst oglja.
Vzorčeni primerki: 1.
Velikost: Ø največ okoli 10 cm; r. 1,8 cm s 26 branikami (branike so med seboj pravilno razmaknjene); viš. 5 cm.
Takson: Quercus robur/petraea (dob/graden).
Namembnost: ploh za stenski opaž.

***Vzorec:* 18.**
Faza: 2.
Vsebina: verjetno enovit, vendar v majhne delce zdrobljen kos oglja.
Vzorčeni primerki: 1.
Takson: Quercus robur/petraea (dob/graden).
Namembnost: ploh za stenski opaž.

***Vzorec:* 19.**
Faza: 2.
Vsebina: odlomki različnih velikosti, ki so bili verjetno del istega kosa lesa; štirioglat prečen presek, radialen rez.
Vzorčeni primerki: 2.
Velikost:
1- cel primerek, dl. 10 cm; viš. 11 cm.
2- dl. 3 cm; šir. 2,7 cm s 6 branikami; viš. 5 cm.
Takson: Quercus robur/petraea (dob/graden).
Namembnost: ploh za stenski opaž.

***Vzorec:* 20.**
Faza: 2.
Vsebina: skupek odlomkov oglja.
Vzorčeni primerki: 1.
Velikost: Ø največ 7 cm; dl. 1,6 cm; šir. 2,6 cm z 8 branikami.
Takson: Quercus robur/petraea (dob/graden).
Namembnost: soha.

Dimensioni: l cm 2; La cm 5 con 16 anelli di accrescimento; h cm 3,4.
Taxon: Quercus robur/petraea (farnia/rovere).
Tipo di reperto: tavola della chiusura esterna.

***Campione:* 17.**
Fase: 2.
Contenuto: serie di frammenti.
Carbone esaminato: 1.
Dimensioni: Ø massimo ca. cm 10; r cm 1,8 con 26 anelli di accrescimento (gli anelli hanno distanza regolare tra loro); h cm 5.
Taxon: Quercus robur/petraea (farnia/rovere).
Tipo di reperto: tavola della chiusura esterna.

***Campione:* 18.**
Fase: 2.
Contenuto: campione probabilmente unico, molto frammentato; carboni molto piccoli.
Carbone esaminato: 1.
Taxon: Quercus robur/petraea (farnia/rovere).
Tipo di reperto: tavola della chiusura esterna.

***Campione:* 19.**
Fase: 2.
Contenuto: frammenti di diverse dimensioni, probabilmente derivanti da un unico elemento con sezione quadrangolare; taglio radiale.
Carboni esaminati: 2.
Dimensioni:
1- reperto intero: l cm 10; h cm 11.
2- l cm 3; La cm 2,7 con 6 anelli di accrescimento; h cm 5.
Taxon: 1-, 2- *Quercus robur/petraea* (farnia/rovere).
Tipo di reperto: tavola della chiusura esterna.

***Campione:* 20.**
Fase: 2.
Contenuto: serie di frammenti.
Carbone esaminato: 1.
Dimensioni: Ø massimo cm 7; l cm 1,6; La cm 2,6 con 8 anelli di accrescimento.
Taxon: Quercus robur/petraea (farnia/rovere).
Tipo di reperto: pilastro.

***Campione:* 21.**
Fase: 2.
Contenuto: unico frammento; taglio radiale.
Carbone esaminato: 1.
Dimensioni: l cm 13; La cm 3,6 con 14 anelli di accrescimento; h cm 4,5.
Taxon: Quercus robur/petraea (farnia/rovere).
Tipo di reperto: tavola della chiusura esterna.

***Vzorec:* 21.**
Faza: 2.
Vsebina: fragment oglja; radialni rez.
Vzorčeni primerki: 1.
Velikost: dl. 13 cm; šir. 3,6 cm s 14 branikami; viš. 4,5 cm.
Takson: Quercus robur/petraea (dob/graden).
Namembnost: ploh za stenski opaž.

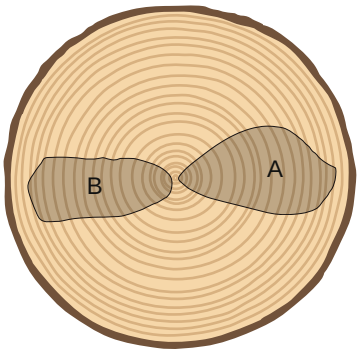
***Vzorec:* 22.**
Faza: 2.
Vzorčeni primerki: 1.
Velikost: izmerjena je bila skupina treh odlomkov iz enega konca vzorca; dl. 3,3 cm; šir. 1,4 cm s 6 branikami; celotna viš. 11 cm.
Takson: Quercus robur/petraea (dob/graden).
Namembnost: temeljni prag.

***Vzorec:* 23.**
Faza: 2.
Vsebina: zelo razpokani, v iveri razlomljeni fragmenti oglja; radialni rez.
Vzorčeni primerki: 1 (največji).
Velikost: dl. 1 cm; šir. 4,5 cm z 12 branikami¸viš. 2,5 cm.
Takson: Quercus robur/petraea (dob/graden).
Namembnost: vmesna soha.

***Vzorec:* 24.**
Faza: 2.
Vsebina: dva primerka oglja (1-, 2-).
1- en odlomek.
2- nekaj večjih kosov oglja, ki pa niso sestavljivi.
Vzorčeni primerki: 3.
Velikost:
1- Ø največ 10 cm; dl. 2 cm; šir. 3 cm z 11 branikami; viš. 4,2 cm.
2.1- dl. 3 cm; šir. 2,5 cm z 12 branikami; viš. 3 cm.
2,2- dl. 6 cm; šir. 3 cm z 11 branikami; viš. 4 cm.
Takson: 1-, 2.1-, 2.2- *Quercus robur/petraea* (dob/graden).
Namembnost: gradbeni les (soha?).

***Vzorec:* 25.**
Faza: 2.
Vsebina: fragmenti oglja, ki so prvotno verjetno pripadali istemu kosu lesa; največja možna dl. 12 cm; radialni rez.
Vzorčeni primerki: 1.
Velikost: dl. 1,7 cm; šir. 5,1 cm z 10 branikami.
Takson: Quercus robur/petraea (dob/graden).
Namembnost: soha.

***Vzorec:* 26.**
Faza: 2.
Vsebina: domnevni kos trama-bruna, samo nekateri deli so med seboj sestavljivi.
Vzorčeni primerki: 2.
Velikost:
1- dl. 3 cm; šir. 7 cm z 20 branikami, ki so med seboj precej pravilno razmaknjene; viš. 5 cm; radialni rez (*sl. 41A)*.
2- enovit kos, prelomljen na dvoje; dl. 4,3 cm; šir. 2,5 cm z 9 branikami; viš. 5,6 cm; tangencialni rez.



Sl. 41: Hiša 11; A: vzorec 26; B: vzorec 10.
Fig. 41: Casa 11; A: campione 26; B: campione 10.

***Campione:* 22.**
Fase: 2.
Contenuto: probabilmente unico frammento.
Carboni esaminati: 1.
Dimensioni: è stato misurato un gruppo di tre frammenti a un'estremità del campione; l cm 3,3; La cm 1,4 con 6 anelli di accrescimento; h totale cm 11.
Taxon: Quercus robur/petraea (farnia/rovere).
Tipo di reperto: trave dormiente.

***Campione:* 23.**
Fase: 2.
Contenuto: frammenti ridotti in scaglie e frammenti molto crettati; taglio radiale.
Carbone esaminato: 1, il più grosso.
Dimensioni: l cm 1; La cm 4,5 con 12 anelli di accrescimento; h cm 2,5.
Taxon: Quercus robur/petraea (farnia/rovere).
Tipo di reperto: pilastro intermedio.

***Campione:* 24.**
Fase: 2.
Contenuto: si tratta di due campioni (1-, 2-).
1- unico frammento;
2- contiene alcuni frammenti piuttosto grossi non riconnettibili.
Carboni esaminati: 3.
Dimensioni:
1- Ø massimo cm 10; l cm 2; La cm 3 con 11 anelli di accrescimento; h cm 4,2.
2.1- l cm 3; La cm 2,5 con 12 anelli di accrescimento; h cm 3.
2.2- l cm 6; La cm 3 con 11 anelli di accrescimento; h cm 4.
Taxon: 1-, 2.1-, 2.2- *Quercus robur/petraea* (farnia/rovere).
Tipo di reperto: legno da costruzione, probabile pilastro.

***Campione:* 25.**
Fase: 2.
Contenuto: serie di frammenti probabilmente appartenenti a un reperto unico originario; lunghezza massima possibile cm 12; taglio radiale.

Takson: Quercus robur/petraea (dob/graden).
Opomba: na oglju so sledi lesnih škodljivcev.
Namembnost: soha.

***Vzorec:* 27.**
Faza: 2.
Vsebina: odlomki oglja različnih velikosti, ki pa so bili verjetno del istega kosa.
Vzorčeni primerki: 1.
Velikost: največjega primerka; dl. 2,2 cm; šir. 1,4 cm s 3 branikami; viš. 3 cm.
Takson: Quercus robur/petraea (dob/graden).
Namembnost: soha.

***Vzorec:* 28.**
Faza: 2.
Vsebina: zdrobljen skupek oglja domnevnega trama; radialni rez.
Vzorčeni primerki: 1.
Velikost: dl. okoli 1 cm; šir. 8 cm (6 branik v 1,7 cm); viš. 7 cm.
Takson: Quercus robur/petraea (dob/graden).
Namembnost: gradbeni les, soha.

***Vzorec:* 29.**
Faza: 2.
Vsebina: koščki oglja, pomešanega z ožgano zemljo.
Vzorčeni primerki: 1.
Velikost: dl. 6 cm.
Takson: Quercus robur/petraea (dob/graden).
Namembnost: gradbeni les (soha?).

***Vzorec:* 30.**
Faza: 2.
Vsebina: primerek ploščatega oglja.
Vzorčeni primerki: 1.
Velikost: dl. 6,5 cm; viš. 7,7 cm; radialni rez.
Takson: Quercus robur/petraea (dob/graden).
Namembnost: ploh za stenski opaž.

***Vzorec:* 31.**
Faza: 2.
Vsebina: ostanek konstrukcije; radialni rez.
Vzorčeni primerki: 1 (največji).
Velikost: Ø največ 13 cm; dl. 4,7 cm; šir. 1,5 cm (10 branik v razmaku 0,4 cm – med branikami je pravilen razmak); viš. 7,6 cm.
Takson: Quercus robur/petraea (dob/graden).
Namembnost: ploh za stenski opaž.

***Vzorec:* 32.**
Faza: 2.
Vsebina: razpadli deli verjetnega trama-bruna, skupaj dolgi 14 cm in 3,5 cm široki; radialni rez.
Vzorčeni primerki: 1.
Velikost: dl. 2,2 cm; šir. 2,8 cm s 6 branikami.
Takson: Quercus robur/petraea (dob/graden).
Namembnost: temeljni prag.

Carbone esaminato: 1.
Dimensioni: l cm 1,7; La cm 5,1 con 10 anelli di accrescimento.
Taxon: Quercus robur/petraea (farnia/rovere).
Tipo di reperto: pilastro.

***Campione:* 26.**
Fase: 2.
Contenuto: porzione di elemento costruttivo; solo alcuni frammenti sono ricongiungibili tra loro.
Carboni esaminati: 2.
Dimensioni:
1- l cm 3; La cm 7 con 20 anelli con distanza piuttosto regolare tra loro; h cm 5; taglio radiale (*fig. 41A*).
2- formato da due frammenti ricongiunti (unico campione); l cm 4,3; La cm 2,5 con 9 anelli di accrescimento; h cm 5,6; taglio tangenziale.
Taxon: 1-, 2- *Quercus robur/petraea* (farnia/rovere).
Osservazioni: il campione presenta tracce di organismi lignivori.
Tipo di reperto: pilastro.

***Campione:* 27.**
Fase: 2.
Contenuto: frammenti di varie dimensioni, probabilmente facenti parte di un unico frammento.
Carbone esaminato: 1.
Dimensioni: del frammento più grosso; l cm 2,2; La cm 1,4 con 3 anelli di accrescimento; h cm 3.
Taxon: Quercus robur/petraea (farnia/rovere).
Tipo di reperto: pilastro.

***Campione:* 28.**
Fase: 2.
Contenuto: porzione spezzettata di presunta trave; taglio radiale.
Carbone esaminato: 1.
Dimensioni: l cm 1 ca; La cm 8 (6 anelli in cm 1,7); h cm 7.
Taxon: Quercus robur/petraea (farnia/rovere).
Tipo di reperto: legno da costruzione, pilastro.

***Campione:* 29.**
Fase: 2.
Contenuto: briciole di carbone misto a terra bruciata.
Carbone esaminato: 1.
Dimensioni: l cm 6.
Taxon: Quercus robur/petraea (farnia/rovere).
Tipo di reperto: legno da costruzione, pilastro.

***Campione:* 30.**
Fase: 2.
Contenuto: unico carbone piatto.
Carbone esaminato: 1.
Dimensioni: l cm 6,5; h cm 7,7; taglio radiale.
Taxon: Quercus robur/petraea (farnia/rovere).
Tipo di reperto: tavola della chiusura esterna.

***Vzorec:* 33.**
Faza: 2.
Vsebina: večji kosi oglja, največji predstavlja prečni presek z vzporednimi in zelo gostimi branikami.
Vzorčeni primerki: 1.
Velikost: dl. 3,4 cm; šir. 3 cm s 14 branikami; viš. 6,7 cm.
Opomba: vzorci so verjetno pridobljeni iz velikega debla.
Takson: Quercus robur/petraea (dob/graden).
Namembnost: temeljni prag.

***Vzorec:* 34.**
Faza: 2.
Vsebina: drobir oglja; radialni rez.
Vzorčeni primerki: 1.
Velikost: dl. 1,5 cm; šir. 3 cm (izmerjenih 10 branik v 2,5 cm); viš. 4 cm.
Takson: Quercus robur/petraea (dob/graden).
Namembnost: temeljni prag.

***Vzorec:* 35.**
Faza: 2.
Vsebina: v majhne luske zdrobljeno oglje, pomešano z zemljo; nekateri koščki so sprijeti z rdeče ožgano podlago.
Vzorčeni primerki: 1.
Takson: Quercus robur/petraea (dob/graden).
Namembnost: podnica.

***Vzorec:* 36.**
Faza: 2.
Vsebina: prvotno najbrž enovit kos; tangencialni rez.
Vzorčeni primerki: 1.
Velikost: Ø največ >12 cm; dl. 3 cm; šir. 2 cm z 11 branikami; viš. 2,2 cm.
Takson: Quercus robur/petraea (dob/graden).
Namembnost: podnica.

***Vzorec:* 37.**
Faza: 2.
Vsebina: prvotno najbrž enovit kos oglja.
Vzorčeni primerki: 1.
Velikost: Ø največ 8(?) cm; dl. 1,5 cm; šir. 2,1 cm s 13 branikami; viš. 2,1 cm.
Takson: Quercus robur/petraea (dob/graden).
Namembnost: podnica.

***Vzorec:* 38.**
Faza: 2.
Vsebina: zdrobljen primerek največ do 10 cm dolgega kosa oglja, nedoločljive širine; radialni rez.
Vzorčeni primerki: 1.
Velikost: Ø največ 10 cm (19 branik v 3 cm r); viš. 1,5 cm.
Takson: Quercus robur/petraea (dob/graden).
Namembnost: podnica.

***Campione:* 31.**
Fase: 2.
Contenuto: residuo di elemento costruttivo; taglio radiale?
Carbone esaminato: 1 (il più grosso).
Dimensioni: Ø massimo cm 13; l cm 4,7; La cm 1,5 (10 anelli in 0,4 cm – distanza regolare tra gli anelli); h cm 7,6.
Taxon: Abies alba (abete bianco).
Tipo di reperto: tavola della chiusura esterna.

***Campione:* 32.**
Fase: 2.
Contenuto: probabile trave frantumata con lunghezza complessiva di cm 14 e larghezza di cm 3,5; taglio radiale.
Carbone esaminato: 1.
Dimensioni: l cm 2,2; La cm 2,8 con 6 anelli di accrescimento.
Taxon: Quercus robur/petraea (farnia/rovere).
Tipo di reperto: trave dormiente.

***Campione:* 33.**
Fase: 2.
Contenuto: grossi pezzi, il più grosso presenta sezione trasversale con anelli paralleli e molto ravvicinati.
Carbone esaminato: 1.
Dimensioni: l cm 3,4; La cm 3 con 14 anelli di accrescimento; h cm 6,7.
Osservazioni: porzione ricavata da un grosso tronco.
Taxon: Quercus robur/petraea (farnia/rovere).
Tipo di reperto: trave dormiente.

***Campione:* 34.**
Fase: 2.
Contenuto: campione sbriciolato; taglio radiale.
Carbone esaminato: 1.
Dimensioni: l cm 1,5; La cm 3 con misurati 10 anelli di accrescimento in cm 2,5); h cm 4.
Taxon: Quercus robur/petraea (farnia/rovere).
Tipo di reperto: trave dormiente.

***Campione:* 35.**
Fase: 2.
Contenuto: carbone sbriciolato in piccole scaglie, misto a terra, alcune aderenti a cotto rosso.
Carbone esaminato: 1.
Taxon: Quercus robur/petraea (querce caducifoglie).
Tipo di reperto: tavola del pavimento.

***Campione:* 36.**
Fase: 2.
Contenuto: originariamente forse un solo pezzo; taglio tangenziale.
Carbone esaminato: 1.
Dimensioni: Ø massimo > cm 12; l cm 3; La cm 2 con 11 anelli di accrescimento; h cm 2,2.
Taxon: Quercus robur/petraea (farnia/rovere).
Tipo di reperto: tavola del pavimento.

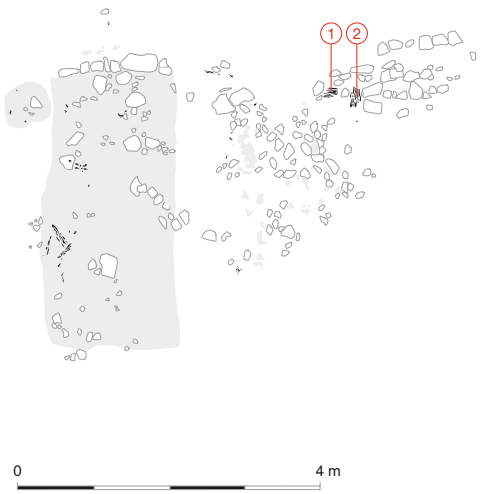
***Vzorec:* 39.**
Faza: 2.
Vsebina: več drobnih odlomkov oglja, velikih največ do 2,5 cm.
Vzorčeni primerki: 1
Velikost: najverjetneje so bili del istega kosa, ki mu je bilo možno približno določiti le višino (13 cm).
Takson: Quercus robur/petraea (dob/graden).
Namembnost: gradbeni les.

***Vzorec:* 40.**
Faza: 2.
Vsebina: fragmenti oglja različnih velikosti.
Vzorčeni primerki: 2.
Velikost:
1- dl. 2,2 cm; šir. 2,6 cm s 6 branikami; viš. 2,2 cm.
2- dl. 3,2 cm; šir. 2,2 cm (branike niso berljive);viš. 1,6 cm.
Opomba: Primerek 2 je približno kubične oblike z glajenimi ravnimi ploskvami, prepreden z luknjicami lesnih parazitov; podobni so mu še trije drugi odlomki.
Takson: 1- *Quercus robur/petraea* (dob/graden); 2- *Acer* sp. (javor).
Namembnost: tram (1-); obdelan les (2-).

***Vzorec:* 41.**
Faza: 2.
Vsebina: fragment oglja; luknjice parazitov.
Vzorčeni primerki: 1.
Velikost: dl. 0,7 cm, šir. 2 cm z 9 branikami; viš. 1,9 cm.
Takson: Quercus robur/petraea (dob/graden).
Namembnost: soha.

HIŠA 12 (*sl. 42*)

***Vzorec:* 1.**
Faza: 2.
Vsebina: mešanica ožgane zemlje in oglja, les je stlačen.
Vzorčeni primerki: 1.
Velikost: dl. 7 cm; šir. 3 cm s 7 branikami; viš. 14 cm.
Takson: Quercus robur/petraea (dob/graden).
Namembnost: temeljni prag.



***Campione:* 37.**
Fase: 2.
Contenuto: originariamente forse un solo pezzo.
Carbone esaminato: 1.
Dimensioni: Ø massimo cm 8; l cm 1,5; La cm 2,1 con 13 anelli di accrescimento; h cm 2,1.
Taxon: Quercus robur/petraea (farnia/rovere).
Tipo di reperto: tavola del pavimento.

***Campione:* 38.**
Fase: 2.
Contenuto: campione frammentato lungo al massimo cm 10; larghezza indefinibile; taglio radiale.
Carbone esaminato: 1.
Dimensioni: Ø massimo anche > cm 10, 19 anelli di accrescimento in 3 cm di r; h cm 1,5.
Taxon: Quercus robur/petraea (farnia/rovere).
Tipo di reperto: tavola del pavimento.

***Campione:* 39.**
Fase: 2.
Contenuto: briciole di carbone con frammenti al massimo di cm 2,5.
Carbone esaminato: 1.
Dimensioni: si tratta con tutta probabilità di un unico carbone all'origine, di cui è possibile stabilire approssimativamente solo l'altezza (cm 13).
Taxon: Quercus robur/petraea (farnia/rovere).
Tipo di reperto: legno da costruzione**.**

***Campione:* 40.**
Fase: 2.
Contenuto: frammenti di diverse dimensioni.
Carboni esaminati: 2.
Dimensioni:
1- l cm 2,2; La cm 2,6 con 6 anelli di accrescimento; h cm 2,2.
2- l cm 3,2; La cm 2,2 (anelli non leggibili); h cm 1,6.
Osservazioni: per il carbone 2: porzione circa cubica, con basi quasi piatte, lisciate; presenza di fori di parassiti; ci sono altri tre frammenti simili.
Taxa: 1- *Quercus robur/petraea* (farnia/rovere); 2- *Acer* sp. (acero).
Tipo di reperto: trave (1-); legno lavorato (2-).

***Campione:* 41.**
Fase: 2.
*Contenuto***:** campione frammentato; carboni con fori di parassiti.
*Carbone esaminato***:** 1
*Dimensioni***:** l cm 0,7; La cm 2 con 9 anelli di accrescimento; h cm 1,9.
Taxon: Quercus robur/petraea (farnia/rovere).
*Tipo di reperto***:** pilastro.

←

Sl. 42: Hiša 12 (faza 2); poziciji vzorcev.
Fig. 42: Casa 12 (fase 2); posizioni dei campioni.

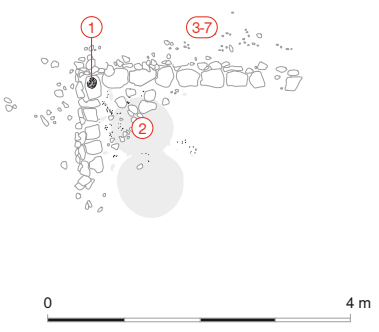
***Vzorec:* 2.**
Faza: 2.
Vsebina: sediment s sledovi oglja.
Vzorčeni primerki: 1.
Velikost: Ø največ 1 cm; deformiran fragment.
Takson: Abies alba (navadna jelka).
Namembnost: temeljni prag.

HIŠA 13 (*sl. 43*)

***Vzorec:* 1.**
Vsebina: kos oglja.
Vzorčeni primerki: 1.
Velikost: viš 9 cm.
Opomba: vzorec je imel *in situ* Ø 12 cm in ohranjeno skorjo.
Takson: Abies alba (navadna jelka).
Namembnost: vogalna soha.

***Vzorec* 2.**
Vsebina: različni fragmenti oglja, ki med seboj niso sestavljivi.
Vzorčeni primerki: 5.
Velikost:
1- viš. 1,5 cm.
2- viš. 1,4 cm.
3- viš. 2 cm.
4- viš. 2,3 cm; 13 branik v 16 mm.
5- viš. 1,5 cm.
*Opomba: v*si primerki so isodiametralni; na vzorcu 1- so opazne razpoke kot posledica gorenja in spore gliv.
Taksoni:
1- *Abies alba* (navadna jelka).
2- *Acer* sp. (javor).
3-, 4-, 5- *Fagus sylvatica* (bukev).
Namembnost: gradbeni les.

***Vzorec:* 3.**
Vsebina: več tabularnih štirikotnih fragmentov oglja, ki so bili verjetno deli istega kosa lesa.
Vzorčeni primerki: 3.
Velikost:
1- viš. 1,5 cm, prisotne spore gliv.
2- viš. 2,7 cm.
3- Ø največ 2,5 cm; šir. 0,6 cm z okoli 6 branikami; viš. 2,2 cm.
Takson: 1-, 2-, 3- *Abies alba* (navadna jelka).
Namembnost: gradbeni les.



Sl. 43: Hiša 13; pozicije vzorcev.
Fig. 43: Casa 13; posizioni dei campioni.

CASA 12 (*fig. 42*)

***Campione:* 1.**
Fase: 2.
Contenuto: legno bruciato misto a sedimento, legno compresso.
Carbone esaminato: 1.
Dimensioni: l cm 7; La cm 3 con 7 anelli di accrescimento; h cm 14; sezione radiale.
Taxon: Quercus robur/petraea (farnia/rovere).
Tipo di reperto: trave dormiente.

***Campione:* 2.**
Fase: 2.
Contenuto: sedimento con tracce di carboni.
Carbone esaminato: 1.
Dimensioni: Ø max cm 1; frammento deformato.
Taxon: Abies alba (abete bianco).
Tipo di reperto: trave dormiente.

CASA 13 (*fig. 43*)

***Campione:* 1.**
Contenuto: pezzo unico.
Carbone esaminato: 1.
Dimensioni: h cm 9.
Osservazioni: il campione *in situ* aveva Ø cm 12, sezione trasversale circolare, con corteccia.
Taxon: Abies alba (abete bianco).
Tipo di reperto: pilastro.

***Campione:* 2.**
Contenuto: diversi frammenti non in connessione.
Carboni esaminati: 5.
Dimensioni:
1- h cm 1,5.
2- h cm 1,4.
3- h cm 2.
4- h cm 2,3; 13 anelli di accrescimento in 1,6 cm di spessore.
5- h cm 1,5.
Osservazioni: i carboni sono tutti isodiametrali; in 1- si osservano cretti da combustione e ife fungine.
Taxa:
1- *Abies alba* (abete bianco).
2- *Acer* sp. (acero).
3-, 4-, 5- *Fagus sylvatica* (faggio).
Tipo di reperto: legno da costruzione.

***Campione:* 3.**
Contenuto: serie di carboni tabulari quadrangolari, probabilmente appartenenti a un solo reperto.
Carboni esaminati: 3.
Dimensioni:
1- h cm 1,5; presenza di ife fungine.
2- h cm 2,7.
3- Ø massimo cm 2,5; La cm 0,6 con ca 6 anelli di accrescimento; h cm 2,2.
Taxa: 1-, 2-, 3- *Abies alba* (abete bianco).
Tipo di reperto: legno da costruzione.

***Vzorec:* 4.**
Vsebina: odlomek oglja.
Vzorčeni primerki: 1.
Velikost: Ø največ 2,2 cm, isodiametričen.
Takson: Fraxinus sp. (jesen).
Namembnost: gradbeni les.

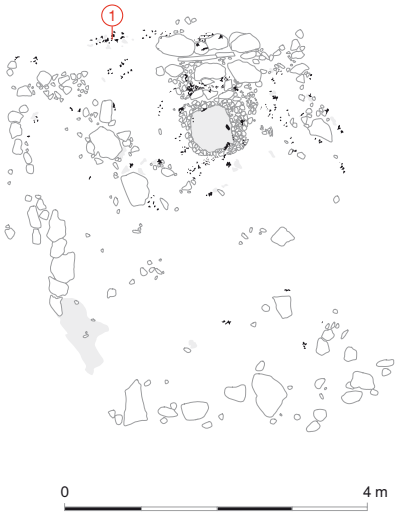
***Vzorec:* 5.**
Vsebina: nekaj manjših odlomkov oglja.
Vzorčeni primerkai: 2.
Velikost:
1- Ø največ do 1 cm.
2- Ø največ 1,8 cm; šir. 1 cm z 10 branikami.
Takson: 1-, 2- *Fraxinus* sp.(jesen).
Namembnost: gradbeni les.

***Vzorec:* 6.**
Vsebina: en primerek z zavitimi vlakni.
Vzorčeni primerki: 1.
Takson: cfr. *Quercus robur/petraea* (dob/graden).
Namembnost: gradbeni les.

***Vzorec:* 7.**
Vsebina: nekaj manjših odlomkov oglja.
Vzorčeni primerki: 2.
Velikost:
1- Ø največ 1,8 cm.
2- Ø največ 1,8 cm.
Takson: 1-, 2- *Laburnum* sp. (nagnoj).
Namembnost: gradbeni les.

HIŠA 14 (*sl. 44*)

***Vzorec:* 1.**
Faza: 1.
Vsebina: gruča oglja, dva odlomka med njimi (1-, 2-) sta bila del istega kosa lesa.
Vzorčeni primerki: 4.



Sl. 44: Hiša 14 (faza 1); pozicija vzorca.
Fig. 44: Casa 14 (fase 1); posizione del campione.

***Campione:* 4.**
Contenuto: unico frammento?
Carbone esaminato: 1.
Dimensioni: Ø massimo cm 2,2, carbone isodiametrale.
Taxon: Fraxinus sp. (frassino).
Tipo di reperto: legno da costruzione.

***Campione:* 5.**
Contenuto: alcuni piccoli carboni.
Carboni esaminati: 2.
Dimensioni:
1- Ø massimo cm 1.
2- Ø massimo cm 1,8; La cm 1 con 10 anelli di accrescimento.
Taxa: 1-, 2- *Fraxinus* sp. (frassino).
Tipo di reperto: legno da costruzione.

***Campione:* 6.**
Contenuto: unico frammento uniforme con fibre contorte.
Carbone esaminato: 1.
Taxon: Quercus robur/petraea (farnia/rovere).
Tipo di reperto: legno da costruzione.

***Campione:* 7.**
Contenuto: alcuni piccoli carboni.
Carboni esaminati: 2.
Dimensioni:
1- Ø max cm 1,8.
2- Ø max cm 1,8.
Taxon: 1-, 2- *Laburnum* sp. (maggiociondolo).
Tipo di reperto: legno da costruzione.

CASA 14 (*fig. 44*)

***Campione:* 1.**
Fase: 1.
Contenuto: serie di carboni due (1-, 2-) dei quali riconducibili a un unico pezzo.
Carboni esaminati: 4.
Dimensioni:
1-, 2- Ø max cm 4,4; La max cm 2,2 con 48 anelli di accrescimento (gli anelli più esterni hanno spessore maggiore); h cm 3,3.
3- Ø max cm 2,6; La max cm 0,8 con 23 anelli di accrescimento (gli anelli più esterni hanno spessore maggiore); h cm 1; presenza di ife fungine.
4- Ø max cm 4; La cm 0,6 con 4 anelli di accrescimento; h cm 1,6.
Taxon: 1-, 2-, 3-, 4- *Pinus sylvestris/montana* (pino silvestre/montana).
Tipo di reperto: trave dormiente.

CASA 15 (*fig. 45*)

***Campione:* 1**.
Fase: 2.
Contenuto: briciole di carbone.
Carboni esaminati: 2.
Dimensioni:

Velikost:
1-, 2- Ø največ 4,4 cm; šir. največ 2,2 cm z 48 branikami (zunanji obroči so bolj razmaknjeni); viš 3,3 cm.
3- Ø največ 2,6 cm; šir. največ 0,8 cm s 23 branikami (zunanji obroči so bolj razmaknjeni); viš. 1 cm; prisotne so spore gliv.
4- Ø največ 4 cm; šir. 0,6 cm s 4 branikami; viš. 1,6 cm.
Takson: 1-, 2-, 3-, 4- *Pinus sylvestris/montana* (rdeči bor/rušje).
Namembnost: temeljni prag.

HIŠA 15 (*sl. 45*)

***Vzorec:* 1.**
Faza: 2.
Vsebina: drobni koščki oglja.
Vzorčeni primerki: 2.
Velikost:
1- šir. 3 cm; viš. 3,2 cm.
2- ploščat kos oglja z grčo; dl. 2,2 cm; šir. 0,6 cm; viš. 2 cm; pr. grče 0,5 cm.
Takson: Abies alba (navadna jelka).
Namembnost: temeljni prag.

***Vzorec:* 2.**
Faza: 2.
Vsebina: del bruna v pomešanem sedimentu, zraven še drugi odlomki oglja, nekateri so sprijeto s podlago.
Vzorčeni primerki: 3.
Velikost:
1- dl. 2 cm; šir. 1,4 cm z 9 branikami; viš. 2,8 cm; Ø max 3 cm.
2- zdrobljeno oglje, ukrivljeno, sledi organizmov lesnih škodljivcev in spore gliv.
3- del veje, šir. 3 cm z 2 branikama; Ø max 2,2 cm; viš. 2,6 cm.
Takson: Abies alba (navadna jelka).
Namembnost: temeljni prag.

***Vzorec:* 3.**
Faza: 2.
Vsebina: luske oglja.
Vzorčeni primerki: 1.
Velikost: dl. 1,5 cm; šir. 0,3 cm z dvema branikama; viš. 4,3 cm; sledi organizmov lesnih škodljivcev.
Takson: Quercus robur/petraea (dob/graden).
Namembnost: temeljni prag.

***Vzorec:* 4.**
Faza: 2.
Vsebina: fragmenti oglja, ki so bili verjetno deli istega kosa lesa in zdrobljeno oglje.
Vzorčeni primerki: 4.
Velikost:
1- dl. 3,2 cm; šir. 3,6 cm; branike niso vidne; viš. 6 cm.
2- dl. 1,8 cm; šir. 0,6 cm z okoli 10 branikami; viš. 2 cm.
3- dl. 2 cm; šir. 0,9 cm s 5 branikami; Ø max 8 cm; viš. 2,6 cm.
4- šir. 1,9 cm; Ø max 5 cm; viš. 2,1 cm.
Taksoni:
1- *Quercus robur/petraea* (dob/graden).
2- *Abies alba* (navadna jelka).

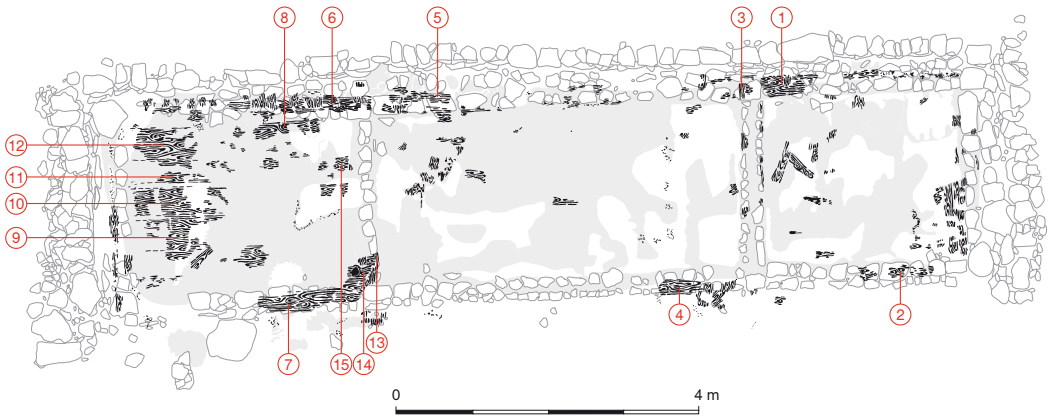
1- La cm 3; h cm 3,2.
2- carbone piatto con nodo; l cm 2,2; La cm 0,6; h cm 2; r nodo cm 0,5.
Taxon: 1-, 2- *Abies alba* (abete bianco).
Tipo di reperto: trave dormiente.

Campione: **2.**
Fase: 2.
Contenuto: frammento di trave mista a sedimento, spalmatura in alcuni punti; altri frammenti.
Carboni esaminati: 3.
Dimensioni:
1- l cm 2; La cm 1,4 con 9 anelli di accrescimento; h cm 2,8; Ø max cm 3.
2- carbone sbriciolato, curvato; organismi lignivori e ife fungine.
3- porzione di ramo; La cm 3 con 2 anelli di accrescimento; Ø max cm 2,2; h cm 2,6.
Taxon: 1-, 2-, 3- *Abies alba* (abete bianco).
Tipo di reperto: trave dormiente.

***Campione:* 3.**
Fase: 2.
Contenuto: scaglie di carbone.
Carbone esaminato: 1.
Dimensioni: l cm 1,5; La cm 0,3 con 2 anelli di accrescimento; h cm 4,3; tracce di organismi lignivori.
Taxon: Quercus robur/petraea (farnia/rovere).
Tipo di reperto: trave dormiente.

***Campione:* 4.**
Fase: 2.
Contenuto: forse originariamente unico carbone e carbone sbriciolato.
Carboni esaminati: 4.
Dimensioni:
1- l cm 3,2; La cm 3,6; anelli non visibili; h cm 6.
2- l cm 1,8; La cm 0,6 con ca 10 anelli; h cm 2.
3- l cm 2; La 0,9 con 5 anelli di accrescimento; Ø max cm 8; h cm 2,6.
4- La cm 1,9; Ø max cm 5; h cm 2,1.
Taxa:
1- *Quercus robur/petraea* (farnia/rovere).
2- *Abies alba* (abete bianco).
3- *Fagus sylvatica* (faggio).
4- *Quercus robur/petraea* (farnia/rovere).
Tipo di reperto: trave dormiente (1-, 4-), legno da costruzione (2-, 3-).

***Campione:* 5.**
Fase: 2.
Contenuto: frammenti con forme molto diverse.
Carboni esaminati: 2.
Dimensioni:
1- l cm 2,5; La cm 2,5; h cm 3.
2- l cm 1,7; La cm 4,3 con 7 anelli di accrescimento; h cm 5,6.
Taxon: 1-, 2- *Quercus robur/petraea* (farnia/rovere).
Tipo di reperto: trave dormiente.



Sl. 45: Hiša 15 (faza 2); pozicije vzorcev.
Fig. 45: Casa 15 (fase 2); posizioni dei campioni.

3- *Fagus sylvatica* (bukev).
4- *Quercus robur/petraea* (dob/graden).
Namembnost: temeljni prag (1-, 4-), gradbeni les (2-, 3-).

***Vzorec* 5.**
Faza: 2.
Vsebina: fragmenti oglja zelo različnih oblik.
Vzorčeni primerki: 2.
Velikost:
1- dl. 2,5 cm; šir. 2,5 cm; viš. 3 cm.
2- dl. 1,7 cm; šir. 4,3 cm s 7 branikami; viš. 5,6 cm.
Takson: Quercus robur/petraea (dob/graden).
Namembnost: temeljni prag.

***Vzorec:* 6.**
Faza: 2.
Vsebina: številni fragmenti oglja, ki pa niso del istega kosa, so tudi zelo različni glede na velikost in ukrivljenost branik.
Vzorčeni primerki: 4.
Velikost:
1- del veje (?), dl. 2 cm; šir. 2,7 cm s 7 branikami; Ø max 2 cm; viš. 3 cm.
2- dl. 3,3 cm; šir. 2,7 cm z 8 branikami; Ø max > 10 cm; viš. 5 cm.
3- dl. 2 cm; šir. 2 cm z 8 branikami (razmaki med njimi so nepravilni, pri drugih primerkih pa so bolj pravilni); Ø max 4 cm; viš. 2 cm.
4- dl. 1 cm; šir. 2,3 cm s 7 branikami; Ø max > 10 cm; viš. 2,2 cm.
Takson: 1-, 2-, 3-, 4- *Quercus robur/petraea* (dob/graden).
Namembnost: temeljni prag.

***Vzorec:* 7.**
Faza: 2.
Vsebina: skupek oglja.
Vzorčeni primerki: 1 (največji).
Velikost: dl. 1,2 cm; šir. 0,4 cm; viš. 7 cm.
Takson: Quercus robur/petraea (dob/graden).
Namembnost: temeljni prag.

***Campione:* 6.**
Fase: 2.
Contenuto: molti frammenti, forse non appartenenti tutti allo stesso reperto, con dimensioni e curvatura degli anelli molto differenti.
Carboni esaminati: 4.
Dimensioni:
1- porzione di ramo? l cm 2; La cm 2,7 con 7 anelli di accrescimento; Ø max cm 2; h cm 3.
2- l cm 3,3; La cm 2,7 con 8 anelli di accrescimento; Ø max > cm 10 h; cm 5.
3- l cm 2; La cm 2 con 8 anelli di accrescimento (con distanza irregolare; negli altri frammenti più regolare); Ø max cm 4; h cm 2.
4- l cm 1,6; La cm 2,3 con 7 anelli di accrescimento; Ø max > cm 10; h cm 2,2.
Taxon: 1-, 2-, 3-, 4- *Quercus robur/petraea* (farnia/rovere).
Tipo di reperto: trave dormiente.

***Campione:* 7.**
Fase: 2.
Contenuto: serie di carboni.
Carbone esaminato: 1 (il più grosso).
Dimensioni: l cm 1,2; La cm 0,4; h cm 7.
Taxon: Quercus robur/petraea (farnia/rovere).
Tipo di reperto: trave dormiente.

***Campione:* 8.**
Fase: 2.
Contenuto: gruppo di carboni, con tutta probabilità originariamente uno solo (situazione simile al campione 1).
Carbone esaminato: 1 (il più grosso).
Dimensioni: l ca cm 12; La cm 3 con 23 anelli di accrescimento; h ca cm 14.
Taxon: Abies alba (abete bianco).
Tipo di reperto: tavola del pavimento.

***Vzorec:* 8.**
Faza: 2.
Vsebina: skupina oglja; zelo verjetno so bili del istega kosa (podobno kot pri vzorcu št. 1).
Vzorčeni primerki: 1 (največji).
Velikost: dl. okoli 12 cm; šir. 3 cm s 23 branikami; viš. 14 cm.
Takson: Abies alba (navadna jelka).
Namembnost: podnica.

***Vzorec:* 9.**
Faza: 2.
Vsebina: dve vrečki (A-, B-).
A- različni fragmenti, verjetno del enega kosa; isti takson.
B- kos oglja, razpadel v več fragmentov, zato meritve niso natančne; isti takson.
Vzorčeni primerki: 2.
Velikost: A1- dl 3,8 cm; šir. 1 cm; viš. 5 cm.
Taksona:
A1- *Abies alba* (navadna jelka);
B1- *Quercus robur/petraea* (dob/graden).
Namembnost: verjetno podnica (A1-); gradbeni les, morda temeljni prag (B1-).

***Vzorec:* 10.**
Faza: 2.
Vsebina: verjetno ostanek deske/bruna, na nekaterih mestih sprijete z geološko podlago.
Vzorčeni primerki: 1.
Velikost: dl. 4,5 cm; viš. 4,5 cm.
Takson: Abies alba (navadna jelka).
Namembnost: podnica.

***Vzorec* 11.**
Faza: 2.
Vsebina: koščki oglja.
Vzorčeni primerki: 2.
Takson: 1-, 2- *Abies alba* (navadna jelka).
Namembnost: podnica.

***Vzorec:* 12.**
Faza: 2.
Vsebina: oglje različnih velikosti, morda sprva del istega kosa, širokega 1,2 cm, s 5 branikami.
Vzorčeni primerki: 2.
Velikost:
1- dl. 2,5 cm; šir. 0,6 cm s 4 branikami; viš.2 cm; tabularna oblika; spore gliv; les je bil stisnjen.
2- dl. 3,4 cm; viš. 3,2 cm.
Takson: 1-, 2- *Abies alba* (navadna jelka).
Namembnost: podnica.

***Vzorec:* 13.**
Faza: 2.
Vsebina: en primerek oglja.
Vzorčeni primerki: 1.
Velikost: Ø max > 15 cm; šir. okoli 4 cm s 17 branikami; viš. 11 cm.
Takson: Quercus robur/petraea (dob/graden).
Namembnost: temeljni prag (*sl. 46*).

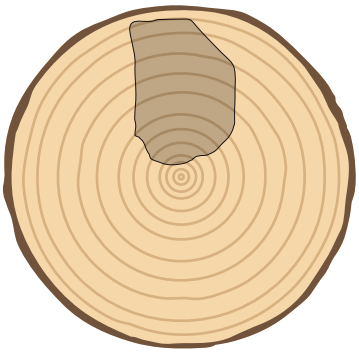
Campione: 9.
Contenuto: due sacchetti (A-, B-).
A- diversi frammenti forse pertinenti a un unico carbone, tutti dello stesso *taxon*.
B- carbone originariamente unico suddiviso in molti frammenti; misurazioni molto imprecise; frammenti tutti dello stesso *taxon*.
Carboni esaminati: 2.
Dimensioni:
A1- l cm 3,8 La cm 1 h cm 5.
Taxa:
A1- *Abies alba* (abete bianco).
B1- *Quercus robur/petraea* (farnia/rovere).
Tipo di reperto: (probabilmente) tavola del pavimento (A1-); legno da costruzione, probabile trave dormiente (B1-).

***Campione:* 10.**
Fase: 2.
Contenuto: resti di elemento costruttivo, in alcuni punti spalmatura.
Carbone esaminato: 1.
Dimensioni: l cm 4,5; h cm 4,5.
Taxon: Abies alba (abete bianco).
Tipo di reperto: tavola del pavimento.

***Campione:* 11.**
Fase: 2.
Contenuto: briciole di carbone.
Carboni esaminati: 2.
Taxon: 1-, 2- *Abies alba* (abete bianco).
Tipo di reperto: tavola del pavimento.

***Campione:* 12.**
Fase: 2.
Contenuto: carboni di diverse dimensioni, forse originariamente unico pezzo con La cm 1,2 (con 5 anelli di accrescimento).
Carboni esaminati: 2.
Dimensioni:
1- l cm 2,5; La cm 0,6 con 4 anelli di accrescimento; h cm 2, forma tabulare, presenza di ife fungine, legno di compressione.
2- l cm 3,4; h cm 3,2.
Taxon: 1-, 2- *Abies alba* (abete bianco).
Tipo di reperto: tavola del pavimento.

***Campione:* 13.**
Fase: 2.
Contenuto: unico carbone
Carbone esaminato: 1.
Dimensioni: Ø max > cm 15; La ca cm 4 con 17 anelli di accrescimento; h cm 11.
Taxon: Quercus robur/petraea (farnia/rovere).
Tipo di reperto: trave dormiente (*fig. 46*).



Sl. 46: Hiša 15; vzorec 13.
Fig. 46: Casa 15; campione 13.

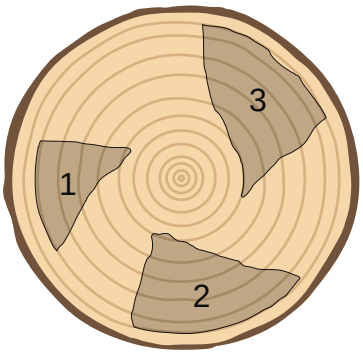
***Vzorec:* 14.**
Faza: 2.
Vsebina: del lesene konstrukcije.
Vzorčeni primerki: 1.
Velikost: dl. 9 cm; šir. max 3 cm z okoli 40 branikami; razmaki med njimi niso povsem pravilni, bolj so stisnjeni na obrobju vzorca; viš. 13 cm; sledi organizmov lesnih škodljivcev.
Takson: Abies alba (navadna jelka).
Namembnost: deska v opažu južne stene hiše in pokončna soha.

***Vzorec:* 15.**
Faza: 2.
Vsebina: trije veliki fragmenti oglja (1-, 2-, 3-), verjetno deli istega kosa, težko sestavljivi.
Vzorčeni primerki: 3.
Velikost:
1- dl. 4,5 cm; šir. 3 cm s 40 branikami z nepravilnim potekom: zelo skupaj v zunanjem predelu, bolj vsaksebi v redini; viš. 2,2 cm; sledi organizmov lesnih škodljivcev.
2- dl. 5,6 cm; šir. 4,6 cm s 47 branikami; zelo skupaj v zunanjem predelu, manj v sredini; viš. 2,8 cm.
3- šir. okoli 4 cm s 45 branikami.
Takson: 1-, 2-, 3- *Abies alba* (navadna jelka).
Namembnost: gradbeni les (*sl. 47*).

HIŠA 15A (*sl. 48*)

***Vzorec:* 1.**
Faza: 2.
Vsebina: del lesene konstrukcije.
Vzorčeni primerki: 1.
Velikost: dl. 9 cm, šir. 4 cm, viš. 8 cm.
Takson: Pinus sylvestris/montana (rdeči bor/rušje).
Namembnost: gradbeni les.

***Vzorec:* 2.**
Faza: 1.
Vsebina: deli kola v različnih fragmentih, pomešani s sedimentom in fragment veje.
Vzorčeni primerki: 3.



Sl. 47: Hiša 15; vzorec 15.
Fig. 47: Casa 15; campione 15.

***Campione:* 14.**
Fase: 2.
Contenuto: porzioni di elementi costruttivi.
Carbone esaminato: 1.
Dimensioni: l cm 9; La max cm 3 con ca 40 anelli di accrescimento; la distanza tra gli anelli non è del tutto regolare, sono più stretti alla periferia del campione; h cm 13; tracce di organismi lignivori.
Taxon: Abies alba (abete bianco).
Tipo di reperto: tavola della chiusura esterna e pilastro.

***Campione:* 15.**
***Fase:* 2.**
Contenuto: 3 grossi carboni (1-,2-,3-), forse originariamente un unico carbone, difficilmente riconnettibili.
Carboni esaminati: 3 (i tre carboni)
Dimensioni:
1- l cm 4,5; La cm 3 con 40 anelli con andamento irregolare, molto ravvicinati nella parte inferiore, più distanziati al centro; h cm 2,2; tracce di organismi lignivori.
2- l cm 5,6; La cm 4,6 con 47 anelli di accrescimento, molto ravvicinati nella parte inferiore, poco al centro; h cm 2,8.
3- La ca cm 4 con 45 anelli di accrescimento
*Taxon:*1-, 2-, 3- *Abies alba* (abete bianco).
Tipo di reperto: legno da costruzione (*fig. 47*).

CASA 15A (*fig. 48*)

***Campione:* 1.**
Fase: 2.
Contenuto: porzione di elemento costruttivo.
Carbone esaminato: 1.
Dimensioni: l cm 9; La cm 4; h cm 8.
Taxon: Pinus sylvestris/montana (pino silvestre/montano).
Tipo di reperto: legno da costruzione.

***Campione:* 2.**
Fase: 1.
Contenuto: porzione di palo in frammenti vari con sedimento e frammento di ramo.
Carboni esaminati: 3.

Velikost:
1- (kol), dl. 6 cm; šir. 2,5 cm s 15 brankami v 1,6 cm; viš. 10 cm.
2- (kol) dl. 5,3 cm; šir. 1,9 cm z 21 branikami; Ø max. 6 cm; viš. 9 cm.
3- (veja) dl. 0,9 cm; Ø 3 x 1,5 cm; 7 branik v 1,3 cm; viš. 3,5 cm.
Takson: Abies alba (navadna jelka).
Namembnost: gradbeni les.

***Vzorec:* 3.**
Faza: 1.
Vsebina: zdrobljeni del kola (bruna).
Vzorčeni primerki: 1.
Velikost: viš. *max* 7 cm; šir. 1,2 cm s 15 branikami.
Takson: Abies alba (navadna jelka).
Namembnost: gradbeni les.

***Vzorec:* 4.**
Faza: 1.
Vsebina: majhni delci oglja v mešanem sedimentu.
Takson: ni določljiv.
Namembnost: gradbeni les.

***Vzorec:* 5.**
Faza: 1.
Vsebina: fragmenti oglja.
Vzorčeni primerki: 1
Velikost: viš. 4 cm.
Takson: Pinus sylvestris/montana (rdeči bor/rušje).
Namembnost: gradbeni les.

***Vzorec:* 6.**
Faza: 1.
Vsebina: vzorec vsebuje dele prvotno istega kosa bruna; potek vlaken je nepravilen.
Vzorčeni primerki: 2.
Velikost:
1- dl. 4 cm; šir. 1 cm; viš. 12 cm.
2- dl. 0,8 cm; šir. 0,3 cm; viš. 1 cm.
Takson: 1-, 2- *Abies alba* (navadna jelka).
Namembnost: gradbeni les.

***Vzorec:* 7.**
Faza: 1.
Vsebina: koščki oglja različnih velikosti, morda prvotno deli istega kosa.
Vzorčeni primerki: 1.
Velikost: dl. 0,9 cm; šir. 0,4 cm; Ø 12,5 cm; viš. 0,9 cm.
Takson: Abies alba (navadna jelka).
Namembnost: temeljni prag.

***Vzorec:* 8.**
Faza: 1.
Vsebina: deli bruna.
Vzorčeni primerki: 1.
Velikost (največjega kosa): dl. 2 cm; šir. 4 cm s 25 branikami v 1,8 cm; kolobarji so deformirani; viš. 3,2 cm.

Dimensioni:
1- (palo) l cm 6; La cm 2,5; ca 15 anelli di accrescimento in cm 1,6; h cm 10.
2- (palo) l cm 5,3; La cm 1,9 con 21 anelli di accrescimento; Ø max cm 6; h cm 9.
3- (ramo) l cm 0,9; Ø cm 3 x 1,5; 7 anelli di accrescimento in cm 1,3; h cm 3,5.
Taxon: 1-, 2-, 3- *Abies alba* (abete bianco).
Tipo di reperto: legno da costruzione.

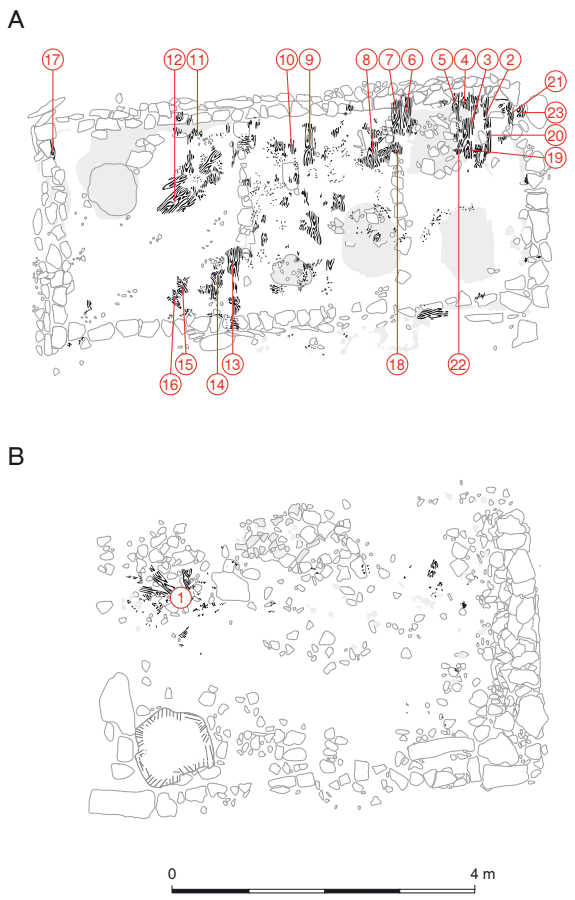
***Campione:* 3.**
Fase: 1.
Contenuto: porzione di palo frantumato.
Carbone esaminato: 1.
Dimensioni: h max cm 7; La cm 1,2 con 15 anelli di accrescimento.
Taxon: Abies alba (abete bianco).
Tipo di reperto: legno da costruzione.

***Campione:* 4.**
Fase: 1.
Contenuto: piccoli carboni misti a sedimento.
Taxon: n.d.
Tipo di reperto: legno da costruzione.

***Campione:* 5.**
Fase: 1.
Contenuto: frammenti di carbone.
Carbone esaminato: 1.
Dimensioni: h cm 4.
Taxon: Pinus sylvestyris/montana (pino silvestre/montano).
Tipo di reperto: legno da costruzione.

***Campione:* 6.**
Fase: 1.
Contenuto: carbone originariamente unico, porzione di trave; andamento irregolare delle fibre.
Carboni esaminati: 2.
Dimensioni:
1- l cm 4; La cm 1; h cm 12.
2- l cm 0,8; La cm 0,3; h cm 1.
Taxon: 1-, 2- *Abies alba* (abete bianco).
Tipo di reperto: legno da costruzione.

