

Redrawing as Key to the Spatial Thought of Hana Kučerová Zaveská

This paper analyses two works of Hana Kučerová Zaveská, a Czech architect and designer who made an important contribution to the Modern Movement, dealing with social housing and social services and placing the emphasis on improving the status of women.

One of the first women to represent Modern Architecture at the Exhibition of Contemporary Culture in Brno in 1928, with *Villa Balling* she contributed, as the only woman, to the edification of the Baba district in Prague, presented at the residential architecture as a field of experimentation with minimal houses.

From 1933, she worked on the summer residence for her parents in the district of Dobřichovice in Prague. Both villas exhibit great flexibility through a renewable and modifiable space. In addition, the furniture has been designed for each room of the house, in a simple and convenient way, to promote the liberation of women from unnecessary home work.

Hana Kučerová Zaveská was able to re-read the history of architecture, managing to develop solutions that are still among the best examples of 'feminine architecture'.

This redrawing projects Hana Kučerová Zaveská through new and unreleased representations and graphical analysis provide to an original key to the spatial thought of the architect.

Keywords: representation, Hana Kučerová Zaveská, Modern Movement, redrawing, graphic

This paper analyses two works of Hana Kučerová Zaveská, Czech architect and designer who made an important contribution to the Modern Movement, through social housing and social services that placed emphasis on improving the status of women.¹ Her brief, but intense, activity was developed in Czechoslovakia in the period between the wars and was influenced by the architecture and art movements that occurred in that country during the twenties and thirties.²

At that time, young artists identified with Cubism to express the new social reality and architects abandoned the anachronistic forms of stylistic revivals and decorativism for a new architectural language that expressed new spatial forms.³

In the footsteps of Marcel Breuer and Mies van der Rohe, she created furniture where functionality was combined with elegance and in which we recognise her signature style in the innovative use of materials and production methods.

One of the first women to represent Modern Architecture at the Exhibition of Contemporary Culture in Brno in 1928, Hana Kučerová Zaveská is called by her teacher, Pawel Janek, for the edification of residential district Baba in Prague, presented at the residential architecture as a field of experimentation with minimal houses. The district had to be an example of the modern lifestyle,

1 Part of this paper is the synthesis of a larger work converged into Valeria Cinnirella's Graduation Thesis, Supervisor Prof. Francesco Maggio. Valeria Cinnirella, "Hana Kučerová Zaveská. Architettura funzionalista in Cecoslovacchia" (Graduation Thesis, University of Palermo, 2015).

2 See Anna Beková and Danielle Monsimier, *Praga e Cecoslovacchia* (Verona: Edizioni Futuro, 1990); Marie Benešová, *Česká architektura v proměnách dvou století* (Praha: Odborná, 1984); Marco Biraghi, *Guida all'architettura del Novecento a Vienna, Budapest e Praga* (Milano: Electa, 1998); Ivan Margolius, *Prague: A Guide to Twentieth-century Architecture* (London: Artemis, 1994); Zlatý Rez, *Prague 20th Century Architecture* (Vienna, New York: Springer, 1999).

3 See Marie Benešová, "Architettura cubista in Boemia," *Casabella* 314 (1967), 68–71; Francois Burkhardt, "Appunti sul cubismo nell'architettura cecoslovacca," *Lotus International* 20 (1978), 54-62; Francois Burkhardt and Milena Lamarová, *Cubismo cecoslovacco: Architetture e interni* (Milano: Electa, 1982); Milena Lamarová, "Cubismo ed espressionismo nell'architettura e nel design," *Lotus International* 20 (1978), 44–53.

which was also expressed in single-family houses characterised by modern architectural solutions.⁴ With *Villa Balling*, Hana Kučerová Zaveská was the only woman to design for Baba.

Another significant project was carried out in 1933; this was the summer residence for her parents in the Dobřichovice district in Prague. Both villas exhibit great flexibility through a space that is renewable and modifiable as needed. In addition, the furniture designed for every room of the house in a simple, effective and convenient way, promotes the liberation of women from unnecessary homework. In these achievements, the influences of Le Corbusier are clear as are those of Adolf Loos.

Hana Kučerová Zaveská was able to re-read the history of architecture and the socio-economic changes that were affecting the rest of Europe, managing to develop solutions that are still among the best examples of 'feminine architecture'.

She was born in 1904 in Prague and studied at the School of Applied Arts in Prague when architecture was still considered a male prerogative.

During her studies in architecture, she began to work on the design and furniture for her sister's house in which we can see the influence of the Bauhaus. A typical element of her furniture is the wardrobe or built-in furniture, which is realised always in clear and clean shapes, from a simple and pure design, with minimalist finishing and with a simple and rational distribution of internal spaces.

When she finished her studies, she continued to be interested in furniture making for the UP Company, an important Czechoslovakian company, one of the best in Europe. Her furniture was the result of research on new design solutions for minimum dwellings; these are buildings that are easily and quickly realisable thanks to mass production, which also allows costs to be controlled.⁵ Chairs, armchairs and sofas with a slightly inclined backrest of curved wood or with the tubular hardened steel frame, tables of minimalist structure in dark wood and with glass shelves, sofa beds with removable cushions and a space for the sheets, were displayed at the Exhibition of Contemporary Culture in Brno in 1928, for which she also designed a kitchen which makes good use of European research on minimal dwelling and manifested a great deal of attention on the work of women at home. Furnishing elements all have the same height to ensure the continuity of the shelves, and are arranged according to a 'U' scheme that allows the rationalisation of the spaces and, consequently, of the movements of the housewife who thus can have all tools handy. For the exhibition in Brno, she also made outdoor furniture in tubular chromed steel and wood that was later produced by Hynek Gottwald and made in yellow and red painted metal.

Subsequently, for the house of the engineer Pošlusnou Rudlovou, she designed an initial version of a fitted kitchen with built-in appliances, which, a few years later, she also implemented in the house of Miladu Zoubkovou-Vickovou.

Following the official announcement of independence of the new state of Czechoslovakia in 1928, Prague became its capital. The city spread very rapidly, also annexing municipalities until, at the end of the thirties, it had almost one million inhabitants.

