During the Second World War the exceptional conditions of the conflict gave opportunities to women in several fields to challenge themselves in tasks normally undertaken by men. It was thanks to the opportunity to replace a man during the war that the English town planner, educator and editor, Mary Jaqueline Tyrwhitt, started her career. Called Jacky by friends and colleagues, she was born in South Africa in 1905, and spent her life across London, Toronto, Cambridge in the US, and Athens, where she died in 1983. It’s impossible to bestow a single definition on Jaqueline Tyrwhitt: during her life she worked as town planner, educator, coordinator, editor, secretary, curator, translator, and more. It’s not possible, either, to link her to a specific group. During her life she joined numerous national and international organisations and she also contributed to the foundation of institutions and forums of a global scale. The most relevant and famous institutions she worked for are the British Ministry of Information, the United Nations and the Graduate School of Design at the Harvard University. She helped and supported renowned scholars during her life, such as Sigfried Giedion, José Luis Sert and Constantinos Doxiadis, even though her name has rarely emerged in association with any one of them, except in very recent times. 1 After her death in 1983, in fact, no research was undertaken about the life and career of Jaqueline Tyrwhitt for nearly 20 years, until Professor Ellen Shoshkes from the Portland University and a few other scholars started to explore the subject. In particular, a fundamental contribution on the subjekt of this paper has been produced by the Professor Ines Zalduendo from the Graduate School of Design. 2

During her education Jaqueline studied at the Royal Horticulture Society, in London, where she obtained her diploma in horticulture in 1924. After studying at the Architectural Association, and at the London School of Economics until 1927, she moved to Germany to follow a Town Planning course, particularly Land Settlement, at the Technische Hochschule, Berlin University, in 1937. Due to the political situation in Germany, after a year she had to return to England, where she obtained an honour diploma at the School of Planning and Regional Reconstruction Development.

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2 Inès Zalduendo, "Jaqueline Tyrwhitt’s Correspondence Courses: Town Planning in the Trenches" (paper presented at Harvard University Graduate School of Design Special Collections, April 2005), 1–11.
This paper will present the very start of Tyrwhitt’s career in educational institutions. This represented the first episode of a lifelong series of occasions for Jaqueline to be involved in institutional reforms, editorial projects, and in the evolution of the town planning and architecture disciplines. The experience illustrated below was a fundamental training experience for Jaqueline herself and not just for her students: some of the principles introduced in the war correspondence course had been then implemented in the construction of the new faculty of Urban Design, inaugurated with Jose Luis Sert in 1959. The context where Jaqueline had the first opportunity to enter the educational system was the School of Planning and Regional Reconstruction (SPRR), founded in 1935 originally as a post-graduate extension of the Architectural Association. The School became an independent association in 1940 due to financial problems and internal politics. Although the level of its courses was recognised by the Town Planning Institute, the new SPRR had to be financially self-sustained with annual subscriptions from individuals and grants from professional and learned societies. In 1941 the SPRR, where Jaqueline had obtained a diploma years earlier, called her to temporarily replace E.A.A. Rowse, who had to leave for military service. Without any previous experience in education, Jaqueline became Director of the SPRR from 1941 to 1948. She supervised a small team with whom she proposed a new agenda for the Association, including education and research projects. For the research department she coordinated the production of a series of maps of Britain with the potential scale of consequences of decision making on an area beyond its boundaries was illustrated to justify the need of an effective integration between different aspects of the rural and urban planning.

The course was organised in three main parts: Background for Planning, Planning Factors and Planning Practice. Background for Planning contained a general introduction of basic concepts, such as the shaping of the urban environment, the land use policies and the importance of taking into account the nature of the existing context: Rural Community and Urban Community were illustrated as models in this part of the course, together with a brief history of town planning in Britain. Planning factors introduced social aspects of town planning and the methods to obtain information. A major part was dedicated to different kinds of survey and analysis, including social survey. For this part of the course, Jaqueline Tyrwhitt had the aid of the sociologist Ruth Glass, at the time considered a notable exponent of the field. A number of quite innovative concepts were introduced in the lectures, for example, the idea to establish a community centre integrated within the planning layout, to serve as a gathering place for the community and that was associated with democratic values. Another chapter of the Planning factors part included the list and structure of the institutions and local administrations entitled to be involved in planning decision, with their areas of influence. This was particularly important in operative terms, as the planners formed at the war correspondence course were trained to serve in the local town and county councils and therefore it was instrumental for them to know the system they would work in. Planning Practice, the third and last part of the course, considers planning to a larger scale and the necessity for regional surveys. One of the topics introduced was the concept of interdependence of planning decisions and their impact on the social and economic context. The potential scale of consequences of decision making on an area beyond its boundaries was illustrated to justify the need of an effective integration between different aspects of the rural and urban planning.