***Campione:* 7.**
Fase: 1.
Contenuto: carbone in pezzi di varie dimensioni; forse unico campione originario.
Carbone esaminato: 1.
Dimensioni: l cm 0,9; La cm 0,4; Ø cm 12,5; h cm 0,9.
Taxon: Abies alba (abete bianco).
Tipo di reperto: trave dormiente.



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Sl. 48: Hiša 15A (A: faza1; B: faza 2); pozicije vzorcev.
Fig. 48: Casa 15A (A: fase 1; B: fase 2); posizioni dei campioni.

Takson: Abies alba (navadna jelka).
Namembnost: gradbeni les.

***Vzorec:* 9.**
Faza: 1.
Vsebina: v luske razpadel kos oglja.
Vzorčeni primerki: 1.
Takson: Fagus sylvatica (bukev).
Namembnost: gradbeni les.

***Vzorec:* 10.**
Faza: 1.
Vsebina: majhni fragmenti oglja pomešani s sedimentom.
Takson: ni določljiv.
Namembnost: gradbeni les.

***Vzorec:* 11.**
Faza: 1.
Vsebina: z zemljo pomešani drobci oglja.
Vzorčeni primerki: 4.
Velikost:
1- dl. 1 cm; šir. 1 cm; viš. 2 cm.
2- dl. 2,6 cm; šir. 1 cm; viš. 1,6 cm.
3- dl. 5,5 cm; šir. 3,1 cm s 16 branikami; Ø> 10 cm; viš. 2,1 cm; vidne so luknjice lesnih parazitov in spore gliv.
4- dl. 2,5 cm; šir. 2,1 cm z 11 branikami; Ø> 10 cm; viš. 3,2 cm.

***Campione:* 8.**
Fase: 1.
Contenuto: parte di elemento costruttivo..
Carbone esaminato: 1.
Dimensioni (frammento più grosso): l cm 2; La cm 4 con 25 anelli di accrescimento in cm 1,8; anelli deformati; h cm 3,2.
Taxon: Abies alba (abete bianco).
Tipo di reperto: legno da costruzione.

***Campione:* 9.**
Fase: 1.
Contenuto: campione unico, sbriciolato in scaglie.
Carbone esaminato: 1.
Taxon: Fagus sylvatica (faggio).
Tipo di reperto: legno da costruzione.

***Campione:* 10.**
Fase: 1.
Contenuto: piccoli frammenti di carbone aderenti a sedimento.
Taxon: n.d.
Tipo di reperto: legno da costruzione.

***Campione:* 11.**
Fase: 1.
Contenuto: briciole di carbone misto a terra.
Carboni esaminati: 4.
Dimensioni:
1- l cm 1; La cm 1; h cm 2.
2- l cm 2,6; La cm 1; h cm 1,6.
3- l cm 5,5; La cm 3,1 con 16 anelli di accrescimento; Ø> cm 10; h cm 2,1; fori di parassiti ife fungine.
4- l cm 2,5; La cm 2,1con 11 anelli di accrescimento; Ø >cm 1; h cm 3,2.
Taxa:
1- *Quercus robur/petraea* (farnia/rovere).
2- *Quercus robur/petraea* (farnia/rovere).
3- *Fagus sylvatica* (faggio).
4- *Ulmus* cfr. *minor* (olmo campestre).
Tipo di reperto: legno da costruzione.

***Campione:* 12.**
Fase: 1.
Contenuto: carbone originariamente unico, sbriciolato in scaglie.
Carbone esaminato: 1.
Taxon: Pinus sylvestris/montana (pino silvestre/montano).
Tipo di reperto: legno da costruzione.

Taksoni:
1- *Quercus robur/petraea* (dob/graden).
2- *Quercus robur/petraea* (dob/graden).
3- *Fagus sylvatica* (bukev).
4- *Ulmus* cfr. *minor* (brest).
Namembnost: gradbeni les

***Vzorec:* 12.**
Faza: 1.
Vsebina: v luske razpadel kos oglja.
Vzorčeni primerki: 1.
Takson: Pinus sylvestris/montana (rdeči bor/rušje).
Namembnost: gradbeni les.

***Vzorec:* 13.**
Faza: 1.
Vsebina: razdrobljeni del bruna ali kola, prečni prerez enega od večjih kosov je četverokoten.
Vzorčeni primerki: 1.
Velikost: dl. 6,5 cm; šir. 3 cm s 25 branikami; viš. 8 cm.
Takson: Abies alba (navadna jelka).
Namembnost: gradbeni les.

***Vzorec:* 14.**
Faza: 1.
Vsebina: fragmentiran del bruna ali trama.
Vzorčeni primerki: 1.
Velikost: viš. 9,6 cm; Ø *max* 14 cm.
Takson: Abies alba (navadna jelka).
Namembnost: gradbeni les.

***Vzorec:* 15.**
Faza: 1.
Vsebina: zdrobljen kos oglja, pomešan s kamenčki.
Vzorčeni primerki: 1.
Takson: Pinus sylvestris/montana (rdeči bor/rušje).
Namembnost: gradbeni les.

***Vzorec:* 16.**
Faza: 1.
Vsebina: s sedimentom pomešani brezoblični fragmenti oglja.
Vzorčeni primerki: 1.
Velikost: dl. 2 cm; šir. 1 cm; viš. 3 cm.
Takson: Abies alba (navadna jelka).
Namembnost: gradbeni les.

***Vzorec:* 17.**
Faza: 1.
Vsebina: drobir trama.
Vzorčeni primerki: 1.
Velikost: dl. 0,2 cm; šir. 0,3 cm s 4 branikami; Ø *max* 6 cm; viš. okoli 12 cm.
Takson: Abies alba (navadna jelka).
Namembnost: temeljni prag.

***Campione:* 13.**
Fase: 1.
Contenuto: porzione di elemento costruttivo, la sezione trasversale di uno dei pezzi più grossi è quadrangolare.
Carbone esaminato: 1.
Dimensioni: l cm 6,5; La cm 3 con ca 25 anelli di accrescimento; h cm 8.
Taxon: Abies alba (abete bianco).
Tipo di reperto: legno da costruzione.

***Campione:* 14.**
Fase: 1.
Contenuto: porzione di elemento costruttivo in frammenti.
Carbone esaminato: 1.
Dimensioni: h ca cm 9,6; Ø max cm 14.
Taxon: Abies alba (abete bianco).
Tipo di reperto: legno da costruzione.

***Campione:* 15.**
Fase: 1.
Contenuto: carbone frantumato misto a ciottoli.
Carbone esaminato: 1.
Taxon: Pinus sylvestris/montana (pino silvestre/montano).
Tipo di reperto: legno da costruzione.

***Campione:* 16.**
Fase: 1.
Contenuto: frammenti di carbone senza forma particolare, misti a sedimento.
Carbone esaminato: 1.
Dimensioni: l cm 2; La cm 1; h cm 3.
Taxon: Abies alba (abete bianco).
Tipo di reperto: legno da costruzione.

***Campione:* 17.**
Fase: 1.
Contenuto: porzione di trave in frantumi.
Carbone esaminato: 1.
Dimensioni: l cm 0,2; La cm 0,3 con 4 anelli di accrescimento; Ø max cm 6; h ca cm 12.
Taxon: Abies alba (abete bianco).
Tipo di reperto: trave dormiente.

***Campione:* 18.**
Fase: 1.
Contenuto: parte di trave ridotta in scaglie.
Carbone esaminato: 1.
Dimensioni: l cm 8; La ca cm 1; h cm 12.
Taxon: Pinus sylvestris/montana (pino silvestre/montano).
Tipo di reperto: trave dormiente.

***Campione:* 19.**
Fase: 1.
Contenuto: parte di palo.
Carbone esaminato: 1.

***Vzorec:* 18.**
Faza: 1.
Vsebina: v luske razpadli del trama.
Vzorčeni primerki: 1.
Velikost: dl. 8 cm; šir. okoli 1 cm; viš. 12 cm.
Takson: Pinus sylvestris/montana (rdeči bor/rušje).
Namembnost: temeljni prag.

***Vzorec:* 19.**
Faza: 1.
Vsebina: del kola ali sohe.
Vzorčeni primerki: 1.
Velikost: dl. 7 cm; šir. 3,5 cm; Ø *max* 12 cm; viš. 8 cm.
Takson: Pinus sylvestris/montana (rdeči bor/rušje).
Namembnost: gradbeni les.

***Vzorec:* 20.**
Faza: 1.
Vsebina: slabo ohranjen del trama.
Vzorčeni primerki: 1.
Velikost: dl. 6 cm; šir. 2 cm; viš. 6 cm.
Takson: Pinus sylvestris/montana (rdeči bor/rušje).
Namembnost: gradbeni les.

***Vzorec:* 21.**
Faza: 1.
Vsebina: z zemljo pomešano oglje nepravilnih oblik, prvotno del istega kosa.
Vzorčeni primerki: 1.
Takson: Pinus sylvestris/montana (rdeči bor/rušje).
Namembnost: gradbeni les.

***Vzorec:* 22.**
Faza: 1.
Vsebina: kos oglja, razpadel v večje luske, pomešane z zemljo, nekatere sprijete s geološko osnovo.
Vzorčeni primerki: 1.
Velikost: dl. 0,5 cm; šir. 0,5 cm; viš. 0,7 cm.
Takson: Abies alba (navadna jelka).
Namembnost: gradbeni les.

***Vzorec:* 23.**
Faza: 1.
Vsebina: del drevesnega debla.
Vzorčeni primerki: 1.
Velikost: dl. 4 cm; šir. 4 cm z 21 branikami; Ø *max* 7 cm; viš. 7 cm.
Takson: Abies alba (navadna jelka).
Namembnost: temeljni prag.

HIŠA 16 (*sl. 49*)

***Vzorec:* 1.**
Faza: 1.
Vsebina: zdrobljen, prvotno enovit kos oglja; del lesene konstrukcije.

Dimensioni: l cm 7; La cm 3,5; Ø max > cm 12; h cm 8.
Taxon: Pinus sylvestris/montana (pino silvestre/montano).
Tipo di reperto: legno da costruzione.

***Campione:* 20.**
Fase: 1.
Contenuto: porzione di trave, mal conservata.
Carbone esaminato: 1.
Dimensioni: l cm 6; La cm 2; h cm 6.
Taxon: Pinus sylvestris/montana (pino silvestre/montano).
Tipo di reperto: legno da costruzione.

***Campione:* 21.**
Fase: 1.
Contenuto: carbone senza forma particolare, misto a sedimento, originariamente unico pezzo.
Carbone esaminato: 1.
Taxon: Pinus sylvestris/montana (pino silvestre/montano).
Tipo di reperto: legno da costruzione.

***Campione:* 22.**
Fase: 1.
Contenuto: carbone originariamente unico, in grosse scaglie miste a terra, in parte spalmature.
Carbone esaminato: 1.
Dimensioni: l cm 0,5; La cm 0,5; h cm 0,7.
Taxon: Abies alba (abete bianco).
Tipo di reperto: legno da costruzione.

***Campione:* 23.**
Fase: 1.
Contenuto: porzione di tronco.
Carbone esaminato: 1.
Dimensioni: l cm 4; La cm 4 con 21 anelli di accrescimento; Ø max cm 7; h cm 7.
Taxon: Abies alba (abete bianco).
Tipo di reperto: trave dormiente.

CASA 16 (*fig. 49*)

Campione: 1.
Fase: 1.
Contenuto: carbone originariamente unico; porzione di elemento costruttivo.
Carboni esaminati: 1.
Dimensioni: campione intero Ø cm 10; h cm 40.
Taxon: Pinus sylvestris/montana (pino silvestre/montano).
Tipo di reperto: palo.

***Campione:* 2.**
Fase: 1.
Contenuto: porzione di palo; schiacciato da un lato, sezione circolare.
Carbone esaminato: 1.
Dimensioni: Ø cm 11 x cm 7 con 30 anelli di accrescimento.
Taxon: Pinus sylvestris/montana (pino silvestre/montano).

Vzorčeni primerki: 1.
Velikost: Ø 10 cm; viš. 40 cm.
Takson: Pinus sylvestris/montana (rdeči bor/rušje).
Namembnost: kol.

***Vzorec:* 2.**
Faza: 1.
Vsebina: del na eni strani stisnjenega kola; okrogel presek
Vzorčeni primerki: 1.
Velikost: Ø 11 x 7 cm s 30 branikami.
Takson: Pinus sylvestris/montana (rdeči bor/rušje).
Namembnost: kol.

***Vzorec:* 3.**
Faza: 1.
Vsebina: verjetno enovit kos oglja.
Vzorčeni primerki: 1.
Velikost: Ø največ >10 cm; več kot 30 branik v širini okoli 3 cm; viš. 5 cm.
Takson: Pinus sylvestris/montana (rdeči bor/rušje).
Namembnost: kol.

***Vzorec:* 4.**
Faza: 1.
Vsebina: slabo ohranjen del zoglenele veje; okrogel presek.
Vzorčeni primerki: 1.
Takson: Abies alba (navadna jelka).
Namembnost: kol.

***Vzorec:* 5.**
Faza: 1.
Vsebina: z zemljo pomešani drobci oglja.
Vzorčeni primerki: 1.
Velikost: dl. 0,7 cm; šir. 0,5 cm; viš. 0,8 cm.
Takson: Abies alba (navadna jelka).
Namembnost: kol.

***Vzorec:* 6.**
Faza: 1.
Vsebina: zdrobljeno oglje (1-) in kosi stisnjenega in zmečkanega oglja (2-).
Vzorčeni primerki: 2.
Velikost:
1- dl. 0,1 cm; šir. 1,2 cm; viš. 1,2 cm.
2- dl. 0,6 cm; šir; 0,4 cm; viš. 0,6 cm.
Takson: 1-, 2- *Abies alba* (navadna jelka).
Namembnost: kol.

***Vzorec:* 7.**
Faza: 1.
Vsebina: na skupke razdeljeno oglje.
Vzorčeni primerki: 1.
Velikost: dl. 0,6 cm; šir. 2 cm z 21 branikami; viš. 3,6 cm.
Takson: Pinus sylvestris/montana (rdeči bor/rušje).
Namembnost: kol.

Tipo di reperto: palo.

***Campione:* 3.**
Fase: 1.
Contenuto: probabile unico carbone.
Carbone esaminato: 1.
Dimensioni: Ø max > 10 cm; più di 30 anelli in ca 3 cm di spessore; h cm 5.
Taxon: Pinus sylvestris/montana (pino silvestre/montano).
Tipo di reperto: palo.

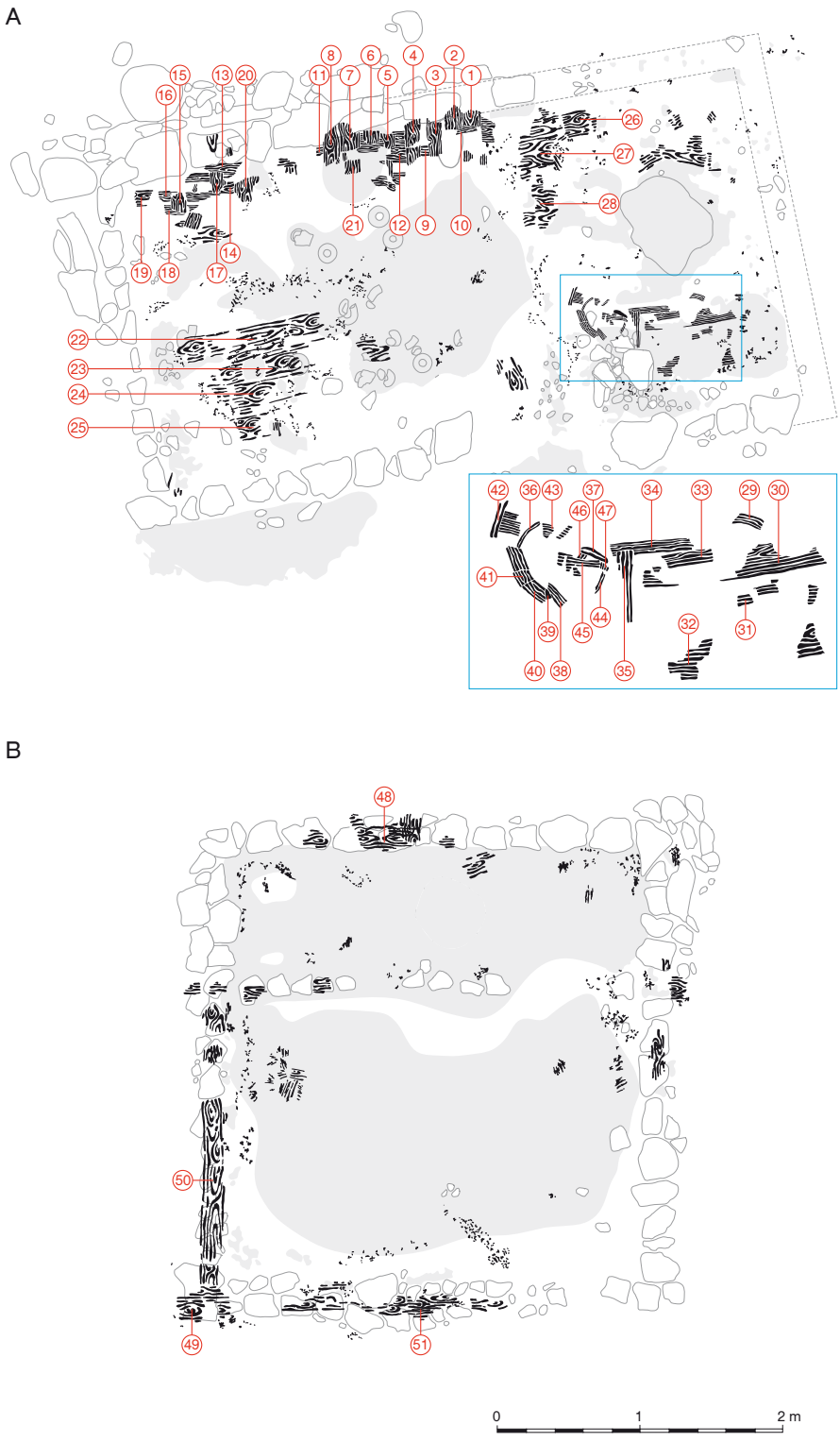
***Campione:* 4.**
Fase: 1.
Contenuto: parte di ramo non ben conservato, sezione circolare.
Carbone esaminato: 1.
Taxon: Abies alba (abete bianco).
Tipo di reperto: palo.

***Campione:* 5.**
Fase: 1.
Contenuto: briciole di carbone miste a terra.
Carbone esaminato: 1.
Dimensioni: l cm 0,7; La cm 0,5; h cm 0,8.
Taxon: Abies alba (abete bianco).
Tipo di reperto: palo.

***Campione:* 6.**
Fase: 1.
Contenuto: carbone sbriciolato (1-), pezzi di carbone schiacciati e contorti (2-).
Carboni esaminati: 2.
Dimensioni:
1- l cm 0,1; La cm 1,2; h cm 1,2.
2- l cm 0,6; La cm 0,4; h cm 0,6.
Taxon: 1-, 2- Abies alba (abete bianco).
Tipo di reperto: palo.

***Campione:* 7.**
Fase: 1.
Contenuto: carbone suddiviso in porzioni.
Carbone esaminato: 1.
Dimensioni: l cm 0,6; La cm 2 con 21 anelli di accrescimento; h cm 3,6.
Taxon: Pinus sylvestris/montana (pino silvestre/montano).
Tipo di reperto: palo.

***Campione:* 8.**
Fase: 1.
Contenuto: carbone in scaglie con sedimento.
Carbone esaminato: 1.
Dimensioni: di tutto il campione La cm 5 con 3 anelli di accrescimento; h cm 26.
Taxon: Pinus sylvestris/montana (pino silvestre/montano).
Tipo di reperto: palo.



Sl. 49: Hiša 16 (A: faza1; B: faza 2); pozicije vzorcev.
Fig. 49: Casa 16 (A: fase 1; B: fase 2); posizioni dei campioni.

***Vzorec:* 8.**
Faza: 1.
Vsebina: oglje v luskah, pomešano s sedimentom.
Vzorčeni primerki: 1.
Velikost: šir. 5 cm s 3 branikami; viš. 26 cm.
Takson: Pinus sylvestris/montana (rdeči bor/rušje).
Namembnost: kol.

***Vzorec:* 9.**
Faza: 1.
Vsebina: kos oglja.
Vzorčeni primerki: 1.
Velikost: dl. 5,6 cm; šir. 2,5 cm; Ø največ 12 cm; viš. 5,5 cm.
Takson: Pinus sylvestris/montana (rdeči bor/rušje).
Namembnost: deska.

***Vzorec:* 10.**
Faza: 1.
Vsebina: verjetno del enovitega kosa oglja.
Vzorčeni primerki: 1.
Velikost: cel vzorec dl. 40 cm; šir. 12 cm z 9 branikami; viš. 20.
Takson: Pinus sylvestris/montana (rdeči bor/rušje).
Namembnost: deska.

***Vzorec:* 11.**
Faza: 1.
Vsebina: fragmentirano bruno, ki se na enem koncu nekoliko tanjša.
Vzorčeni primerki: 1.
Velikost: dl. na eni strani: dl. 8,5 cm; Ø največ 14 cm; na drugi strani: dl. 5,6 cm; Ø največ 9 cm; viš. 19 cm; 36 branik v 4 cm; razdalje med njimi so dokaj pravilne.
Takson: Pinus sylvestris/montana (rdeči bor/rušje).
Namembnost: deska.

***Vzorec:* 12.**
Faza: 1.
Vsebina: en kos oglja.
Vzorčeni primerki: 1.
Velikost: dl. 3,8 cm; šir. 2,6 cm z 19 branikami; viš. 4,5 cm.
Takson: Pinus sylvestris/montana (rdeči bor/rušje).
Namembnost: deska.

***Vzorec:* 13.**
Faza: 1.
Vsebina: trije deformirani fragmenti oglja v sedimentu.
Vzorčeni primerki: 1.
Velikost: dl. 1,3 cm; šir. 1,3 cm; viš. 1,4 cm.
Takson: Abies alba (navadna jelka).
Namembnost: deska.

***Vzorec:* 14.**
Faza: 1.
Vsebina: odlomki oglja različnih oblik (teža: 267 g).
Vzorčeni primerki: 6.

***Campione:* 9.**
Fase: 1.
Contenuto: carbone unico.
Carbone esaminato: 1
Dimensioni: l cm 5,6; La cm 2,5; Ø max cm 12; h cm 5,5.
Taxon: Pinus sylvestris/montana (pino silvestre/montano).
Tipo di reperto: asse.

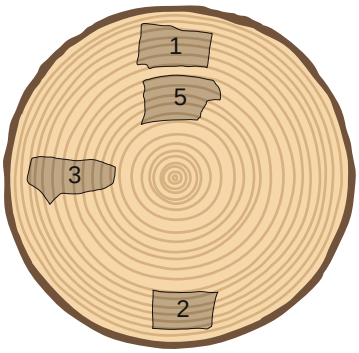
***Campione:* 10.**
Fase: 1.
Contenuto: probabile unico frammento.
Carbone esaminato: 1.
Dimensioni: di tutto il campione l cm 40; La cm 12 con 9 anelli di accrescimento; h cm 20.
Taxon: Pinus sylvestris/montana (pino silvestre/montano).
Tipo di reperto: asse.

***Campione:* 11.**
Fase: 1.
Contenuto: trave frammentario; si assottiglia leggermente a un'estremità.
Carbone esaminato: 1.
Dimensioni: di tutto il campione 1- ad un'estremità: l cm 8,5 con Ø max cm 14; all'altra estremità: l cm 5,6 con Ø max cm 9; h cm 19; 36 anelli di accrescimento in 4 cm; distanza abbastanza regolare tra un anello e l'altro.
Taxon: Pinus sylvestris/montana (pino silvestre/montano).
Tipo di reperto: asse.

***Campione:* 12.**
Fase: 1.
Contenuto: carbone unico.
Carbone esaminato: 1.
Dimensioni: l cm 3,8; La cm 2,6 con 19 anelli di accrescimento; h cm 4,5.
Taxon: Pinus sylvestris/montana (pino silvestre/montano).
Tipo di reperto: asse.

***Campione:* 13.**
Fase: 1.
Contenuto: tre frammenti di carbone su sedimento; alcuni deformati.
Carbone esaminato: 1.
Dimensioni: l cm 1,3; La cm 1,3; h cm 1,4.
Taxon: Abies alba (abete bianco)
Tipo di reperto: asse.

***Campione:* 14.**
Fase: 1.
Contenuto: frammenti di diverse forme (peso del campione g 267).
Carboni esaminati: 6;
Dimensioni:
1- forma cilindrica; Ø cm 3 x 2,8 con 15 anelli di accrescimento; Ø max cm 4; h cm 3,5.
2- forma prismatica con base quadrangolare; l cm 3,3; La cm 2,1 con 23 anelli di accrescimento; h cm 4.



Sl. 50: Hiša 16; vzorec 14.
Fig. 50: Casa 16; campione 14.

Velikost:
1- cilindrična oblika; Ø 3 x 2,8 cm s 15 branikami; največji Ø 4 cm; viš. 3,5 cm.
2- prizmatična oblika s četverokotno bazo; dl. 3,3 cm; šir. 2,1 cm s 23 branikami; viš. 4 cm.
3- prizmatična oblika s četverokotno bazo; dl. 1,5 cm; šir. 4,5 cm z 10 branikami; viš. 2,6 cm.
4- nima posebne oblike; šir. 1,7 cm z 9 branikami; viš. 3,4 cm.
5- prizmatična oblika z zaokroženimi robovi; dl. 2,7 cm; šir. 1,6 cm s 17 branikami; Ø največ do 6 cm; viš. 5 cm.
6- velik kos oglja, razdeljen na več delov (izmerjena sta bila dva primerka, A in B); A- dl. 8 cm; šir. 3,7 cm z 19 branikami; viš. 12 cm; največji Ø tudi >15 cm; četverokotni presek; B- debelina 4 cm z 21 branikami; največji Ø tudi > 15 cm, viš. 7 cm.
Taksoni:
1- *Quercus robur/petraea* (dob/graden).
2- *Abies alba* (navadna jelka).
3- *Quercus robur/petraea* (dob/graden).
4- *Fagus sylvatica* (bukev).
5- *Abies alba* (navadna jelka).
6- *Pinus sylvestris/montana* (rdeči bor/rušje).
Namembnost: 6- deska (glej še vzorca 16, 19); (1-, 2-, 3-, 5-) gradbeni les (*sl. 50*).

***Vzorec:* 15.**
Faza: 1.
Vsebina: štiri vrečke oglja.

Vrečka1: nesestavljivi fragmenti oglja morda prvotno deli istega kosa.
Vzorčeni primerki: 1 (največji).
Velikost: 1- dl. 5 cm; šir. 3 cm s 15 branikami; viš. 5,6 cm.
Takson: Abies alba (navadna jelka).

Vrečka 2: nesestavljivi odlomki oglja, pomešani z zemljo, nedoločljive oblike.
Vzorčeni primerki: 2.
Velikost: 2- dl. 3 cm; šir. 5 cm; viš. 5,5 cm.
Takson: 2-, 3- *Abies alba* (navadna jelka).

3- forma prismatica con base quadrangolare; l cm 1,5; La cm 4,5 con 10 anelli di accrescimento; h cm 2,6.
4- senza forma particolare; La cm 1,7 con 9 anelli di accrescimento; h cm 3,4.
5- prismatico con arrotondamento degli spigoli; l cm 2,7; La cm 1,6 con 17 anelli di accrescimento; Ø max cm 6; h cm 5.
6- grosso carbone suddiviso in alcune porzioni; misurati due frammenti (A e B); A- l cm 8; La cm 3,7 con 19 anelli di accrescimento; h cm 12; Ø max anche > 15 cm; sezione quadrangolare;
B- spess. cm 4 con 21 anelli di accrescimento; Ø max anche > 15 cm; h cm 7.
Taxa:
1- *Quercus robur/petraea* (farnia/rovere).
2- *Abies alba* (abete bianco).
3- *Quercus robur/petraea* (farnia/rovere).
4- *Fagus sylvatica* (faggio).
5- *Abies alba* (abete bianco).
6- *Pinus sylvestris/montana* (pino silvestre/montano).
Tipo di reperto: 6- asse (cfr. camp. no. 16, 19); 1-, 2-, 3-, 4, 5- legno da costruzione (*fig. 50*).

***Campione:* 15.**
Fase: 1.
Contenuto: 4 pacchetti contenenti carboni.

Pacch. 1: contiene frammenti forse originariamente appartenenti a un unico campione non più ricomponibile.
Carbone esaminato: 1 (il più grosso).
Dimensioni: 1- l cm 5; La cm 3 con 15 anelli di accrescimento; h cm 5,6.
Taxon: Abies alba (abete bianco).

Pacch. 2: frammenti di carbone misti a terra, non ricomponibili, forma indefinita.
Carboni esaminati: 2.
Dimensioni: 2- l cm 3; La cm 5; h cm 5,5.
Taxon: 2-, 3- *Abies alba* (abete bianco).

Pacch. 3: frammento di trave.
Carbone esaminato: 1.
Dimensioni: 4- l cm 2,1; La cm 5,4 con 27 anelli di accrescimento; h cm 4,3.
Taxon: 4- *Abies alba* (abete bianco).

Pacch. 4 frammenti di carbone.
Carbone esaminato: 1.
Dimensioni: 5- l cm 2; La cm 7 con 36 anelli di accrescimento in cm 4,8; h cm 6.
Taxon: 5- *Picea abies* (abete rosso).

Tipo di reperto: 1-, 2-, 3-, 4- palo; 5- legno da costruzione.

***Campione:* 16.**
Fase: 1.
Contenuto: probabile unico reperto ridotto in grosse scaglie.
Carbone esaminato: 1.
Dimensioni: l cm 5; La cm 2,2 con 10 anelli di accrescimento; h cm 5.

Vrečka 3: odlomek bruna.
Vzorčeni primerki: 1.
Velikost: 4- dl. 2,1 cm; šir. 5,4 cm s 27 branikami; viš. 4,3 cm.
Takson: 4- *Abies alba* (navadna jelka).

Vrečka 4: štirje koščki oglja.
Vzorčeni primerki: 1.
Velikost: 5- dl. 2 cm; šir. 7 cm s 36 branikami v 4,8 cm; viš. 6 cm.
Takson: Picea abies (navadna smreka).

Namembnost: 1-, 2-, 3-, 4- kol; 5- gradbeni les.

***Vzorec:* 16.**
Faza: 1.
Vsebina: deli verjetno istega kosa, razpadlega v velike luske.
Vzorčeni primerki: 1.
Velikost: dl. 5 cm; šir. 2,2 cm z 10 branikami; viš. 5 cm.
Takson: Pinus sylvestris/montana (rdeči bor/rušje).
Namembnost: deska.

***Vzorec:* 17.**
Faza: 1.
Vsebina: nesestavljivi odlomki oglja, pomešani z zemljo; plesen.
Vzorčeni prmerki: 1.
Velikost: dl. 1,5 cm; šir. 0,8 cm s 4 branikami; viš. 2 cm.
Takson: Pinus sylvestris/montana (rdeči bor/rušje).
Namembnost: kol.

***Vzorec:* 18.**
Faza: 1.
Vsebina: v majhne dele razdeljen kos oglja.
Vzorčeni primerki: 1.
Velikost: dl. celotnega vzorca 18 cm; šir. 6 cm s 5 branikami; viš. 3 cm.
Takson: Pinus sylvestris/montana (rdeči bor/rušje).
Namembnost: deska.

***Vzorec:* 19.**
Faza: 1.
Vsebina: luske istega kosa oglja.
Vzorčeni primerki: 1.
Velikost: viš. 20 cm, sploščen.
Takson: Pinus sylvestris/montana (rdeči bor/rušje).
Namembnost: deska.

***Vzorec:* 20.**
Faza: 1.
Vsebina: deli prvotno istega kosa oglja.
Vzorčeni primerki: 1.
Velikost: viš. 8,5 cm; 4 branike v širini okoli 0,3 cm.
Takson: Pinus sylvestris/montana (rdeči bor/rušje).
Namembnost: kol.

Taxon: Pinus sylvestris/montana (pino silvestre/montano).
Tipo di reperto: asse.

***Campione:* 17.**
Fase: 1.
Contenuto: frammenti di carbone misti a terra, non ricomponibili; muffa.
Carbone esaminato: 1.
Dimensioni: l cm 1,5; La cm 0, 8 con 4 anelli di accrescimento; h cm 2.
Taxon: Pinus sylvestris/montana (pino silvestre/montano).
Tipo di reperto: palo.

***Campione:* 18.**
Fase: 1.
Contenuto: carbone suddiviso in piccole porzioni.
Carbone esaminato: 1.
Dimensioni: di tutto il campione; 1- l cm 1,8; La cm 0,6 con 5 anelli di accrescimento; h cm 3.
Taxon: Pinus sylvestris/montana (pino silvestre/montano).
Tipo di reperto: asse.

***Campione:* 19.**
Fase: 1.
Contenuto: carbone in scaglie, originariamente unico.
Carbone esaminato: 1.
Dimensioni: h 20; tabulare.
Taxon: Pinus sylvestris/montana (pino silvestre/montano).
Tipo di reperto: asse.

***Campione:* 20.**
Fase: 1.
Contenuto: carbone originariamente unico.
Carbone esaminato: 1.
Dimensioni: h cm 8,5; 4 anelli in ca cm 0,3 di spessore.
Taxon: Pinus sylvestris/montana (pino silvestre/montano).
Tipo di reperto: palo.

***Campione:* 21.**
Fase: 1.
Contenuto: carbone originariamente unico.
Carbone esaminato: 1.
Dimensioni: l cm 3,8; La cm 10 con ca 10 anelli; h cm 4; Ø max > 10 cm.
Taxon: Pinus sylvestris/montana (pino silvestre/montano).
Tipo di reperto: palo.

***Campione:* 22.**
Fase: 1.
Contenuto: carbone originariamente unico, ridotto in scaglie.
Carbone esaminato: 1.
Dimensioni: 1- l cm 1,9; La cm 0,7 con 8 anelli di accrescimento; h cm 2,6.
Taxon: Abies alba (abete bianco).
Tipo di reperto: tavola del pavimento.

***Vzorec:* 21.**
Faza: 1.
Vsebina: deli prvotno istega kosa oglja.
Vzorčeni primerki: 1.
Velikost: dl. 3,8 cm; šir. 10 cm z okoli 10 branikami; viš. 4 cm; Ø največ > 10 cm.
Takson: Pinus sylvestris/montana (rdeči bor/rušje).
Namembnost: kol.

***Vzorec:* 22.**
Faza: 1.
Vsebina: prvotno enovit kos oglja, razpadel v luske.
Vzorčeni primerki: 1.
Velikost: 1- dl. 1,9 cm; šir. 0,7 cm z 8 branikami; viš. 2,6 cm.
Takson: Abies alba (navadna jelka).
Namembnost: podnica.

***Vzorec:* 23.**
Faza: 1.
Vsebina: fragmenti slabo ohranjenega oglja; stisnjen les.
Vzorčeni primerki 1.
Velikost: neizmerjena, premajhni primerki.
Takson: Abies alba (navadna jelka).
Namembnost: podnica.

***Vzorec:* 24.**
Faza: 1.
Vsebina: prvotno enovit kos oglja prizmatične oblike s četverokotno bazo.
Vzorčeni primerki: 1.
Velikost: celotni vzorec dl. 2,3 cm; šir. 1 cm z maloštevilnimi branikami; viš. okoli 7 cm.
Velikost vzorčenega primerka: dl. 2 cm; šir. 1 cm z dvema branikama.
Takson: Abies alba (navadna jelka).
Namembnost: podnica.

***Vzorec:* 25.**
Faza: 1.
Vsebina: oglje sprijeto na geološko osnovo.
Vzorčeni primerki: 1.
Velikost: šir. 0,1 cm; viš. 0,4 cm.
Takson: 1- cfr. *Abies alba* (navadna jelka).
Namembnost: podnica.

***Vzorec:* 26.**
Faza: 1.
Vsebina: drobci oglja pomešani z zemljo, tudi sprijeti s podlago.
Vzorčeni primerki: 1.
Velikost: največ 0,4 cm.
Takson: Abies alba (navadna jelka).
Namembnost: podnica.

***Vzorec:* 27.**
Faza: 1.
Vsebina: koščki zelo drobljivega oglja.

***Campione:* 23.**
Fase: 1.
Contenuto: frammenti di carbone mal conservato; legno di compressione.
Carbone esaminato: 1.
Dimensioni: carboni piccoli, non prese.
Taxon: Abies alba (abete bianco).
Tipo di reperto: tavola del pavimento.

***Campione:* 24.**
Fase: 1.
Contenuto: carbone originariamente unico, di forma prismatica con base quadrangolare.
Carbone esaminato: 1.
Dimensioni: l totale del campione cm 2,3; La cm 1 con pochi anelli di accrescimento; h ca cm 7.
Dimensioni del carbone esaminato: l cm 2; La cm 1 con 2 anelli di accrescimento.
Taxon: Abies alba (abete bianco).
Tipo di reperto: tavola del pavimento.

***Campione:* 25.**
Fase: 1.
Contenuto: spalmatura di carbone.
Carbone esaminato: 1.
Dimensioni: La cm 0,1; h cm 0,4.
Taxon: Abies alba (abete bianco).
Tipo di reperto: tavola del pavimento.

***Campione:* 26.**
Fase: 1.
Contenuto: briciole di carbone misti a terra, anche spalmature.
Carbone esaminato: 1.
Dimensione: massima cm 0,4.
Taxon: Abies alba (abete bianco).
Tipo di reperto: tavola del pavimento.

***Campione:* 27.**
Fase: 1.
Contenuto: frammenti di carbone molto friabili.
Carbone esaminato: 1.
Dimensioni: l cm 0,9; La cm 0,4; h cm 1,5.
Taxon: Abies alba (abete bianco).
Tipo di reperto: tavola del pavimento.

***Campione:* 28.**
Fase: 1.
Contenuto: un sacchetto contenente diversi sacchettini; sono stati esaminati due campioni all'interno di un sacchetto; si tratta di due carboni sovrapposti (A e B) entrambi con forma prismatica a base quadrangolare irregolare.
Carboni esaminati: 2.
Dimensioni:
A- l cm 5; La cm 2 con 27 anelli di accrescimento; h cm 4,6.
B- l cm 4,5; La cm 1,6; h cm 3.
Taxon: A1-, B1- *Picea/Larix* (abete rosso/larice).
Tipo di reperto: tavola del pavimento.

Vzorčeni primerki: 1.
Velikost: dl. 0,9 cm; šir. 0,4 cm; viš. 1,5 cm.
Takson: Abies alba (navadna jelka).
Namembnost: podnica.

***Vzorec:* 28.**
Faza: 1.
Vsebina: vzorec je bil shranjen v eni večji vrečki z več manjšimi; obravnavana sta bila dva primerka (A in B) iz ene od vrečk, ležeča eden vrh drugega, oba prizmatične oblike z nepravilno četverokotno bazo.
Vzorčeni primerki: 2.
Velikost:
A- dl. 5 cm; šir. 2 cm s 27 branikami; viš. 4,6 cm.
B- dl. 4,5 cm; šir. 1,6 cm; viš. 3 cm.
Takson: Picea/Larix (smreka/macesen).
Namembnoist: podnica.

***Vzorec:* 29.**
Faza: 1.
Vsebina: zdrobljen, zelo tanek fragment oglja, sprijet s podlago.
Vzorčeni primerki: 1.
Velikost: dl. 7 cm; šir. 4 cm; viš. 8 cm.
Takson: Abies alba (navadna jelka).
Namembnost: verjetno podnica

***Vzorec:* 30.**
Faza: 1.
Vsebina: nekoliko zdrobljen primerek oglja.
Vzorčeni primerki: 1.
Velikost: dl. 6 cm; šir. 2 cm; viš. 12 cm.
Takson: 1- cfr. *Abies alba* (navadna jelka).
Namembnost: podnica.

***Vzorec:* 31.**
Faza: 1.
Vsebina: zdrobljeno oglje, sprijeto s podlago.
Vzorčeni primerki: 1.
Takson: cfr. *Pinus sylvestris/montana* (rdeči bor/rušje).
Namembnost: podnica.

***Vzorec:* 32.**
Faza: 1.
Vsebina: zdrobljeno oglje.
Vzorčeni primerki: 1.
Velikost: dl.0,9 cm; šir. 0,3 cm; viš. 1,5 cm.
Takson: Pinus sylvestris/montana (rdeči bor/rušje).
Namembnost: podnica.

***Vzorec:* 33.**
Faza: 1.
Vsebina: oglje sprijeto s podlago.
Vzorčeni primerki: 1.
Velikost: celotnega vzorca dl. 7 cm; šir. 5 cm; viš. 5 cm.
Takson: cfr. *Abies alba* (navadna jelka).
Namembnoist: podnica.

***Campione:* 29.**
Fase: 1.
Contenuto: frammento sbriciolato su sedimento, sottilissimo (spalmatura).
Carboni esaminati: 1.
Dimensioni: l cm 7; La cm 4; h cm 8.
Taxon: Abies alba (abete bianco).
Tipo di reperto: probabile tavola del pavimento.

***Campione:* 30.**
Fase: 1.
Contenuto: unico frammento un po' sbriciolato.
Carbone esaminato: 1.
Dimensioni: l cm 6; La cm 2; h cm 12.
Taxon: Abies alba (abete bianco).
Tipo di reperto: tavola del pavimento.

***Campione:* 31.**
Fase: 1.
Contenuto: carbone sbriciolato e spalmatura.
Carbone esaminato: 1 (spalmatura).
Taxon: Pinus sylvestris/montana (pino silvestre/montano).
Tipo di reperto: tavola del pavimento.

***Campione:* 32.**
Fase: 1.
Contenuto: carbone sbriciolato.
Carbone esaminato: 1.
Dimensioni: l cm 0,9; La cm 0,3; h cm 1,5.
Taxon: Pinus sylvestris/montana (pino silvestre/montano).
Tipo di reperto: tavola del pavimento.

***Campione:* 33.**
Fase: 1.
Contenuto: spalmatura.
Carbone esaminato: 1.
Dimensioni: di tutto il Campione: l cm 7; La cm 5; h cm 5.
Taxon: Abies alba (abete bianco).
Tipo di reperto: tavola del pavimento.

***Campione:* 34**
Fase: 1.
Contenuto: carbone frantumato.
Carbone esaminato: 1.
Dimensioni: l cm 1,3; La cm 0,5; h cm 2,2.
Taxon: Abies alba (abete bianco).
Tipo di reperto: tavola del pavimento.

***Campione:* 35.**
Fase: 1.
Contenuto: resti di due assi incastrate.
Carboni esaminati: 2 (A, B).
Dimensioni:
A- l cm 5; La cm 0,3 (spalmatura); h cm 14.
B- l cm 5; La cm 2; h cm 9.

***Vzorec:* 34.**
Faza: 1.
Vsebina: zdrobljeno oglje.
Vzorčeni primerki: 1.
Velikost: dl. 1,3 cm; šir. 0,5 cm; viš. 2,2 cm.
Takson: cfr. *Abies alba* (navadna jelka).
Namembnost: podnica.

***Vzorec:* 35.**
Faza: 1.
Vsebina: zogleneli deli dveh v izseku spojenih desk.
Vzorčeni primerki: 2.
Velikost:
A- dl. 5 cm; šir. 0,3 cm (oglje je sprijeto na podlago); viš. 14 cm.
B- dl. 5 cm; šir. 2 cm; viš. 9 cm.
Taksoni:
A- *Abies alba* (navadna jelka).
B- *Pomoideae* (hruška/jablana/glog/jerebika)
Namembnost: (A-) podnica; (B-) obdelan les (glej tudi vzorec 47).

***Vzorec:* 36. vzorec.**
Faza: 1.
Vsebina: v več delov razlomljena veja; na enem koncu je zašiljena.
Vzorčeni primerki: 1.
Velikost: Ø konice 0,7 cm; na sredini 1,3 cm; na neošiljenem koncu 1,5 cm; 7 branik v 0,8 cm; viš. okoli 11 cm.
Takson: Corylus avellana L. (leska).
Opomba: sledi obdelave na neošiljenem koncu.
Namembnost: obdelan les.

***Vzorec:* 37.**
Faza: 1.
Vsebina: trije fragmenti manjšega tramiča z luknjicami lesnih organizmov.
Vzorčeni primerki: 1.
Velikost: dl. 1,3 cm; šir. 3 cm z 9 branikami; viš. 8,5 cm.
Takson: Fagus sylvatica (bukev).
Namembnost: obdelan les.

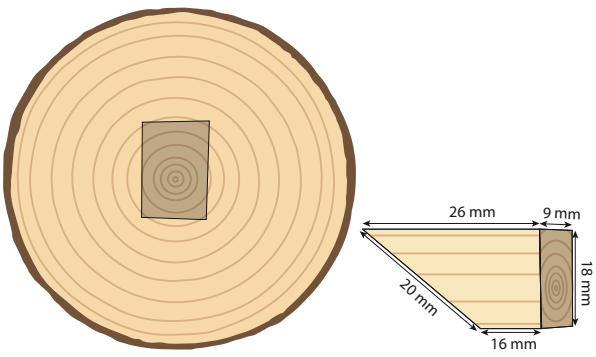
***Vzorec:* 38.**
Faza: 1.
Vsebina: z zemljo pomešano zdrobljeno oglje (A, B).
Vzorčeni primerki: 2.
Velikost:
A- dl. 3,2 cm; šir, 0,6 cm s 14 branikami; viš. 5,3 cm.
B- viš. 8 cm; sodeč po prečnem prerezu pripada središčnemu predelu veje (dl. 1,8 cm x šir. 0,9 cm).
Taksoni:
A- *Pinus sylvestris/montana* (rdeči bor/rušje).
B- *Pomoideae* (hruška/jablana/glog/jerebika).
Namembnost: A- gradbeni les; B- obdelan les (*sl. 51*).

Taxa:
A- *Abies alba* (abete bianco).
B- *Pomoideae* (pero/melo/biancospino/sorbo).
Tipo di reperto: (A-) tavola del pavimento; (B-) legno lavorato (vedi anche camp. 47).

***Campione:* 36.**
Fase: 1.
Contenuto: ramo scortecciato diviso in più porzioni, appuntito ad una estremità.
Carbone esaminato: 1.
Dimensioni: punta con Ø cm 0,7; al centro Ø cm 1,3; all'estremità non appuntita Ø cm 1,5; 7 anelli di accrescimento in cm 0,8 di spessore; h ca cm 11.
Taxon: Corylus avellana L. (nocciolo).
Osservazioni: tracce di lavorazione all'estremità non appuntita.
Tipo di reperto: legno lavorato.

***Campione:* 37.**
Fase: 1.
Contenuto: porzione di piccola trave divisa in tre frammenti; fori di organismi lignivori.
Carbone esaminato: 1.
Dimensioni: l cm 1,3; La cm 3 con 9 anelli di accrescimento; h cm 8,5.
Taxon: Fagus sylvatica (faggio).
Tipo di reperto: legno lavorato.

***Campione:* 38.**
Fase: 1.
Contenuto: carbone sbriciolato misto a terra (A, B).
Carbone esaminato: 2.
Dimensioni:
A- l cm 3,2; La cm 0,6 con 14 anelli di accrescimento; h cm 5,3.
B- h cm 8; la sezione trasversale è la parte centrale di un ramo (l cm 1,8 x La cm 0,9).
Taxa:
A- *Pinus sylvestris/montana* (pino silvestre/montano).
B- *Pomoideae* (pero/melo/biancospino/sorbo).
Tipo di reperto: A-legno da costruzione; B- legno lavorato (*fig. 51*).



Sl. 51: Hiša 16; vzorec 38/B.
Fig. 51: Casa 16; campione 38/B.

***Vzorec:* 39.**
Faza: 1.
Vsebina: fragmeniran kos prvotno istega kosa oglja.
Vzorčeni primerki: 1.
Velikost: dl. 2,6 cm; šir. 1,5 cm.
Pomoideae (hruška/jablana/glog/jerebika).
Namembnost: obdelan les.

***Vzorec:* 40.**
Faza: 1.
Vsebina: dva majhna odlomka oglja.
Vzorčeni primerki: 1.
Velikost: Ø 1,8 x 1,5 cm; tri branike v 0,7 cm; viš. 1,2 cm.
Takson: Pomoideae (hruška/jablana/glog/jerebika).
Namembnost: obdelan les.

***Vzorec:* 41.**
Faza: 1.
Vsebina: deli različno širokega kosa lesa (deske).
Vzorčeni primerki: 1.
Velikost: dl. največ 5 cm, najmanj 4,5 cm; šir. 1,5 do 2 cm z okoli 12 branikami, ki na nekaterih mestih niso vidne; viš. 23 cm.
Takson: Fagus sylvatica (bukev).
Opomba: anatomske strukture lesa so pokvarjene zaradi lesnih škodljivcev (organizmov), katerih luknjice so široke okoli 1,5 mm; na kosu ni zanesljivih znamenj obdelave, vendar bi lahko pripadal steni lesene posode.
Namembnost: obdelan les.

***Vzorec:* 42.**
Faza: 1.
Vsebina: zdrobljeno oglje.
Vzorčeni primerki: 1.
Velikost: dl. 1,2 cm; šir. 3 cm; viš. 2 cm.
Takson: Fagus sylvatica (bukev).
Namembnost: obdelan les.

***Vzorec:* 43.**
Faza: 1.
Vsebina: koščki oglja skromnih dimenzij.
Vzorčeni primerki: 1.
Velikost: dl. 10 cm; šir. 0,4 cm; viš. 2,3 cm.
Takson: Abies alba (navadna jelka).
Namembnost: obdelan les.

***Vzorec:* 44.**
Faza: 1.
Vsebina: prvotno enovit kos oglja, na nekaterih mestih je sprijet s podlago.
Vzorčeni primerki: 1.
Velikost: dl. 4 cm; viš. okoli 14 cm.
Takson: Abies alba (navadna jelka).
Namembnost: obdelan les.

***Campione:* 39.**
Fase: 1.
Contenuto: unico reperto frammentato.
Carbone esaminato: 1.
Dimensioni: l cm 2,6; La cm 1,5.
Taxon: Pomoideae (pero/melo/biancospino/sorbo).
Tipo di reperto: legno lavorato.

***Campione:* 40.**
Fase: 1.
Contenuto: due piccoli frammenti.
Carbone esaminato: 1.
Dimensioni: Ø cm 1,8 x 1,5; 3 anelli di accrescimento in 0,7 cm; h cm 1,2.
Taxon: Pomoideae (pero/melo/biancospino/sorbo).
Tipo di reperto: legno lavorato.

***Campione:* 41.**
Fase: 1.
Contenuto: porzione di asse frammentata con larghezza variabile.
Carbone esaminato: 1
Dimensioni: l max cm 5, min cm 4,5; La cm 1,5-2, con ca 12 anelli di accrescimento in alcuni punti non visibili; h cm 23.
Taxon: Fagus sylvatica (faggio).
Osservazioni: le strutture anatomiche sono alterate dalla presenza di organismi lignivori, la larghezza dei fori è mm 1,5 ca; non ci sono evidenti trace di lavorazione, tuttavia potrebbe essere una parte di contenitore di legno, parte della parete.
Tipo di reperto: legno lavorato.

***Campione:* 42.**
Fase: 1.
Contenuto: carbone sbriciolato.
Carboni esaminati: 1.
Dimensioni: l cm 1,2; La cm 3; h cm 2.
Taxon: Fagus sylvatica (faggio).
Tipo di reperto: legno lavorato.

***Campione:* 43.**
Fase: 1.
Contenuto: pochi carboni di dimensioni modeste.
Carbone esaminato: 1.
Dimensioni: l cm 10; La cm 0,4; h cm 2,3.
Taxon: Abies alba (abete bianco).
Tipo di reperto: legno lavorato.

***Campione:* 44.**
Fase: 1.
Contenuto: reperto originariamente unico, in alcuni punti anche spalmatura.
Carbone esaminato: 1.
Dimensioni: di tutto il campione 1- l cm 4; h ca cm 14.
Taxon: Abies alba (abete bianco).
Tipo di reperto: legno lavorato.

***Vzorec:* 45.**
Faza: 1.
Vsebina: kos oglja.
Vzorčeni primerki: 1.
Velikost: dl. 4 cm; šir. 2 cm z 12 branikami v 0,8 cm; viš. 12 cm.
Takson: Abies alba (navadna jelka).
Namembnost: obdelan les.

***Vzorec:* 46.**
Faza: 1.
Vsebina: kos oglja, verjetno del bruna.
Vzorčeni primerki: 1.
Velikost: dl. 3,5 cm; šir. 1,8 cm s 6 branikami; viš. 4 cm.
Takson: Fagus sylvatica (bukev).
Namembnost: obdelan les.

***Vzorec:* 47.**
Faza: 1.
Vsebina: z zemljo pomešani majhni koščki oglja.
Vzorčeni primerki: 1.
Velikost: dl. 1,4 cm; šir. 0,8 cm; viš. 8 cm.
Takson: Pomoidae (hruška/jablana/glog/jerebika).
Namembnost: obdelan les.

***Vzorec:* 48.**
Faza: 2.
Vsebina: zdrobljen kos oglja.
Vzorčeni primerki: 1.
Velikost: dl. 0,9 cm; šir. 0,8; viš. 1,2 cm.
Takson: Quercus robur/petraea (dob/graden).
Namembnost: temeljni prag.

***Vzorec:* 49.**
Faza: 2.
Vsebina: oglje v luskah.
Vzorčeni primerki: 1.
Velikost: dl. 0,3 cm, šir. 0,9 cm, viš. 0,0 cm.
Takson: Quercus robur/petraea (dob/graden).
Namembnost: temeljni prag.

***Vzorec:* 50.**
Faza: 2.
Vsebina: zelo majhne sledi oglja z mineraloškimi vložki turkizne barve.
Takson: ni določljiv, vidni so le nekateri uniseriatni žarki.
Namembnost: temeljni prag.

***Vzorec:* 51.**
Faza: 2.
Vsebina: del trama sprijetega s podlago.
Vzorčeni primerki: 1.
Velikost: viš. sprimka 8 cm.
Takson: Quercus robur/petraea (dob/graden).
Namembnost: temeljni prag.

***Campione:* 45.**
Fase: 1.
Contenuto: unico carbone.
Carbone esaminato: 1.
Dimensioni: l cm 4; La cm 2 con 12 anelli in cm 0,8; h cm 12.
Taxon: Abies alba (abete bianco).
Tipo di reperto: legno lavorato.

***Campione:* 46.**
Fase: 1.
Contenuto: frammento unico; porzione di probabile trave.
Carbone esaminato: 1.
Dimensioni: l cm 3,5; La cm1,8 con ca 6 anelli di accrescimento; h cm 4.
Taxon: Fagus sylvatica (faggio).
Tipo di reperto: legno lavorato.

***Campione:* 47.**
Fase: 1.
Contenuto: piccoli frammenti di carbone misti a terra.
Carbone esaminato: 1.
Dimensioni: l cm 1,4; La cm 0,8; h cm 8.
Taxon: Pomoideae (pero/melo/biancospino/sorbo).
Tipo di reperto: legno lavorato.

***Campione:* 48.**
Fase: 2.
Contenuto: carbone unico sbriciolato.
Carbone esaminato: 1.
Dimensioni: l cm 0,9; La cm 0,8; h cm 1,2.
Taxon: Quercus robur/petraea (farnia/rovere).
Tipo di reperto: trave dormiente.

***Campione:* 49.**
Fase: 2.
Contenuto: carbone ridotto in scaglie sporche di terra.
Carbone esaminato: 1.
Dimensioni: l cm 0,3; La cm 0,9; h cm 0,8.
Taxon: Quercus robur/petraea (farnia/rovere).
Tipo di reperto: trave dormiente.

***Campione:* 50.**
Fase: 2.
Contenuto: minime tracce di carbone in inclusi mineralogici color turchese.
Taxon: n.d. visibili solo alcuni raggi uniseriati.
Tipo di reperto: trave dormiente.

***Campione:* 51.**
Fase: 2.
Contenuto: porzione di trave con sedimento (spalmatura).
Carbone esaminato: 1.
Dimensioni: h cm 8 della spalmatura.
Taxon: Quercus robur/petraea (farnia/rovere).
Tipo di reperto: trave dormiente.