The massive influx of new residents, who moved from the countryside in search of jobs and a better life, required solutions capable of responding to new housing needs.

Without a master plan, which was defined only in 1964, in the period between the two wars several neighbourhoods are constructed in Prague, inspired by the experiences of the rationalist vanguard in other important European cities.

In 1928, marking the tenth anniversary of national unity, the Brno branch of the Czechoslovakian Werkbund (*Svaz československého díla*), which promoted the development and dissemination of modern architecture and industrial design, organised in Prague the *Nový Dům* (New Homes), an important manifestation of modern architecture, conceived according to the example of international exhibitions held in Stuttgart, Wrocław, Karlsruhe, Vienna and Zurich. For that occasion, the construction of a residential neighbourhood in Prague was conceived, with houses that would help to improve the quality of life for working people. To achieve a healthy and functional living space, new structural solutions and new manufacturing technologies were developed. The neighbourhood was a showcase for the skills of modern Czech architects⁶ but, unlike the Weissenhof in Stuttgart, it was not an experimental district. Conceived initially as a suburb of standardised houses, due to a financial crisis, the Baba neighbourhood, is constructed from 1932, thanks to the funding of private buyers who then demanded unique architecture, designed to measure and realised with traditional materials and technologies.

The master plan was commissioned by Pavel Janák, a leading figure of Czech contemporary art, who also selected the designers.⁷ The program involved the construction of 33 single-family and duplex houses, most with gardens, arranged to have the same orientation to the south and the same view of the city. Flat roofs, white stucco and continuous windows are common to most of the buildings that, in response to the functionalist logic 'form follows function', are also characterised by strict lines and simple volumes. In the program's manifesto, Pavel Janák says,

4 See Michael Kohout et al. (eds.), *Prague 20th Century Architecture* (New York: Springer Science & Business Media, 1999); Stephan Templ, *Die Werkbundsiedlung Prag* (Basel: Birkhäuser, 1999); Rostislav Švácha, *The Architecture of New Prague 1895–1945* (London: The MIT Press, Cambridge, 1995).

5 The development of industrial production and the changing housing conditions require new design solutions to meet the growing population of cities and new housing needs of the working class.

6 See Giovanni Denti, *Praga: La voce grande della storia* (Firenze: Alinea, 2006), 98.

7 Pavel Janák, prominent theorist of Cubism in Prague, was a modernist architect who trained in Vienna with Otto Wagner. Lecturer at the School of Applied Arts in Prague, he designed and realised three houses in the Baba neighborhood.

The villas would “provide an overview of what a one family house can and should be, and how contemporary life dictates its layout, situation and size, lighting, heating, and the interior fixtures and fittings of individual rooms”.⁸

Hana Kučerová Zaveská was invited to participate in the construction of the Baba neighbourhood by Pavel Janak, who was her teacher and with whom, after her studies, she had undertaken a collaborative relationship. The assignment concerns the construction of the villa Suková and the villa for Karel Baling, composer of popular songs.

The *villa Baling* is located on grounds of 108 square meters with a slight slope and, despite the limited size of the lot, the architect designed a functional building on multiple levels.

The laundry and boiler room were located in the basement and the upper floors allocated to housing, to avoid direct contact with the ground and to ensure a clear view over Prague.

The villa consists of a parallelepiped with an overhanging volume in the northwest corner, to which aligns and stands a smaller and lower volume that contains the entrance. Flat roof, simple geometries, large openings, flat surfaces free of decorations and straight lines characterise this villa, like the others of Baba.

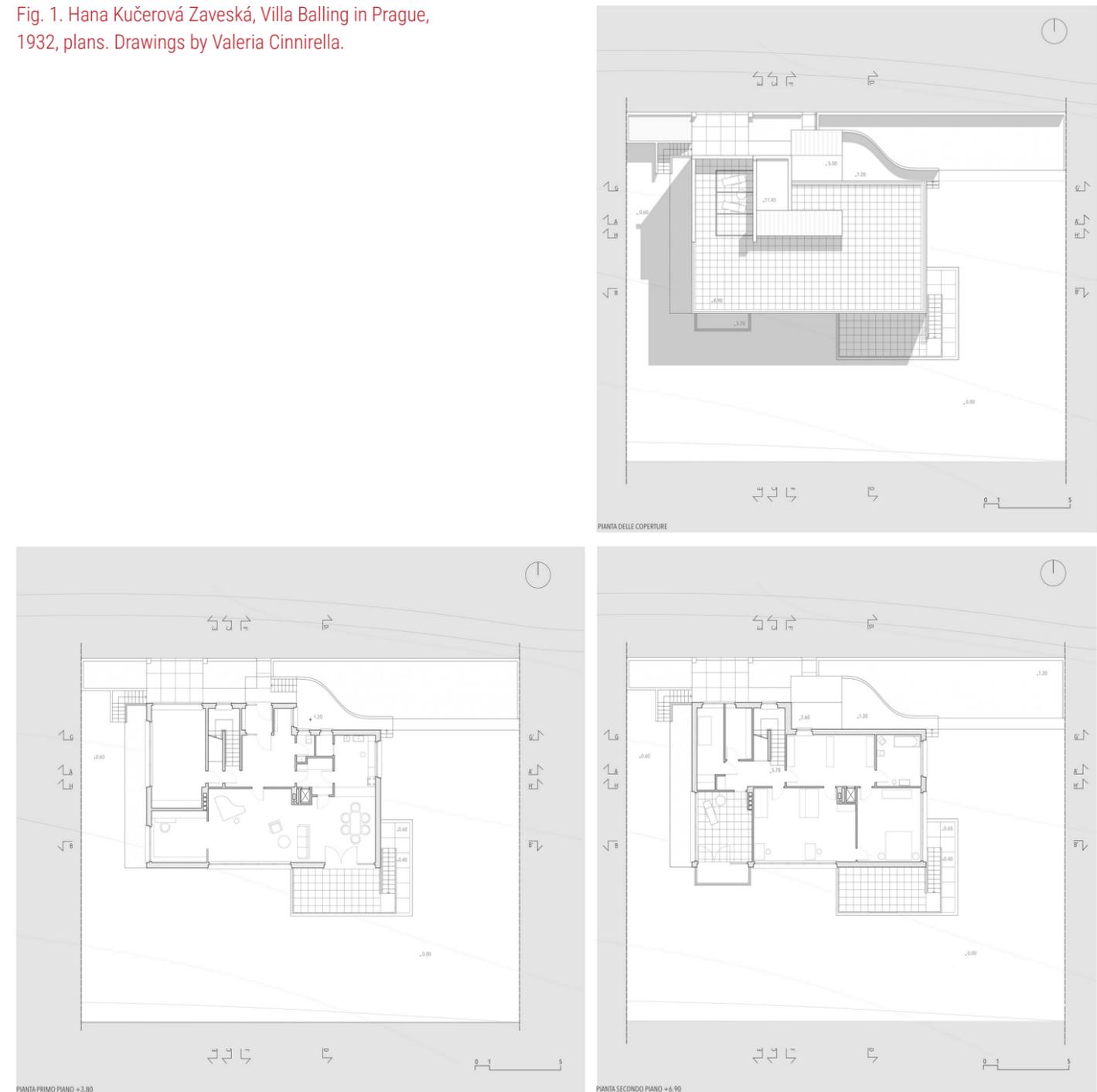
The villa is on three levels above ground and is complemented by a walkover terrace, which is the coverage of the entire volume (Fig. 1).

