

WOMEN'S CREATIVITY SINCE THE MODERN MOVEMENT



POLITECNICO DI TORINO



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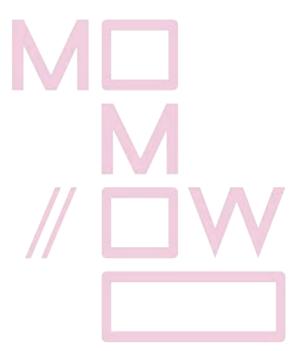
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Emilia Garda and Caterina Franchini

MoMoWo international coordinators





WOMEN'S CREATIVITY SINCE THE MODERN MOVEMENT



POLITECNICO DI TORINO



EUROPEAN CULTURAL HERITAGE

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Introduction

Fmilia Garda and Caterina Franchini

This book presents the 'conceptual architecture' of the MoMoWo Database for mapping women's cultural legacy and heritage in Architecture, Construction and Design, and includes annexes on some of the most significant practices, outputs and deliverables so far achieved, resulting from the cooperative research activity between all MoMoWo's international partners whom we directed at the Polytechnic of Turin (Polito). A collection of case studies enriches the volume by providing the reader with examples of specific thematic approaches at several geographical scales.

The conception of the Database with the application of a Geographic Information System (GIS) has opened the way to making maps of the careers of women architects, civil engineers and designers, and of their works in the fields of architecture, landscape architecture, urban planning, architectural and urban restoration, civil engineering, interior and furniture design, from the past to the present time.

The released online map, www.momowo.eu/database-webgis, displays part of the results issued from the principal research tool we created in order to build an interactive and participatory platform for sharing knowledge and fostering new studies that can pass the limits of our partnership in its future developments. According to this aim, we planned a 'conceptual architecture' that is suitable to guide data collection following a vision of a long-term work in progress.

From the technological point of view, Francesco Fiermonte, expert at the Laboratory of Sustainability and Safety for Social Challenges (Polito-DIST), has put into practice "An Open Source Approach for the MoMoWo GIS Database" that you will find in the first annexe.

Through the scientific methodological approach adopted for the Database, each multidisciplinary partner's team contributed to gathering the biographical data and data on the works by women at various stages of research. These stages comprised the preparation of the International Travelling Exhibition "100 Works | 100 Years | 100 Women" (which opened in July 2016 at the University of Oviedo), the cultural-tourist itineraries for the Guidebook MoMoWo. Women Architecture & Design Itineraries across Europe (published in September 2016), and the three international History Conferences/Workshops on women designers, architects and civil engineers between 1918 and 1989 (Leiden, 2015; Ljubljana, 2016; Oviedo 2017), as well as the Symposium Women's Creativity since the Modern Movement (1918–2018): Toward a New Perception and Reception (International Conference, Polytechnic of Turin, July 2018).

In the frame of the Database activity, the MoMoWo Polito's team created a special section devoted to Women's archives. Technical aspects concerning the presentation of archives and archival collections on the online map were covered by archivist Enrica Maria Bodrato of the History and Cultural Heritage Laboratory (Polito-DIST), and they are concisely illustrated in the second annexe "Searching for Women's Architectural Archives: The Italian Case Study".

Moreover, envisaging further developments of the MoMoWo Database, two members of Polito's scientific team, Roberta

Spallone and Marco Vitali (Polito-DAD), carried out feasibility studies for the creation of a "Collection of Digital Reconstructive Models" (annexe 3) of architectural works to be added to the archival section. By studying archival documents, the aim is to visualise in 3D those architectures that were demolished, transformed or changed on the drawings, thus allowing the preservation, interpretation and creation of images of cultural heritages that no longer exist in their original shape or remain unbuilt. Last but not least, three additional annexes enrich the book with illustrations and tables showing whose Database demonstration initiatives aimed to spread visibility and raise awareness about the cultural heritage created by women, via the social media output of our project as well as in local public events and guided tours on the architectural routes of the Guidebook.

The Portuguese team, led by Maria Helena Souto (IADE), produced the section "Women's Gallery" which has been posted on the MoMoWo Website and Facebook since 2015. Meanwhile, the Slovenian team, led by Helena Seražin (ZRC SAZU), has focused on the discovery of "Slovenian Women Pioneers" whose work-in-progress results were exhibited during the annual *MoMoWo Open Day in women's professional studios* (2015, 2016 and 2017). The last annexe "MoMoWo Travel, Tourism, Architecture Design and Women" by Marjan Groot (VU) presents some reflections on travel and tourism resulting from the 125 works by women architects and designers collected in the Database and published in our cultural-tourist itineraries.

All these initiatives have reverberated beyond the boundaries of our project, thus engendering an inspiring imitation process that is magnifying the MoMoWo mission, and giving voice to both material and immaterial women's cultural heritage in Europe and beyond.

Toward a 'Reshape' of Historical Narratives: Mapping Women's Legacy in Architecture, Construction and Design

Caterina Franchini

- Archivist Madame Camille Jocasta Nu: 'Are you having a problem Master Kenobi?'
- Jedi Knight Obi-Wan Kenobi: 'Yes, I'm looking for a planetary system called Kamino. It doesn't show up on the archive charts.'
- Camille: 'It's not a system I'm familiar with. Are you sure you have the right coordinates?'
- Kenobi: 'According to my information it should appear in this guadrant here.'
- Camille: 'I hate to say it, but it looks like the system you're searching for doesn't exist'
- Kenobi: 'Impossible, perhaps the archives are incomplete.'
- Camille: 'If an item does not appear in our records it does not exist.'

(Attack of the Clones, Star Wars – Episode II, 2002)

In our world, as in the fictional universe of *Star Wars*, it appears that not only places but also things, events or experiences do not exist without maps. Therefore, to reveal the tangible and intangible cultural heritage generated by creative women, and to facilitate scholars in engendering new genealogies, chrono-geographies and narratives of Architecture, Construction and Design, the MoMoWo team has worked on a model of a dynamic geo-referenced Database.

From 2014, the concept of the MoMoWo Database has always been to build a tool that I like to call a 'women detector' humorously; a device able to detect the points on maps corresponding to several sets of experiences of women, which feature the feminisation of the profession covering a hundred year period (1918-2018).

We are grateful to past and new initiatives that have created encyclopaedias or launched extensive campaigns such as "WikiD: Women, Wikipedia, Design", carried out by Wikimedia since 2015 to contribute to spreading knowledge about creative women, thus enriching opportunities for further developing our maps.

A Conceptual Architecture to Develop a 'Women Detector'

Beginning with the identification of sections, subsections and entries, we built a 'conceptual architecture' for data entering suitable to be carried out from a long-term perspective. This experience led the partnership to focus on working out a shared methodology to be applied for the analysis carried out in each research activity and to guide the choice of topics of peer-learning international initiatives, namely the yearly History Workshops and the MoMoWo Symposium 2018 (Polytechnic of Turin, June 2018).

The three MoMoWo History Workshops have been planned to cover, respectively, the first three macro historical periods, each one reflected in the Database as an *Activity Period*. These periods were previously defined according to significant cultural, social and political changes in Europe.

The 1st Activity Period (i.e. 1918–45), between the end of the two World Wars, witnessed the official entry of women into the building and design profession when those 'women pioneers' who graduated at the end of the nineteenth century started to realise their projects. The 2nd Activity Period (i.e. 1946–68), between the end of the Second World War and the socio-cultural revolution of 1968, was a time of expanding opportunities for women in construction, architecture and design.

More large production of works characterises the *3rd Activity Period* (i.e. 1969–89) until the Fall of the Berlin Wall, due to the 1968 uprisings in Europe and ensuing feminist claims for women status equality. The topics of the Symposium covered the entire chronology of

the research from 1918 to 2018, including the *4th* Activity *Period* (i.e. 1990-2018) that was marked by the end of Socialist regimes in Eastern Europe and the new chances that increased globalisation created for women working in the design and architecture fields.

In its several advancement phases, the Database is progressively increasing the visibility of the neglected and forgotten works of female authors to favour their knowledge, protection, conservation, restoration and enhancement by also making the data collected available for the launch of promotional campaigns such as the *Pioneer Architects Women in Architecture* of the open source catalogue of the worldwide architecture community, *Architectuul*.¹

Starting from a survey of state of the art,² on both printed and digital sources, sharing our previous research experiences³ as well as taking into account remarks and suggestions we received during several presentations,⁴ Polito's team designed a prototype organised into sections and subsections (data forms), as listed below:

¹ See Boštjan Bugarič, "Pioneer Architects: The Open Source Catalogue Architectuul," in MoMoWo Symposium 2018. International Conference. Women's Creativity since the Modern Movement (1918–2018): Toward a New Perception and Reception. Programme and Abstracts (Politecnico di Torino, Campus Lingotto, Turin, Italy, June 13–16, 2018), edited by Caterina Franchini and Emilia Garda, (Turin: Politecnico di Torino, 2018), 179.

² For a critical presentation of the results of this survey, see Caterina Franchini, "Women in the History of Architecture and Design. Sailing to a New History," in *MoMoWo: 100 Works in 100 Years. European Women in Architecture and Design, 1918-2018*, edited by Ana Mária Fernández García, Caterina Franchini, Emilia Garda and Helena Seražin, (Ljubljana: ZRC SAZU, France Stele institute of Art History, ZRC Publishing House, 2016), 238–43. The essay presents the results of a broad review of the literature carried out by the author.

³ In 2015, Polito organised two working meetings of the Scientific Committee, whose members were Alain Bonnet, Ana Mária Fernández García, Caterina Franchini, Emilia Garda, Marjan Groot, Sara Levi Sacerdotti, Helena Seražin and Maria Helena Souto.

⁴ Caterina Franchini, "Il progetto MoMoWo: la creazione di un Database" (lecture at the *Course of Architettura Tecnica/Building Construction*, Politecnico di Torino, March 12, 2015); Id., "MoMoWo. From a European project to the generation of a 'Matrix'. Database on 'creative' European women from 1918 to 2018" (paper presented at the *Second International Congress on Architecture and Gender: Matrices*, LABART Lusófona University, ULHT, Lisbon, March 18–21, 2015); Id., "Le Projet Éuropeen MoMoWo et sa Base de données" (paper presented at the *Journée d'étude doctorale en histoire de l'architecture: Femme, architecture, ville et paysage*, Institut National d'Histoire de l'Art - INHA, Paris, June 5, 2015). These presentations involved several audience targets, namely students of engineering, PhD students, international scholars and educational staff, hence providing feedback from a variety of point of views.

- 1.0 Identification Data
 - 1.1 Family Background
- 2.0 Education
 - 2.1 Post-Graduate Education
- 3.0 Professional History
 - 3.1 Professional Position(s)
 - 3.2 Professional Partnership(s)
 - 3.3 Professional Affiliation(s)
 - 3.4 Membership to Network(s)/Association(s)
- 4.0 Works
 - 4.1 Unrealized Works
 - 4.2 Patents
 - 4.3 Collaboration with magazines/journals
 - 4.4 Exhibitions
- 5.0 Prizes and Awards
- 6.0 Writings, Bibliography, Webliography and Archives

The ideal structure of this prototype is sophisticated, and it was conceived for managing and inweaving a large number of data throughout 'one-to-one', 'one-to-many' and 'many-to-many' relationships. A data field into a data form can be associated with one or more data in other data forms, enabling multiple queries for aggregating sets of similar data and producing a series of different maps. Rather than reporting on the long process that defines the sixteen data forms of the Database demo, and their data fields including choice-type fields (e.g. combo-boxes and drop-down menus), I prefer to mention the type of maps achievable by focusing on some relevant data fields that drive the acknowledgement of the specificity of our research topic.

Some spot examples are addressed to provide evidence of the variety of issues and analyses carried out, or taken into account, and which allows me to point out different matters including the cultural gender barriers that we have to recognise in order to generate new 'gender balanced' narratives within the History of Construction, Architecture and Design.

Identification beyond Changing Boundaries

Beginning with the data form *Identification Data* (1.0), the issue of finding the 'women names' –entries: *first name, maiden name, married name*– already says a lot about the gender cultural barriers we found in our investigation.

In disciplinary literature –History of Construction, Architecture, and Design– the names and surnames of the works' authoresses appear in most of the cases in a non-univocal way, reflecting the variety of customs and traditions of different geographical and socio-cultural contexts. In some Northern European countries, the married-name precedes the maiden-name, and these two are united with a hyphen, becoming a unique name.

Very often, past and present historians and critics use the married-name of the authoress even when they refer to a period of professional activity when the authoress was not yet married. In this text, in an attempt to be consistent with the Database entries, I have chosen to mention the maiden name first followed by the name of the spouse. Sometimes, maiden names are not known or have been consigned to oblivion by their lack of use. Consider that especially, until the last century, married women took the surname of their spouses, professionally as well as personally. We can trace the reasons for this custom back to the rules and roles of the patriarchal society that still today resists attempts to overcome it.

The identification of women authors has proven to be further hampered by the fact that even their first names are often not mentioned in full, or they are dissimilar to their officially registered names. As the research proceeded, I noticed that all over Europe it was customary for women, more than men, to adopt the nickname used in private life in their profession as well. For instance, in considering women pioneers, among many others,⁵ I should mention the case of Finnish

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Just consider the most well-known ones i.g. Gae (Gaetana) Aulenti, Lina (Achillina) Bo Bardi, Cini (Maria Cristina) Mariani Dameno Boeri, Jela (Gabriela) Ferrario Mari, Liane (Juliana) Ficher Zimbler, Anni (Anneliese) Fleischmann Albers, Lux (Luise) Guyer, Grete (Margarete) Lihotzky Schütte, Ko (Jakoba Helena) Mulder, Gunta (Adelgunde) Stölzl.

engineer and architect Olivia Mathilda Lönn (Onkiniemi, 1872 – Helsinki, 1966) who participated in numerous architectural competitions under the short name of Wivi, succeeding in realising dozens of public buildings. She studied at the building industry section of the Tampere Technical Institute and in 1896 she graduated in architecture at the Helsinki Polytechnic, becoming the fifth female graduate architect from Finland, but the first to work independently.⁶

Are there any reasons for such a widespread use of diminutives? Does the diminutive epitomise a *diminutio* of professional self-confidence or does it instead reveal an attitude of inseparable union between private and working life?

Rather than engaging in unfounded speculations, I prefer to focus on the objective fact that makes the search for pioneering women in published historical sources difficult. In specialist magazines from, in the main, the first half of the past century, it was customary to mention only the initials of the given name, therefore it is impossible to know from these sources —which are the richest in data as well as the most accessible—whether the author of a work was a woman or a man.

Sometimes women architects would sign articles and publish works with the initial of their name only, to protect their work and their professionalism from gender bias in a predominantly male field, and in some cases they even worked under a pseudonym for other reasons. For example, the avant-garde articles signed Dreyfus-Sée, published in André Bloc's magazine *L'Architecture d'Aujourd'hui* after the Second World War, are written by the French architect and historian Geneviève Bechmann (Paris, 1904 – 1997, graduated in 1934) who used her husband's surname. Before the war, she had instead written and illustrated her pioneering books on educational learning –recognised

⁶ Olivia Mathilda Lönn is featured in the MoMoWo Exhibition. See also Wenche Findal, "To the History of Women Architects. Pioneers of North European Countries," in *MoMoWo: 100 Works in 100 Years*, 256–57. Among the sources of reference for the identification of Finnish women architects are: Ulla Markelin and Suomen Rakennustaiteen Museo, *Profiles: Pioneering Women Architects from Finland*, (Helsinki: Museum of Finnish Architecture, 1983), Exhibition catalogue; Renja Suominen-Kokkonen, *The Fringe of a Profession: Women as Architects in Finland from the 1890s to the 1950s*, (Helsinki: Muinaismuistoyhdistyksen aikakauskirja, 1992).

as references in the great movement of New Education in France–under the pseudonym of Amélie Dubouquet. The reason was related to the racial persecution, as she was the daughter of the architect Lucien Adolphe Bechmann (1880–1968) who belonged to the Jewish upper middle class of the Parisian Belle Époque.⁷

The first woman to create a real built work in the Netherlands was Dutch architect and designer Margaret Kropholler Staal (Haarlem, 1891 – Amsterdam, 1966).⁸ At the time she was employed in the architectural firm run by her brother and by her future husband, Jan Frederik Staal, and she initiated her career as an independent designer under the pseudonym Greta Derlinge. Under her alias, in 1913 she realised a model house for the exhibition De Vrouw 1813-1913 (The woman 1813-1913) conceiving its layout, endowing it with modern conveniences and designing the furniture. She continued to improve the condition of women through her careful interior and furniture home design, and from 1948 she was a member of the National Council of Women and president of the housing committee of the Dutch Council of the Home from 1950 to 1956.⁹

Identifying the many names of a creative woman is an essential step in collecting data from an ever-growing variety of sources –censuses, inventories, publications, platforms and websites– as well as bringing to light archival collections and documents that lie unexplored

⁷ Regarding women's pioneering architecture in France, see Stéphanie Mesnage, "Women and Their Professional Activities in Architecture, France 1918–1945," in *MoMoWo. Women Designers, Craftswomen, Architects and Engineers between 1918 and 1945*, Series Women's Creativity 1, edited by Marjan Groot, Helena Seražin, Caterina Franchini and Emilia Garda, (Ljubljana: ZRC SAZU, France Stele institute of Art History, ZRC Publishing House, 2017), 118–29. https://doi.org/10.3986/wocrea/1/momowo1.6.

⁸ She is featured in the MoMoWo Exhibition and some of her works are included in the MoMoWo Guidebook, see Josh Crowle and Marjan Groot, "Atelier Roland Holst, Margaret Kropholler Staal," in *MoMoWo: 100 Works in 100 Years*, 24–25; Marit Eisses, "Country Villas," in *MoMoWo. Women Architecture & Design Itineraries across Europe*, edited by Sara Levi Sacerdotti, Helena Seražin, Emilia Garda and Caterina Franchini, (Ljubljana: ZRC SAZU, France Stele institute of Art History, ZRC Publishing House, 2016), 154; Marjan Groot, "Margaret Kropholler (1891–1966) Pioneer," Ibid., 175–76.

⁹ A source is Ellen van Kessel and Marga Kuperus, *Margaret Staal-Kropholler, Architect 1891-1966*, (Rotterdam: Uitgeverij, 1990).

in archival labyrinths, with the ultimate goal of supporting historical studies about women legacy and heritage.

In the *Identification* section, the entries *Date and Place of birth and death*, *First and Second nationality* (linked to *Education* and *Works*) can generate chrono-maps showing the distribution of women professionals in the countries of Europe, by disclosing where these women received the professional opportunities to stand out. In addition, they can suggest new broader geographies of the European cultural heritage created by women. Through these entries, the research has already brought to light the fascinating and historically challenging topic of migrations of pioneer women from and to Europe, and the related geographical spread of both their cultural legacy and tangible heritage that must be further studied, highlighted and protected as part of our history.

By considering the first half of the twentieth century, the subject matter of migrations of professional women is part of the context of policies that have marked the history of the European continent and which range from the foundation of the Palestinian state to racial persecutions; to the imperialistic policies and expansionist colonial policies of every single country.

Among Jewish women, there are numerous paradigmatic cases of those who were born and trained in architecture in Europe and then succeeded in their career in Israel. ¹⁰ Born in Germany into a family of Zionist sympathisers, Charlotte, called Lotte Cohn (Charlottenburg, 1893 – Tel Aviv, 1983) played a vital role in the architectural construction of Israel for almost half a century. She was the third woman to graduate in architecture from the Charlottenburg Higher Technical School and worked at the post-war reconstruction of East Prussia villages.

¹⁰ Among the sources of reference for the identification of the German-speaking Jewish women-architects in Palestine, and more in general German Jewish women-architects, are: Myra Warhaftig, Sie legten den Grundstein. Leben und Wirken deutschsprachiger j\u00fcdischer Architekten in Pal\u00e4stina 1918-1948, (T\u00fcbingen: Wasmuth, 1996); Myra Warhaftig, Deutsche j\u00fcdische Architekten vor und nach 1933: das Lexikon: 500 Biographien, (Berlin: Reimer, 2005).

When she emigrated in 1921, she was the first female architect of Mandatory Palestine, and, in 1923, she was the only woman among the founding members of the Palestine Architects Association (Jerusalem).

In the early 1930s, Lotte Cohn was also the first woman to open her own agency in Tel Aviv. From the same years come her model homes for housing estates for immigrant German Jewish families and the office building Chimon Binyan in the legendary White City district of Tel Aviv (planned from 1925), an epitome of the Modern Movement in the history of architecture. Nevertheless, her most famous work, the Pension Kaete Dan (1932) on Tel Aviv beach, was destroyed. The same fate affected women's Modern architectural heritage in Tel Aviv, such as the Blue Villa (1932) and the famous Galina café on the site of the Levant Fair (Eastern Fair), both built by the Russian born Eugenie, known as Genia Averbouch (Semlia, 1909 – Tel Aviv, 1977).

After having undertaken her studies in architecture in Rome and Ghent, Genia Averbouch graduated at the Academy of Fine Arts in Brussels in 1930. Back in Palestine, she built the Blue Villa together with her husband, architect Shlomo Ginzburg (1906–1976), while the Galina café was a cooperative project with the architect and designer Elsa Mandelstamm Gidoni, born in Latvia (Riga, 1901 – Washington, D.C., 1978). The latter, under the name Elsa Gidoni, on the site of the Levant Fair, built the Swedish pavilion and a modern basilica with flat roofs, and in 1937, she participated with Lotte Cohn in the contest for the retirement home of Ramot Haschavim (not built), moving to New York a year later where she began her extraordinary career.¹²

¹¹ Regarding the works of this outstanding architect, see Ines Sonder, *Lotte Cohn: pioneer woman architect in Israel. Catalogue of buildings and projects = Loteh Kohen: ḥalutsat ha-adrikhalut be-Yiśra'el*, (Tel Aviv: Bauhaus Center, 2009). Exhibition catalogue.

¹² Elsa Mandelstamm Gidoni studied at the Academy of Fine Arts in St. Petersburg, then at the Royal Technical College Charlottenburg (now Technical University Berlin). After having made a name for herself in the professional press for her modern dining room dresser, realised by Hellerau Deutschen Werkstätten, she emigrated to Palestine (1933–38) and opened an agency in Tel Aviv. She won many architectural competitions among which were the agricultural school for the WIZO (Women International Zionist Organization), built in 1936. In 1938, she left Palestine for New York and in 1943, she enrolled as a member of the American Institute of Architects (AIA).

Like Lotte Cohn, Genia Averbouch also worked (1935–36) for the White City where, in the main central square Zina-Dizengoff, the symbol of the Bauhaus architecture, 13 she built the Mirenbourg and Messeri residences to which her name is mainly related despite her abundant and outstanding professional production. In the 1940s, she led the planning department of Tel Aviv and is still one of the most renowned architects of the local Architectural History.

Among pioneers interior designers, it is worth mentioning Dora Siegel Gad (Câmpulung, Romania, 1912 – Caesarea, Israel, 2003) and Juliane Angela, known as Liane, Fischer Zimbler (Přerov, Czech Republic, 1892 – Los Angeles, 1987). ¹⁴ They both trained in Vienna, Dora as architect-engineer at the Technical School, and Liane at the School of Decorative Arts; they made a name for themselves by moving to Palestine and California respectively.

Having emigrated to Palestine with her husband (architect Yehezkel Goldberg) in 1942, Dora Gad set an agency with him. After the foundation of the State of Israel, first with Goldberg and, after his death, with architect Arieh Noy, Dora Grad largely contributed to the creation of the image of the new State through a wide range of projects. ¹⁵

Among the major achievements of the Gad-Noy agency are the developments of the Israeli Parliament Building, the Knesset (1966), and the Israel Museum (1965) that won the Architectural Prize of Israel in 1966. The same year, Gad received another prize from the Italian magazine *Domus*. ¹⁶

Liane Fischer Zimbler was the first woman in Austria to pass the

¹³ See Nitza Metzger-Szmuk, *Des maisons sur le sable - Tel Aviv: Mouvement Moderne et esprit Bauhaus = Dwelling on the dunes - Tel Aviv: Modern Movement and Bauhaus ideals*, (Paris: Eclat, 2004).

¹⁴ She is featured in the MoMoWo Exhibition. See Ana María Fernández García, "Panzer Residence, Liane (Juliana) Ficher Zimbler," in *MoMoWo: 100 Works in 100 Years*, 70–71.

¹⁵ Among her projects are the residences of the Minister of Foreign Affairs and the Prime Minister (Jerusalem, 1950) and the National Library (Jerusalem, 1956), the interior design of the ships of the national company Zim (1955–75), and that of the El Al Britannia aircraft.