HIŠA 20 (*sl. 52*)

***Vzorec:* 1.**
Vsebina: koščki oglja.
Vzorčeni primerki: 1.
Velikost: r. 1,6 cm, šir. 1,8 cm, s 16 branikami; viš. 3,5 cm.
Takson: Abies alba (navadna jelka).
Namembnost: gradbeni les, podnica.

***Vzorec:* 2.**
Vsebina: majhni drobci oglja.
Vzorčeni primerki: 1.
Velikost: dl. 1cm; šir. 0,5 cm; viš. 1,2 cm.
Takson: Quercus robur/petraea (dob/graden).
Namembnost: temeljni prag.

***Vzorec:* 3.**
Vsebina: zdrobleno oglje (1-) in en večji prav tako zdrobljen kos oglja (2-); skupna viš. 10 cm; dva kosa sta združljiva v en sam kos oglja.
Vzorčeni primerki: 2.
Velikost:
1- dl. 0,8 cm; šir. 0,3 cm; viš. 1 cm.
2- dl. 0,1cm; šir. 0,5 cm; viš. 1,4 cm.
Takson: 1-, 2- *Quercus robur/petraea* (dob/graden).
Namembnost: soha.

***Vzorec:* 4.**
Vsebina: zdrobljeno oglje.
Vzorčeni primerki: 1.
Velikost: dl. 0,4 cm; šir. 0,5 cm; r. okoli 8 cm s 15 branikami v 0,9 cm.
Takson: Quercus robur/petraea (dob/graden).
Namembnost: temeljni prag.

***Vzorec:* 5.**
Vsebina: fragmentirani fragmente oglja.
Vzorčeni primerki: 1.
Velikost: dl. 1,1 cm; šir. 0,8 cm; viš. 2,1 cm.
Takson: Abies alba (navadna jelka).
Namembnost: podnica.

***Vzorec:* 6.**
Vsebina: fragmenti oglja.
Vzorčeni primerki: 2.
Velikost:
1- dl. 0,8 cm; šir. 0,8 cm; viš. 1,2 cm.
2- dl. 1,5 cm; šir. 0,5 cm; viš. 1,5 cm.
Takson: Fraxinus sp. (jesen).
Namembnost: ploh za stenski opaž.

***Vzorec:* 7. vzorec.**
Vsebina: velik kos zdrobljenega oglja.
Vzorčeni primerki: 1.
Velikost; dl. 0,1 cm, šir. 0,5 cm, viš. 1,4 cm.
Takson: Quercus robur/petraea (dob/graden).
Namembnost: temeljni prag.

CASA 20 (*fig. 52*)

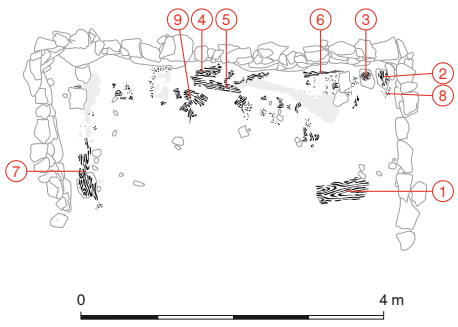
***Campione:* 1.**
Contenuto: carbone in pezzi.
Carbone esaminato: 1.
Dimensioni: r cm 1,6; La cm 1,8 con 16 anelli di accrescimento; h cm 3,5.
Taxon: Abies alba (abete bianco).
Tipo di reperto: legno da costruzione.

***Campione:* 2.**
Contenuto: piccoli carboni.
Carbone esaminato: 1.
Dimensioni: l cm 1; La cm 0,5; h cm 1,2.
Taxon: Quercus robur/petraea (farnia/rovere).
Tipo di reperto: trave dormiente.

***Campione:* 3.**
Contenuto: carbone sbriciolato (1-), grosso carbone sbriciolato (2-); h totale cm 10; due frammenti sono riconducibili a un solo pezzo di legno.
Carboni esaminati: 2.
Dimensioni:
1- l cm 0,8; La cm 0,3; h cm 1.
2- l cm 0,1; La cm 0,5; h cm 1,4.
Taxon: 1-, 2- *Quercus robur/petraea* (farnia/rovere).
Tipo di reperto: pilastro.

***Campione:* 4.**
Contenuto: carbone sbriciolato.
Carbone esaminato: 1.
Dimensioni: l cm 0,4; La cm 0,5; r ca 8 cm con 15 anelli di accrescimento in cm 0,9.
Taxon: Quercus robur/petraea (farnia/rovere).
Tipo di reperto: trave dormiente.

***Campione:* 5.**
Contenuto: frammenti di carbone anche deformati.
Carbone esaminato: 1.
Dimensioni: l cm 1,1; La cm 0,8; h cm 2,1.
Taxon: Abies alba (abete bianco).
Tipo di reperto: legno da costruzione



Sl. 52: Hiša 20; pozicije vzorcev.
Fig. 52: Casa 20; posizioni dei campioni.

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Sl. 53: Hiša 22 (faza 1); pozicije vzorcev.
Fig. 53: Casa 22 (fase 1); posizioni dei campioni.

***Vzorec:* 8.**
Vsebina: zdrobljeno oglje.
Vzorčeni primerki: 1.
Velikost: dl. 1,3 cm, šir. 2,1 cm, s 13 branikami; viš. 2,1 cm.
Takson: Quercus robur/petraea (dob/graden).
Namembnost: gradbeni les.

***Vzorec:* 9.**
Vsebina: veliki kosi oglja; Ø največ > 14 cm, dl. > 6 cm.
Vzorčeni primerki: 2.
Velikost:
1- dl. 4 cm; šir. 2,5 cm z 11 branikami; viš. 2,5 cm.
2- šir. 2,5 cm s 27 branikami; oglje je stisnjeno; Ø največ 8 cm.
Takson: Abies alba (navadna jelka).
Namembnost: gradbeni les.

HIŠA 22 (*sl. 53*)

***Vzorec:* 1.**
Faza: 1 (polnilo jame 4).
Vsebina: koščki oglja neznatnih dimenzij.
Vzorčeni primerki: 5.
Velikost:
1- preluknjan odlomek oglja (Ø predrtine 0,6 cm); dl. 2 cm; šir. 1 cm; Ø največ 3 cm; viš. 2,7 cm.
2- dl. 2 cm; šir. 1 cm; Ø največ 3 cm; viš. 3,4 cm.
Taksona:
1- *Pinus sylvestris/montana* (rdeči bor/rušje).
2-, 3-, 4-, 5- *Quercus robur/petraea* (dob/graden).
Namembnost: gradbeni les.

***Vzorec:* 2.**
Faza: 1 (polnilo jame 4).
Vsebina: drobci oglja, pomešani v sedimentu.
Vzorčeni primerki: 3.
Velikost: 1-, 2-, 3- viš. < 1 cm.
Takson: Fagus sylvatica (bukev).
Namembnost: gradbeni les.

***Campione:* 6.**
Contenuto: frammenti di carbone.
Carboni esaminati: 2.
Dimensioni:
1- l cm 0,8; La cm 0,8; h cm 1,2.
2- l cm 1,5; La cm 0,5; h cm 1,5.
Taxon: 1-, 2- *Fraxinus* sp. (frassino).
Tipo di reperto: tavola della chiusura esterna.

***Campione:* 7.**
Contenuto: grosso carbone sbriciolato.
Carbone esaminato: 1.
Dimensioni: 1- l cm 0,1; La cm 0,5; h cm 1,4.
Taxon: Quercus robur/petraea (farnia/rovere).
Tipo di reperto: trave dormiente.

***Campione:* 8.**
Contenuto: carbone frantumato.
Carbone esaminato: 1.
Dimensioni: l cm 1,3; La cm 2,1 con 13 anelli di accrescimento; h cm 2,1.
Taxon: Quercus robur/petraea (farnia/rovere).
Tipo di reperto: tavola della chiusura esterna

***Campione:* 9.**
Contenuto: grossi pezzi di carbone; Ø max > cm 14; l > cm 6.
Carboni esaminati: 2.
Dimensioni:
1- l cm 4; La cm 2,5 con 11 anelli di accrescimento; h cm 2,5.
2- La cm 2,5 con 27 anelli di accrescimento (carbone schiacciato); Ø max cm 8
Taxon: 1-, 2- *Abies alba* (abete bianco).
Tipo di reperto: legno da costruzione , probabile palo.

CASA 22 (*fig. 53*)

***Campione:* 1.**
Fase: 1 (riempimento della fossa 4).
Contenuto: carboni di modeste dimensioni.
Carboni esaminati: 5.
Dimensioni:
1- frammento con foro passante (Ø cm 0,6); l cm 2; La cm 1; Ø max cm 3; h cm 2,7.
2- l cm 2; La cm 1; Ø max cm 3; h cm 3,4.
Taxa:
1- *Pinus sylvestris/montana* (pino silvestre/montano).
2-, 3-, 4-, 5- *Quercus robur/petraea* (farnia/rovere).
Tipo di reperto: legno da costruzione.

***Vzorec:* 3.**
Faza: 1 (polnilo jame 4).
Vsebina: fragmenti oglja, deli istega kosa lesa.
Vzorčeni primerki: 1.
Velikost: r. 5 cm; Ø 10 cm.
Takson: Quercus robur/petraea (dob/graden).
Namembnost: gradbeni les.

HIŠA 23 (*sl. 54*)

***Vzorec:* 1.**
Faza: 2.
Vsebina: oglje v luskah, del istega kosa, pomešano in sprijeto s sedimentom.
Vzorčeni primerki: 1.
Velikost: dl. 3 cm; šir. 2 cm; viš. 4 cm.
Takson: Abies alba (navadna jelka).
Namembnost: gradbeni les.

***Vzorec:* 2.**
Faza: 2.
Vsebina: drobno oglje, pomešano ali sprijeto s sedimentom.
Vzorčeni primerki: 1.
Takson: Pinus sylvestris/montana (rdeči bor/rušje).
Namembnost: gradbeni les.

***Vzorec:* 3.**
Faza: 2.
Vsebina: oglje z grčami.
Vzorčeni primerki: 2.
Velikost:
1- Ø 4,5 x 3 cm; viš. 4 cm.
2- Ø 3 x 2 cm; viš. 4,5 cm.
Takson: 1-, 2- *Pinus sylvestris/montana* (rdeči bor/rušje).
Namembnost: gradbeni les.

***Vzorec:* 4.**
Faza: 2.
Vebina: en primerek oglja, pomešanega s sedimentom.
Vzorčeni primerki: 1.
Velikost: 1- dl. 4 cm; šir. 2,5 cm s 7 branikami; viš. 5,2 cm.
Takson: Quercus robur/petraea (dob/graden).
Namembnost: gradbeni les.

***Vzorec:* 5.**
Faza: 2.
Vsebina: verjetno ostanek bruna; precej veliki in povezljivi fragmenti.
Vzorčeni primerki: 1.
Velikost: 1- dl. 2,5 cm; šir. 3 cm z 12 branikami; viš. 3 cm.
Takson: Quercus robur/petraea (dob/graden).
Namembnost: gradbeni les.

***Vzorec:* 6.**
Faza: 2.
Vsebina: fragment kola z ohranjenim notranjim cilindrom.

***Campione:* 2.**
Fase: 1 (riempimento della fossa 4).
Contenuto: piccolissimi carboni misti a sedimento.
Carboni esaminati: 3.
Dimensioni: 1-, 2-, 3- h < cm 1.
Taxon: 1-, 2-, 3- *Fagus sylvatica* (faggio).
Tipo di reperto: legno da costruzione.

***Campione:* 3.**
Fase: 1 (riempimento della fossa 4).
Contenuto: reperto unico, frammentato.
Carbone esaminato: 1.
Dimensioni: r cm 5; Ø cm 10.
Taxon: Quercus robur/petraea (farnia/rovere).
Tipo di reperto: legno da costruzione.

CASA 23 (*fig. 54*)

***Campione:* 1.**
Fase: 2.
Contenuto: reperto unico misto a sedimento; poco carbone (scaglie e spalmature).
Carbone esaminato: 1.
Dimensioni: l cm 3; La cm 2; h cm 4.
Taxon: Abies alba (abete bianco).
Tipo di reperto: legno da costruzione.

***Campione:* 2.**
Fase: 2.
Contenuto: piccoli carboni misti a sedimento, anche spalmature.
Carbone esaminato: 1.
Taxon: Pinus sylvestris/montana (pino silvestre/montano).
Tipo di reperto: legno da costruzione.

***Campione:* 3.**
Fase: 2.
Contenuto: carboni con nodi.
Carboni esaminati: 2.
Dimensioni:
1- Ø cm 4,5 x 3; h cm 4.
2- Ø cm 3 x 2; h cm 4,5.
Taxon: 1-, 2- *Pinus sylvestris/montana* (pino silvestre/montano).
Tipo di reperto: legno da costruzione.

***Campione:* 4.**
Fase: 2.
Contenuto: carbone unico misto a sedimento.
Carbone esaminato: 1.
Dimensioni: l cm 4; La cm 2,5 con 7 anelli di accrescimento; h cm 5,2.
Taxon: Quercus robur/petraea (farnia/rovere).
Tipo di reperto: legno da costruzione.

Vzorčeni primerki: 1.
Velikost: Ø 6,3 x 6 cm na merljivi strani; opaznih je največ 17 branik; 6 branik v 4 mm; ni gotovo, če so tudi na drugi strani vzorca mere enake.
Takson: Pinus sylvestris/montana (rdeči bor/rušje).
Namembnost: gradbeni les, verjetno kol.

***Vzorec:* 7. vzorec**
Faza: 2.
Vsebina: majhni fragmenti oglja, tudi sprijeti s sedimentom.
Vzorčeni primerki: 1.
Velikost: 1- dl. 2 cm; šir. 0,6 cm; viš. 1,7 cm.
Takson: Quercus robur/petraea (dob/graden).
Namembnost: gradbeni les.

***Vzorec:* 8.**
Faza: 2.
Vsebina: del veje.
Vzorčeni primerki: 1.
Velikost: Ø 3 x 2,5 cm z 12 branikami na razdalji 1,5 cm.
Takson: Pinus sylvestris/montana (rdeči bor/rušje).
Namembnost: gradbeni les.

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Sl. 54: Hiša 23 (A: faza 1; B: faza 2); pozicije vzorcev.
Fig. 54: Casa 23 (A: fase; B: fase 2); posizioni dei campioni.

***Campione:* 5.**
Fase: 2.
Contenuto: residuo di probabile trave; frammenti piuttosto grossi in connessione.
Carbone esaminato: 1.
Dimensioni: l cm 2,5; La cm 3 con 12 anelli di accrescimento; h cm 3.
Taxon: Quercus robur/petraea (farnia/rovere).
Tipo di reperto: legno da costruzione.

***Campione:* 6.**
Fase: 2.
Contenuto: frammento di palo con cilindro centrale conservato.
Carbone esaminato: 1.
Dimensioni: Ø cm 6,3 x 6 a una estremità (misurabile); sono osservabili al massimo 17 anelli di accrescimento; 6 anelli in 4 mm; non si può dire se l'estremità opposta ha le stesse dimensioni di quella che si è potuta misurare.
Taxon: Pinus sylvestris/montana (pino silvestre/montano).
Tipo di reperto: legno da costruzione, probabile palo.

***Campione:* 7.**
Fase: 2.
Contenuto: piccoli carboni e spalmature.
Carbone esaminato: 1.
Dimensioni: l cm 2; La cm 0,6; h cm 1,7.
Taxon: Quercus robur/petraea (farnia/rovere).
Tipo di reperto: legno da costruzione.

***Campione:* 8.**
Fase: 2.
Contenuto: parte di ramo.
Carbone esaminato: 1.
Dimensioni: Ø cm 3 x 2,5; 12 anelli di accrescimento in un raggio di cm 1,5.
Taxon: Pinus sylvestris/montana (pino silvestre/montano).
Tipo di reperto: legno da costruzione.

***Campione:* 9.**
Fase: 2.
Contenuto: probabile unico reperto, forse porzione di trave.
Carbone esaminato: 1.
Dimensioni: l cm 1,7; La cm 1,3; h cm 1.
Taxon: Quercus robur/petraea (farnia/rovere).
Tipo di reperto: legno da costruzione.

***Campione:* 10.**
Fase: 1.
Contenuto: carbone ridotto in scaglie lunghe.

***Vzorec:* 9.**
Faza: 2.
Vsebina: verjetno enovit primerek, del bruna.
Vzorčeni primerki: 1.
Velikost: 1- dl. 1,7 cm; šir. 1,3 cm; viš. 1 cm.
Takson: Quercus robur/petraea (dob/graden).
Namembnost: gradbeni les.

***Vzorec:* 10.**
Faza: 1.
Vsebina: dolge luske oglja.
Vzorčeni primerki: 1.
Velikost celotnega vzorca: dl. 8 cm, šir. 1,3 cm, viš. 6,5 cm.
Velikost vzorčenega primerka: dl. 2,1 cm, šir. 1,5 cm, s 4 branikami, viš. 6,5 cm.
Takson: Picea abies (navadna smreka).
Namembnost: soha.

***Vzorec:* 11.**
Faza: 1.
Vsebina: skupina precej velikih kosov oglja, ki se luščijo.
Vzorčeni primerki: 2.
Velikost:
1- dl. okoli 1 cm; viš. okoli 1 cm.
2- dl. okoli 1 cm.
Takson: 1-, 2- *Abies alba* (navadna jelka).
Namembnost: soha.

***Vzorec:* 12.**
Faza: 1.
Vsebina: številni precej veliki kosi, razpadli v luske.
Vzorčeni primerki: 1.
Velikost: dl. 3,6 cm; največji Ø ni določljiv; 9 branik v 1,6 cm; viš. 3,2 cm.
Takson: Picea abies (navadna smreka).
Namembnost: soha.

***Vzorec:* 13.**
Faza: 1.
Vsebina: del bruna.
Vzorčeni primerki: 1.
Velikost: dl. 9,6 cm; šir. 2,3 cm s 4 branikami na razdalji 2 cm; največji Ø > 20 cm; viš. 7,6 cm.
Takson: Picea abies (navadna smreka).
Namembnost: vogalna soha.

***Vzorec:* 14.**
Faza: 1.
Vsebina: večji kos oglja (1-), skupaj z drobci (2-); verjetno del istega kosa.
Vzorčeni primerki: 2.
Velikost: 1- viš. 8,6 cm; Ø 6,2 x 4 cm na eni strani; na drugi 4,6 x 4,6 cm; 15 branik v 3,1 cm.
Takson: 1-, 2- *Abies alba* (navadna jelka).
Namembnost: temeljni prag.

Carbone esaminato: 1.
Dimensioni di tutto il
Campione: l cm 8; La cm. 1,3; h cm 6,5.
Carbone esaminato: l cm 2,1; La cm 1,5 con 4 anelli di accrescimento; h cm 6,5.
Taxon: Picea abies (abete rosso).
Tipo di reperto: pilastro.

***Campione:* 11.**
Fase: 1.
Contenuto: gruppo di carboni piuttosto grossi, si sfaldano.
Carboni esaminati: 2.
Dimensioni:
1- l ca cm 1; h ca cm 1.
2- l ca cm 1.
Taxon: 1-, 2- *Abies alba* (abete bianco).
Tipo di reperto: pilastro.

***Campione:* 12.**
Fase: 1.
Contenuto: molti carboni piuttosto grossi misti a scaglie.
Carbone esaminato: 1.
Dimensioni: l cm 3,6; Ø max non calcolabile; 9 anelli di accrescimento in cm 1,6; h cm 3,2.
Taxon: Picea abies (abete rosso).
Tipo di reperto: pilastro.

***Campione:* 13.**
Fase: 1.
Contenuto: porzione di trave.
Carbone esaminato: 1.
*Dimensioni:*1- l cm 9,6; La cm 2,3 con 4 anelli di accrescimento in 2 cm; Ø max > 20 cm; h cm 7,6.
Taxon: Picea abies (abete rosso).
Tipo di reperto: pilastro angolare.

***Campione:* 14.**
Fase: 1.
Contenuto: carbone grosso (1-) con briciole di carbone (2-); probabile unico reperto.
Carboni esaminati: 2
Dimensioni:
1- h cm 8,6; Ø cm 6,2 x 4 a un'estremità; Ø cm 4,6 x 4,6 all'altra estremità ; 15 anelli di accrescimento in un raggio di cm 3,1.
2- non e stato misurato, piccolo.
Taxon: 1-, 2- *Abies alba* (abete bianco).
Tipo di reperto: trave dormiente.

***Campione:* 15.**
Fase: 1.
Contenuto: carbone misto a sedimento.
Carbone esaminato: 1.
Dimensioni: h max cm 1 (isodiamentrale).
Taxon: Quercus robur/petraea (farnia/rovere).
Tipo di reperto: legno da costruzione.

***Vzorec:* 15.**
Faza: 1.
Vsebina: s sedimentom pomešano oglje.
Vzorčeni primerki: 1.
Velikost: viš. največ do 1 cm (isodiametralen).
Takson: 1-, 2- *Quercus robur/petraea* (dob/graden).
Namembnost: gradbeni les.

***Vzorec:* 16.**
Faza: 1.
Vsebina: fragmenti oglja, ki so bili deli debla.
Vzorčeni primerki: 1.
Velikost: Ø 6,7 x 3,5 cm; več kot 43 branik v 4,5 cm.
Takson: 1- *Pinus sylvestris/montana* (rdeči bor/rušje).
Namembnost: gradbeni les.

***Vzorec:* 17.**
Faza: 1.
Vsebina: velik zdrobljen kos oglja, morda kola; oddeljeni so bili le manjši fragmenti.
Vzorčeni primerki: 1.
Velikost: viš. 6 cm; dl. 3,5 cm; Ø največ okoli 6 cm.
Takson: 1- *Abies alba* (navadna jelka).
Namembnost: gradbeni les.

***Vzorec:* 18.**
Faza: 1.
Vsebina: številni fragmenti oglja v sorazmerno velikih kosih.
Vzorčeni primerki: 1.
Velikost: Ø največ 6,5 cm; dl. 3,5 cm; šir. 3,2 cm s 35 branikami.
Takson: 1- *Pinus sylvestris/montana* (rdeči bor/rušje).
Namembnost: gradbeni les.

***Vzorec:* 19.**
Faza: 1.
Vsebina: odlomki oglja, ki so bili verjetno del istega kosa.
Vzorčeni primerki: 2.
Velikost:
1- največji Ø 7,5 cm; dl. 1,2 cm; šir. 1 cm; 15 branik v 0,8 cm; viš. 3,8 cm.
2- največji Ø 15 cm; dl. 1,6 cm; viš. 1 cm.
Takson: 1-, 2- *Pinus sylvestris/montana* (rdeči bor/rušje).
Namembnost: gradbeni les.

***Vzorec:* 20.**
Faza: 1.
Vsebina: fragmenti oglja, ki so povezljivi v en kos; trije fragmenti se lahko staknejo.
Vzorčeni primerki: 2.
Velikost:
1- dl. 4,5 cm; šir. 1,5 cm; rahla ukrivljenost; 10 branik v 1,5 cm; viš. 10 cm.
2- dl. 2 cm; šir. 0,6 cm s 5 branikami; viš. 2,5 cm.
Takson: 1-, 2- *Pinus sylvestris/montana* (rdeči bor/rušje).
Namembnost: gradbeni les (deska).

***Campione:* 16.**
Fase: 1.
Contenuto: porzione di tronco con vari frammenti.
Carbone esaminato: 1.
Dimensioni: Ø cm 6,7 x 3,5; più di 43 anelli di accrescimento in 4,5 cm.
Taxon: Pinus sylvestris/montana (pino silvestre/montano).
Tipo di reperto: legno da costruzione.

***Campione:* 17.**
Fase: 1.
Contenuto: grosso carbone frantumato, forse palo; sono stati prelevati solo piccoli frammenti.
Carbone esaminato: 1.
Dimensioni: h cm 6; l cm 3,5; Ø max ca cm 6.
Taxon: Abies alba (abete bianco).
Tipo di reperto: legno da costruzione.

***Campione:* 18.**
Fase: 1.
Contenuto: numerosi frammenti di pezzatura piuttosto grossa.
Carbone esaminato: 1.
Dimensioni: Ø max cm 6,5; l cm 3,5; La cm 3,2 con 35 anelli di accrescimento.
Taxon: Pinus sylvestris/montana (pino silvestre/montano).
Tipo di reperto: legno da costruzione.

***Campione:* 19.**
Fase: 1.
Contenuto: carboni probabilmente derivanti da un unico reperto.
Carboni esaminati: 2.
Dimensioni:
1- Ø max cm 7,5; l cm 1,2; La cm 1; 15 anelli di accrescimento in cm 0,8; h cm 3,8.
2- Ø max cm 15; l cm 1,6; h cm 1.
Taxon: 1-, 2- *Pinus sylvestris/montana* (pino silvestre/montano).
Tipo di reperto: legno da costruzione.

***Campione:* 20.**
Fase: 1.
Contenuto: carboni riconducibili a un unico reperto; tre frammenti sono in connessione.
Carboni esaminati: 2.
Dimensioni:
1- l cm 4,5; La cm 1,5; debole curvatura; 10 anelli di accrescimento in cm 1,5; h cm 10.
2- l cm 2; La cm 0,6 con 5 anelli di accrescimento; h cm 2,5.
Taxon: 1-, 2- *Pinus sylvestris/montana* (pino silvestre/montano).
Tipo di reperto: legno da costruzione (tavola).

***Campione:* 21.**
Fase: 1.
Contenuto: originariamente unico reperto.
Carboni esaminati: 2.

***Vzorec:* 21.**
Faza: 1.
Vsebina: prvotno enovit primerek oglja.
Vzorčeni primerki: 2.
Velikost:
1- dl. 1,8 cm; šir. 7 cm; 13 branik v 2 cm; viš. 7 cm.
2- dl. 3 cm; šir. 2,1 cm; viš. 4,4 cm.
Takson: 1-, 2- *Pinus sylvestris/montana* (rdeči bor/rušje).
Namembnost: gradbeni les.

***Vzorec:* 22.**
Faza: 1.
Vsebina: skupina odlomkov oglja srednje velikosti, pri katerih ni opazna zaobljenost.
Vzorčeni primerki: 3 (združljivi v en kos).
Velikost:
1- dl. 3 cm; šir. 2 cm z 9 branikami; viš. 6 cm.
2- dl. 3 cm; 7 branik v 0,7 mm; viš. 4,7 cm.
3- dl. 2 cm; šir. 5 cm z 22 branikami v 0,9 cm; viš. 4 cm.
Takson: 1-, 2-, 3- *Pinus sylvestris/montana* (rdeči bor/rušje).
Namembnost: gradbeni les.

***Vzorec:* 23.**
Faza: 1.
Vsebina: skupina odlomkov oglja, po obliki in obstojnosti podobni 20. vzorcu; skromne debeline; v nekaterih primerih sprijeti s podlago.
Vzorčeni primerki: 3.
Velikost:
1- odlomek majhne veje, viš. 3,7 cm; Ø 1,5-2,7 cm.
2- sploščen, viš. 3,4 cm; dl. 2,4 cm; šir. 1 cm.
3- sprijet na podlago, viš. 4 cm; dl. 2,7 cm; šir. 1 cm.
Takson: 1-, 2-, 3- *Pinus sylvestris/montana* (rdeči bor/rušje).
Namembnost: gradbeni les.

***Vzorec:* 24.**
Faza: 1.
Vsebina: skupina manjših sploščenih odlomkov oglja.
Vzorčeni primerki: 2.
Velikost:
1- viš. 3,2 cm; dl. 2,6 cm; šir. 6 cm.
2- viš. 3,6 cm.
Takson: 1-, 2- *Pinus sylvestris/montana* (rdeči bor/rušje).
Namembnost: gradbeni les.

HIŠA 24 (*sl. 55*)

***Vzorec:* 1.**
Faza: 2.
Vsebina: trije večji odlomki po vsej verjetnosti prvotno istega kosa z luknjicami lesnih parazitov; Ø luknjic 2-3 mm.
Vzorčeni primerki: 3.
Velikost:
1- največji Ø do 15 cm; dl. največ 2,8 cm; prepreden z lesnimi črvi po prečnem prerezu, spore gliv.
2- dl. 3,7 cm; šir. 2,6 cm z 2 branikama; zaobljenost ni opazna; prepreden z lesnimi črvi po tangencialnem prerezu.

Dimensioni:
1- l cm 1,8; La cm 7; 13 anelli in due cm di spessore; h cm 7.
2- l cm 3; La cm 2,1; h cm 4,4.
Taxon: 1-, 2- *Pinus sylvestris/montana* (pino silvestre/montano).
Tipo di reperto: legno da costruzione.

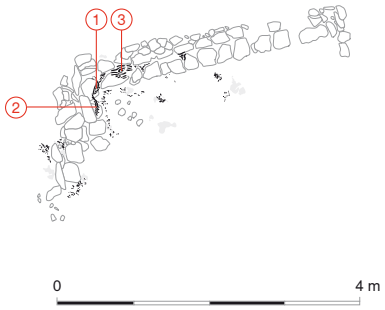
***Campione:* 22.**
Fase: 1.
Contenuto: serie di carboni di media grandezza, curvatura non osservabile.
Carboni esaminati: 3 (riconducibili a un unico reperto).
Dimensioni:
1- l cm 3; La cm 2 con 9 anelli di accrescimento; h cm 6.
2- l cm 3; 7 anelli in 0,7 cm; h cm 4,7.
3- l cm 2; La cm 5 con 22 anelli di accrescimento in cm 0,9; h cm 4.
Taxon: 1-, 2-, 3- *Pinus sylvestris/montana* (pino silvestre/montano).
Tipo di reperto: legno da costruzione.

***Campione:* 23.**
Fase: 1.
Contenuto: serie di carboni con forma e consistenza analoghe a quelle del campione 20; hanno debole spessore; in alcuni casi si tratta di spalmature.
Carboni esaminati: 3.
Dimensioni:
1- frammento di piccolo ramo; h cm 3,7; Ø cm 1,5-2,7.
2- frammento tabulare; h cm 3,4; l cm 2,4; La cm 1.
3- spalmatura h cm 4; l cm 2,7; La cm 1.
Taxon: 1-, 2-, 3- *Pinus sylvestris/montana* (pino silvestre/montano).
Tipo di reperto: legno da costruzione.

***Campione:* 24.**
Fase: 1.
Contenuto: serie di piccoli carboni tabulari.
Carboni esaminati: 2.
Dimensioni:
1- h cm 3,2; l cm 2,6; La cm 6.
2- h cm 3,6.
Taxon: 1-, 2- *Pinus sylvestris/montana* (pino silvestre/montano).
Tipo di reperto: legno da costruzione.

CASA 24 (*fig. 55*)

***Campione:* 1.**
Fase: 2.
Contenuto: tre carboni piuttosto grossi con fori di parassiti; con tutta probabilità originariamente un unico frammento; Ø dei fori 2-3 mm.
Carboni esaminati: 3.
Dimensioni:
1- Ø max fino a cm 15; l max cm 2,8; percorsi dei tarli secondo la sezione trasversale; ife fungine.



Sl. 55: Hiša 24 (faza 2); pozicije vzorcev.
Fig. 55: Casa 24 (fase 2); posizioni dei campioni.

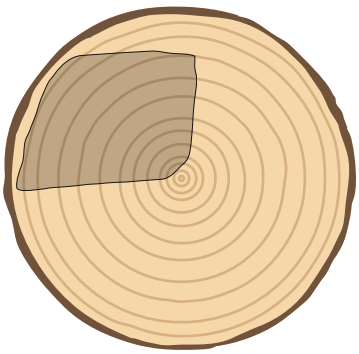
3- največji Ø 9 cm; šir. 3,2 cm z dvema ali tremi slabo ločljivimi branikami; rovi lesnih parazitov v vseh smereh; prelomi povzročeni z gorenjem.
Takson: Pinus sylvestris/montana (rdeči bor/rušje).
Namembnost: soha.

***Vzorec:* 2.**
Faza: 2.
Vsebina: trije skupki oglja (1, 2, 3); 1- drobni sploščeni koščki oglja; 2- nekaj večjih kosov oglja; 3- kos oglja.
Vzorčeni primerki: 3.
Velikost:
1- viš. 2,9 cm; Ø 1 cm; odlomek veje.
2- dl. 4 cm; šir. 1,6 cm; Ø okoli 7 cm; viš. 2,4 cm; sledi parazitov.
3- dl. 3,5 cm; šir. 2,3 cm s 5 branikami; največji Ø 6 cm.
Takson:
1- *Abies alba* (navadna jelka).
2-, 3- *Pinus sylvestris/montana* (rdeči bor/rušje).
Namembnost: temeljni prag (1-, 2-, 3-).

***Vzorec:* 3.**
Faza: 2.
Vsebina: razrezan kos oglja.
Vzorčeni primerki: 2.
Velikost:
1- šir. 4,5 cm (nanaša se na primerek z vidnimi branikami).
2- dl. 2,6 cm; zelo goste branike: 47 v 1,8 cm; zelo očitna zaobljenost; največji Ø 5,5 cm.
Takson: 1-, 2- *Pinus sylvestris/montana* (rdeči bor/rušje).
Namembnost: temeljni prag (*sl. 56*).

HIŠA 27 (*sl. 57*)

***Vzorec:* 1.**
Faza: 2.
Vsebina: drobni, majhni koščki oglja, morebiti deli istega kosa.
Vzorčeni primerki: 1.
Velikost: dl. 1,2 cm; šir. 2,7 cm s 6 branikami; največji Ø 7 cm; viš. 3 cm.
Takson: Quercus robur/petraea (dob/graden).
Namembnost: temeljni prag.



Sl. 56: Hiša 24; vzorec 3.
Fig. 56: Casa 24; campione 3.

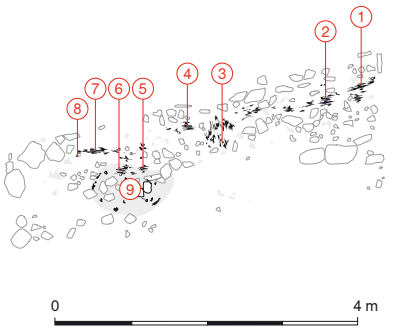
2- l cm 3,7; La cm 2,6 con 2 anelli di accrescimento; curvatura non visibile; percorsi dei tarli secondo la sezione tangenziale.
3- Ø max cm 9; La cm 3,2 con anelli poco distinguibili (2,3?); gallerie di parassiti in tutte le direzioni, fratture da combustione.
Taxon: 1-, 2-, 3- *Pinus sylvestris/montana* (pino silvestre/montano).
Tipo di reperto: pilastro.

***Campione:* 2.**
Fase: 2.
Contenuto: tre pacchetti (1, 2, 3); 1- piccoli carboni tabulari; 2- alcuni grossi carboni; 3- unico carbone.
Carboni esaminati: 3.
Dimensioni:
1- h cm 2,9; Ø cm 1; frammento di ramo.
2- l cm 4; La cm 1,6; Ø cm 7 ca; h cm 2,4; tracce di parassiti.
3- l cm 3,5; La cm 2,3 con 5 anelli di accrescimento; Ø max cm 6.
Taxa:
1- *Abies alba* (abete bianco).
2-, 3- *Pinus sylvestris/montana* (pino silvestre/montano).
Tipo di reperto: trave dormiente (1-, 2-, 3-).

***Campione:* 3.**
Fase: 2.
Contenuto: unico carbone sfaldato.
Carboni esaminati: 2.
1- La cm 4,5 (riferita alla porzione con anelli visibili).
2- l cm 2,6; anelli molto fitti: 47 in cm 1,8 di spessore; curvatura molto evidente; Ø max > cm 5,5.
Taxon: 1-, 2- *Pinus sylvestris/montana* (pino silvestre/montano).
Tipo di reperto: trave dormiente (*fig. 56*).

HIŠA 27 (*fig. 57*)

***Campione:* 1**.
Fase: 2.
Contenuto: carboni piccoli, forse originariamente in connessione.



Sl. 57: Hiša 27 (fazi 1 in 2); pozicije vzorcev.
Fig. 57: Casa 27 (fase 1 e 2); posizioni dei campioni.

***Vzorec:* 2.**
Faza: 2.
Vsebina: fragmenti oglja, prvotno deli istega kosa; prečni krožni presek.
Vzorčeni primerki: 1.
Velikost: največji Ø > 10 cm; 4 branike v 2,5 cm; viš. ni dobro določljiva, 10 cm?
Takson: Quercus robur/petraea (dob/graden).
Namembnost: temeljni prag.

***Vzorec:* 3.**
Faza: 2.
Vsebina: zelo drobljivo oglje.
Vzorčeni primerki: 1.
Velikost: dl. 3,6 cm; šir. 6 cm; največji Ø 9,5 cm; viš. 4 cm.
Takson: 1- *Pinus sylvestris/montana* (rdeči bor/rušje).
Namembnost: gradbeni les.

***Vzorec:* 4.**
Faza: 2.
Vsebina: skupina oglja štirikotnega preseka; posamezni fragmenti so težko združljivi, vendar so verjetno del istega kosa.
Vzorčeni primerki: 1.
Velikost: dl. 1.3 cm; šir. 4,3 cm z 8 branikami; največji Ø 11 cm; viš. 2,5 cm.
Takson: 1- *Quercus robur/petraea* (dob/graden).
Namembnost: gradbeni les.

***Vzorec:* 5.**
Faza: 2.
Vsebina: drobni odlomki oglja.
Vzorčeni primerki: 1.
Velikost: največ 2 cm.
Takson: Fagus sylvatica (bukev).
Namembnost: gradbeni les.

***Vzorec:* 6.**
Faza: 2.
Vsebina: en sam kos oglja, pomešan s sedimentom.

Carbone esaminato: 1.
*Dimensioni:*l cm 1,2; La cm 2,7 con 6 anelli di accrescimento; Ø max cm 7; h cm 3.
Taxon: Quercus robur/petraea (farnia/rovere).
Tipo di reperto: trave dormiente.

***Campione:* 2.**
Fase: 2.
Contenuto: frammenti di carbone, originariamente unico reperto; sezione trasversale circolare
Carbone esaminato: 1.
Dimensioni: Ø max > cm 10; 4 anelli di accrescimento in cm 2,5 di spessore; h non ben definibile, cm 10?
Taxon: Quercus robur/petraea (farnia/rovere).
Tipo di reperto: trave dormiente.

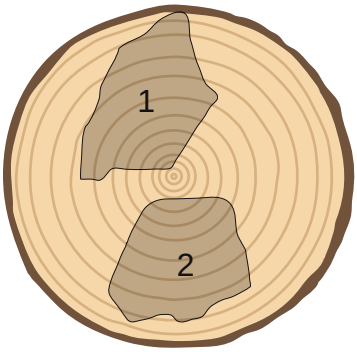
***Campione:* 3.**
Fase: 2.
Contenuto: carboni molto friabili.
Carbone esaminato: 1.
Dimensioni: l cm 3,6; La cm 6; Ø max cm 9,5; h cm 4.
Taxon: Pinus sylvestris/montana (pino silvestre/montano).
Tipo di reperto: legno da costruzione.

***Campione:* 4.**
Fase: 2.
Contenuto: serie di carboni con sezione quadrangolare; i frammenti sono difficilmente ricongiungibili; tuttavia si tratta con tutta probabilità di un unico reperto.
Carbone esaminato: 1.
Dimensioni: l cm 1,3; La cm 4,3 con 8 anelli di accrescimento; Ø max cm 11; h cm 2,5.
Taxon: Quercus robur/petraea (farnia/rovere).
Tipo di reperto: legno da costruzione.

***Campione:* 5.**
Fase: 2.
Contenuto: piccoli carboni.
Carbone esaminato: 1.
Dimensione: max cm 2.
Taxon: Fagus sylvatica (faggio).
Tipo di reperto: legno da costruzione.

***Campione:* 6.**
Fase: 2.
Contenuto: unico carbone misto a sedimento bruciato.
Carbone esaminato: 1.
Dimensioni: La cm 3; Ø cm 5; h cm 9.
Taxon: Fagus sylvatica (faggio).
Tipo di reperto: legno da costruzione.

***Campione:* 7.**
Fase: 2.
Contenuto: alcuni carboni deformati.
Carboni esaminati: 2.
Dimensioni:
1- porzione di largo anello; dimensione max cm 1.



Sl. 58: Hiša 27; vzorec 8.
Fig. 58: Casa 27; campione 8.

Vzorčeni primerki: 1.
Velikost: šir. 3 cm; Ø 5 cm; viš. 9 cm.
Takson: Fagus sylvatica (bukev).
Namembnost: gradbeni les.

***Vzorec:* 7.**
Faza: 2.
Vsebina: nekaj deformiranih koščkov oglja.
Vzorčeni primerki: 2.
Velikost:
1- kos oglja s široko braniko; velikost največ 1 cm.
2- viš. največ 5 cm; šir. 1,7 cm s 6 branikami.
Takson: 1-, 2- *Quercus robur/petraea* (dob/graden).
Namembnost: gradbeni les.

***Vzorec:* 8.**
Faza: 2.
Vsebina: 4 skupki oglja (1, 2, 3, 4).
Vzorčeni primerki: 4.
Velikost:
1- kos oglja z neskladnimi vlakni, težko določljiv največji Ø; dl. 4 cm; šir. 6,4 cm.
2- kos oglja; dl. 6 cm; r. 4,5 cm z 11 branikami; Ø okoli 16 cm; viš. 4,5 cm.
3- del debla z narastiščem veje; pr. veje 3 cm.
4- kos oglja; dl. 7 cm; šir. 5 cm z 10 branikami; največji Ø 13 cm.
Takson: 1-, 2-, 3-, 4- *Quercus robur/petraea* (dob/graden).
Namembnost: gradbeni les (*sl. 58*).

***Vzorec:* 9.**
Faza: 1.
Vsebina: odlomki oglja, ki so bili verjetno del istega kosa.
Vzorčeni primerki: 1.
Velikost: dl. 1,4 cm; šir. 0,9 cm z 10 branikami; viš. 9 cm.
Takson: Pinus sylvestris/montana (rdeči bor/rušje).
Namembnost: gradbeni les.

2- h max cm 5; La cm 1,7 con 6 anelli di accrescimento.
Taxon: 1-, 2- *Quercus robur/petraea* (farnia/rovere).
Tipo di reperto: legno da costruzione.

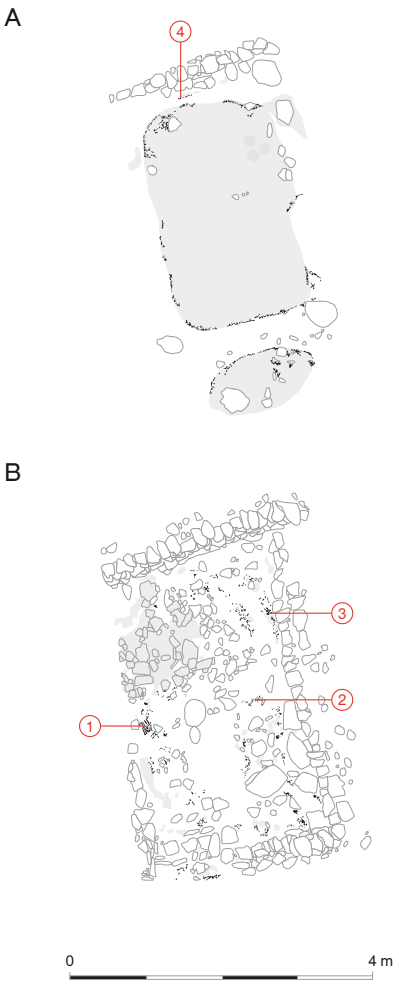
***Campione:* 8.**
Fase: 2.
Contenuto: il campione contiene 4 pacchetti (1, 2, 3, 4).
Carboni esaminati: 4.
Dimensioni:
1- unico carbone con fibre sconnesse; difficile determinare il Ø max; l cm 4; La cm 6,4.
2- unico carbone l cm 6; r cm 4,5 con 11 anelli di accrescimento; Ø cm 16 ca; h cm 4,5.
3- frammento di tronco con ramo inserito; Ø ramo cm 3.
4- unico carbone l cm 7; La cm 5 con 10 anelli di accrescimento; Ø max cm 13.
Taxon: 1-, 2-, 3-, 4- *Quercus robur/petraea* (farnia/rovere).
Tipo di reperto: legno da costruzione (*fig. 58*).

***Campione:* 9.**
Fase: 1.
Contenuto: carboni con tutta probabilità appartenenti a un unico campione.
Carbone esaminato: 1.
Dimensioni: l cm 1,4; La cm 0,9 con 10 anelli di accrescimento; h cm 9.
Taxon:Pinus sylvestris/ montana (pino silvestre/montano).
Tipo di reperto: legno da costruzione.

CASA 29 (*fig. 59*)

***Campione:* 1.**
Fase: 2.
Contenuto: campione del legno carbonizzato; grossi carboni misti a sedimento e ciottoli; alcuni sono connettibili, si tratta forse di un solo reperto.
Carboni esaminati: 3.
Dimensioni:
1-, 2- l cm 5; La max. cm 3,3 (circa 20 anelli di accrescimento); Ø max cm 7; h totale cm 7.
3- l cm 3,2; La cm 2,3 con 14 anelli di accrescimento; Ø max cm 6,5.
Taxon: 1-, 2-, 3- *Pinus sylvestris/montana* (pino silvestre/montano).
Tipo di reperto: legno da costruzione

***Campione:* 2.**
Fase: 2.
Contenuto: campione di legno mineralizzato, non carbonizzato; sottili spalmature di legno non bruciato, molto sedimento.
Carbone esaminato: 1.
Taxon: Pinus sylvestris/montana (pino silvestre/montano).
Tipo di reperto: legno da costruzione.



Sl. 59: Hiša 29 (A: faza 1; B: faza 2); pozicije vzorcev.
Fig. 59: Casa 29 (A: fase; B: fase 2); posizioni dei campioni.

HIŠA 29 (*sl. 59*)

***Vzorec:* 1.**
Faza: 2.
Vsebina: vzorec zoglenelega lesa; večji kosi oglja pomešani s sedimentom in kamenčki; nekateri so združljivi, zato je vzorec morda del istega večjega kosa.
Vzorčeni primerki: 3.
Velikost:
1-, 2- dl. 5 cm; največja šir. 3,3 cm (okoli 20 branik); največji Ø 7 cm; celotna viš. 7 cm.
3- dl. 3,2 cm; šir. 2,3 cm s 14 branikami; največji Ø 6,5 cm.
Takson: 1-, 2-, 3- *Pinus sylvestris/montana* (rdeči bor/rušje).
Namembnost: gradbeni les.

***Vzorec:* 2.**
Faza: 2.
Vsebina: mineraliziran, nekarboniziran les; tanki sprimki negorjenega lesa z geološko podlago; obilica primešanega sedimenta.
Vzorčeni primerki: 1.
Takson: Pinus sylvestris/montana (rdeči bor/rušje).
Namembnost: gradbeni les.

***Vzorec:* 3.**
Faza: 2.
Vsebina: mineraliziran, nekarboniziran les, enak 2. vzorcu, vendar z nekaj več lesa.
Vzorčeni primerki: 1.
Takson: Pinus sylvestris/montana (rdeči bor/rušje).
Namembnost: gradbeni les.

***Vzorec:* 4.**
Faza: 1.
Vsebina: kos oglja, zdrobljen v več odlomkov.
Vzorčeni primerki: 1.
Velikost: 7 branik v 1,7 cm.
Takson: Quercus robur/petraea (dob/graden).
Namembnost: gradbeni les.

HIŠA 30 (*sl. 60*)

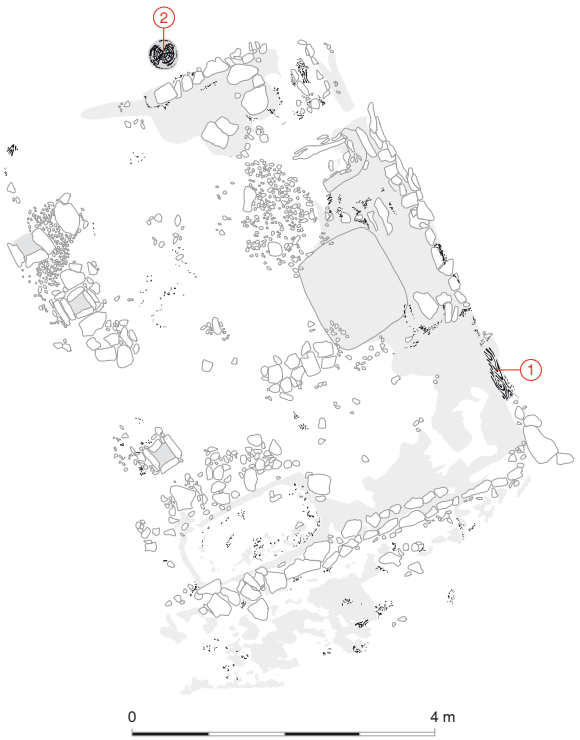
***Vzorec:* 1.**
Faza: 2.
Vsebina: kos oglja.
Vzorčeni primerki: 1.
Velikost: dl. 1 cm; šir. okoli 3,2 cm s 15 branikami; največji pr. 6 cm.
Takson: Quercus robur/petraea (dob/graden).
Namembnost: temeljni prag.

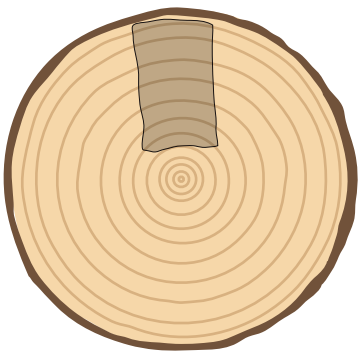
***Campione:* 3.**
Fase: 2.
Contenuto: legno mineralizzato, non carbonizzato; reperto campione analogo al campione 2, con legno leggermente più abbondante.
Carbone esaminato: 1.
Taxon:Pinus sylvestris/montana (pino silvestre/montano).
Tipo di reperto: legno da costruzione.

***Campione:* 4.**
Fase: 1.
Contenuto: unico carbone sbriciolato in più pezzi.
Carbone esaminato: 1.
Dimensioni: 7 anelli di accrescimento in cm 1,7 cm di spessore.
Taxon: Quercus robur/petraea (farnia/rovere).
Tipo di reperto: trave dormiente.

CASA 30 (*fig. 60*)

***Campione:* 1.**
Fase: 2.
Contenuto: unico carbone.





Sl. 61: Hiša 30; vzorec 2.
Fig. 61: Casa 30; campione 2.

***Vzorec:* 2.**
Faza: 1.
Vsebina: številni kosi štirikotnega preseka, ki so nesestavljivi.
Vzorčeni primerki: 3.
Velikost:
1- dl. 1,3 cm; šir. 5 cm z 20 branikami v 3,3 cm; največji Ø 7 cm; viš. 3,3 cm.
2- dl. 2,6 cm; šir. 2,4 cm s 26 branikami; viš. 3,7 cm.
3- celotna dl. okoli 14 cm; viš. največ 11 cm; na enem fragmentu, šir. 4,2 cm, je 7 branik v 3,2 cm.
Takson: 1-, 2-, 3- *Quercus robur/petraea* (dob/graden).
Namembnost: stojka (*sl. 61*).

←

Sl. 60: Hiša 30 (fazi 1 in 2); poziciji vzorcev.
Fig. 60: Casa 30 (fase 1 e 2); posizioni dei campioni.

Carbone esaminato: 1.
Dimensioni: l cm 1; La ca cm 3,2 con 15 anelli di accrescimento; Ø max cm 6.
Taxon: Quercus robur/petraea (farnia/rovere).
Tipo di reperto: trave dormiente.

***Campione:* 2.**
Fase: 1.
Contenuto: molti carboni con sezione quadrangolare senza connessione apparente; forse resti di trave.
Carboni esaminati: 3.
Dimensioni:
1- l cm 1,3; La cm 5 con 20 anelli di accrescimento in 3,3 cm; Ø max cm 7; h cm 3,3.
2- l cm 2,6; La cm 2,4 con 26 anelli di accrescimento; h cm 3,7.
3- l tot. cm 14 ca; h max cm 11; in un frammento: La cm 4,2 (7 anelli di accrescimento in 3,2 cm).
Taxon: 1-, 2-, 3- *Quercus robur/petraea* (farnia/rovere).
Tipo di reperto: palo montante (*fig. 61*).

CASA 31 (*fig. 62*)

***Campione:* 1.**
Fase: 1.
Contenuto: campione frammentato.
Carbone esaminato: 1.
Dimensioni: l cm 1,1; La cm 0,4; h cm 1.
Taxon: Quercus robur/petraea (farnia/rovere)
Tipo di reperto: trave dormiente.

***Campione:* 2.**
Fase: 1.
Contenuto: campione frammentato.
Carbone esaminato: 1.
Dimensioni: l cm 0,4; La cm 0,4; h cm 1; misurati 9 anelli in cm 3,1 di spessore.
Taxon: Quercus robur/petraea (farnia/rovere).
Tipo di reperto: trave dormiente

***Campione:* 3.**
Fase: 1.
Contenuto: campione frammentato.
Carbone esaminato: 1.
Dimensioni: l cm 0,8; La cm 0,6; h cm 0,8; nel frammento più grosso misurati 10 anelli di accrescimento in 2,7 cm di spessore.
Taxon: Quercus robur/petraea (farnia/rovere).
Tipo di reperto: trave dormiente.

HIŠA 31 (*sl. 62*)

***Vzorec:* 1.**
Faza: 1.
Vsebina: fragmenti oglja.
Vzorčeni primerki: 1.
Velikost: dl. 1,1 cm; šir. 0,4 cm; viš. 1 cm.
Takson: Quercus robur/petraea (dob/graden).
Namembnost: temeljni prag.

***Vzorec:* 2.**
Faza: 1.
Vsebina: fragmenti oglja.
Vzorčeni primerki: 1.
Velikost: dl. 0,4 cm; šir. 0,4 cm; viš. 1 cm; 9 branik v 3,1 cm.
Takson: Quercus robur/petraea (dob/graden).
Namembnost: temeljni prag.

***Vzorec:* 3.**
Faza: 1.
Vsebina: fragmenti oglja.
Vzorčeni primerki: 1.
Velikost: dl. 0,8 cm; šir. 0,6 cm; viš. 0,8 cm; na največjem fragmentu je v 2,7 cm 10 branik.
Takson: Quercus robur/petraea (dob/graden).
Namembnost: temeljni prag.

***Vzorec:* 4.**
Faza: 1.
Vsebina: fragmenti oglja.
Vzorčeni primerki: 1.
Velikost: dl. 0,7 cm; šir. 0,4 cm; viš. 0,8 cm.
Takson: Quercus robur/petraea (dob/graden).
Namembnost: gradbeni les.

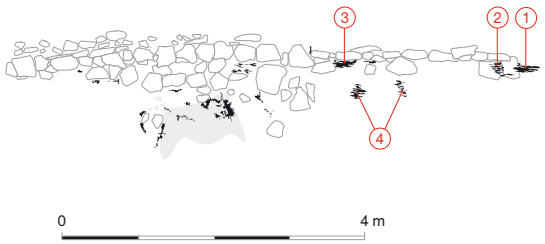
HIŠA 33 (*sl. 63*)

***Vzorec:* 1.**
Vsebina: dva zavojčka razdrobljenega oglja.
Vzorčeni primerki: 2
Velikost:
1- dl. 1 cm; šir. 0,2 cm; viš. 1,5 cm (iz prega zavojčka).
2- dl. 0,8 cm; šir. 0,8 cm; viš. 1 cm (iz drugega zavojčka); na enem primerku so bile v 2,5 cm izmerjene 4 branike.
Takson: 1-, 2- *Quercus robur/petraea* (dob/graden).
Namembnost: temeljni prag.

***Vzorec:* 2.**
Vsebina: večji razdrobljen kos oglja.
Vzorčeni primerki: 1.
Velikost: dl. 0,9 cm, šir. 0,4 cm, viš. 1,5 cm.
Takson: Quercus robur/petraea (dob/graden).
Namembnost: gradbeni les.

→

Sl. 63: Hiša 33; poziciji vzorcev.
Fig. 63: Casa 33; posizioni dei campioni.