A staircase, inside the house and located along the north wall, gives access to all floors. Two external staircases, placed at opposite corners of the house, north-west and south-east, link the ground floor with the garden in the basement. The one-flight staircase to the southeast allows access to –via the garden level to the basement– an overhanging terrace to the ground floor, supported by spindly Mannesmann tubes piles, on which the large living room opens. A canopy hooked to the façade, provides shading in the summer months and allows the use of the terrace as an outdoor dining room.

The living room is accessed from street level through an entrance centrally located on the northern front on the ground floor.⁹

The distribution of the rooms on the ground floor shows that the location of the services area and the garage is to the north, and the residential area to the south. The latter is designed as a single large room, changeable depending on the different housing needs and divided into three parts - a study area, a living room and a dining area directly connected to the kitchen.¹⁰ Through the entrance, a large hall is the hinge on which stands the inner staircase and the garage to the

Fig. 1. Hana Kučerová Zaveská, Villa Baling in Prague, 1932, plans. Drawings by Valeria Cinnirella.



8 Jane Pavitt, *Prague* (Manchester: Manchester University Press, 2000), 110.

9 The staircase separates the garage at the entrance.

10 The flexibility of the living space is an important issue for Hana Kučerová Zaveská to which end she often designed custom furniture.

west, kitchen, wine cellar and services to the east, and the large living room to the south. One can access the kitchen via a further filter space in which there are a large closet and a freight elevator that connects the first three levels to carry the linen from the laundry to the kitchen to a large walk-in closet on the second floor.

The entire first floor is the sleeping area. To the south in a central position, there is a large children's room with two single beds, which can be accessed through two separate doors; the room is divided in two by the appropriate use of a cabinet that serves as a partition wall. To the southeast is the master bedroom and to the south-west a winter garden with a terrace that opens to the south. To the north, the staircase separates the large dressing room and bathroom from the servants' quarters that sit above the garage.

Through the internal staircase, one can reach the roof garden terrace (Fig. 2). The wall of the projecting volume that contains the staircase to the north exceeds the level of the last floor to wrap and protect the angle to the north-west, which is more intimate area of the terrace, probably destined to be a solarium. A covered area includes the zone reserved for drying.

For the *villa Balling*, Hana Kučerová Zaveská also designed the furniture, conceived as an integral part of a whole work of art which is her architecture. The integrated and functional furniture is tailored for each space. The use of sliding walls ensures, throughout the day, flexible environments that can be completely open or closed and private, ensuring a smooth organisation of the activities of the house.

The façades are geometric compositions drawn from solids and voids, and compact surfaces engraved by essential openings (Fig. 3). They are characterised by openings of varying size and shape, depending on the different requirements for illumination and ventilation of the interior. The size of the openings appear commensurate to those of the environments and to their function.

The drawing of the railings of the terraces and exterior stairs is shown by the repetition of tubular elements horizontally arranged, as in many buildings of the Modern Movement.

The redrawing of *villa Balling*, made from the published drawings and photographs, also includes the assumption about the arrangement of furniture, taken from the original drawings available and from the vintage photos.¹¹

The axonometric and perspective views, obtained by digital model, reveal a game of solids and voids, a clever use of terraces and balconies, volumes and surfaces that move the composition (Figs. 4 and 5). Certainly *villa Balling* is the 'manifesto' of the functionalist poetic of Hana Kučerová Zaveská and reflects the influences exerted by the models of Le Corbusier.