Some lessons concerned urban settlements as part of a wider system such us the attention dedicated to traffic and connectivity, the study of the relationship between the town centres and the open countryside, and the importance of woodlands. The last lesson, titled Interpretation of Survey, was dedicated to land use on a regional scale and the centrality of the analysis of the existing context. This is particularly representative of the influence derived from one of Tyrwhitt’s most important mentors: the Scottish biologist Patrick Geddes (1854–1932). During his life spent between the United Kingdom and India, Geddes introduced pioneering studies in urban planning. He explored the complex interaction between natural and man-made systems and coined neologisms such as the term ‘conurbation’. Geddes also extended the study of urban settlements to the regional scale, elaborated the ‘conservative survey’ as a design method in urban areas, and underlined the essential importance of the preliminary research on the existing contexts before proceeding to the draft of new proposals for a place. Moreover, he urged the study of the interrelationship between built form and social problems in the city. He was, in Tyrwhitt’s and others’ opinions, ‘the father of
the town planning, and his influence is well-reflected in Tyrwhitt’s work. The war correspondence course consisted of a sequence of lectures sent as booklets; theoretical and practical knowledge were closely related in every issue. The synthesis of knowledge in planning was very hard to achieve in the form of the few pages sent to the war front, and Tyrwhitt’s task consisted in coordinating the various contributions and editing the publication. One of the goals of the course was to introduce the concept of collaborative work: the program trained the students to work in teams and to relate to statistics and surveys made by professionals from other branches of knowledge. Probably the most innovative aspect introduced in the lectures was the bridging nature of the town planning field, which in Tyrwhitt’s mind had to mediate, translate and orient a multiple series of contributions from different experts. In her mind planners must be the final ‘shapers of the environment’ the conductors of the orchestra. The program of lectures and the structure of the school were practice-orientated. At the end of every part students had to complete a test, with written text, diagrams of sketches and plans, which had to be posted back and checked by the teaching board. Jaqueline Tyrwhitt was also in charge of putting together a team of individuals from different backgrounds and involving economists, planners, geographers and many other experts. The group in charge of writing the lectures was formed, finally, by thirteen specialists, plus other staff members also coordinated by Tyrwhitt. The graduates of the war correspondence course were qualified to be associate members of the Town Planning Institute.

The headquarters of the APRR, the association that ran the war correspondence course, was established in 153 New Bond Street, in London. During an air raid in London the building housing the APRR offices was damaged. However, Tyrwhitt managed the continued operations of the School with the important help of Judith Lebedoer (1901–1990). She, a successful architect and a leading force in post-war Britain, was also the co-founder, with two other women, of the Housing Centre in London.

Until 1947, the APRR worked on two fronts, research and education. They conducted research surveys in preparation for town and country planning schemes, and provided education to the hundreds of new planners that contributed to the reconstruction of the English and American cities. Because of the unconventional situation during the war Jaqueline had the opportunity to put into practice a multidisciplinary model, and the experience she gained with the SPRR was essential also for her approach in her course at the Harvard University where she started to teach in 1954. In this period she started her first lecture tour of foreign universities, sent by the British Ministry of Information to present Town Planning Policies under War Conditions in the US and Canada.

From these lectures Tyrwhitt extracted the contents to set a proper educational publication, titled *The Town and Country Planning Textbook*. On the back cover the publication is presented as ‘an indispensable book for town planners, architects, and students,’ and was finally published in 1950. The textbook was a compendium of different contributions selected from the lectures sent by post. It counted 29 authors of different disciplines, among them some long term collaborators of Tyrwhitt, for example Brenda Colvin, Ruth Glass, and some of her mentors, for example Sir George Pepler and Lord J. Forrester. The anthology is presented as a collection of studies that reflects the nature of the town planning discipline, demonstrating how it is not constrained by fixed boundaries and how it is cross fertilised by several branches of knowledge. Particular relevance is given to the comprehension of a survey method for the economic, social and geographic conditions of an existing context. The textbook was intended to be used as an introduction of all the subjects a planner should be aware of before making any judgement or planning decision. The design process is described as central in the work of the planner. All the elements of architectural design are described as essential and none —for example proportion, harmony and contrast, colour and unity— are subject to compromise.