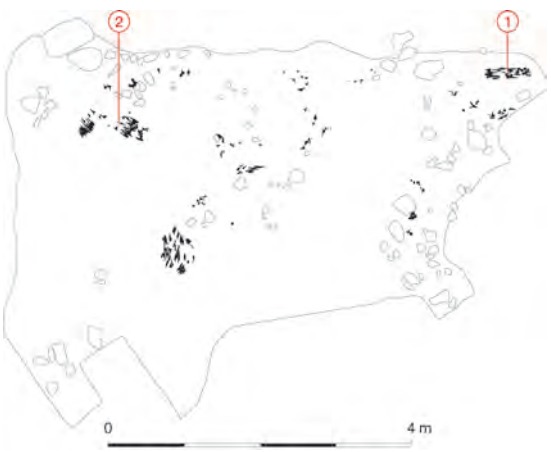
Sl. 62: Hiša 31 (faza 1); pozicije vzorcev.
Fig. 62: Casa 31 (fase 1); posizioni dei campioni.

***Campione:* 4.**
Fase: 1.
Contenuto: campione frammentato.
Carbone esaminato: 1.
Dimensioni: l cm 0,7; La cm 0,4; h cm 0,8.
Taxon: Quercus robur/petraea (farnia/rovere).
Tipo di reperto: legno da costruzione.

CASA 33 (*fig. 63*)

***Campione:* 1.**
Contenuto: contiene due pacchetti, che contengono entrambi frammenti di carbone.
Carboni esaminati: 2.
Dimensioni:
1- l cm 1; La cm 0,2; h cm 1,5 (dal primo pacchetto).
2- l cm 0,8; La cm 0,8; h cm 1 (dal secondo pacchetto); un altro carbone con 4 anelli di accrescimento in 2,5 cm.
Taxon: 1-, 2- *Quercus robur/petraea* (farnia/rovere).
Tipo di reperto: trave dormiente.

***Campione:* 2.**
Contenuto: grosso carbone sbriciolato.
Carbone esaminato: 1.
Dimensioni: l cm 0,9; La cm 0,4; h cm 1,5.
Taxon: Quercus robur/petraea (farnia/rovere).
Tipo di reperto: legno da costruzione.



KARPOLOŠKA ANALIZA

HIŠA 6 (*sl. 30*)

***Vzorec:* 1.**
Faza: 2.
Vsebina: fragmenti "kruha", skupek zrn prosa; v dokaj rahli in zgoščeni zmesi je nekaj odtisov zrn žita (cfr. *Secale cereale*).
Velikost: 2–3 cm.
Vrsta najdbe: proseni "kruh" (*Panicum miliaceum*).

***Vzorec:* 3.**
Faza: 2.
Vsebina: skupek prosenih zrn (*Panicum miliaceum*).
Vrsta najdbe: proseni "kruh" (*Panicum miliaceum*), brez veziva.

***Vzorec:* 4.**
Faza: 2.
Vsebina: skupek poškodovanih prosenih zrn.
Vrsta najdbe: proseni "kruh" (*Panicum miliaceum*), brez veziva.

***Vzorec:* 5.**
Faza: 2.
Vsebina: zmes drobnih odlomkov oglja in semen.
Vrsta najdbe: zrna prosa (*Panicum miliaceum*) in seme stročnice (*Leguminosae*).

***Vzorec:* 8.**
Faza: 2.
Vsebina: fragmenti "kruha" iz rahle in zgoščene zmesi s primešanimi zrni prosa.
Vrsta najdbe: proseni "kruh" (*Panicum miliaceum*).

***Vzorec:* 18.**
Faza: 2.
Vsebina: skupki deformiranih prosenih zrn: izvirna oblika zrn je komajda prepoznavna; videti je, da so bila spremenjena s pritiski in s stiskanjem na več mestih po zunanji površini, kot da bi se jedra tiščala eno ob drugo; ni opaziti snovi, ki bi jih povezovala. V vzorcu so tudi številna zrna prosa, ki so skoraj vsa deformirana kot tista v skupkih.
Vrsta najdbe: "kruh" in zrna prosa (*Panicum miliaceum*).

***Vzorec:* 19.**
Faza: 2.
Vsebina: fragmenti "kruha" (drugačni od prejšnjega, bolj podobni vzorcu št. 26); vsebuje odtise zrn.
Vrsta najdbe: proseni "kruh" (*Panicum miliaceum*).

***Vzorec:* 20.**
Faza: 2.
Vsebina: mešani sediment z zrni prosa.
Vrsta najdbe: proso (*Panicum miliaceum*).

ESAME CARPOLOGICO

CASA 6 (*fig. 30*)

***Campione:* 1.**
Fase: 2.
Contenuto: frammenti di "pane", aggregati di semi di miglio; presenti all'interno dell' impasto, piuttosto fine e compatto, alcune impronte di cariossidi di cereale (cfr. *Secale cereale*).
Dimensioni: 2-3 cm.
Tipo di reperto: "pane" di miglio (*Panicum miliaceum*).

***Campione:* 3.**
Fase: 2.
Contenuto: aggregati di chicchi di miglio (*Panicum miliaceum*).
Tipo di reperto: "pane" di miglio (*Panicum miliaceum*), senza legante.

***Campione:* 4.**
Fase: 2.
Contenuto: aggregato di semi di miglio con deformazioni dei chicchi.
Tipo di reperto: "pane" di miglio (*Panicum miliaceum*), senza legante.

***Campione:* 5.**
Fase: 2.
Contenuto: misto piccoli carboni di legno e semi.
Tipo di reperto: cariossidi di miglio (*Panicum miliaceum*) e un seme di leguminosa (*Leguminosae*).

***Campione:* 8.**
Fase: 2.
Contenuto: frammenti di "pane" con impasto fine e compatto, con inseriti chicchi di miglio.
Tipo di reperto: "pane" di miglio (*Panicum miliaceum*).

***Campione:* 18.**
Fase: 2.
Contenuto: aggregati di semi di miglio con deformazione delle cariossidi: la forma originaria del chicco è scarsamente riconoscibile; risulta modificata da compressioni e schiacciamenti su più parti della superficie esterna come se i chicchi fossero stati compressi gli uni contro gli altri; non si osserva una matrice che li possa tenere uniti. Nello stesso campione ci sono poi molte cariossidi di miglio, quasi tutte deformate come quelle che sono riunite in aggregati.
Tipo di reperto: "pane" e cariossidi di miglio (*Panicum miliaceum*).

***Campione:* 19.**
Fase: 2.
Contenuto: frammenti di "pane" (diverso dal precedente, più simile al campione: 26); contiene impronte di cariossidi.
Tipo di reperto: "pane" di miglio (*Panicum miliaceum*).

***Vzorec:* 26.**
Faza: 2.
Vsebina: majhni (max. 1–2 cm) koščki "kruha" (?) (podobni vzorcu 1).
Vrsta najdbe: skupek zrn prosa (*Panicum miliaceum*).

***Vzorec:* 30.**
Faza: 2.
Vsebina: fragment lupine.
Vrsta najdbe: lupina lešnika (*Corylus avellana*).

***Vzorec:* 35.**
Faza: 2.
Vsebina: zrna prosa (*Panicum miliaceum*).

***Vzorec:* 38.**
Faza: 2.
Vsebina: koščki lupine.
Vrsta najdbe: koščki lupine lešnika (*Corylus avellana*).

HIŠA 7 (*sl. 33*)

***Vzorec:* 2.**
Vsebina:
Juglans regia (navadni oreh): 50 fragmentov plodu.
Corylus avellana (navadna leska): 60 fragmentov luščin.
Ficus carica (figa): majhen fragment sadeža.
Bromus secalinus (žitna stoklasa): 1 seme.
Hordeum vulgare (ječmen): 12 zrn.
Secale cereale (segale): 323 zrn.
Triticum aestivum (navadna pšenica): 6 zrn.
Triticum monococcum (enozrna pšenica): 9 zrn.
Triticum dicoccum (dvozrna pšenica): 27 zrn.
Triticum spelta (pira): 19 zrn.
Triticum dicoccum/spelta (dvozrna pšenica/pira): 2 fragmenta klasov.
Panicum miliaceum (proso): ca. 6000 nedeformiranih zrn.
Cerealia: 66 fragmentov zrn nedoločljivih žitaric.
Vicia sp.(lečnata grašica): 1 seme.

***Campione:* 20.**
Fase: 2.
Contenuto: sedimento misto a semi di miglio.
Tipo di reperto: miglio (*Panicum miliaceum*).

***Campione:* 26.**
Fase: 2.
Contenuto: piccoli (1-2 cm la dim. max) frammenti di "pane" (?) (simili al Campione: 1).
Tipo di reperto: aggregato di semi di miglio (*Panicum miliaceum*).

***Campione:* 30.**
Fase: 2.
Contenuto: frammento di guscio.
Tipo di reperto: guscio di nocciola (*Corylus avellana*).

***Campione:* 35.**
Fase: 2.
Contenuto: cariossidi di miglio (*Panicum miliaceum*).

***Campione:* 38.**
Fase: 2.
Contenuto: pezzi di guscio.
Tipo di reperto: pezzi di guscio di nocciola (*Corylus avellana*).

CASA 7 (*fig. 33*)

***Campione:* 2.**
Contenuto:
Juglans regia (noce): 50 frammenti del gheriglio.
Corylus avellana (nocciolo): 60 frammenti di guscio.
Ficus carica (fico): un piccolo frammento del frutto.
Bromus secalinus (forasacco): 1 cariossside.
Hordeum vulgare (orzo): 12 cariossidi.
Secale cereale (segale): 323 cariossidi.
Triticum aestivum (frumento estivo): 6 cariossidi.
Triticum monococcum (monococco): 9 cariossidi.
Triticum dicoccum (dicocco o farro): 27 cariossidi.
Triticum spelta (spelta): 19 cariossidi.
Triticum dicoccum/spelta: 2 frammenti di spighette.
Panicum miliaceum (miglio): ca. 6000 cariossidi non deformate.
Cerealia: 66 frammenti di cariossidi n.d.
Vicia sp. (ervo): 1 seme.

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OSTANKI PREHRANSKIH RASTLIN IZ HIŠ 6 IN 15A Z MOSTA NA SOČI

EDIBLE PLANT REMAINS FROM HOUSES 6 AND 15A AT MOST NA SOČI

Tjaša TOLAR

UVOD

Raziskave železnodobne naselbine na Mostu na Soči so prinesle tudi nekaj arheobotaničnih najdb, tj. rastlinskih makroostankov, ki jih je v tem zvezku razprav predstavila Sila Motella De Carlo. Pričujoče poglavje pa obravnava nekaj makroostankov prehranskih rastlin (tj. semena/plodovi) in nekaj lesa oz. oglja iz 32. vzorcev, ki so bili dolga leta založeni v depoju Goriškega muzeja in jih Motella De Carlo ni mogla vključiti v svojo razpravo. Ostanki tekstila so predstavljeni v posebni razpravi (glej tu, Grömer et al., 453–465).

METODE DELA

Metodam dela med izkopavanji (tj. vzorčenje na terenu in hranjenje vzorcev), specifičnim za naravoslovne vzorce v arheologiji, se na tem mestu ne bomo posvečali, saj so bili vsi vzorci s terena pobrani z eno samo, najenostavnejšo metodo, tj. vzorčenje po presoji. Po tej metodi s terena odvzemamo naključno odkrite najdbe, za katere presodimo, da bi lahko bile arheobotanično zanimive. Metoda je zelo nezahtevna, vendar ima veliko pomanjkljivosti. S takšnim odvzemom vzorcev pridobimo le naključno odkrite in po subjektivni presoji odvzete najdbe, ki pa v arheobotaniki še zdaleč niso reprezentativne in kot takšne ne dopuščajo interpretacij o dejanskem gospodarstvu naseljencev ali o okoljskih razmerah tedanjega časa (glej npr. Tolar 2016).

Naključno odkriti in po presoji odvzeti arheobotanični vzorci z Mosta na Soči so bili pobrani iz dveh kontekstov, in sicer iz dveh hiš: 6 (faza 2) in 15A (faza 2).

Odvzeti vzorci so bili pregledani s stereomikroskopom *Leica MZ75* s 6,3–50-kratno povečavo. Pri identifikaciji rastlinskih makroostankov (semen/plodov, lesa in oglja) sta nam bili v pomoč referenčna zbirka Inštituta za arheologijo ZRC SAZU in posebna identifikacijska literatura (npr. Beijerinck 1947; Schoch et al. 1988; Jones et al. 2004; Cappers et al. 2006; Schweingruber 1990; Torelli 1991). Poimenovanje rastlinskih vrst sloni na Mali flori Slovenije (Martinčič et al. 1999).

INTRODUCTION

Research of the Iron Age settlement at Most na Soči also contributed some plant macroremains, which are presented in this volume by Sila Motella De Carlo and in the contribution below that focuses on the edible plant macroremains (i.e. seeds/fruits) and the remains of wood or charcoal from 32 samples misplaced for many years in the storerooms of the Goriški muzej and hence not analysed by Motella De Carlo. Textile remains are analysed in a separate contribution (see in this volume, Grömer et al., 453–465).

METHODS

Because the excavations were done in an old-fashioned manner, we will not emphasize the methods used (i.e. sampling in the field and preserving the organic samples) while all the organic samples were collected with the simplest method, i.e. judgement sampling method. In that way, organic samples were collected that were found by coincidence. It is a simple method, but it has many deficiencies. In that way only subjectively collected finds are included in the research, which are not representative for making conclusions about the nutrition habits or the environment conditions at the site (see e.g. Tolar 2016).

Judgement-sampled archaeobotanical samples (total: 32) were collected from two contexts, i.e. from two Iron Age houses at Most na Soči: House 6 and 15A (both Phase 2).

The samples were analysed under a *Leica MZ75* stereomicroscope with 6.3–50x magnification. The reference collection of the Institute of Archaeology (IOF) ZRC SAZU and special literature (e.g. Beijerinck 1947; Schoch et al. 1988; Jones et al. 2004; Cappers et al. 2006; Schweingruber 1990; Torelli 1991) were used for the identification of plant macroremains (seeds/fruits, wood, charcoal). The plant names follow *Mala flora Slovenije* (Martinčič et al. 1999).

REZULTATI

Velika večina (27 vzorcev) v analizo prejetih rastlinskih makroostankov je bila ohranjena v zoglenelem stanju, le pet vzorcev – vsi ostanki difuzno poroznega lesa – je bilo ohranjenih v delno zoglenelem/delno okamenelem (ali subfosilnem) stanju (npr. *sl. 1; tab. 1*).

HIŠA 6 (FAZA 2)

V hiši 6 je bilo ohranjenih največ rastlinskih makroostankov, tako kvantitativno (številčno) kot tudi kvalitativno (tj. raznovrstno).

Med zanimivejšimi lesnimi ostanki je vredno omeniti dva izredno lepo obdelana in dobro ohranjena kosa delno zoglenelega, delno mineraliziranega ali subfosilnega lesa (*sl. 1*), ki sta bila najverjetneje po odkritju premazana z neznanim zaščitnim sredstvom. Prvi odlomek (*sl. 1a*) je ploščat in z obeh strani gladko obdelan glajen kos lesa, ki bi lahko bil del lesene posode. Na njem so lepo vidne lesne branike, vendar zaradi prepojenosti z neznanim sredstvom natančnejša identifikacija lesne vrste ni bila mogoča. Drugi leseni predmet (*sl. 1b*) je kroglaste oblike in še lepše obdelan, vidni so znaki struženja. Njegova oblika spominja na vijček. Tudi tu identifikacija vrste lesa, iz katerega je bil predmet izdelan, ni bila mogoča.

Med nezoglenelimi lesnimi ostanki sta bila v hiši 6, poleg na *sl. 1* predstavljenih fragmentov obdelanega lesa (oz. zagotovo uporabnih predmetov), najdena še dva vzorca fragmentiranih delno zoglenelih/delno oka-

RESULTS

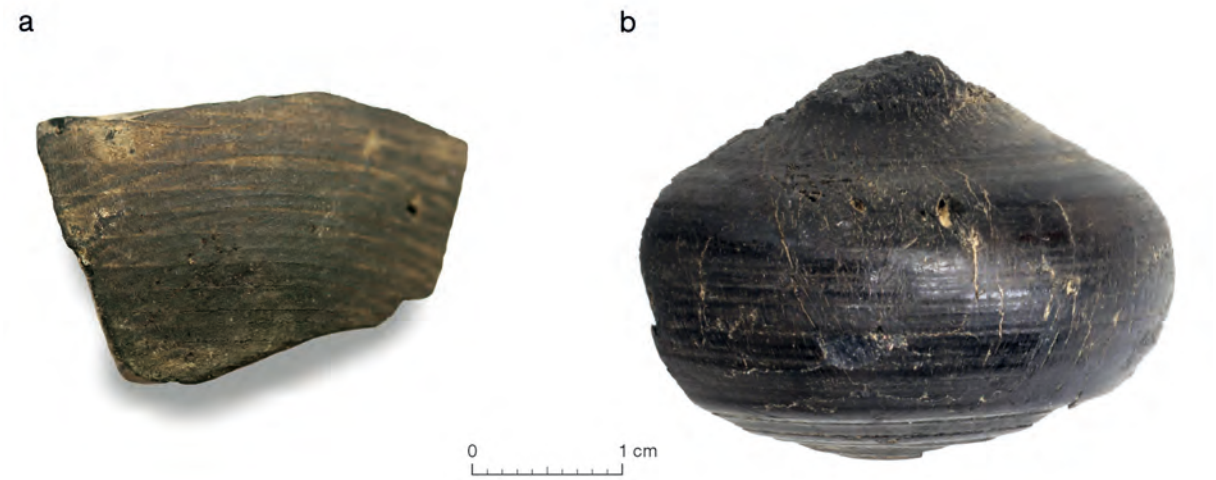
Most of the analysed samples (i.e. 27 samples) were preserved carbonized. Only five of them (all wood samples) were preserved in a half-carbonized/half-mineralized (or subfossil) state (e.g. *Fig. 1; Tab. 1*).

HOUSE 6 (PHASE 2)

Most of the plant macroremains were collected from House 6, i.e. in a quantitative and qualitative manner.

Among the most interesting wooden finds, two nicely processed and well-preserved pieces of half-carbonized/half-mineralized specimens are worth mentioning (*Fig. 1*). Both were consolidated with an unknown substance. The first piece of wood (*Fig. 1a*) is flat and smoothed, polished on both sides and could represent the remain of a wooden vessel. Tree rings are clearly visible, but due to the consolidants, the precise identification of the wood species is not possible. The second wooden artefact (*Fig. 1b*) is spherical and even more finely processed; the signs of turning on a lathe are visible. Its shape is reminiscent of a wooden spindle-whorl. In this case, the precise identification of the deciduous tree species was also not possible.

In addition to the aforementioned uncarbonized wooden remains from House 6 (*Fig. 1*), another two fragmented half-carbonized/half-mineralized (subfossil) remains of deciduous tree species were analysed.



Sl. 1: Obdelana lesena predmeta iz dveh nedoločljivih vrst listavcev iz hiše 6: a) morebiten fragment posode iz difuzno poroznega listavca; b) morebiten fragment vijčka iz venčasto-polvenčasto poroznega listavca, morda oreha (*Juglans regia*).
Fig. 1: Processed wooden artefacts made of two different unidentified deciduous tree species from House 6: a) fragment of a probably wooden vessel made of diffuse porous deciduous tree sp.; b) fragment of a probably wooden spindel whorle made of ring- to halfring porous deciduous tree sp., possibly walnut (*Juglans regia*).
(Foto / Photo: D. Valoh).

latinsko ime / scientific name	slovensko/angleško ime / slovenian/english plant name	ostanek / remain	ohr. / preserv.	hiša / house 6 FAZA / PHASE 2	hiša / house 15A FAZA / PHASE 2
Corylus avellana	leska / hazel	frg. lešnik / hazelnut frg.	C		4
Juglans regia	oreh / walnut	frg. oreh / walnut frg.	C	2	
Fabales	stročnice / legumes	frg. ?boba / frg. of ?broad bean	C		5
Panicum miliaceum	nav. proso / millet	cela semena / whole seeds	C	27,67 gr.	9,45 gr.
Setaria italica	laški muhvič / setaria	semena v kaši / seeds in porridge	C	52,74 gr.	
Panicum/Setaria	muhvič, ?proso, oglje / setaria, ?millet, charcoal	ostanki hrane / food remains	C	70 gr.	
Cerealia	žitarice (proso, muhvič, oves/rž) / cereals (millet, setaria, oat/rye)	ostanki hrane, kaše / food, porridge remains	C	56,63 gr.	
Cerealia	žitarice / cereals	porozna org. snov (? kruh) / porous org. substance (?bread)	C	5,05 gr.	
Avena/Secale	oves/rž / oat/rye	ostanki hrane, kaše / food, porridge remains	C	55,37 gr.	
	difuzno porozen listavec / diffuse porous deciduous tree	fragmenti lesa/oglja / wood/charcoal frg.	C/NC	X	X
Sorbus/Cornus/Rosaceae	difuzno porozen listavec (jerebika/dren/rožnice) / (rowan/cornel/rose family)	fragmenti lesa/oglja / wood/charcoal frg.	C/okam. / miner.?	2	
	difuzno porozen listavec / diffuse porous deciduous tree	obdelan les (?del posode) / processed wood (?remain of vessel)	C	1	
?Juglans regia	venčasto-polvenčasto porozen listavec (?oreh) / ring-half ring porous deciduous tree (?walnut)	obdelan les (?utež) / processed wood (?weight)	C/okam. / miner.?	1	
	frg. oglja v blatu / charcoal frg. in a mud		C	X	
	tekstil / textile remians		C	3	

C	zoglenelo / carbonised
NC	nezoglenelo / not carbonised
okam. / miner.	okamenelo, subfosilno / mineralized

Tab. 1: Arheobotanični makroostanki z najdišča Most na Soči. Rezultati 27 vzorcev so združeni glede na kontekst (tj. iz hiš 6 in 15A). Podrobnejša analiza posameznih vzorcev (n = 32) je dostopna v arhivu Inštituta za arheologijo ZRC SAZU.
Tab. 1: Archaeobotanical macroremains from the site at Most na Soči. The results of 27 samples are combined according to the contexts (i.e. Houses 6 and 15A). Detailed analysis of the specific sample (n = 32) is available in the archives of the Institute of Archaeology ZRC SAZU.

menelih (ali subfosilnih) ostankov difuzno poroznega lesa, morda vrst iz družine rožnic (*Rosaceae*), kot je npr. jerebika (*Sorbus*), ali vrst iz rodu drena (*Cornus*) (*glej tab. 1*). Lesni odlomki kažejo znake, da bi lahko bili premazani oz. zaščiteni z neznanim sredstvom, ne dajejo pa nikakršnega vtisa o morebitni namembnosti (oz. uporabnosti) tega lesa.

Odkrito je bilo tudi nekaj oglja, in sicer v sedimentu, odvzetem iz hodne površine hiše 6 (glej tu: Motella).

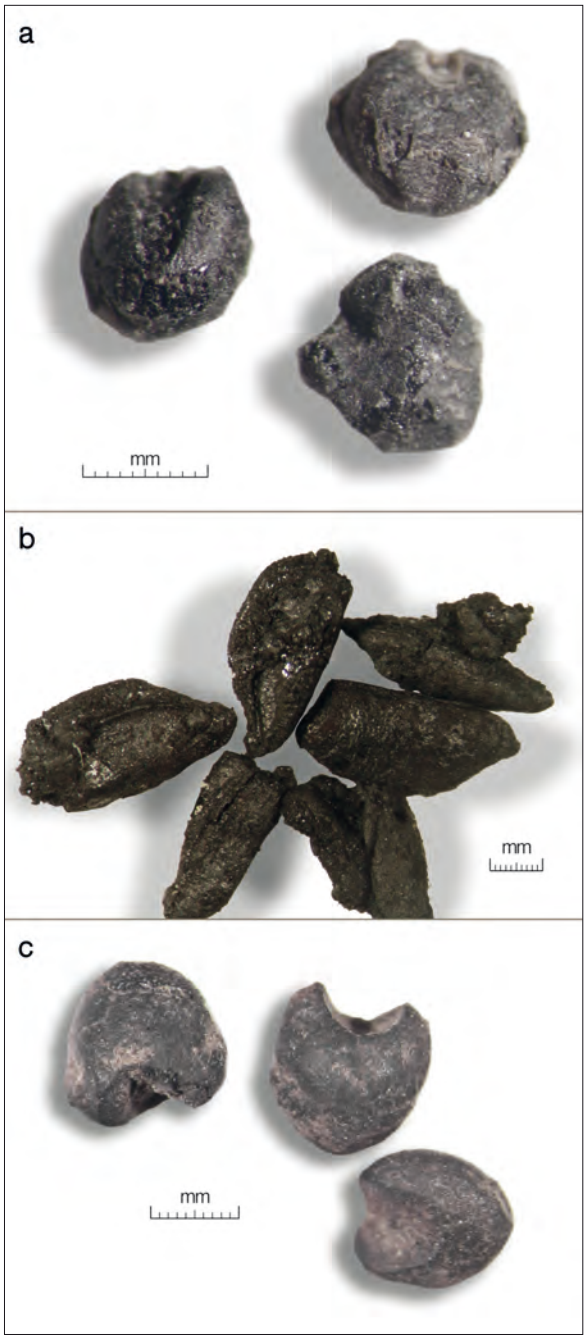
Največ arheobotaničnih ostankov iz hiše 6 je bilo ohranjenih v obliki ostankov hrane, nekakšne "kaše", ki so bili zaradi ognja (Svoljšak in Dular 2016, 73) vsi zogleneli (*sl. 2 in 3*).

Poleg "kašnatih jedi", v katerih so rastlinski makroostanki ohranjeni v nefragmentiranem stanju (tj. celem zrnju) (glej *sl. 2, 3*), so bili v hiši 6 najdeni ostanki druge hrane, za katere pa ne moremo zanesljivo ugotoviti, kaj bi lahko predstavljali. Morda so ostanek testa/kruha/pogače, na kar spominja porozna struktura neznane strjene in ožgane organske snovi, brez vidnih ostankov semen/plodov (*sl. 4a*).

V hiši 6 je bilo tako skupno najdenih 240 gramov (glej *tab. 1*) ostankov hrane v obliki kaš in kruha(?).

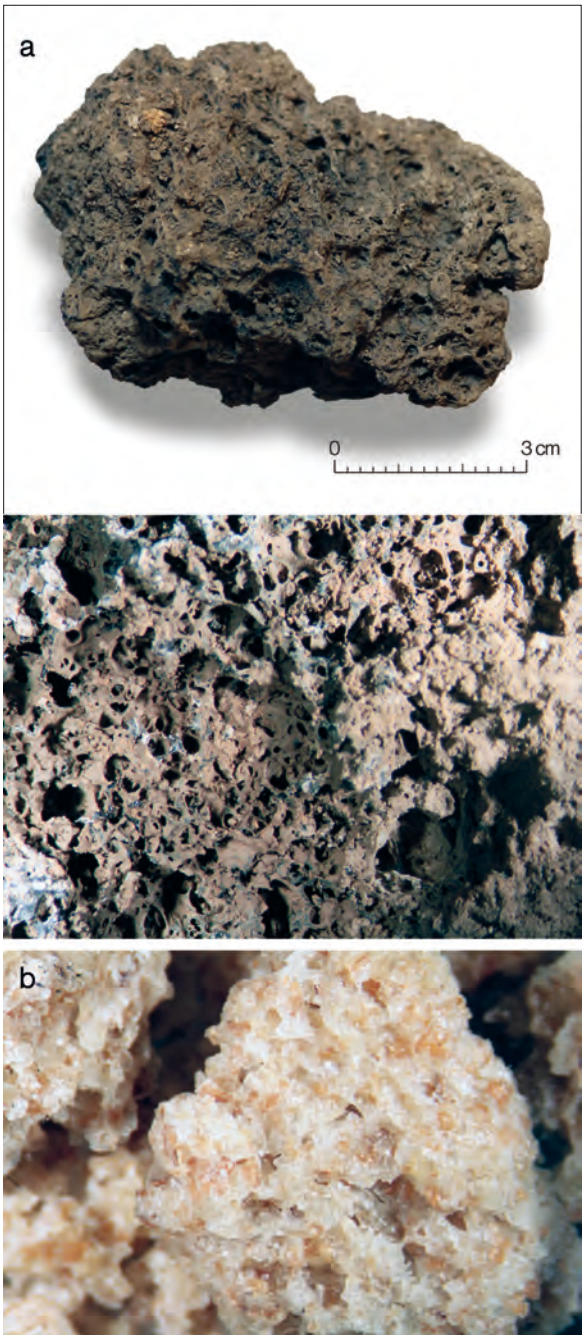
Sl. 2: Ostanki hrane (kaše) iz hiše 6 (6x povečano pod stereomikroskopom): a) pripravljene iz laškega muhviča (*Setaria italica*) in b) iz raznovrstnih žitaric (prim. *sl. 3*).
Fig. 2: Food remains (porridge) from House 6 (6x magnification under stereomicroscope): a) made of setaria (*Setaria italica*) and b) made of different types of cereals (*cf. Fig. 3*).
(Foto / Photo: D. Valoh).

They could belong to either a tree species of the Rosaceae family as e.g. rowan tree [*Sorbus*] or to a species of the dogwood genus [*Cornus*] (see *Tab. 1*). These two wooden fragments also seem to be consolidated with an unknown substance, but no indications of the use or purpose were identified.



Sl. 3: Iz ostankov pooglenelih "kaš" (prim. *sl. 2*), identificirani: a) laški muhvič, b) oves/rž (*Avena/Secale)* in c) proso (*Panicum miliaceum*).
Fig. 3: From carbonized porridge remains (*cf. Fig. 2*), identified: a) setaria (*Setaria italica*), b) oat/rye (*Avena/Secale*) and c) millet (*Panicum miliaceum*).
(Foto / Photo: D. Valoh)

Poleg tega je bilo najdeno nekaj posamičnih semen/plodov (torej ne v obliki pripravljene hrane), in sicer dva fragmenta koščice oreha in dobrih 27 gramov nesprijetih zoglenelih zrn prosa (*tab. 1; sl. 5*).



Sl. 4: a) Porozna in ožgana organska snov, morda ostanek kruha ali pogače iz hiše 6 (nepovečano in 6x povečano pod stereomikroskopom); b) recenten posušen kruh pod stereomikroskopom za primerjavo (6x povečano).
Fig. 4: a) Carbonized porous organic substance, possibly a bread or a cake remain from house 6 (not magnified and under 6x magnification); b): recent dried bread under stereomicroscope for comparison (6x magnification).
(Foto / Photo: D. Valoh).

Some charcoal fragments were also collected from the floor of the House 6 (see in this volume: Motella).

In addition to the wood/charcoal fragments, other archaeobotanical remains (i.e. seeds/fruits and food remains) were found at House 6 (Svoljšak & Dular 2016, 73) (*Figs. 2, 3*). There were food remains of porridge preserved in which whole carbonized seeds/fruits (i.e. grains) were recognized (see *Figs. 2, 3*). Also some other food remains were conserved, but it was not possible to interpret what they represent. They could be the remains of a sort of a bread or a cake, while the structure is porous and the seeds/fruits remains are not recognized (*Fig. 4a*).

All together approx. 240 grams (see *Tab. 1*) of food remains in porridge and bread/cake form were found in House 6. There were also some individual seeds/fruits identified, including two walnut fragments and more than 27 grams of millet grains (*Tab. 1; Fig. 5*).

Sl. 5: a) Fragmenta koščice oreha iz hiše 6; b) zrna prosa iz hiše 15A.
Fig. 5: a) Fragments of the walnut fruit from House 6; b) millet grains from House 15A.
(Foto / Photo: D. Valoh)

HIŠA 15A (FAZA 2)

V hiši 15A so bili poleg enega vzorca fragmentov lesa oz. oglja neznanega difuzno poroznega listavca z neznano namembnostjo najdeni le še posamični fragmenti semen/plodov: leske in boba (?) ter semena prosa (9,5 grama; npr. *sl. 5b*) (glej *tab. 1*).

DISKUSIJA IN ZAKLJUČEK

Arheobotanična analiza skromnih rastlinskih makroostankov, ki so bili v večini ohranjeni v zoglenelem stanju, kaže na uporabo (in najverjetneje tudi gojenje) nekaterih kulturnih rastlin, ki so bile v obdobju, v katerem je naselbina živela, že dobro poznane, saj smo na njihove ostanke naleteli tudi na drugih starejšeželeznodobnih najdiščih po Sloveniji (Dular in Tecco Hvala 2007, 209, sl. 119), npr. Gradec nad Mihovim (Culiberg in Šercelj 1995), Cvinger nad Koriti (Dular et al. 1995; Culiberg in Šercelj 1995), Cvinger pri Meniški vasi (Culiberg in Šercelj 1995), Gradec pri Vinkovem vrhu (Dular et al. 1995; Culiberg in Šercelj 1995) in Ljubljana – Tribuna (Tolar, arhiv IZA ZRC SAZU). O podobnih najdbah poročajo tudi z bližnjega svetišča v Altinu (Rottoli 2009).

S to raziskavo arheobotaničnih ostankov z najdišča Most na Soči lahko ponovno potrdimo podatkovno bazo arheobotaničnih najdb s slovenskih železnodobnih najdišč (npr. Dular in Tecco Hvala 2007, 209, sl. 119) z naslednjimi kulturnimi rastlinami: laški muhvič (*Setaria italica*), proso (*Panicum miliaceum*), oves (*Avena sativa*) oziroma rž (*Secale cereale*), bob (*Vicia faba*) in druge stročnice (Fabales).

Med njimi morda posebno pozornost namenimo laškemu muhviču, rastlini iz družine trav (Poaceae), ki jo danes poznamo kot arheofit[1] in kot plevelno vrsto oz. rastlino, ki poseljuje ruderalna[2] tla. Včasih je bila rastlina zaradi svojih številnih prosu podobnih zrn, ki jih vsako leto obrodi, ter zaradi svoje nezahtevnosti pogosto gojena za prehrano človeka, kasneje tudi za krmo živalim. Do danes je ta pomen izgubila in se ohranila le še kot plevelna rastlina ali pa kot krma za ptice. Najstarejši ostanki muhviča, tako kot tudi prosa, s slovenskih arheoloških najdišč segajo v obdobje zgodnje bronaste dobe (Kaligarič in Paušič 2010; arhiv IZA ZRC SAZU, neobjavljeno). Približno sočasen pojav teh vrst zaznavajo tudi na tujih srednjeevropskih arheoloških najdiščih (npr. Bakels 2012/13). Množičnejša uporaba in gojenje teh vrst pa se pojavi od pozne bronaste dobe, še bolj pa v

[1] Arheofit je neavtohtona rastlinska vrsta, ki je bila na drugo (npr. slovensko) območje zanesena s človekovim delovanjem (hote, kot gojena, ali nehote, kot plevelna vrsta) v starejših zgodovinskih obdobjih in se je do danes ohranila ter se samostojno razširja – je postala naravna rastlinska vrsta.

[2] Ruderalna mesta (ali tla) so območja, kjer deluje človek (npr. ob poteh, na obdelovalnih površinah).

HOUSE 15A (PHASE 2)

In House 15A were, beside the only charcoal fragment from deciduous wood with an unknown purpose, identified also some individual fragments of carbonized seeds/fruits: hazelnut, broad bean (?) and millet grains (9.5 grams; e.g. *Fig.* 5b; see *Tab. 1*).

DISCUSSION AND CONCLUSIONS

Archaeobotanical analysis of mostly carbonized plant macroremains from two houses from the Iron Age site at Most na Soči show the use (and probably also the cultivation) of some cultural plants that were already well known and cultivated throughout Europe in that period, including the area of modern-day Slovenia (Dular & Tecco Hvala 2007, 209, Fig. 119), e.g. Gradec nad Mihovim (Culiberg & Šercelj 1995), Cvinger nad Koriti (Dular et al. 1995; Culiberg & Šercelj 1995), Cvinger pri Meniški vasi (Culiberg & Šercelj 1995), Gradec pri Vinkovem vrhu (Dular et al. 1995; Culiberg & Šercelj 1995) and Ljubljana-Tribuna (Tolar, IOA ZRC SAZU, archive). Similar archaeobotanical finds were also identified near a sanctuary in Altino, Italy (Rottoli 2009).

The presented research of botanical macroremains from Most na Soči once again confirms the Slovenian archaeobotanical database of Iron Age cultivated plant species with the following species: setaria (*Setaria italica*), millet (*Panicum miliaceum*), oat (*Avena sativa*)/rye (*Secale cereale*), broad bean (*Vicia faba*), and other legumes (Fabales).

Of special interest is the grass species, setaria. This plant is nowadays known as archaeophyte[1] and as weed plant that thrives at ruderal[2] habitats. In the past, it was an important cultivated plant species for human nutrition and later for animal fodder, while it produces numerous seeds/fruits and survives quite well in unfavourable climate conditions. Nowadays, the plant species has lost its importance and is preserved only as a weed species or as bird fodder. The oldest remains of setaria as well as of millet from Slovenian archaeological sites originate from the Early Bronze Age (Kaligarič & Paušič 2010; archive IOA ZRC SAZU, unpublished). The same evidence is also known from other Central European sites (e.g. Bakels 2012/13). The plant became more frequently cultivated from the Late Bronze Age onwards and became indispensable in the Iron Age. It has not been established yet why this cultivar became so popular at that time. One reason could be the unfa-

[1] Archaeophyte is a plant species which is non-native to a geographical region, but which was an introduced species in 'ancient' times, and till today became natural species with its own multiplication.

[2] Ruderal habitats are sites where humans are active, i.e. along paths or on fields, etc.

železni dobi. Zakaj je ta kultura v tem času postala tako zelo priljubljena, še ni pojasnjeno. Morda so razlog za to klimatske spremembe, ki so se dogajale ravno okoli leta 800 pr. n. št. (Bakels 2012/13) in zaradi katerih se je zmanjšal pridelek ostalih, slabše prilagodljivih kulturnih rastlin (npr. pšenice).

Ostale identificirane vrste gojenih rastlin (oves/rž in bob) naj bi se po dosedanjih, sicer skromnih slovenskih arheobotaničnih rezultatih pojavile šele v obdobju starejše železne dobe (Culiberg in Šercelj 1995). Na obravnavanem najdišču, kot že rečeno, so prisotne, vendar ne v zavidljivem deležu.

Med domnevno nabiranimi sadeži/oreški smo naleteli na ostanke dveh vrst: lešnik oz. leska (*Corylus avellana*) in oreh (*Juglans regia*). Slednji velja za nekoliko presenetljivo ali pa vsaj omembe vredno najdbo (tj. dveh fragmentov koščice oreha), saj ta drevesna vrsta v Sloveniji skoraj gotovo ni avtohtona (Brus 2005). Gojena naj bi bila že vsaj 3000 let, z Rimljani pa naj bi se vrsta razširila po vseh toplejših delih Evrope (Brus 2005).

Med lesnimi ostanki smo prepoznali les vsaj dveh različnih vrst: difuzno poroznega listavca iz družine rožnic (Rosaceae) ali rodu drena (*Cornus* sp.) in polvenčasto poroznega listavca, morda oreha. Les listavcev je bil uporabljen za izdelavo vsaj dveh lesenih predmetov (*sl. 1*).

Najštevilnejši med nelesnimi arheobotaničnimi "po presoji odvzetimi" vzorci z obravnavanega najdišča so bili poogleneli ostanki vsaj dveh vrst hrane: 1. raznovrstnih kašam podobnih jedi iz laškega muhviča, prosa ali/in ovsa oz. rži (*sl. 2, 3*) in 2. neznane porozne organske snovi brez sledi semen/plodov, ki bi jo morda lahko prepoznali kot ostanek neke vrste kruha ali pogače (*sl. 4*).

Vsi ti ostanki so bili najdeni v hiši št. 6, ki jo Svoljšak in Dular (2016, 73) razlagata kot kultno mesto. To bi lahko bil vzrok za zoglenelost, pri čemer naj bi bili organski pridatki (v obliki hrane) namenoma vrženi v ogenj. Do podobnih identifikacij in zaključkov je prišel tudi Rottoli (2009) pri raziskavi arheobotaničnih ostankov v Altinu.

Čeprav je bilo na Mostu na Soči izkopanih kar 35 tlorisov hiš (Svoljšak in Dular 2016), so bili arheobotanični vzorci pobrani le iz dveh objektov, in sicer iz hiš 6 in 15A. Ker so bili arheobotanični vzorci odvzeti z vzorčenjem po presoji, o horizontalni razporeditvi ostankov in pomenu najdb v posameznih hišah ni mogoče diskutirati. Največ arheobotaničnih najdb smo dobili iz hiše 6, ki je opredeljena kot mesto za žgalno daritev (Dular in Svoljšak 2016). Namembnost hiše 15A (faza 2) ni čisto jasna, Svoljšak (2014) jo je opredelil za lončarsko delavnico.

vourable climate conditions in the period around 800 BC (Bakels 2012/13), which lowered the harvest of other crop species (e.g. types of wheat).

For the rest of the cultivated plants identified (e.g. oat/rye and broad bean), it is assumed that they appeared in the Early Iron Age period (Culiberg & Šercelj 1995). They are present at the investigated site but not in significant amounts.

Among the presumably collected fruits/nuts only two species were identified: hazelnut (*Corylus avellana*) and walnut (*Juglans regia*). The latter is somewhat surprising since this tree species is presumably not native for Slovenia region (Brus 2005). It has been cultivated for at least 3000 years. The Romans spread it throughout Europe (Brus 2005).

At least two species were identified among the wood finds from Most na Soči: a diffuse porous deciduous tree from the Rosaceae family or from the genus *Cornus* and half ring porous deciduous tree (possibly walnut). Deciduous wood was used to make at least two artefacts (*Fig. 1*). Most numerous among the sampled non-wooden archaeobotanical macroremains were carbonized remains of at least two different foods: 1. a sort of porridge made from setaria, millet and/or oat/rye (*Figs. 2, 3*) and 2. an unknown porous organic matter without traces of seeds/fruits that could be recognized as the remain of bread or cake (*Fig. 4*).

All the identified botanical macroremains were found in House 6, which is interpreted as a cult place, after Svoljšak and Dular (2016, 73). This could be a reason for the carbonization and preservation of plant remains (i.e. food) which were presumably intentionally thrown in the fire. Similar identifications and conclusions were proposed by Rottoli (2009) when researching archaeobotanical remains from Altino.

Archaeobotanical samples were collected from only two houses, 6 and 15A, although at least 35 houses from Most na Soči were excavated (Svoljšak & Dular 2016). While the judgement sampling method was used, it is impossible to discuss the horizontal and vertical distribution of the finds in the individual house. Almost all the archaeobotanical finds were obtained from House 6, the cult place (Dular & Svoljšak 2016). The purpose of House 15A (phase 2) is not certain. Svoljšak (2014) identified it as a pottery workshop.

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TEKSTILNA NAJDBA IZ ŽELEZNODOBNE NASELBINE MOST NA SOČI: KONSERVACIJA, ANALIZA IN PRIMERJAVA

TEXTILE FIND FROM THE IRON AGE SETTLEMENT AT MOST NA SOČI: CONSERVATION, ANALYSIS AND COMPARISONS

Karina GRÖMER, Klara KOSTAJNŠEK, Tjaša TOLAR, Gojka PAJAGIČ BREGAR

NAJDIŠČE IN KONTEKST

Goriški muzej iz Nove Gorice je v letih med 1971 in 1984 raziskal prostrano območje z ledinskim imenom Merišče, ki leži vzhodno od starega jedra vasi Most na Soči. Geološko osnovo pobočja sestavljata ledeniška morena in rečni prod, ki sta ga odložili reki Idrijca in Soča. Izkopavanja so razkrila ostanke 35 železnodobnih hiš, drenažni jarek in pot. Poleg tega so dokumentirali 32 lokacij z razpršenimi sledmi poselitve, o kateri pričajo ohranjene plasti ruševin in posamične najdbe (Svoljšak, Dular 2016). Posebej zanimive so organske najdbe iz hiše 6 (glej tu Tolar, 445–452).

HIŠA 6

Ostanki stavbe so ležali na pobočju, kjer je bil pozneje, v rimskem času, zgrajen obsežen stavbni kompleks in ta je uničil starejše ostanke. Od železnodobne hiše, ki je imela dve gradbeni fazi, so se ohranili skromni ostanki temeljev in obrisi gradbenih jam, zatrpanih z debelimi plastmi ruševin. Hiša je imela v prvi gradbeni fazi bolj ali manj kvadraten tloris in en sam prostor, merila je 3,5 m v dolžino in vsaj 2,6 m v širino, površina raziskanega dela znaša okoli 6 m^2 (Svoljšak, Dular 2016, 72). Sledi prežgane ilovice in oglja kažejo, da je pogorela.

Po požaru so postavili novo hišo (gradbena faza 2) okoli dva metra proti jugovzhodu. Nova gradbena jama je bila vkopana skozi ruševine v geološko osnovo, pri tem sta bili v precejšnem delu uničeni starejša zgradba in oprema. Hišo druge faze je pozneje v dobršni meri uničila rimska gradnja. Pravzaprav so ostanki omejeni z obrisom gradbene jame. Rob vkopa je bil dobro viden

SITE AND CONTEXT

Between 1971 and 1984, the Goriški muzej in Nova Gorica investigated an area covering the vast terrace known as Merišče, located to the east of the old centre of the village of Most na Soči. The natural deposits of the terrace are composed of moraine till and fluvioglacial gravel deposited by the Idrijca and Soča rivers. The excavations unearthed the remains of 35 Iron Age houses, a drainage ditch, and a path through the settlement. In addition, 32 locations of dispersed habitation traces were documented, where only layers of debris and individual finds indicative of human activities survived. House 6 is of particular interest concerning organic finds (see this volume Tolar, 445–452).

HOUSE 6

The remains of the building were situated on the part of the slope that was occupied later, in the Roman Period, by a vast building complex that largely destroyed the earlier remains. The Iron Age house had two construction phases, of which only some limited remains of the foundations survived along with the outlines of the construction pits filled with thick layers of debris. In the first phase, the house had a roughly square plan and a single room, which measured 3.50 m in length and at least 2.60 m in width. The interior surface of the area investigated measured roughly 6 m^2 (Svoljšak & Dular 2016, 72). Traces of burnt clay and charcoal indicate that the house burnt down.

After the fire, a new house was constructed two metres further to the southwest (second construction

zlasti na severozahodu, čeprav so ga na treh mestih presekali rimski zidovi. Gradbeno jamo so zapolnjevale ruševine, sestavljene pretežno iz prežgane gline, kamnitega drobirja s sledovi ognja in zoglenelega lesa. Pestra zastopanost drevesnih vrst kaže na prostor za žgalno daritev. Najdbe so ležale pod rimskimi zidovi, med njimi so fragmenti fibul, lončenina, bronasti gumbi in obeski ter jagode iz stekla, brona in koral. V prežgani zemlji so bili tudi živalske kosti, zrna žit, fragmenti zoglenele pogače in tkanine (glej tu Tolar; Laharnar; Toškan).

TEKSTILNI OSTANKI IZ HIŠE 6

STANJE OHRANJENOSTI TKANINE IN METODE ANALIZE

Pogoji za ohranitev organskih snovi so v klimatskih razmerah osrednje Evrope vse prej kot ugodni. Tovrsten material se na arheoloških najdiščih redko ohrani, le v izjemnih okoliščinah (glej npr. Grömer 2016, 20–31), kot so koliščarske neolitske in bronastodobne naselbine na mokrih tleh predalpskega prostora (npr. Pajagič Bregar et al. 2009), najdbe v rudnikih soli v Hallstattu in Dürrnbergu-Halleinu ali npr. v ledeniku ohranjena neolitska mumija, znana kot Ötzi. Te najdbe kažejo raznovrstne naravne materiale, ki so jih prazgodovinski ljudje poznali in uporabljali. Velika večina arheološkega tekstila je ohranjena v majhnih fragmentih, običajno na kovinskih predmetih, denimo iz brona, železa ali srebra (glej npr. Grömer et al. 2017).

Zoglenele tekstilne najdbe so poseben primer, po navadi so odkrite v grobovih ali v naselbinskih kontekstih, kot je v primeru obravnavanega tekstila z Mosta na Soči. Pri nepopolnem gorenju delujejo kemični procesi vzajemno s fizičnimi spremembami. Zoglenel tekstil se navadno ohrani v skrčenem stanju (glej Wild 1988, 11), kljub delnim transformacijam pa ostane mikrostruktura v precejšnji meri enaka. Rastlinska vlakna so v karbonizirani obliki običajno bolj stabilna, v nasprotju z vlakni živalskega izvora, ki se v ognju pogosto razkrojijo. Če je organski material (npr. tekstil) dlje časa izpostavljen visokim temperaturam brez prisotnosti kisika, zogleni. Pri tem se neobstojne sestavine tekstilnih vlaken zmanjšajo, naraste pa vsebnost ogljika. Mikrostruktura rastlinskih in živalskih vlaken se v veliki meri ohrani.

Pri analizi tkanine je treba preučiti različne konstrukcijske parametre *(sl. 1*; glej npr. Walton in Eastwood 1988). Mednje sodijo poleg vrste preje (enojna preja ali sukana preja, smer vitja (S ali Z), premer preje) še karakteristike tkanja (vrsta vezave, gostota niti, napake pri tkanju). Dokumentira se tudi morebitne ohranjene robove tkanine, šive ali druge strukture površine. Pri zoglenelem tekstilu je treba upoštevati, da se ta zaradi karbonizacije pogosto skrči, zato je treba konstrukcijske lastnosti takšnega tekstila zelo pazljivo obravnavati.

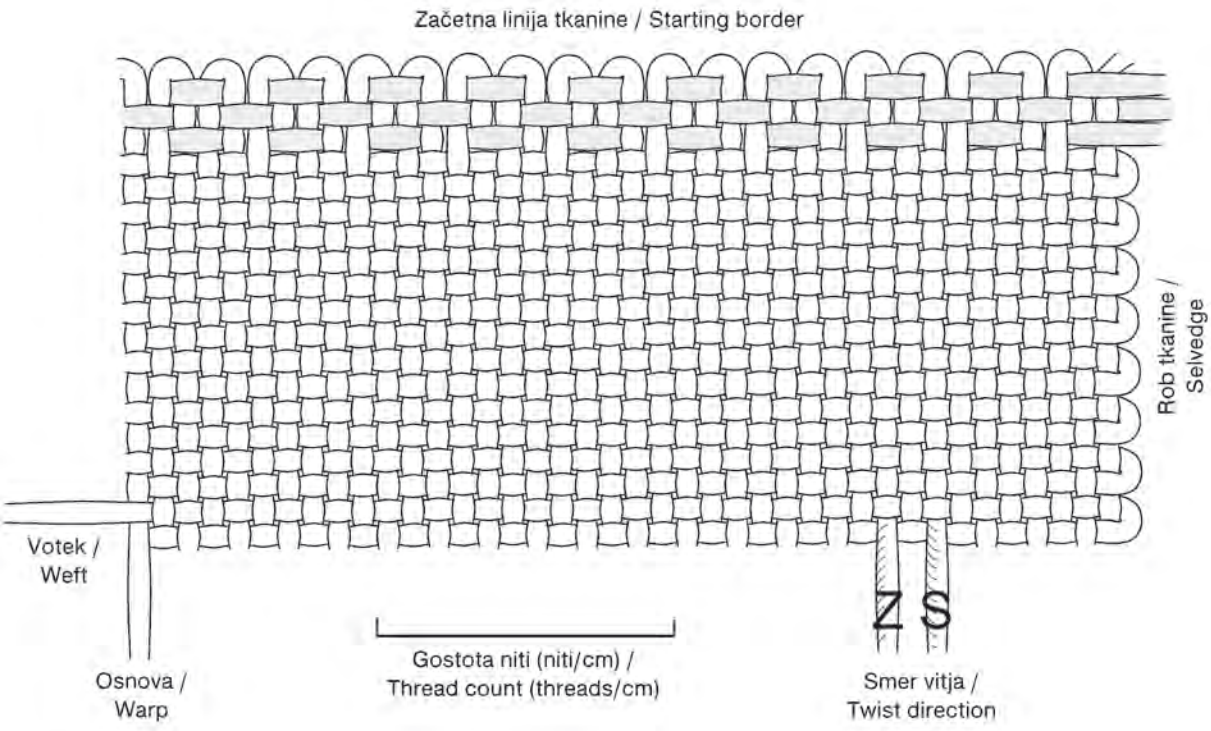
phase). The new construction pit cut through the debris and into the natural deposit. It destroyed a considerable part of the earlier house remains and inventory. In turn, the Romans later largely destroyed the second phase house. In fact, its remains are more or less limited to the outline of the construction pit. The edge of the construction pit was most clearly discernible in the northwest, though it was cut in three areas by Roman period walls. The construction pit was filled with debris, which mainly consisted of burnt earth, small pieces of rubble with traces of fire and numerous pieces of charred wood. The great variety of wood species suggests a burnt-offering place. The finds were lying under the Roman walls and include fragments of fibulae and ceramic vessels, bronze buttons and pendants, as well as beads of glass, bronze, and coral. The burnt earth also revealed animal bones, cereal grains, charred bread and fragments of a textile (see also this volume Tolar; Laharnar; Toškan).

THE TEXTILE REMAINS FROM HOUSE 6

PRESERVATION CONDITIONS OF TEXTILES AND METHODOLOGY OF TEXTILE ANALYSIS

The preservation conditions for organic materials under the climatic conditions of Central Europe are, especially for textiles, anything but suitable. Thus, the majority of the materials that were handled by prehistoric people are usually not preserved at archaeological sites. Only in serendipitous cases (see e.g. Grömer 2016, 20–31), such as the Neolithic and Bronze Age wetland settlements around the Alps (e.g. Pajagič Bregar et al. 2009), the findings from the salt mines in Hallstatt and Dürrnberg-Hallein or even the Iceman, a Neolithic mummy better known as 'Ötzi' show us the variety of raw materials in use. The great majority of archaeological textiles are tiny fragments, preserved in connection with metal artefacts such as bronze, iron or silver (see e.g. Grömer et al. 2017).

Charred textiles are a specific case; they can be found in graves as well as in settlement contexts, as in the case of Most na Soči. With incomplete combustion, chemical processes interact with physical alterations. After carbonization (see Wild 1988, 11), the charred and usually shrunken textiles preserve in carbonized form. Although there are partial transformations, the microstructure of the textile usually remains substantially intact. Plant fibres are often more stable in a carbonised state, animal fibres, on the other hand, often perish in fire. If the textiles are exposed to excessive heat in the absence of oxygen, the process is called coalification. The amount of volatile constituents of the textile fibres thereby decrease more and more in favour of the carbon content. Again, the microstructure of plant and animal fibres is largely maintained.



Sl. 1: Shematski prikaz tkanine in njenih konstrukcijskih parametrov.
Fig. 1: Technical details of a textile.
(© K. Grömer, after Banck-Burgess 1999, Fig. 5.1).

Analizo tkanine in njenih konstrukcijskih parametrov smo izvedli z digitalnim ročnim mikroskopom *DinoLite*, stereomikroskopom *LEICA LZ 40* in stereomikroskopom *65.560 NOVEX* (Euromex - Holland) ter z digitalno kamero (*CMEX5000*). Izmerili smo premer preje, določili vezavo tkanine ter podrobno preučili možne vzorce na površini, šive ipd.

Vrsto vezave smo določili po standardih *SIST EN 1049* in *ISO 7211-2:1984*. Vezavo smo določili neposredno na vzorcih, pri čemer smo uporabili lupo, preparirno iglo in ravnilo. Pomagali smo si tudi z vizualno analizo s programom *ImageJ*. Gostoto niti smo določali po enakih standardih, kot veljajo za vezavo, tj. sprva neposredno na vzorcih in nato z vizualno ali optično analizo. Določili smo smer zavojev preje (Z ali S) v skladu s standardom *SIST ISO 2:1995*, premer preje z monookularno lupo ter vizualno analizo (s programom *ImageJ*), premer vlaken pa s pomočjo SEM-posnetkov in programa *ImageJ*.