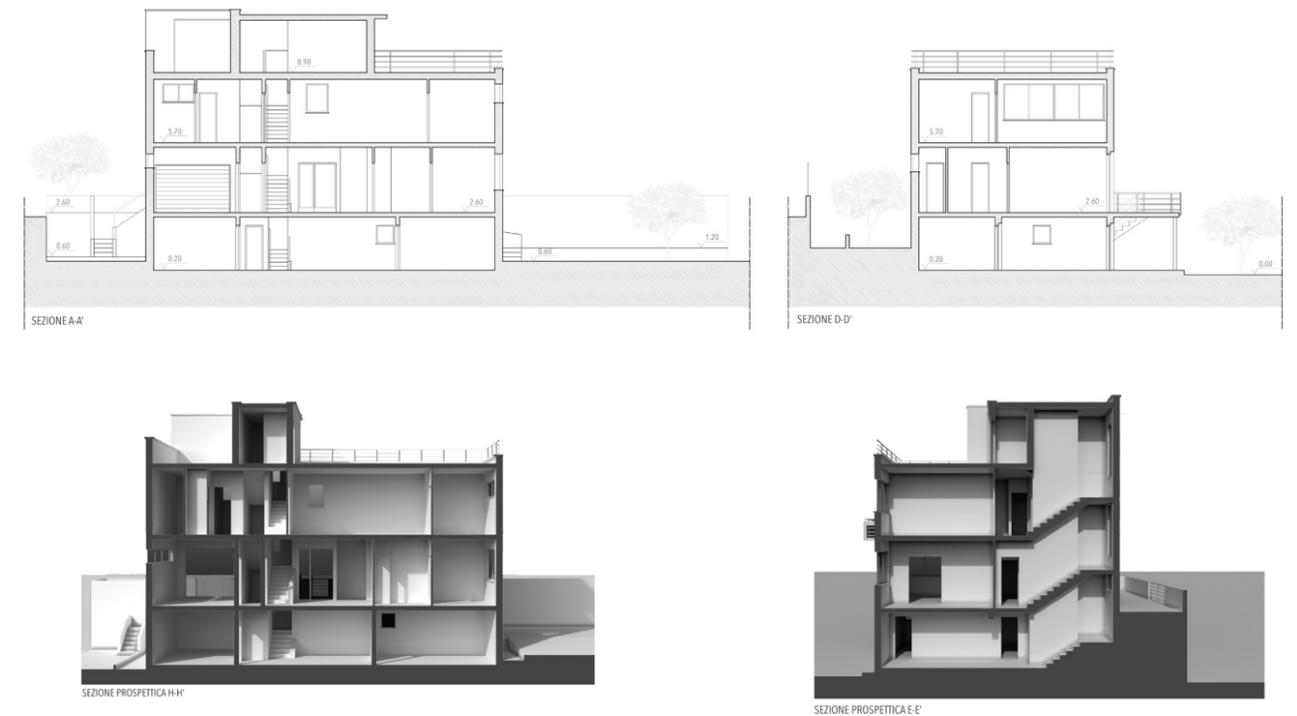


Fig. 2. Hana Kučerová Zaveská, Villa Balling in Prague, 1932, sections and sectional perspective views. Drawings by Valeria Cinnirella.

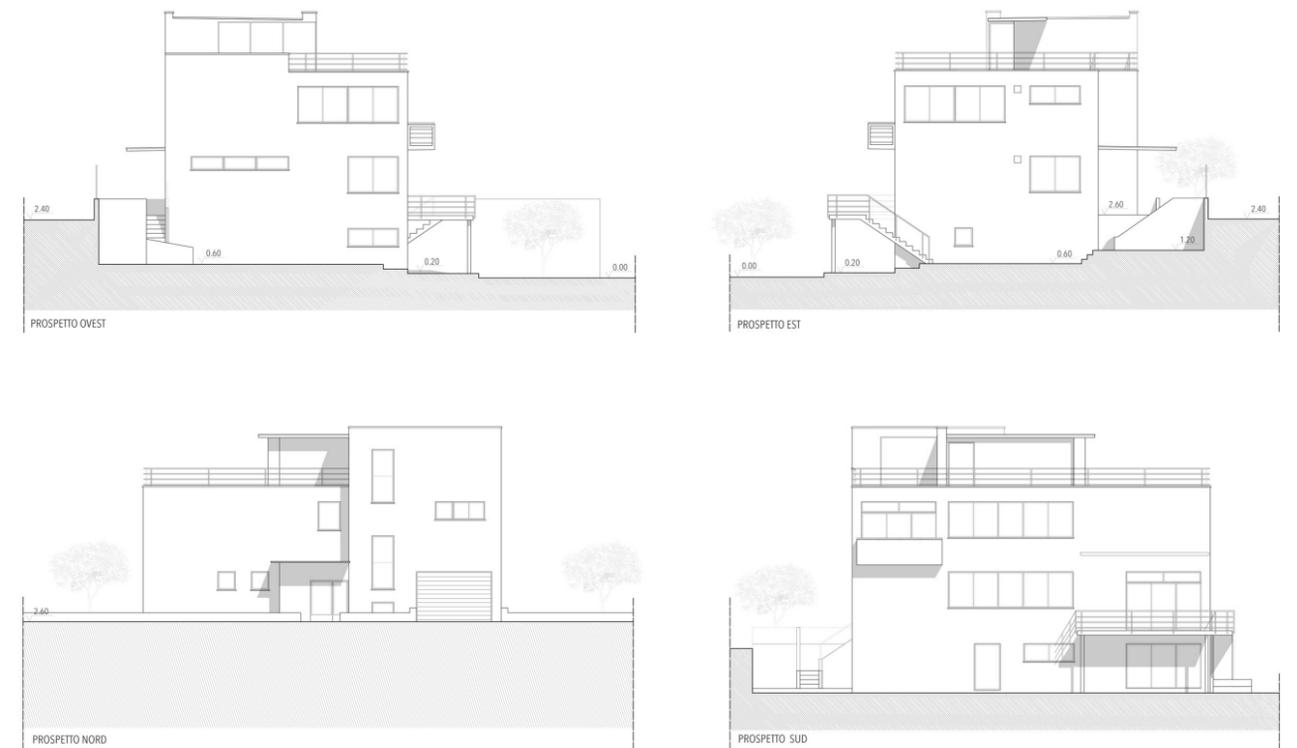


Fig. 3. Hana Kučerová Zaveská, Villa Balling in Prague, 1932, fronts. Drawings by Valeria Cinnirella.

¹¹ On vintage magazines only plans of the ground floor and the first floor, the drawing of the main facade and some photographs are published.