¹⁶ See Ran Shechori (ed.), Boaz Ben Menease and Richard Flantz (trans.), *Dora Gad, the Israeli presence in interior design*, (Tel Aviv: Architecture of Israel, 1997).

Zivilarchitektenprüfung (the architectural examination) in 1938.¹⁷ The same year, following the *Anschluss* (the annexation of Austria into Nazi Germany) she was forced to emigrate to the United States, becoming a US citizen and a member of the American Institute of Interior Designers and the Association for Women in Architecture in 1943. In California, she made a name for herself in interior design and exhibition set-design and collaboratively realised several houses in Los Angeles and Beverly Hills.¹⁸

Emblematic figures of migration from and to the European continent linked, for example, to the British foundation of the Commonwealth of Australia or the French colonization in Africa, are the United Kingdom-born, pioneer of modern landscape architecture in Australia Edna Walling (York, 1895 – Nambour, 1973) and the Algeria-born architect Georgette Angeline Jacqueline Cottin-Euziol (El-Affroun, 1926 – Antibes, 2004).

Edna Walling spent her childhood in Devon countryside, absorbed by drawing its nature; she then brought the principles of the celebrated British garden designer Gertrude Jekyll (London, 1843 – Munstead Wood, 1932) to Australia, where she had moved with her family in 1914, becoming a foremost landscaper of the Commonwealth. As a precursor, she has bequeathed hundreds of gardens in which Australia's rich native flora masterfully blends with species imported from Europe. In addition, her 1940s books have spread her vision of garden art across generations.¹⁹

¹⁷ Regarding Austrian women architects, see Anne Bauer, Ingrid Isabella Gumpinger, and Eleonore Kleindienst (eds.), *Frauenarchitektouren. Arbeiten von Architektinnen in Österreich*, (Salzbourg: Anton Pustet, 2004).

¹⁸ See Elke Krasny, Stadt und Frauen. Eine andere Topographie von Wien, (Vienna: Metroverlag, 2008); Iris Meder, "Women Designers and Architects in Early Twentieth Century Vienna," in Women's Creativity since the Modern Movement (1918–2018): Toward a New Perception and Reception, edited by Helena Seražin, Caterina Franchini and Emilia Garda, (Ljubljana: ZRC SAZU, France Stele institute of Art History, ZRC Publishing House, 2018), 24–31.

¹⁹ Edna Walling's books are Gardens in Australia: their design and care (1943); Cottage and Garden in Australia (1947) and A Gardener's Log (1948). For her life and works, see Trisha Dixon and Jennie Churchill, The Vision of Edna Walling: Garden Plans, 1920-1951, (Hawthorn: Bloomings Book, 1998); Sara Hardy, The Unusual Life of Edna Walling, (Crows Nest: Allen & Unwin, 2005). Regarding women pioneers in landscape architecture, see Caterina Franchini and Emilia Garda, "Audaci e selvagge. Le pioniere del paesaggio | Audacious and wild. The landscape pioneers," Area 152 (2017): 108–09.

The village of Bickleigh Vale, which she built near Melbourne, is listed as a heritage site.

The life and professional career of architect Georgette Cottin was undeniably affected by the political stakes of her time. Trained in Paris at the Special School of Architecture and School of Fine Arts (1947–56), she left her mark in Algeria (1956-61, 1963-78), Switzerland (1961-63), France (1978-92) and Russia (1992-98). An active member of the Algerian section of the communist party, Georgette Cottin was sentenced to death by the Organization of the secret arm (OAS) because of her militancy in favour of Algeria independence. Forced to leave the country in 1961 despite the fact she already had built hospitals, schools and a large housing estate in Algiers, she took refuge in Geneva where she built the first Consulate General of Algeria (1963). After independence, Georgette Cottin returned to Algeria, and having joined the Algerian Communist Party, she received prestigious commissions. This time, she became a target of Algerian anticommunism and left Algeria for France in 1978. In 1994, she participated in the reconstruction of the new republics resulting from the dissolution of the Soviet bloc. She realised important buildings in the Russian Far East on the Sea of Japan, and the Presidential Palace of Chechnya in Grozny (1996). Despite her incredible body of works, she remained unknown until the exhibition 2004: Le Visage de l'Esprit: Georgette Cottin-Euziol. Retrospective de l'œuvre architectural.²⁰

Several women pioneers succeeded in fully practising their profession by moving to other continents, and some of them have managed to acquire a solid professional reputation after the Second World War in Latin America, such as the Italian-Brasilian architect and furniture designer Achillina Bo Bardi, known as Lina (Rome, 1914 – São Paulo, 1992).²¹ After her graduation from the University of Rome in 1939,

²⁰ Regarding her work, see Assia Samaï Bouadjadja, "Georgette Cottin-Euziol between the Beaux-Arts Spirit and the Philosophy of Modernity," *Docomomo Journal 38* (2008): 9–11. The Cottin-Euziol Fund is at the Departmental Archives of Bouches-du-Rhône.

²¹ She is featured in the MoMoWo Exhibition see Margherita Bongiovanni, "MASP São Paulo Museum of Art. Lina Bo Bardi," in MoMoWo: *100 Works in 100 Years*, 100–01.

she collaborated with Gio Ponti (Giovanni Ponti,1891–1979) at the magazine *Lo Stile - Nella casa e nell'arredamento* until 1943, and she was the deputy editor of *Domus* from 1944 to 1945. She also worked in exhibition set design but did not receive significant commissions to build architectures in Italy. Instead, she started to build after having emigrated to Brazil in 1947 with her husband, the art dealer and art critic Pietro Maria Bardi. Although she is one of the most famous female architects of her time, the tangible and intangible cultural heritage she left still requires further investigation as the numerousness of papers presented at the MoMoWo Workshops and Symposium has proven.²²

Among those European women who made their careers in Brazil is the French-Brasilian designer and artist, Marie Anne Antoinette Hélène Peretti, known as Marianne (Paris, 1927). Trained at the Académie de la Grande Chaumière and National School of Decorative Arts in Paris, she moved to Brazil, where she was the only woman to be part of Oscar Niemeyer's team, which she joined in 1974. She collaborated with the famous Brazilian architect for twenty-five years, creating her masterpieces in Brasilia (Jaburu Palace, Pantheon and JK Memorial), including the 2240 square meters of stained-glass windows of the Cathedral (1988), which is among her masterpieces.²³

The migration of professionals to Latin America, but also to China or Arab Emirates countries, is still a topical issue that also involves the younger generations of professional women who, due to the recent economic crises of the second millennium, have had to emigrate to

²² The papers presented at the 1st and 2nd Historic Workshops (Leiden, 2015; Ljubljana, 2016) are Francesco Maggio, "Lina Bo Bardi: Unbuilt in Sicily"; Vincenza Garofalo, "Three Projects for Council Houses by Lina Bo Bardi. From Virtual Reconstruction to Graphical Analysis"; Mara Sanchez Llorens, "(Re)discovering the Objects and Actions of Lina Bo Bardi". The papers presented at the Symposium 2018 (Turin) are Alessandra Criconia and Elisabeth Essaïan, "Learning from Lina: An Architecture of Twentieth Century for Nowadays"; Ana Carolina Pellegrini and Marta Silveira Peixoto, "Lina Bo Bardi's MASP: Concrete Remaking, Design Restoring"; Cláudia Costa Cabral, "Lina Bo and the Aqueduct of Cars".

²³ The first book on this outstanding creative woman is Tactiana Braga (ed.), Marianne Peretti, l'audace de l'invention | A Ousadia da invencao, (Recife, Pernambouc: B52 Desenvolvimento Cultural, Brazil, 2015).

seek professional opportunities. In this book, Ana Mária Fernández García presents the case study on "Spanish Women architects in Latin America". The development of migration mapping is one of the lines of research that we aim to carry out in the future.

To complete the *Identification*, the *Family Background (1.1)* subsection comprises the data fields *Profession of the father/mother, brother(s)/* sister(s), and Other relatives with the same profession (choice yes/ no). This subsection is very revealing especially for those women active in the first and second Activity Period; in fact, most of these women belonged to families of professionals in architecture, construction and design that encouraged and supported girls to cross socio-cultural boundaries to undertake education in their same field. To provide an idea of the links set with the next sections, *Education* (2.0), Professional History (3.0) and Works (4.0), I mention here two architects, one of the first generation and the other from the second generation of pioneers; respectively, British Elisabeth Scott Whitworth (Bournemouth, 1898–1972) and Swiss Beate Schnitter (Zurich, 1929). Elisabeth Scott followed the teachings of the Architectural Association of London from 1919 to 1924 (section 2.0) inspired by the example of her great-uncles, the famous architects Sir George Gilbert Scott (1811–1878) and George Frederick Bodley (1827–1907). She was the first woman to win a major architectural competition in Britain, and also the first to receive a major public commission; in 1928, her project for the International Shakespeare Memorial Theatre Competition (Stratford-upon-Avon) was selected from 72 anonymous folders (section 4.0).²⁴ Her win, which galvanised British women architects, played a crucial role in encouraging girls to enrol in schools of architecture, including her Dutch-British project assistant Judith Geertruid Ledeboer (Almelo, 1901 – Hambledon, 1990)²⁵ who, like Elisabeth Scott,

²⁴ This work is featured in the MoMoWo Exhibition. See David Álvarez Villarín, "Shakespeare Memorial Theatre, Elisabeth Scott Whitworth," in *MoMoWo: 100 Works in 100 Years*, 40–41.

²⁵ She is featured in the MoMoWo Exhibition, see Ana María Fernández García, "Sideboard, Judith Ledeboer," in *MoMoWo: 100 Works in 100 Years*, 68–69.

graduated in 1931 from the Architectural Association of London.²⁶ Beate Schnitter seemed to be predestined to architecture as the niece of the first female Swiss architect Luise, known as Lux Guyer (Zurich, 1894–1955)²⁷ and daughter of the engineer Erwin Schnitter. Before her graduation from the Polytechnic of Zurich in 1953 (section 2.0), due to her father's profession, she moved to Ireland and the Netherlands where she attended various types of schools with innovative pedagogy. This educational experience strengthened her sensitivity to social matters, marking her future professional history. When in 1955 she inherited her aunt's architectural agency, Lux Guyer, her commitment was to support women architects, and three years later she engaged in urban planning and politics as a co-founder of the ZAS Zurich Urban Planning Group (section 3.0). She was one of the few of her generation who publicly discussed the place and role of women in those fields.²⁸

Education between Barriers and Opportunities

The data fields concerning *Education* (2.0) may enable visualising chrono-maps of a variety of educational institutions where women received their education (*Decorative art schools, Fine Art Academies, Polytechnics, Technical schools, Universities* and *Other*) through dynamic links.

The Education qualification(s)²⁹ is significant when compared to their

²⁶ During the war, Judith Geertruid Ledeboer was the first female architect employed at the Ministry of Housing (*Professional Position 3.1, employee*). Among the sources of reference for the identification of British women architects: Judy Attfield and Pat Kirkham (eds.), *A View from the Interior. Feminism, Women and Design History*, (London: Women's Press, 1988); Lynne Walker (ed.), *Women Architects: Their Work*, (London: Sorella Press, 1984), Exhibition catalogue.

²⁷ Lux Guyer is featured in the MoMoWo Exhibition, see Eliana Perotti (*errata*), Katia Fray, "Masterplan of SAFFA Exhibition 1928, Louise (Lux) Guyer," in *MoMoWo: 100 Works in 100 Years*, 42–43.

²⁸ Among the sources, see Inès Laumière, Flora Ruchat-Roncati and Beate Schnitter, *SAFFA* 1928, 1958... 1988?: und heute, (Basel: Architekturmuseum, 1989); Hannes Ineichen (ed.), *Beate Schnitter. Bauten und Projekte* 1955-2005, (Sulgen: Niggli, 2005).

²⁹ Educational titles selectable from the drop-down menu are: Architect, Artist, Civil Engineer, Craftsmen, Drawer, Furniture Designer, Horticulturist, Industrial Designer, Interior designer, Landscape designer, Surveyor, Urban Planner, and Other.

Field/s of work. Women graduated in architecture often also worked as interior designers or as furniture designers; women artists were active in many different fields of design including textile, ceramics and light; civil engineers designed architectures as engineers-architects.

To share knowledge and further our international mappings on this subject, for the MoMoWo Symposium 2018 we organised a plenary session and three parallel sessions under the title *Women's Education and Training: National and International Mappings* (Chair: Helena Seražin). The lectures focused on Austria, Croatia, Italy, Spain, Switzerland, Poland, Russia and Ukraine; and also covered non-European countries such as Canada and Nepal.³⁰

Professor/s (dynamic link), Barriers faced in the educational system, and Contacts and situations that facilitated education (choice yes/no, plus Notes text boxes) are relevant entries concerning women pioneers that ran up against real barriers to joining architecture or civil engineering courses, or specific design fields considered not suitable for female students.

Sometimes, the constraints were also of a political nature, as was the case for Russian architect Elena Novikova (Moscow, 1912–1996).³¹ Born before the October Revolution into a family of wealthy traders, she succeeded in passing the entrance exam of the legendary Vkhutemas (Higher Art and Technical Studios, Moscow) in 1929, when women constructivist artist and textile designers such as Varvara Stepanova (1894–1958) and Lyubov Sergeyevna Popova (1889–1924) were teaching there; but due to her 'non-proletarian' origins, her enrolment was rejected. Elena Novikova then worked for an organisation

³⁰ The abstracts are published in Caterina Franchini and Emilia Garda (eds.), *MoMoWo Symposium 2018. International Conference*, 24–47.

³¹ According to Valda Traven, the first woman to graduate in architecture in Russia was Nina Novakovskaia Alexandrovna (Warsaw, 1889 – Paris, 1966). She was admitted to the faculty of architecture of the Fine Arts School of Saint Petersburg when it opened its doors to women in 1903. Her name was erased from Russian memory because she emigrated to France after the revolution of 1917 and lived there the rest of her life. See Valda Traven, "Novakovskaia, Nina Alexandrovna," in *Le Dictionnaire universel des créatrices*, edited by Béatrice Didier, Antoniette Fouque and Mireille Calle-Gruber, vol. 2, (Paris: des femmes-Antoinette Fouque, 2013), 3214–15.

responsible for designing buildings for the textile industry, Tekstilstroj. Thus, in 1931, after having created her proletarian image through this job, she was accepted at the Institute of Art and Technology Vhutein (former Vkhutemas).³²

Professors, mentors or school directors were often pivotal figures in determining pioneering working experiences of their best 'apprentices' as it occurred to German architect and urban planner Lotte Beese Stam (Reisich, 1903 – Krimpen aan den IJssel, 1988). Lotte Beese was the first student to attend the course of architectural design in the new Baulhere (new way of building) at the ground-breaking Bauhaus school in Dessau, but she was forced to give up her studies because of her relationship with the Swiss communist architect Hannes Meyer (1889–1954). He was, in fact, the initiator of the course, and also director of the Bauhaus (1928–30).

When H. Meyer formed in Moscow the 'Red Front Brigade' with his former students, developing designs according to with 'Marxist principles', he asked Beese (1932) —who in the meantime had found work in Ukraine thanks to her activism in the pro-Soviet Czechoslovakian communist party— to join the group. Beese moved to Moscow, but soon she joined the Ernst May (1886–1970) 'Brigade' with her husband architect Mart Stam, a former Bauhaus teacher.³³

In the May's legendary 'Brigade' there was just one other western female architect, the first Austrian women architect Margarete Lihotzky Schütte (Vienna, 1897–2000), along with her husband.³⁴ In designing the 'socialist new cities' Sostsgorods, both women architects have had the extraordinary opportunity to put into practice the Socialist ideas about the importance of women working outside the home. This

³² See Valda Traven, "Novikova, Elena Borisovna," in Ibid, 3215.

³³ Oosterhof's article provide a new critical interpretation of Lotte Beese's amazing experience in the Soviet Union: Hanneke Oosterhoof, "'Creating Order amid Chaos': Architect Lotte Beese in the Soviet Union, 1932-1935," in *MoMoWo. between 1918 and 1945*, Series Women's Creativity 1, 64–78. https://doi.org/10.3986/wocrea/1/momowo1.3.

³⁴ She is featured in the MoMoWo Exhibition, see Caterina Franchini, "Frankfurt Kitchen, Margarete (Grete) Lihotzky Schütte," in *MoMoWo: 100 Works in 100 Years*, 38–39.

memorable experience broadened their professional horizons and affected their activity in western Europe in the following years.³⁵

The subsection *Post-Graduate Education* (2.1) is mostly applicable for women who were principally actives in the fourth period (1990–2018), and who could attend different masters, specialisations or PhDs that have spread all over since the mid-1980s in several specific fields, such as interior design, restoration, museography, urban planning, industrial design or even digital design. In this latter advanced technological field, British designer Fiona Raby (Singapore, 1964), following her MPhil in Computer Related Design (CRD) at the prestigious Royal College of Art (RCA, London), was among the founder of CRD Research Studio at RCA; here, electronic evolutions and their consequences are questioned through unconventional objects related to comfort and privacy.³⁶

Nevertheless, this subsection can also encompass some exceptions belonging to previous generations, such as Czech-British Eva Jiřičná (Zlín, b. 1939)³⁷ –the famous author of the interior design of Richard Rogers' Lloyds building (London, 1980–82) with Jan Kaplický, and the shop 'Way In' at the Harrods store (1985)– who earned a masters at the Prague Academy of Fine Arts (1963–67) after her graduation in architecture at the Technical University of Prague (1956–62).³⁸

Her dual education impacted the multidisciplinary and holistic

³⁵ Back in the Netherlands, Lotte Beese Stam became Chief Architect at the Urban Development and Reconstruction Agency in Rotterdam after the Second World War, transferring the design approach she had developed in the Soviet Union in her later projects too. The MoMoWo Guidebook includes her major works in the Netherlands. See Marit Eisses, "Swimming-Playing Pool," in *MoMoWo. Women Architecture & Design Itineraries*, 149; Id., "Ommoord Urban Social Housing Complex," Ibid. 161; Marjan Groot, "Penderecht Urban Social Housing Area," Ibid. 159.

³⁶ Her work is featured in the MoMoWo Exhibition, see Ana Mária Fernández García, "Faraday Chair, Fiona Raby," in MoMoWo: *100 Works in 100 Years*, 176–77. Raby's design approach is explained in the book by Anthony Dunne and Fiona Raby, *Design Noir. The Secret Life of Electronic Objects*, (Basel: Birkhauser, 2001).

³⁷ She is featured in the MoMoWo Exhibition, see Helena Seražin, "Zlín Culture and Congress Centre, Eva Jiřičná," in *MoMoWo: 100 Works in 100 Years*, 208–09.

³⁸ See Dennis Crompton, Annie Bridges, Zuzanna Lipinska, et al. (eds.), *In/ex terior: the works of Eva Jiřičná = Práce Evy Jiřičná*, (Prague: Techo, 2005); Maggie Toy (ed.), *The Architect. Women in Contemporary Architecture*, (New York: Watson-Guptill, 2001).

approach of her agency founded in 1982 and active both in Prague and London. Her body of works encompass furniture and object design, as well as public and private buildings, bridges and exhibitions, brought together by the concern for the well-being and pleasure of the users. To highlight these kinds of reflections on works, the entries of this subsection replicate those of the data fields *Education (2.0)* and have, likewise, two levels of one-to-many relationships.

Professional History Leading Achievements

The *Professional History* (3.0) section includes –in a first-level one-to-many relationship – the entries *Name* and *Place* of the *professional agency* (studio/atelier), *company, industry, institution* and *other*, and the *Dates* (from – to), thus allowing us to track and compare careers and establish where and when a generation has found or created professional opportunities.

In addressing this topic, we must bear in mind that, in general, the legal status of women in Europe began to change slowly in the twentieth century and even when women, previously excluded from political life, obtained the right to vote as well, judicial capacity and propriety rights, they often stayed limited by law in their choice of career.

In the Kingdom of Italy, the law on marital approval –the requirement that a wife needed her husband's authorisation to work– was abolished in July 1919 (n. 1176) and women were allowed to exercise any work or profession and hold public positions with the exceptions of judicial appointments and tasks concerning the military defence of the State. This law was only abolished in 1963 (law 66, February 1963) when women were admitted to any career. However, beyond the legal barriers, in the past as in the present, women were faced/face with socio-cultural barriers for getting into the professional world. These barriers were/are often related to their family, including their partner/husband and children/s.

However, sometimes relatives (including partners/husbands),

commissioners, patrons or mentors, created the conditions that favoured their professional achievements. To collect and systematise these data, the fields *Barriers faced in the professional practice* (choice yes/no, *Note* text box) as well as *Conditions that favoured professional career* (choice yes/no, *Note* text box) and, for both of them, *Role played by the family of origin and/or partner/husband, and/or children(s)* are in this section.³⁹

The data concerning the family of origin are linked to the *Family Background* (1.1) subsection. To give one example, we can mention the very first generation of Romanian architects. Virginia Maria Andreescu Haret (1894–1962, grad. 1919),⁴⁰ Lucia Creangă (1892–1943)⁴¹ –a prominent personality of the Modern Movement in her country– and Henriette Delavrancea Gibory (Bucharest, 1894–1987, grad. 1926) owe their professional reputation to their kinship with famous men. More precisely, Henriette Delavrancea's early career was fostered by the significant influence of her father, writer and playwright Barbu Ştefănescu Delavrancea (1858–1918), the mayor of Bucharest and minister of public works. Thanks to him and her elder sister, pianist Cella Delavrancea, she found her clientele within the intellectual élite and bourgeoisie of the capital, becoming the most prominent representative of her generation.

However, when the communist regime established, her advantage

³⁹ The entry *Number of children* can be relevant not for women pioneers, that belonged to wealthy families that usually benefited from the services of their childminders, but more for the post-1960s generations.

⁴⁰ She is featured in the ChronoMoMoWo of the MoMoWo Exhibition. Niece of one of the most famous Romanian painters, Ion Andreescu (1850–1882), Virginia M. Andreescu married a descendant of Spiru Haret (1851–1912), mathematician, astronomer and prominent political figure in Romania. See Marcia Feuerstein and Milka Bliznakov, "New Acquisitions: Women Architects in Romania," *IAWA Newsletter, International Archive of Women in Architecture* 12 (2000): 1–4; Radu Haret, "Virginia Haret Andreescu – prima arhitectă din lume," *Revista Muzeelor și Monumentelor – Monumente Istorice și de Artă* 2 (1982): 65–67.

⁴¹ See Luminita Machedon and Ernie Scoffham, *Romanian modernism: the architecture of Bucharest 1920-1940*, (Cambridge: MIT Press, 1999), 51.

turned into a restraint, and due to her bourgeois family as well as her rejection of socialist realism, her career slowed down.⁴²

When totalitarian regimes in Western Europe arose, women were further hindered from practising professions traditionally dominated by men. Two days before the outbreak of the Spanish Civil War, Matilde Ucelay Maortúa (Madrid, 1912–2008), born into a cultured, liberal and progressive family, received a tribute from the Order of Architects of Madrid as the first woman to graduate in architecture in Spain. However, in 1942, because of its republican commitment, the War Council sentenced her to a five-year suspension from architectural activity and banished her from holding public positions.

Despite these difficulties and in the social context of the Franco regime, where women were confined to the private domain with a total absence of civil rights, Matilde had a regular professional activity for more than forty years, building mainly for private clients. For her first achievements, to avoid her conviction, she solicited help from her former classmates Félix Candela, Fernando Chueca Goitia, Rita Fernandez-Queimadelos and Maria Cristina Gonzalo Pintor.⁴⁴

Surprisingly, it was during the Fascism in Italy that the first woman graduated in architecture from the Royal School of Architecture of Rome in 1925, Elena Luzzatto Valentini (Ancona, 1900 – Rome, 1983). ⁴⁵ Her professional career soon flourished in the 1930s, despite Mussolini's disgraceful statement: 'Women must obey (...). She is analytic and not synthetic. Has she ever done architecture in these centuries? Ask her to build you a simple hut, not even a temple! She cannot do

⁴² See Carmen Popescu, "Henrietta Delavrancea: la modernité roumaine de l>entre-deuxquerres," *Histoire de l'Art* 63 (2008): 89–99.

⁴³ She is featured in the ChronoMoMoWo of the MoMoWo Exhibition. Regarding women pioneers in architecture in Spain, see Ana María Fernández García, "The Access of Women to Architecture. The Situation of Spain's Female Pioneers," in *MoMoWo: 100 Works in 100 Years*, 262–5.