Identifikacija vlaken je bila izvedena na podlagi morfološke analize z vrstično elektronsko mikroskopijo (*SEM*) na aparatur*i JEOL JSM-6060 LV* (glej npr. Sreenivasa Murthy 2016). Za strukturno ali analitično opazovanje predmetov mikro in celo nano velikosti (0,000001 mm) se uporablja elektronski mikroskop. Kot komplementarno metodo smo uporabili Fourierjevo transformacijsko infrardečo spektroskopijo (FTIR)

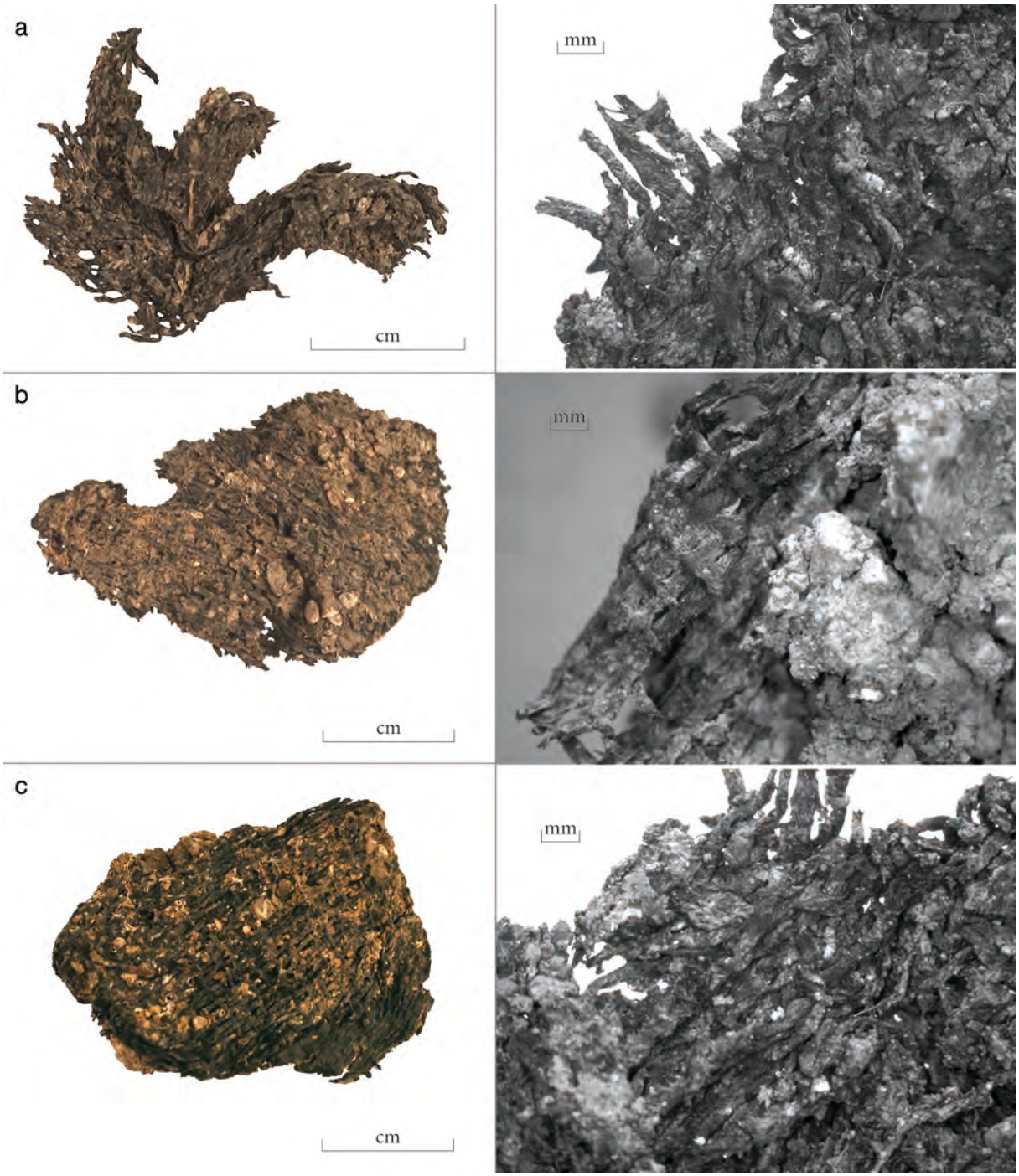
To analyse a textile, various technical details must be recorded (*Fig. 1*; see e.g. Walton & Eastwood 1988). Among them are the characteristics of the threads (use of plied or single yarn, twist direction (S or Z) and yarn diameter), as well as the characteristics of the weave (weave type, thread count, weaving errors). If possible, patterns, seams and hems and other surface structures must be documented as well. In the case of a charred textile, the fact that such textiles are often shrunken must be taken into account. Thus, the technical data is to be discussed with great care.

Measurements of the technical details of the textile from Most na Soči were carried out with a *DinoLite* Digital Microscope, a *LEICA LZ 40* stereomicroscope, and a *65.560 NOVEX* stereomicroscope (Euromex, Holland) with a digital camera (*CMEX5000*). Thread diameter, fine structures of the weave and details of patterns and seams were documented.

The type of weave was determined in accordance with the standards *ISO 3572:1976* and *ISO 9354:1989*. The weave was determined directly on the samples, using a magnifier, preparation needle, and a ruler. *ImageJ* software was used for visual analysis. The thread density was determined in accordance with the standards *SIST EN 1049* and *ISO 7211-2:1984*. The density was determined similarly as weave was, i.e. first on the samples

(glej npr. Garside in Wyeth 2006). Analiza FTIR je bila izvedena na aparaturi *Perkin Elmer*, UK. Namen uporabe spektroskopije je bil primerjati kemijsko sestavo vzorcev (funkcionalne skupine molekul, iz katerih so sestavljeni vzorci). Mikro- in spektroskopske analize so bile izvedene na Oddelku za tekstilstvo, grafiko in oblikovanje Naravoslovnotehniške fakultete Univerze v Ljubljani.

and then by means of visual analysis. The twist direction of yarn (Z or S) was performed by means of visual analysis and in accordance with the standard *SIST ISO 2:1995*. The yarn diameter analyses were conducted with a monocular magnifier and with the program *ImageJ*. The fibre diameter was determined using *SEM* images and *ImageJ* program.



Sl. 2: Tekstil z Mosta na Soči, očiščeni in analizirani vzorci. Od zgoraj navzdol: vzorec 1, vzorec 2 in vzorec 3.
Fig. 2: Fig. 2: Textile from Most na Soči, analysed samples after cleaning. From uppermost to the lowest: Sample no. 1, Sample no. 2 and Sample no. 3.
(Foto / Photo: M. Zaplatil (levo / left); M. Starešinič (desno / right).

POSTOPEK ČIŠČENJA IN KONSERVACIJE

Trije vzorci zoglenelega tekstila so se ohranili skupaj z grudicami zemljine (prst z manjšimi kamenčki iz kulturne plasti železnodobne naselbine). Zaradi starosti in pooglenitve so poškodovani, krhki, sploščeni, črne barve, umazani od prsti ter na dotik togi in krhki. Prvotna oblika vlaken je tako ohranjena samo na določenih delih. V prvi fazi smo vzorce nežno očistili s čopičem in fotografirali (*sl. 2)*.

TEHNIČNE ZNAČILNOSTI IN PRIMERJAVE TEKSTILNE NAJDBE

Ker so si ostanki podobni in so bili najdeni dokaj blizu drug drugega, domnevamo, da pripadajo istemu kosu tekstila, zato jih opisujemo skupaj. Čeprav so ostanki relativno majhni (največji kos meri pribl. 3,5 x 2,4 cm), so pomembni, saj nimamo veliko informacij o tekstilu iz sočasnih naselbinskih kontekstov.

Identifikacija vezave tekstilnih niti je bil velik izziv, ker so vzorci izjemno krhki in nestabilni. Zasledovali smo ponovitve prepleta niti in raport vezave – še posebno na tistih mestih, kjer je bil vzorec manj poškodovan (npr. *sl. 3*). Takih delov je bilo samo nekaj, večina vzorca je imela nejasen ali neprepoznaven preplet niti. V ilovnati grudi je bilo mogoče identificirati tkanino v več plasteh (do 3 plasti, npr. pri vzorcu 3*; sl. 4)*. Vezavo smo lahko določili le na nekaj mestih, gre pa za vezavo platno. Robovi tkanine se niso ohranili, zato ni bilo mogoče določiti smeri osnove ali votka. Tkanina je bila izdelana iz enojne preje s S-vitjem in premerom 0,3–0,5 mm *(sl. 3, 4)*. Zaradi zoglenelosti je tkanina črna in sploščenega videza. Na določenih predelih je razpadla, vlakna so se skrčila, zato medsebojna povezava med nitnima sistemoma ni vidna. Podoben proces razkroja je opazen tudi pri sočasnih najdbah z nekaterih grobišč (glej npr. Banck-Burgess 1999, Taf. 1–2).

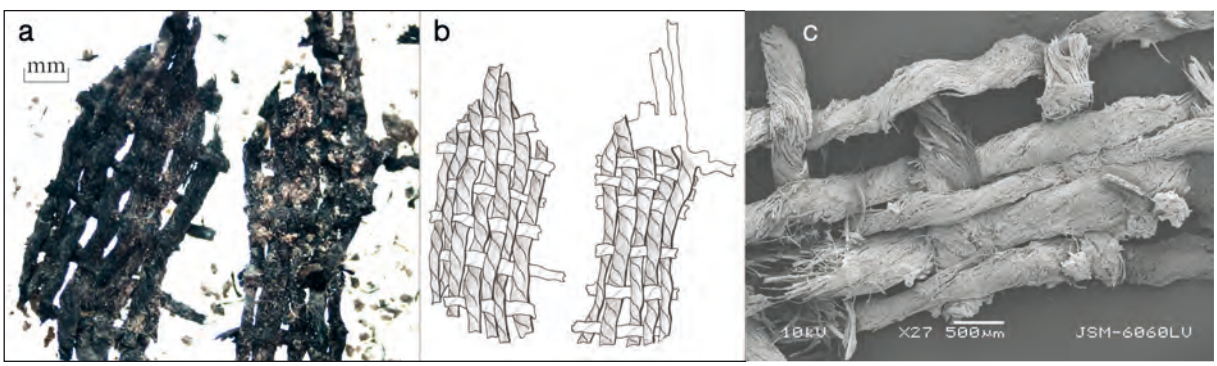
The identification of fibres was performed on the basis of the morphological analysis with a scanning electron microscope (*SEM*) on a *JEOL JSM-6060 LV* machine (see e.g. Sreenivasa Murthy 2016). Electron microscopy is applied to study objects down to the micro- and even nanometre scale (0.000001 mm) in a structural or analytical way. Moreover, the Fourier Transform Infrared Spectroscopy (FTIR) (see e.g. Garside & Wyeth 2006) was used as a complementary method and was conducted on a *Perkin Elmer* machine, UK. The purpose of using spectroscopy was to compare the chemical structure of the samples (functional groups of molecules composing samples). The micro- and spectroscopic analyses were performed at the Faculty of Natural Sciences and Engineering, Department of Textiles, Graphic Arts and Design in Ljubljana.

CONSERVATION TREATMENT

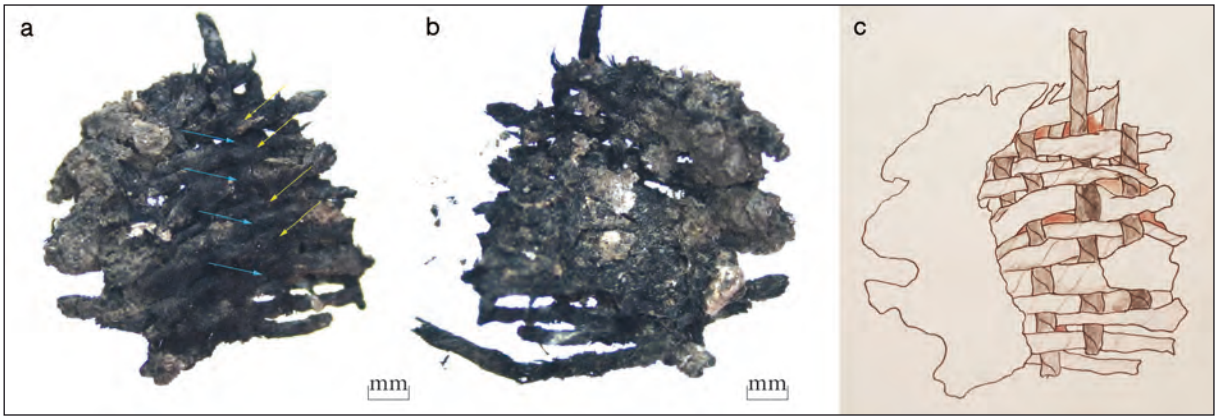
Three samples of charred textile remains were preserved with a lump of intact soil and small stones from a cultural layer of an Iron Age settlement. The remains of the textiles are charred, damaged, flattened, coloured black and, in most cases, surrounded by soil. Their original shape has only been preserved in certain places. The fibres are infused with soil and impurities, and they appear stiff. However, they are extremely fragile and decompose at low load. The samples were gently cleaned with a brush and photographed *(Fig. 2)*.

TECHNICAL DESCRIPTION OF THE TEXTILE FIND AND COMPARISONS

As the different fragments of textile are quite similar and were found close to each other, it was assumed that all of them formerly belonged to one textile and are, therefore, described together. The textile fragments are



Sl. 3: Vzorec 2. a) Detajl vzorca (foto: M. Starešinič); b, c) jasno viden del prepleta niti, ki kaže na vezavo platna
Fig. 3: Sample no. 2. a) Detailed view of the sample (photo: M. Starešinič);
b, c) clearly visible parts of the weave and the plain weave pattern
(Foto in risba / Photo and drawings: K. Kostajnšek).



Sl. 4: Vzorec 3. a) Sprednja stran, vidno prepletanje vzdolž ene niti (M. = 1:1); b) s hrbtne strani; c) shema prepleta osnovnih in votkovnih niti.
Fig. 4: Sample no. 3. a) Front side and apparent interweaving of one thread (Scale = 1:1); b) from the backside; c) scheme of the interlacing of the warp and weft thread.
(Foto / Photo: M. Starešinič; risba / drawing: K. Kostajnšek).

Na tistih mestih, kjer sta struktura tkanine in veza-va lepo vidni *(*npr. *sl. 3, 4)*, je bilo mogoče določiti število niti na enoto (tj. gostoto niti). Da bi pridobili čim bolj zanesljive rezultate, smo štetje na različnih mestih večkrat ponovili. Vidna struktura vezave platno je nenavadna, saj je gostota niti v eni smeri dvakrat večja kot v drugi. Kljub temu se vrsta vezave s tem ni spremenila, vendar je treba upoštevati tudi krčenje. Videti je, kot da je tkanina večplastna, morda zaradi nekakšne deformacije ali namembnosti oziroma uporabe. Tehnične lastnosti vlaken in tkanine, ki nam jih je uspelo analizirati, so navedene v *tabeli 1*.

Na enem od fragmentov (vzorec 3) je bila vidna nit v paru (ali dvojna nit; *sl. 4*). Ker je fragment premajhen za določitev smeri osnove in votka, lahko ta pojav pojasnimo z več razlagami. Če se nit v paru pojavi v

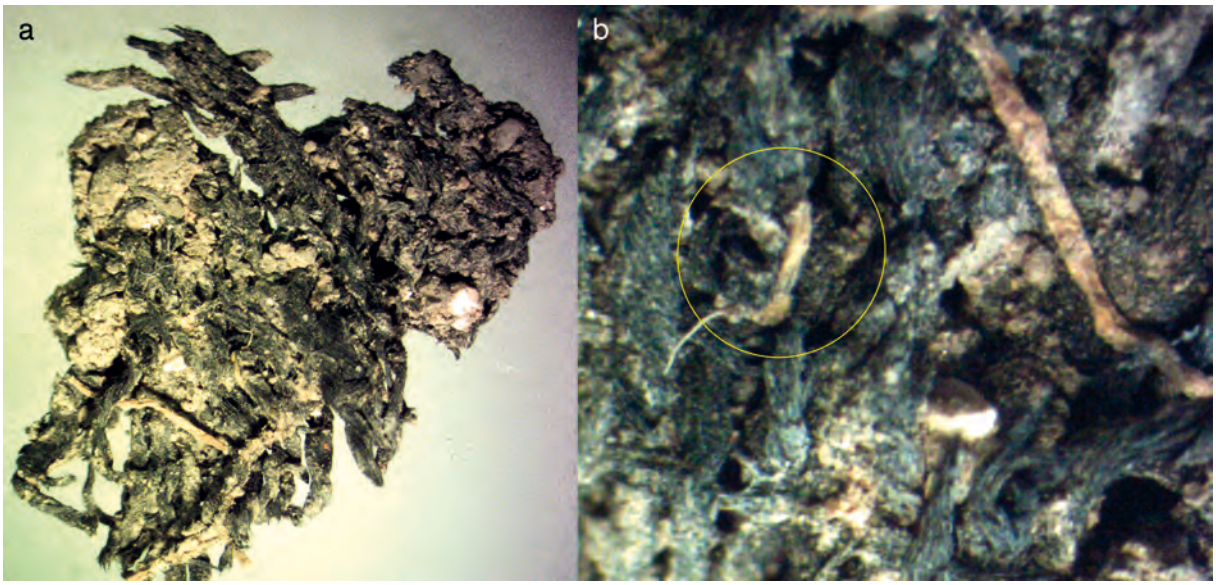
	Nitni sistem 1 **Thread system 1**	**Nitni sistem 2** **Thread system 2**
Vrsta preje Yarn/plied yarn	enojna preja single yarn	enojna preja single yarn
Smer vitja Twist direction	s	s
Kot vitja Twist angle	30-40°	30°
Premer preje Yarn diameter	0,3-0,5 mm	0,3-0,4 mm
Premer vlaken Fibre cross- section diameter	5-12 µm	
Gostota niti (število niti/cm) Thread count (threads per cm)	18-20	10-12

Tab. 1: Konstrukcijske lastnosti tekstila.
Tab. 1: Technical details of the textile.
(© K. Grömer, NHMW).

quite small (the biggest parts of them cover an area of 3.5 x 2.4 cm; c. 3.75 x 1 cm), but nonetheless important because there is little information about textiles from contemporary settlement contexts.

The identification of the weave-type was a challenge because of the highly brittle and unstable conditions of the samples. We looked for a repeat of yarn entanglement and repeat of weave, especially in places where the samples were less damaged (e.g. *Fig. 3*). There were few such sections; the majority of samples contained unclear or unrecognisable yarn entanglement. In the clay lumps up to three layers of the textile could be identified (e.g. in Sample 3; *Fig. 4*). There are some places, where the weave structure can be identified as plain weave (tabby). There was no selvedge or other hint to discern warp and weft. The fabric was made of S-twisted single yarns of 0.3–0.5 mm thread diameter (*Figs. 3, 4*). The colour is blackish due to the charred state, and the textile has a flattened appearance. The textile is disintegrated, the fibres have been shrunken; thus, the internal connection between the thread systems is declining. Similar mechanisms of disintegration have also been observed among contemporary grave finds (see e.g. Banck-Burgess 1999, Taf. 1–2).

We determined the number of threads per certain unit only in places where the fabric structure and weave were clearly visible (e.g. *Figs. 3, 4*). In order to obtain a result that would be as reliable as possible, the counting was repeated in different places as many times as possible. The visible structure of the plain weave is remarkable, because the thread count in one direction is twice as large as in the other direction. Nonetheless, the weave type did not change but shrinkage must be taken into account. It appears as if the fabric is placed, and several layers maybe perhaps because of some kind of deformation or merely because of different purpose or use. The technical measurements that can still be taken are listed in *Table 1*.



Sl. 5: Vzorec 1, ohranjen ostanek niti.
Fig. 5: Sample no. 1, preserved residue of the thread.
(Foto / Photo: K. Kostajnšek).

smeri osnove, gre lahko za napako pri snovanju, kar pomeni, da se je pri snovanju zaradi napake namesto ene niti pojavila nit v paru. Če pa se nit v paru pojavi v smeri votka, gre lahko za deformacijo pri izvleku votka (zgrešen votek) med tkanjem, kjer se je naslednji vneseni votek prekril s prejšnjim.

Nit, ki smo jo odkrili pri vzorcu 1 *(sl. 5b*, obkroženo*)*, se močno razlikuje od ostalih. Posnetki SEM ohranjenega ostanka niti kažejo podoben vzdolžni videz *(sl. 5)*, kot ga imajo ostale niti na vzorcu, zato predpostavljamo, da gre za lan ali konopljo. Na podlagi pojavljanja niti v vzorcu domnevamo, da gre za sukanec – kot prikazuje *sl. 5*, bi to lahko bil šiv v tkanini.

Če primerjamo najden tekstil z Mosta na Soči z drugimi sočasnimi tekstilnimi najdbami, lahko rečemo, da se sklada z njimi. Vezava platno je poleg vezave keper (glej Grömer et al. 2017) v halštatski kulturi običajna. Tudi uporaba enojne preje je značilna za tekstil vzhodnohalštatske kulture (glej Bender Jørgensen 2005; Grömer et al. 2013, sl. 18). Premeri zoglenelih in zato skrčenih niti se bolj ali manj uvrščajo v red velikosti doslej znanih kvalitetnih halštatskih tekstilij, npr. premeri niti iz Hallstatta v Avstriji so najpogosteje med 0,3 in 0,6 mm (Grömer et al. 2013, sl. 17). Tudi gostota niti med 10 in 20 niti/cm je precej običajna v tem času in prostoru.

Kakorkoli že, halštatske tkanine v vezavah platno in keper so navadno dokaj enakomerne, še posebno tkanine iz enojne preje, uporabljene v obeh sistemih oz. smereh. Na območju vzhodne halštatske kulture je bilo najdenih le nekaj primerov tkanin v vezavi platno s primerljivo gostoto niti, predvsem v Sloveniji in na Madžarskem: npr. grobna najdba z Vač, kjer je na železnem

On one of the fragments (Sample no. 3) once a paired thread is visible (*Fig. 4*). As the fragment is too small to distinguish warp and weft, that feature can be explained in different ways. Perhaps it was a fault in the warping of the loom, and a paired yarn was once used as warp instead of a single yarn. If the paired yarn is situated in weft direction, it might be explained that during weaving the weft thread ran out and a new one was added, overlapping the former one.

A thread was found at Sample no. 1 (*Fig. 5b*, circle) that substantially differs from the others. The SEM images showed a similar longitudinal appearance (*Fig. 5*) as in other threads; thus, it can be presumed that the raw material is flax or hemp. Based on the way the thread appears on the sample, this is probably a sewing thread, as demonstrated in *Fig. 5*, this could be a seam in the fabric.

To compare the item from Most na Soči with what we know about contemporary textiles, we can say that it fits in quite well. Plain weave or tabby is next to twill a common weave type in the Hallstatt Culture. Furthermore, the use of single yarn fits well in what we know about textile culture of the Eastern Hallstatt area (see Bender Jørgensen 2005; Grömer et al. 2013, Fig. 18). The diameters of the shrunken threads are in between the range of well-known textile qualities of the Hallstatt Culture, e.g. at Hallstatt in Austria thread diameters of 0.3–0.6 mm are the most common (Grömer et al. 2013, Fig. 17). Moreover, thread counts between 10 and 20 threads per cm are common in the region and period.

Nevertheless, Hallstatt Period tabbies and twills are usually balanced, especially textiles with single yarn in both thread directions. Only few examples of tabby

obroču ohranjena tkanina v platneni vezavi z gostoto 18 niti/cm v eni smeri in 10 niti/cm v drugi. Z madžarskega najdišča Csanytelek Ujhalasto je na železnem prstanu iz groba 44 ohranjena mineralizirana tkanina v platneni vezavi, ki je imela podobno gostoto niti in je v enem nitnem sistemu (v eni smeri) prav tako dvakrat večja kot v drugem, kar pomeni 8 osnovnih niti/cm in 16 votkovnih niti/cm. (glej Bender Jørgensen 2005, 142 in 145, inv. št. 48 in 123).

ANALIZA VLAKEN

Na podlagi posnetkov SEM ter opazovanja vzdolžnega videza vlaken pri vzorcu 1 z Mosta na Soči predpostavljamo, da gre za laneno ali konopljino vlakno; površinske karakteristike so namreč pri obeh zelo podobne.

Čeprav so vlakna zoglenela, polna nečistoč in obdana z zemljo (*sl. 2–5*), lahko opazimo (*sl. 6*), da so nekatera vlakna vzdolžno precej neenakomerno široka. Vidni so značilna odebeljena mesta in prečni pregibi, premaknitve, ki so posledica mehanske obdelave in so tipični za laneno ali konopljino vlakno. Tudi oblika vzdolžnega izgleda vlakna, ki je žlebasto in rahlo oglato, kaže značilnosti lanu ali konoplje *(sl. 6, 7)*.

Glede na rezultate analize FTIR lahko zaključimo, da med temi tremi vzorci ni bistvenih razlik *(sl. 8)*, zato lahko potrdimo domnevo, da gre za enako surovino. Namen uporabe Fourierjeve transformacijske infrardeče spektroskopije (FTIR) je bil primerjati kemijsko sestavo vzorcev (funkcionalne skupine molekul, iz katerih so vzorci sestavljeni). V našem primeru ne moremo potrditi razlike, ali gre za lan ali konopljo.

Glavne absorpcijske trakove spektrov FTIR, pridobljene z analizo vzorcev 1, 2 in 3, smo primerjali z odgovarjajočimi absorpcijskimi trakovi skupaj z viri v literaturi, ki opisujejo navedene trakove (Šutka et al. 2012; Dai in Fan 2010; Garside in Wyeth 2006). Glavni absorpcijski trakovi so se pokazali pri 3250 cm^{-1}, 1570 cm^{-1}, 1370 cm^{-1} in 1015 cm^{-1} in so povezani s funkcionalnimi skupinami ter posledično identifikacijo surovinske sestave preiskovanih vzorcev, kar je prikazano tudi v *tabeli 2*.

textiles with comparable thread count were found in the Eastern Hallstatt Culture, especially in Slovenia and Hungary: for example, a grave find from Vače with a tabby on an iron ring with 18 threads in one direction and 10 in the other; and from Csanytelek, Ujhalasto, there is a tabby textile encrusted on an iron ring from Grave 44, that also has a thread count in one system twice that of the other: i.e. 8 warps to 16 weft threads (see Bender Jørgensen 2005, 142 and 145, Cat. Nos. 48 and 123).

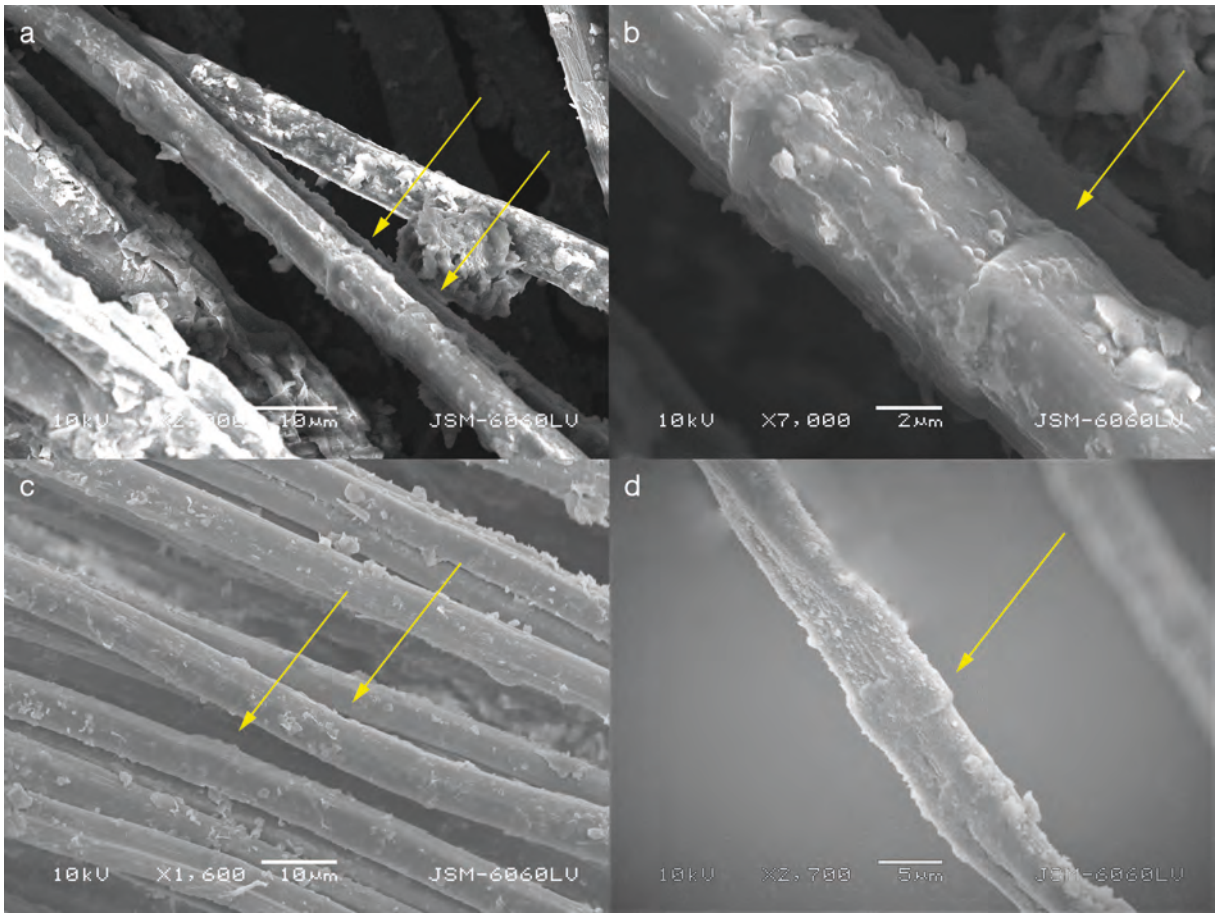
FIBRE ANALYSIS

Based on the SEM images and observation of longitudinal fibre appearance at Sample 1, it can be assumed that this is either a flax or hemp fibre, since the surface characteristics of the two are very similar.

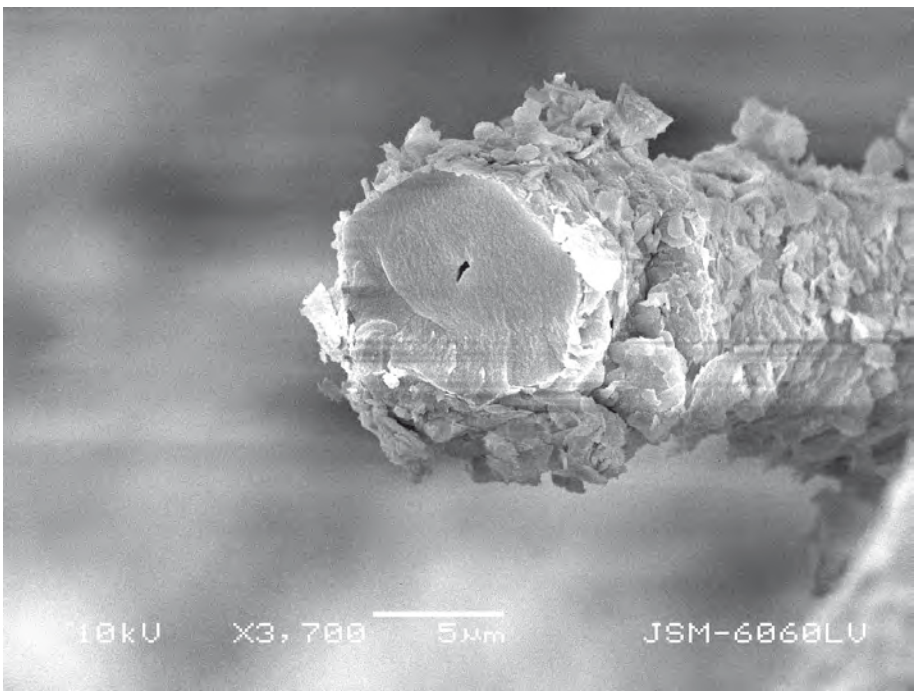
The fibres are charred, full of impurities and surrounded by soil (*Figs. 2–5*). The longitudinal view of the fibre (*Fig. 6*) shows the width to be quite irregular. Nevertheless, some characteristic nodes remain visible: the points at which the fibre width changes are marked with swellings and irregular joint formations. Also kink bands, folds and dislocation can be observed along the length of some fibres, which are a consequence of mechanical treatment, and are typical of flax and hemp fibres. Furthermore, the shape of the longitudinal fibre appearance indicates the characteristics of flax or hemp. The shape is fluted (irregular polygonal shapes, contributing to the coarse texture of the fabric) and slightly angular (*Figs. 6, 7*).

Regarding the results of FTIR analysis, it can be concluded that there are no significant differences among the three samples (*Fig. 8*). This fact further confirms the assumption that all the samples consist of the same (raw) material. The purpose of using the Fourier Transform Infrared Spectroscopy (FTIR) is to make a comparison between the chemical structure of samples (functional groups of molecules composing samples). In this case, the FTIR analysis results cannot confirm whether this is flax or hemp.

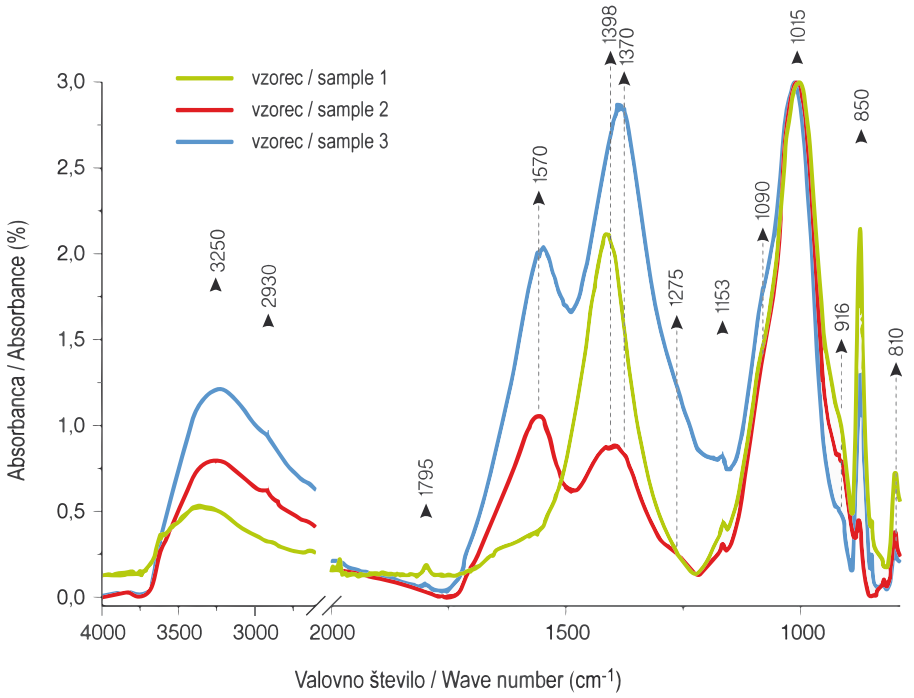
Main absorption bands in FTIR spectra obtained from the analysis of the Samples 1, 2 and 3 were compared with the corresponding assignments of these bands according to the literature review (Šutka et al. 2012; Dai & Fan 2010; Garside & Wyeth 2006). The main position of absorption bands is found at 3250, 1570, 1370 and 1015 wavenumber in cm^{-1}, associated with related functional groups and consequently identification of raw material, which are presented in *Table* 2.



Sl. 6: Vzorec 1, vzdolžni pogled in značilnosti vlaken.
Fig. 6: Sample no. 1, longitudinal appearance and characteristics of fibres.
(Foto / Photo: K. Kostajnšek).



Sl. 7: Vzorec 1, prečni prerez vlakna in dobro viden lumen vlakna.
Fig. 7: Sample no. 1, cross section of the fibre and a clearly visible lumen.
(Foto / Photo: K. Kostajnšek).



Sl. 8: Vzorci 1, 2 in 3, primerjava FTIR spektrov.
Fig. 8: Samples Nos. 1, 2 and 3, FTIR spectra.
(Graf / Graph: V. Zalar Serjun).

Pozicija absorpcijski trakov (valovno število cm^{-1}) Position of absorption bands (wavenumber in cm^{-1})		Funkcionalne skupine (vrsta vibracije) Functional group (vibration mode)	Surovina Materials
Izmerjene vrednosti Investigated samples	Podatki pridobljeni s pregledom literature Data obtained by literature review		
3250	2400–3600	O-H valenčno nihanje O-H stretching	lan, konoplja flax, hemp
1570	1500–1570	nitro NO_2	
1370	1365 1384 1372	C-H deformacijsko nihanje metoksilnih skupin in C1-O vibracije siringil derivatov symmetric C-H bending from methoxyl group and C1-O vibrations in syringyl derivatives	lan, konoplja flax, hemp
1015	1000–1162	C-O; C-O-C valenčno nihanje C-O; C-O-C stretching	celuloza, hemiceluloza, lan, konoplja cellulose and hemicellulose flax, hemp

Tab. 2: Glavni absorbcijski trakovi FTIR spektrov.
Tab. 2: Main absorption bands in FTIR spectra.

DISKUSIJA: KONTEKSTI TEKSTILNIH NAJDB

Tekstilne najdbe iz starejše železne dobe so bile odkrite v srednjeevropskem prostoru v različnih kontekstih. Večina jih izvira iz grobov, kjer je bil tekstil uporabljen kot oblačilo pokojnika oziroma kot mrtvaški prt ali pa za zavijanje grobnih pridatkov (darov) (glej npr. Banck-Burgess 1999; Bender Jørgensen 2005; Gleba 2008; Grömer 2014; Rast-Eicher 2008). Več sto ostankov tekstila, datiranih med letoma 800 in 400 pr. n. št., je bilo najdenih tudi v rudniku soli v Hallstattu (Grömer et al. 2013). Najdeni so bili skupaj z rudarskimi odpadki. Nekateri od njih so verjetno ostanki rudarske opreme, druge so morda rudarji uporabljali kot krpe za različne namene, npr. za čiščenje ali kot pomožen material za ovijanje, npr. platno, vrvi ipd. Tekstilne najdbe iz železnodobnih naselbin so redke. Z avstrijskih najdišč poznamo le en tak primer, tj. z najdišča Kalenderberg blizu Mödlinga, in sicer iz konteksta, datiranega v Ha C, kjer je bil na glinenem kosu diskaste oblike odkrit odtis tkanine v keprovi vezavi (Grömer 2014, catalogue, Hallstattzeit No, HaZ6–HaZ8). Na najdišču Smolenice – Molpír na Slovaškem so bili najdeni ostanki zoglenelega organskega materiala, med katerimi je bila prepoznana volnena vrv s S-vitjem (Furmanek in Pieta 1985, 137). Te najdbe so datirane v čas Ha D.

NAJDBE TEKSTILA V ŽELEZNODOBNIH HIŠAH IN KULTNIH PROSTORIH

Najdba z Mosta na Soči odpira razpravo o našem vedenju o uporabi tekstila v hišah ali kultnih objektih iz halštatske dobe. Kot je znano, je bila halštatska družba hierarhična. Iz tega časa so poznani različni naselja in hiše, centralne naselbine so bile v glavnem utrjene in umeščene na vzpetine ter obkrožene z manjšimi zaselki. Rezidence, v katerih je prebivala elita, so se po velikosti in zgradbi razlikovale od hiš revnejšega sloja. Manj vemo o kultnih objektih iz halštatske dobe in njihovi notranji opremi, z izjemo Býčí skále (Rast-Eicher 1995). Kar zadeva tekstilije, ki so se uporabljale v hišah, imamo v glavnem na voljo vire, ki se nanašajo na bogatejši družbeni sloj – denimo upodobitve situlske umetnosti ali celo najdbe iz bogatih grobov. Te vire gre upoštevati tudi v okviru razprav o naselbinskih kontekstih.

Situle mestoma zelo detajlno upodabljajo "hišni tekstil", kot npr. ležišča in vzglavnike (glej npr. Eibner 2016; Turk 2005). V tem smislu je zanimiva knežja grobnica iz Hochdorfa (Banck-Burgess 1999), ker so se v njej ohranili ostanki opreme, kot so pregrinjala, stenski zastori, vzglavniki in ležišča. Zelo verjetno se te stvari niso uporabljale zgolj v pogrebnem obredju, temveč tudi v vsakdanjem življenju, vsaj elite. Tekstilni dodatki za hišo so skupna značilnost premožnejših hiš v sočasnih

DISCUSSION: TEXTILE CONTEXTS

Early Iron Age textiles can be found from different contexts in Central Europe. Most of them are from grave finds. In the graves, textiles were used as garments for the deceased but also as shrouds or wrappings of grave goods (see e.g. Banck-Burgess 1999; Bender Jørgensen 2005; Gleba 2008; Grömer 2014; Rast-Eicher 2008). There are also hundreds of textiles dating between 800 and 400 BC which have been found in a salt-mine at Hallstatt in Austria (Grömer et al. 2013). They were left behind together with the mining waste. Some of those textiles might have been fragments of miner's gear, but rags were also brought into the mine to serve different purposes such as cleaning item or as makeshift binding material. Textiles from Iron Age settlements are scarce. From Austria, there is one example from the site Kalenderberg near Mödling in a HaC context: a twill imprint on a small discoid piece of clay (Grömer 2014, catalogue, Hallstattzeit No, HaZ6–HaZ8). From Smolenice–Molpír in Slovakia, the remains of charred organic material were identified, among that a woollen S-plied cord (Furmanek & Pieta 1985, 137). The find dates to HaD.

TEXTILES IN IRON AGE HOUSES AND CULT OBJECTS

The find from Most na Soči raises the issue of what is known about the use of textiles in houses and cult objects of the Hallstatt Culture. At first, we must state that Early Iron Age society is a hierarchical one and we know of various kinds of settlements and houses. Hallstatt Period centralised settlements were mostly fortified, situated on hilltops and surrounded by little villages. The residences of the elites differed from houses of the poorer part of society in their size and structure. Little is known about cult objects from the Hallstatt Period, except the Býčí skála (Rast-Eicher 1995). Regarding textiles used in houses, the most commonly available are sources from the wealthy strata of society, such as images on situla art or even grave finds from rich graves. That must be taken into account when discussing the settlement context.

The situlae (e.g. Eibner 2016; Turk 2005) sometimes illustrate in great detail household textiles such as mattresses and pillows. The princely tomb from Hochdorf (Banck-Burgess 1999) is also of interest for this case, because there the remains of soft furnishings like covers, wall hangings, pillows and mattresses have been found. It is likely that such items were not only used for funeral rites but that they also reflect textile items used in daily life, at least by the elites. Household textile accessories were common features of wealthy homes in contemporary cultures, for instance in the

kulturah, npr. v etruščanskih in grških domovanjih (glej npr. Massa 1989, 36–37). Še več, iz grško-rimskega sveta vemo, da je podobne tekstilne izdelke možno najti v templjih in drugih sakralnih objektih, zlasti kot stenske zastore ali kot "zastore vhodov", za ovijanje in podobno (Clarysse in Geens 2009, 39).

INTERPRETACIJA NAJDBE Z MOSTA NA SOČI

Vsi trije vzorci tekstila z Mosta na Soči so bili ohranjeni na enak način in v enakem kontekstu. Najdeni so bili v zoglenelem stanju v železnodobni hiši 6. Pripadali so drugi gradbeni fazi. Kot je že bilo omenjeno, je imelo območje hiše 6, ki je bila v prvi gradbeni fazi požgana, v drugi fazi poseben namen, verjetno je bilo tu kultno mesto (Svoljšak in Dular 2016).

Za interpretacijo tekstilne najdbe sta pomembna dva vidika: tehnične značilnosti izdelave tekstila in kontekst, tj. uporaba oz. namembnost.

Pri vzorcu 1 je bila ugotovljena nit, ki bi lahko bila ostanek šiva v tkanini. Iz tega bi lahko sklepali, da je šlo za oblačilo ali pa za kakšno drugo šivano tekstilijo, torej s šivi. V drugem primeru bi lahko pripadala hišni opremi, kot so zavese, stenske ali talne obloge, blazine, rjuhe, vreče, slikarsko platno ali kaj podobnega. Prav tako je možno, da gre za del oblačila, ki je bilo shranjeno na tem mestu. Iz sočasnih grških primerov je znano, da so tekstil in obleke hranili v lesenih zabojih (Pekridou - Gorecki 1989, 55, sl. 28), nameščenih ob stenah hiš.

Če vzamemo v obzir možnost, da tekstilni ostanki izvirajo iz kultnega mesta, je verjetnejša razlaga, da je tkanina spadala med votivne predmete oz. del žgalne daritve.

***

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homes of the Etruscans and Greeks (e.g. Massa 1989, 36–37). Additionally, from the Graeco-Roman world, it is known that in temples and other sacral buildings similar textiles can also be found, especially wall hangings, 'door curtains', wrappings and the like (Clarysse & Geens 2009, 39).

INTERPRETATION OF THE MOST NA SOČI FIND

All three samples from Most na Soči were preserved in the same manner and context. They were found charred in the Iron Age House 6. The textiles were found in a context with the second construction phase of the house. As mentioned, the area of the house, which ended in fire in the first construction phase, most probably had a special purpose in the second phase, most likely a cult place (Svoljšak & Dular 2016).

For the interpretation of the textile find, there are two items of importance: technical features of the textile itself and the context.

On Sample 1, a thread was found that was identified as the remain of a seam in the fabric. Therefore, it can be assumed that this is either a garment, or any other form of textile with a seam. If it was the latter, it could belong to the furnishing of the house (wall hanging, wallpaper/ wall coverings, upholstery, support for oil painting, floor covers, sheets, sacks, etc.). It is also possible that it was a fragment of a garment that was stored at place. From contemporary Greece, it is known that textiles and clothing were stored in wooden boxes (Pekridou-Gorecki 1989, 55, Fig. 28), which were positioned near to the walls of the houses.

To take the context into account, which was possibly a cult place, there are more possibilities of interpreting the textile. The textile remains might also have belonged to one of the sacrificial goods that were thrown into the burnt offering place.

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ŽIVALSKI OSTANKI IZ NASELBINE NA MOSTU NA SOČI: VPOGLED V DRUŽBENO KOMPLEKSNOST ŽELEZNODOBNE SKUPNOSTI V JUGOVZHODNOALPSKEM PROSTORU

ANIMAL REMAINS FROM THE SETTLEMENT AT MOST NA SOČI: INSIGHTS INTO THE SOCIAL COMPLEXITY OF AN IRON AGE COMMUNITY IN THE SOUTH-EASTERN ALPS

Borut TOŠKAN, László BARTOSIEWICZ

Izkopavanja na najdišču Most na Soči, ki jih je v sedemdesetih in osemdesetih letih prejšnjega stoletja pod vodstvom Draga Svoljšaka izvajal Goriški muzej,[1] so dala več kot 15.000 živalskih ostankov. Pretežni del gradiva sodi v mlajše halštatsko obdobje, nekaj deset primerkov pa izvira iz bronastodobnih oziroma latenskodobnih kontekstov. Izmed dobrih deset arheozoološko raziskanih železnodobnih najdišč s Slovenskega[2] sodi Most na Soči med tista z najbogatejšim in torej najzanimivejšim zbirom kostnih najdb.[3] Zatorej ne preseneča, da so bili rezultati preliminarne arheozoološke analize objavljeni zgolj leto dni po zaključku izkopavanj.[4] V navedenem prispevku so predstavljene favnistična sestava gradiva, tehnike razkosavanja živalskih trupov in zastopanost posameznih skeletnih elementov, v sklepnem delu pa so orisane še poglavitne značilnosti tedanjih lokalnih živinorejskih praks.[5] Žal poglobljenejših arheozooloških raziskav vse odtlej ni bilo, predvsem zaradi znatnega zamika v pripravi celovite arheološke študije najdišča. Nenaslovljeni sta tako ostali tudi vedno zanimivi problematiki socialne razslojenosti in funkcionalne raznolikosti tedanjega prebivalstva, za kateri je znano, da pomembno odsevata praviloma prav v arheozoološkem zapisu.[6]

The excavations at Most na Soči (Posočje region, western Slovenia) that the Goriški muzej conducted between 1971 and 1984 under the leadership of Drago Svoljšak[1] yielded over 15,000 pieces of animal remains. The bulk of the faunal assemblage dates to the Late Hallstatt period, small shares also to the Bronze Age and the La Tène period. Among a good dozen of archaeozoologically studied Iron Age assemblages from the area of present-day Slovenia,[2] it certainly qualifies among the richest and most important.[3] The results of a preliminary archaeozoological analysis were already published within a year after the conclusion of excavations,[4] providing a comprehensive overview of the faunal composition, the butchering techniques and the skeletal part representation data per most important taxa. The final part also offered an outline of the general characteristics of the local animal keeping practices.[5] Unfortunately, a more detailed archaeozoological investigation had to be postponed to a time when the archaeological contexts could be properly evaluated. This also holds true for the ever-interesting topic of social stratification and functional differentiation of the population, which are known to often be very clearly reflected in the archaeozoological data.[6] Here, an

[1] Svoljšak, Dular 2016, 25–36.

[2] Glej npr. Toškan, Dirjec 2010, sl. 6, in tam navedeni viri.

[3] *Cf.* Bökönyi 1994; Toškan, Dirjec 2010; 2013.

[4] Bartosiewicz 1985; za poročilo o rimskodobni favni z istega najdišča glej Bartosiewicz 1986.

[5] Bartosiewicz 1985, 117–119.

[6] Glej npr. Politis, Sanders 2002; Marti-Grädel et al. 2004; Maltby 2006; Toškan, Dirjec 2010; Albarella, Trentacoste

[1] Svoljšak, Dular 2016, 25–36.

[2] See e.g. Toškan, Dirjec 2010, Fig. 6 with references.

[3] *Cf.* Bökönyi 1994; Toškan, Dirjec 2010; 2013.

[4] Bartosiewicz 1985; for the preliminary report on the Roman Age fauna from the same site see Bartosiewicz 1986.

[5] Bartosiewicz 1985, 117–119.

6 See e.g. Politis, Sanders 2002; Marti-Grädel et al. 2004; Maltby 2006; Toškan, Dirjec 2010; Albarella, Trentacoste

Vrzel, ki je zaradi velikega pomena Mosta na Soči v okviru železnodobnega Posočja[7] še toliko izrazitejša, skušamo zapolniti s predstavitvijo rezultatov prvega poskusa celovite analize razpršenosti arheozooloških najdb v prostoru in času za to najdišče.

METODE IN GRADIVO

Zaščitna izkopavanja na Mostu na Soči so potekala med letoma 1971 in 1984. V tem času so bili raziskani ostanki 36 prazgodovinskih hiš, odtočni kanali in poti skozi naselje. K temu je treba dodati 32 območij z razpršenimi sledmi poselitve, kjer stavbni ostanki niso bili dokumentirani, vendar pa ruševinske plasti in posamične najdbe kažejo, da so se tudi tod odvijale naselbinske aktivnosti.[8]

Zbrano arheozoološko gradivo, ki skupaj vključuje več kot 15.000 najdb, je bilo v celoti pobrano ročno. To med drugim pomeni, da je delež manjših (odlomkov) kosti in zob do neke mere podcenjen, saj je takšne primerke med izkopavanji pogosto težko opaziti.[9] Pri taksonomskem opredeljevanju najdb sta bili v pomoč študijska osteološka zbirka Inštituta za arheologijo ZRC SAZU in specializirana področna literatura.[10] Razlikovanje med divjim prašičem (*Sus scrofa*) in domačim prašičem (*Sus domesticus*) je bilo opravljeno na podlagi velikosti posameznih bolje ohranjenih kosti in zob. Isti pristop je bil uporabljen pri poskusu prepoznavanja ostankov tura (*Bos primigenius*) in volka (*Canis lupus*).[11] Taksonomsko opredeljevanje je zajelo vse skeletne elemente z izjemo reber. Ostanki slednjih so bili namesto tega razvrščeni med dva *ad hoc* oblikovana velikostna razreda in sicer "mali rastlinojedi" in "veliki rastlinojedi". Drugi bržčas vključujejo predvsem ostanke goveda, med najdbami iz razreda "mali rastlinojedi" pa domnevno prevladujejo ostanki drobnice.

Kvantitativne primerjave med taksoni so bile izvedene na podlagi podatkov o številu opredeljenih ostankov (*Number of Identified Specimens*; NISP[12]). Pri tem so bili odlomki, ki jih je bilo mogoče z zanesljivostjo pripisati isti kosti (npr. odlomki med izkopavanji zdrobljene kosti), obravnavani kot ena najdba (tj. NISP = 1). Izjemoma je bila količina ostankov posameznega skeletnega elementa podana tudi z indeksom "najmanjše število elementov" (*Minimum Number of Elements*; MNE[13]). Pri tem so bile – ob podatkih o anatomski strani

2011; Russell 2012; Röder et al. 2013; Wilkins, Nadeau 2015.

[7] Glej tu Dular, Tecco Hvala, 9–145.

[8] Za poglobljen vpogled v najdišče in metodologijo terenskega raziskovanja glej Svoljšak, Dular 2016.

[9] *Cf.* Toškan 2015.

[10] Olsen 1960; Boessneck, Müller, Teichert 1964; Callou 1997; Ambros, Hilpert 2005; Zeder, Pilaar 2010.

[11] Zollitsch 1969; Payne, Bull 1988; Bökönyi 1995.

[12] Grayson 1984.

[13] Lyman 1999, 102–104.

attempt is made to illuminate some of these topics by providing the first assessment of the spatial and temporal variation in the distribution of animal bone finds at Most na Soči, a regional centre that undoubtedly played a major role in the settlement pattern of Posočje.[7]

METHOD AND MATERIAL

The here considered rescue excavations at Most na Soči revealed the remains of over three dozen prehistoric buildings, drainage canals, a drainage ditch and a path through the settlement, as well as over 30 locations of dispersed habitation traces where only layers of debris and individual finds indicative of habitation activities survived.[8]

All of the over 15,000 faunal remains were collected manually, which resulted in an underestimated contribution of smaller bones, teeth and bone/tooth fragments.[9] For the present study, the material was taxonomically identified consulting the reference collection at the Institute of Archaeology ZRC SAZU, as well as specialised literature.[10] Differentiation between wild boar (*Sus scrofa*) and domestic pig (*Sus domesticus*) was attempted based on the size of individual bone/tooth. The same criterion was used to distinguish the rare aurochs (*Bos primigenius*) and wolf (*Canis lupus*) finds from those of cattle and dog, respectively.[11] In taxonomic identification, remains of all skeletal elements but ribs were routinely taken into consideration. In contrast, ribs were only allocated to one of the two *ad hoc* size classes defined as 'large herbivores' and 'small herbivores'. Most (all?) of the finds included in 'large herbivores' class are belived to belong to calttle, while among the 'small herbivores' remains teeth and bones of sheep and goat predominate.

Qualitative between-taxa comparisons were performed using the number of identified specimens (NISP[12]) as entry data. In calculating NISP, the fragments that undoubtedly belonged to the same bone (e.g. fragments of bones broken during excavations) were counted as a single specimen (i.e. NISP = 1). Alternatively, the minimum number of elements (MNE[13]) was also calculated. In studying the representation of individual anatomical regions of the animal body (expressed in terms of NISP), the various skeletal elements were divided into three categories based on the quality

2011; Russell 2012; Röder *et al.* 2013; Wilkins, Nadeau 2015.

[7] See here Dular, Tecco Hvala, 9–145.

[8] For detailed information as regards the site and the fieldwork methodology see Svoljšak, Dular 2016.

[9] *Cf.* Toškan 2015.

[10] Olsen 1960; Boessneck, Müller, Teichert 1964; Callou 1997; Ambros, Hilpert 2005; Zeder, Pilaar 2010.

[11] Zollitsch 1969; Payne, Bull 1988; Bökönyi 1995.

[12] Grayson 1984.

[13] Lyman 1999, 102–104.

(levo : desno) – upoštevane še ugotovitve o velikosti posameznih najdb in starosti pripadajočih živali ob poginu (npr. za skupek leve stegnenice teleta in desne stegnenice odraslega goveda velja MNE = 2). V okviru analize zastopanosti posameznih skeletnih elementov so bili ti na podlagi kvalitete in količine mesa na pripadajočih delih živalskega telesa razvrščeni v tri kategorije: kategorijo A (vključuje ostanke vretenc, lopatic, nadlahtnic, medenic in stegnenic), kategorijo B (vključuje najdbe lobanj, spodnjih čeljustnic, koželjnic, komolčnic in golenic) ter kategorijo C (vključuje izolirane zobe in ostanke zgornjih čeljustnic, dlančnic, zapestnih kosti, stopalnic, nartnih kosti in prstnic). Starost ob zakolu je bila ocenjena na podlagi stopnje obrabe žvekalne površine kočnikov.[14] Zajem metričnih podatkov je bil opravljen v skladu s smernicami, ki jih je objavila Angela von den Driesch.[15]

Izkopavanja na Mostu na Soči so razkrila ostanke 36 železnodobnih hiš (*sl. 13*).[16] Šlo je za lesene stavbe s kamnitimi temelji. Proti jugu nagnjen teren je od graditeljev zahteval zemeljske posege, saj je bilo treba prostor bodočih stavbišč najprej poravnati in pravilno usmeriti. Pomembna značilnost posoškega stavbarstva je gradnja drenažnih zidov. Te so postavljali ob vkope gradbenih jam in s tem preprečili, da bi prišla zemljina v neposreden stik s stenami hiš. Večina stavb je bila v času trajanja naselbine poškodovana ali povsem uničena v požarih, zato so bile enkrat ali dvakrat celovito obnovljene.[17] V tem prispevku so posamezne takšne gradbene faze prikazane z navedbo številke hiše in ustrezne gradbene faze, pri čemer oba podatka ločuje poševnica (npr. hiša 15/1 se nanaša na prvo gradbeno fazo hiše 15[18]).