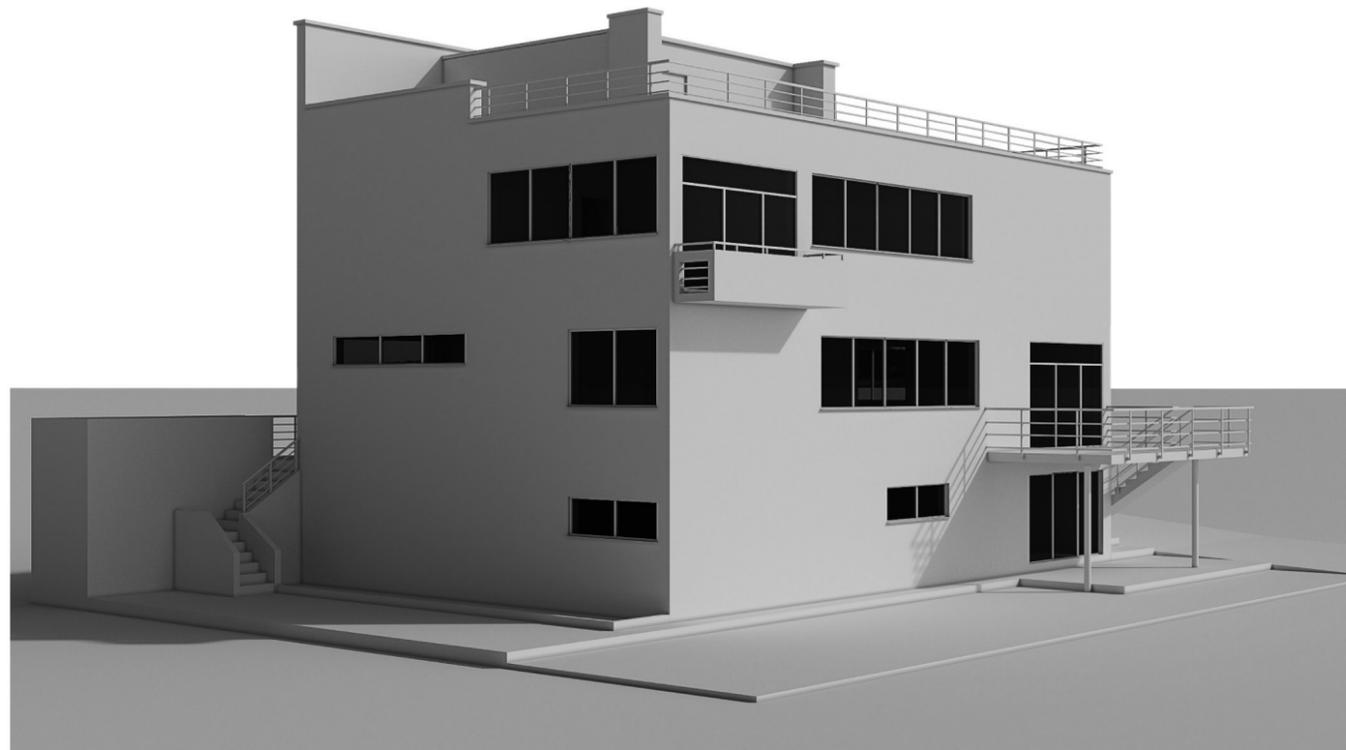
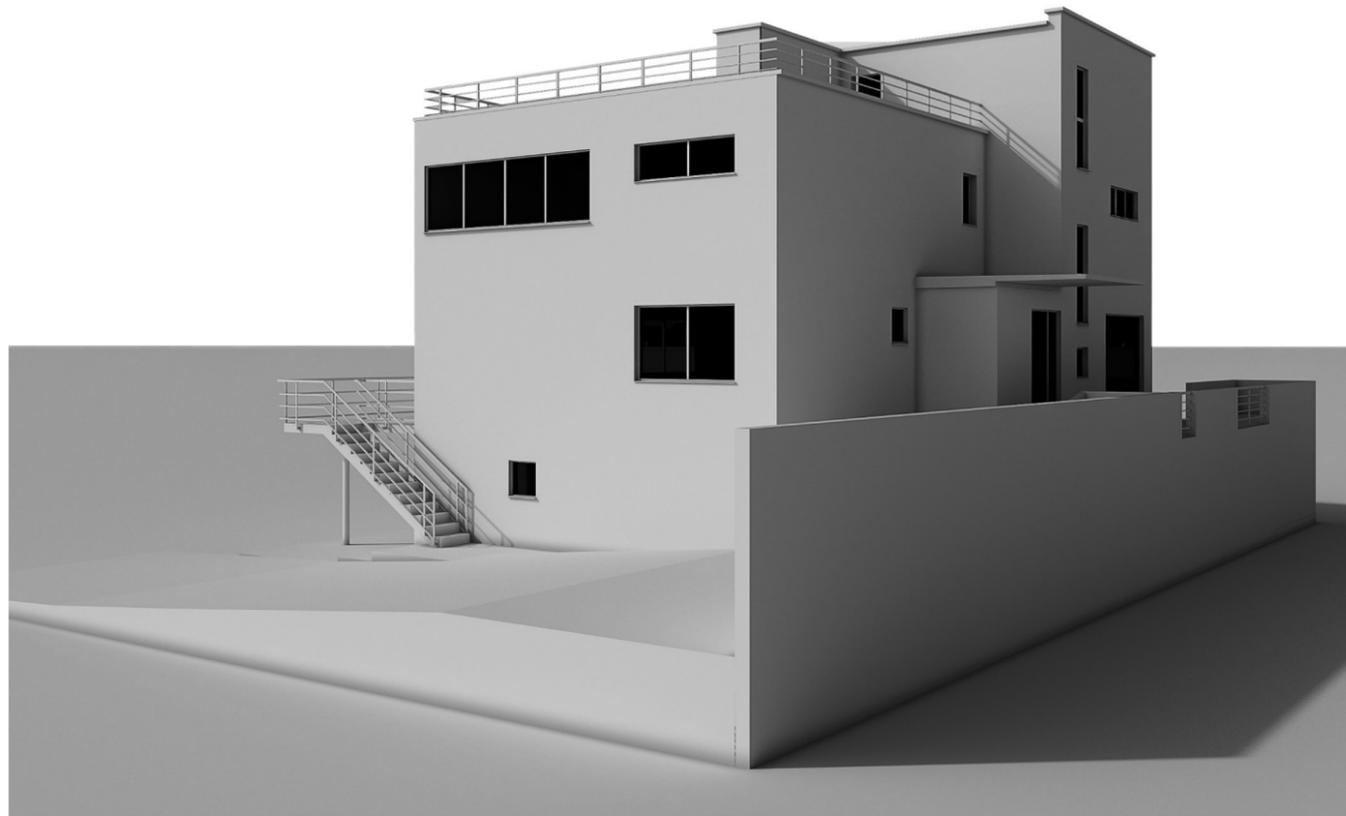


Fig. 4. Hana Kučerová Zaveská, Villa Balling in Prague, 1932, 3D models. Drawings by Valeria Cinnirella.