⁴⁴ Regarding women architects in Spain, see Cristina García Rosales and Ana Estirado Gorría, Il encuentro de mujeres en la arquitectura, (Madrid: Dirección General de la Mujer, 1999).

⁴⁵ Elena Luzzatto Valentini is featured in the MoMoWo Exhibition, see Margherita Bongiovanni, "Primavalle Market, Elena Luzzatto Valentini," in *MoMoWo: 100 Works in 100 Years*, 86–87.

that. She is foreign to architecture, which is a synthesis of all arts, and this is a symbol of her destiny'.⁴⁶

Elena Luzzatto built, in Ostia, Capri and Rome, rationalist architectures. She participated in many competitions, sometimes with her husband, an engineer at the *Istituto Nazionale Fascista di Previdenza Sociale* (INFPS) Felice Romoli.

With Romoli, she presented a project for a sanatorium at the Triennale di Milano (1933) and participated, among others, in the competition for the Viterbo (1933) and that of Bolzano (1935) hospitals. Together with Anna Gabrielli, she conceived a remarkable project for the development plan of the city of Grosseto (1928). She won the first prize in the contest launched by the Istituto Nazionale per le Case degli *Impiegati Statali* (INCIS, National Institute of State Employees' Homes) as well as in the competition for the French military cemetery in Rome (1944), designed with the first Italian woman landscape architect Maria Teresa Parpagliolo Shephard (Rome, 1903–1974).⁴⁷ In the post-war reconstruction. Luzzatto was at the forefront of national leaders for the social housing projects of the INA-Casa (National Insurance Institute).⁴⁸ Mussolini's statements had powerful echoes for women in architecture on the other side of the world. In the pro-Nazi-Fascist Japan, the first woman architect of the country, Tsuchiura Yoshino Nobu (Tokyo, 1900-1998) -who from 1923 to 1925 had worked in Frank Lloyd Wright's Taliesin-Wisconsin with her husband, architect Tsuchiura Kameki (1897–1996) – abandoned her professional practice in 1937, overwhelmed by the pressure of her colleagues. 49

As far as barriers are concerned, research has found, for example,

⁴⁶ Emil Ludwig, *Talks with Mussolini*, (Boston: Little Brown, 1933), 168.

⁴⁷ She is featured in the MoMoWo Exhibition, see Lucia Krasovec, "Hall Garden, Maria Teresa Parpagliolo Shephard," in *MoMoWo: 100 Works in 100 Years*, 118–19.

⁴⁸ Regarding women pioneers in Italy, see Caterina Franchini, "Women Pioneers in Civil Engineering and Architecture in Italy: Emma Strada and Ada Bursi," in *MoMoWo. between 1918 and 1945, Series Women's Creativity 1*, 82–101. https://doi.org/10.3986/wocrea/1/momowo1.04.

⁴⁹ See Milka Bliznakov and Donna Dunay, "New Acquisitions: Women Architects in Japan", *IAWA Newsletter, International Archive of Women in Architecture* 14 (2002): 1–8.

that the women's divorced status had negative consequences on their professional careers, but above all, it has shown that some exceptional women overcame them with creativity. When clients abandoned woman pioneer architect in post-war Britain and activist of the Modern Movement, Dame Jane Beverley Drew (Thornton Heath, 1911 – Barnard Castle, 1996)⁵⁰, due to her divorce, she created her agency composed only of women, to then open to men on the basis of their merit (1939–45).⁵¹

The *Professional Position/s* (3.1) subsection with a dynamic link includes *Dates* (from – to) and a drop-down menu for choosing the *Type of position* (multiple choice: *academic, employee, freelance, other*). Through this data field, it is possible to map, for example, those outstanding women who have succeeded in breaking the gender 'glass ceiling', thus gaining leading positions in public institutions.

Within the various historical and geographical contexts, multiple reasons have led women, including pioneering women, to hold a position in the public sector. The most common reasons were, and still are, related to the fact that an employment position in a public institution provided women with the stability that better suited their family duties and also offered them an income when their independent professional activity suffered from difficult historical-economic circumstances.

Concerning the pioneers, as was the case in their independent practice, even in the public sector women architects were mainly assigned dwelling, educational and healthcare projects, as those fields were considered more feminine; women often dealt with design tasks of a social nature, and many of them excelled in their innovations for school buildings and social housing estates.

In 1923, the already mentioned first woman architect of Romania,

⁵⁰ Dame Jane Beverley Drew is featured in the MoMoWo Exhibition, Esther Rodríguez Ortiz, "University of Ibadan, Jane Drew," in *MoMoWo: 100 Works in 100 Years*, 92–93.

⁵¹ See Sile Flower, Jean Macfarlane and Ruth Plant (eds.), *Jane B. Drew Architect: a tribute from colleagues and friends for her 75th birthday 24th March 1986*, (Bristol: Bristol Centre for the Advancement of Architecture, 1986).

Virginia Maria Andreescu Haret, joined the Technical Department of the Ministry of Education, then becoming inspector general. As part of her duties, she was responsible for various projects, including the definition of nine types of school buildings. Thus, she realised some forty buildings, from primary to higher education schools: among the most successful are the high schools Gheorghe-Şincai (1924) and Dimitrie-Cantemir (Bucharest, 1926), Domniţa-Ruxandra in Botoşani, the schools for girls in Focşani and Bârlad (now Bîrlad), and the professional school of Ploieşti. Her architecture is sometimes of a modernist-art deco aesthetic but more often is of a national style, which was inspired by her extensive knowledge of Romanian architecture acquired during her training at the Commission of Historical Monuments (1919–21).

Another pioneer architect who first innovated the design of educational buildings, but this time in Britain, was Mary Crowley Medd Beaumont (Bradford, 1907 – Welwyn garden city, 2005, grad. 1932 AA London); her educational buildings were the most copied in the country. ⁵² Immediately after the Second World War, the Hertfordshire Regional Council's Department of Architecture hired Mary Crowley and gave her the task of dealing with the shortage of schools. Her Burleigh Infants School (Cheshunt, 1946–47) became the model for an extensive construction programme.

Social vocation, modernity and the respectful development of the needs of the occupants feature in the school buildings designed by Mary Crowley, who was deeply marked by the theories of her father, a Quaker educator and the author of a book on school buildings and education. Thanks to her forward-thinking design process, she progressed in her career at the Ministry of Education and, together with her husband, architect David Medd (1917–2009), she designed a series of prototypes for the construction of future schools all over Britain.

⁵² Mary Crowley Medd's heritage and legacy have been recognised by specialist literature, see Andrew Saint, *Towards a Social Architecture. The Role of School Building in Post-War England*, (London/New Haven: Yale University Press, 1987).

Due to her previous experience of prefabrication during 1937–40, when she had designed a crèche with the architect Ernö Goldfinger (1902–1987),⁵³ Mary Crowley developed some prototypes using prefabricated construction systems to build child-centred learning spaces. For each new assignment, she consulted teachers and children to find out their needs and habits and translate them into her design process.

In spite of 'professional segregation', some women found in the public sector the opportunity to gain experiences that were unusual for female designers or to access design fields that had been of an entirely male prerogative, such as buildings for servicemen or infrastructures for communications and transport.

The case of the first woman French architect, Jeanne Surugue Besson (1896–1990), employed in the French colonial administration, is still exceptional and raises a few questions that may open up new themes of research.

Soon after her graduation from the Ecole des Beaux-Arts in Paris in 1923, Jeanne Surugue worked as an architect of the Public Works in Cuba, designing gardens for the *Commissariat General*. Subsequently, she became *Grand Architecte* of the Department of Provincial and Local Government of Cambodia in Phnom Penh (Indochina, 1928–30). In order to consider Jeanne Surugue's cultural legacy, many questions remain open about her life and works. Did Jeanne's husband, architect Pierre Besson, play a role in her professional career? Do any of her built works still exist? Have other women architects worked for colonial administrations? What tasks have they taken on? What material and immaterial legacy have they left as public officials abroad?

Finnish Ministry of Defence was among the first to hire women architects as early as the 1920s and 1930s. Elsa Arokallio (Kurkijoki, 1892 – Helsinki, 1982, grad. 1919), Elsi Naemi Borg (Nastola, 1893 – Helsinki, 1958, grad. 1919) and Martta Martikainen Ypyä (lisalmi,

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⁵³ This project is featured in the MoMoWo Exhibition, see Ana Mária Fernández García, "Plan of the Expanding Nursery School. Mary Crowley Medd," in *MoMoWo: 100 Works in 100 Years*, 60–61.

1904 – Helsinki, 1992, grad. 1932) were the first to hold a position. After two years directing (1924–26) the architectural agency she had founded with her husband (Erkki Väänänen), Elsa Arokallio, after she was widowed, worked at the Ministry of Defence and built a school for the air force (Kauhava, 1929), collaborated in designing barracks (Kauhava, 1933) and was also the designer of the coastal artillery headquarters in Lahdenpohja (1933). These professional accomplishments led her to take up a position at the State Council of Architecture in 1953.

Elsa Arokallio had never given up the independent practice that allowed her to design different types of buildings while also devoting herself to the design of furniture and interiors. In 1933, she built the Simpele Church together with the architect Elsi Borg, who in 1927 had already won the design competition for the main Lutheran church in Jyväskylä (Taulumäki Church, 1928–29).

Borg was a colleague of Arokallio at the Ministry of Defence, where she specialised in the construction of hospitals while still directing her own architecture agency.⁵⁴

Like Arokallio, Martta Martikainen designed her most noteworthy works for the Ministry of Defence (1928–36), such as the Motor Battalion barracks and garage in Helsinki (1935),⁵⁵ which gave evidence of her full mastery of the functionalist ideas of the Modern Movement. The reputation she had gained through this project helped the young architect to run the agency she opened in Viipuri (now Vyborg) with her husband, architect Ragnar Ypyä (1900–1980), even when the Soviet occupation separated the spouses.

During the war, Martikainen Ypyä was forced to move to Sweden, where she was head of the housing cooperative *Hyresgästernas Sparkasse* -

⁵⁴ One of her hospitals is featured in the MoMoWo Exhibition, see Antonello Alici, "Lastenlinna Children's Hospital. Elsi Naemi Borq," in *MoMoWo: 100 Works in 100 Years*, 82–83.

⁵⁵ This building is featured in the MoMoWo Exhibition, see Antonello Alici, "Motor Battalion Barracks and Garage Ministry of Defence. Martta Martikainen Ypyä," in *MoMoWo: 100 Works in 100 Years*, 54–55.

och byggnadsförening (HSB, Savings and Construction Association of Tenants) and designed several housing projects, but she also had the opportunity to practise in various fields and to build, among others, factories and hospitals.

In the twenties and thirties, the German public sector hired women architects in strategic fields for the modernisation of the country, ranging from postal services to railroads and motorways.

In the late 1920s, the design of postal buildings in Upper Bavaria was dominated by the first woman state architect, Hanna Loev (Munich 1901–1995, grad. 1927 from the Technical University of Munich)⁵⁶, who had been hired by the Directorate of Postal Services. She built several post offices, combining modernism with regionalism.

At the postal service, Loev also designed a rest home in Bucha (1927–29) for public servants, as well as an experimental housing estate, for which she developed the famous Münchner Küche. For this kitchen, she worked together with Erna Meyer, a specialist in domestic science, and architect Walther Schmidt (1899–1993), succeeding in merging elements of the rationalist kitchen with the traditional family one.

In 1940, Loev was relocated to the Directorate of Reich Railroad Construction in Munich. During the war, she had the extraordinary opportunities to design the Central Office of the German Railways, the Directorate of Railway Construction and a locomotive shed.

During the Second World War, since men were called to arms, women took their place, even in those working sectors from which they had previously been excluded.

A former student at the Bauhaus in Dessau and the first woman to obtain a woodworking certificate in Thuringia, Wera Waldeck Meyer (Dresden, 1906 – Bonn, 1964) was hired by the design office of the Reich Motorways in Berlin (1937), before becoming a designer at the Reich Railway Building Authority. Her experiences in the public sector

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⁵⁶ Regarding women of the avant-garde of German architecture, see Ute Maasberg and Regina Prinz, *Die Neuenkommen! Weibliche Avantgarde in der Architektur der zwanziger Jahre*, (Hambourg: Junius, 2004).

enabled her to cover the position of director of the planning office of the Karwin-Thzynietz mining and steel company (1942), where she was in charge of the construction of coking plants and pumping stations, a power station and apartments for the workers. Meanwhile, she joined the Union of German Architects and the Union of German Women.

After the war, Waldeck Meyer turned to more 'feminine' activities such as teaching and interior design. She was a member of the Deutscher Werkbund and organised the first post-war exhibition in Cologne in 1949, where she presented her furniture and a model kindergarten, transferring the know-how acquired in her youth as a kindergarten teacher. In the 1950s, she participated in several exhibitions, including the Brussels World Fair of 1958, where she was entrusted with the exhibition set design of the section *Der persönliche Bedarf* (the personal needs) of the German pavilion.

Although the public housing sector was more accessible to women, it is worth mentioning here some experiences of Swedish, Polish and German architects who have distinguished themselves.

Swedish architect Ingeborg Cruickshank Hammarskjöld Reiz (Göteborg, 1909 – Staffanstorp, 1994, grad. 1931 from the Chalmers Polytechnic School in Gothenburg) was hired in 1937 as a secretary at the Directorate of Urban Planning of Lund before subsequently becoming the director (1939–45). She was responsible for improving the living conditions of the poor; her activities ranged from needs inventory to site management, families selection, loan allocation, neighbourhood planning and housing design.

Cruickshank transferred the experience gained in the public sector into her independent practice, opening her own agency in Lund in 1945, which she managed until the end of her life. She was also the chief architect of Staffanstorp (from 1952).

Her tremendous work accounts for more than 3000 houses and comprises different design scales and building typologies: city plans, buildings, villas, terraced houses, small houses, model homes, and recreational and retirement homes. By placing the user at the centre, Cruickshank's body of works features the careful design of landscapes and not self-congratulatory neither monumental, but very refined and functionalist architecture.⁵⁷

Polish architect Jadwiga Hawrylak Grabowska (Tarnawce, 1920–2018)⁵⁸ studied at the Wrocław Polytechnic School from 1945 to 1950. She spent her entire career at the state office of Miastoprojekt Breslau (than Wrocław) until her retirement in 1981. Initially, she worked on the restoration of historic houses in Bolesławiec and Wrocław Square (1951–54), and she distinguished herself through her building site management and by avoiding the repetitive standardised plans that then determined Polish housing, overcoming the many prejudices she faced from a professional and administrative point of view.

The Gajowice housing estate (Wrocław, 1960–68) is a typical example of Hawrylak's town planning. She designed several residential types, such as a building on Kołłątaja Street in Wrocław, consisting of two-storey, duplex-type apartments. Similarly, in Grunwaldzki Square in Wrocław, she employed an industrial construction system in all of the apartment blocks with shops (1967–75) and, although she adopted prefabricated elements, she succeeded in creating an attractive architectural design. This project, which stands out from the standardised architectural production of the time, was awarded the SARP (Association of Polish Architects) prize in 1974.

The experience of the Lithuanian architect Maria Ostrowska Czyżewska (Wilno, now Vilnius, Lithuania, 1931–2013, grad. in 1950 from the Architecture Department of Wrocław Polytechnic) in Poland was quite similar to that of Jadwiga Hawrylak.

Ostrowska began her career at the Restoration Department of the

⁵⁷ Regarding Cruickshank's body of works, see Carin Johanson, Claudia Meirama and Lotta Nordén, *Ingeborg Hammarskjöld-Reiz: en arkitekt och samtiden*, (Göteborg: Forskningsstiftelsen för samhällsplanering, byggnadsplanering och projektering, 2001).

⁵⁸ Her work was exhibited at the Museum of Architecture, see Michał Duda and Muzeum architektury, *Patchwork: the architecture of Jadwiga Grabowska-Hawrylak*, (Wrocław: Muzeum Architektury, 2012).

Historical Monuments of Wrocław (1953–58). She had a position in a state office (1959–60), where she worked on the plan of the satellite city of Tychy (Upper Silesia). For this satellite city, but also for the city of Bielsko-Biała, she fulfilled the request for mass production of housing estates by adopting the efficient prefabrication system 540 Series, which she had developed between 1961 and 1962 with her husband, the architect Andrzej Czyżewski. The state and professional institutions have awarded her several times for the quality of her work.

The most mentioned female architect in the guides and history books of German architecture, but less present in mainstream international histories of architecture, is Ludmilla Herzenstein (Saint Petersburg, 1906 – Berlin, 1994, grad. 1933 in Berlin)⁵⁹. She became renowned for her project for the Stalinallee, now the Karl-Marx Allee, she built in 1949 after taking over the management of Heimstätte Berlin in Berlin-East. Together with Hans Scharoun (1893–1972), she designed the Wohnzelle Friedrichshain housing estate, which consisted of two corridor buildings on the Stalinallee.

Herzenstein became familiar with social housing architecture and urban planning of the Modern Movement when, as a young architect, she trained as an assistant (1929–30) of Alexander Klein (1879–1961), the former municipal architect of Saint Petersburg famous for his studies of apartment plans and the rationalisation of construction. In her youth, Herzenstein directed the building site of the famous social housing estate Onkel Toms Hütte (Berlin, 1926–29), designed by Bruno Taut (1880–1938).

One month before the end of the Second World War, she was in charge of statistical research for the Urban Planning Department of Berlin and collaborated in the reconstruction plan of Berlin with Hans Scharoun, director of the Department of Construction and Housing of the new municipal administration. She undertook

⁵⁹ See Kerstin Dörhöfer, *Pionierinnen in der Architektur. Eine Baugeschichte der Moderne*, (Tübingen: Wasmuth, 2004).

population development research to provide a basis for urban planning, and she also defined types of buildings and housing. Herzenstein remained in the Central Planning Department of East Berlin until 1958 and served as director of the Housing Department, having long held high responsibilities in the planning bodies of East Berlin, for which she won the Schinkel Medal of the Eastern Architects Association (BDA) in 1962.

This latter example raises a question. What was the legacy of women architects and engineers in the construction of East Germany and the Eastern Bloc countries in which the equal working status between women and men was a prerogative?

To offer a critical overview regarding this topic, the essay by Nina Bartošová (MoMoWo Slovakia) "Women's Creativity in Post-War Reconstruction of Socialist Europe" enriches the case studies of this book.

Concerning free-lance professionals, the *Professional Partnership/s* (3.2) subsection comprises a drop-down menu for mapping *partnerships with the father, partner/husband,* and/or *other relatives, male/female colleague/s.*

The research has proven that women, more than men, have run their agencies in partnership. Women belonging to the generations that preceded the Second World War habitually worked with male relatives and were often in their shadow (entry *Description of the roles*).

Although the paradigm of the Modern Movement architecture as a synthesis of creative design fields resulted in teamwork, in which the gender of each participant was supposed to be not relevant, the fact was that within these teams, men were represented as protagonists while women mostly disappeared into the margins. The mainstream historiography of architecture and design often reverberates this inequitable narrative.

Thus, the recognition of co-authorship is one of the priorities of the MoMoWo project, which has also given voice to studies such as those on the collaboration between Lilly Reich (Berlin, 1885–1947) and

Mies van der Rohe,⁶⁰ Aino Marsio Aalto (Helsinki, 1894–1949)⁶¹ and Alvar Aalto, Charlotte Perriand (Paris, 1903–1999) and Le Corbusier and many others masters of the Modern Movement.

During the entire span of time from 1918 to the present, I noticed that the husband-wife design agencies are in the majority all over Europe. These cases of professional and life coupling are still numerous today, since it makes it easy for women to run both work and family life.

At the national level, from the analysis of the online official *National Census of Italian Architecture of the Second Half of the Twentieth Century*, excluding the best-known Italian or foreign women architects,⁶² around half appear to be engaged in employment relationships or even occasional collaborations, while the other half owns individual or associated architectural agencies. Concerning the latter case, associated agencies of family members are the majority. In this census, there are only 22 works signed exclusively by women out of 3057 architectural-works registered.

Engagement within Professional Networks

The data fields *Professional Affiliation/s* (3.3) and *Membership/s* in one or more *Networks and/or Associations* (3.4) are both intended to generate maps showing over time the distribution of women affiliated or active-members within them and possibly to assess the *Barriers* that they have encountered or the *Facilitations* (advantages) that they obtained. Taking into account that the reception of these women's activities

⁶⁰ Regarding the cooperation between Lilly Reich and Mies van der Rohe at the 1929 Barcelona international exhibition, see Laura Martínez de Guereñu, "Anni Albers and Lilly Reich in Barcelona 1929: Weavings and Exhibition Spaces," in *MoMoWo. between 1918 and 1945*, Series Women's Creativity 1, 150–65. https://doi.org/10.3986/wocrea/1/momowo1.14.

⁶¹ Regarding Aino Marsio Aalto, see Myriam López-Rodero, "Women Architects in the Shadow: Aino Marsio-Aalto," in Ibid., 304-19. https://doi.org/10.3986/wocrea/1/momowo1.18.

⁶² Luisa Aiani Parisi, Gae Aulenti, Antonia Astori, Anna Castelli Ferrieri, Carla Federspiel, Afra Bianchin, Cini Boeri, Margherita Bravi, Luisa Castiglioni, Maria Antonietta Cester Toso, Odile Decq, Terry Dwan, Giuliana Genta, Johanna Grawunder, Grafton Architects, Liliana Grassi, Zaha Hadid, Franca Helg, Enrica Invernizzi, Doriana Mandrelli Fuksas, Piera Ricci Menichetti, Franca Stagi, Gigetta Tamaro, Laura Thermes, Egle Maria Trincanato, Patricia Viel, Nanda Vigo.

by historians and critics is still extremely poor, these data fields may provide preliminary information to encourage new investigations on the issue of gender power relationships within professional networks and organisations, as well as the contributions to women associations. Moreover, considering, for example, the membership of women pioneers in Modernist groups, the data collected have the potential to inspire new studies to reconsider the history of the Modern Movement from a gender perspective.

There was still not a single woman architect in Europe when, in 1885 in the United States, Jennie Louise Blanchard Bethune (Waterloo, Wisconsin, 1856 – New York, 1913) gained professional affiliation with the Western Architects Association (WAA, since 1884) and not even when in 1889, she became the first woman member of the American Institute of Architects (AIA, since 1857).⁶³ The first woman architect in Europe, Signe Hornborg (Turku, 1862 – Helsinki, 1916) graduated in Finland in 1892–93 so in Europe, the feminisation of the profession began shortly after the United States; but despite this, the North American historiography on women in architecture is by far the most pioneering.

Among the first generation of architects in the Old Continent, British Edith Gillian Cooke Harrison (London, 1898 – Gosfield, 1974) has boasted three times the first place in architecture. She was the first woman admitted to the Architectural Association of London (1917), the first woman to obtain the silver medal of the Society of Architects in 1922 and the first woman fellow of the Royal Institute of British Architects (RIBA), in 1931.

Other women architects among the first to join professional associations of their countries found it essential to engage themselves in

⁶³ See Sarah Allaback, *The First American Women Architects*, (Urbana: University of Illinois Press, 2008); Adriana Barbasch, "Louise Blanchard Bethune: The AIA Accepts Its First Woman Member," in *Architecture: A Place for Women*, edited by Ellen Perry Berkeley, (Washingon, D.C.: Smithsonian Institution Press, 1989), 15–25. In 1899, the US landscape architect Beatrix Cadwalader Jones (married to Farrand, New York, 1872 – Mount Desert Island, 1959) founded, with her male colleagues, the American Society of Landscape Architects (ASLA), within which she contributed for five decades to defining professional prescriptions and procedures. See Diana Balmori, Diane Kostial McGuire and Eleanor M. McPeck, *Farrand's American Landscapes*. *Her Gardens and Campuses*, (Sagaponack, NY: Sagapress, 1985).

bettering the status of women for the future generations. The first woman architect within the Portuguese National Union of Architects, Maria José Marques da Silva (Porto, 1914 or 1915–1994)⁶⁴ has held a vital role in the Women's Democratic Movement for many decades. She was the daughter of the famous architect José Marques da Silva (1869–1947), the first female architect graduated from the School of Fine Arts in Porto and the second in the country after Maria José Estanco (Loulé, 1905 – Lisbon, 1999) who graduated in 1943.⁶⁵ Maria José Marques da Silva also distinguished herself by her active contribution to the Northern Regional Directorate of the Portuguese Architects Association between 1983 and 1986.