Skupno je bilo v okviru tukaj predstavljene študije analiziranih 15.205 živalskih ostankov, ki večinoma pripadajo sesalcem. Prepoznanih je bilo najmanj 16 različnih vrst (*tab. 1*), vendar bi v gradivu utegnila biti zastopana tudi volk (*Canis lupus*) in še ena ptičja vrsta poleg kokoši (Aves). Pretežni del gradiva datira v mlajše halštatsko obdobje (6.–4. stoletje pr. n. št. oziroma kulturne stopnje Sv. Lucija IIa, IIb in IIc), manjšina pa je bila pobrana iz kontekstov mlajše bronaste dobe (14.–13. stoletje pr. n. št.) in latenske dobe (pozno 2. in 1. stoletje pr. n. št. oziroma kulturna stopnja Sv. Lucija IV).[19] Približno petine zbranih živalskih najdb ni bilo mogoče natančneje časovno opredeliti. V tem poglavju bo podrobneje predstavljeno zgolj gradivo iz mlajšega halštatskega obdobja.

Živalske ostanke z Mosta na Soči hrani Goriški muzej v Novi Gorici.

[14] Payne 1973; 1985; Grant 1982; Greenfield, Arnold 2008; Lemoine *et al.* 2014.

[15] Von den Driesch 1976.

[16] Glej tudi Svoljšak, Dular 2016.

[17] Za podrobnosti glej Svoljšak, Dular 2016, in tu Svoljšak, 171.

[18] Za kronološko opredelitev posameznih gradbenih faz glej tu Dular, 147–166.

[19] Glej tu Dular, 147–166.

and quantity of meat: Category A (remains of vertebrae, scapulae, humeri, pelvises and femora), Category B (skull fragments, as well as fragments of mandibles, radii and tibiae) and Category C (maxillary fragments, isolated teeth, metacarpals, metatarsals, carpals, tarsals and phalanges). Age-at-death was assessed considering tooth-wear data.[14] Measurements were taken according to von den Driesch.[15]

The excavations at Most na Soči unearthed, either entirely or partially, the remains of 36 Iron Age buildings (*Fig. 13*).[16] These were wooden structures with stone foundations. Since the terrain in the settlement inclines slightly, earthworks consisting in excavating a construction pit with a leveled ground were required prior to construction. A prominent feature of the houses is the presence of drainage walls, which were erected along the walls of the construction pit to prevent the earth from coming into direct contact with the wooden walls. Most houses show traces of repair, usually interpreted as renovations following fire damage.[17] During renovations (Construction Phase 2), in most cases the same construction pits were reused and the debris of the first construction phase levelled so as to prepare the ground. The construction phases of houses are marked with the number of the respective construction phase added after the house number (e.g. House 15/1 stands for the first construction phase of House 15[18]).

A total of 15,205 animal remains were considered in the analysis, most of which belonged to mammals. Of non-mammal taxa, two bone fragments of domestic hen (*Gallus domesticus*) and one ascribed to an amphibian (Amphibia) are to be mentioned. No less than 16 species were reliably identified (*Tab. 1*), while wolf (*Canis lupus*) and a bird species other than domestic hen (*Gallus domesticus*) may also be present. The great majority of finds date to the Late Hallstatt period (6th–4th centuries BC; the Sv. Lucija IIa, IIb and IIc phases), small shares to the Late Bronze Age (14th–13th centuries BC) and the Late La Tène period (late 2nd and 1st centuries BC; the Sv. Lucija IV phase),[19] while about a fifth of the recovered animal remains are chronologically undetermined. In this contribution, only the Late Hallstatt finds are presented in detail.

The faunal remains from Most na Soči are kept in the Goriški muzej in Nova Gorica.

[14] Payne 1973; 1985; Grant 1982; Greenfield, Arnold 2008; Lemoine *et al.* 2014.

[15] Von den Driesch 1976.

[16] Also see Svoljšak, Dular 2016.

[17] For details see Svoljšak, Dular 2016 and here Svoljšak, 171.

[18] For the chronological attribution of individual houses see here Dular, 147–166.

[19] See here Dular, 147–166.

Takson Taxon	Bronasta doba Bronze Age	Železna doba Iron Age		Neopredeljeno Non-defined	SKUPAJ TOTAL
		NISP	% $NISP_{Mammalia}$		
Bos taurus	20	2049	37,0%	694	2763
Caprinae	32	2831	51,1%	812	3675
Sus cf. *domesticus*	30	557	10,0%	117	704
Canis familiaris	2	16	0,3%	3	21
Equus caballus		8	0,1%	1	9
Cervus elaphus		53	1,0%	11	64
Capreolus capreolus		3	<0,1%		3
Bos primigenius		1	<0,1%		1
Lepus europaeus		2	<0,1%	2	4
Sus cf. *scrofa*		15	0,3%		15
Martes martes		1	<0,1%		1
Vulpes vulpes		3	<0,1%		3
Ursus arctos		1	<0,1%	1	2
Bos sp.		1	<0,1%	4	5
Canis sp.		1	<0,1%		1
Σ Mammalia	84	5542		1645	7271
Gallus domesticus		1	-	1	2
Σ Aves		2	-	2	4
Σ Amphibia			-	1	1
Indeterminatus		6221	-	1708	7929

Tab. 1: Živalski ostanki z Mosta na Soči, pridobljeni med zaščitnimi izkopavanji v letih 1971–1984.
Tab. 1: Faunal remains from Most na Soči unearthed during the 1971–1984 rescue excavations.

ARHEOZOOLOŠKI PODATKI: PREGLED

Skoraj polovica vseh taksonomsko opredeljenih živalskih kosti in zob z Mosta na Soči pripada drobnici, pri čemer je ovca (*Ovis aries*) nekoliko bolje zastopana od koze (*Capra hircus*). Izmed skoraj 600 najdb, ki jih je bilo mogoče določiti vse do ravni vrste, jih je bilo prvi pripisanih 349, drugi pa le 216. Podobno razmerje podaja že Bartosiewicz v prvi preliminarni objavi favnističnega gradiva z Mosta na Soči,[20] z manjšimi odstopanji, ki jih kaže večinoma pripisati nedavnim popravkom kronološkega okvirja posameznih kontekstov. Podoben gospodarski pomen kot drobnica je verjetno imelo tudi govedo. Po številu najdb sicer za ovco/kozo bistveno zaostaja, vendar je lahko njegova masa tudi za 15- do 20-krat presegala maso drobnice. Prašič je bistveno slabše zastopan, kar gre v pomembni meri pripisati specifičnim značilnostim tamkajšnjega okolja. Ozke rečne doline, obdane s strmimi pobočji okoliških hribov in gora, prašičereji namreč niso naklonjene.[21]

Preostale živalske vrste – tako domestikati kot divjad – so zastopane z majhnim številom najdb. To seveda ne pomeni, da je bil njihov pomen v tedanji družbi nujno skromen. Nasprotno! Dobro je znano, da je bil

[20] Bartosiewicz 1985, 107–114.

[21] Bartosiewicz 1985, 109; Toškan, Dirjec 2010, 105; 2011, 362–364.

ARCHAEOZOOLOGICAL DATA: AN OVERVIEW

Almost half of the taxonomically identified animal remains at Most na Soči belong to caprines, with sheep (*Ovis aries*) being slightly more abundant than goat (*Capra hircus*). More precisely, of the almost 600 teeth and bones identified to the level of species, 349 were ascribed to the former and 216 to the latter. The results resemble those already published by Bartosiewicz,[20] with slight differences mostly related to corrections in the chronological framework of individual contexts. Although numerically less well represented, cattle seem to have been a similarly important source of meat. The latter is especially true in regard to cattle body size, which may be 15–20 times larger than that of sheep and goat. Pig was significantly less abundant, which is thought to reflect the local environment as the narrow and relatively steep river banks in Posočje are not suitable for pig husbandry.[21]

The remaining animal species – both wild and domestic – are fairly uncommon. This is not necessarily an indication of a marginal role. On the contrary! It is well-known that horse, for instance, served as a status symbol for the elites. The latter is most evident in the regionally widespread custom of burying large, possibly

[20] Bartosiewicz 1985, 107–114.

[21] Bartosiewicz 1985, 109; Toškan, Dirjec 2010, 105; 2011, 362–364.

Sl. 1: Izbor konjskih ostankov z Mosta na Soči: 1 in 2 – zgornji ličnik/kočnik, hiša 31; 3 – spodnji tretji kočnik (M_3), hiša 12/1; 4 – dlančnica, hiša 12/1; 5 – dlančnica, hiša 1/2. (Foto: D. Valoh)
Fig. 1: Selection of horse remains from Most na Soči: 1 & 2 – upper check-teeth, House 31; 3 – third lower molar (M_3), House 12/1; 4 – metacarpal bone, House 12/1; 5 – metacarpal bone, House 1/2. (Photo: D. Valoh)

konj zelo pomemben socialni simbol tedanje elite. To se najočitneje kaže v širše razširjeni praksi žrtvovanja in pokopa velikih, bržčas uvoženih predstavnikov te vrste v povezavi s pokopi socialno izstopajočih posameznikov, tudi poglavarjev lokalnih skupnosti.[22] Najdbe sočasnih naselbinskih ostankov so bistveno redkejše in domnevno pripadajo manj cenjenim lokalno vzrejenim delovnim konjem.[23] V okviru Mosta na Soči so bili ekvidni ostanki odkriti tako v nekropoli[24] kot tudi naselbini. Zbir naselbinskih najdb vključuje zgolj izolirane zobe in kosti spodnjega dela nog (tj. dlančnice/stopalnice, zapestne/nartne kosti in prstnice). Zanesljivo železnodobnih primerkov je vsega skupaj le osem (*sl. 1*). Najdbe so razmeroma enakomerno razpršene med domnevne stanovanjske hiše in delavnice (*pril. 4*). Naselbinski konjski ostanki z Mosta na Soči se v velikosti (*tab. 2*) približujejo okvirno sočasnim primerkom z grobišč na Magdalenski gori na Dolenjskem.[25]

Skromno število najdb je značilno tudi za psa. Ugotovitev ni presenetljiva in se v celoti ujema s stanjem na drugih najdiščih v regiji.[26] Pičlost pasjih kosti med kuhinjskimi ostanki z Mosta na Soči bi utegnila biti

[22] Dular 2007; Kmeťová 2013.
[23] Bökönyi 1994, 200.
[24] Marchesetti 1893.
[25] Bökönyi 1968, 56.
[26] Škvor Jernejčič, Toškan, v tisku, Tab. 3.

imported specimens alongside socially outstanding individuals.[22] Coeval equid finds from settlements are much rarer and seem to represent the remains of less valued and significantly smaller, locally bred working animals.[23] At Most na Soči, horse remains are known from both the necropolis[24] and the settlement. In the latter case, only isolated teeth and lower leg bones (i.e. metapodials, carpals/tarsals and phalanges) were identified, with the total number of specimens reliably dated to either the Late Hallstatt or La Tène periods being as low as eight (*Fig. 1*). These finds seem equally distributed between the presumed residential units and workshops (*App. 4*). Metrically (*Tab. 2*), the horse finds from the Most na Soči settlement resemble those from roughly coeval burials at Magdalenska gora, approx. 70 km to the southeast.[25]

Dog was probably fairly uncommon as well. Such an observation does not come as a surprise, being perfectly in line with what has been observed elsewhere in the region.[26] At Most na Soči, the lack of dog bones in the kitchen waste may be seen as an indication of mainly keeping these animals and/or burying their carcasses

[22] Dular 2007; Kmeťová 2013.
[23] Bökönyi 1994, 200.
[24] Marchesetti 1893.
[25] Bökönyi 1968, 56.
[26] Škvor Jernejčič, Toškan, in press, Tab. 3.

Lokacija Location	Skeletni element Skeletal element	Dimenzija Dimension	Izmerek Measurement
Hiša 1/2 House 1/2	Dens (P_2)	Dolžina Length	36,0 mm
		Širina Breadth	26,5 mm
Hiša 2 House 2	Metacarpus	Širina distalnega dela Breadth of distal end	41,5 mm
Hiša 12 House 12	Dens (M_3)	Dolžina Length	13,5 mm
		Širina Breadth	29,5 mm
	Metacarpus	Širina proksimalnega dela Breadth of proximal end	44,5 mm
		Debelina proksimalnega dela Depth of proximal end	29,5 mm
		Najmanjša debelina diafize Smallest breadth of diaphysis	32,5 mm

Tab. 2: Metrični podatki za konjske ostanke z Mosta na Soči.
Tab. 2: Metric data for horse remains from Most na Soči.

povezana z odločitvijo o zadrževanju (in torej pokopavanju) večine teh živali zunaj naselbine, kjer jih je človek pravzaprav tudi uporabljal (npr. varovanje čred, njiv ipd.).[27] Vsaj na načelni ravni je ob tem treba dopustiti tudi možnost obstoja določenih omejitev pri uživanju pasjega (ter tudi konjskega) mesa, sploh glede na pomembno vlogo teh živali v tedanjih pogrebnih ritualih na širšem območju jugovzhodnih in vzhodnih Alp.[28]

Divjad je v analiziranem gradivu zastopana z jelenom (*Cervus elaphus*), srnjakom (*Capreolus capreolus*), turom (*Bos primigenius*), poljskim zajcem (*Lepus europaeus*), kuno zlatico (*Martes martes*), lisico (*Vulpes vulpes*), rjavim medvedom (*Ursus arctos*) in divjim prašičem (*Sus scrofa*). Zanesljivo razlikovanje med slednjim in domačim prašičem je težavno, vendar je bilo 15 najdb na podlagi njihove izstopajoče velikosti pogojno vendarle pripisanih divjemu prašiču. Metrični podatki so odigrali ključno vlogo tudi pri opredelitvi ostankov tura (*tab. 3*), ki je v gradivu zastopan z odlomkom lopatice (*sl. 2*) in morda delom razmeroma robustne rožnice (debelina stene > 9 mm). Možnost, da bi lopatica pripadala zobru (*Bison bonasus*), je bilo mogoče na podlagi več morfoloških specifik navedene kosti z zanesljivostjo ovreči.[29] Težavnejši je poskus opredelitve odlomka kanidne zgornje čeljustnice s prisotnim P^4 (*sl. 2*), saj bi lahko pripadala manjšemu volku ali večjemu psu (dolžina P^4 = 20,0 mm; širina P^4 = 10,5 mm).[30]

Seznam ostankov, ki ne pripadajo sesalcem, vključuje zgolj dve ptičji kosti, od katerih ena pripada kokoši (*Gallus domesticus*). Pičlost ptičjih najdb jasno priča o

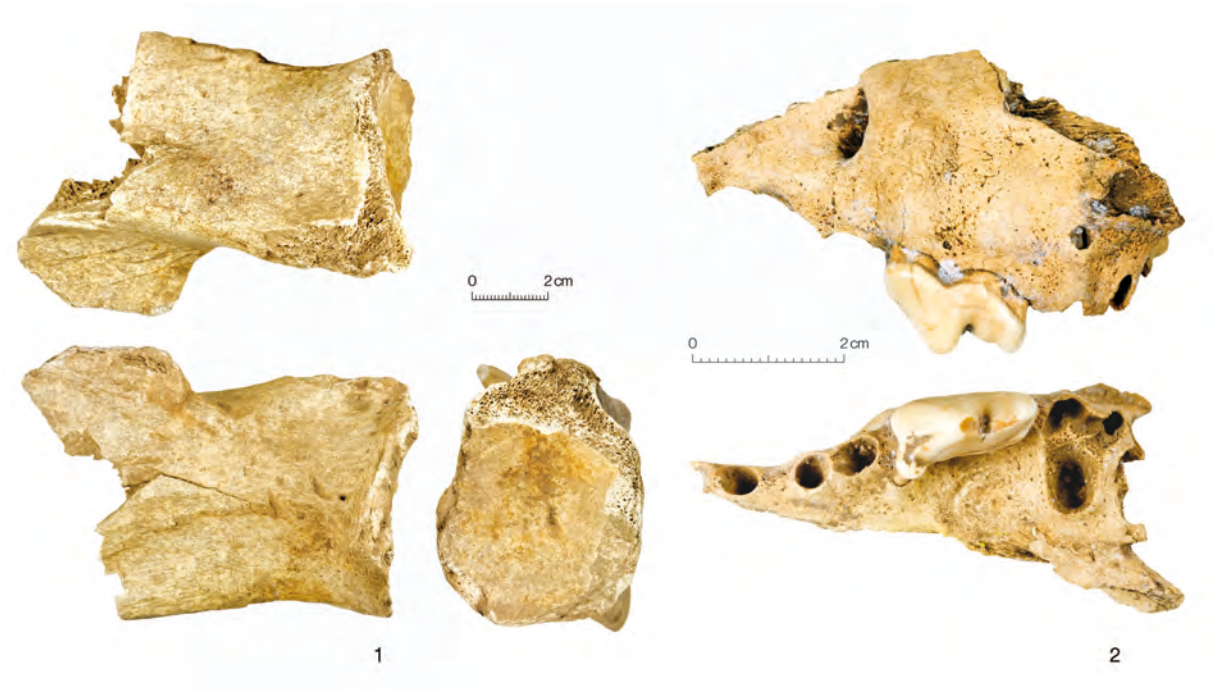
[27] Bartosiewicz 1985, 109.
[28] Riedel 1977; Tagliacozzo 1998; Škvor Jernejčič, Toškan, v tisku.
[29] Olsen 1960, 9.
[30] *Cf.* Zollitsch 1969.

off-site.[27] There may also have been dietary restrictions in relation to cynophagy (as well as hyppophagy), especially if considering the seemingly notable role of these animals in the local funerary practice.[28]

Game is represented by red deer (*Cervus elaphus*), roe deer (*Capreolus capreolus*), aurochs (*Bos primigenius*), hare (*Lepus europaeus*), European pine marten (*Martes martes*), fox (*Vulpes vulpes*), brown bear (*Ursus arctos*) and wild boar (*Sus scrofa*). It is often difficult to reliably differentiate between wild boar and domestic pig, but 15 specimens are large enough to be tentatively ascribed to wild boar. Likewise, metric data were decisive for the identification of aurochs (*Tab. 3*), represented in the assemblage by a fragmented scapula (*Fig. 2*) and perhaps by part of a horn core with its wall depth exceeding 9 mm. The possibility of the scapula belonging to European bison (*Bison bonasus*) can be reliably ruled out due to its morphological characteristics.[29] The identification to species level of a canid maxilla with attached P^4 (*Fig. 2*) is less definitive, as it might belong to either a small wolf or a large dog (P^4 length = 20.0 mm; P^4 breadth = 10.5 mm).[30]

The list of non-mammal species only comprises two bird bones, of which one belongs to domestic hen (*Gallus domesticus*). The observed scantiness of avifauna remains clearly testifies to the fairly limited economic role of poultry. Considering that fowl bones are not smaller than e.g. sheep, goat and pig phalanges, of which more than 200 were collected, the near absence of bird bones cannot be ascribed to the underrepresentation

[27] Bartosiewicz 1985, 109.
[28] Riedel 1977; Tagliacozzo 1998; Škvor Jernejčič, Toškan, in press.
[29] Olsen 1960, 9.
[30] *Cf.* Zollitsch 1969.



Sl. 2: Odlomek lopatice tura (1) in fragment kanidne zgornje čeljustnice (2) z Mosta na Soči. Najdbi izvirata iz hiš 26 in 15/3. (Foto: D. Valoh)
Fig. 2: Part of an aurochs scapula (1) and a fragmented canid maxilla (2) from Most na Soči. The two finds originate from Houses 26 and 15/3, respectively. (Photo: D. Valoh).

Sk. element	Dimenzija Dimension	*Bos* cf. *primigenius*	*Bos taurus*		
			Me	Min-Max	N
Scapula	SLC	61,0	42,0	35,5–51,0	17

Tab. 3: Metrični podatki za odlomek bovidne lopatice z Mosta na Soči (hiša 26), ki bržčas pripada turu. Podani so še primerjalni podatki za lopatice goveda z istega najdišča (Me – mediana; Min.-Max. – razpon vrednosti; N – število primerkov). Vsi izmerki so v mm.
Tab. 3: Metric data for a bovine scapula fragment from Most na Soči (House 26), presumably belonging to aurochs. For comparison, data relative to cattle scapulae from the same site are also given (Me – Median; Min-Max – range; N – number of specimens). All measurements are in mm.

skromnem gospodarskem pomenu perutnine. Toliko bolj zato, ker kokošje dolge kosti velikostno v ničemer ne zaostajajo za denimo ovčjimi, kozjimi in prašičjimi prstnicami, pri čemer je bilo slednjih skupno odkritih več kot 200. Pičlosti ptičjih kosti torej ni mogoče zadovoljivo razložiti zgolj z dejstvom, da so bile najdbe pobrane ročno (tj. brez sejanja). Bi pa to utegnilo držati za ribe, katerih ostanki so znatno manjši in krhkejši. Njihovo popolno odsotnost med več tisoč živalskimi ostanki z obravnavane naselbine bi namreč kazalo razložiti prav s suboptimalnim načinom terenskega vzorčenja tovrstnih najdb.

Favnistično gradivo z Mosta na Soči je močno fragmentirano, kar gre pripisati predvsem načrtnemu človekovemu razbijanju kosti z namenom oblikovanja ustrezno velikih porcij in dostopanja do hranljivega mozga. Dodatne tafonomske izgube je treba pripisati of smaller finds. In contrast, the complete lack of much smaller and more fragile fish bones is believed to significantly reflect the suboptimal sampling techniques during excavations.

The animal remains from Most na Soči are heavily fragmented, which is ascribable to intentional human (marrow extraction) and animal (gnawing) activities, as well as the effects of an array of post-depositional factors. Only 444 of the total of 15,205 recovered teeth and bone specimens survived complete. The great majority of these are, of course, isolated teeth, followed by phalanges and carpal/tarsal bones. Even with isolated teeth, however, more than 700 were found fragmented, which is little less than twice the number of non-fragmented specimens. The total number of completely preserved long bones is as low as nine.

delovanju psov in prašičev (obgrizovanje), pa tudi izpostavljenosti številnim poodložitvenim dejavnikom. Izmed skupno 15.205 pobranih najdb jih je bilo nepoškodovanih zgolj 444. Večinoma so to izolirani zobje, sledijo prstnice ter zapestne in nartne kosti. A pozor! Celo med izoliranimi zobmi z več kot 700 najdbami močno prevladujejo poškodovani primerki. Nepoškodovanih dolgih kosti je bilo najdenih le devet.

Izrazita fragmentiranost gradiva otežuje oceno starosti posameznih živali ob zakolu/uplenitvi. Poleg tega je zaradi zgolj ročnega pobiranja najdb bržčas znatno podcenjen delež mlečnih (in torej manjših) zob. O tem nazorno priča ugotovitev, da je bilo izmed skupno 1.376 dokumentiranih zob drobnice v čeljustnici še vedno pritrjenih zgolj 372 primerkov, medtem ko jih je bilo 983 (tj. 71,4 %) najdenih izoliranih. V nasprotju s tem je bilo izoliranih zgolj 17 od skupno 55 najdenih mlečnih zob istih živali, kar znaša le 30,9 odstotka. Razkorak med obema starostnima kategorijama najdb je treba pripisati večji krhkosti in majhnosti izoliranih mlečnih zob, ki so zato pospešeno razpadali in jih je bilo med izkopavanji težje opaziti. K temu je treba prišteti še delovanje psov (in prašičev?), ki so se prehranjevali z zavrženimi klavniškimi/kuhinjskimi odpadki. Čeljustnice odraslih ovc in koz namreč do petkrat bolje kljubujejo pasjemu grizenju, kot to velja za isto kost šest do dvanajst mesecev starih živali, in kar petnajstkrat bolje v primerjavi s čeljustnicami dva do šest mesecev starih kozličev oziroma jagnjet.[31]

Ne glede na predstavljene omejitve je iz očitne prevlade zob odraslih goved nad teleti (*pril. 1*) utemeljeno sklepati, da govedoreja ni bila usmerjena zgolj v proizvodnjo mesa in maščob. O velikem pomenu vlečne moči teh živali pričajo številni primerki prstnic z razširitvami sklepnih gladčin in/ali pojavom eksostoz (*sl. 3*), k čemur je sicer utegnil dodatno prispevati tudi razgiban teren Soške doline.[32] Gospodarsko pomembne so bile tudi rožnice kot surovina za izdelavo orodij (*sl. 13*), kože (*sl. 4*) in bržčas mleko.[33] Klavna starost prašičev je bila znatno nižja kot pri govedu in praviloma ni presegala treh let. Slednje priča o skromnem pomenu sekundarnih proizvodov reje te domače živali (*sl. 4*; *pril. 2*). Mortalitetni profil za drobnico ne odstopa bistveno od tistega za govedo, saj oba izkazujeta visok delež ostankov odraslih živali (*pril. 3*). To je v primeru ovc in koz povezano z velikim gospodarskim pomenom runa in bržčas tudi mleka, kar je lastnike motiviralo k odločitvi o zamiku zakola pri delu črede na starost med tretjim in petim letom. Meso takšnih živalih namreč še vedno ohrani pretežni del svoje kulinarične vrednosti, gospodar pa je lahko pred zakolom vsaj nekaj časa pridobival tudi runo in mleko.[34] Mlade živali, zastopane v analiziranem

[31] Munson 2000, 399–401.
[32] Bartosiewicz, Van Neer, Lentacker 1997.
[33] *Cf.* Carrer et al. 2016.
[34] Albarella 1997, 24.

Sl. 3: Patološko spremenjena druga prstnica goveda z Mosta na Soči (hiša 8). (Foto: D. Valoh)
Fig. 3: Cattle second phalange from Most na Soči (House 8) with lipping and exostoses. (Photo: D. Valoh)

Due to the heavy fragmentation of the material, little is known about the age-dependent kill-off patterns at the site. Moreover, in the absence of sieving the share of deciduous teeth is supposedly significantly underestimated. Is this supposition provable? Suffice it to say that of the 1,376 available permanent sheep and goat teeth within the studied assemblage, 983 (71.4%) were isolated and only 372 still attached to the jaw, while only 17 out of a total of 55 deciduous teeth were found isolated, amounting to mere 30.9%. The difference is undoubtedly related to the more fragile and smaller deciduous teeth being less well preserved and more easily overlooked by the excavators, if disregarding the fact that when dogs have access to fresh bones the mandibles of adult sheep/goats might survive at rates five times greater than those of 6–12-month-old lambs/kids and about 15 times greater than those of 2–6-month-old lambs/kids.[31]

Irrespective of limitations, the clear domination of adult cattle individuals over calves (*App. 1*) convincingly demonstrates that these animals were kept for more than just a single (i.e. meat producing) purpose, with at least draft power having been intensively exploited. This is supported by the discovery of several phalanges with lipping and exostoses (*Fig. 3*), even though these symptoms might have been exacerbated by the rough/hilly terrain of the Soča valley.[32] Horn cores as raw material (*Fig. 13*), hides (*Fig. 4*) and possibly dairy products[33] were also valuable. Pigs were mostly culled within the first three years, which is clearly related to the marginal role of secondary products (*Fig. 4*; *App. 2*). The mortality profiles for sheep and goat resemble those for cattle, as they show a substantial share of older individuals (*App. 3*). This is related to the high economic value of wool and possibly milk, which must have motivated the owners to postpone culling part of the population to an older age. With an age-at-death

[31] Munson 2000, 399–401.
[32] Bartosiewicz, Van Neer, Lentacker 1997.
[33] *Cf.* Carrer et al. 2016.

Sl. 4: Vrezi, ki so domnevno nastali med odiranjem (levo) oziroma kosanjem (desno) živali (*cf.* Binford 1981, 107, 120): stopalnica goveda, hiša 3 (levo); skočnica prašiča, hiša 15A/1 (desno). (Foto: D. Valoh)
Fig. 4: Cut-marks supposedly produced during skinning (left) and dismemberment (right) of the animal (*cf.* Binford 1981, 107, 120): cattle metatarsus, House 3 (left); domestic pig astragalus, House 15A/1 (right). (Photo: D. Valoh)

gradivu, bržčas pomenijo reproduktivni presežek, ki je bil preusmerjen v predčasen zakol. Vlaganje v rejo devet mesecev in več starih ovc in koz namreč z gospodarskega vidika ni upravičeno, saj je iztržek mesa na enoto vloženega dela sčasoma vse manjši.[35]

Lov je bil nedvomno skromen vir mesa in maščob, podobno kot pri večini domačih živali pa divjad sicer ni služila le kot dopolnilni vir hrane. To med drugim dokazuje odkritje številnih primerkov jelenjega rogovja s sledmi človekovih aktivnosti, kar več kot prepričljivo dokazuje uporabo tovrstnih najdb v koščeni industriji[36] (*sl. 5*). Po drugi strani so bili poljski zajec in zveri (rjavi medved, lisica, volk, kuna zlatica) zagotovo zanimivi zaradi kožuhov, lov na nekatere od njih je bil najbrž motiviran tudi s potrebo po zaščiti čred. Uživanje divjačine naj bi sicer imelo svojstvene socialno-statusne implikacije (glej spodaj).

Na podlagi predstavljenih rezultatov o gospodarskem pomenu domačih živali kaže torej skleniti, da je prevladujočo živinorejsko politiko v obravnavani mladohalštatski naselbini po vsej verjetnosti kot "pilotska vrsta" označevala ovca.[37] Ta morda ni bila osrednji vir mesa, jo je pa mogoče razumeti kot kazalnik osnovne usmerjenosti tedanje lokalne živinoreje.[38] V tem smislu je opaziti bistveno odstopanje od slike, ki jo kažejo okvirno sočasna najdišča v jugo- in severovzhodni Sloveniji, pa tudi tista v ravninah severovzhodne Italije. Na navedenih območjih je namreč vlogo ovce zavzemal domači

peak at three to five years, the meat would still retain its culinary value, while the animal would have provided the owner with at least a few seasons worth of fleece and/or milk.[34] The juvenile animals included in the assemblage, on the other hand, are to be seen as surplus offspring, redirected to human consumption in order to avoid the rapidly decreasing rate of meat gain relative to production costs in animals over nine months of age.[35]

As already noted, game was a rather negligible source of meat and fats. Similarly as with most domesticates, however, wild animals were not seen merely as a source of food. The several examples of worked red deer antlers, for instance, show that these skeletal elements must have represented a highly valued raw material[36] (*Fig. 5*). Carnivores (brown bear, fox, wolf, European pine marten) and hare, on the other hand, might have been primarily hunted for their fur or to protect the herds. Needless to say, game meat was eventually consumed, possibly reflecting the social stratification of the population (see below).

To summarise, the animal husbandry of the Iron Age Most na Soči community must have been characterised by sheep as the 'pilot species'.[37] It may not have dominated meat consumption from a quantitative point of view, but it is diagnostic of the basic character of animal husbandry at the site.[38] This is markedly different from what has been observed in the roughly coeval communities of south-eastern and north-eastern Slovenia, as well as on the

[35] Munson 2000, 395.
[36] Enako velja za rožnice goveda in koze.
[37] Bartosiewicz 1985; 1999, 314–315.
[38] Bartosiewicz 1985, 117–119.

[34] Albarella 1997, 24.
[35] Munson 2000, 395.
[36] The same is true for cattle and goat cornual processes.
[37] Bartosiewicz 1985; 1999, 314–315.
[38] Bartosiewicz 1985, 117–119.

Sl. 5: Izbor obdelanih jelenjih rogovij z Mosta na Soči. (Foto: D. Valoh)
Fig. 5: A set of worked red deer antlers from Most na Soči. (Photo: D. Valoh).

prašič.[39] Ugotovljen razkorak med navedenim regijami, ki nedvomno v pomembni meri odseva habitatne razlike med njimi, ni povsem neodvisen od kulturnih okoliščin. Tako je bilo na dolenjskih starejšeželeznodobnih najdiščih denimo ugotovljeno, da izkazuje razmerje v količini ovčjih/kozjih in prašičjih najdb močnejšo

[39] Riedel 1994; Dular, Tecco Hvala 2007, 210–213; Dular 2013, 115–116.

plains of north-eastern Italy, where the meat production role of sheep was replaced by pig.[39] The observed differences, which certainly reflect the habitat preferences of individual animal species, are believed not to have been completely independent of cultural circumstances. In the Dolenjska region, less than 100 km southeast of Most na

[39] Riedel 1994; Dular, Tecco Hvala 2007, 209–212; Dular 2013, 115–116.

odvisnost od pomena/statusa posamezne naselbine kot od zemljepisnih značilnosti njenega neposrednega zaledja.[40] Pri taksonomski pestrosti uplenjene divjadi so razlike med regijami manj izrazite. Lov naj bi v celotnem obravnavanem prostoru pomenil svojevrsten statusni simbol tedanjih elit.[41]

SPREMEMBE V ČASU

Razumevanje morebitnih diahronih sprememb v politiki reje, pomenu lova, prehrambnih navadah in socialni razslojenosti prebivalstva železnodobne naselbine na Mostu na Soči je pomemben prvi korak pri analizi razpršenosti najdb v prostoru in torej raziskovanja socialne razslojenosti in funkcionalne specializacije obravnavane skupnosti. Zato so bili zbrani arheozoološki podatki preurejeni tako, da je bil za vsako dobro kronološko opredeljeno gradbeno fazo posamezne hiše oblikovan ločen podrejen podatkovni niz ključnih arheozooloških ugotovitev. V nadaljevanju so bile med kronološko homogenimi skupki omenjenih podatkovnih nizov vzpostavljene primerjave v taksonomski pestrosti, številu ostankov posameznih vrst in zastopanosti skeletnih elementov. Žal statistično značilnega skupka podatkovnih nizov za vsako od štirih kulturnih stopenj trajanja železnodobne naselbine (tj. Sv. Lucija IIa, IIb, IIc in IV) ni bilo mogoče oblikovati. Najdbe latenske starosti so bile zaradi maloštevilnosti (NISP = 130) iz analize v celoti izključene.

Izbor podatkovnih nizov, uporabljenih v okviru te analize, je predstavljen v *tabeli 4*.[42] Že na prvi pogled je očitno, da je bil lov skozi celotno obdobje količinsko nepomembna gospodarska panoga. Podobno je mogoče reči za rejo psov in konj, čeprav je bila simbolna vloga (vsaj) slednjih nedvomno zelo velika. Zanimivo je, da sta bila dva od zgolj osmih konjskih ostankov odkrita na območju hiše 31. Gre namreč za edino stavbo v naselbini, kjer so bili pridobljeni izključno živalski ostanki latenske starosti. Bi navedena okoliščina lahko kazala na lokalno povečano prisotnost konj v mlajši železni dobi? Dokončnega odgovora na to vprašanje na podlagi pičlega števila razpoložljivih podatkov seveda ni mogoče dati, bi pa utegnili biti v tem smislu koristen vpogled v arheozoološko gradivo z območja hiše 6/2. Gre za edino preostalo stavbo, znotraj katere so bili odkriti latenskodobni živalski ostanki, sicer premešani z nekoliko starejšimi najdbami (kronološki okvir hiše 6/2: Sv. Lucija IIa–IIc, IV; NISP = 73). Ugotovljeno je bilo, da med gradivom iz hiše 6/2 konjskih ostankov ni.

[40] *Cf.* Bartosiewicz 1996; Dular, Tecco Hvala 2007, 155–195.

[41] *Cf.* Turk 2005, 31–32.

[42] Za predstavitev vseh podatkovnih nizov po posameznih gradbenih fazah/hišah glej *prilogo 4*.

Soči, for instance, caprine *vs*. pig ratio per site seems to show a stronger correlation to the importance/rank of individual settlements than to the geographical characteristics of the respective hinterland.[40] Less variability is observed in the importance of game. Hunting was never a quantitatively important source of meat, but may have served as a status symbol of the elites.[41]

DIACHRONIC CHANGES

In order to trace any major changes in the animal keeping practices, in the importance of hunting, the feeding habits and possibly in the social structure of the Iron Age Most na Soči community, the archaeozoological data were rearranged to form subsets related to well-dated construction phases of individual houses. The information on species richness, individual taxa abundances and skeletal element representation were then compared between subsets representing different archaeological phases. It was unfortunately impossible to form statistically relevant subsets for each of the four settlement phases considered here (Sv. Lucija IIa, IIb, IIc and IV). The La Tène material had to be completely excluded from the analysis due to the small number of finds (NISP = 130).

The selection of the data subsets considered in this analysis is presented in *Table 4*.[42] It is evident that hunting played a quantitatively negligible role throughout the studied period. The same holds true for dog and horse keeping, even though the role of at least the latter species is known to have been prominent. It might be worth noting that two of a total of mere eight recovered horse remains originate from House 31; this is the only excavated house to have yielded taxonomically identified animal remains exclusively dated to the La Tène period. Could this circumstance reflect an increase in horse abundance following the transition from the Early to the Late Iron Age? A conclusive answer can as yet not be given due to the small amount of data from House 31. It should be noted, however, that the only other La Tène house that yielded taxonomically identifiable remains – though mixed with earlier, i.e. Late Hallstatt finds – did not include horse bones (House 6/2; datation: Sv. Lucija IIa–IIc, IV; NISP = 73).

In view of the results, the bulk of the variation in species representation is limited to cattle, caprine and pig. A direct comparison between data subsets exclusively dated to either Sv. Lucija IIa or IIb yielded a statistically non-significant difference in the increasing percentage of pork and declining contribution of beef to the diet ($Chi^2 = 5.689$, d.f. = 2, $p > 0.05$). The substantial

[40] *Cf*. Bartosiewicz 1996; Dular, Tecco Hvala 2007, 155–195.

[41] *Cf.* Turk 2005, 31–32.

[42] For complete data see *Appendix 4*.

Takson Taxon		Sv. Lucija IIa			Sv. Lucija IIa/b			Sv. Lucija IIb			Sv. Lucija IIa–c			Sv. Lucija IIc	
		H 14/1&2	H 15A/1	H 23/1	H 1/2	H 8	H 22A/2	H 4	H 2/2	H 12/1	H 3	H 6	H 30	H 7	H 15A/3
Količina najdb po taksonih / Abundance per taxa															
B. taurus		284	6	14	8	34	8	4	9	57	14	31	67	29	15
Caprinae		371	15	28	12	45	6	8	23	246	31	46	159	30	13
S. domesticus		30	9	3	6	7	1	7	7	136	2	14	23	4	7
C. familiaris			1								11				
E. caballus										2					
Divjad / Game		3	2		1	2	1	8		1	3		1		
ΣNISP		688	33	45	27	88	16	27	39	443	61	91	250	63	35
Izkoristek mesa / Meat quality & quantity data															
B. taurus	A	93	3	1	-	2	1	-	4	19	2	1	14	1	6
	B	124	17	9	2	3	5	3	0	12	2	3	23	4	5
	C	205	4	4	5	29	2	1	2	26	14	27	29	24	4
Caprinae	A	40	6	1	2	4	-	-	3	28	3	1	14	2	4
	B	118	5	17	4	13	3	2	9	74	10	-	46	7	4
	C	212	4	10	6	28	3	3	10	142	18	45	98	21	4

Tab. 4: Število odkritih živalskih ostankov po taksonih (zgornji del) in zastopanosti skeletnih elementov iz najbolj, srednje in najmanj mesnatih delov telesa za govedo in drobnico (spodnji del) v gradivu z Mosta na Soči. Navedeni so zgolj podatki hiš/gradbenih faz z dobro opredeljenim kronološkim okvirjem (za datacijo posameznih gradbenih faz/hiš glej tu Dular, 147–166). Obrazložitev okrajšav: H – hiša (npr. H 1 – hiša 1). Za opredelitev posameznih kategorij mesnatosti (tj. A, B in C) glej razdelek Metode in gradivo.

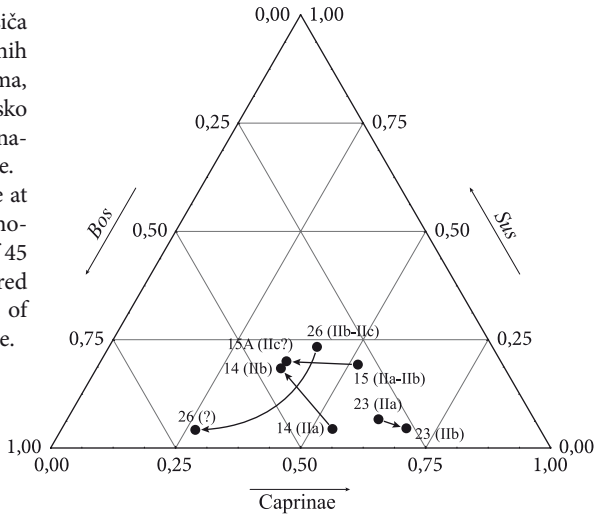
Tab. 4: Taxa abundance data (upper part) and the distribution of skeletal elements by represented meat value for cattle and caprines (lower part) at Most na Soči from select houses/construction phases, grouped according to their chronological framework. For detailed chronological data on houses and their construction phases see here Dular, 147–166. Explanation of the abbreviation: H – House (e.g. H 1 – House 1). For the definition of meat quality/quantity categories (A, B, C) see the Method and material section.

V okviru železnodobnega Mosta na Soči je treba pretežni del variacije v deležu zastopanosti posameznih taksonov pripisati govedu, drobnici in domačemu prašiču. Neposredna primerjava med gradivom iz gradbenih faz/hiš kulturne stopnje Sv. Lucija IIa in tistim iz gradbenih faz/hiš kulturne stopnje Sv. Lucija IIb je pokazala na določeno razliko v deležu goveda in prašiča, pri čemer naj bi se pomen slednjega v času znatno povečal (razlika sicer ni statistično značilna: $Chi^2 = 5{,}698$, s.p. = 2, $p > 0{,}5$). Zanimivo je, da izkazuje gradivo iz najmlajše mladohalštatske kulturne stopnje Sv. Lucija IIc večjo podobnost s stopnjo Sv. Lucija IIa, kar postavlja relevantnost ugotovljenih sprememb v priljubljenosti svinjine pod vprašaj. Drugače povedano, ugotovljene razlike najverjetneje ne odsevajo dejanskih diahronih sprememb v prehrambnih navadah lokalnega prebivalstva, saj je variabilnost v vsakem od kronološko opredeljenih skupkov podatkovnih nizov pravzaprav večja od variabilnosti med njimi.

Slednjič je bil izveden še poskus neposredne primerjave podatkov o zastopanosti posameznih vrst in njihovih skeletnih elementov med zaporednimi gradbenimi fazami posameznih hiš. Žal je bilo v analizo mogoče vključiti zgolj štiri hiše, ki so edine zadostile obema vstopnima kriterijema (tj. obstoj najmanj dveh

quantity of Sv. Lucija IIc finds bears more resemblance to those from Sv. Lucija IIa. It is to be emphasized, however, that the observed differences cannot be satisfactorily accounted for in terms of diachronic changes, since the within-group variability seems to significantly exceed the between-group variability.

With one last analytical approach, a direct comparison of species abundance and skeletal element representation data between individual construction phases of a single house has been attempted. Unfortunately, taking both the existence of (at least) two chronologically distinct construction phases per house and a high enough number of identified animal remains (NISP > 45) as limiting factors, no more than four houses could be taken into account. The observed changes were distinctly inconsistent between the four houses. In other words, if in the case of House 14 the transition from Sv. Lucija IIa to IIb resulted in a substantial rise in pig numbers at the expense of both cattle and caprines, the changes relative to House 23 were the opposite (though much less pronounced; *Fig. 6*). Likewise, if the share of bones from the meatiest parts of the cattle carcass tended to be roughly constant over time in Houses 14 and 23, a clear rise is evident for House 26 (*Tab. 4*). It thus seems evident that the observed changes are more telling of functional and/



Sl. 6: Grafični prikaz deležev zastopanosti goveda, drobnice in prašiča v gradivu z Mosta na Soči po zaporednih gradbenih fazah posameznih hiš. Upoštevane so bile zgolj hiše z najmanj dvema gradbenima fazama, pri čemer je v vsako od faz mogoče datirati najmanj 45 taksonomsko opredeljenih živalskih ostankov (tj. hiše 14, 15A, 23 in 26). Puščice označujejo smer spremembe med zaporednima gradbenima fazama hiše.
Fig. 6: Ternary plot of cattle, caprines and pig relative abundance at Most na Soči per construction phase of individual houses. Only houses with at least two construction phases yielding a minimum of 45 taxonomically identified animal remains per phase were considered (Houses 14, 15A, 23 and 26). The arrows indicate the direction of changes between consecutive construction phases per given house.

gradbenih faz, od katerih je v vsako mogoče datirati najmanj 45 taksonomsko opredeljenih živalskih ostankov). Rezultati so vnovič nedvoumno pokazali, da hiše ne izkazujejo enotnega trenda diahronih sprememb. Če je namreč pri hiši 14 na prehodu iz stopnje Sv. Lucija IIa v stopnjo Sv. Lucija IIb zaznati očitno povečanje deleža prašiča na račun goveda in drobnice, je bila smer po obsegu bistveno skromnejše spremembe pri hiši 23 nasprotna (*sl. 6*). Podobno ostaja delež kosti iz mesnatejših delov govejega trupa pri hišah 14 in 23 v času bolj ali manj stalen, medtem ko kažejo podatki za hišo 26 očitne diahrone spremembe (*tab. 4*). Zdi se torej, da zaznanih nihanj ni utemeljeno v večji meri navezovati na spremembe v času, temveč prej na socialno razslojenost/funkcionalno specializacijo prebivalstva, razlike v tafonomski zgodovini posameznih skupkov kosti in/ali kot golo naključje.

FUNKCIONALNA SPECIALIZACIJA IN SOCIALNA RAZSLOJENOST

V nadaljevanju predstavljena analiza funkcionalne specializacije in socialne razslojenosti železnodobne družbe z Mosta na Soči temelji na študiji živalskih ostankov, vendar hkrati upošteva kopico drugih relevantnih podatkov, denimo velikost posameznih stavb, njihovo notranjo organiziranost, uporabljeno tehniko gradnje, prisotnost ognjišč, jam, odtočnih kanalov, razpršenost in tipologijo posameznih kategorij arheoloških najdb (npr. lončenina, kovinski predmeti) ipd. Na tej podlagi je bilo nekatere hiše mogoče pogojno razvrstiti v štiri funkcionalno in socialno opredeljene kategorije: bolje grajene in opremljene stanovanjske hiše (hiše 1/1, 1/2, 5, 8/1, 8/2, 11/2, 15/1, 15/2, 15A/1, 16/2 in morda hiša 3), nekoliko slabše grajene in opremljene stanovanjske hiše (hiše 2/2, 7, 10/2, 15A/2 in 16/1), delavnice (hiše 4, 12/1, 22/1, 22A/1, 22A/2, 23/1, 29/1) in stavbe za specifične, morda skupnostne dejavnosti (hiše 6/2, 14/1, 14/2, morda tudi hiša 30/2).[43] Med slednjimi je hiša 6/2 domnevno služila

[43] Za podrobnosti glej tu Dular, Tecco Hvala, 73–78.

or social differentiation of the population, differential taphonomic history of individual bone-accumulations within the site and even mere coincidental heterogeneity than of diachronic changes.

FUNCTIONAL SPECIALISATION AND SOCIAL STRATIFICATION

The investigation of possible functional specialisation and social differentiation of the Most na Soči community as reflected in the archaeozoological material has been addressed by concomitantly considering many other types of relevant data, such as the size of individual houses, their interior layout, the construction techniques, the presence of hearths, pits, drainage canals, the distribution and typology of individual categories of archaeological finds (e.g. pottery, metal objects) etc. On the basis of these data, several houses were tentatively classified into four functionally and socially defined categories: well-constructed and furnished residential units (Houses 1/1, 1/2, 5, 8/1, 8/2, 11/2, 15/1, 15/2, 15A/1, 16/2 and possibly also House 3), poorly constructed and furnished residential units (Houses 2/2, 7, 10/2, 15A/2 and 16/1), workshops (Houses 4, 12/1, 22/1, 22A/1, 22A/2, 23/1, 29/1) and structures with specific functions possibly used as public spaces (Houses 6/2, 14/1, 14/2, perhaps also House 30/2).[43] Of the potential public spaces, House 6/2 is interpreted as a burnt-offering place,[44] while the function of the other three has not yet been clarified.

Archaeozoological data for the houses or their construction phases that yielded taxonomically identified animal remains are shown in *Table 5*. The within-category variation in species abundance and skeletal element representation data is rather great, closely

[43] For details see here Dular, Tecco Hvala, 73–78.

[44] Svoljšak, Dular 2016, 73–74.

Takson Taxon	BGBH / WCRU					SGBH / PCRU			DEL / WS				PH / SPH	
	H 1/2	H 3	H 5	H 8/1&2	H 15A/1	H 2/2	H 7	H 15A/2	H 4	H 12/1	H 22A/2	H 23/1	H 6	H 14/1&2
Bos taurus	8	18	1	34	24	9	29	19	4	57	8	14	31	284
Caprinae	12	37	1	45	15	23	30	28	8	246	6	28	46	371
Sus cf. *domesticus*	4	4		7	9	7	4	7	7	135	1	3	14	28
Canis familiaris		11			1									
Equus caballus										2				
Cervus elaphus		3		1	2				8	1	1			3
Capreolus capreolus				1										
Bos primigenius														
Sus cf. *scrofa*	2	1												2
Lepus europaeus		1												
Martes martes														
Vulpes vulpes														
Ursus arctos	1													
Bos *sp.*														
Canis sp.														
Σ Mammalia	27	75	2	88	51	39	63	54	27	442	16	45	91	688
Gallus domesticus										1				
Indeterminatus	-	13	-	-	91	23	6	25	16	344	24	40	-	810

Tab. 5: Zastopanost živalskih taksonov v gradivu z Mosta na Soči po posameznih hišah. Upoštevane so zgolj hiše, ki jim je bilo mogoče oceniti namembnost (glej tu Dular, Tecco Hvala, 73–78). Obrazložitev okrajšav: BGBH – bolje grajene in opremljene stanovanjske hiše; SGBH – slabše grajene in opremljene stanovanjske hiše; DEL – delavnice; PH – hiše s posebno namembnostjo; H – hiša (npr. H 1/2 – hiša 1/2).

Tab. 5: Taxa abundance data at Most na Soči for select houses determinable as to their function (*cf.* here Dular, Tecco Hvala, 73–78). Explanation of abbreviations: WCRU – well-constructed residential units; PCRU – poorly constructed residential units; WS – workshops; SPH – special-purpose houses; H – house (e.g. H 1/2 – House 1/2).

kot žgalnodaritveni prostor,[44] namembnost ostalih treh stavb pa še ni zadovoljivo pojasnjena.

Arheozoološki podatki za zgoraj navedene hiše oziroma za njihove posamezne gradbene faze so prikazani v *tabeli 5*. Raznolikost v deležih zastopanosti posameznih taksonov in njihovih skeletnih elementov znotraj vsake od štirih kategorij je znatna in v ničemer ne zaostaja za ugotovljenim obsegom razlik med posameznimi kategorijami, kar je za razumevanje obravnavane problematike vsekakor pomenljivo. Bolj poglobljen vpogled v problematiko družbene kompleksnosti pa so sicer ponudili rezultati nekaterih nekoliko podrobneje zastavljenih analiz, denimo analize razpršenosti ostankov divjadi znotraj naselja (*tab. 6*). Izkazalo se je namreč, da vzorec razpršenosti (v marsikaterem primeru obdelanih) odlomkov jelenjega rogovja značilno odstopa od vzorca razpršenosti vseh preostalih najdb lovnih vrst. Te so bile večinoma pobrane na območjih bolje grajenih/opremljenih stanovanjskih hiš, medtem ko so bili odlomki rogovij razmeroma enakomerno razpršeni med stavbe vseh štirih funkcionalnih kategorij. Podrobneje povedano: taksonomsko opredeljeni živalski ostanki so

[44] Svoljšak, Dular 2016, 73–74.

resembling the variation observed in the between-categories comparisons. Additional insights into the societal complexity at Most na Soči were thus gained by taking a detailed look at more specific data, starting with the spatial distribution of game finds (*Tab. 6*). The results show a significant difference between the pattern of spatial distribution of (mostly worked) red deer antler specimens and the spatial arrangement of the remaining game finds. Indeed, antler fragments are associated with the buildings of all four categories, while other remains are much more frequently tied to the well-constructed/furnished residential units. Five such units[45] provided taxonomically identified animal remains and each of them yielded also postcranial remains of at least one wild animal not counting wild boar.[46] Within each of

[45] If only one construction phase of a given house could be considered as a well-constructed/furnished residential unit, only the animal remains associated with that phase were used (e.g. the classification of House 16/1 as a poorly constructed/furnished residential unit and House 16/2 as a well-constructed/furnished residential unit).

[46] Wild boar finds were identified on the basis of their size alone, allowing for the possibility of large domestic pig

Hiša House	Funkcionalna interpretacija Functional interpretation	*Cervus elaphus*		Divjad (drugo) Game (rest)
		Rogovje/Antler	Drugo / Rest	
H 1	BGBH / WCRU			*U. arctos*, *S. scrofa* (2x)
H 3	BGBH / WCRU	1*	1	*L. europaeus*, *S. scrofa*
H 4	DEL / WS	4 + 4*	2	
H 8/1	BGBH / WCRU		1	*C. capreolus*
H 11	BGBH / WCRU		1	
H 12/1	DEL / WS	1*		
H 14/1-2	PH / SPH	2*	1	*S. scrofa* (2x)
H 14/3	?		1	
H 15A/2	BGBH / WCRU	1	1	
H 16	Mešano / Mixed	1*	3	*S. scrofa* (2x)
H 17	?	10*		
H 22	DEL / WS	1*		*L. europaeus*, *S. scrofa*
H 22A/2	DEL / WS	2	1	
H 24	?	1		
H 25	?	2*		*C. capreolus*
H 26	?	3*	4	*B. primigenius*, *S. scrofa (4x)*
H 30	PH (?) / SPH (?)		1	
H 31/1	?			*V. vulpes* (3x), *M. martes*

Tab. 6: Zastopanost lovnih vrst v gradivu z Mosta na Soči po posameznih hišah. Interpretacija namembnosti stavb je povzeta po Dular, Tecco Hvala (glej tu 73–78). Obrazložitev okrajšav: BGBH – bolje grajene in opremljene stanovanjske hiše; SGBH – slabše grajene in opremljene stanovanjske hiše; DEL – delavnice; PH – hiše s posebno namembnostjo; H – hiša (npr. H 1/2 – hiša 1/2). Zvezdica (*) označuje primerke rogovij s sledmi človekovih aktivnosti.
Tab. 6: Game abundance data at Most na Soči per individual house. Their functional interpretation is taken from Dular, Tecco Hvala (here, 73–78). Explanation of abbreviations: WCRU – well-constructed residential units; PCRU – poorly constructed residential units; WS – workshops; SPH – special purpose houses; H – house (e.g. H 1/2 – House 1/2). The asterisk (*) denotes worked antler specimen.

bili najdeni na območju petih[45] bolje grajenih/opremljenih stanovanjskih hiš znotraj naselbine in v prav vseh petih primerih zbir vključuje najdbe postkranialnih skeletnih elementov katere izmed lovnih vrst razen divjega prašiča.[46] Na območju preostalih dvanajstih železnodobnih hiš, pri katerih je mogoče sklepati na njihovo namembnost, so bile takšne najdbe prisotne v zgolj štirih primerih. Vendar sta dve od teh štirih stavb domnevno služili kot svojevrsten javni prostor[47] (hiši 14/1–2 ter hiša 30), kar pomeni, da sta delavnici oziroma slabše grajeni/opremljeni hiši s postkranialnimi najdbami katere od lovnih vrst razen divjega prašiča znotraj celotne naselbine pravzaprav zgolj dve (tj. hiši 4 in 22/1). Še več! Tudi ob upoštevanju domnevnih najdb divjega prašiča se njihovo število poveča za zgolj eno enoto (*tab. 6*).