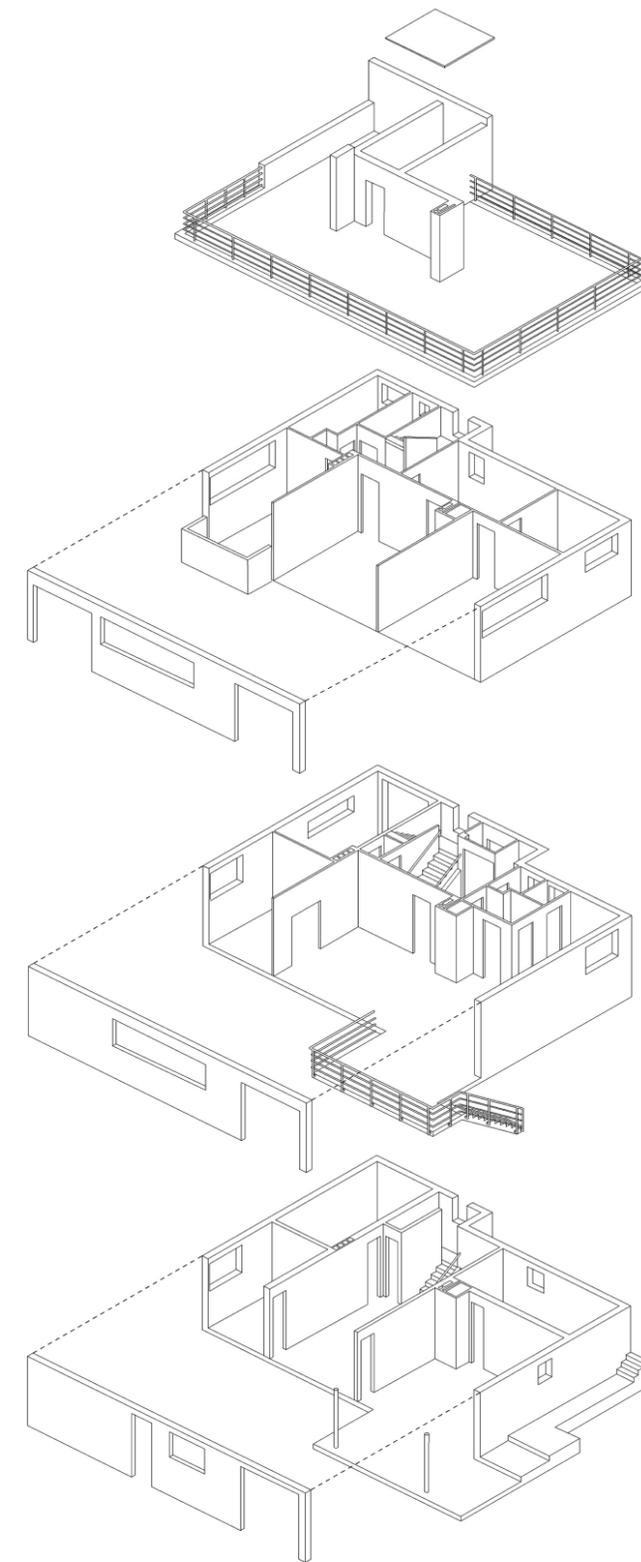


Fig. 5. Hana Kučerová Zaveská, Villa Balling in Prague, 1932, exploded axonometric view. Drawings by Valeria Cinnirella.