Just as in the USA,⁶⁶ women pioneers in Europe too were proud activists of women associations which fought against gender discriminations in several fields. Some of them founded new associations or became influential figures in women national councils, mainly in their housing committees such as Danish architect Ingrid Møller Dyggve (Copenhagen, 1890 – Hellerup, 1969, grad. 1917)⁶⁷ or Belgian architect Odette Filippone (Bruxelles, 1927–2002).⁶⁸

⁶⁴ Regarding women in the Portuguese Modern Movement, see Maria Helena Souto, "Portuguese Modern Movement," in *MoMoWo. Women Architecture & Design Itineraries*, 46. Regarding architect Maria José Marques da Silva, see Maria Helena Souto "Palácio do Comércio, Maria José Marques da Silva," Ibid., 76–77.

⁶⁵ Regarding women pioneering in architecture in Portugal, see Patrícia Santos Pedrosa, "Being a female architect in Portugal: a short introduction to a long ride," in *Ist International Meeting EAHN European Architectural History Network – CD of Papers*, Jorge Correja, (Guimarães: CHAM, EAUM, EAHN, 2010), 234–40.

⁶⁶ Within the second wave of feminism, after having given outstanding contributions to postwar American architecture, architect Natalie Paterson De Blois (1921–2013, grad. 1944) was one of the founders of the Chicago Women in Architecture Association in 1973. She has also been a member of the AlA Women in Architecture Task Force and has contributed to a legendary report on the prejudices against women architects. See Judith Paine, "Natalie De Blois," in Women in American Architecture: A Historic and Contemporary Perspective, edited by Susan Baybrooke and Susan Davis, (New York: Whitney Library of Design, 1984, 1st ed. 1977 edited by Susana Torre), 112–14; Lory Brown, "De Blois, Natalie", in *Le Dictionnaire universel*, vol. 1, 1175.

⁶⁷ Some biographical data of Danish women architects and designers can be found in Jytte Larsen (ed.), *Dansk kvindebiografisk leksikon: Alle tiders kvinder* [Danish Female Biographical Lexicon], 4 voll., (Copenhagen: Rosinante, 2000).

⁶⁸ Some biographical data regarding Belgian women architects can be found in Anne van Loo (ed.), *Dictionnaire de l'architecture en Belgique de 1830 à 2000*, (Andwerp: Fonds Mercator, 2003).

Ingrid Møller Dyggve was a representative within the National Council of Danish Women at the Housing Committee of the International Council of Women (ICW) from 1936 to 1947. Whereas, Odette Filippone paved the way not only through her works with her husband (Jean-Pierre Blondel, 1924–2012) but also through her commitment from 1958 to 1961 as vice-chairwoman of the Housing Commission of the National Council of Belgian Women.

Activism in liberal feminist movements has sometimes been beneficial for professional careers, as in the case with the architect and interior designer Milada Pavlíková Petříková (Tábor, 1895 – Prague, 1985, grad. 1921). In the period between the two World Wars, she actively fought to clarify that the architect profession was fully suited to women and received commissions for numerous social housing projects from feminist organisations. ⁶⁹ In Prague, she built several projects for women, such as single women housing (1923–34), the house refuge Domovina Charlotte Garrigue-Masaryk for the protection of women's interests (1923–28, in collaboration with her husband, Theodor Petřík), and the Czech Women's Club, which is her most admired work (1931–33).

Other pioneers acted in supporting their women colleagues founding the first national associations, such as the *Associazione Italiana Donne Architetti e Ingegneri* (AIDIA, Turin, 1957, Italian Association of Women Architects and Engineers). Among the founders of AIDIA (Turin, 1957) are the first woman civil engineer in Italy, Emma Strada (Turin, 1884–1970), who graduated from the Polytechnic of Turin in 1908, and Ada Bursi (Verona, 1906 – Castiglione Torinese, 1996)⁷⁰, the architect who was the second woman to graduate in architecture from the same

⁶⁹ To discover women architects in Prague, a reference book is the exhibition catalogue of the Galerie Nova sín by Jan Machonin (ed.), *Povoláríi: architekt[ka] = Profession: [woman] architect*, (Prague: Kruh, 2003).

Nee Caterina Franchini, "Emma Strada and Ada Bursi, the First Female Civil Engineer and Architect in the Italian Capital Industry, Turin," in Ist International Meeting EAHN European Architectural History Network – CD of Papers, Jorge Correja, (Guimarães: CHAM, EAUM, EAHN, 2010). Ada Bursi is included in the MoMoWo Guidebook, see Id., "Ada Bursi (1906–1996). From Painting and Graphics to Interior Design and Architecture. Pioneer," in MoMoWo. Women Architecture & Design Itineraries, 139–40.

Polytechnic in 1939 and the first woman member of the Order of Architects of Turin. At the end of 1945, Ada Bursi was also the only woman among the 26 founders of the *Gruppo Architetti Moderni Torinesi 'Giuseppe Pagano'* (Modern Architects Group).⁷¹

To face post-war reconstruction, this Group believed in teamwork to promote and achieve the Modernist social ideals in architecture as other groups had done before the war; such as the *Union des Artistes Modernes* (UAM, 1929–59) or the Modern Architecture Research Group (MARS 1933–57) which was the English section of the *Congrès Internationaux d'Architecture Moderne* - International Congresses of Modern Architecture (CIAM 1928–59). All these free organisations counted very few women members among them.

As staunch activists of Modernism in both theory and professional practice inspired by Le Corbusier, Elisabeth Benjamin (London, 1908–1999)⁷² and the already mentioned Dame Jane Beverley Drew were women architects of MARS.

Jane Drew and her husband, the famous modern architect Maxwell Fry (1899–1987), succeeded in developing a sustainable and less dogmatic vision of Modernism. They devoted a series of books to the impact of hot climates on architecture and adapted the stiff paradigms of Modernism to the local environment and culturaltraditions in many architectural projects, including several buildings in Sri Lanka, the Middle East (1946–87) and the University of Ibadan (Nigeria 1953-59).⁷³ In Chandigarh, Jane Drew built her most famous independent works designing social housing and a medical centre, whose modern architecture is adapted masterfully to the needs and culture of its users (1951).

⁷¹ See Giovanni Astengo, "Fondazione del Gruppo Architetti Moderni Torinesi 'Giuseppe Pagano'," Agorà 1 (1945): 16–17.

⁷² See Francis Reginald Stevens Yorke, *The Modern House in England*, (London: The Architectural Press, 1937); Lynne Walker, "Interview with Elisabeth Benjamin," *Twentieth Century Architecture*, 2 (1996): 74–84.

⁷³ See Joyce Beverley Drew and Edwin Maxwell Fry, *Village Housing in the Tropics: with a special reference to West Africa*, (London: Lund Humphries, 1947); Id., *Tropical Architecture and the Humid Zone*, (London: B. T. Batsford, 1956).

Among the few women who joined the French UAM in 1930 and 1931 were French interior and furniture designer Charlotte Marchal Alix (Nancy, 1897 – Paris, 1987) and Russian-Polish architect Adrienne Gorska (Moscow, 1899 – Beaulieu-Sur-Mer, 1969, grad. 1922)⁷⁴, sister of the painter Tamara de Lempicka (1898–1980).⁷⁵ Both were close to the architect and designer Robert Mallet-Stevens (1886–1945), founder and president of the UAM. Charlotte Marchal and her artist husband (Yves Alix, 1890–1969) had already received a commission from Mallet-Stevens for the interior design of the office building of the journal *La Semaine* that he built. In addition, in the early 1930s, for both the interior design of the Palace of the Maharadjah of Indore (1930) and ocean liner SS Normandie, the Alixes cooperated with textile designer Hélène Lantier Henry (Champagney, 1891–1965), who was the only woman to cover a position in the Steering Committee of UAM.

Like Charlotte Marchal, Adrienne Gorska –known as a specialist in cinema construction–⁷⁶ also contributed within the UAM to the emancipation of design from decorative notions and Art Deco luxury through the focus on function, structure and the use of new materials and techniques to adapt interiors and furniture design to the Modern conception of lifestyle and industrial design.

The transition from a concept of decorative arts to the 'Formes Utiles' was marked by two other prominent figures of the Modern Movement, both among the founding members of the UAM, Irish Kathleen Eileen Moray Smith Gray (Enniscorthy, 1878 – Paris, 1976)⁷⁷, known as Eileen Gray, and the French Charlotte Perriand (Paris, 1903–1999).⁷⁸

⁷⁴ She is featured in the ChronoMoMoWo of the MoMoWo Exhibition.

⁷⁵ See Chantal Bizot, Yvonne Brunhammer and Suzanne Tise (eds.), *Les Années UAM, 1929-1958*, (Paris: Musée des Arts Décoratifs, 1988).

⁷⁶ See Pierre de Montaut and Adrienne Gorska, *Vingt salles de cinéma*, (Strasbourg: Société française d'éditions d'art, 1937).

⁷⁷ She is featured in the MoMoWo Exhibition, see Ana María Fernández García, "E-1027 Maison en bord de mer, Kathleen Eileen Moray Gray" in *MoMoWo: 100 Works in 100 Years*, 44–45.

⁷⁸ She is featured in the MoMoWo Exhibition and in the Guidebook, see Alain Bonnet, "Bloc Cuisine Les Arcs, Charlotte Perriand" in *MoMoWo: 100 Works in 100 Years*, 136–37; Id., "Charlotte Perriand (1903–1999) Pioneer," in *MoMoWo. Women Architecture & Design Itineraries*, 105–06.

Perriand and the Polish architect and theorist of architecture Helena Niemirowska Syrkus (Warsaw, 1900–1982) were the two women who have succeeded in gaining some influence in the male-dominated organisation of the CIAM.⁷⁹

Although CIAM's invitation to become the Polish delegate of the CIRPAC Executive Committee was addressed only to Helena's husband and associate of the agency, the architect Szymon Syrkus (1893–1964), Helena succeeded in becoming an active member within this network (1928–57). She was vice-president from 1945 to 1954 and co-curator of the legendary Charte d'Athènes (IVth CIAM, 1933), the seminal text of Modern architecture and urban planning. Due to her engagement in the CIAM, she was also a member of the executive committee of the International Union of Architects (UIA) from 1948 to 1957.⁸⁰

The young Charlotte Perriand was an official member of the French CIAM group from 1933. Initially, she contributed within the limited space left by her boss, Le Corbusier; then she organised the Vth CIAM (Paris, 1937) devoted to the theme 'Logis and Loisir' and designed its exhibition in Le Corbusier's Pavilion des Temps Nouveaux (July 1937). In her exhibition set design, she openly expressed her belonging to the left-wing of the CIAM through political slogans, which emphasised her role in raising the idealistic political awareness of the CIAM network, thus proving her emancipation from Le Corbusier's opportunistic positions. Whereas Helena Niemirowska Syrkus' passion

⁷⁹ Women were a minority from the 1st CIAM (La Sarraz, 1929). Apart from the artist, patron and founder of CIAM, Hélène Revilliod de Muralt de Mandrot (Geneve, 1867 – Pradet, 1948), only an architect from Hamburg, Molly Weber, participated in the first congress. These women remain in the shadow of CIAM history.

⁸⁰ Others women then became active members of the UIA, among them Greek architect Souzana Maria Kolokytha Antonakakis (Athens, 1935, grad. 1959) was in its the Steering Committee from 1982 to 2002. She founded it with her husband, the architect Dimitris Antonakakis (1933), and Elèni Gousi Desylla (1938) the Atelier 66. She has also been in the direction of the Greek Chamber of Architects from 1982 to 1984. Regarding the works of Atelier 66, see Liane Lefaivre and Alexander Tzonis, *Atelier 66: the architecture of Dimitris and Suzana Antonakakis*, edited by Kenneth Frampton, (New York: Rizzoli, 1985); Helene Fessas-Emmanouil, *New Public Buildings. D.+S. Antonakakis, A. Tombazis, N. Valsamakis*, (Athens: Greek Ministry of Culture, 1991). Exhibition catalogue.

for Modern architecture melded with her talent for networking and her capability in researching and writing CIAM ideological and theoretical underpinnings, Charlotte Perriand epitomised the 'New Woman', she was a designer who established her reputation in the CIAM by her innovative design practice as well as by her independent lifestyle.

How did women succeed in gaining influence in male-dominated Modern Groups? Although the 1st MoMoWo History Workshop (Leiden, 2015) opened the way to give some answers to this question, much remains to be discovered to create new historical narratives of the Modern Movement from a gender perspective.⁸¹

In more recent times, as far as profession is concerned, specialised women played leading roles too. In 1960, Italian designer, architect and set designer Gaetana, called Gae, Aulenti (Palazzolo dello Stella, 1927 – Milan, 2012, grad. 1954)⁸² became a leading member of the *Associazione per il Disegno Industriale* (ADI, Association for Industrial design), which she chaired from 1966 to 1969, meanwhile (1967) she was appointed honorary member of the American Society of Interior Designers (ASID).

Works Visibility and Traceability

The **Works** (4.0) section has been designed to generate GIS maps of several types of works belonging to architecture, urban planning, landscape architecture, interior design, industrial and furniture design, including restoration and renovation. This one-to-many relationship (one level) data section encompasses the data fields *Commissioner(s)/Client(s)* of the work and Actual or potential tourist attractiveness (yes/no choice).

⁸¹ Concerning the CIAM, see Rixt Hoekstra, "Women and Power in History of Modern: The Case of the CIAM Women," in *MoMoWo. between 1918 and 1945*, Series Women's Creativity 1, 132–45. https://doi.org/10.3986/wocrea/1/momowo1.07.

⁸² Gae Aulenti is featured in the MoMoWo Exhibition, see Emilia Garda, "Orsay Museum, Gae Aulenti," in *MoMoWo: 100 Works in 100 Years*, 158–59.

The issue of the client role can be tricky considering, for example, that sometimes women clients played a co-authorial role in the design process ranging from conception to construction. Among the most notorious clients/co-authors of icons of the Modern Movement in the world are: Dutch socialite Truus Schröder-Schräder (1889–1985), who commissioned the Schröder House (Gerrit Thomas Rietveld, Utrecht, 1924);⁸³ American art collector Sarah Stein (1870–1953), who, together with her husband and her friend Gabrielle Colaco-Osorio de Monzie (1882–1961), commissioned Villa Stein (Le Corbusier, Garches, 1927); Chicago nephrologist Dr Edith Farnsworth, who commissioned the Farnsworth House (L. Mies van der Rohe, Plano, 1945–51); and Canadian architect and philanthropist Phyllis Barbara Bronfman Lambert (b. 1927), Seagram's heiress and director of planning for the Seagram Building (L. Mies van der Rohe, New York, completed in 1958).

The assessment of *Tourist attractiveness*—tested in 2015 to create the MoMoWo itineraries— has the potential to become relevant for fostering the visibility of the cultural legacy and heritage created by women in Europe and beyond. By accessing these data, cultural stakeholders should be able to get maps of women works to be included in existing or new projects of cultural tourism. As a first result, in 2018 MoMoWo Polito created the thematic itinerary named *Cherchez la femme* as part of a project of the Ministry of Cultural Heritage and Activities and Tourism (MiBACT) for valuing and promoting the Italian architectural heritage of the second half of the twentieth century.⁸⁴ This route crosses Italy from North to South, highlighting cultural

⁸³ This architectural icon of the De Stijl movement is featured in the MoMoWo Guidebook, see Marit Eisses, "Rietveld Schroder House," in *MoMoWo. Women Architecture & Design Itineraries*, 168.

⁸⁴ The project was entrusted to the Sapienza University of Rome in collaboration with the Italian non-profit association of the *International Working Party for the Documentation and Conservation of buildings, sites and districts of the Modern Movement* (Do.Co.Mo.Mo._Italia). The authors of *Cherchez la femme* are Caterina Franchini and Emilia Garda (MoMoWo Polito), with the expertise for the Lombardy region of Maria Teresa Feraboli (Polytechnic of Milan).

assets that saw women at work, alone, in pairs or teams.

Taken together, the fifteen works selected for the itinerary Cherchez la femme reveal the temporal and morphological variation of the female contribution to the built heritage, restoring the 'rose quota'.

For disproving the cliché that sees women confined to the design of domestic spaces, the works presented approach a variety of themes and design scales. They range from public areas and urban infrastructure to gardens; from places for worship and service sectors to museums; crossing dwelling types, from the villa on the sea to the social housing neighbourhoods.85

The *Unrealized Works* (4.1) subsection replicates the same set of data of the principal section and enables the reconstruction of geographies of cultural assets that, while not realised, are part of the intangible process of design culture. This subsection is related to the matter of increasing the accessibility to historical sources, with the aim of fostering new research and, just as 4.0, is directly linked to the archival section of the Database.

In the *Note* text box, the compiler may briefly describe the reasons that prevented the construction of the work. Research has shown that sometimes these are due to discrimination against women.

⁸⁵ The fifteen works in chronological order are the following: Museum of the Treasure of the Cathedral of San Lorenzo in Genoa, by Franca Helg and Franco Albini, 1952–56; INAIL building office in Venice, by Maria Egle Trincanato and Giuseppe Samonà,1952-60; INA-CASA neighbourhood in Taranto, by Costanza Caniglia Rispoli, 1959-63; Benetton Group Business Centre at Ponzano Veneto (TV), by Afra Bianchin Scarpa and Tobia Scarpa, 1964-90; Church of Riola at Grizzana Morandi (BO), by Elsa Kaisa (Elissa) Mäkiniemi Aalto and Alvar Aalto, 1966-78; 'Casa Bunker' (Bunker-house), on the island of La Maddalena (SS), by Cini Boeri, 1967; Residence du Parc in Turin, by Laura Petrazzini Levi and Corrado Levi, 1969-71; House-Museum Brindisi at Comacchio (FE), by Nanda Vigo, 1971-73; 'Il giardino dei tarocchi' (The Tarot Garden) in Capalbio (GR), by Niki De Saint Phalle, 1980-97; 'Sistema delle piazze' (Systhem of piazzas) of Gibellina-Nuova (TR), by Laura Thermes and Franco Purini, 1982–90; Museum of contemporary furniture at Russi (RA), by Jhoanna Grawunder and Ettore Sottsass, 1988; Access ramp to Firenze Santa Maria Novella train station in Florence, by Ballestrero Bianca and Gae Aulenti, 1990; MAXXI- National Museum of XXI Century Arts in Rome, by Zaha Hadid, 1998–2010; Extension of MACRO - Municipal Museum of Modern and Contemporary Art in Rome, by Odile Decg and Benoit Cornette (Architectes Urbanistes) with B. Morass, 2000-10; Extension of Bocconi University in Milan, by Yvonne Farrell and Shelley Mc Namara (Grafton Architects), 2001–08.

A streaking example is that of Attilia Vaglieri Travaglio (Rome, 1891–1969) –Italian architect since 1923– and winner in the 1930s of the international architectural competition for the Greco-Roman Museum of Alexandria, whose award has remained ignored by Egypt and its Islamic laws which were unfavourable to women's work.⁸⁶

Taking into account that small technical innovations can also generate a new cultural heritage, we also included in the main section *Works* the *Patents* (4.2) subsection. Although for the majority of architects or designers it is rare that they patent a new invention, we can find some cases of new building materials or components as well as industrial design items patented by women.

Data collection about works has been launched by the MoMoWo's team simultaneously through several types of sources such as dictionaries, magazines, architectural guidebooks, exhibition catalogues, monographs, prizes and awards records. I also started a systematic survey on an online national census of architectural assets that has soon revealed a noticeable gap between men and women authors of the registered works.

In February 2018, the online National Census of Italian architecture of the second half of the twentieth century, which is currently managed by the Directorate General for Contemporary Art and Architecture and Urban Peripheries (DGAAP) of the MiBACT, counted less than 200 women's works out of a total of 3057 architectural-works throughout Italy that were identified since 2000. In this census, the percentage of the works of women to be protected or brought to the attention of authorities and designers does not even reach 10%.

The number of works mapped varies considerably from region to region and reflects the state of progress of local censuses. In only four

⁸⁶ Among the most popular articles published in Italian magazines about women pioneers in Modern architecture are: Anna Maria Speckel, "Architettura moderna e donne architette," *Almanacco della donna italiana* 13 (1935): 120–34; Gisella Bassanini, "Le 'madri dell'architettura moderna': alcuni ritratti nel panorama italiano e straniero," *Parametro* 257 (2005): 20–23.

out of 17 Italian regions covered by the census, the percentage of works designed by women architects, individually or in a team, exceeds 10%. Lombardy contains the most, with 59 works of women counted in the census and available online, yet the percentage is still only 8%.87 The data available on the national platform online is variable because it is continuously updated and only partially reflects the progress of the censuses in each region. Sometimes the websites of the regional Soprintendenze (preservation bodies) of cultural heritage include the most comprehensive and current local census data that have not yet been released in the national platform. This is the case for the Lombardy Region, which has expanded its campaign from 2013 to 2015 and counts approximately 70 works by women designers (http://www.lombardiabeniculturali.it/architetture900/), as reported by Maria Teresa Feraboli, who participated in this last regional census.88 As a general critical remark, I can state that the presence of women's works begins to become numerically significant when also considering so-called 'minor' architecture that is somehow related to the local context and meaningful for its history.

Besides national architectural censuses, architectural and design magazines together with Exhibitions are one of the most abundant sources to collect works by women. Despite that, a systematic analysis I carried out the *docomomo virtual exhibition* — *MoMove* (http://exhibition.docomomo.com./) showed that there are gaps to be filled in. In 2016, this outstanding exhibition created by Do.Co. Mo.Mo._International to provide a selection of buildings, sites and tours of the Modern Movement around the world included only 39

⁸⁷ The highest rate is in Liguria (16%, ten works), followed by Marche (13%, two works), Molise (12%, 12 works) and Abruzzo (11%, 15 works). All data refers to February 2018 and are the result of the analysis carried out by the author on the website "Architetture del Secondo 900," Direzione Generale Arte e Architettura contemporanee e Periferie urbane - DGAAP, http://architetturecontemporanee.beniculturali.it/architetture/index.php (accessed January - February 2018).

⁸⁸ See the abstract by Maria Teresa Feraboli, "Female Design and Architectural Archives in Italy: A Preliminary Investigation among Online Search Tools," in *MoMoWo Symposium 2018*. *International Conference*, 180. Full paper published in *Women's Creativity since the Modern Movement*, 957–65.

works by European women out of a total of 929 exhibited works.89

The data entries belonging to the *Collaboration with magazines/ journals* (4.3) subsection are functional to the mapping of periodicals in which women have collaborated as well as the role or *Position* in the editorial office they have held.

Increasingly, women designers have played a key role in spreading the culture of their professional field, sometimes founding magazines or becoming influential members of editorial teams of various periodicals, ranging from women's to popular or specialist magazines. Moreover, since the authors of the articles are often also the authors of the published works, it may be possible through a dynamic link with the data fields *Works* (4.0), to make visible this type of source for each project, and vice-versa.

As early as between the wars, women architects and designers at the outset of their career contributed to local or national women's magazines such as British *Modern Women, Women, Home Chat* or the Italian *Fili-Moda*, and many more. As one of the results of MoMoWo Slovenia extensive research about female pioneers, summarised by Helena Seražin in the *Case Studies* of this book, it is worth mentioning the first generation of women who graduated architects-engineers from the Technical Faculty of the University of Ljubljana.

⁸⁹ Less than half of these women are from countries that are at present in the EU. From Austria Helene Koller-Buchwieser (1912–2008) and Margarete Schütte-Lihotzky (1897–2000); from Denmark Raili Paatelainen (b. 1926) and Karen Clemmensen (1917–2001); from Finland Raili Paatelainen (b. 1926); from Germany Herta-Maria Witzemann (1918–1999), Hertha Hammerbacher (1900–1985) and Ursulina Schüler-Witte (b. 1933); from Greece Souzana Antonakaki (b. 1935),

Eleni Goussi-Dessylla (b. 1938), Seva Karakosta (b. 1938) and Elli Vassilikioti (b. 1923); from Italy Franca Helg; from the Netherlands Mien Ruys; from Scotland Wendy Corrigan.

The results of the research on the presence of women's works in the publications of Do.Co.Mo.Mo_International and in the Virtual Exhibition MoMove were presented by Caterina Franchini, "MoMoWo: Women and Modern Movement Heritage," (paper presented at the round table with Emilia Garda and Helena Souto at the 14th Docomomo International Conference Adaptive Reuse: The Modern Movement toward the Future, Lisbon, Calouste Gulbenkian Foundation, September 7, 2016).