[45] Kjer je bilo mogoče posamezno stavbo uvrstiti v kategorijo bolje grajenih/opremljenih stanovanjskih hiš zgolj v primeru ene od gradbenih faz, so bili v analizo vključeni le arheozoološki podatki za to fazo (primer: hiša 16/1 je uvrščena v kategorijo slabše grajenih/opremljenih stanovanjskih stavb, hiša 16/2 pa v kategorijo bolje grajenih/opremljenih).

[46] Opredelitev petnajstih ostankov za divjega prašiča je bila opravljena zgolj na podlagi njihove velikosti, kar načeloma dopušča možnost, da je med njimi tudi posamezna najdba izstopajoče velikega domačega prašiča in/ali križanca.

[47] Glej tu Dular, Tecco Hvala, 73–78

the remaining twelve Early Iron Age buildings of ascribed function, game occurred in no more than four. Moreover, two of these four buildings (Houses 14/1&2 and 30) are believed to have been used for special, possibly communal activities,[47] which makes the number of workshops and poorly constructed/furnished residential units yielding game finds other than antlers to be as low as two (Houses 4 and 22/1). Even by adding the 15 tentatively identified wild boar remains, the number of such structures only rises by one (*Tab. 6*).

A small part of game finds could not be included in the spatial distribution analysis because they could not be precisely dated. This is the case for the finds from House 16, a seemingly rather poorly constructed/furnished structure in its first construction phase, but well-constructed following a complete destruction in a fire.[48] It was not possible to allocate the few gathered game finds to either of the two phases, which made it necessary to completely exclude these specimens from the spatial distribution analysis. The relatively rich bone material from House 25 was also excluded because the insufficient archaeological data hindered a reliable interpretation of

specimens and/or domestic pig-wild boar crosses to be included as well.

[47] See here Dular, Tecco Hvala, 73–78.

[48] See here Dular, Tecco Hvala, 77–78

Manjšega dela zbranih ostankov divjadi v analizo ni bilo mogoče vključiti, saj so bili podatki o njihovem kronološkem okviru nepopolni oziroma premalo natančni. To velja za najdbe iz hiše 16, ki je med prvo gradbeno fazo domnevno služila kot slabše grajena/opremljena stanovanjska hiša, medtem ko je bila po obnovi vsled požara bistveno kvalitetneje grajena in bolje opremljena.[48] Žal zbranih živalskih ostankov ni bilo mogoče navezati na zgolj eno od obeh faz, zato v analizi niso bili upoštevani. Težave so se pojavile tudi pri razmeroma bogatem zbiru kosti iz hiše 25. Omenjeno gradivo je bilo sicer mogoče povsem korektno umestiti v čas, vendar zaradi skromne povednosti tam odkritih arheoloških najdb hiši ni bilo mogoče oceniti namembnosti. Štirje postkranialni ostanki jelena in odlomek lopatice tura (*sl. 2*) nakazujejo, da je hiša 25 utegnila služiti kot bolje grajena/opremljena stanovanjska hiša.

Zadnji komentar v zvezi s prostorsko razpršenostjo ostankov lovnih vrst je namenjen hiši 31, ki je bila v uporabi izključno v stopnji Sv. Lucija IV (= laten). Na tem mestu so bili namreč med drugim najdeni trije poškodovani metapodiji (morda iste) lisice in komolčnica kune zlatice, kar je vsekakor neobičajen zbir. Trije lisičji metapodiji (tj. 4. in 5. dlančnica ter 4. stopalnica; vse leve) so bili ohranjeni le v proksimalnem delu, sledi človekovega delovanja pa niso bile ugotovljene. Kot že omenjeno: znotraj hiše 31 sta bila odkrita tudi izolirana konjska zoba (*sl. 1*).

Ob podatkih o prostorski razpršenosti postkranialnih najdb divjadi so pomemben argument v prid teze o svojevrstni socialni razslojenosti in funkcionalni specializaciji v železnodobni skupnosti na Mostu na Soči ponudili mortalitetni profili za drobnico. Na kakšen način? Z osredotočenjem na hiše, ki ponujajo največ podatkov o klavni starosti teh živali, je mogoče pokazati na nekoliko višji delež najdb mladih in mlajših odraslih živali znotraj bolje grajenih/opremljenih stanovanjskih hiš v primerjavi s slabše grajenimi/opremljenimi stanovanjskimi hišami in delavnicami. Hiša 14, ki je utegnila služiti kot poseben prostor s svojevrstno skupnostno namembnostjo, zaseda v tem s smislu vmesno lego (*tab. 7*). Pri govedu in prašiču znotrajnajdiščne razlike v preferenčni klavni starosti niso bile zaznane (*pril. 1* in *2*).

Zadnji pomemben analitični pristop k preučevanju družbene kompleksnosti obravnavane skupnosti, uporabljen v okviru tukaj predstavljene študije, je temeljil na analizi razpršenosti živalskih ostankov znotraj tlorisa posameznih hiš. Seveda so lahko bile pri tem upoštevane le tiste maloštevilne stavbe, pri katerih je bilo na podlagi razpoložljive terenske dokumentacije *in situ* lokacijo posameznih kostnih skupkov sploh mogoče razbrati. Tako je bilo v primeru dveh stanovanjskih hiš (tj. hiši 8/1–2 in 15A/1), treh delavnic (tj. hiše 12/1, 22/1 in 23/1) ter stavbe 14/1–2, kjer so se domnevno odvijale skupnostne dejavnosti.

[48] Glej tu Dular, Tecco Hvala, 77–78.

its function. From the archaeozoological point of view, however, the presence of four red deer postcranial bone fragments and a broken aurochs scapula (*Fig. 2*) seems to argue for House 25 to be preliminarily included in the 'well-constructed/furnished residential units' category.

The final comment relative to the spatial distribution of game finds concerns House 31, occupied exclusively during the Late La Tène period. Here, three fragmented fox metapodials – possibly belonging to a single animal – and a European pine marten ulna were found, which is undoubtedly a noteworthy combination. Of the three fox metapodials (4th and 5th metacarpals and 4th metatarsal, all of them left), only the proximal parts survive. None of the bones bear any clear traces of human activity. It is worth remembering that House 31 also yielded two isolated horse teeth (*Fig. 1*).

Additional arguments in support of the proposed functional characterisation of individual houses and thus a functional specialisation/social stratification of the community are provided by sheep/goat mortality profiles. By focusing on the structures yielding more of such data, a slightly higher share of juvenile and young adult specimens is apparent in the well-constructed/furnished residential units relative to the less well constructed/furnished units and workshops, with the functionally specific House 14 standing in between (*Tab. 7*). In cattle and pig, the differences in the age-at-death profiles seem all but negligible (*Apps. 1* and *2*).

The second part of this section presents the micro-distribution of animal bones within buildings. Unfortunately, such an analysis was only possible in the relatively rare cases of the archaeological documentation actually revealing the precise *in situ* location of individual teeth/bones. Of the many presumed residential units, this is the case for Houses 8/1&2 and 15A/1. In the case of workshops, the analysis included Houses 12/1, 22/1 and 23/1, while House 14/1&2 was studied as a structure with a special, possibly communal function.

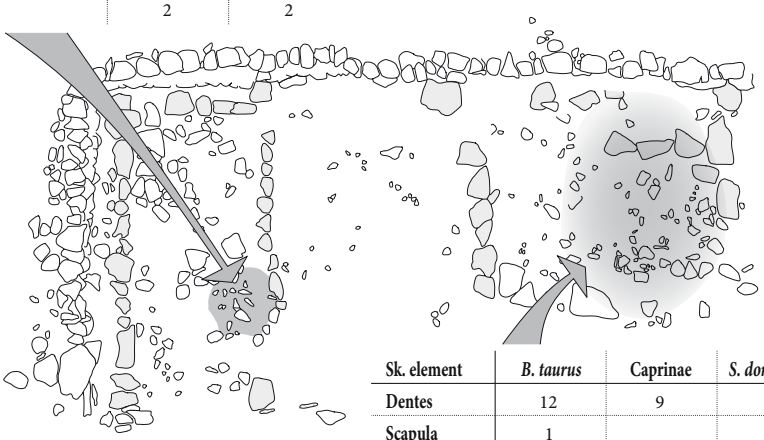
Houses 8/1&2 had a 5.90 x 3.00 m large interior surface divided into three rooms covering – from west to east – just under 4 m^2, 10 m^2 and 3 m^2, respectively (*Fig. 7*). The central room revealed a pit dug into the natural deposit of sand that contained a jar. Another pit measuring 0.35 m in depth was dug in the west room, while the east room revealed a fragmented bronze ingot.[49] Regarding the animal remains, the great majority of the taxonomically identified finds originate from the smallest east room (NISP = 62). Caprines followed by cattle prevail over pig, with red deer being the only other taxonomically identified species. In caprines, all anatomical regions of the carcass are more or less equally represented, while most of the cattle finds are from the less meaty parts (*Fig. 7*). The debris covering the whole area of the house revealed additional 26 bone and teeth fragments, but these could not be reliably ascribed to

[49] Svoljšak, Dular 2016, 78–83.

Starostni razred Age class	BGBH / WCRU H 1, 3, 4, 10, 11, 23	SGBH / PCRU H 2/2, 7	DEL / WS H 12/1, 22, 22A, 23/1, 29	PH / SPH H 6, 14/1&2, 30
0–1 leto / year	1	2	4	3
1–3 leta / years	9	2	7	27
2–4 leta / years	5		1	1
>3 leta / years	1	3	14	19
2–6 let / years	1	1		1

Tab. 7: Poenostavljeni mortalitetni profili za drobnico v gradivu z Mosta na Soči za vsako od štirih funkcionalno opredeljenih kategorij stavb. Podatki za delno prekrivajoče se starostne razrede so zapisani ležeče.
Tab. 7: Simplified mortality profiles for caprines at Most na Soči in each of the four functional categories of buildings. Partially overlapping age classes are written in italics.

Sk. element	*B. taurus*	Caprinae	*S. domesticus*
Dentes	1		
Metacarpalia		1	
Tarsalia		2	
Metatarsalia		1	1
Phalanges		2	2



Sk. element	*B. taurus*	Caprinae	*S. domesticus*	*C. elaphus*
Dentes	12	9		
Scapula	1			
Humerus	1	2	1	
Radius	2	6		
Ulna		2		
Metacarpalia	1	3		
Femur		1		
Tibia		3		
Tarsalia	2	1		
Metatarsalia		2	1	
Phalanges	*3 + 5*	*1 + 1*	1	1

Sl. 7: Približna *in situ* lega živalskih ostankov z območja hiše 8/1, 2 z Mosta na Soči. Ožgani ostanki so zapisani ležeče. Najdbe brez znane *in situ* lokacije niso bile upoštevane (N = 16).
Fig. 7: Approximate *in situ* location of the animal bones from Houses 8/1&2 at Most na Soči. Burnt specimens are written in italics. Finds without a known *in situ* location are not shown (N = 16).

V stanovanjski hiši 8/1, 2, ki je pokrivala površino 5,80 x 3,00 m, so bili prepoznani trije prostori: večji srednji (10 m^2) in dva manjša na vsakem od obeh koncev stavbe (zahodni prostor: približno 4 m^2, vzhodni prostor: 3 m^2) (*sl. 7*). V srednjem prostoru je bil odkrit lonec, ki je stal v jami, vkopani v peščeno osnovo. Še ena jama (globina 0,35 m) je bila vkopana v zahodnem prostoru, medtem ko je bil v vzhodnem prostoru najden fragmentiran bronast

either of the two construction phases.[50] It is worth noting that almost half of these finds were unearthed in the pit in the west room, all belonging to the least meaty parts of the carcass (*Fig. 7*). Altogether, six bone fragments were charred, most probably due to exposure to the fire that destroyed the house. Interestingly, all of the charred bones were phalanges (*Fig. 7*).

[50] Svoljšak, Dular 2016, 84.

ingot.[49] Živalski ostanki so bili večinoma v vzhodnem prostoru, kjer je ležalo kar 62 taksonomsko opredeljenih najdb. Prevladujejo kosti in zobje drobnice, sledita govedo in domači prašič, s primerkom prstnice je zastopan tudi jelen. Med najdbami ovce/koze so bolj ali manj enakomerno zastopani skeletni elementi iz celotnega telesa, medtem ko prihajajo goveje kosti večinoma le iz najmanj mesnatih (*sl. 7*). V ruševinski plasti, ki je prekrivala celotno površino hiše, je bilo odkritih še 26 kostnih in zobnih najdb, ki pa jih ni bilo mogoče z zanesljivostjo navezati na katero od obeh gradbenih faz.[50] Skoraj polovica teh primerkov, ki brez izjeme prihajajo iz najmanj mesnatih delov trupa, je bila pobrana iz polnila jame v zahodnem prostoru (*sl. 7*). Gradivo iz hiše 8/1, 2 vključuje šest zoglenelih kostnih drobcev, ki so bili ognju bržčas izpostavljeni med požarom. Zanimivo je, da gre pri vseh šestih ožganih najdbah za prstnice (*sl. 7*).

Tudi 15 m^2 velika notranjost hiše 15A/1 je bila razdeljena na tri prostore, pri čemer se je vhod domnevno odpiral neposredno v srednji prostor (*sl. 8*). V zahodnem in srednjem prostoru je bilo odkrito po eno ognjišče, ob tem je bila v srednjem prostoru ob vzhodni predelni steni dokumentirana še delovna jama (globina 20 cm). V južni polovici vzhodnega prostora je ležal velik kup glinenih odlomkov oboda velikega silosa, ki je propadel v požaru.[51] V vzhodnem prostoru je bil odkrit pretežni del živalskih najdb (N = 82; NISP = 26), ki so bile večinoma razpršene vzdolž zidov (*sl. 8*). Izmed 16 kostnih odlomkov iz srednjega prostora jih je šest ležalo znotraj delovne jame, kjer so bili pomešani z zemljo, manjšimi kamni, koščki prežgane ilovice, drobci oglja in grudami žlindre. V istem polnilu so bili odkriti še odlomek bronastega trikotnega obeska, žrmlje in brusni kamen. Po skupnem številu pobranih kosti in zob prednjači govedo (N = 24), sledijo drobnica (N = 15), prašič (N = 9), jelen (N = 2) in pes (N = 1). A pozor! Ob upoštevanju številnih odkritih odlomkov domnevno ovčjih/kozjih reber (gre za najdbe iz velikostne kategorije "mali rastlinojedi") in ob zelo verjetno utemeljeni obravnavi desetih fragmentov goveje spodnje čeljustnice s severnega dela vzhodnega prostora kot pripadajočih isti kosti (tj. NISP = 1) se navedena razmerja povsem spremenijo in v ospredje se tudi pri hiši 15A/1 prebije drobnica.

Podatki o zastopanosti skeletnih elementov pri govedu kažejo na skoraj popolno odsotnost kosti iz najbolj mesnatih delov telesa, medtem ko je pri drobnici zastopanost anatomskih regij razmeroma enakomerna. Najdbe prašiča so maloštevilne, a pomenljive. Na obeh primerkih iz vzhodnega prostora so bile namreč prepoznane sledi vrezov[52] *(sl. 4*), domnevno nastalih med kosanjem živali zaradi priprave ustrezno velikih

[49] Svoljšak, Dular 2016, 78–83.

[50] Svoljšak, Dular 2016, 84.

[51] Svoljšak, Dular 2016, 125–131.

[52] Vrezi in/ali zasekanine so vidni tudi na spodnji čeljustnici goveda, petnici ovce in odlomku prašičje nadlahtnice.

The foundations of House 15A/1 enclosed a 15 m^2 large space divided into three rooms, with the entrance possibly leading into the central room (*Fig. 8*). The west and central rooms had one round hearth each. In addition to this, the central room had an oval work pit (depth 20 cm) dug next to the east partition wall. The southern half of the east room revealed a large heap of curving and predominantly decorated pieces of a large ceramic container destroyed in a fire.[51] It also revealed the majority of animal remains (N = 82; NISP = 26), mostly along the walls (*Fig. 8*). In the central room, six of a total of 16 animal remains lay in the work pit mixed with earth, small stones, crushed loam daub, bits of charcoal, lumps of slag, as well as a bronze pin fragment and a whetstone. Altogether, 24 bone finds were attributed to cattle, followed by caprines (N = 15), pig (N = 9), red deer (N = 2) and dog (N = 1). However, these data change considerably if adding the many rib fragments, which supposedly mostly belong to sheep and/or goat. Moreover, of the ten cattle mandible fragments found in the northern part of the east room, most (all?) are attributable to a single specimen; this further diminishes the relative abundance of cattle.

The skeletal element representation data show an almost total lack of bones from the meatiest body parts in cattle *contra* a much more equal representation of individual anatomical regions in sheep and goat. Pig remains are scanty, with the only two specimens from the east room bearing cut-marks[52] (*Fig. 4*) and the only two specimens from the west room being isolated lower canines. The latter, of course, had no culinary value. Another interesting detail is that the sole reliably identified bone fragment originating from the work pit in the central room belonged to a very young, possibly newborn calf. Of the several dozen burnt specimens, most (N = 5) are amongst the 36 bone/teeth fragments without precise microlocation data except for the detail of having been found in the debris covering most of the house area. Several burnt specimens also lay in the northern part of the east room, but most of these are believed to belong to a single cattle mandible recovered nearby, which is also burnt. Most of the burnt bone fragments are black-coloured.

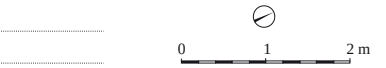
Houses 12/1, 22/1 and 23/1 are interpreted as workshops. House 23/1 was well-preserved and had a single room with a wide passage to the anteroom, i.e. a wide levelled area without stone walls to the west of the main room. The east half of the main building revealed a large work pit (depth 35 cm), in which several complete and fragmented ceramic rings, sherds of a large jar, as well as crushed and burnt loam were found. The area in front of the pit was interpreted as a work surface. The work pit was associated with two canals, dug from

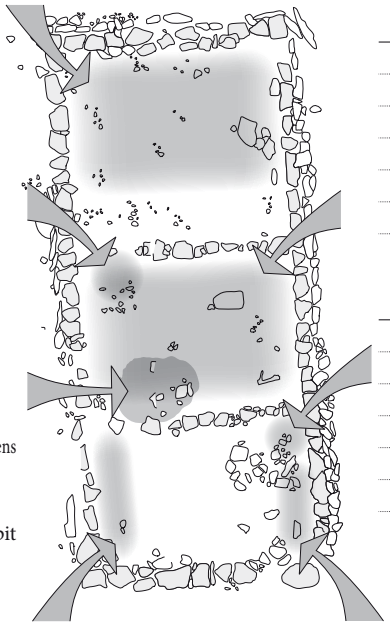
[51] Svoljšak, Dular 2016, 125–131.

[52] Cut- and/or chop-marks were also observed on a cattle mandible, a sheep calcaneus and a pig humerus.

Sk. element	*B. taurus*	Caprinae	*S. domesticus*
Mandibula	1		
Dentes			2
Costae		2*	
Humerus	1		
Phalanges	1		

& 1 neopredeljen odlomek / non-identified specimen





Sk. element	Caprinae	*C. elaphus*
Carpalia		*1*
Tibia	1	

Sk. element	*B. taurus*	Caprinae
Cranium	1*	
Costae	1*	1*
Radius	1	

& 2 neopredeljena odlomka / non-identified specimens

jama / pit

Sk. element	*B. taurus*	Caprinae	*C. elaphus*
Cornus cervi			1
Vertebrae	1		
Costae	1*	1*	
Humerus		1	
Radius		*1*	
Tarsalia		1	

& 2 neopredeljena odlomka / non-identified specimens

Sk. element	*B. taurus*	Caprinae	*S. domesticus*
Cranium	1		
Mandibula			1
Costae	1*		
Ulna	1		
Tarsalia	1		
Metatarsalia		1	

& 7 neopredeljenih odlomkov / non-identified specimens

Sk. element	*B. taurus*	Caprinae
Cranium		1
Mandibula	1	
Os hyoideum		1*
Vertebrae	1	1
Costae		1*
Scapula		1
Ulna		1

& 3 neopredeljeni odlomki / non-identified specimens

Sk. element	*B. taurus*	Caprinae	*S. domesticus*
Mandibula	*10*(MNE=1?)		
Costae		7*	
Humerus			1
Femur		2	
Tibia		1	
Tarsalia			1

& 5 + *31* neopredeljenih odlomkov / non-identified specimens

Sl. 8: Približna *in situ* lega živalskih ostankov z območja hiše 15A/1 z Mosta na Soči. Ožgani ostanki so zapisani ležeče. Zvezdica (*) označuje pogojno taksonomsko opredeljene kosti. Najdbe brez znane *in situ* lokacije niso bile upoštevane (N = 36).
Fig. 8: Approximate *in situ* location of animal bones in House 15A/1 at Most na Soči. Burnt specimens are written in italics. Asterisk (*) denotes the tentatively identified bone fragments. Finds without a known *in situ* location are not shown (N = 36).

prehranskih porcij, medtem ko sta bila v zahodnem prostoru odkrita le dva spodnja podočnika, ki seveda nimata nikakršne kulinarične vrednosti. Zanimiva je ugotovitev, da edina taksonomsko opredeljena kost iz delovne jame v srednjem prostoru pripada zelo mlademu teletu, kakršnih je bilo na najdišču najdenih le peščica. Izmed nekaj deset ožganih kostnih odlomkov jih večina (N=15) sodi v zbir 36 kosti/zob brez znane *in situ* lege. Izvirajo namreč iz ruševinske plasti, ki je prekrivala celotno površino stavbe. Edini nekoliko večji skupek ožganih najdb z znano najdiščno lokacijo sestavljajo drobci goveje spodnje čeljustnice s severnega dela vzhodnega prostora. Vendar pa ti najbrž brez

the pit and under the south foundation of the house to continue towards the yard and the path/street to the south of the building. Both canals were covered with slabs. The anteroom also revealed a work pit (depth 38 cm), in addition to the four postholes that held its projecting roof (*Fig. 9*).[53]

Most of the animal finds from this building were found on the floor of the anteroom (N = 27; NISP = 15) and only seven (NISP = 3) in the main room. In addition to these, 24 bone fragments lay in the fills of the two work pits and 26 (NISP = 15) on top of the slabs covering the two canals. Unfortunately, it is not possible

[53] Svoljšak, Dular 2016, 166–174.

izjeme pripadajo na istem mestu najdenemu večjemu odlomku istega skeletnega elementa, ki je bil prav tako izpostavljen ognju. Večina ožganih kostnih odlomkov je črno obarvanih.

V okviru analize razpršenosti živalskih ostankov znotraj posameznih delavnic so bile proučene hiše 12/1, 22/1 in 23/1. Slednja je bila dobro ohranjena. Edini prostor na vzhodnem delu je bil s širokim prehodom odprt proti preddverju, tj. večji poravnani površini brez kamnitih zidov zahodno od glavnega prostora. Vzhodni del osrednjega prostora je zasedala velika delovna jama (globina 35 cm), v kateri so bili najdeni celi in razbiti glinasti svitki, deli večjega lonca in prežgana ilovica. Območje pred delovno jamo je bilo interpretirano kot manipulativna površina. Posebnost omenjene delovne jame sta kanala, ki sta bila od tu speljana pod temeljem južne stene proti jugu na območje hišnega dvorišča in poti. Pokrita sta bila s ploščami laporja in apnenca. Delovna jama je bila vkopana tudi v preddverju (globina 38 cm). V njeni bližini so bile odkrite štiri luknje za stojke, ki so nosile nadstrešek (*sl. 9*).[53]

Večina živalskih ostankov iz te hiše je ležala na hodni površini preddverja (N = 27; NISP = 15), medtem ko jih je bilo v osrednjem prostoru najdenih le sedem (NISP = 3). Ob teh je 24 kostnih odlomkov ležalo v polnilih obeh delovnih jam in dodatnih 26 (NISP = 15) nad ploščami, ki so prekrivale kanala južno od hiše. Razpoložljiva terenska dokumentacija ne omogoča razlikovanja med najdbami obeh delovnih jam (*sl. 9*).

V gradivu iz hiše 23/1 je bilo največ ostankov ne glede na njihovo lego pripisanih drobnici, kar je skladno z ugotovitvami pri obeh analiziranih stanovanjskih hišah (tj. hiši 8/1, 2 in 15A/1; *sl. 7* in *8*; glej tudi *tab. 5*). V nasprotju s tem kažejo podatki o zastopanosti skeletnih elementov povsem drugačno sliko. Delež govejih najdb iz najmanj mesnatih delov telesa je namreč v gradivu iz hiše 23/1 bistveno manjši kot v obeh omenjenih stanovanjskih hišah. Kar 27 (= 60 %) zbranih kostnih odlomkov je bilo izpostavljenih ognju, pri čemer so ožgane najdbe manjkale edino v skupku kosti z območja nad obema kanaloma. Ognju izpostavljeni ostanki so večinoma sivkasto do belo obarvani. Posamezni odlomki so kalcinirani in izkazujejo vzdolžne in prečne razpoke. Kaže torej, da so bili za dlje časa izpostavljeni temperaturam nad 700 °C.[54]

Ohranjenost preostalih dveh analiziranih delavnic je bila razmeroma slaba. Od hiše 12/1 sta bila *in situ* ohranjena le del temelja in jama (globina 32 cm), medtem ko so izkopavanja hiše 22/1 razkrila drenažne zidove, del kamnitih temeljev, odtočni kanal in štiri jame (globine 15 cm, 11 cm, 12 cm in 37 cm), ki jih je povezoval kanal.[55] Zaradi močno poškodovanih struktur je bilo podrobneje analizirano samo kostno gradivo iz dveh večjih delovnih jam, kjer – podobno kot v primeru delavnice v hiši 23/1 –

[53] Svoljšak, Dular 2016, 166–174.

[54] Walker, Miller, Richman 2008.

[55] Svoljšak, Dular 2016, 102, 154–155.

to differentiate between the bones originating from each of the two work pits (*Fig. 9*).

Regardless of the context, most of the finds from House 23/1 belong to caprines, in which the workshop closely resembles the two analysed residential units (i.e. Houses 8/1&2 and 15A/1; *Figs. 7; 8*; also see *Tab. 5*). Skeletal element representation, on the other hand, shows a rather different picture relative to the two mentioned residential units, characterised by a much smaller share of cattle bones from the least meaty anatomical regions. No less than 27 (= 60%) recovered bone fragments show traces of fire exposure and the sediments above the two canals are the only analysed contexts to have yielded none. Most of the burnt bones are greyish to white, with several specimens completely white and showing longitudinal, as well as transversal cracks; these bones must have been exposed to temperatures exceeding 700 ˚C for a prolonged period of time.[54]

The preservation of Houses 12/1 and 22/1 was rather poor. Of House 12/1, part of the foundation and a pit (depth 32 cm) were the only remains surviving *in situ*, while the excavations of House 22/1 revealed drainage walls, several foundation stones, a drainage canal and four pits (depths 15 cm, 11 cm, 12 cm and 37 cm, respectively) connected by a canal.[55] In view of the heavily damaged structures, only the bone material from the pits was studied in more detail. The results seem to confirm the relatively high concentration of cattle bones from the meatiest parts of the carcass found in the large work pits of House/workshop 23/1 (*Tab. 8*; see also *Fig. 9*). The three small pits of House 22/1 yielded no more than seven taxonomically identified specimens, making the results of any further analysis non-representative. Nevertheless, we should note the exclusive presence of isolated teeth and phalanges among the cattle remains in these pits that may reflect the differences in pit functions (compare to the observation for large work pits; see *Fig. 9*, *Tab. 8*).

The number of burnt (mostly black-coloured) specimens is relatively high in both House 12/1 (N = 15) and House 22/1 (N = 22), though also high is the total number of recovered animal remains (*Tab. 5*). It is worth noting that the collection of burnt bones from the large pit of House 22/1 (i.e. Pit 4) includes either more or less completely burnt skeletal elements from the least meaty parts of the carcass (carpals/tarsals, phalanges) or fragments of long bones with the burnt area limited to the epiphyseal part (*Tab. 8*). Of the three analysed workshops, specimens bearing cut- and chop-marks were limited to House 12/1 (N = 14).

Several observations also pertain to House 14/1&2. Archaeozoologically, the most prominent feature of this building is the great total number of bone finds (pooled data for Construction Phases 1 and 2: N =

[54] Walker, Miller, Richman 2008.

[55] Svoljšak, Dular 2016, 102, 154–155.

Sk. element	*B. taurus*	Caprinae
Maxilla		1
Mandibula		1
Dentes		2
Costae		*3*
Radius		1 + *2*
Tibia		*2*
Tarsalia		*1*
Metatarsalia		2
Phalanges	1 + *1*	*1*

& 7 + *2* neopredeljena odlomka / non-identified specimens

Sk. element	*B. taurus*	Caprinae	*S. domesticus*
Maxilla	*1*		
Costae		1*	
Humerus			1
Femur	*1*		

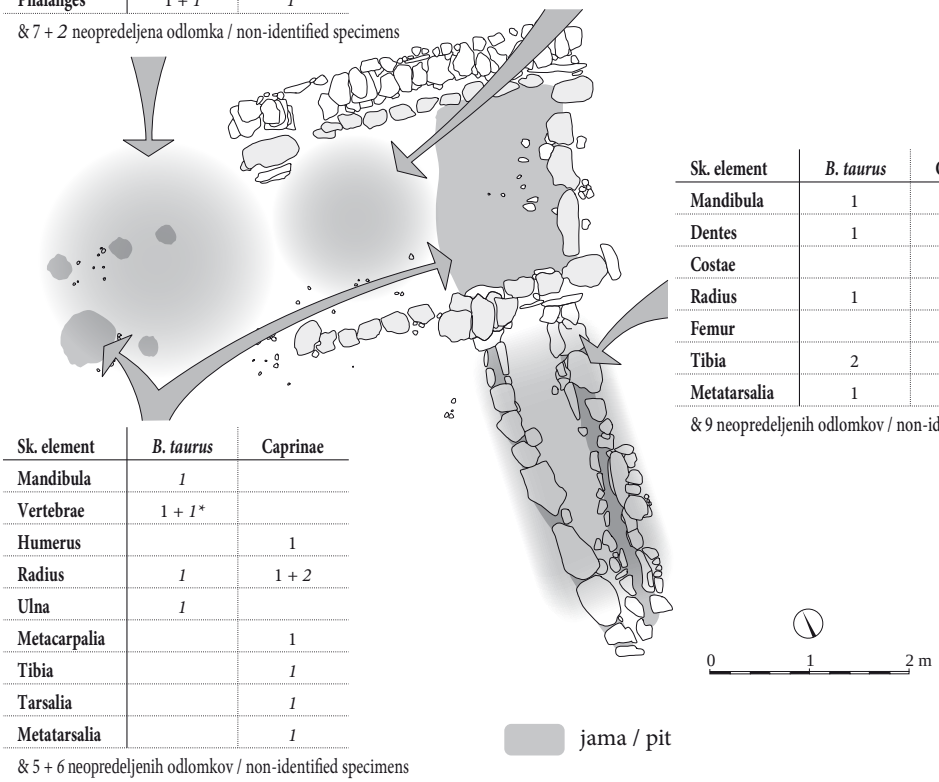
& 3 neopredeljeni odlomki / non-identified specimens

Sk. element	*B. taurus*	Caprinae	*S. domesticus*
Mandibula	1	1	
Dentes	1	1	
Costae		2*	
Radius	1	3	
Femur			1
Tibia	2	2	
Metatarsalia	1		1

& 9 neopredeljenih odlomkov / non-identified specimens

Sk. element	*B. taurus*	Caprinae
Mandibula	*1*	
Vertebrae	1 + *1**	
Humerus		1
Radius	*1*	1 + *2*
Ulna	*1*	
Metacarpalia		1
Tibia		*1*
Tarsalia		*1*
Metatarsalia		*1*

& 5 + *6* neopredeljenih odlomkov / non-identified specimens



Sl. 9: Približna *in situ* lega živalskih ostankov z območja hiše 23/1 z Mosta na Soči. Ožgani ostanki so zapisani ležeče. Zvezdica (*) označuje pogojno taksonomsko opredeljene kosti. Najdbe brez znane *in situ* lokacije niso bile upoštevane (N = 1).
Fig. 9: Approximate *in situ* location of animal bones from House 23/1 at Most na Soči. Burnt specimens are written in italics. Asterisk (*) denotes tentatively identified bone fragments. Finds without a known *in situ* location are not shown (N = 1).

med govejimi najdbami prevladujejo kosti iz najbolj mesnatih delov trupa (*tab. 8;* glej še *sl. 9*). V treh manjših jamah z območja hiše 22/1 je bilo odkritih samo sedem taksonomsko opredeljenih ostankov, zato tu podrobnejše analize niso bile izvedene. Je pa kljub temu smiselno opozoriti, da so med najdbami goveda iz omenjenih treh manjših jam zastopani izključno izolirani zobje in prstnice, saj bi to lahko kazalo na svojevrstno raznolikost v namembnosti posameznih jam (primerjaj z ugotovitvami, ki se nanašajo na velike delovne jame; *sl. 9, tab. 8*).

Število ožganih (pretežno črno obarvanih) primerkov znotraj območja hiš 12/1 in 22/1 je razmeroma veliko (N = 15 oziroma 22), vendar je veliko tudi skupno število vseh tukaj zbranih kosti in zob (*tab. 5*). Pomembno 1,498; NISP = 810), even though neither the size of the building (< 20 m^2) nor the thickness of the debris layer (Construction Phase 1: up to 0.40 m; Construction Phase 2: up to 0.35 m) are in any respect exceptional.[56] Taxonomically, the bone assemblage does not differ from what has been observed in other houses, showing a clear prevalence of caprines over cattle and pig. Game is represented by no more than three red deer remains: a fragmented radius and two antler specimens bearing traces of human modification (*Tab. 9*).

Skeletal element representation is different from what has been observed elsewhere in the settlement,

[56] Svoljšak, Dular 2016, 106–111. *Cf.* here Dular, Tecco Hvala, Fig. 46.

Sk. element	H 12/1			H 22/1						
	Pravokotna jama Rectangular pit			Jama 3 Pit 3		Jama 4 Pit 4			Jama (št. nezn.) Pit (No. unkn.)	
	B. taurus	Caprinae	*S. domesticus*	*B. taurus*	Caprinae	*B. taurus*	Caprinae	*S. domesticus*	*B. taurus*	Caprinae
Cranium								1		
Maxilla			1				1			
Mandibula	1 + *2*		*1*			1	5			
Dentes		1 + *1*		1		2	4			
Vertebrae	*1*	1				5 + *1**	3*			
Costae						(8+*4*)*	(16+*7*)*			
Scapula	1		1					2		
Humerus	1				1		5	2		
Radius		2 + *1*				1	2	1		
Ulna						*1*				
Carpalia										
Metacarpalia	1						5			
Coxae	*1*					2	3			
Femur	1						3 + *1*	1		2
Tibia	1	1					5	3		
Tarsalia						1	*1*	2		
Metatarsalia	1	1			1		1 + *1*	1		
Phalanges	1			1		3	*1*	2	1	

Tab. 8: Živalski ostanki iz jam z območja hiš 12/1 in 22/1. Ožgani ostanki so zapisani ležeče. Zvezdica (*) označuje pogojno taksonomsko opredeljene kosti. Obrazložitev okrajšave: H – hiša (npr. H 12/1 – hiša 12/1).
Tab. 8: Faunal remains from pits in Houses 12/1 and 22/1. Burnt specimens are written in italics. Asterisk (*) denotes tentatively identified bone fragments. Explanation of abbreviation: H – House (e.g. H 12/1 – House 12/1).

no je poudariti, da zbir ožganih kostnih odlomkov iz velike jame z območja hiše 22/1 (tj. jama 4) vključuje bodisi ostanke bolj ali manj v celoti ožganih skeletnih elementov iz najmanj mesnatih delov trupa (tj. zapestne/nartne kosti, prstnice) bodisi fragmente dolgih kosti, pri katerih je ožganost omejena na območje epifiz (*tab. 8*). Izmed treh analiziranih delavnic so bile kosti s sledmi vrezov in zasekanin odkrite le v hiši 12/1 (N = 14).

V analizo razpršenosti živalskih ostankov na območju posameznih stavb je bila slednjič vključena še hiša 14/1, 2 iz kategorije stavb s posebno namembnostjo. Arheozoološko je največja posebnost te stavbe veliko število odkritih kosti (vsota za prvi dve gradbeni fazi: N = 1.498; NISP = 810), čeprav niti površina hiše (< 20 m^2) niti debelina ruševinske plasti (prva gradbena faza do 0,40 m, druga gradbena faza do 0,35 m) v ničemer ne izstopata.[56] V taksonomskem smislu se zbir živalskih ostankov ne razlikuje od gradiva, odkritega na območju drugih analiziranih hiš, saj tudi tu količinsko prevladuje drobnica pred govedom in prašičem. Divjad je zastopana s pičlimi tremi najdbami jelena: odlomkom koželjnice

[56] Svoljšak, Dular 2016, 106–111. *Cf.* tu Dular, Tecco Hvala, sl. 46.

especially in the case of cattle. Although the number of bone fragments from the meatiest parts of the carcass is not significantly higher in comparison to what has been observed in (much smaller!) assemblages from some other structures, in House 14 this seems to be related to a high degree of mandible/maxilla fragmentation. Indeed, the number of isolated cattle teeth exceeds the combined number of carpal/tarsal bones and phalanges by almost eight times (the mentioned bones are comparable to teeth in terms of size). This observation is consonant with the relatively high number of mandible fragments (N = 33), which is approximately two-fold of what has been observed for tibia (N = 17) and even more relative to radius/ulna (N = 12 and 10, respectively). Considering the small size of most recovered cattle mandible fragments, it is highly probable that they originate from a rather limited number of specimens. Even several of the recorded 33 cattle mandible finds were actually preserved in more than a single fragment, which were counted as NISP = 1 as they clearly belonged to the same specimen. Finally, a much more equal representation of individual skeletal elements in cattle relative to what is shown by the observed NISP values is further

Sk. element	*B. taurus*	Caprinae	*S. domesticus*	*C. elaphus*	Indeterminatus
Proc. cornualis	2	1			
Cornus cervi				2	
Cranium	11	3	4		40
Maxilla	7		2		
Mandibula	33	39	7		
Os hyoideum					3
Dentes	75	117	5		
Vertebrae	18	8			97
Costae	8*	45*			*56 + 4*
Scapula	16	*8 + 1*	5		19
Humerus	15	13	1		
Radius	12	*31 + 1*	1	1	
Ulna	10	4	1		
Carpalia	1	1			
Metacarpalia	*13 + 1*	31			
Coxae	8	8			
Femur	5	*8 + 1*			
Patella	1				
Tibia	17	40	2		
Tarsalia	*4 + 1*	7	1		
Metatarsalia	15	36			
Ossa sesamoidea	1				
Phalanges	15	12	1		
Metapodia	3	1			

Tab. 9: Živalski ostanki z območja hiše 14/1, 2 z Mosta na Soči. Ožgani ostanki so zapisani ležeče. Zvezdica (*) označuje pogojno taksonomsko opredeljene kosti.
Tab. 9: Faunal remains from House 14/1&2 at Most na Soči. Burnt specimens are written in italics. Asterisk (*) denotes tentatively identified bone fragments.

in dvema primerkoma rogovja s sledmi človekovih aktivnosti (*tab. 9*).

Zanimivo posebnost gradiva z območja hiše 14/1, 2 ponujajo podatki o zastopanosti skeletnih elementov pri govedu. Čeprav število kostnih najdb iz najbolj mesnatih delov telesa bistveno ne presega vrednosti, ugotovljenih pri (značilno skromnejših!) skupkih z območja nekaterih drugih stavb, kaže v primeru hiše 14/1, 2 takšno stanje pripisati izraziti fragmentiranosti čeljustnic. Zakaj? Število izoliranih govejih zob, denimo, presega skupno število primerljivo velikih zapestnih/nartnih kosti in prstnic za skoraj osemkrat. Skladen s tem je podatek, da število prepoznanih odlomkov spodnje čeljustnice (N = 33) za najmanj dvakrat presega število zbranih primerkov golenice (N = 17), koželjnice (N = 12) in komolčnice (N = 10). Ne nazadnje je treba omeniti dejstvo, da so najdeni odlomki govejih spodnjih čeljustnic razmeroma majhni. To namreč le še povečuje verjetnost, da bi utegnili pripadati razmeroma majhnemu številu intenzivneje zdrobljenih primerkov tega skeletnega elementa. Pravzaprav so bile tudi posamezne izmed 33 dokumentiranih govejih spodnjih čeljustnic zastopane z več odlomki, ki pa so bili zaradi očitne pripadosti isti kosti dokumentirani kot NISP = 1. Še zadnji, a zato nič manj pomemben argument v prid tezi o izraziti fragmentiranosti govejih čeljustnic izhaja iz vrednosti indicated by the minimum number of elements (MNE). As clearly shown in *Table 10*, individual anatomical regions seem to be rather equally represented among cattle bone finds from House 14, the only exception being the underrepresented foot bones. The combined number of recovered carpal and tarsal bones is only six, with the phalanges being only slightly more numerous (phalanx 1: 9; phalanx 2: 6; phalanx 3: 0). Because the carpals, tarsals and phalanges are not smaller than isolated teeth, the discrepancy between the abundance of cranial remains and the paucity of feet bones does not seem to be coincidental.

The same may hold true for the similarly small number of horn cores (N = 3) as cranium fragments do not seem to be underrepresented. Their total number is small (N = 11), but no less than 40 cranial fragments are among the many taxonomically unidentified remains from the same area.[57] And even so, the MNE value for cattle crania does not fall short of what has been observed in other skeletal elements, at least not relative to mandibles, epistrophei and humeri (*Tab. 10*). Considering the many detached cattle and goat horn cores found

[57] Similarly, the non-identified material originating from House 14 included 113 rib fragments, of which at least a third corresponds to the 'large herbivore' size group and are thus (prevalently) ascribable to cattle.

Sk. element	NISP	MNE
Cranium	11	6
Mandibula	33	7
Epistropheus	3	4
Humerus	15	7
Astragalus	2	1
Calcaneus	2	1
Phalanx I	9	2
Phalanx II	6	1

←

Tab. 10: Številčnost ostankov izbranih skeletnih elementov goveda v gradivu z območja hiše 14/1, 2 z Mosta na Soči. Količina najdb je podana kot najmanjše število elementov (MNE).
Tab. 10: Abundance data for a selection of skeletal elements in the assemblage of cattle remains from House 14/1&2 at Most na Soči. Abundance is given as the minimum number of elements (MNE).

indeksa "najmanjše število elementov" (MNE) za izbrane skeletne elemente. Iz podatkov v *tabeli 10* namreč izhaja, da so v zbranem gradivu posamezni deli trupa razmeroma enakomerno zastopani. Izjema so eventualno kosti spodnjega dela nog, saj znaša skupno število odkritih zapestnih in gleženjskih kosti komaj šest. Podobno redke so najdbe prstnic (št. prvih/drugih/tretjih prstnic: 9/6/0). Ker slednje velikostno ne zaostajajo za izoliranimi zobmi, razkorak med številčnostjo npr. lobanjskih ostankov in ostankov spodnjega dela nog ne bi smel biti naključen.

Zgornje ugotovitve je mogoče povezati s skromnim številom odkritih ostankov rožnic (N = 3), saj odlomki lobanje sami po sebi niso podpovprečno zastopani. Njihovo skupno število je resda majhno (N = 11), vendar je kar 40 lobanjskih odlomkov najti med taksonomsko neopredeljenimi ostanki.[57] Kljub temu vrednost indeksa MNE za goveje lobanje ne odstopa od vrednosti za druge skeletne elemente (glej npr. spodnjo čeljustnico, okretač in nadlahtnico; *tab. 10*). Glede na številne najdbe bovidnih rožnic na območju naselbine bi njihova skromna zastopanost v gradivu iz hiše 14 lahko pričala o uporabi teh skeletnih elementov za surovino.

O razmeroma enakomerni zastopanosti bolj in manj mesnatih delov trupa je mogoče govoriti tudi v primeru ovce, koze in prašiča. Vendar pri omenjenih treh vrstah to ne pomeni presenečenja, saj so bili enaki rezultati pridobljeni pri analizi vseh šestih obravnavanih stavb, neodvisno od njihove domnevne namembnosti (glej *sl. 7–9*; *tab. 8*). Dodatno podobnost z govedom pomeni dejstvo, da število izoliranih zob presega število podobno velikih (ali celo nekoliko večjih) skeletnih elementov spodnjega dela nog. Po drugi strani izkazuje zbir ovčjih/kozjih in prašičjih najdb z območja hiše 14 zanimivo posebnost, tj. izrazito boljšo zastopanost koželjnic/komolčnic in golenic v primerjavi z nadlahtnicami in stegnenicami (*tab. 10*). Poglavitni razlog za to je bržčas metodološke narave, saj so manjši odlomki diafiz koželjnic in golenic praviloma lažje anatomsko in taksonomsko opredeljivi od odlomkov nadlahtnic in stegnenic.

Izmed živalskih ostankov z območje hiše 14 je bilo deset primerkov ožganih (prevladujoča obarvanost

[57] Zbir taksonomsko neopredeljenih najdb z območja hiše 14 med drugim vključuje 113 odlomkov reber. Med temi jih je bila tretjina uvrščena v velikostno skupino "veliki rastlinojedi" in torej (večinoma) bržčas pripadajo govedu.

scattered around the settlement, their low number in the area of House 14 likely reflects the usage of this skeletal element as raw material.

Sheep/goat and pig skeletal element representation in House 14 seems to conform to that of cattle and thus resemble the pattern observed for the same taxa in each of the other buildings analysed in detail (see *Figs. 7–9*; *Tab. 8*). Again, the number of isolated teeth exceeds the number of similarly sized (or even slightly larger) skeletal elements of the feet. A unique feature with these two taxa is a pronounced overrepresentation of ulnae/radii and tibiae relative to humeri and femora (*Tab. 10*). This may largely be explained by the small radii and tibia diaphyseal fragments being anatomically and taxonomically more easily identifiable in comparison with the similarly preserved fragments of humeri and femora.

Ten bone fragments from the area of House 14 were burnt (they are predominantly black-coloured), six bear cut- and/or chop-marks (including a fragmented deer antler) and two show traces of gnawing (attributable to dogs).

TRACES OF RITUAL ACTIVITIES

The most prominent example related to ritual activities at the settlement of Most na Soči is House 6/2, a presumed burnt-offering place.[58] Animal remains from this structure support such an interpretation. This is evident by the prevalence of sheep/goat finds over those of cattle and pig, but even more so by the almost exclusive representation of cranial and feet skeletal elements (*Tab. 11*),[59] as the total of 91 taxonomically identified specimens include 67 isolated teeth and cranial fragments (maxillary and mandibular splitters included). Further 17 specimens are tarsal bones, metatarsals and phalanges, resulting in the number of skeletal elements from the meatier parts of the carcass to be as low as seven. Surprisingly, a single bone fragment was burnt.[60]

Another important feature of animal bone assemblages from the burnt-offering places in the Alps is a high fragmentation of the finds. At the *Brandopferplatz* from

[58] Steiner [ed.] 2010.

[59] Zohmann, Forstenpointer, Galik 2010.

[60] *Cf.* Zohmann, Forstenpointer, Galik 2010, 831–852.

kostnine je črna), na šestih so bili opaženi vrezi in/ali zasekanine (to velja tudi za odlomek jelenjega rogovja), dva kostna odlomka pa sta bila obgrizena.

SLEDI OBREDNIH AKTIVNOSTI

Najočitnejši primer obrednega dogajanja v železnodobni naselbini na Mostu na Soči je domnevni žgalnodaritveni prostor na območju hiše 6/2.[58] Tam zbrani živalski ostanki takšno interpretacijo podpirajo. To je mogoče soditi že na podlagi prevladujočega deleža zastopanosti drobnice nad govedom in prašičem, zares pomenljiva pa je skoraj izključna prisotnost ostankov glave in spodnjega dela nog (*tab. 11*).[59] Med skupno 91 taksonomsko opredeljenimi živalskimi najdbami z območja stavbe 6/2 je namreč izoliranih zob in odlomkov lobanje (vključno z delčki čeljustnic) kar 67. Nadaljnjih 17 primerkov je nartnih kosti, stopalnic in prstnic, kar pomeni, da je ostankov iz bolj mesnatih delov trupa zgolj sedem. V nasprotju s pričakovanji je bil v celotnem gradivu odkrit le en kostni odlomek s sledmi izpostavljenosti ognju.[60]

Še ena pomembna značilnost arheozoološkega gradiva z alpskih žgalnodaritvenih prostorov je izrazita fragmentiranost najdb. Nazoren primer predstavlja najdišče St. Walburg v dolini Ulten (Zgornje Poadižje, severna Italija), kjer je bilo med raziskovanjem tam odkritega žgalnodaritvenega prostora s sejanjem sedimenta pridobljenih kar 20,9 kg kostnih in zobnih najdb od skupno 24,7 kg vsega na tej lokaciji zbranega arheozoološkega gradiva. Pri tem so več kot polovico mase (tj. 13 kg) prispevali neopredeljivi kostni/zobni drobci.[61] Živalski ostanki z Mosta na Soči so bili pridobljeni izključno z ročnim pobiranjem, zato je količina najmanjših najdb zagotovo podcenjena. Zaradi skromnega deleža taksonomsko neopredeljenih ostankov, ki ne dosega niti 50 odstotkov vseh zbranih najdb, kaže pomanjkljivo vzorčenje domnevati tudi pri srednje velikih kostnih odlomkih. Ker je bilo v okviru hiše 6 mogoče taksonomsko opredeliti prav vse zbrane kosti in zobe, stopnje fragmentiranosti kostnega gradiva seveda ni mogoče zadovoljivo oceniti. Na to, da so vendarle tudi prebivalci železnodobnega Mosta na Soči znotraj hiše 6 obredno posegali v celovitost kostnih najdb, bi utegnile kazati goveji prstnici s sledmi vrezov in zasekanin ter slaba ohranjenost obeh najdenih kozjih/ovčjih petnic, ki sicer veljajo za trdnejše elemente sesalskega skeleta.[62]

Obredno ozadje kaže bržčas pripisati tudi najdbam petih prvih in ene druge prstnice goveda, ki so bile izrazito dorzoventralno obrušene (*sl. 10*). Na enem od primerkov so bile opažene tudi sledi vreza. Gre za najdbe,

[58] *Cf.* Steiner [ur.] 2010.

[59] Zohmann, Forstenpointer, Galik 2010.

[60] *Cf.* Zohmann, Forstenpointer, Galik 2010, 831–852.

[61] *Cf.* Zohmann, Forstenpointer, Galik 2010, 852.

[62] *Cf.* Gruškovnjak, Omahen, Toškan 2018, 240.

Sk. element	*B. taurus*	Caprinae	*S. domesticus*
Cranium			
Maxilla			5
Mandibula		5	1
Dentes	19	33	4
Vertebrae			
Scapula	1		
Humerus	1	1	
Radius			2
Ulna	2		
Carpalia			
Metacarpalia		1	
Coxae			
Femur			
Tibia			
Tarsalia		2	1
Metatarsalia		1	
Phalanges	8	3	1

Tab. 11: Živalski ostanki z območja hiše 6 z Mosta na Soči. Zvezdica (*) označuje pogojno taksonomsko opredeljene kosti. *Tab. 11:* Faunal remains from House 6 at Most na Soči. Asterisk (*) denotes tentatively identified bone fragments.

St. Walburg in the Ulten valley (Alto Adige, northern Italy), for instance, 20.9 kg of a total of 24.7 kg faunal remains was gathered by water sieving, with more than half (13 kg) of the material under examination consisting of unidentifiable bone gravel.[61] At Most na Soči, no water sieving was performed. Moreover, the mere 50% contribution of non-identifiable finds indicates that not even medium-sized splitters may have been efficiently collected. House 6/2 revealed not a single non-identifiable tooth or bone fragment. Consequently, no detailed comments relative to the intensity of bone fragmentation can be given. Nevertheless, the presence of chop- and cut-marks on two of the cattle phalanges, together with the poor state of preservation of both recovered sheep/goat calcanei,[62] may indicate the existence of such a (ritual) practice.

An additional archaeozoological indication of cult activities is the discovery of several dorsally and ventrally abraded cattle first (N = 5) and second phalanges (N = 1). The modifications are very pronounced (*Fig. 10*), with one of the specimens also bearing a cut-mark. Such finds are traditionally interpreted as ritual or gaming pieces, even though the possibility of their usage as tools in different stages of the *chaîne opératoire* of ceramics production has also been proposed.[63] As all seven of these objects from Most na Soči are associated with the well-constructed/furnished residential units (*Fig. 13*), the latter option seems less realistic.

[61] Zohmann, Forstenpointer, Galik 2010, 852.

[62] *Cf.* Gruškovnjak, Omahen, Toškan 2018, 240.

[63] Oravniková, Hromadová, Vlačiky 2017, 43–45, 53 with references.

Sl. 10: Izbor obrušenih prstnic goveda v gradivu z Mosta na Soči. (Foto: D. Valoh)
Fig. 10: A selection of abraded cattle phalanges from Most na Soči. (Photo: D. Valoh)

kakršne posamezni avtorji večinoma interpretirajo kot obredne ali igralne predmete, nekateri pa v njih vidijo orodja za obdelavo lončenine.[63] Ker je bilo na Mostu na Soči vseh šest takšnih najdb odkritih na območju posameznih bolje grajenih/opremljenih stanovanjskih hiš (*sl. 13*), se zdi v tukajšnjem primeru zadnja možnost vsekakor manj verjetna.

Poseben komentar na tem mestu zaslužita še neobičajna skupka zverskih dlančnic/stopalnic z območij hiš 3/1 in 31 (*tab. 12*). Čeprav je mogoče posebne moči pripisati kateremu koli skeletnemu elementu, so v smislu amuletov ljudje najpogosteje posegali po lobanji (predvsem po čeljustnicah z zobmi) in kosteh šap. Morda je k temu pripomoglo dejstvo, da prav ti skeletni elementi najbolje odsevajo prehranjevanje, obrambno vedenje in način gibanja posamezne živali in tako zajemajo njeno bistvo. Zobje in čeljustnice so seveda ključni pri prehranjevanju, pomembno vlogo pa imajo tudi pri razkazovanju, obrambi in napadu. Podobno velja za kremplje,

Houses 3/1 and 31 yielded two modest concentrations of carnivore metacarpal/metatarsal bones (*Tab. 12*). Although any skeletal element could be ascribed special powers, it seems that the bones from the head (especially the mouth with the teeth) and feet were particularly sought after for amulets, as bones of power. Perhaps this was because these skeletal elements best reflect the eating and defensive habits, as well as the styles of movement of particular animals and thus best represent them. Teeth and jaws are clearly important for feeding; they are also used in display, defence and attack. Claws and talons are important for defence and attack. Foot bones are closely linked to animal movement. Moreover, the limited types of skeletal elements chosen for cult activities are believed not to have been obtained randomly, but on special occasions, from sacrificed animals, from feasting and/or from particular animals.[64] The dog – but possibly also the fox – were often seen as such particular animals by the local Iron

[63] Oravniková, Hromadová, Vlačiky 2017, 43–45, 53, in tam navedeni viri.

[64] See e.g. Choyke 2010, 201.

→

Tab. 12: Najdbe zveri z območja hiš 3/1 in 31 z Mosta na Soči. Obrazložitev okrajšave: H – hiša (npr. H 3/1 – hiša 3/1).
Tab. 12: Carnivore bone finds from Houses 3/1 and 31 at Most na Soči. Explanation of abbreviation: H – House (e.g. H 3/1 – House 3/1).