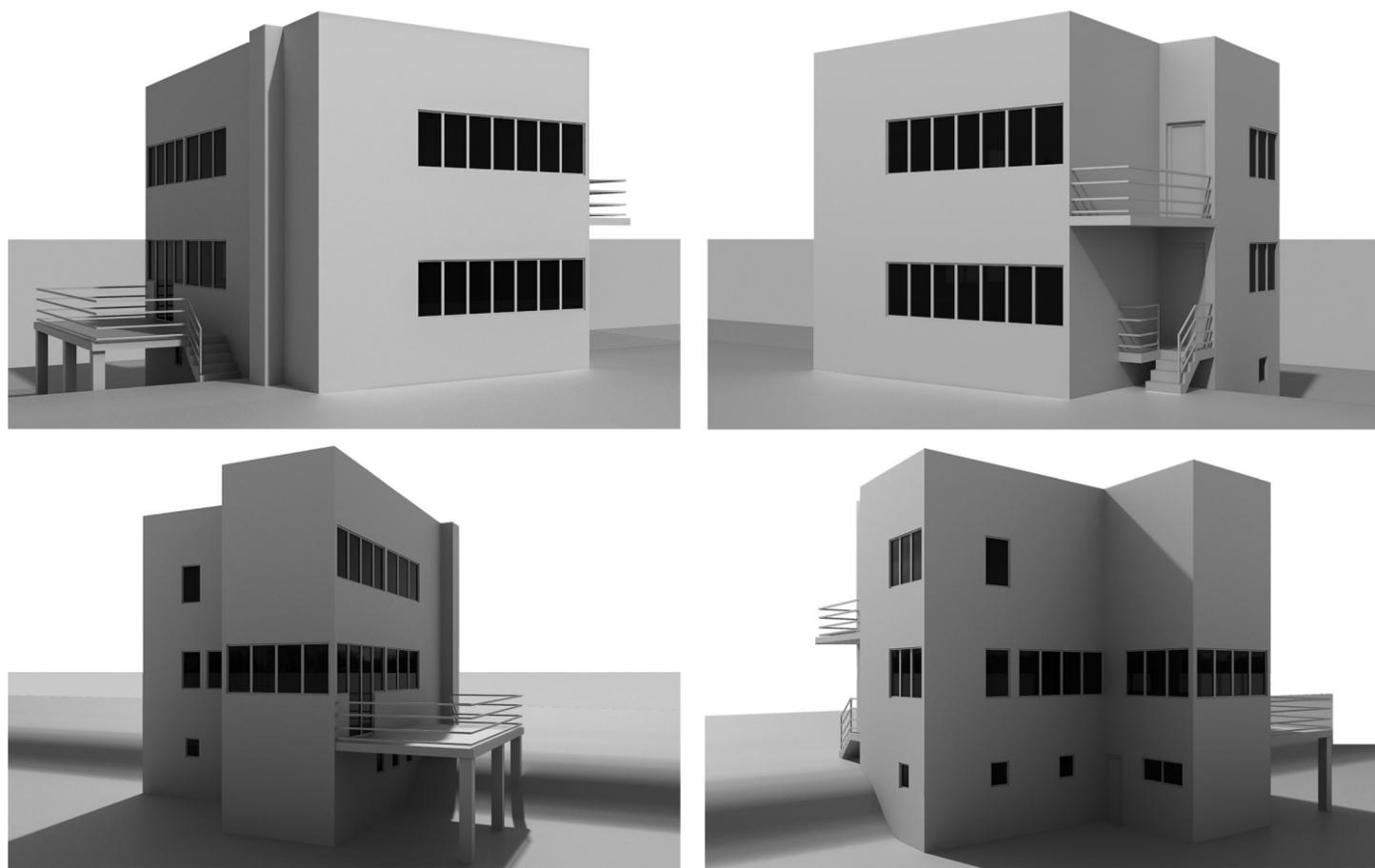


Fig. 6. Hana Kučerová Zaveská, Villa for parents Olga and Maximilian Zaveskych in Dobrichovice, 1933, 3D models. Drawings by Valeria Cinnirella.

Between 1933 and 1934, she designed and built the summer villa for her parents, Olga and Maximilian Zaveskych, in Dobrichovice. The attribution of authorship of this project is uncertain¹² and the only documents received concerning the villa are the original drawings and the technical report kept by Zuzana Vojtová, grandson of the daughter of Hana Kučerová Zaveská.¹³

The villa, built on a slope, has two floors above ground level, a basement that occupies the drop of about 2.80 m and a roof terrace living space. It has a steel structure, which is pressed, plastered and straw coated.

The building consists of a compact and articulated volume with smooth, continuous surfaces, interrupted by large openings and from which protrude a large terrace on the ground floor to the north-west and a balcony on the first floor that visually reconstructs the angle diagonally opposite corner to the southeast (Fig. 6).

¹² The design drawings carry the signature of the engineer Duchoslavem.

¹³ The documentation guarded also includes the project for a garage to be realized on the edge of the site. It is dated 1934 and bears the signature of Czech architects Lva Krč and Stanislava Tobeka.

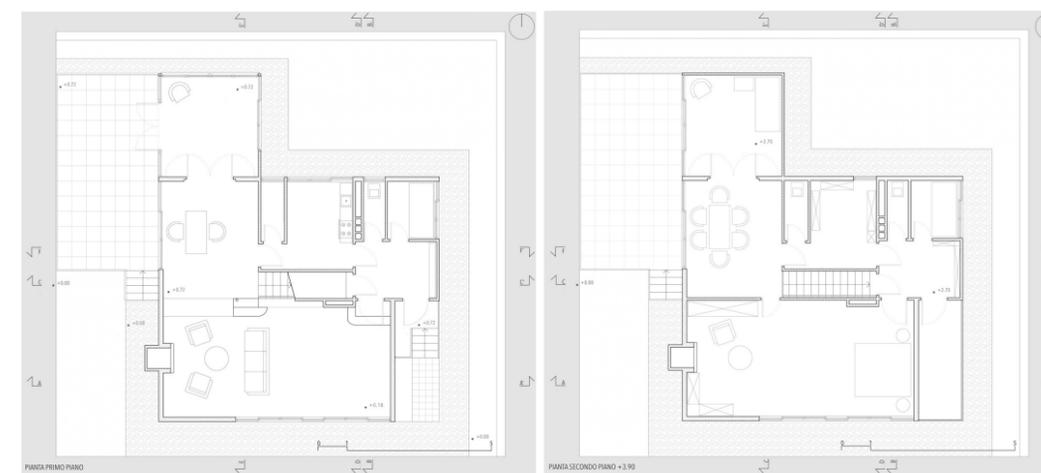


Fig. 7. Hana Kučerová Zaveská, Villa for parents Olga and Maximilian Zaveskych in Dobrichovice, 1933, plans. Drawings by Valeria Cinnirella.

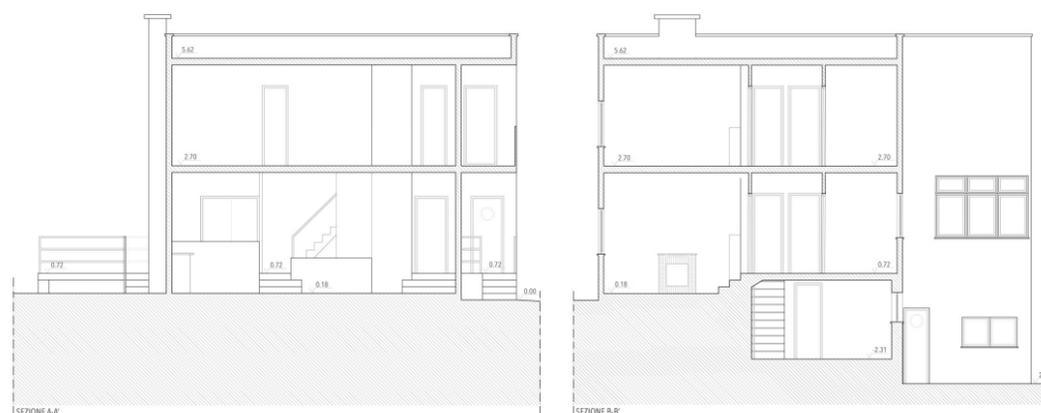


Fig. 8. Hana Kučerová Zaveská, Villa for parents Olga and Maximilian Zaveskych in Dobrichovice, 1933, sections. Drawings by Valeria Cinnirella.