These are namely a former student of Ivan Vurnik (1884–1971)⁹⁰ and first women architect-engineer in the country Dušana Šantel Kanoni (Pazin, 1908 – Ljubljana, 1988, grad. 1932), as well as the female students of Jože Plečnik (1872–1957), such as Gizela Šuklje (Jelsa na Hvaru, 1909 – Ljubljana, 1994, grad. 1932)⁹¹, who has also worked in Plečnik's studio, and Auguste Perret's atelier, Marjanca Kanc Čuček (1909–?, grad. 1933) and Katarina Grasselli (1910–1990, grad. 1934). Through the magazines, issued by various women's associations, such as *Ženski svet* (Women's World, 1923–41), *Žena in dom* (Women and Home, 1930–41) and *Gospodinja* (Housewife, 1932–42), these Slovenian modern-thinking architects played a relevant role in spreading their technical knowledge about the interior and furniture design of the modern home. They promoted among women's readers a functional, simple, hygienic and beautiful concept of living.⁹²

Despite these Slovenian women pioneers' remarkable contribution to broadening the cultural horizons of readers by presenting furnishings for working-class housing as well as modern solutions for farmhouses, the advantages of metal and 'self-made' furniture pieces, those women's periodicals never questioned the traditional role of women as mothers and housewives. Conversely, they also reinforced it through their choice of topics such as gentlemen's rooms, kitchen and children's rooms, or flowers and gardening.

⁹⁰ Ivan Vurnik, who played a role in founding the Ljubljana School of Architecture (1919), after his early search for a Slovene 'National Style', in the 1930s embraced a more functionalist approach rivalling the more conservative Plečnik's approach. Graphic designer and interior decorator, Helena Kottler Vurnik (Vienna, 1882–1962) designed the decorative facade in the colours of the Slovene tricolour flag and the interior decoration of the iconic building local Art Nouveau, the Cooperative Business Bank (Ljubljana, 1921–22), designed by her husband. This building is included in the MoMoWo Exhibition, see Helena Seražin, "Decoration of the Cooperative Businnes Bank. Helena Kottler Vurinik," in *MoMoWo: 100 Works in 100 Years*, 30–31.

⁹¹ The MoMoWo Guidebook includes some of her works. See Helena Seražin, "Gizela Šuklje (1909–1994) Pioneer," in *MoMoWo. Women Architecture & Design Itineraries*, 210–11.

⁹² The MoMoWo Slovenia investigated this topic, and the results are published in the article by Alenka Di Battista, "Slovenian Women's Magazines and the Development of the Modern Home Concept in the Thirties," in *MoMoWo. between 1918 and 1945*, Series Women's Creativity 1, 176–95. https://doi.org/10.3986/wocrea/1/momowo1.10.

Sometimes, articles published in popular magazines are among the few sources available to bring the history of women pioneers out of the shadow, as is the case with Swiss landscape architect Margrit Hofmann (d. Mänedorf, 2002), whose archives are missing. Between 1941 and 1958, she was the author of articles published in the popular magazine *Das Ideale Heim* (The Ideal Home) mainly on the role of water in the design of private gardens and on some of her works.

From the article "Die Gartengestalterin Margrit Hofmann" (n.7, 1958) we can draw up some data about her achievements, ⁹³ and we know that she took part in the 1958 national exhibition in Zurich *Schweizerische Ausstellung für Frauenarbeit*- SAFFA II the theme 'The Swiss woman, her life, her work'. ⁹⁴ Specialist magazines involved others who participated in this second exhibition conceived and realised by women (the first one was in 1928 in Bern).

The architect who built (with Werner Müller) the Exhibition Hall for the Fine Arts of the SAFFA II Lisbeth Sachs (Neuenhof, 1914 – Zurich, 2002, grad. 1939) became well known for her journalistic activity, collaborating on the *Werk* architecture journal and in the daily newspaper *Neue Zürcher Zeitung* as a critic of architecture. Whereas, the landscape architect who is known for the design of the main exhibition site of 100,000 square meters on the left bank of Lake Zurich, Verena Steiner Dubach (Münsingen, Switzerland, 1927 – Kolding, Danemark, 2002) in 1959, became one of the founding members of the magazine *Anthos*. This is the magazine of the Swiss Association of Landscape Architects from whom Verena had been the first female member in 1959 and within she fought for gender equality in the professional field.⁹⁵

⁹³ In 1939, Margrit Hofmann opened an office with landscape designer Lisa Bächle, her classmate at the Horticultural School of Kösteritz in Thuringia, and then designed a large number of private gardens, public spaces, and the Uetikon cemetery. See Katia Frey, "Hofmann, Margrit," in *Le Dictionnaire universel*, vol. 2, 2007.

⁹⁴ The second SAFFA is featured in the MoMoWo Exhibition, see Eliana Perotti, "SAFFA 1958, Annemarie Constam Hubacher," in *MoMoWo: 100 Works in 100 Years*, 102–03. Another architect who built several pavilions for the SAFFA II fashion exhibitions was Claire Eckmann Ruffer (Wabern, 1914–Bern, 1973, grad. 1937 from the ETH Zurich) who worked with her husband, Oskar Ruffer.

⁹⁵ Katia Frey, "Dubach, Verena (Verena Steiner, puis Steiner-Dubach, puis Dubach-Andersen)," in *Le Dictionnaire universel*, 1321.

Among the landscape architects who founded periodicals in the 1950s is the Dutch pioneer Wilhelmina Jacoba, known as Mien Ruys Moussault (Dedemsvaart, 1904 – Deventer, 1999), who in 1954 created, with her husband the publisher Theo Moussault, the quarterly *Onze eigen tuin* (Our own garden). Before the foundation of this magazine that sparked the craze for private gardens and their upkeep, she had already published articles on garden design, especially in the popular periodical *Buiten* reaching a wide audience. In 1942, by publishing an article in *De 8 en Opbouw* that argued in favour of planted public space as a factor of social progress, Mien Ruys earned the recognition of the forward-thinking men architects linked to the magazine, thus receiving commissions for many other gardens including in 1958 the one in the textile factory De Ploeg Bergeijk, directed by architect Gerrit T. Rietveld. ⁹⁶

De 8 en Opbouw was a leading avant-garde architectural journal issued in Amsterdam from 1932 to 1943, whose editorial secretary, from 1934 to 1939, was held by leftist interior and furniture designer Liv, known as Ida, Liefrick Falkenberg (Arhnem 1901 – Berlin, 2006) who also wrote many articles about modern design for the professional magazine *Binnenhuis en Buitenwereld*.⁹⁷

Concerning pioneers in the field of landscape architecture we have to mention here the first Italian woman landscape architect, Maria Teresa Parpagliolo Shepard (Rome, 1903–1974), who regularly published articles not only in national Italian magazines such as *Il Giardino Fiorito* (monthly magazine of the Italian Society 'Friends of Flowers') and *Domus*. Further, she succeeded in writing for the British *Landscape*

⁹⁶ In 1960, Mien Ruys Moussault published a reference book regarding the relationships between urbanism, architecture and landscape for the quality of the Modern neighbourhoods. Mien Ruys Moussault and Jan Tijs Pieter Bijhouwer, *Leven met groen in landschap, stad en tuin*, (Amsterdam: Moussault, 1960). The gardens by Ruys are published by Carla S.Oldenburger-Ebbers, Anne Mieke Backer and Eric Blok (eds.), *Gids voor de Nederlandse tuin- en landschapsarchitectuur*, (Rotterdam: De Hef, 1995).

⁹⁷ Regarding Ida Liefrick Falkenberg's biography, see Klaus Kühnel, *Der Mensch ist ein sehr seltsames Möbelstück: Biographie der Innenarchitektin Liv Falkenberg-Liefrinck, geb. 1901*, (Berlin: Trafo, 2006).

and Garden and Journal of the Institute of Landscape Architects, international reference in the field. After having studied archaeology in Rome, due to the lack of schools in landscape architecture in Italy, she became a self-taught landscape architect and trained in England in the office of the well-known garden designer and writer Percy Stephen Cane (1881–1976).

Thanks to the reputation she gained through her articles on planting and garden design, urban design and broader environmental issues, Parpagliolo joined the planning team for the *Esposizione Universale* in Rome (E42), and in 1940 became head of the *Ufficio Parchi e Giardini* of this exhibition. When in 1946 she married Ronald Shephard, she moved to London and started to work on several projects with Modernist British landscape architect Dame Sylvia Crowe (Banbury, 1901 – London, 1997).

Crowe, who became president of professional organisations of landscape architects, has been a writer of influence and her most widely published book, *Garden Design* (1958), has had several reissues. Both Parpagliolo's and Crowe's writings disseminated among the readers and professionals the concept that garden and landscape belong to the same design domain, a central issue in the cultural debate of the twentieth-century theory of modern landscape architecture.

Between September 1930 and June 1938, Parpagliolo published more than thirty articles in the column "Plants, flowers and gardens" of the legendary Gio Ponti's *Domus* magazine. She wrote about all kinds of gardens and plants but only in one article did she present two of her garden projects. The magazine restrained women's contributions

⁹⁸ Regarding women pioneers in landscape architecture, including Maria Teresa Parpagliolo Shepard, publications of reference are: Sonja Dümpelmann, "Maria Teresa Parpagliolo Shepard (1903–1974), Her Development as a Landscape Architect between tradition and Modernism," *Garden History*, vol. 30, 1 (2002): 49–73; Sonja Dümpelmann, "Breaking Ground: Women Pioneers in Landscape Architecture: An International Perspective," in *Shifting Ground, Landscape Architecture in the Age of the New Normal. Proceedings of CSLA/CELA 2006 Conference: June 14–17, 2006, Vancouver, B.C., Canada, edited by Patrick F. Mooney, (Vancouver: University of British Columbia, 2006), 45–50, http://thecelaorg.ipage.com/wp-content/uploads/shifting-grounds-proceedings.pdf.*

mainly to columns and topics considered more feminine such as gardening, painting and sculpture (Art column by Lisa Ponti, Ponti's daughter), antique objects (Antiquities column by Anna Marchi), textile or ceramic design and home interior design.

The systematic browse I carried out in 253 Domus issues from the magazine inception in 1928 to 1950 also reveals the choice of mainly publishing works of women belonging to these fields of activity traditionally considered more feminine, while there are very few articles that present works of architecture or furniture not for house signed by women. 99 Hence, I can argue that until 1950 *Domus* nourished the gender prejudice on the perception of these professional fields among its readers. In the same span of time, besides Italian women authors of articles, as a consequence of Ponti's interest for craft and industrial design of Scandivanian production there were also Swedish women designers who wrote for the magazine. Among these, the artist and designer Tyra Lundgren (Stockholm, 1897–1979) was the most internationally famous for, and the most admired by Ponti for, her ceramic and glass works. She wrote about the Swedish designer and entrepreneur Estrid Maria Ericson (Öregrund, 1894 – Stockholm, 1981) who had used pewter for her items before working on furniture and interior design, founding the famous shop Svenskt Tenn (Swedish pewter) in Stockholm that participated at the IX Triennale di Milano.

Interior designer Lena Rabenius Larsson (Tranås, 1919–2000) analysed the design of home furniture produced by Nordiska Kompaniet (NK), recognising them as a model of practicality to be emulated in Italy too. Swedish-American designer and architect Greta Magnusson Grossman (Helsingborg, 1906 – Encinitas, California, 1999)¹⁰⁰ published her wooden house that she built and furnished in California.

⁹⁹ For further insights, see Caterina Franchini, "From the Embroidery to the construction. Women in Design and Architecture: *Domus* 1928 –1950," in *MoMoWo: 100 Works in 100 Years*, 248–55.

¹⁰⁰ Greta Magnusson Grossman is featured in the MoMoWo Exhibition, see Ana María Fernández García, "Interior of a Residence, Greta Magnusson Grossman," in *MoMoWo: 100 Works in 100 Years*, 72–73.

She was already a renowned furniture designer in Europe and one of the few women professionals to gain prominence during the mid-twentieth-century architectural scene in Los Angeles. Her furniture pieces continued to be published by *Domus*.

Through the magazine, you can discover women and works that have not yet been studied as it the case of architect Elena Fondra Asti, who was involved in the 'modernisation' of Ethiopia and Eritrea fostered by the Fascist regime. From the magazine, we know that she realised interiors and furniture of the house of Viceroy in Ethiopia and house of the Governor of Addis Abeba, and she built a rational small house in Asmara. Other cases include those of the architect Elena Campi who was the first to publish her projects for functional interior design and the architect Giovanna Pericoli (1924–1974), whose project for the Rapallo seaside promenade (with architect Alberto Mazzoni and engineer Pippo Prestalozza) was uniquely in being published in the magazine of an urban renewal project encompassing a woman.

The MoMoWo Polito teem studies on *Domus* and *Abitare*, and other contributions received about Italian periodicals such as *Stile Industria* and *Casabella*, have already led to the identification of new narrative themes, such as those specific to the perception and reception of women's works and their representation through the magazines. In addition to the renowned architects and designers such as Lina Bo (*Domus*), Gae Aulenti and Anna Ferrieri Castelli (*Casabella*) who collaborated with these magazines, many less-known women professionals have been brought to light.¹⁰¹

As specialised magazines, solo and collective *Exhibitions* (4.4) have also played a relevant role in giving public recognition to creative women. The data entries *Place* and *Dates* enable the mapping of when

¹⁰¹ Soon after her graduation, Gae Aulenti joined the legendary *Casabella-Continuità* editorial staff for ten years and, from 1974, she became a member of the editorial team of *Lotus International*, leading a think tank on architecture. Anna Ferrieri Castelli and her working partner Franco Albini joined the *Casabella* editorial staff in 1945.

and where these events took place, thus supporting the process of assessing the reception of the value of different generations of women creators. The account of exhibitions organised by the authoress on her work is valuable in exploring the multifaceted issue of self-promotion and self-representation. On the other side, the analysis of the past century exhibitions regarding architecture or design is crucial to investigate the topic of women's visibility. In this book, Marjan Groot summarises the critical points of view concerning "Craftswomen and Women Designers in the Netherlands" focusing on the period between 1880 and 1940. Moreover, from a different perspective, the essay by Maria Helena Souto provides specific insights on the topic dealing with 'improbable paths' of women in ceramic design in Portugal.

Since the late 1980s, several exhibitions have taken place in Europe to increase the visibility of women architects and designers' works. The majority of these exhibitions were dedicated to a single creator, while less were devoted to mapping authors and works. Among these were two exhibitions about design in Spain, the first *Women made: dones dissenyadores a Catalunya i Balears*, in 1999 and the second *¡Mujeres al proyecto! Diseñadoras para el hábitat!* (2007). The latter featured the works of emerging Spanish women designers in the domestic sector and was inaugurated in 2007 in Las Palmas before moving to Latin America.

Exhibition catalogues encourage research regarding women's works and provide documentation (dynamic link with the section *Bibliography 6.0*). Catalogues such as *Frauen im Design / Women in Design. Careers and Life Histories since 1900* (1989) devoted to German designers, ¹⁰³ *Dal merletto alla motocicletta / From lance to the motorcycle. Women*

¹⁰² Exhibition catalogues: Maia Creus, et al., *Women made: Dones dissenyadores a Catalunya i Balears*, (Palma de Mallorca: Govern Balear, 1999); Marcelo Leslabay, et al., *¡Mujeres al proyecto, disenadoras para el hábitat!*, (Las Palmas de Gran Canaria: Gobierno de Canarias, 2007).

¹⁰³ Exhibition catalogue by Angela Oedekoven-Gerischer, et al. (eds.), Frauen im Design. Berufsbilder und Lebenswege seit 1900 - Women in Design. Careers and Life Histories since 1900, 2 voll., (Stuttgart: Design Center Stuttgart, Haus der Wirtschaft, 1989).

artisan/artists and designers in 20th-century Italy (Ferrara, 2002)¹⁰⁴ and Nientedimeno / Nothingless. The strength of female design (2011)¹⁰⁵ was devoted to design from 1945 to 2000, and expressed the desire to pay tribute and publicly acknowledge work done by craftswomen, artists, designers and entrepreneurs who have contributed their efforts and fostered the design discipline since the early twentieth century. 106 Significant interest for design created by women has been recently confirmed by prestigious institutions such as the Centre de Création Industrielle (Centre National d'Art et de Culture Georges-Pompidou, Paris) and the Triennale di Milano. The first presented a new display of its collection devoted to women artists/designers (Elles@ Centrepompidou, 2009),107 while the latter opened the exhibition W. Women in Italian Design in 2016. 108 Curated by Silvana Annicchiarico and set-up by Margherita Palli, this exhibition is conceived to be the ninth edition of the Triennale Design Museum within the XXI Triennale di Milano International Exhibition 21st Century. Design After Design. 109

¹⁰⁴ Anty Pansera and Tiziana Occleppo (eds.), Dal merletto alla motocicletta: Arigiane/artiste e designer nell'Italia del Novecento. (Cinisello Balsamo: Silvana Editoriale, 2002). The exhibition was held in Ferrara in the Palazzo Massari, Padiglione d'Arte Contemporanea, from 3 March to 5 May, 2002. It was organised on the occasion of the tenth edition of the Biennale Donna, and realised in collaboration with the legendary association Unione Donne Italiane (UDI) founded in 1945.

¹⁰⁵ Anty Pansera and Mariateresa Chirico (eds.), *Nientedimeno = Nothingless: The Strength of Female Design* (Turin: Umberto Allemandi & C., 2011). Exhibition catalogue, Milan, Biblioteca di Santa Maria Incoronata, 8-22 April, 2011.

¹⁰⁶ Regarding women entrepreneurs and women in communication in Italy, see Luisa Bocchietto and Anty Pansera (eds.), *Dcomedesign: La mano, la mente, il cuore. Dizionario delle designer, imprenditrici e donne della comunicazione: 1902–2008 = Dictionary of designers, entrepreneurs, and women in communication: 1902–2008*, (Biella: Eventi & Progetti, 2008). Exhibition catalogue.

¹⁰⁷ Exhibition collection catalogue: Camille Morineau (ed.), *Elles@Centrepompidou: Artistes*¹⁰⁸ Exhibition collection catalogue: Marineau (d.), *Elles@Centrepompidou: Artistes*

¹⁰⁷ Exhibition collection catalogue: Camille Morineau (ed.), Elles@Centrepompidou: Artistes Femmes dans la Collection du Musée National d'Art Moderne, Centre de Création Industrielle, (Paris: Centre Pompidou, 2009).

¹⁰⁸ During the exhibition, the A/I/S Design Associazione Italiana degli Storici del Design organised a conference on the subject at the Triennale, and a relevant scientific book followed, see Raimonda Riccini (ed.), *Angelica e Bradamante: le donne del design*, (Padova: Il Poligrafo, 2017).

¹⁰⁹ Exhibition catalogue: Silvana Annicchiarico (ed.), *W. Women in Italian Design,* (Mantova: Corraini Edizioni, 2016).

According to Silvana Annicchiarico,

The stories of design so far told revolve almost entirely around a big black hole: the removal of the feminine. The concealment of the presence and contribution of women. The subjugation of women to a persistent and stubborn masculine hegemony. [..] As if the paradigm of the dominant patriarchal thinking would struggle to even recognize the role of women even when this was evident. [...] Women in Italian design have been and are, quantitatively and qualitatively, a significant presence that has been hidden, removed and marginalized. *W. Women in Italian Design* seeks to rectify this. Not a compensation, but rather a restored balance. *Resetting* the scene to enter the new territory of gender with a clear and transparent history behind it. No skeletons in the closet. 110

The MoMoWo International Travelling Exhibition "100 Works | 100 Years | 100 Women" opened on 1st July 2016 at the University of Oviedo and has shared the same aim of 'resetting the scene,' dealing with a multidisciplinary and European scale.

At each stage, the MoMoWo exhibition was enriched with new contents; for instance, "Women in Architecture. Contemporary Architecture in Serbia since 1900", curated by Milena Zindović¹¹¹ at the Belgrade Museum of Applied Arts (May-June 2018) and the "Generators of Landscapes. Six Historic and Six Contemporary Female Landscape Architects", curated by La Voce delle Piante, in Turin (Phlibero, 4 May-16 June2018). In doing so this amplified the visibility of women's legacy and heritage in several fields of creativity.

¹¹⁰ Silvana Annicchiarico, "Infinite Present. Epiphanies of the feminine in Italian Design," in Ibid., 17.

¹¹¹ See Milena Zindović (ed.), *Žene u Arhitekturi = Women in Architecture. Contemporary Architecture in Serbia since 1900*, (Belgrade: Centar za arhitekturu Beograd, 2014).

And the Winner Is: 'Joint Creativity' and Prizes for Women

The *Prize/s and Award/s* (5.0) section of the Database will play an essential role in answering questions such as: when did women start to receive appreciation for the value of their creative works? In which fields of design did they have public notoriety first? What is the percentage of women who receive awards compared to men? How has this percentage changed over time? When and where were the women's awards established and by who?

The careful examination conducted so far on more than fifteen international, European and local awards has already allowed for the identification of several women's works that have been included in the MoMoWo Guidebook. The aim is to increase both their visibility and accessibility through the cultural-tourist itineraries we offer.

As a general remark, local and national awards established by the organisations of architects and designers have proven to be more inclusive for women than international or European ones. Over the past century, creative women have at first gained recognition in the traditional 'feminine' design sectors, such as textiles, ceramics and glass design.¹¹² However, in architecture and related sectors, both women's works and careers have undergone a late recognition, in particular within international awards for which the 'glass ceiling' is striking. The Iraqi-British architect and designer, Zaha Mohammad Hadid (Bagdad, 1950 – Miami, 2016),¹¹³ broke the 'glass ceiling' more than anyone else, having been the first woman to win the prestigious Pritzker Architectural Prize in 2004. She won the Pritzker twenty-five years after the first winner American architect Philip Cortelyou Johnson (1979).¹¹⁴

¹¹² For instance, the prestigious *Triennale di Milano* prized women designers especially since the late 1950s, while women in industrial design received a late recognition, as occurred for the ADI - Compasso d'Oro.

¹¹³ She is featured in the MoMoWo Exhibition, see Carlo Caldera, "Vitra Fire Station, Zaha Hadid," in *MoMoWo: 100 Works in 100 Years*, 172–73.

¹¹⁴ Regarding the underrepresentation of women in the Pritzker Architectural Prize, see Caterina Franchini, "Pritzker Architectural Prize. Nobel dell'architettura o Oscar dello starsystem?," in *Architettura e Città del Novecento*, by Guido Montanari and Andrea Bruno jr., (Rome: Carocci, 2009), 283–91.

The controversy over the Pritzker Prize awarded in 1991 to Robert Venturi (1925–2018) solely and not jointly to his partner and spouse, architect and urban planner Denise Scott Brown (née Lakofski, Nkana, now Zambia, 1931), has only recently arisen since 2013. This fact reveals that the issue of the lack of public recognition of women in the field of architecture has been considered acceptable for a long time. It took 22 years to get out of the shadows and start to seriously discuss the issue of sexism and the notion of 'joint creativity' affecting the architectural star-system.

It is significant to note that this controversy was launched by a female student organisation rather than by the community of architectural critics and historians. Further, academics would have had the opportunity to publicly challenge the general view that great architecture is the work of a 'solitary male genius' and to state that time is mature to narrate the history of contemporary architecture as a collaborative work

The students of the Women in Design Association at the Harvard Graduate School of Design were brave in starting the petition on behalf of Denise Scott Brown, thus pointing out that women have been consistently denied the standing they deserve. Despite this debate, the work of Denise Scott Brown, as well as that of Chinese architect Lu Wenyu (b. 1966), equal partner and spouse of Wang Shu (b. 1963) who received the Pritzker in 2012, were not rewarded on the basis that the decision of past juries could not be changed.

However, in 2010, the Japanese duo founder of the SANAA – Kazuyo Sejima (b. 1956) and Ryūe Nishizawa (b. 1966) – won the Pritzker and, in 2017, the Spanish founders of RCR Arquitectes – Rafael Aranda (b. 1961), Carme Pigem (b. 1962) and Ramon Vilalta (b. 1960) were also awarded – showing that a more equalitarian recognition of joint merits in the architectural star-system is achievable.

A year before winning the Pritzker, Zaha Hadid had already been the first woman to win the Mies van der Rohe Award (2003) for the Car Park and Terminus Hoenheim North, which she designed in Strasbourg.