Sk. element	H 3/1		H 31	
	C. familiaris		*V. vulpes*	
	sin.	dex.	sin.	dex.
Scapula		1		
Humerus	1			
Metacarpus 3	1			
Metacarpus 4	1		1	
Metacarpus 5			1	
Tibia	1			
Metatarsus 2	1			
Metatarsus 3	1	1		
Metatarsus 4			1	
Phalanx 1	3			

medtem ko so kosti šap tesno povezane z načinom gibanja. Razmeroma ozek izbor skeletnih elementov, ki so bili uporabljani kot amuleti, vsekakor priča o načrtnem izboru ustreznih kosti/zob. Naključen ni bil niti njihov izvor, saj so v ta namen uporabljene kosti oziroma zobje domnevno izvirali iz posebno izbranih, marsikdaj bržčas obredno žrtvovanih živali.[64] Pes je bil v dojemanju železnodobnih skupnosti jugovzhodnih in vzhodnih Alp pogosto razumljen kot žival s poudarjenim simbolnim[65] pomenom, podobno pa je morda veljalo tudi za lisico. Kaže torej, da bi pri najdbi dlančnice in obeh stopalnic lisice z območja mlajšeželeznodobne hiše 31 lahko šlo za nekakšen simbolni skupek najdb (amulet?). V primeru petih pasjih dlančnic/stopalnic z območja hiše 3/1 je to manj verjetno. Prej bi kazalo razmišljati o tem, da so tam odkrite kosti – zbir vključuje večje število ostankov domnevno iste živali (*sl. 11*) – ostanek pokopa/zakopa cele živali. Takšna najdba bi seveda utegnila pričati o posebni navezanosti gospodarja na svojo žival.

RAZPRAVA

Namen tukaj predstavljene arheozoološke študije je bil pridobiti vpogled v socialno razslojenost in funkcionalno specializacijo železnodobne skupnosti z Mosta na Soči. Določena stopnja družbene kompleksnosti je bila dokazana že na podlagi analize arheološkega gradiva, pri čemer je bilo ocenjeno, da ta ni bila izrazita. Vpogled v raster raziskanega dela naselbine namreč ne izkazuje stroge prostorske organizacije in ločenosti med delavniškimi in stanovanjskimi četrtmi, prav tako ni mogoče govoriti o kakršni koli prostorski segregaciji med bogatejšimi in skromnejšimi hišami.[66]

Rezultati analize živalskih ostankov takšno oceno podpirajo. O določeni stopnji družbene kompleksnosti priča že dejstvo, da ugotovljena variabilnost v vrstni raznolikosti, številčnosti ostankov posameznih taksonov in deležu zastopanosti njihovih skeletnih elementov med gradivom iz sočasno naseljenih hiš ne zaostaja za variabilnostjo istovrstnih podatkov pri zbirih najdb iz kronološko raznolikih stavb (*tab. 4*; *sl. 6*). Za ključni arheozoološki argument v prid teze o socialni razslojenosti in funkcionalni specializaciji proučevane družbe sta se sicer izkazala druga kazalnika, še najočitneje nemara razlika v vzorcu

[64] Glej npr. Choyke 2010, 201.

[65] Riedel 1977, 163–181; De Grossi Mazzorin, Tagliacozzo 1997; Kmeťová 2006; Škvor Jernejčič, Toškan, v tisku.

[66] Glej tu Dular, Tecco Hvala, 86–90.

Age communities.[65] In consequence, the presence of a fox metacarpal and two metatarsals in the area of the La Tène House 31 could indeed reflect some sort of a ritual. The five dog metapodial bones from House 3/1, on the contrary, rather represent the remains of an entire or at least a substantial part of a dog carcass, since several other bones were found nearby (*Fig. 11*). If so, the find could be seen as the manifestation of a special relationship between the dog and its master.

DISCUSSION

The aim of this study was to gain new insights into the social stratification and functional differentiation of the Iron Age community living at Most na Soči. The existence of some sort of societal complexity has already been indicated by archaeological data, though the absence of any clear spatial segregation between residential units and workshops, as well as between the well- and the less well-constructed/furnished residential units suggests the stratification to have been relatively limited.[66]

Archaeozoologically, the existence of societal complexity can be gleamed from the small amplitudes of the observed diachronic changes in the taxonomic richness, individual species abundances, mortality profiles and skeletal element representation data relative to the variation emerging from the comparison of analogue data on the level of houses dated to the same habitation phase (*Tab. 4; Fig. 6*). Although even the variability of the analysed data pertaining to coeval houses is not prominent, some of the observed special characteristics are nevertheless indicative of either social stratification or functional differentiation of the population. This is perhaps most clearly visible in the spatial distribution of game remains exclusive of deer antlers. The great

[65] Riedel 1977, 163–181; De Grossi Mazzorin, Tagliacozzo 1997; Kmeťová 2006; Škvor Jernejčič, Toškan, in press.

[66] See here Dular, Tecco Hvala, 86–90.

Sl. 11: Pasji ostanki z območja hiše 3/1 z Mosta na Soči. (Foto: D. Valoh)
Fig. 11: Dog finds from House 3/1 at Most na Soči. (Photo: D. Valoh)

←

Sl. 12: Odlomek nadlahtnice rjavega medveda (desno) dokazuje občasen lov na največjo evropsko zver ter tudi uživanje njenega mesa. Najdba izvira z območja bolje grajene/opremljene hiše 1. Za primerjavo je prikazana nepoškodovana nadlahtnica sodobnega rjavega medveda (levo). (Foto: D. Valoh)

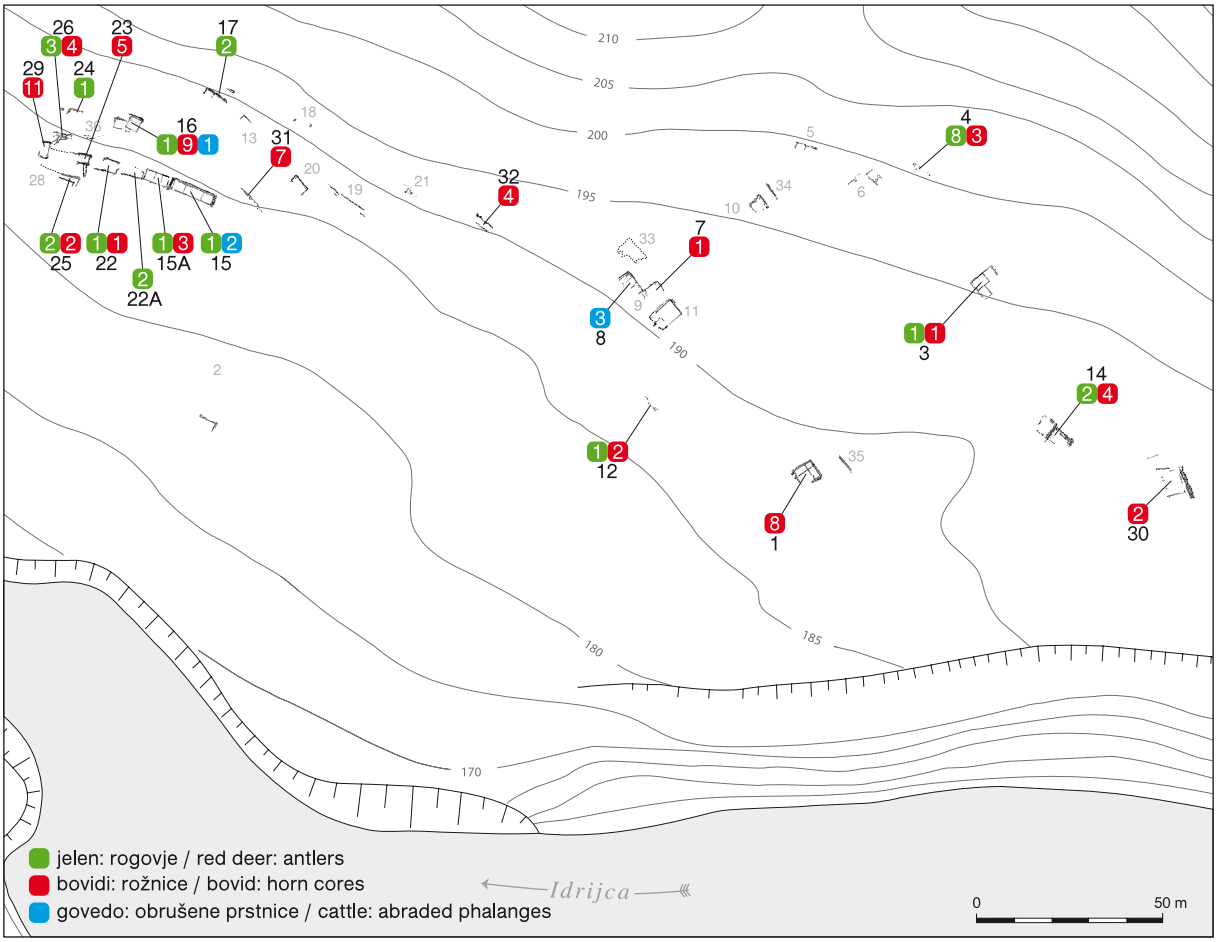
Fig. 12: The fragmented brown bear humerus (right) prooves both occasional hunting and the consumption of the largest European carnivore of the time by the supposedly high-ranked inhabitants of House 1. An unfragmented brown bear humerus of a recent animal is shown (left) for comparison. (Photo: D. Valoh)

razpršenosti odlomkov jelenovega rogovja v primerjavi z razpršenostjo vseh drugih ostankov lovnih vrst. Večina teh je bila namreč najdena na območju posameznih bolje grajenih/opremljenih stanovanjskih hiš, medtem ko med izkopavanji slabše grajenih/opremljenih stanovanjskih hiš tovrstne najdbe niso bile odkrite (*tab. 6*). Na posamezne kosti divjadi so izkopavalci naleteli še na območju dveh stavb s posebno, domnevno skupnostno namembnostjo in pri treh delavnicah.[67] Pri tem je pomenljivo, da so med najdbami z območja delavnic zastopane zgolj kosti iz najmanj mesnatih delov telesa, medtem ko so med najdbami iz posameznih stanovanjskih hiš in obeh stavb s posebno namembnostjo zastopani tudi nekateri skeletni elementi iz najbolj mesnatih anatomskih regij (*tab. 6* in *9*). Kaže torej, da prebivalcem železnodobne naselbine z Mosta na Soči divjačina ni služila kot količinsko pomemben vir

majority of such finds, representing classic food waste, were found in the well-constructed/furnished residential units, while the less well constructed/furnished residential units yielded none (*Tab. 6*). Two of the four special-purpose houses analysed in detail and three[67] workshops revealed individual game remains as well. Workshops only yielded skeletal elements of the least meaty parts of the carcass, while residential units and special-purpose buildings revealed skeletal elements from all anatomical regions (*Tabs. 6* and *9*). This shows game as a quantitatively irrelevant source of food at Most na Soči, but its consumption may have represented an important status symbol for the wealthy or high-ranking individuals (*Fig. 12*). The presence of red deer and possibly wild boar finds in the area of the special-purpose Houses 14 and 30, amongst which skeletal elements from the meatiest parts of the carcass prevail, indicates that

[67] Brez upoštevanja pogojno opredeljenih ostankov divjega prašiča se število delavnic z najdbami divjadi zmanjša na zgolj dve.

[67] If tentatively identified wild boar remains are omitted, the number of workshops yielding game remains drops to two.



Sl. 13: Tloris železnodobne naselbine Most na Soči (posamezne hiše so označene s črnimi oziroma sivimi številkami). Prikazana je razpršenost najdb jelenjega rogovja, bovidnih (tj. govejih in kozjih) rožnic in dorzoventralno obrušenih govejih prstnic.
Fig. 13: Settlement structures at Iron Age Most na Soči (individual houses are marked in black and gray). Also shown is the spatial distribution of red deer antlers, bovid (i.e. cattle and goat) horn cores and cattle phalanges with abraded ventral/dorsal surfaces.

mesa in maščob, je pa utegnilo biti poseganje po tovrstni hrani razumljeno kot kazalnik višjega statusa (*sl. 12*). Ostanki jelena in morda divjega prašiča na območju stavb s posebno namembnostjo (tj. znotraj hiš 14 in 30), med katerimi skeletni elementi iz bolj mesnatih delov telesa celo prevladujejo, bi lahko pričali o (občasnem?) uživanju divjačine tudi v okviru specifičnih (obrednih?) skupnostnih aktivnosti.

Drugi, do neke mere manj izrazit arheozoološki kazalnik socialne razslojenosti in funkcionalne diferenciacije v okviru železnodobnega Mosta na Soči so podatki o starosti ob zakolu pri drobnici. Kaže namreč, da so imeli stanovalci bolje grajenih/opremljenih hiš lažji dostop do mesa mladih koz in ovc, zaradi česar jim po manj cenjenem mesu več kot tri leta starih živali skoraj ni bilo treba posegati. V okviru slabše grajenih/opremljenih stanovanjskih stavb je razmerje ostankov obeh starostnih skupin obrnjeno, po namembnosti specifična hiša 14 pa kaže v tem smislu vmesno sliko (*tab. 7*). Žal o vzorcu razpršenosti ostankov kozličev in jagnjet ni

(occasional?) consumption of game could have had an even more complex social role.

The only other archaeozoological indication of the social stratification of the Most na Soči Iron Age community refers to the age-at-death data for sheep and goat. Here, the differentiation between the well-constructed/furnished residential units and those less well built is not as straightforward. Nevertheless, access to young adult sheep/goats seems to have been much easier for high-ranked individuals, allowing them to all but resign from consuming culinarily less valued animals of over three years of age. The pattern shown by the data relative to workshops resembles the one from the less well constructed/furnished houses, with the two considered special-purpose buildings (i.e. Houses 14/1 and 14/2) falling in the middle between the two extremes (*Tab. 7*). Unfortunately, not much can be said about the abundance of juveniles, since only very few deciduous teeth have been collected. As a matter of fact, in the absence of sieving not even the number of permanent teeth can be considered as

mogoče povedati ničesar dokončnega, saj je bila uspešnost zajemanja mlečnih zob nezadovoljiva. Pravzaprav je bilo metodološko pomanjkljivo tudi zajemanje stalnih zob, vendar je ugotovljen razkorak med bolje grajenimi/opremljenimi stanovanjskimi hišami na eni strani ter delavnicami in slabše grajenimi/opremljenimi hišami na drugi strani v tem primeru dovolj očiten, da ga kaže razumeti kot relevantnega.

Povedna vrednost mortalitetnih profilov za govedo in prašiča je zaradi pičlega števila razpoložljivih podatkov skromna (*pril. 1* in *2*). Pri prašičih je klavna starost le izjemoma presegala tri leta, medtem ko med govejimi ostanki prevladujejo zobje odraslih in starih živali. Zanimivi so podatki o pojavnosti eksostoz in/ali razširitev proksimalne sklepne površine pri prstnicah goveda, kar naj bi pričalo o dolgotrajnem intenzivnem izkoriščanju krav, volov in morda celo bikov kot delovne živine.[68] Tovrstne najdbe, ki jih kaže torej pripisati odraslim/starim živalim, so bile odkrite na območju bolje grajenih/opremljenih stanovanjskih hiš ter tudi med izkopavanji nekoliko slabše grajenih/opremljenih stavb. Zato se zdi utemeljeno domnevati, da je uživanje govedine prevladovalo nad uživanjem teletine v celotni naselbini, neodvisno od socialnega statusa posameznika.

Eden pomembnejših ciljev proučevanja funkcionalne specializacije v okviru železnodobnega Mosta na Soči je bil ponuditi nove podatke o namembnosti posameznih hiš oziroma prostorov v njih. Zato je bila podrobno analizirana razpršenost živalskih ostankov v stavbah. Ker so bile te večinoma uničene v požarih, je velik del hišnega inventarja domnevno ohranjen *in situ*, kar zagotavlja skoraj optimalne razmere za rekonstrukcijo vzorca vsakodnevne uporabe različnih delov hiš.

Pozornost je bila sprva usmerjena v stanovanjski hiši 8 in 15A/1. Na podlagi arheoloških in arheozooloških podatkov je mogoče sklepati, da sta oba površinsko najmanjša (tj. vzhodna) prostora služila kot shramba hrane in morda še česa. Takšno interpretacijo med drugim podpirajo majhnost obeh prostorov, odsotnost ognjišč, odkritje številnih odlomkov velikega silosa (hiša 15A/1), množina živalskih ostankov vzdolž sten, kjer so bile zaloge mesa domnevno odložene na nekakšne odlagalne površine in/ali obešene (hiša 15A/1; *sl. 8*), ter ne nazadnje številčnost živalskih ostankov v obeh omenjenih prostorih v primerjavi z drugima dvema prostoroma istih hiš. Slednjega ni mogoče pripisati morebitni slabši ohranjenosti ostalin v osrednjem in zahodnem delu obravnavanih stanovanjskih stavb, saj to ne drži.[69] Verjetneje je, da je treba skromno število živalskih ostankov v najmanj obeh srednjih prostorih, ki sta nedvomno služila kot osrednji bivanjski prostor posamezne hiše, pripisati temu, da so jih stanovalci redno čistili.[70] Tako tudi ne preseneča, da

[68] Bartosiewicz, Van Neer, Lentacker 1997.

[69] Svoljšak, Dular 2016, 78, 125.

[70] Skladen s takšno interpretacijo je podatek o številu živalskih najdb znotraj in v neposredni okolici hiše 23/1. Naj-

completely reliable. Nevertheless, the observed discrepancies between the well-constructed/furnished residential units on one side and the workshops together with the less well constructed/furnished residential units on the other can be seen as significant.

Mortality profiles for cattle and pig are even less reliable due to a much smaller amount of available tooth-wear data (*Apps. 1* and *2*). In pig, the culling age only rarely exceeded three years, while in cattle adult and mature specimens supposedly prevailed. Additional insights might be gained from the spatial distribution of cattle phalanges sporting exostoses and/or lipping, of which quite a few were found. Such sub-pathological formations are often seen as indicative of an intensive exploitation of the animal's draught power and should thus be associated with adult or even mature cows, oxen and possibly bulls.[68] At Most na Soči, subpathological cattle phalanges were found in both well- and less well constructed/furnished residential units. It follows that the consumption of beef over veal might have been the norm for almost everyone in the settlement, irrespective of social rank.

An important part of the study of the functional differentiation at Most na Soči focused on providing new data relative to the purpose of individual buildings/rooms. This was attempted by focusing on the spatial distribution pattern of animal finds within individual buildings. Since the considered houses are believed to have been destroyed by fire, a large part of their contents has survived and can be used in reconstructing the everyday life of the inhabitants.

Houses 8 and 15A/1 are interpreted as residential units. According to both archaeological and archaeozoological data, the two smallest (east) rooms in each of the houses were used for storing food and possibly other supplies. This is indicated by the small size of the rooms, the absence of hearths, the presence of fragmented walls of a large ceramic container in House 15A/1, the concentration of animal bones along the walls, where the meat supplies were either laid on a levelled surface or hung (House 15A/1; *Fig. 8*), and – last but not least – the relative abundance of animal remains as opposed to other parts of the houses. Both central rooms, serving as the main living area, yielded a considerably smaller number of animal remains. Similarly small is the abundance of teeth and bones recovered in the two west rooms. The observed discrepancy is certainly not a consequence of a poorer state of preservation of the western parts, as they were actually fairly well preserved.[69] Instead, it is rather an indication of regular cleaning activities of the living space.[70] Not surprisingly, most bones from the

[68] Bartosiewicz, Van Neer, Lentacker 1997.

[69] Svoljšak, Dular 2016, 78, 125.

[70] This seems to be confirmed by the abundance of animal finds recovered in and around House 23/1. Indeed, the least number of teeth/bones lay in the east (= main) room,

večji del sicer maloštevilnih kosti in zob iz obeh srednjih in zahodnih prostorov izvira iz polnil posameznih jam.[71] Na podlagi navedenega se zdi tako številne živalske ostanke v obeh vzhodnih prostorih še najbolj utemeljeno razumeti kot ostanek uničenih zalog (mesne) hrane, ki so jih stanovalci ob izbruhu požara pač pustili v hišah. S tem bi bilo mogoče razložiti tudi številne ožgane kostne odlomke, med katerimi prevladujejo deli spodnjih čeljustnic in kosti spodnjega dela nog (*sl. 7* in *8*). Gre namreč za skeletne elemente iz najmanj mesnatih delov telesa, zato je bila njihova izpostavljenost ognju bolj neposredna od z mesom obdanih dolgih kosti okončin.

Analiza razpršenosti najdb v delavnicah je bila usmerjena na hiše 12/1, 22/1 in 23/1. Ohranjenost prvih dveh je bila žal slaba, zaradi česar je bilo mogoče v analizo vključiti zgolj ostanke iz polnila posameznih jam. V taksonomskem smislu se gradivo iz delavnic ne razlikuje od tistega, odkritega na območju obeh prej obravnavanih stanovanjskih hiš. Po številu najdb namreč v obeh primerih prevladujeta drobnica in govedo pred domačim prašičem (*tab. 8*; *sl. 9*). Je pa bil velik razkorak med obema kategorijama stavb odkrit na ravni deležev zastopanosti posameznih skeletnih elementov pri govedu, saj je številčnost kosti iz bolj mesnatih delov telesa na območju delavnic znatno večja (*tab. 8*; *sl. 7–9*).

Prevlada odlomkov lobanje in kosti spodnjega dela nog med govejimi ostanki iz shrambnega prostora stanovanjskih hiš 8 in 15A/1 bi lahko nakazovala prakso, po kateri bi se zamudno in tehnično zahtevno ločevanje mesa od večjih dolgih kosti okončin praviloma izvajalo na dvoriščih oziroma ulicah ali v okviru posameznih namensko postavljenih stavb (glej spodnji komentar k morebitni namembnosti hiše 14). V tem primeru bi kazalo domnevati, da je bila govedina/teletina v posameznih stanovanjskih hišah večinoma hranjena kot meso brez kosti, pri čemer bi izjemo pomenili zgolj ostanki glave in z mesom skopih spodnjih delov obeh parov nog. V nasprotju s tem naj bi pri telesno znatno manjših ovcah, kozah in prašičih zaloge v posameznih stanovanjskih hišah bistveno pogosteje obsegale večje kose zgolj v grobem obdelanih kadavrov, ki naj bi vključevali tudi še pripadajoče kosti. Zakaj kažejo živalski ostanki z območja delavnic v tem smislu drugačno sliko, ni lahko pojasniti, zelo verjetno pa je takšno stanje povezano z domnevo, da pri omenjenih kosteh/zobeh pravzaprav sploh ne gre za ostanek v ognju uničenih prehranskih zalog. Zanimivo: v okviru treh podrobneje analiziranih delavnic so ožgane živalske kosti ležale na hodnih površinah ter v polnilih posameznih jam. Pravzaprav teh najdb ni bilo zgolj na območju trase obeh odtočnih kanalov južno (in torej zunaj) hiše 23/1.

manjše število ostankov je bilo tu namreč odkritih znotraj vzhodnega (= glavnega) prostora, nekoliko več jih je ležalo v t. i. preddverju, največja količina živalskih kosti in zob pa izvira z dvorišča ob delavnici (*sl. 9*).

[71] Namembnost teh jam še ni poznana, vendar kaže, da ne gre za običajne shrambne jame (*cf.* Svoljšak, Dular 2016, 129).

central and west rooms lay in the fills of the few pits dug into the floors.[71] With this in mind, the animal remains in the east rooms should be seen as supplies left behind by the inhabitants fleeing from fire. This would also explain the presence of several burnt bones, amongst which mandible fragments and feet bones greatly prevail (*Figs. 7* and *8*). Since these skeletal elements originate from the least meaty parts of the carcass, their exposure to fire must have been much more direct relative to the long bones, which were supposedly protected by the still attached meat.

A parallel analysis of workshops took into consideration the data for Houses 12/1, 22/1 and 23/1. Unfortunately, the preservation of Houses 12/1 and 22/1 was rather poor, limiting the observations to the material from the few documented pits. Taxonomically, no discrepancies relative to what has been seen in residential units have been detected, confirming the leading role of caprines and cattle over pig (*Tab. 8*; *Fig. 9*). The skeletal element representation data, on the other hand, did reveal a noteworthy peculiarity: the abundance of cattle remains originating from the more meaty parts of the carcass significantly exceeds the values observed in the two analysed residential units (*Tab. 8; Figs. 7–9*).

The prevalence of cattle cranial and feet skeletal elements in the storage rooms of Houses 8 and 15A/1 might indicate that the time-consuming and labour-intensive process of separating the meat from large limb long bones occurred in the courtyards and along the streets outside the residential units or, else, within a special-purpose building (see below for the discussion on House 14). In such a way, veal/beef would mostly have been stored as fillets or any other sorts of boneless meat, with feet and possibly heads representing a specific exception. In the case of fairly small sheep, goat and pig, individual family supplies seemingly much more frequently consisted of largely unprocessed parts of the carcass with bones still attached. The situation in workshops differs, which is not easy to explain; it is possible that these bones do not represent the remains of meat supplies left behind in destructive fire episodes. This does not mean that workshops revealed no burnt bone fragments. On the contrary! In the three analysed workshops, burnt bones were found both on the ground and in most of the pits, with the only bone assemblage including no burnt bones being that from the sediments above the drainage canals outside (!) House 23/1.

The latter circumstance could lead to the conclusion that here as well the presence of burnt bones was related to destructive fires affecting individual workshops. However, such an explanation does not correspond with

some more were collected from its anteroom, while most originate from outside the workshop (*Fig. 9*).

[71] The function of these pits is unknown, but they were supposedly not used for food storage (*cf.* Svoljšak, Dular 2016, 129).

Na podlagi navedene ugotovitve bi bilo na prvi pogled mogoče sklepati, da so bile tudi ožgane kosti z območja delavnic ognju izpostavljene ob požaru. Vendar takšni interpretaciji nasprotujejo nekatere ugotovitve v zvezi z jamo, v kateri je bilo odkritih največ živalskih kosti in zob (tj. hiša 22/1: jama 4). Velika večina tam najdenih ostankov – ožganih in neožganih – je ležala v približno 15 cm debeli plasti oglenih drobcev in zemlje na dnu te najmanj 60 cm globoke jame. Ker pa je omenjeno polnilo prekrivala plast sivorjave zemlje,[72] kakršni koli površinski ogenj (vključno s požarom) ni imel znatnega neposrednega stika in torej vpliva na kosti z dna jame.[73] Ob tem je podrobna analiza tam najdenih ožganih ostankov pokazala, da so bile ognju neposredno izpostavljene zgolj epifize posameznih dolgih kosti in kosti spodnjega dela nog. Ker je bila kostnina večinoma rjavkasto do črnkasto obarvana, posamezni odlomki bržčas niso bili dlje časa izpostavljeni temperaturam nad 400 °C.[74]

Je mogoče predstavljene ugotovitve navezati na svojevrstne človekove aktivnosti, kjer diafize dolgih kosti ne bi bile neposredno izpostavljene ognju zaradi zaščitne vloge nanje še vedno priraslega mesa? V takšnem primeru bi kazalo vsaj del v jami odkritih živalskih kosti razumeti kot kuhinjski odpadek, ki bi nastal ob pripravi hrane na ražnju. Možnost, da so bile ognju izpostavljene med dimljenjem mesa, se zdi manj verjetna, a načeloma obstaja. Na najdišču sicer ni bila odkrita nobena kovinska kljuka, na kateri bi lahko v ta namen obesili kose živalskih kadavrov. Je pa v tem smislu zanimiva najdba kozje/ovčje distalne golenice iz hiše 15, na kateri je bila luknja, ki bi načeloma utegnila služiti prav za obešanje (spodnjega dela?) zadnje noge med dimljenjem.[75] Kakor koli že, popolno razumevanje razlogov za odložitev najdenih živalskih kosti in zob na dno obravnavane jame v tem trenutku ni mogoče. Je pa treba v zvezi s tem poudariti, da zbiri ožganih ostankov iz posameznih delovnih jam v smislu okoliščin njihove izpostavljenosti ognju niso povsem enotni (glej npr. *tab. 8*).[76] Z drugimi besedami: skupki živalskih ostankov iz posameznih delovnih jam/delavnic ne delijo vsi iste tafonomske zgodovine. To je pravzaprav pričakovano, saj je bila na ravni posameznih delavnic ugotovljena določena mera funkcionalne specializacije (npr. v hišah 4 in 22A/1 naj bi se izvajale pretežno metalurške dejavnosti, medtem ko bi bilo mogoče hišo 23/1 razumeti kot delavnico lončarja[77]).

Zadnji komentar je namenjen hiši 14. Na podlagi rezultatov arheološke študije je bil omenjeni stavbi

[72] Svoljšak, Dular 2016, 159.

[73] Asmussen 2009.

[74] Walker, Miller, Richman 2008.

[75] Bartosiewicz 1985, Pl. 2: 2; glej še Becker 1986, 287–288.

[76] Med gradivom iz jam hiše 23/1 je bil tako pretežni del ognju izpostavljenih odlomkov pravzaprav kalciniran, pri čemer številčnost sežganih diafiz dolgih kosti ni v ničemer zaostajala za številčnostjo sežganih epifiz.

[77] Glej tu Dular, Tecco Hvala, 72–73.

the observations related to Pit 4 in House 22/1, which yielded the greatest number of bone remains. A great majority of these bones – both burnt and unburnt – lay in the approx. 15 cm thick layer of crushed charcoal mixed with earth on the bottom of the originally at least 60 cm deep pit. It is important to note that the charcoal layer on the bottom of this pit was covered by grey-brown earth,[72] which prevented any superficial fire event from directly affecting the bones sealed within the charcoal layer.[73] A more detailed analysis of the animal finds from Pit 4 clearly show that only the epiphyseal parts of the individual long bone fragments and several of the recovered feet bones were burnt. Moreover, the brownish/blackish or black colour of most burnt specimens shows that the exposure temperature did not exceed 400 °C.[74]

Can the described phenomena be related to activities, in which long bone diaphyses were not directly exposed to the fire-generated heat, possibly due to the protection offered by the meat still attached to them? If this was the case, than at least part of the animal remains found within the pit could represent kitchen waste, produced while preparing the meat on the spit. Less likely, the bones could have been burned during the process of meat smoking. No metal hooks were found at Most na Soči, but the existence of such a practice could be indicated by the discovery in House 15 of a sheep/goat distal tibia fragment bearing a hole, possibly used to hang (part of) the animal's leg.[75] Whichever the reason, it is still not clear how and why the animal remains ended up discarded on the bottom of the pit. It has to be stressed, however, that not all pits in the workshops yielded the same results in the way of the burnt skeletal element representation data (see e.g. *Tab. 8*) and the intensity of the fire exposure traces.[76] In other words, the bone assemblages from different work pits/workshops are expected to have had different taphonomic histories. The latter is not surprising, considering that not all the workshops were used for the same activities (e.g. Houses 4 and 22A/1 are believed to have been used by metalworkers, while House 23/1 may have served for pottery making[77]).

A specific bone assemblage was unearthed in House 14, interpreted as having a special, possibly public function. Its great number of recovered animal bones and a fairly good representation of cattle skeletal elements

[72] Svoljšak, Dular 2016, 159.

[73] Asmussen 2009.

[74] Walker, Miller, Richman 2008.

[75] Bartosiewicz 1985, Pl. 2: 2; also see e.g. Becker 1986, 287–288.

[76] Amongst the bone material from the pits of House 23/1, for instance, a great part of the burnt bones was calcined, with the abundance of affected long bone diaphyses not falling behind the number of burnt epiphyses.

[77] See here Dular, Tecco Hvala, 72–73.

→

Sl. 14: Izbor živalskih ostankov iz hiše 4 z Mosta na Soči: 1 – sežgana stopalnica jelena s sledmi odiranja; 2 – sežgana dlančnica drobnice s prečnimi razpokami, nastalimi med izpostavljenostjo ognju; 3–7 – sežgani odlomki jelenovih rogovij, od katerih nekateri izkazujejo sledi človekovih aktivnosti; 8–10 – sežgani odlomki kozjih rožnic. (Foto: D. Valoh)
Fig. 14: A selection of animal remains from House 4 at Most na Soči: 1 – burnt red deer metatarsus bearing skinning marks; 2 – burnt caprine metacarpus with heat-generated transversal cracks; 3–7 – burnt red deer antler fragments, some showing traces of human activities; 8–10 – burnt goat horn core fragments. (Photo: D. Valoh)

pripisan poseben družbeni pomen, saj naj bi služila kot javni prostor oziroma prostor izvajanja javnih aktivnosti. Svojstvene so tudi nekatere od arheozooloških ugotovitev, med katerimi kaže omeniti predvsem daleč največje število vseh zbranih živalskih kosti in zob ter nadpovprečno dobro zastopanost skeletnih elementov iz bolj mesnatih delov trupa pri govedu. Pri tem je zanimivo, da je mogoče vzporednice s takšno sliko najti v obeh manjših shrambnih prostorih stanovanjskih hiš 8 in 15A/1. Če bi bilo razmeroma veliko število živalskih ostankov v obeh navedenih prostorih mogoče interpretirati kot ostanek v požaru uničenih zalog (mesne) hrane, bi nekaj podobnega nemara utegnilo držati tudi v primeru hiše 14. Vendar pa gradivo z območja obeh manjših shramb skoraj ne vsebuje govejih kosti iz najbolj mesnatih delov telesa, medtem ko jih je bilo na območju stavbe 14 odkritih razmeroma veliko (*tab. 9*). Pravzaprav se zdijo v slednjem primeru podpovprečno zastopane zgolj kosti spodnjega dela nog in eventualno rožnice. Na podlagi navedenega bi kazalo sklepati, da je hiša 14 (med drugim?) služila kot prostor sistematičnega sekundarnega kosanja živalskih kadavrov, morda pa tudi (začasne?) hrambe in/ali celo termične obdelave predhodno pripravljenih porcij. Najmanj pri govedu je sekundarno kosanje vključevalo ločevanje mesa od kosti, pri čemer je utegnil del mesa nato končati v shrambah posameznih stanovanjskih hiš.

Na podlagi skorajšnje odsotnosti prstnic, sploh v primerjavi z razmeroma velikim številom velikostno primerljivih izoliranih zob, bi kazalo akt zakola in primarno procesiranje živalskih kadavrov bržčas domnevati na neki drugi lokaciji. Pičlost odkritih prstnic bi bilo načeloma mogoče razložiti tudi s tem, da so ti skeletni elementi praviloma ostajali pritrjeni na živalske kože in so bili torej skupaj z njimi transportirani na druge lokacije znotraj naselbine. O tem, da so živali res odirali, ne nazadnje pričajo pri tem procesu nastali vrezi na dveh od skupno devetih odkritih govejih prvih prstnicah s tega območja. Vendar bi v tem primeru kazalo v hiši 14 domnevati tudi izvajanje primarnega kosanja živali, kar pa je glede na njeno lego v naselbini malo verjetno (*sl. 13*). Tovrstne aktivnosti so se namreč zaradi neprijetnih vonjav praviloma izvajale na nekoliko bolj izoliranih lokacijah, po možnosti vzdolž rek za lažje odstranjevanje velikih količin nastajajočih organskih odpadkov.[78] Pičlost ostankov govejih in kozjih rožnic kaže razložiti z njihovo uporabo kot surovino za izdelavo orodij, zaradi česar so bile najbrž odstranjene kmalu po

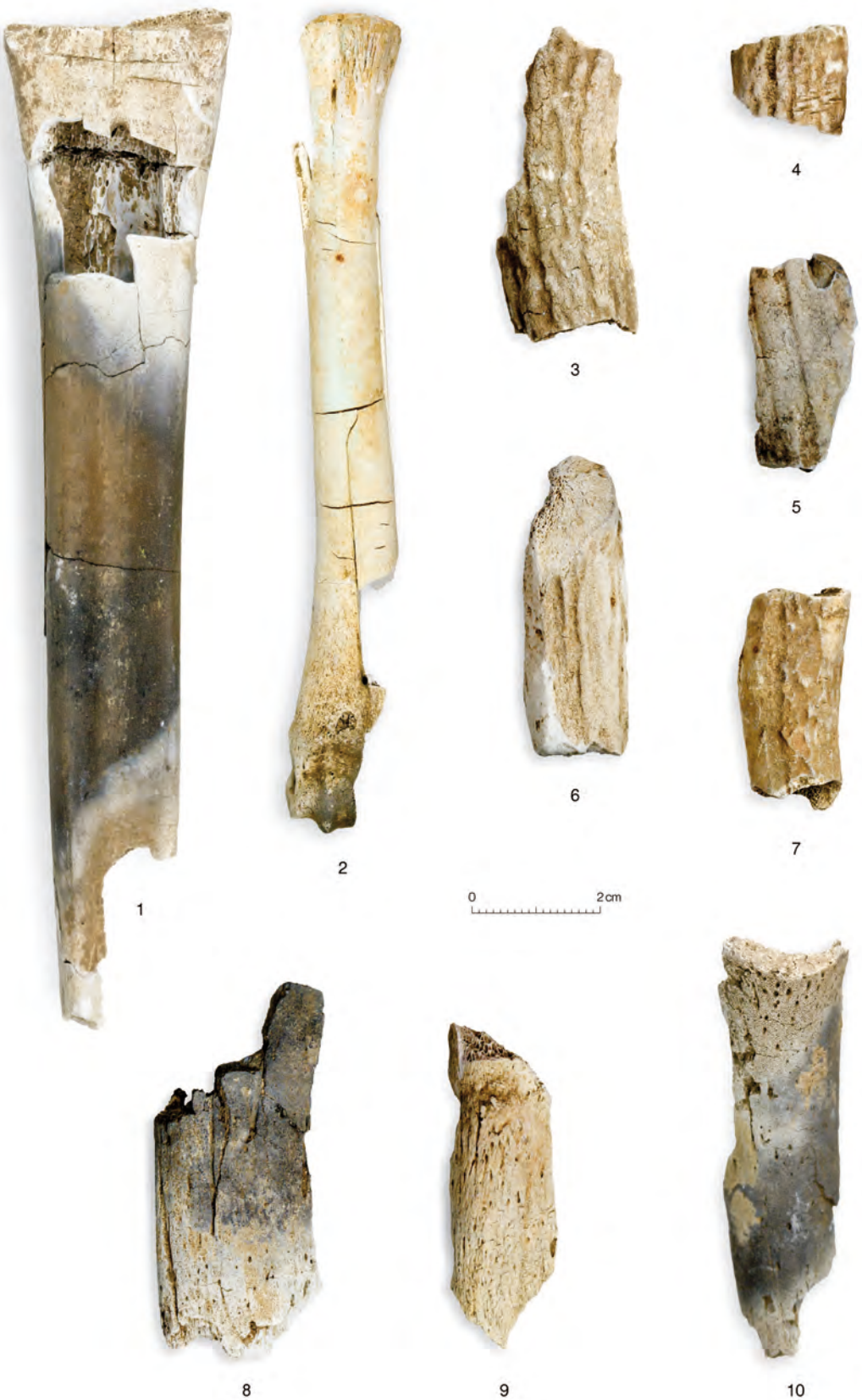
[78] Bartosiewicz 2003.

from meaty parts of the carcass stand apart from other buildings, with only partial parallels that may help to unravel its purpose. The parallels are the animal finds from the two small storage rooms in the eastern parts of the two analysed residential units (i.e. Houses 8 and 15A/1, respectively). If the relative abundance of finds recovered in both of these rooms is indeed indicative of meat supplies having perished in a fire, then a similar scenario might be applicable for House 14 as well. We should remember that almost no cattle bones from the meatiest anatomical regions of the carcass were found in the two storage rooms, while House 14 revealed plenty (*Tab. 9*). Here, the only underrepresented skeletal elements are foot bones and possibly horn cores. House 14 may therefore have served as a place for secondary butchering of animal carcasses, possibly also for either (temporarily?) storing or even preparing food, with everything supposedly done on a relatively large scale. During secondary butchering of cattle carcasses, boneless meat portions for local preparation and/or takeaway might have been prepared.

The near absence of phalanges, which contrasts with the fairly high number of similarly sized isolated teeth, indicates that culling of animals and primary butchering must have been performed elsewhere. Alternatively, the low abundance of phalanges could have been caused by skinning, since these skeletal elements often remain attached to the hides. The evidence of skinning may be the typical cut-marks observed in two of a total of 9 cattle first phalanges recovered in House 14. Following this scenario, primary butchering would also have been performed there. This, however, seems rather improbable as primary cattle butchering sites are expected to have been spatially isolated from the core of the settlement due to the associated bad smells and possibly located along river banks for an easier discard of the butchering waste.[78] Similarly as with phalanges, the small number of recovered horn cores is to be explained by their detachment following culling in order for them to be used as raw material for tool production.

The several burnt specimens recovered in House 14, including fragments of long bone diaphyses, might be indicative of at least part of the archaeozoological material representing secondary butchery and/or kitchen waste (temporarily?) discarded in the very area of the house, which was then exposed to the fire that destroyed

[78] Bartosiewicz 2003.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zakolu in prenesene na druge lokacije (glej razpršenost tovrstnih najdb na *sliki 13*).

Prisotnost posameznih ožganih kostnih odlomkov, med katerimi so tudi diafize dolgih kosti, bi bilo mogoče razložiti z (začasnim?) odlaganjem odpadkov sekundarnega kosanja/priprave hrane kar na območju hiše 14, kjer naj bi jih nato skupaj s stavbo zajel požar. Takšno tezo podkrepljuje odkritje dveh bržčas zavrženih kostnih odlomkov s sledmi pasjih zob. Vendar zaradi razmeroma velikega števila živalskih ostankov z območja hiše 14 teh večinoma ni utemeljeno razlagati kot odpadek, saj naj bi bile posamezne stavbe redno čiščene (glej zgoraj). Pretežni del zbranih živalskih kosti bi naj tako pomenil ostanek v požaru uničenih (začasnih?) prehranskih zalog, morda namenjenih obrednemu javnemu uživanju.

Ob upoštevanju vseh predstavljenih rezultatov je mogoče ugotoviti, da se je večji del vsakodnevnih dejavnosti odvijal v okviru posameznih gospodinjstev (glej npr. razpršenost pogosto delno obdelanih primerkov jelenovih rogovij in govejih/kozjih rožnic; *sl. 13*). Manjše število strateško pomembnejših aktivnosti pa vendarle izkazuje določeno stopnjo specializacije in centralizacije. Primer slednjega bi utegnilo pomeniti domnevno množično sekundarno kosanje živalskih kadavrov, vključno z morebitno pripravo hrane v okviru hiše 14, pa tudi metalurški delavnici v hišah 4 in 22A/1 ter lončarjeva delavnica v hiši 23/1.[79] Specializacija niti v omenjenih primerih ni bila popolna, o čemer med drugim pričajo nekatere od predstavljenih arheozooloških ugotovitev. Ob že obravnavanih specifikah kostnega zbira iz velike delovne jame z območja hiše 22/1 (jama 4; glej str. 499) kaže na tem mestu omeniti predvsem nekatere lastnosti gradiva iz hiše 4. Izmed arheoloških najdb so bili na tem območju med drugim odkriti posamezna livarsko-kovinska orodja (npr. več različnih kalupov, brusna kamna in brusna koluta) in koščki strjene bronaste taline, kar stavbo upravičeno označuje kot metalurško delavnico.[80] Vendar je bil na istem območju odkrit tudi manjši skupek odlomkov jelenovih rogovij in govejih/kozjih rožnic (N = 9), izmed katerih so bile na posameznih primerkih prepoznane sledi človekovih aktivnosti, in jelenja stopalnica s sledmi odiranja (*sl. 14*). Ker navedenih živalskih ostankov ni mogoče razumeti kot običajen klavniški/kuhinjski odpadek, bi lahko njihova prisotnost pričala o (občasnem?) lokalnem izvajanju še nekaterih postranskih aktivnosti.

SKLEP

Predstavljeni arheozooloski rezultati kažejo na socialno razslojenost in funkcionalno specializacijo železnodobne skupnosti z Mosta na Soči. Pri tem je seveda dobrodošlo, da so številne ugotovitve v celoti skladne z rezultati analize arheološkega gradiva (glej, denimo,

[79] Glej tu Dular, Tecco Hvala, 72–73.

[80] Svoljšak, Dular 2016, 67.

the entire building. In line with this is the presence of two evidently discarded bone fragments bearing dog gnawing marks. The fairly high number of animal bones from House 14, however, precludes most of them to be interpreted as discarded butchery/kitchen waste, since the houses are believed to have been regularly cleaned (see above). Thus, an important part of the recovered bones should rather be seen as representing what remained of (even if only temporarily) stored meat supplies, possibly for communal consumption or distribution.

Overall, the presented data indicate an array of everyday tasks performed within individual households (see e.g. the distribution of often worked deer antlers and bovid horn cores; *Fig. 13*). A very limited number of more strategic activities does seem to show a higher level of specialisation, as well as centralisation. The hypothetical large-scale secondary butchering and possibly food-preparing practices in House 14 might represent such an example, as do the presumed metallurgic workshops in Houses 4 and 22A/1 or the potter's workshop in House 23/1.[79] Even here, however, specialisation does not appear to have been complete. Archaeozoological indications of the latter are to be found in the already discussed peculiarities related to the animal bones from Pit 4 in House 22/1 (see p. 498–499), but also in those originating from House 4. Here, the discovery of a mould for casting small rings and another one for casting spearheads, a casting ladle and some other casting and metalworking tools[80] convincingly identify the structure as a specialised metallurgic workshop. The same area also yielded a considerable collection of red deer antler and bovid horn core fragments (N = 9), some of which bear traces of human activities, as well as a red deer metatarsus with skinning marks (*Fig. 14*). Since these animal remains cannot be interpreted as food and/or butchery waste, their presence might be indicative of some side activities (occasionally?) taking place in the same building.

CONCLUSIONS

The archaeozoological results argue for the existence of some sort of social stratification and functional differentiation in the population of the Iron Age Most na Soči. Many of the observations clearly fall in line with what has been proposed on the basis of archaeological observations (see, for instance, the correlation of the results relative to the purpose of individual houses[81]). Paradoxically, however, the few discrepancies might prove themselves to be even more valuable, as they can point to special features that

[79] See here Dular, Tecco Hvala, 72–73.

[80] Svoljšak, Dular 2016, 67.

[81] See here p. 497 *vs.* Dular, Tecco Hvala, 73–78.

ujemanje med poskusi interpretacije namembnosti posameznih prostorov/hiš[81]). In vendar bi se utegnilo izkazati, da so za boljše razumevanje kompleksnosti proučevane družbe včasih dragocenejše podrobnosti, pri katerih se arheozoološke in arheološke ugotovitve ne ujemajo v celoti. Takšna razhajanja lahko opozorijo na specifike, ki bi sicer bržčas ostale za vedno skrite.[82]

[81] Glej tu str. 497–502 in Dular, Tecco Hvala, 73–78.

[82] Glej npr. Toškan, Dirjec 2010 nasproti Dular, Tomanič Jevremov 2010, 95–97.

would otherwise have remained unnoticed.[82] It has to be stressed that any such apparent divergence in the results obtained by different analytical approaches is often nothing more than a mere suspicion. But then again, suspicion is the antechamber of truth. What is certainly true is that a many-sided analysis of sites is indispensable in archaeology.

[82] See e.g. Toškan, Dirjec 2010 *vs.* Dular, Tomanič Jevremov 2010, 201–202.

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Pril. 1: Podatki o stopnji obrabe žvekalne površine zob pri govedu iz železnodobne naselbine Most na Soči. Obrazložitev okrajšave: M.W.S. – spodnječeljustnična stopnja obrabe (*sensu* Grant 1982).
App. 1: Tooth wear stage data for cattle specimens from Iron Age Most na Soči. Explanation of the abbreviation: M.W.S. – Mandibular Wear Stage (*sensu* Grant 1982).

Št. primerkov No. of specimens	Stopnja obrabe / Wear stage				M.W.S.
	P_4	M_1	M_2	M_3	
1		G	C	A	23
1		G	D		23–26
1		J	G		33–35
1		J	H		36
1		K	G	E	36–38
4		K			34–44
1		K	G	G	39
1		K	K	D	39
2				G	37–46
2		K	K		42–44
5				J	44–47
1		L			41–47
1	G				41–50
1		L	K	G	43
1		L	K	H	44
1				H	44
1		L	K	J	45
1		L	K	K	46
1			K	J	45–46
1			K	K	46–47
1		N			46–50
1				K	46–50

Pril. 2: Podatki o stopnji obrabe žvekalne površine zob pri prašiču iz železnodobne naselbine Most na Soči. Starost ob zakolu (podana v mesecih) je bila ocenjena na podlagi smernic, ki jih je objavila Lemoine *et al*. 2014.
App. 2: Tooth wear stage data for pig specimens from Iron Age Most na Soči. The age–at–death (given in months) was assessed following Lemoine *et al*. 2014.

Št. primerkov No. of specimens	Stopnja obrabe / Wear stage			Ocenjena starost Assessed age
	M_1	M_2	M_3	
3	7		4	6 – 8
4	8			
2		7		8 – 16
1			7/8	
1		10	7/8	
1	9			12 – 16
1	11	9	8	12 – 30
1	11	10		
1	12	9		
1	11	8		18 – 30
1		8		12 – 52
2		9		
1		10		18 – 72
1		10	8	
1			7	
1			8	
2			8/9	
1	13	8		30 – 52
1	14	8		
1		11	3	30 – 72
1		11	9	
2			9	
1			10	52 – 96
1		15	9	72 – 96

Pril. 3a: Podatki o stopnji obrabe žvekalne površine zob pri drobnici iz železnodobne naselbine Most na Soči za do tri leta stare živali. Starost ob zakolu (podana v mesecih) je bila ocenjena na podlagi smernic, ki so jih objavili Payne 1973; 1985 in Greenfield, Arnold 2008. Podatki za ovco so zapisani *ležeče*, tisti za kozo **krepko**; preostali podatki se nanašajo na primerke, kjer opredelitev do nivoja vrste ni bila mogoča.
App. 3a: Tooth wear stage data for sheep/goat specimens from Iron Age Most na Soči for up to three years old animals. The age–at–death (given in months) was assessed following Payne 1973; 1985 and Greenfield, Arnold 2008. Data for sheep are shown in *italics*, those for goat in **bold**; the remaining data refer to sheep/goat.

Št. primerkov No. of specimens	Stopnja obrabe / Wear stage				Ocenjena starost Assessed age
	dP_4	M_1	M_2	M_3	
1	**0**				< 2
1	*3*				
1	**4**				< 3
1	**4**				
1		*4A*			4,5–7
1	*6*				4,5–10,5
1	**7**	**6A**	**4A**		6–12
1	**7**	**2A**			7–12
2 + *2*	**7**				
1		**9A**	**7A**	**2A**	12–24
1		**9A**	**7A**	**4A**	
1		9A	9A	4A	
1		9A	2A		
1		9A	4A		
1	*8*	*9A*	*5A*		
1	3	9A	5A		
1		9A	5A	0	
1		9A	6A	0	
1		9A	6A	1A	
1			3A		
2			4A		
4			5A		
4			6A		
7 + *5*		9A			12–36
2		9A	7A		
1			7A		
1			10G		
1	**9**	**8A**			13,5–19,5
1	**9**	**9A**	**4A**		
1	**9**				
1	**10**				
1		*9A*	*8A*	*6G*	24–36
1		9A	9A	2A	
1		9A	9A	4A	
1		*9A*	*9A*	*6A*	
1		**11A**	**8A**	**5A**	
3			8A		
6				2A	
10				4A	
2				5A	
1				6A	
1				7A	

Pril. 3b: Podatki o stopnji obrabe žvekalne površine zob pri drobnici iz železnodobne naselbine Most na Soči za nad dve leti stare živali. Starost ob zakolu (podana v mesecih) je bila ocenjena na podlagi smernic, ki so jih objavili Payne 1973; 1985 in Greenfield, Arnold 2008. Podatki za ovco so zapisani *ležeče*, tisti za kozo **krepko**; preostali podatki se nanašajo na primerke, kjer opredelitev do nivoja vrste ni bila mogoča.
App. 3b: Tooth wear stage data for sheep/goat specimens from Iron Age Most na Soči for above two years old animals. The age–at–death (given in months) was assessed following Payne 1973; 1985 and Greenfield, Arnold 2008. Data for sheep are shown in *italics*, those for goat in **bold**; the remaining data refer to sheep/goat.

Št. primerkov No. of specimens	Stopnja obrabe / Wear stage				Ocenjena starost Assessed age
	dP_4	M_1	M_2	M_3	
1		**9A**	**7A**		24–48
1		**9A**	**8A**	**2A**	
1		9A	8A	6G	
1		9A	8A		
2 + **2**		9A	9A		
10			9A		24–72
1			9A	11G	
2 + **1**		**9A**	**9A**	**7G**	36–48
1		**10A**	**9A**	**9G**	
1 + *1*		11A	9A		
1		11A	9A	9G	
1		14A	9A	9G	
2			9A	4A	
1				7G	
1				8G	
3				9G	
5				10G	
1		10A			36–72
1		**11A**			
1		12A	9A		
1		12A			
1		*14A*	*9A*		
1 + *1*		14A			
1			9A	11G	
3		*10A*	*9A*	*11G*	
2		*11A*	*9A*	*9G*	
1 + *3*		*12A*	*9A*	*11G*	
1 + **1**		14A	9A	11G	
1 + *1*		15A	9A	11G	
1			9A	11G	
1		15A	12A	11G	48–96
2		15A	14A	11G	
14 + *1*				11G	
1			*12A*	*11G*	72–96

Pril. 4: Zastopanost živalskih taksonov v gradivu z Mosta na Soči po posameznih hišah/gradbenih fazah. Podatki za hiše 1/2, 2/2, 3–8, 12/1, 15A/1 in 2, 22A/2 ter 23/1 so prikazani v *tabeli 5*. Opomba: skupno število najdb na hišo lahko presega vsoto najdb za posamezne od gradbenih faz, saj del arheozoološkega gradiva ni bilo mogoče z zanesljivostjo navezati na katero od gradbenih faz.
App. 4: Taxa abundance data at Most na Soči per house/construction phase. Data for Houses 1/2, 2/2, 3–8, 12/1, 15A/1&2, 22A/2 and 23/1 are shown in *Table 5*. Note: the total number of finds per house may exceed the sum of values given per individual construction phase, since part of the excavated material didn't allow for a reliable attribution to one of the construction phases.

Takson Taxon	H 3/1&2	H 9	H 10	H 11	H 12/1&2	H 13	H 14/3	H 14/1–3	H 15/3	H 15A/3	H 15A/1–3	H 16	H 17	H 18
Bos taurus	18	1	15	6	81	7	85	436	31	15	71	76	4	1
Caprinae	37		24	7	281	2	70	506	37	13	67	102	2	
Sus cf. *domesticus*	4		4	1	139	1	35	71	6	7	24	8	2	
Canis familiaris	11										1			
Equus caballus					2						1			
Cervus elaphus	3			1	1		1	4			2	4		
Capreolus capreolus														
Bos primigenius														
Sus cf. *scrofa*	1							2				2	10	
Lepus europaeus	1													
Martes martes														
Vulpes vulpes														
Ursus arctos														
Bos *sp.*														
Canis sp.									1					
Σ Mammalia	75	1	43	15	504	10	191	1009	75	35	166	192	18	1
Gallus domesticus					1									
Σ Aves					2									
Indeterminatus	13	–	40	4	377	11	190	1159	31	16	176	262	14	–

Takson Taxon	H 19	H 20	H 22	H 22A/2	H 22A/1&2	H 23/2	H 23/1&2	H 24	H 25	H 26/1	H 26/2	H 26/1&2	H 27	H 29
Bos taurus	15	2	43	8	21	70	109	4	43	27	131	187	61	128
Caprinae	9	1	80	6	22	181	241	8	55	32	51	123	228	164
Sus cf. *domesticus*	5	1	20	1	5	12	19	3	8	18	8	30	12	32
Canis familiaris													2	
Equus caballus												1		
Cervus elaphus			2	1			2	1	1	3		6		
Capreolus capreolus									1					
Bos primigenius												1		
Sus cf. *scrofa*			1									2		
Lepus europaeus			1											
Martes martes														
Vulpes vulpes														
Ursus arctos														
Bos *sp.*														1
Canis sp.														
Σ Mammalia	29	4	147	16	48	263	371	16	108	80	190	352	303	325
Gallus domesticus														
Σ Aves														
Indeterminatus	29	1	148	24	57	379	471	17	155	85	443	626	702	340

Takson Taxon	H 30	H 31	H 32	H 33
Bos taurus	67	57	17	
Caprinae	159	55	9	
Sus cf. *domesticus*	21	12	8	
Canis familiaris				
Equus caballus		2		
Cervus elaphus	1			
Capreolus capreolus				
Bos primigenius				
Sus cf. *scrofa*	2			
Lepus europaeus		1		
Martes martes		3		
Vulpes vulpes				
Ursus arctos				
Bos *sp.*				
Canis sp.				
Σ Mammalia	250	130	34	
Gallus domesticus				
Σ Aves				
Indeterminatus	284	280	13	1

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