The entrance to the villa on the ground floor is located to the south, in a recess of the volume and is covered by the balcony's first floor that serves as a shelter (Fig. 7). To access one must cross a small drop bridged by a ramp with five steps. One can access a hallway of which there are a utility room, a bathroom, a kitchen, a large compartment under the stairs, and the living room occupying the south area and whose tread surface dimension is lower than 70 cm compared to the rest of the plan. The west wall of the living room is characterised by the presence of a fireplace and the volume of its chimney juts outward from the west front going vertically from the ground up to the roof terrace. Through the kitchen, one arrives in the dining room which is located in the west of the house and is directly connected with the living room to the south and with the winter garden to the north. Through the latter you reach a large terrace, supported by three pillars, from which, through a ramp with five raised stairs, one arrives at the level of the ground below.

The inner staircase, which connects all levels, is at the centre of the house (Fig. 8).

The first floor includes the sleeping area. The arrangement of the partitions does not vary between the ground and first floor. Here, in correspondence with the large living room, there is the master bedroom, which occupies the entire south wing of the floor and has a fireplace and located above the winter garden is another bedroom.

The basement is in the north of the building, at the lower ground level (Fig. 9). Its drawing on the plan is given by a rectangle along the east-west axis which is partially flanked a square to the north-west. As there is a vertical drop of about 50 cm, these are placed at two different heights to accommodate the difference in ground level. This level includes the equipment rooms, laundry and boiler room. It is directly accessed from the level of the garden or from the ground floor, through the inner staircase, which connects all levels of the house.

The roof terrace is accessible through two external ladders. The first, very narrow, runs vertically to the entire north façade, from the level of the ground; the second directly connects the first floor balcony to the east with the covering floor.

Contrary to the *villa Balling*, here the types of frames used are reduced (Fig. 10). The north, south and west facades are characterised by a marked presence of ribbon windows at the ground floor and at the first one, while small openings identify the presence of bathrooms and all the basement windows. On the north, east and west facades higher windows point out and characterise the presence of the winter garden. As with *villa Balling*, the terrace, the balcony and the entrance staircase have railings realised by the repetition of four tubular elements, horizontally arranged and painted blue.

In this case, Hana Kučerová Zaveská oversaw the design of part of the villa's furniture. Some furniture, as in the *villa Balling*, help to define spaces and functions, such as the dresser placed between the living and dining room that isolates –physically but not visually– the two

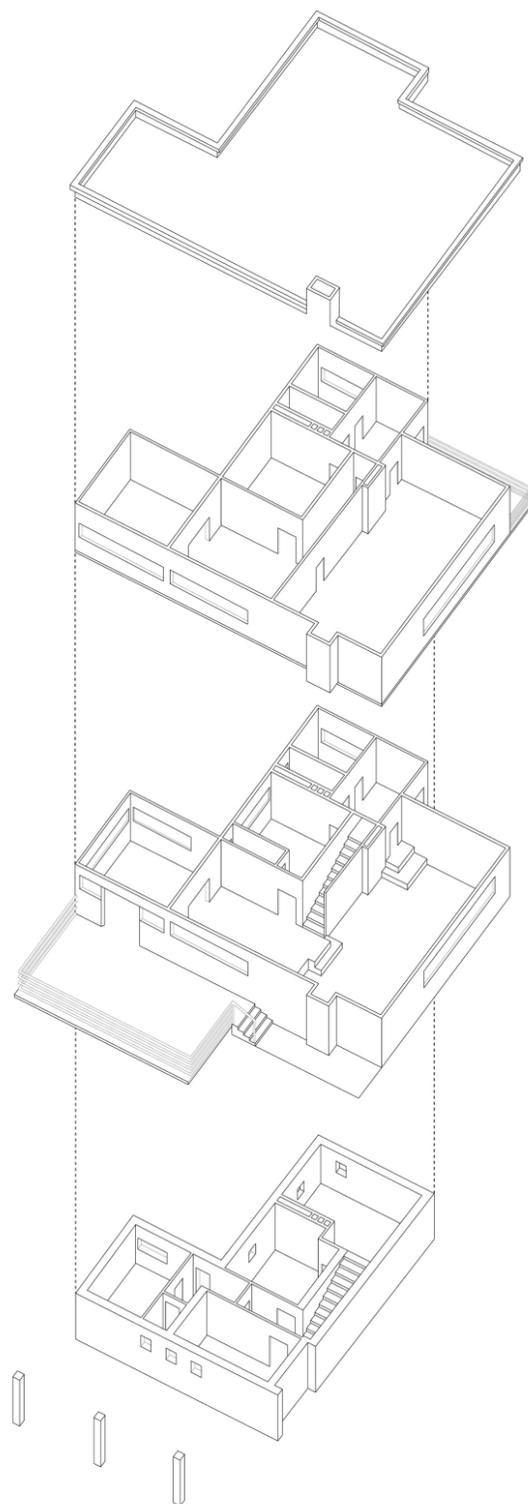


Fig. 9. Hana Kučerová Zaveská, Villa for parents Olga and Maximilian Zaveskych in Dobrichovice, 1933, exploded axonometric view. Drawings by Valeria Cinnirella.



Fig. 10. Hana Kučerová Zaveská, Villa for parents Olga and Maximilian Zaveskych in Dobrichovice, 1933, fronts. Drawings by Valeria Cinnirella.

functions and partially fills the difference in height between the two areas, or as in the case of the bookcase with the tea table that separates the staircase from the living room. Particular attention was given to the kitchen, organised in modern American style with appliances, cabinets, and drawers at hand, in order to facilitate the work of women.

The projects of Hana Kučerová Zaveská are here told through the representation of Monge projections and by three-dimensional digital reconstruction. The drawings made for this essay transcribe the available graphic documentation, derived from original works and with the help of published photos. The path of knowledge, aimed at understanding of the architectural organisms here analysed as a whole, and in relations between the parts, accomplished by redrawing and analysis of the houses, has led to a process of abstraction, synthesis, choice of sign, and element hierarchy to represent.

The isometric and perspective projections, derived from digital models, describe the architectures drawn by Hana Kučerová Zaveská and they reveal the spatial dynamics, trying not to betray the original qualities.

Redrawing the projects of Hana Kučerová Zaveská through new and unreleased representations and through graphical analysis, endeavours to provide an original key to the spatial thoughts of the architect.

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