Regarding the biennial prestigious European Union Prize for Contemporary Architecture – Mies van der Rohe Award, 115 out of the fifteen winner architectures, from 1988 to 2017, only two authors were women. In addition to the work of Hadid, the Dutch architects Ellen van Loon (Rotterdam, 1963) and Rem Koolhaas (Rotterdam, 1944) - Office for Metropolitan Architecture (O.M.A.) – got the 2005 edition for the Netherlands Embassy in Berlin. The low percentage of winning women (13%) has increased to 33% with the Mies van der Rohe Special Mention Emerging Architect recognising the work of young professionals starting their careers. Out of the nine biennial editions (from 2001 to 2017), three were awarded to architectures designed by women in partnership with a man. In 2009, won the Gymnasium 46° 09 N / 16° 50 E in Koprivnica (Croatia), which was designed by the Croatian duo Lea Pelivan (b. 1976) and Toma Plejic (b. 1977) of the Studio UP, won; in 2011, the single house Casa Collage (in Girona) designed by Spanish Ramon Bosch (b. 1974) and Bet Capdeferro (b. 1970), was awarded, and in 2013, the Red Bull Music Academy/Nave de Música Matadero (in Madrid), designed by María Langarita (b. 1979) and Víctor Navarro (b. 1979), received the prize. The data from the Mies van der Rohe Prize show the continuity of the historical trend of female architects working in pairs with male colleagues and/or partners. However, unlike in the past, man-woman joint creativity is now recognised at least for the younger generation. To encourage equality in a profession with a strong predominance and visibility of men, women architectural prizes appeared in European countries only recently. These prizes aimed to highlight the works and careers of women architects so that the younger generations of female architects can draw inspiration from existing professional experiences.

The most famous women prize is the Architects' Journal Women in Architecture Awards. It originated from the Jane Drew Prize on the

¹¹⁵ In 2001, the Mies van der Rohe Award became the official architecture prize of the European Union. Regarding nominee, shortlisted, and finalists, see https://www.miesarch.com/archive.

base of a discussion between the Women Architects Group of the Royal Institute of British Architects (RIBA) and the Arts Council of England. The award was created in 1997, one year after the English modernist woman pioneer architect Dame Jane Drew passed away. Initially, the Jane Drew Prize was intended to address both men and women showing innovation, diversity and inclusiveness in architecture, and the first edition winner (1998) was the American landscape architect Kathryn Gustafson (Yakima, 1951) for her body of work combining individual artistic sensibility and teamwork.

Due to various problems, the prize ended, but then subsequently resumed in 2012 under the authority of the Architects' Journal. The prize then focused on the recognition of the 'contribution to the status of women in architecture'.

Zaha Hadid was the first woman to win the Pritzker Prize, and was also the first awarded (2012) with the AJ Women in Architecture Awards. Subsequently, she received the RIBA Royal Gold Medal for Architecture in 2016.

The RIBA Royal Gold Medal, instituted by Her Majesty Queen Victoria in 1848, is one of the oldest in Europe and in its 171 years of its existence (1848-2019), out of 169 architects, only four women have been awarded (2,3%). The first woman recipient was British architect Percy Scott Worthington (Crumpsall, 1864 – Mobberley, 1939) in 1930. Additionally, in 1979, the American Office of Charles and Ray Eames were awarded, and then in 1994, British architects Michael Hopkins and Lady Patricia Ann Wainwright Hopkins, known as Patty Hopkins (Stoke-on-Trent, 1942). The latter has played a leading role in combining modernity and tradition in respecting the environment in several projects, including the prized Glyndebourne opera (Sussex, 1988-94). To go back to the AJ Women in Architecture Awards, after Hadid, the winners included Czech Eva Jiřičná (2013); Scottish Kathryn Findlay (2014); Grafton Architects of the Irish Yvonne Farrell and Shelley McNamara (2015); French Odile Decg (2016), co-founder of Studio Odile Decg; Denise Scott Brown (2017), principal of the firm Venturi, Scott Brown and Associates; and British Amanda Levete (2018), principal of the firm AL_A.

Amanda Levete (Bridgend, 1955)¹¹⁶ was the first woman to win the RIBA Stirling Prize for excellence in architecture in 1999, at its fourth edition. This national prize, replacing the RIBA Building of the Year Award, is considered to be the most prestigious architecture award in the United Kingdom and is given to the author (man or woman) of the building that 'has made the greatest contribution to the evolution of architecture in the previous year'. Amanda Levete was credited with making the Future Systems' organic and conceptual designs a reality. Recognised as one of the UK's most innovative practices, Future Systems completed works including the Selfridges department store in Birmingham and the Lord's Media Centre, which won the Stirling Prize. In 2005, the prize was awarded to the Scottish Parliament Building (Edinburgh, 1999–2004) designed by EMBT of architects Enric Miralles Moya (1955–2000) and Benedetta Tagliabue (Milan, 1963)¹¹⁷. Subsequently, Zaha Hadid won the prize two times, for the MAXXI - Museo Nazionale delle Arti del XXI secolo (Rome), in 2010, and, for the Evelyn Grace Academy (EGA) in Brixton, in 2011. In 2017, the Hastings Pier (opened in 2016), a renovation project by dRMM Architects of Sadie Morgan (Kent, 1969), Alex de Rijke and Philip Marsh, was awarded. Prizes for women include the international social prize for women designers arcVision Prize - Women and Architecture and Le Prix des Femmes Architectes both of which were launched in 2013.

The arcVision Prize-Women and Architecture aims at giving recognition and fostering visibility to women whose work shows significant qualitative excellence and attention to the contemporary core issues

¹¹⁶ Amanda Levete is featured in the MoMoWo Exhibition, see Ester Rodríguez Ortiz, "Docklands Floating Bridge, Amanda Levete," in *MoMoWo: 100 Works in 100 Years*, 174–75.

¹¹⁷ Benedetta Tagliabue is featured in both the MoMoWo Exhibition and Guidebook, see Gerardo Díaz Qirós, "Hambourg School of Music, Benedetta Tagliabue," in Ibid., 186–87; Ana Mária Fernández García, "Saint Catherine's Market," in *MoMoWo. Women Architecture & Design Itineraries*, 21. Benedetta Tagliabue was a member of the panel jury of the arcVision Prize together with Odile Decg.

of construction, namely technology, sustainability, social and cultural implications. This prize gives evidence especially to women working in challenging social or environmental conditions.

The winners of the four prize editions include Carla Juaçaba (Brazil, 2013), Inês Lobo (Portugal, 2014)¹¹⁸, Angela Deuber (Switzerland, 2015), and Jennifer Siegal (California, 2016). Launched by the Italcementi Group, the arcVision Prize selected 90 female architects from around the world, with almost 50% of those coming from Europe.¹¹⁹

The nominees of the arcVision Prize demonstrated that as in the past, in today's society, women play a central role in building a more harmonious and sustainable future, combining technological innovation with creativity, sensitivity, and dedication. The hope to participate in the construction of happier cities and communities by designing beauty and functionality, and the aim of transforming the very face of the present, are still the trademarks of social housing projects. For women in social housing, architecture building is an act of commitment in giving answers to sustainably by creating the desired generous conditions for an open society of solidarity and quality urban lifestyles. Like the pioneers, these women architects still believe that the mission of an architect is a guintessential service intended to make people's lives more agreeable, a noble calling that seeks to make the world more beautiful and more human and to make society fairer. As already defined in the past century experiences since the Modern Movement research, flexibility of housing units, modularity of interior spaces, the versatility of outer appearance and low-cost prefabrication building technologies are still the key features of social housing projects. Efficient low energy impact, effective use of recycled building components or materials, reuse of housing units, and active participation

¹¹⁸ Inês Lobo is featured in the MoMoWo Exhibition, see Maria Helena Souto and Marta Almeida Santos, "Francisco Rodriguez Lobo High School; Inês Lobo," in *MoMoWo: 100 Works in 100 Years*, 202–3.

¹¹⁹ A catalogue is available for each edition of the prize on the official website http://www.arcvision.org/category/arcvision_prize_it/.

of users in developing and up-keeping their new homes are the innovations of many recent projects designed by women architects. Budget restrictions to provide solutions to low-energy consumption are limitations turned into opportunities for designing new technological construction systems able to realise both low-cost thermal comfort and aesthetically featured architecture. The design activity of Slovenian architect Špela Videčnik -OFIS architecture agency- (nominee of the 2016 prize edition) epitomises this approach of creative technological innovation. An outstanding example is the 'sustainable balcony box' of the *Honeycomb Apartments* in Izola. Each balcony is a module that provides an efficient system of natural ventilation and thermal comfort in the apartments in both winter and summer time.¹²⁰

Among the most relevant societal challenges of our century is the issue of refugees and the consequent new need of housing and settlements in many European countries. The research and design work of agency *YES* Architecture (Munich-New York, since 1994) – founded and directed by architect Ruth Berktold¹²¹ – led to a remarkable housing project-system for refugees in Germany.

Named Y-ESCAPE (2016), the project presented for the archVision prize is based on the reuse of maritime containers that are insulated according to the German Energy Savings Ordinance (EnEV) to form flexible housing units with pre-selected façade cladding in wood, plaster and metal and modular-customised interiors. A consistent part of the project is focused on fostering the process of integration in society. Thus, much emphasis is placed on the identification of the refugees with their new home and neighbourhood. With this aim, besides a catalogue of predesigned façade options to chose from, the

¹²⁰ This building is featured in the MoMoMo Guidebook, see Helena Seražin, "'Honeycomb' Housing Blocks," in *MoMoWo. Women Architecture & Design Itineraries*, 199.

¹²¹ Ruth Berktold is also a founding member of the *Climadesign e.V.* and works on sustainable design engaging in her agency diverse group of artists and designers in an evolving research-based collaborative practice. Her biggest work is the *World Conference Center Bonn* – WCCB (Bonn, 2006–2015), an extension to the former German Parliament that was awarded the first prize in the international architecture competition.

residents can also decide on easy, do-it-yourself furniture kits designed by YES Architecture. Residents are encouraged to participate in the cultural-social development and maintenance of their neighbourhood spaces, such as urban gardens and collective terraces, children's playgrounds, learning centres, visitor areas, prayer rooms and storage units. The prefabricated modules of living-rooms, bedrooms, kitchens and dining areas can be easily dismantled, transported to different locations in Germany and reassembled to form student housing, apartments for the elderly and social housing, and thus, ensuring through their flexibility of use the sustainability of the investment.

From the analysis of the nominee's works, a recent phenomenon of new-based architectural agencies of European women in Asia can be observed. This phenomenon originated from the working opportunities aroused from international exhibitions and architecture competitions.

Eva Castro and Ulla Hell opened a branch office of their Plasma Studio in China when they won together with GroundLab, the invitation-based international competition for the International Horticultural Expo 2011 in Xi'an, the business capital of China's vast interior. Their Xi'an Flowing Gardens project (2009–2011), presented at the arcVision prize, embodies a radical self-sustainable vision for the future, merging water, plantings, circulation and architecture in one seamless system. This project of landscape architecture has been the instigator and central core for the redevelopment of a large area between the airport and the centre of the city that is worldwide renowned for its Terracotta Army. The 37 ha of land are designed according to an analytical and holistic project methodology that is able to create transformative tectonic set spaces, planes and bodies into unexpected relationships that challenge conventional topographies and spatial codes as a critical reverberation of the Deconstructivist poetic. Responding to the specificities of the local context, Eva Castro and Ulla Hell designed a landscape architecture of trajectories that values the possibilities of connections with the surrounding environment. The Exhibition Hall (Creative Pavilion 5000 m2), Greenhouse (4000 m2) and Gate Building (3500 m2) epitomise the 'folding space into space' concept of the Plasma studio that draws landscapes into buildings, streets and paths into façades in a conceptual process that comes from the inside out. From Beijing, Hong Kong, London and Bolzano, Eva Castro and Ulla Hell are continually exploring how architecture can act as a link between global, regional, urban and environmental systems and forces on the one hand, and the sphere of subjective, individual corporeal experiences on the other.

The arcVision prize is a revealing initiative, proving that a private company in the building materials sector bet on women architects to face the sustainability issue that will be the business of the future in construction.

Different but no less important is the Prix des Femmes Architectes, instituted by the *Association pour la Recherche sur la Ville et l'Habitat* (ARVHA, Paris). This prize is supported by the French Ministry of Culture and Communication, the Ministry Women's Rights and the Order of Architects. Since its inception, the prize includes three main categories: Prize Woman Architect (3–5 projects built), Prize Young Woman Architect (under 40 years old, 3–5 projects both built and unbuilt), and the Prize Original Work. French architect Odile Decq (Laval, 1955), who already received the Leone d'Oro of the Venice Biennale di Architettura, in 1996, won the Prize Woman Architect at the first prize edition in 2013.¹²²

¹²² In the same category, the winners are: in 2014, Manuelle Gautrand (Marseille, 1961); in 2015, Corinne Vezzoni (Arles, 1964); in 2016, Véronique Joffre and Sophie Berthelier, in 2017. All the laureates and their works are published in the official website see, http://www.femmes-archi.org.

Some of the works submitted for this prize by Odile Decq and Manuelle Gautrand are featured in both MoMoWo Exhibition and Guidebook see, Carlo Caldera, "MACRO Rome's Museum of Contemporary Art. Odile Decq," in *MoMoWo: 100 Works in 100 Years*, 188–89; Alain Bonnet, "Citroën Showroom. Manuelle Gautrand," in Ibid., 200–01. Regarding the works by Odile Decq in Paris, see Alain Bonnet, "Phantom" – L'Opéra Garner Restaurant," in *MoMoWo. Women Architecture & Design Itineraries*, 82; Id., "Residential Building in 'Goutte d'Or'," in Ibid., 93. Regarding the works by Manuelle Gautrand in Paris, see Alain Bonnet, "Gaîté Lyrique Theatre," in Ibid., 89; Id. "Citroën Showroom," in Ibid., 100 "'Origami' – Office Bilding," in Ibid., 101.

In 2017, ARVHA added the International Prize to the existing categories, which focuses on 3–5 projects realised by a woman architect registered to the Order of Architect of her country, except for France. Carme Pinós Desplat (Barcelona, 1954) won the prize.

What makes the Prix des Femmes Architectes extraordinary is the Special Mentions Pioneer, which finally gives the deserved recognition to the merits of the generation who opened the way for women in architecture and are still suffering from marginalisation in historiography.

In 2014, the ARVHA Special Mention Pioneer was awarded to Renée Gailhoustet (Oran, French Algeria, 1929, Special Mention 2014), who challenged the concept of social housing for a more egalitarian society and succeeding in building several estates in the Paris suburbs and at La Réunion between the late 1960s and the mid-1980s. Further, in 2016, Éliane Castelnau Tastemain (Mont Dore, 1923) was the second to receive the Special Mention Pioneer. She studied in Auguste Perret's studio and graduated in architecture in 1954. From 1956 to 1962, she was the inspector of urban planning for the cities of Rabat-Salé and Meknes in Morocco, and she specialised in hospitals during the 1970s and 1980s. 123

Awards for women pioneers can significantly contribute to 'reweaving the threads' of professional memory and recovering the material and immaterial cultural heritage that has been kept in the shadows or removed by the dominant culture, for the benefit not only of women but of the whole community.

¹²³ See Joseph Abram, Auguste Perret's studio. Les architectes du troisième atelier Perret: la génération des Trente Glorieuses, (Paris: Association des Amis d'Auguste Perret; Nancy: Ecole Nationale Supérieure d'Architecture de Nancy, 2015).

Mind the Gap! Women's Archives Tracking

The last data fields of our 'Women Detector' are devoted to documentation and include *Writings, Bibliography, Webliography and Archives* (6.0). In addition to the list of *Bibliography* and *Webliography*, the *Writings* data field can comprise both published and unpublished texts that women identified in the Database wrote. As a matter of fact, in many cases, starting from pioneers, they merged theoretical and practical activities.

It is also quite commonplace to see that women architects and designers joined their independent professional practice with research and teaching in academia, having an intense written production. In spite of this, since the inception of the MoMoWo research, it has been clear that the contribution of women has been omitted or is incredibly underrepresented in the mainstream Histories of Architecture and Construction mostly written by men historians, and often also in Design History. How can we quantify this gap of representation?

At the 1st MoMoWo Workshop (Leiden, 2015), Florencia Fernandez Cardoso¹²⁴ showed us an effective way to answer this question based on her original adaptation of the three-question Becdhel's test that was conceived to evaluate women's representation in film. However, one more question we need to ask ourselves is why has this gap not been filled yet?

Leaving aside possible reasons related to power relations between genders in the transmission of memory within the elaborate process of affirmation of professional identities, the research we carried out for the implementation of the Database on published sources, national censuses, inventories and various kinds of online portals, showed that women's archival documents are still in shadow. This it seems to be one of the main reasons why the tangible and intangible cultural

¹²⁴ See Florencia Fernandez Cardoso, "How Wide is the Gap? Evaluating Current Documentation of Women Architects in Modern Architecture History Books (2004–2014)," in *MoMoWo. between 1918 and 1945*, Series Women's Creativity 1, 230–249. https://doi.org/10.3986/wocrea/1/momowo1.13.

legacy of women continues to present difficulties in being studied, recognised, protected and valued.

On the basis of this observation, in the last two years, the MoMoWo Polito team has developed a special section devoted to *Women's Archives* and has already released some results on the map online. This special section has the aim of offering scholars an open access tool to facilitate the identification of archives or archival collections that are suitable for supporting new interpretations of the historical knowledge and for fostering further research in the final attempt to bridge the gender gap.

How to design a digital platform capable of providing virtual reorders of complex interwoven information on constellations of archives and archival collections has been a concern at the very core of the thinking and experimentation we are conducting. Since we envisage carrying out a continuous mapping of archives and archival fonds of European and non-European women designers who have worked in Europe from 1918 onwards, at the MoMoWo *Symposium 2018* we devoted to the topic a plenary session and two parallel sessions under the title *Women 'as Subjects.' Documentation, Methodology, Interpretation and Enhancement* (Chairs: Caterina Franchini and Emilia Garda), ¹²⁵ and we presented the work in progress outcomes to a broad international audience. ¹²⁶

It has been possible to find some archives/fonds/collections that are in public institutions through the Unified Information System for the Archival Superintendent bodies (SIUSA) and the online publications of the Archives of Architecture Association AAA/Italia. The research has also been carried out through online catalogues of the archives of the

¹²⁵ The abstracts are published in Caterina Franchini and Emilia Garda (eds.), *MoMoWo Symposium 2018*, 158–60, 170–85.

¹²⁶ See Enrica Maria Bodrato, Francesco Fiermonte, Caterina Franchini and Emilia Garda, "The MoMoWo Database: Searching for 'Kamino': Mapping to Build and Share Knowledge," in *MoMoWo Symposium 2018, International Conference*, 162. C. Franchini was responsible for scientificcoordinationanddataresearch; E.M. Bodratoassessed the consistency of the fonds and prepared the data entry; F. Fiermonte cared about the technical implementation and data entry; E. Garda supervised the preparation phases.

Museums of Architecture and Design in Europe and the world, as well as various platforms on women in science and art.¹²⁷

The International Archive of Women in Architecture (IAWA)¹²⁸ has proven to be a valuable source for growing our mapping, as it is remarkable and unique, not merely because it specialises in women in architecture but also because it represents around 40 countries in the world. This archive is in itself a cultural heritage; it is the legacy we received from its founder, the extraordinary woman pioneer, Bulgarian constructivist architect and architectural historian Milka Tcherneva Bliznakov (Varna, Bulgaria 1927– Blacksburg, Virginia, 2010, grad. 1951) who immigrated to the United States in 1961.

The questions that prompted Milka Bliznakov to found the IAWA in 1984 are ultimately the same that we aimed to answer within the MoMoWo project. Why have women's accomplishments so often been omitted from architectural history, and how can we correct the record?

Browsing the Guide to the IAWA Collections¹²⁹ revealed that most of the collections are of European architects, namely 52.28% (184 out of 352), while only 37.5% (132) are from North American women architects.

The IAWA Biographical Database will allow for tracking the women designers' fonds conserved in other archives to continue the mapping. For this purpose, some websites specifically dedicated to making the work of women in architecture visible are also useful, such as the New Zealand website 'Architecture + Women-NZ' (http://www.architecturewomen.org.nz/), which has provided a current database on women

¹²⁷ Among others: National Technical Museum of Prague, Architecture Collections of the Nasjonalmuseet of Oslo, National Museum of Ireland Archive, Museo Nazionale delle Arti del XXI secolo - MAXXI of Rome, the website "La Scienza a due Voci," Le donne nella scienza italiana dal Settecento al Novecento, accessed February 15, 2018, http://scienzaa2voci.unibo.it/.

¹²⁸ "Home," International Archive of Women in Architecture (or IAWA), http://spec.lib.vt.edu/IAWA/.

¹²⁹ See "Guide to the IAWA Collections," International Archive of Women in Architecture (IAWA), accessed January-February, 2018, https://spec.lib.vt.edu/IAWA/guide.html; "IAWA Biographical Database," Virginia Teach, accessed January-February, 2018, https://iawadb.lib.vt.edu/.

in architecture associated with New Zealand since 2011.¹³⁰ This website can be used to identify the names of European women architects who have worked in New Zealand and the New Zealanders who have worked in Europe, then to search for their archives.

The archives of professional associations of architects and engineers as well as those of women associations can also offer useful clues for finding the project archives of female professionals. Consider, for example, the recent surveys carried out by trade magazines such as the Women in Architecture Survey by the British magazine *The Architectural Journal*, which gathers data on the women enrolled at the Royal Institute of British Architects (RIBA).

The investigation I have carried out so far revealed some critical aspects concerning the identification of women's archival collections. Documents of most of the works included in several online censuses are in designers' private archives or in archival fonds, bearing the name of the male architect with whom the woman has also worked as co-author.

For instance, the documents of Carla Federspiel are in the *Fondo Marco Zanuso* at the Fondazione Archivio del Moderno (Modern Archive Foundation) of the University of Italian Switzerland in Mendrisio; the documents of Anna Ferrieri Castelli (Milan, 1920–2006, grad. 1943)¹³¹ are in the *Fondo Ignazio Gardella*, and those of Egle Maria Trincanato (Rome, 1910–Venice, 1998) are in the *Fondo Samonà*. These are both at the Centro Studi Archivio Comunicazione (Communication Archive Study Centre, CSAC) of the University of Parma. An archival collection of Egle Maria Trincanato is also at the archives of the Venice University Institute of Architecture (IUAV).

Among all the women architects whose works are in the Italian online national census, only four have an archive or archival fond listed in

¹³⁰ In recent years, this database has often been supported by a series of quantitative and qualitative surveys, such as different remunerations between sexes and difficulties in reconciling family life and work.

¹³¹ She is featured in the MoMoWo Exhibition, see Emilia Garda, "Componibili, Modular System, Anna Ferrieri Castelli," in *MoMoWo: 100 Works in 100 Years*, 120–21.

their name in an institution. The Franca Stagi Archive is conserved at the 'Luigi Poletti' Civic Art Library in Modena; the Archive of Giuliana Genta (Rome, 1922 – Frasso Sabino Rieti, 2005) is at the Central State Archives in Rome; the Franco Albini and Franca Helg (Milan, 1920–1989). 132 Archives are at the Franco Albini Foundation in Milan, and the archival fond of Liliana Grassi (Milan, 1923–1985) is at the Historical Archives of the Polytechnic of Milan.

The historical archives of schools, universities or polytechnics preserve valuable archival fonds for ongoing studies, ¹³³ but their consultation is often subject to privacy restrictions. Even when these archives are in digital form, they seldom have open access for the same reason.

The digitalisation campaigns of the last few decades have made inventories and digital documents of project archives available online, which are proving to be useful research tools. The digital sources I analysed have turned out to be somewhat 'volatile', unstable and subject to rapid obsolescence. Platforms and databases appear and disappear online every day from the web; their contents are updated continuously and are growing. Therefore, I identified and selected the data while also considering its degree of 'stability'.

Information and communication technologies (ICT) make it possible to collect data, select and share it, thus increasing access to sources of knowledge. However, as revealed by our study, the visibility given to women's works remains quantitatively limited and the path to be taken requires carrying out biographical investigations to use as a starting point for finding these women's project archives.

¹³² She is featured in the MoMoWo Exhibition and in the Guidebook, see Elena Dallapiana, "San Lorenzo Treasure Museum, Franca Helg," in *MoMoWo: 100 Works in 100 Years*, 90–91; Id., "Lascaris Palace," in *MoMoWo. Women Architecture & Design Itineraries*, 116.

¹³³ See the abstract by member of the MoMoWo Polito team Margherita Bongiovanni, "Women Architects and Engineers from the Polytechnic of Turin Archives," in *MoMoWo Symposium 2018, International Conference*, 170.