Jaqueline wrote a chapter for the textbook, entitled ‘Survey for Planning’, where she ‘provides the first explicit discussion of ‘the overlay technique’. The layering concept was introduced in the 19th century in landscape architecture and planning. The maps, hand-drawn through sun prints produced on windows, have been used by professionals such as Frederick Law Olmsted, Lynn Miller and Charles Eliot, but it was only an operative procedure at the time, with no theoretical explanation. The method was known by different names, for example ‘the sieve method’, according to Sir George Pepler. It was popularised by Professor Eva Taylor, who taught Geography at Birkebeck College and was a prominent figure in that field in the UK. She was probably the person who taught Tyrwhitt about the method that consisted of the selection of a defined area, of which the surveyor draws several maps, each one representing a single feature from the survey, drawn on a transparent sheet of paper. All maps have to be to the same scale, with the same framing, and on every layer the surveyor should draught a recognisable element, such as a river or the coastal line. The different layers could then be placed one on the top of the other which allowed the surveyor to see how many factors co-exist in a particular place.

At the APRR Tyrwhitt worked for the production of maps with new survey methods, stimulated by Sir George Pepler who had pioneered the application of Geddes’ principles of regional survey in the field of planning, just as Taylor had in the field of applied geography. The cartographic

5 Milos Perovic’s interview to Jaqueline Tyrwhitt, in “Mary Jaqueline Tyrwhitt: In memoriam,” Ekistics 52 (September–October 1985).
6 Perovic, “Mary Jaqueline Tyrwhitt, 420.
9 Sir George Pepler papers, drawer 13 Box 4 Folder 9, University of Strathclyde Archives, Glasgow.
10 Shooshkes, Jaqueline Tyrwhitt, 62.
investigation was, in Tyrwhitt's mind, just part of a broader issue concerning scientific planning, and the research about survey tools aimed to provide instruments to read the existing reality of the city and to analyse new projects. Visual data can, in fact, convey large amount of information about space in a concise manner, whether the data concerns an existing condition or a new proposal. The overlay technique now constitutes the basis for all Geographic Information System (GIS) software, as for Computer Aided Design (CAD) and graphically-oriented software such as Adobe Photoshop. What started just as a survey method, but later became a design tool, and now the overlay technique is widely used in all technical drawing, analogue and digital. Especially from the 1990s both geography and spatial planning have seen a growing influence in using computational tools in spatial analysis and in spatial design. The layer technique is now a widely used system that helps to organise data according to their spatial location, and it is still applied on a daily basis by researchers and professionals.

The overlay technique was accepted and implemented during the reconstruction phase after the Second World War and for the application of the New Town Act, for which the course directed by Tyrwhitt had been founded and supported. Some of the students who enrolled in the course implemented the principles absorbed at the APRR. One of the students of the correspondence course offered by Tyrwhitt after the war was Ian McHarg, who later became a Scottish landscape architect and a renowned writer on regional planning. From Tyrwhitt's course he was introduced to the concept of suitability analysis, an important factor in his career. After the course McHarg committed himself to promoting a better relationship between the built space and the natural environment. He was convinced that one of the reasons why the environment was not properly integrated as an aspect in planning and design project was the lack of knowledge about the territory, and he used the overlay technique to quantify and display information, and make them meaningful. Later in his career McHarg worked on methods and techniques for ecological planning and he 'provided an orderly procedure for ecological planning. [...] This procedure involves overlaying mapped information to reveal opportunities and constraints for potential land uses.' The overlay technique was then been popularised by McHarg's work. This episode constitutes only one of the possible examples of the evolution to which Jaqueline Tyrwhitt contributed and which was triggered and promoted through her teaching and editing.

The real influence of the war correspondence course post-war is hard to measure, but certainly the breadth and depth of the studies at the APRR, both in terms of research and educational programs, has been extraordinary and had no equal at the time the course was launched. This experience might have been limited in terms of number of students, or number of publications, but clear signs of echo can be found in further experiences in Tyrwhitt's career, especially in the foundation of the Urban Design Faculty. What emerged from this investigation about Jaqueline's career is that her experience with the APRR was extremely important in shaping her personal thinking about architectural and planning education, and the result of this influence can be found in her late career at the Graduate School of Design at Harvard, for example, in the promotion of 'a model of training based both on theory and practice.' Jaqueline's choices for both the correspondence course and the textbook derived from her interest in crossing humanistic and scientific cultures, reflecting her though as educator and planner.

Jaqueline Tyrwhitt managed to transform a temporary and quite unstable situation, in this case the replacement as school director during the war, into a unique opportunity to experiment and venture into new paths for the development of a discipline, and the reconstruction of a country.

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