The aim of the MoMoWo in *Women's Archives* is to help the scholarly community to share and pursue the recognition of women's contributions that have been omitted or forgotten by the histories of architecture, urban planning, landscape and design. The primary aspiration is to recover the lost knowledge to fill a cultural gap, just as has occurred for other disciplines that have been attempting a 'historical reparation' in past decades through the recovery of gender memory that has been affected by long-term 'documentary amnesia'.¹³⁴

The identification of 'pulverised' archival fonds and documents in the 'nebula' of archival institutions and the discovery of personal archives is an essential step to progress with both the construction of individual case histories and the creation of quantitative histories capable of reshaping the reception of the European cultural legacy and heritage created by women.

¹³⁴ See Maria Bacchi, "Colmare un vuoto e costruire una memoria," in *La memoria e l'archivio. Per una storia della presenza femminile a Mantova in età contemporanea: Atti del seminario Mantova, 28–29 Ottobre 2000*, Gruppo 7 Donne per la Pace, (Mantua: Gianluigi Arcari, 2001), 17–28.

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Annexes



An Open Source 'Approach' for the MoMoWo GIS Database

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Knowledge can be a powerful tool to improve our 'stream of consciousness' about social, economic and environmental issues but needs to be supported by sharing and exchange of an increasingly complex system of data and information. Maps are part of our daily life, assembling and displaying a variety of scenarios from real-time traffic information to weather. It seems that without maps not only a place but even a fact, or an experience do not longer exist.

Since the MoMoWo project inception following an in-depth resource process, the MoMoWo scientific team has collected and organised in a database a variety of data concerning biographies, works and archives of women architects, civil engineers and designers. One of the primary goals of this database is improving accessibility to knowledge.

After devising a database model, during the construction phase, taking into account the different technical possibilities available to us, we have set ourselves the following questions. Is it most suitable to use a Proprietary Software (PS), a Libre Software (LS) and/or an Open Source Software (OSS) to organise and share the data? In the last years, Free Software (FS), LS and OSS merged into a unique FLOSS paradigm. Since the Polytechnic of Turin (Polito) can use both, PS and FLOSS, which of these two may be the best? As it is known, the former requires the user or developer to acquire (and pay for) a license, while the latter is free and the user or developer can use and re-use, according to the license terms and conditions, the code without any fee.

When a user pays for a license, he/she has access to time-limited help-desk support and some additional benefits. When a user chooses FLOSS, he/she becomes part of a life-long community that shares knowledge free of charge. Users can participate by donating money, offering their own time (e.g. translating a part of a guide or some menu of the Graphic User Interface - GUI) or, last but not least, by creating a software module, a plugin, and releasing it under a 'free license' (e.g. CC-0 or CC-BY).

As a result of the considerations mentioned above, it was clear that to provide

extended visibility for the MoMoWo database we had to use a FS, as this paradigm epitomises the 'user four freedoms' (FSFE, "Free Software's Four Freedoms"), namely:

- The freedom to run the program as you wish, for any purpose (freedom 0);
- The freedom to study how the program works and change it (freedom 1). Access to the source code is a precondition for this;
- The freedom to redistribute copies so you can help your neighbour (freedom 2);
- The freedom to distribute copies of your modified versions to others (freedom 3). By doing this, you can give the whole community a chance to benefit from your changes, and access to the source code is a precondition for the purpose. Starting from the concept that 'Open source does not just mean access to the source code,' the Open Source Initiative released the Open Source Definition (OSD) to improve the previous concept. The OSD added, among other things, the freedoms and rights listed below: 'No Discrimination Against Persons or Groups'; 'No Discrimination Against Fields of Endeavor'; 'License Must Not Be Specific to a Product'; 'License Must Not Restrict Other Software'; 'License Must Be Technology-Neutral' (OSI, "The Open Source Definition"). In other words, 'bridges' are better than 'walls' and knowledge rejects barriers.

By sharing these values of freedom, the MoMoWo database used FLOSS to manage and publish the results on the web: LibreOffice package for word processing and the Free and Open Source Quantum Geographic Information System – QGIS for building maps and graphic representations (QGIS, "Web Mapping with QGIS2Web"). The Polito's MoMoWo team have tried to change its working procedures to develop and share a new concept of (free) co-operation and has released a WEB GIS database system, based on free and open source software, to break down knowledge barriers. We started to collect and organise data and information using LibreOffice, saving points about women designers and their works using OpenStreetMap as a basemap a free and collaborative mapping system (OSMF, "OpenStreetMap"). Our goal was achieved using a QGIS with an excellent plugin (Github, qgis2web, "A QGIS plugin") to export data to an OpenLayers/Leaflet web-map, a service ready to use and navigate (OpenLayers, "A high-performance"). Users can search for a place, browse the map, ask for information and freely get access to text and images, downloadable if desired

According to the international community, Geographic Resources Analysis Support System - GRASS (OSGeo Project, "GRASS GIS") and QGIS today represent the most used GIS OSS for the desktop. The core software allows the user to perform a variety of actions with an extreme control of the results. The possibility to read, modify, share the source code and execute algorithms enable the user to control the complete process (input/output) with a maximum level of awareness avoiding 'closed formulas' or 'hidden procedures'. The entire code leaves a 'clear' status ready to be investigated and changed whenever necessary.

A desktop-GIS client cannot help us to publish our maps and services on the WEB, which is what led to the creation of the extraordinary plugin ggis2web that can

convert all kind of layers loaded into a QGIS project –just as they are displayed in the Table of Contents (TOC) – into a WEB package. So, the MoMoWo archives, designers and works will be tagged respectively with blue, red and green dots on the WEB also. Each point is linked to its record in the database containing such information as the name of the designer, her picture and a photo of one of her works and so on. Following the HTML syntax, the attribute table of the layer of a point has been populated with the required texts and formatting tag to create a dynamic hyperlink between the point geometry and the database. For example, when a user clicks on a point, for a pop-up photo to appear, the connected database column must contain a specific string.

After the creation of the data structure, all the point features are related to a database and the project can be 'moved' easily into a WEB page. To perform this operation, the user can download and set up the 'qgis2web' plugin from the QGIS repository and load it into the software. This add-on displays all the layers loaded into the QGIS project and the related options (**Fig. 1**).

The dialogue allows the user to set up tools and parameters such as column visibility, the label to display, the search engine tool, the table of contents and so on. The user can also add a specific 'background', such as OpenStreetMap (OSMF, "OpenStreetMap"), Stamen (City Tracking, Knight Foundation, "Stamen") or others base maps. Last but not least, it is possible to choose between OpenLayers and LeafletsJS javascript libraries (Agafonkin, 2017). In our project, we used LeafletsJS. The Export button (**Fig. 1**), on completion of certain operations, creates a standalone package made by files and folders. Browsing the folder structure, we observe that Cascading Style Sheets (CSS) may contain the 'styles'; *Data* shows data in JS (JSON) format; *Images* stores the pictures; JS holds the javascript modules; *Legend* stores the icons and *Markers* the symbols. Each folder contains all those files necessary to manage a WEBGIS. In the root folder, also, the user can find a HyperText Markup Language file, which includes a collection of functions and links. This index can manage all user requests.

Once the package is created, it is possible to use it immediately by working on the localhost (the same PC that you are using) or publishing it on a WEB server in a minute. In order to perform this operation, it is sufficient to connect and paste all the files and the folder just created onto a WEB server. For lading an HTML file, a WEB browser is required to display a map or just a text editor to investigate and even modify the source code.

The final output of the map may appear like the one below **(Fig. 2)**. In the top left corner of the map area, it is possible to find a zoom tool or the mouse wheel and a magnifying instrument that allows the user to search for an Architect (for example Hadid); on the right, a tool to measure distances and a *Search* for finding places. The Table of Contents button displays a small legend that disappears when the cursor is pulled away. To move the map, to perform a pan operation, left click on the mouse and drag the area. For a short guide to qgis2web, it is possible to find a clear tutorial in the GitHub repository or into one of the QGIS tips pages.



Captions

Fig. 1. MoMoWo Database. The 'qgis2web' dialogue realised by the Polito's MoMoWo team.

Fig. 2. The MoMoWo WebGIS realised by the Polito's MoMoWo team.

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Searching for Women's Architectural Archives: The Italian Case Study

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'Archives are the documentary by-product of human activity retained for its long-term value' (ICA – International Council on Archives).

The theme of architectural archives does not have a long history, at least in Italy. It dates back to 1993 when it was organised the first Italian Conference in Reggio Emilia (Badini, 1999) and then, six years later, was established in Venice, the National Association for the Archives of Contemporary Architecture - AAA / Italia. The world of historians and professionals, as well as the public administration, required the conservation and protection of documents produced by architects, civil engineers, urban planners and landscape architects in the twentieth century, not only for historical investigations but also for the maintenance and restoration of buildings, the management of growth and development of cities and territories. Thinking about the documents relating to architecture, civil engineering and planning it is clear that it is possible to find them in copious and different institutions with archival holdings: they are scattered in the municipal and national archives, in the company archives, in the offices of the real estate register or even in the notary archives. But of primary interest are the professional archives, produced by creative and technical activities, where the work's memory of a single professional or a project-team is cumulated as professional assignments come up. Usually, these are the most complete and complicated sources to investigate projects built and not built or to reconstruct the phases of a project from its creative genesis to its realisation. However, these archives have the characteristic of being privately owned at least till their creators are still in business. Looking for this kind of archive-funds and precisely those that have women as creators, or at least among the creators, the MoMoWo research team of Polytechnic of Turin chose to omit current archives, mapping in the database only those whose authoresses have closed their career. Thus, even if many young creative women are identified in our database as authors, and their works are mapped, for archival sources we have decided to pay specific attention to the ones that are already historicised. The Studio Valle in Rome is the only exception; with

architects Emanuela and Maria Camilla Valle among the partners, this Studio is running since 1957 and has been declared of historical interest by the Archival Superintendent for Lazio in 2007.

We began our research from the professional archives hold by the Polytechnic of Turin (PoliTo), and then we expanded the study to Italy and Europe. Within the archival funds hold by PoliTo there are three women architects: Carla Bodrato (b. 1949) and Ida Carpano (b. 1932) in the *Collettivo di Architettura* Archive; Maria Coletti (1941–1995) in *Francesco Dolza Archive*. Other female presences are the architectural photographer Fabrizia di Rovasenda (b. 1949), Sergio Hutters' wife and author of most of the photos in Sergio Hutter Archive and the historian and architect Vera Comoli (1935–2006), full professor in History of Architecture at PoliTo and producer of her archive.

We identified the funds in both public and private institutions. Most of these are well organised and rich of documents that have been created and accumulated in the conduct of personal or corporate activity, while others are small collections of drawings or materials on a single project. We included both in the database, using a different mark on the map.

The survey was carried out mainly on online censuses. In the case of Italy, the principal sources have been the *Sistema Informativo Unificato per le Soprintendenze Archivistiche* (SIUSA, Unified Information System used by Italian archival institutions), *Sistema Archivistico Nazionale* (SAN, National Archival System) as well as the website of the Network of the Italian architectural archives (AAA/Italia). In the late 1990s, in fact, the General Directorate for Archives of the Ministry (MiBACT) promoted in Italy the national census of the private archival funds of architects and engineers of the twentieth century. This census was the first step of an extensive national project to preserve the documentary heritage of twentieth-century architecture. For the purpose, the General Directorate for the Archives and the General Directorate for Contemporary Art and Architecture signed an agreement in October 2001.

The results of the national project are available online at http://siusa.archivi. beniculturali.it, as well as in the thematic page *Archivi degli Architetti* (Archive of Architects) of the SAN website http://www.architetti.san.beniculturali.it, online since 2012. These results are also published in thematic guides of the regions Lazio (Guccione, Pesce, Reale, 1999, 2007), Lombardia (Ciagà, 2003; 2012), Sicily (Culotta, Sciascia, 2006), Tuscany (Insabato, Ghelli, 2007), Marche (Alici, Tosti Croce, 2011), Abruzzo (Toraldo, Ranalli, Dante, 2013).

In the Architectural archives webpage of the SIUSA database, are described 775 funds and 724 authority records for persons, 690 men and 34 women, plus 81 authority records for corporate bodies, among which only seven women are mentioned. In the SAN webpage, there are 752 archival funds associated with 785 architects or engineers names and only 28 are women.

The way in which women-architects and their creative work appear in the archives is represented differently. Some of them were holding their agency, and their name

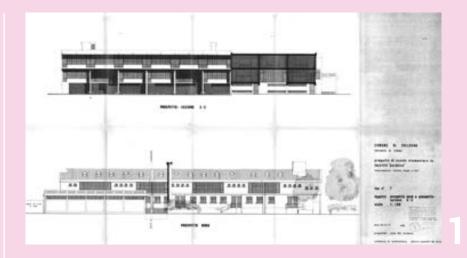
is fully recognised; others shared the agency with their relatives such as their father, brothers, or husband or even with other partners. When the professional partnership is between relatives and spouses, three possible cases can occur. In the luckiest case, both names designate the studio and the archive, e.g. Alberto Gatti and Diambra De Santis. In the second case, is that the woman's name is hidden under the name of her partner. An example is architect Maria Luisa Cucullo (1932-1999) who graduated in architecture in Naples and was active in Chieti with her husband, architect Carlo Enrico De Simone. A third case is exemplified by Zenaide Zanini, associate with her husband, architect Sergio Musmeci, in the Musmeci Studio. By reading the description in SIUSA, even if the title mentions both the partners, Musmeci and Zanini, surprisingly only Sergio Musmeci is correlated with a personal authority description of the International Standard Archival Authority Record for Corporate Bodies, Persons and Families (ISAAR). The case of project teams all the partners share a collective name, and none of them stands out individually. An example is the *Collettivo di Architettura* (Turin, 1960-2008), among whose members were architects Ida Carpano and Carla Bodrato; the archival documents prove that they both designed schools (Fig. 1) and residential buildings and were also construction manager.

To geolocate the documentary resources on the MoMoWo map, we chose to mark the archive funds with blue dots and collections with light blue dots. If they are public, their location is tagged with the city and the street address; on the contrary, if the owner is a private and the access to records is not allowed or is mediated by a public body, the location is generically tagged with the city name only. Each point is connected to his file in MoMoWo database (**Fig. 2**).

The data registered in our database are: the name of the archive fund or collection, the creator, the owner, the city and/or street address of the owner and a note about the quantitative entity of documents expressed in numbers of physical or logic units or linear shelf space.

The MoMoWo database is a work in progress, and many new coloured dots appeared on the map: 92 archives and 163 collections. Sources that, though they are different in amount, allows, along with buildings and objects, to give back to history female achievements in architecture, engineering and design.







Captions

Fig. 1. Ida Carpano - Collettivo di Architettura, Elementary school project in Collegno, 1970–71 (heliography on paper). By courtesy of Politecnico di Torino, DIST - LSBC, CoAR Archive, L.421.

Fig. 2. Screenshot from MoMoWo WebGIS service (tracking of archives and collections only).

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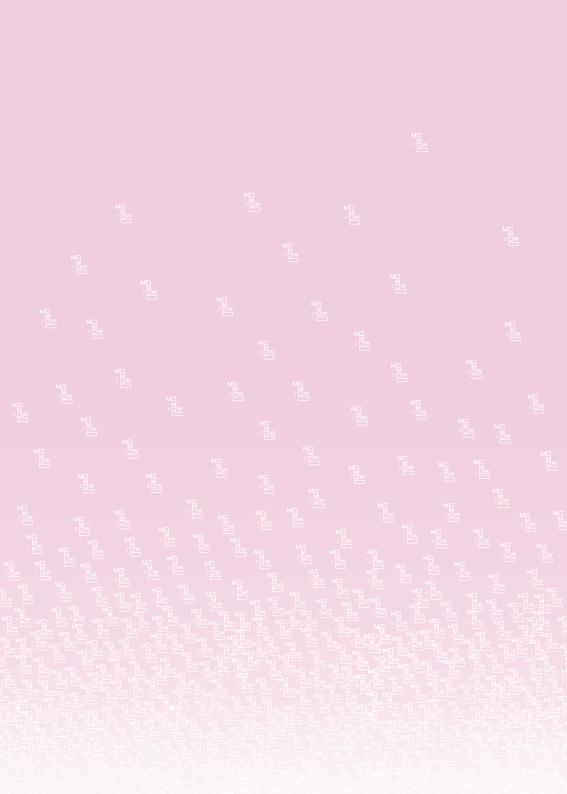
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Collection of Digital Reconstructive Models

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Reconstructive Modeling as a Heuristic Tool

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Digital reconstructions of contemporary architectures which were demolished, transformed or remained 'on paper', is now a tool of considerable heuristic value, allowing to preserve, interpret and create new images of cultural heritages that no longer exist in their original shape or never reached a material construction. Digital reconstructive modelling is currently subject of interest for many scholars and a field of convergence of different disciplinary viewpoints ranging from the history of representation, history of architecture and architectural composition. Several digital reconstructions, mainly realised by Italian scholars, are inspired by Pagnano, Docci and Albisinni's theories and methodologies on graphical analysis that could be applied to archival design drawing as well to existing buildings (Pagnano, 1975; Docci, 2009; Albisinni, De Carlo, 2011). In particular, the research of Giuseppe Pagnano on five houses by Adolf Loos represents a milestone of the method.

In light of the new tools offered by digital modelling, Pagnano later returns on the meaning of the graphical analysis. In his words, graphical analysis is a privileged instrument of architectural criticism because it provides new contributions of knowledge in respect to only original drawings, old pictures, project reports and critical essays. It contributes to highlight the figurative reasons of architectures' visible conformation. Digital models give back to the unbuilt architecture a form of existence that makes them verifiable objects in the same way as those built. (Pagnano, 2008).

Seeing as representation and communication concern the knowledge data and their interpretation resulting from the documentation phases, digital models are the most useful database for collecting and synthesising the analyses.

According to Ciagà, the 'revolutionary capacity of current 3D models is inherent

to the specific characteristics of digital technologies which offer the possibility to explore virtual spaces directly and "enter" inside with the aid of specific applications of interface design and interaction design' (Ciagà, 2013a, 164). Moreover, 3D modelling provides methods of visualization which are otherwise impossible in the tangible reality, allowing the integration of fragments, the inspection of objects in all their physical coordinates, their three-dimensional existence: in short, they exponentially heighten tools of analysis, research, study, but at the same time even those for the communication of historical information (Irace, 2013, 13).

Several stages characterize 3D reconstruction: the gathering of information from the sources, mainly original design drawings, the interpretation of this information, the comparison with contemporaneous examples, the development of 2D blueprints and/or 3D geometric (or parametric) models of the building, the texture mapping, the addition of lights and, finally, the rendering.

Transforming autograph drawings into a digital model is a process which changes one model into another and deserves some attention. It is, as a matter of fact, not a simple variation without alteration of contents, but, on the contrary, it modifies 'the wealth of the model, its expressive potentiality. In fact, the transmutations of the models are moved by the interpretative intent of the scholar, and they converge, therefore, toward an abstract model... that we can identify in the project idea' (Migliari, 2004, 86).

Moreover, 3D computer models allow more enhanced and controlled interaction between users and models; they can cover the whole range of possible models in a single system of representation (Maldonado, 2005).

Towards a MoMoWo Collection of Female Architectures' Reconstructive Models

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During the MoMoWo Workshops, several works by female architects were highlighted using digital reconstructive modelling. These analyses were proposed by a research group led by Francesco Maggio, a pupil of Giuseppe Pagnano. From the early 2000s, Maggio started to apply the graphical analysis and reconstructive digital modelling methods to unbuilt architectures by female architects of the Modern Movement and MoMoWo hosted the virtual exhibition "Il contributo delle donne allo sviluppo dell'architettura moderna nei disegni e nei plastici delle scuole di Architettura di Ascoli e Palermo" during the project presentation at the Festival Architettura in Città (1–4 July 2015).

In 2015, at the 1st MoMoWo Workshop (University of Leiden) several types of research were presented. Amoroso compared Eileen Gray's approach to space and the Japanese culture by reconstructing the interiors of Gray's houses *E. 1027*

(1928) and Tempe à Pailla (1932-34). Vattano proposed a graphic analysis and 3D modelling aimed to discover the modular grid and the compositional criteria of the House of Dr Nelken (1932) by Helena Niemirowska (Fig. 1). Gaeta analysed Charlotte Perriand's unbuilt project for a *Maison du week-end* (1934) through a digital model that deepens the compositional aspects of the minimal and flexible house. And Garofalo re-drew two projects by Hana Kučerová Zaveská (Balling house, 1931, and a villa for parents Olga and Maximilian Záveskych in Dobrichovice, 1933–34) aiming to understand and summarise the architectural organisms. In 2016, at the 2nd MoMoWo Workshop (ZRC SAZU, France Stele Institute, Lubiana). Garofalo realised the virtual reconstruction of three projects for Council Houses in Brazil (1951), probably inspired at the indigenous maloca, by Lina Bo Bardi. Through graphical analysis and reconstructive modelling, Maggio developed a reasoning on the unbuilt houses in Burano e Pellestrina (1947) by Egle Renata Trincanato (Fig. 2), relating them with her theoretical research published in *Venezia* minore (1948). Vattano digitally re-built the single-family house for Vincente Sebastian Llegat (1968–71) by Matilde Ucelay Maórtua. In 2017, at the 3rd MoMoWo Workshop (University of Oviedo), Maggio presented, through the Drawing discipline, the design process of a multi-scale project for a museum in the archaeological area of Segesta (1960), developed between architecture and drawing of furniture by Luciana Natoli.

In 2018, at the MoMoWo Symposium (Politecnico di Torino), Vattano proposes her research on the project of the cinema Kina by Teresa Żarnowerówna (1926), producing new images for the knowledge of an unbuilt architecture.

Recently, Franchina, Maggio, Vattano published *Female Architecture. Unbuilt digital archive* (Franchina, Maggio, Vattano, 2015), hoping to create a graphic inedited repertory of unrealised projects, carried out by the women pioneers of Modern architecture.

In the following text, we propose a meta-project aimed to create a web-shared collection of interactive digital models that reconstruct female architectural designs of Modern Movement. Our proposal is inspired by several research projects including those led by Piero Albisinni and Laura De Carlo, involving their students and aimed to create a digital archive containing models of the twentieth-century masters, as Giovanni Michelucci, Maurizio Sacripanti and Leonardo Savioli (Albisinni, De Carlo, 2011). One of these projects was aimed at the construction of geo-models for the digital archive of the work of Palladio (Apollonio et al., 2013; Gaiani et al., 2015; Beltramini, Gaiani, 2017), while another one related architectural heritage of the late twentieth century in Milan with the archives documenting their design history (Ciagà, 2013b). Moreover, recently, a prototype of the interactive model collection has been developed by Roberta Spallone and Francesco Carota for gathering reconstructive digital models and archival materials concerning several of Mollino's masterpieces (Spallone, Carota, 2017).

The collections have to be addressed to rigorous scientific criteria in order to offer

scholars some validated base materials and interaction instruments to facilitate personal surveys, interpretations and sharing of knowledge.

Creating the MoMoWo models' collection, it would apply the latest low-cost technologies for users' interaction and the potentialities of interoperability between 3D modelling application and publishing and online sharing systems.

The interactivity offered by the latest developments of the digital revolution and new technologies appears in these possibilities for the users: external and internal 360° virtual tours; explorations in VR, video making, setting and saving of perspective views, inserting of their own digital models, new versions and other personal digital products after validation by the administrators.

For each 3D model interactively explorable we propose links to the most significant ones among the static and dynamic representations and to a reasoned selection of archival documents, as well as references to archival materials, bibliography about the specific building and writings by the female architect.

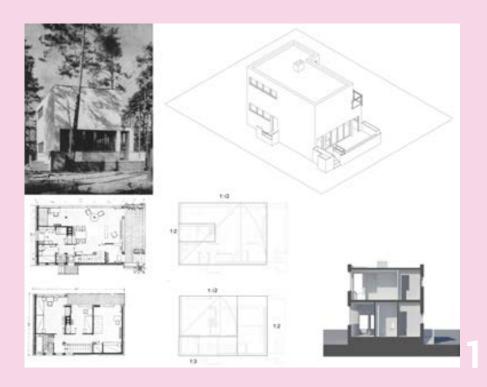
The collection's structure is made up of a Home Page, that works as the primary interface that the final user is able to access, and a series of Informative Pages, one for each of selected reconstructive models of female designs, in which the different contents are organised and visualised.

We image that the Informative Pages dedicated to each project can be reached both by traditional database research (Author, Project name, Date, City, etc.) and by links inserted within two interconnected tools: a building's geolocalization and a building's localisation within an interactive timeline.

Inside the Informative Pages, one of the most innovative aspects is the interactivity with the model offered to the users, thanks to the application of the open source web platform Sketchfab.

Indeed, this technology permits the user an innovative interaction with the three-dimensional model, completely free from the constraint of a fixed point of view or a preconditioned walking path. The adoption of the walk-through visualisation system, included in Sketchfab, allow the user infinite paths across the architectural environment. In this way, an exploration of the building that goes beyond the four dimensions can be almost achieved. Moreover, the tool is equipped with a Virtual Reality visualisation option that, if combined with a commercial VR headset, could produce a simulated environment, totally surrounding the viewer.

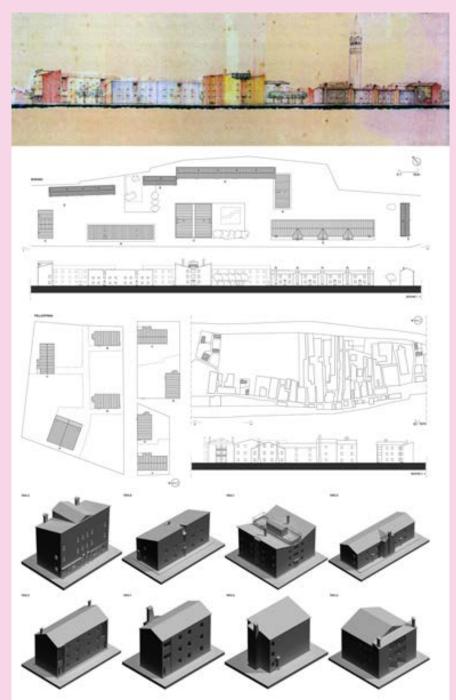
The Sketchfab platform could also arrange a bottom-up implementation of the model's collection by using 3.0 web technologies when it will be online for once. This means that the user himself, accessing the platform, will be able to load new 3D models after the verifications by the model collection's administrators. This easily sharing of the researches results, enlarge their fruition and establish a database, open to users implementation, in the frame of a virtuous exchange of knowledge and possible interpretations.



Captions

Fig. 1. Left: Archive drawings of the house of Dr John Nelken in Kostancin (Warsaw), designed by Helena Niemirowska in 1932-33. Right: Axonometric reconstructive model, graphical analysis and perspective section (from Vattano, 2015).

Fig. 2. Top: Egle Renata Trincanato, a project in Burano, watercolour. Bottom: Drawing and digital modelling of the projects in Burano e Pellestrina. Plans, fronts and axonometries. (From Maggio, 2016. Source: Dafne Di Girolamo, Egle Renata Trincanato. Unbuilt Palermo: Unpublished dissertation, Faculty of Architecture, 2015).



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In the past hundred years (1918-2018) in which *Women's creativity since* the Modern Movement has been the subject of study and celebration in the MoMoWo project, women have actively participated in the fields of architecture, civil engineering, industrial and interior design. Facing social conventions and exploring these disciplines traditionally dominated by men, women have played a fundamental role in pioneering new attitudes towards modernism and beyond. Since the launch of the project in October 2014, we started to give visibility to these women, by launching on the Facebook platform (one of the social networks created by IADE's Portuguese Team for the dissemination of the project), a "Women's Gallery", in which we published short profiles of European female creators, illustrated by photographs of each of them, images of some reference works and links to additional information or bibliographic references.

This gallery has now about 80 short profiles, but what have been given to print and presented here are 40 of this total, since in the meantime, the MoMoWo project has published in the Guidebook "MoMoWo. Women. Architecture & Design Itineraries across Europe", and in the Catalogue "MoMoWo: 100 Works in 100 Years. European Women in architecture and Design. 1918-2018", works and biographies that included the other half. So, in order to not be redundant, the results presented here are women who do not appear in the MoMoWo books or who deserve to be highlighted. However, we know that we are far from mapping all European female creators, from the pioneers to the most contemporary. It's imperative to continue documenting the work of creative women as well as to examine the importance of biographical information for history writing and the ways of reassessing the past in all fields of design, to give present and future generations of women wider professional recognition.

Maria Helena Souto | MoMoWo Portugal

1

Belle Kogan

1902-2000 Russia









Born in Russia, **Belle Kogan** immigrated to the United States when she was four years old. She studied at the Pratt Institute in Brooklyn, while teaching mechanical drawing. After working for several year as a freelance designer for Quaker Silver Company of Attleboro, she opened her studio in 1931, continuing her work with metals and collaborating with Boonton Molding Co.. In the beginning of her career, Kogan found some obstacles due to the fact that industrial design was a traditionally male dominated field, but by the late 1930s she was already able to employ three other women designers.

In 1994 she was both awarded with the "Personal Recognition Award" from the Industrial Designers Society of America (ISDA) and recognized as fellow of the Industrial Designers Institute (IDI). For Belle Kogan, "(...) design didn't just happen. It had to be developed. I felt that it was wonderful, like a puzzle, all the parts fitted in: the business training, painting, color study, and my interest in mechanics, machinery and production problems".

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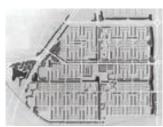
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Charlotte Stam-Beese

1903-1988 Germany









Lotte (Charlotte) Beese trained in stenography, photography, textile design and architecture (the last three at the Bauhaus, from 1926 to 1928). As an architect and urbanist, Beese worked mainly in Czechoslovakia, the Soviet Union, and the Netherlands and became known for the redevelopment projects for the city of Rotterdam.

She worked with Hannes Meyer, Hugo Haring and Bohuslav Fuchs, before establishing her own architecture studio in Amsterdam (1935), where she worked until 1938.

Beese was also known for her skills in photography, producing a collection of portraiture, during her years in Dessau.

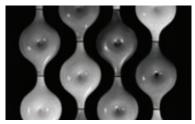
In 1968, she was awarded with a Wolfert Borsele medal for her professional accomplishments, and in 1969, with the Knight of the Order of Orange-Nassau.

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Eva Striker Zeisel

1906-2011 Hungary









Eva Amália Striker Zeisel, an Hungarian native, in 1923 started studying painting at Budapest's Royal Hungarian Academy of Fine Arts, but she decided to learn pottery with the master Jakob Karapan. In 1928, Eva began working for "Schramberger" ceramic works in Germany and in 1930 moved to Berlin and started designing for "Carstens". Two years later, Eva visited the Soviet Union where she lived for the next five years.

In 1936 she was arrested by Stalin's police state, but managed to escape and ran off to Vienna where she re-established contact with her future husband Hans Zeisel. With the invasion of Vienna by the Nazis, once again Eva escapes to England, where she married Hans and they decided to go live to the United States in 1937.

Eva Zeisel has declared herself a "maker of useful things" and her ceramic designs, firstly influenced by the modern architecture with playful geometric forms, are often abstractions of the natural world and human relationships. Several museum collections throughout the world include works representative of her work.

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Estrela Faria

1910-1976 Portugal





Estrela da Liberdade Alves Faria studied at the Lisbon Fine Arts School, graduating with excellence in 1935. She earned a scholarship assigned by the Portuguese Institute in High Culture for perfecting mural and ceramic techniques in France, Italy and the Netherlands. However, before she completed it, she had to come back to Portugal due to the German occupation in France.

Estrela Faria frequently collaborated with architects, dealing with the interiors of buildings, like in Palácio da Justiça's audience room, the Ritz Hotel and Alvalade Cinema Hall, or even the Caixa Geral de Depósitos Bank.

She founded a small workshop in the Benfica neighborhood, where she mainly worked on plaster models and storefront installations. She also taught at the António Arroio Decorative Arts School and after, at the Lisbon Fine Arts School, until the time of her death.

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Maria Amélia Ferreira Chaves

b. 1911 Portugal





Working for ninety years as a civil engineer, **Maria Amélia** was the first Portuguese woman not only to graduate in Instituto Superior Técnico (IST), in 1937, but also to make a long lasting career on the field. Not only was she a pioneer in the field, as she monitored every step of the construction process by frequently visiting the construction site, a space where no women had ever entered before. After working as an intern for engineer Arantes e Oliveira, Maria Amélia joined the staff of the Lisbon Town Council, beginning her professional activity.

Maria Amélia was the first person in Portugal developing anti-seismic calculations applied to civil engineering, also devoting herself to urban planning and real estate projects, mainly located in Lisboa, Sintra, Oeiras e Cascais.

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Matilde Ucelay

1912-2008 Spain





Matilde Ucelay Maortúa started her academic training in architecture in 1931, at the School of Architecture of the University of Madrid. In 1936, she was the first woman graduating in architecture in Spain, feat honored in 1998 by the Association Women Build.

After the cruel Spanish civil war (1936-1939), Ucelay started her professional practice in Madrid, but her relative support to the Republican government lead her to trial several times, during which she stood accused of "aiding the rebellion".

She specialized in luxury residential architecture, targeting a clientele of high purchasing power. Houses created by Ucelay were defined by an attention to detail in compliance to the needs of people that lived there.

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Mary Isolen Fergusson

1914-1997 United Kingdom







British civil engineer, **Mary Fergusson** was the first female fellow of the Institution of Civil Engineers (ICE) in 1957. After graduating BSc Hons in Civil Engineering from the University of Edinburgh in 1936, she forged a career with Edinburgh civil engineers "Blyth and Blyth", one of the most prestigious of Scottish firms, and in 1948 she became the first female Senior Partner in a UK civil engineering firm. Mary Fergusson's career was dedicated to civil engineering, working on the design and construction of bridges in the Highlands, sewers for water purification on the River Leven and paper mills in Markinch. Her lifetime of achievements earned her an OBE in 1979 after her retirement, and the honorary degree of Doctor of Science at Heriot-Watt University in Edinburgh in 1985, for her work in encouraging women to take up engineering careers.

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Ulla Bodorff

1913-1982 Sweden









Ulla Bodorff was a pioneer Swedish landscape architect. Along with Inger Wedborn, she belonged to the second generation of landscape architects in Sweden, being one of the first Swedish women to complete an university degree in landscape architecture.

Bodorff studied at the University College in Reading from 1933 to 1935, returning to Sweden after receiving her diploma, to work at the Stockholm city parks department for two years. In 1937 she opened her own practice, which she ran until the 1970s.

From private gardens, parks, housing areas and church yards, Ulla Bodorff's office worked on hundreds of commissioned works, being the city plan for Frostlunda and the landscape design for Stora Vika the most notorious.

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Karen Mundt-Clemmensen

1917-2001 Denmark









The daughter of the architect Holger Mundt and the painter Harriet Fischer-Jørgensen, **Karen Mundt-Clemmensen** graduated in 1942 from the School of Architecture of the Royal Danish Academy in Copenhagen. With her husband, Ebbe Clemmensen (1917-2003), started her architecture and design office in 1946. Together and individually, they received numerous architectural and design awards and were representatives of post war Danish modernism.

Her house and studio in Gentofte, Denmark, designed and built in 1953 reveals the elegant liaison between modernity and tradition, enhanced by interior design and furniture. With a sense of detail and experimental qualities that disclose different influences, from the avant-garde movements to Japanese environments.

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Halina Skibnewska

1921-2011 Poland





After finishing her studies at the Warsaw University of Technology in 1948, she worked in the Office for Capital Rehabilitation (BOS). Until 1986, **Halina Skibniewska** collaborated with numerous architecture studios, such as Romuald Gutt's (she started first as his assistant at the Architecture Faculty and later in his studio), "WSM's", "PBM Center" and from 1975 to 1986 with "BNP Inwestprojek". She participated in the reconstruction of the National Theatre in Warsaw and since 1957, worked for the Warsaw Housing Cooperative, where she designed her most acclaimed project: "Sady Žoliborz", a reference for the modern movement, filled with original solutions, such as the use of natural greenery, natural materials - brick, wood or decorative fragments from the ruins of the historical buildings. From 1975 to 1985, Halina taught and researched at the Warsaw University of Technology. She focused mainly on issues related to human life in the city, the social function of residential buildings, ecology and accessibility for the disabled. Halina Skibniewska was a member of the Polish Academy of Sciences, a member of several international scientific organisations, including the Académie d'Architecture de France, and was correspondent of the architectural magazine "L'Architecture d'Aujourd'hui". She was also the deputy of the Parliament in the years 1965-1985 and since 1971, the first woman in the history of Polish Sejm to become a deputy speaker.

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Liisi Beckman

1924-2004 Finland









Born in Karelia, Finland, after having studied art in Helsinki, **Liisi Beckmann** moved to Italy in the late 1950s and worked in Rinascente's Development Studio in Milan. One of her most celebrated works is the "Karelia" armchair, designed in 1966 for the Italian industrial design company Zanotta, made in polyurethane foam and colored vinyl. With an original modern and dynamic design, this unusual armchair is also comfortable thanks to the nature of its materials.

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Zofia Hansen

1924-2013 Poland









Zofia Aleksandra Garlińska-Hansen, a modern architect, was the co-author of the theory of Open Form (1957) and the concept of Linear Continuous System (1967), an urban planning model consisting on the agglomeration in a meridional, where the individual functional areas would intersect with residential zones, replacing the centric town model. The Linear Continuous System aimed at granting equal access to nature, culture and services, by eliminating the division between the center and the periphery.

She graduated from the Faculty of Architecture at Warsaw University of Technology in 1952. Two years before, she married architect Oskar Hansen, with whom she started a lifelong professional collaboration. Their work was particularly marked by the shifting political climate in Poland, developing several estate housing projects, such as the Warsaw, Bracławska and the Przyczółek Grochowski (1968-1974).

Their concept of Linear Continuous System was also put to practice on a small scale on the Osiedle Słowackiego estate in Lublin (1961).

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Ksenija Šetina Grum

b. 1925 Slovenia







Ksenija Šetina Grum began her education at the German-Serbian School in Belgrade and continued at the Real Gymnasium Maribor. After the outbreak of war in 1941, her family was expelled to Croatia, where she graduated in 1945 (Real Gymnasium Bjelovar). In the same year she enrolled in construction studies in Ljubljana and in December 1953 graduated under prof. Emil Kovačič at the Hydrotechnical Department of the Faculty of Civil Engineering and Geodesy at the Technical College in Ljubljana. She was active in water management all her career, initially as a designer in the field of regulation, melioration and sewerage. After graduation, she was employed by the Project-Low Building company, later at the Water Management Institute of the Socialist Republic of Slovenia (est. 1960) and at the Association of Water Communities of Slovenia (est. 1974, today's Ministry of the Environment and Spatial Planning). Up until retirement in 1990, she worked as a representative of professional services in the areas of wastewater draining and cleaning and mechanical biological treatment plants. In 1961 she became designer, authorized for construction design, and between 1963 and 1965 she was a member of the Assembly of the Municipality of Ljubljana-Center. Between 1972 and 1986, with the designer Igor Kos, she carried out pioneering work in the design and construction of the first major mechanical and biological treatment plants in Slovenia: including Koper and Domžale-Kamnik; this was the largest in Slovenia until 1991, when the Ljubljana wastewater treatment plant was built. In 1980, she received an award from the president of the republic comrade Tito for her work in the field of water management.

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Nanny Still

1926-2009 Finland









Nanny Still's work on glass and ceramics marked her time, acting as beacons of Finnish modern taste. She has also worked under medias such as metal, jewelry, plastics and light fittings. Graduating in 1950, at the Finland's Central School of Arts and Crafts, Nanny developed since then a prolific body of work, setting the grounds of innovation in structure, color and functionality.

She worked for the Finnish glass factory Riihimaen Lasi (founded in 1910), from 1949 to 1976 and designed several pieces for "Maire Gullichsen's Norrmark". Among her numerous collaborations, one may name "Heinrich Porzellan", "Val Saint-Lambert" and "Rosenthal Studios", for whom she designed both ceramic and glass pieces.

Her pieces were also exhibited at several Milan Triennales (1954, 1957 and 1960) and at a Brussels showcase, the "Trois Profils Finlandais". Her work has a designer and her close relation with national factories and brands played a major role in helping to preserve the Scandinavian craft tradition.

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Olga Mináry

1929-2000 Hungary







More than an architect, **Olga Mináry** was a reflection of political efforts to manifest an hungarian emancipation progress, through the appreciation of women's work.

By 1951, Mináry had graduated from the Faculty of Architecture of the Technical University. She worked nearly thirty years for the Industrial Building Design Company (IPARTERV) and was the first woman wining the Ybl Prize, Hungary's most prestigious architectural award. She also represented Hungary at the 1967 UIA Congress in Prague.

Among a generation of great hungarian designers, like Gulyás Zoltán, Jurcsik Károly, Földesi Lajos, Hofer Miklós, Callmeyer Ferenc, Plesz Antal and Polónyi Károly, Mináry developed an outstanding body of work in reconstruction and urban development projects.

She participated on post war Gyor rehabilitation, designing a pioneer model for social housing, a field she explored throughout her career. This was the first hungarian city to have a state approved urban development plan. In 1953, she designs the College of Applied Arts' Farkasdy Zoltan building and in 1957 Janáky Frankel Leo street corner house.

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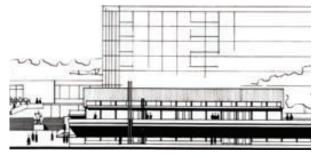
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Mária Krukovská

b. 1930 Czechoslovakia









In the years 1948-1952 she studied architecture at the Faculty of Architecture and Civil engineering SVŠT Bratislava. Upon graduation, **Mária Krukovská** began her career as an architect in a design studio in the Bratislava branch of Stavoprojekt. She was the first woman architect in this large state office, which had more than 50 employees.

At the beginning, her main field of work was housing. Later, after gaining more experiences and respect, her work shifted towards public buildings. Mária Krukovská collaborated on the design of the well known modern housing estate called "Februárka" in Bratislava. She is the author of the commercial centre and kindergarten (1966). In frame of the experimental project for public housing on the periphery of Bratislava she participated in the process of inventing and testing new technologies. In frame of the project of the 12-storeys apartment block (together with Štefan Svetko), she successfully tested a vacuumed reinforced concrete structure and sandwich sheathing. Mária Krukovská was the first Slovak participant of the congress of the International Union of Women Architects UIFA. On the second congress of this organisation held in Monaco in 1969, she presented her project for the housing estate Košúty in Slovak town of Martin. Since 1975, Mária Krukovská worked in the field of assessment of mass housing.

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Bodil Kjær

b. 1932 Denmark









Bodil Kjær, a benchmark for Danish design culture, is an acclaimed architect, furniture designer, urban planner and researcher.

With an academic background in the School of Interior Architecture (1964), in London at the Royal College of Art and at the Architectural Association School of Architecture (1965–69), she has worked as a senior architect at the Arup (London: 1967–69), as professor at the University of Maryland (1982–89) and has had her own studio in Copenhagen (1960–65) and London (1969–79).

Her keen eye for elegant and light shapes, combined with deep care for function and user friendliness came together on what she likes calling "elements of architecture", furniture pieces which would complement (instead of blending) and solve interior problems inherent to modern architecture. Her most recognised pieces are a collection of office furniture intended as elements that promote a flexible working environment, whose working table would later make an appearance on films, such as "007: From Russia with Love" and on TV, in the "BBC Election Broadcasts".

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Mirja Toivola

b. 1933 Finland







Mirja Toivola, a product designer who mainly worked with textile and ceramics, studied at the Helsinky Atenuem and then, at the Central School of Arts and Crafts in London and at the École des Arts et Metiérs de Paris. There she meets the acclaimed Portuguese painter and graphic designer, João da Câmara Leme (1930-1983), with whom she got married and went to Lisbon in 1957. In Portugal, Mirja worked for "SECLA", an acclaimed Portuguese ceramics factory, designing table services for children, coffee and tea sets. She also exhibited her work for "SPAL", a Portuguese porcelain company, on the historical International exhibition of Industrial Design, at the Foz Palace (Lisbon) in 1965.

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Darinka Battelino

b. 1940 Slovenia









After successfully defending her dissertation at the Faculty of Architecture, Civil and Geodetic Engineering (FAGG) at the University of Ljubljana in 1976, **Darinka Battelino** became the first woman in former Yugoslavia to obtain a civil engineering doctoral degree.

In 1964 she won the student Prešeren award (the highest prize in Slovenia awarded for diploma thesis) and shortly after, became the first female professor at FAGG; she was initially employed as a teaching assistant for the course Soil mechanics and later elected to the position of assistant professor of geotechnical engineering (1987).

She also lectured at the Faculty of Civil Engineering at the University of Maribor (1977-1991). After 1991 she obtained professor positions in Italy (University of Trento 1991-1993 and since 1993 University of Trieste) and in 1992, spent six months as a visiting professor at the University Obafemi Alowo Ife in Nigeria.

An important part of her academic career was dedicated to teaching. She supervised a number of undergraduate and postgraduate thesis, including the first doctoral dissertation in civil engineering to be defended by a woman at the University of Trieste (2005).

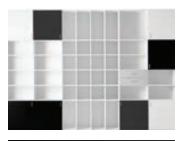
She played a key role in establishing cooperation between the universities of Ljubljana, Maribor, Graz, Vienna and Trieste and mentored a number of joint bilateral thesis. In 1982 she received the national Kavčič award for her educational work at the university.

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Antonia Astori

b. 1940 Italy









Antonia Astori graduated in industrial and visual design at the Lausanne's Athenaeum in 1966. In 1968 co-founded the furniture company "Driade", with her brother, Enrico Astori, and Adelaide Acerbi. "Antonia Astori was herself a prolific designer for the company and was involved with the shaping of its visual identity, also producing a highly successful series of geometrically conceived, clearly articulated storage systems such as *Oikos* of 1972, *Kaos* of 1986, and *Pantos* of 1993." (WOODHAM, 2005). Resident designer for the Italian company Driade since 1968, Astori designs pieces intended to be seen as "room architecture".

In addition, she works as an interior architect, developing projects for stores, homes, offices and collaborating with stylists such as Marithé and François Girbaud. Having an architectural and modular vision of design, Antonia Astori creates clean and structural pieces and environments.

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Olga Quintanilha

1942-2005 Portugal







Olga Quintanilha was born in Lisbon, Portugal, in 1942, where she graduated in architecture from the School of Fine Arts in 1967. Among several projects signed in her own name or in partnership, she worked in the field of school buildings, including for the Ministry of Education, where she collaborated on various projects with the architects Frederico George e Francisco Silva Dias.

She was also the author of projects abroad, especially in Angola in the 1980's. From the long list of works we highlight one of her last works, the emblematic "Condomínio Twin Towers", a residential space with shopping centre in José Malhoa Avenue (opened in 1999).

Olga Quintanilha joined the Associação dos Arquitectos Portugueses (Portuguese Architects Association) in 1982 and her work was instrumental in raising the public association of architects to the Order in 1998 and was its first president between 1999 and 2001. A permanent member of the Council of Europe of Architects between 1989 and 1991, in 1999 she was elected president of the Iberian DOCOMOMO.

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Cristina Reis

b. 1945 Portugal









After earning her degree in painting at the Lisbon Fine Arts School, **Cristina Reis** took her first steps in design by working at product designer Daciano da Costa's studio from 1960 until 1966.

She would then enroll in the Ravensborne College of Art and Design (England), Art and Graphic Design course, graduating in 1970 and returning to Portugal to work on the 1st Portuguese Design Exhibition, coordinated by the INII - Design Nucleus of the National Institute for Industrial Research.

From 1974 to 1975, Cristina Reis would work on several exhibitions for the industry, as member of DEZ cooperative, from which architect António Sena da Silva was also part of.

In 1975 she began working as set designer and costume designer at the Cornucópia Theatre, with Jorge Silva Melo and Luis Miguel Cintra, and since then has been responsible for the sets and costumes of almost all performances held collaborating with numerous directors, such as Christine Laurent, Daniel Worm d'Assumpção and Zita Duarte.

From 1979 to 1981, Cristina also worked as a scenography intern at the "Schaubühne Am Halleschen Ufer". in Berlin.

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Graça Nieto Guimarães

b. 1952 Portugal









Architect by the Porto's School of Fine Arts, currently named as Faculty of Architecture of the Porto University (1976). **Graça Nieto Guimarães** has been working independently since 1985.

She participated in several seminars and congresses, mainly focused on urban planning and urban regeneration. Between 1972 and 1986, Nieto Guimarães worked with Bento Lousan, Álvaro Siza, Francisco Guedes de Carvalho e Manuel Fernandes de Sá.

Among her work, one may highlight a storage and office building in Gaia (published in "Architectures à Porto" Ed. Pierre Mardage – Belgium) and João das Regras office building in Porto (earned an Honorable Mention by the João de Almada Award – 1992).

In December 2007 she is awarded, in co-authorship, the first prize of a Public Competition, on the Rossio Marquês do Pombal and adjacent squares in Estremoz.

Graça Nieto Guimarães is also the co-founder, along with engineer António Pérez Babo, of the studio "gng.apb – arquitectura e planeamento, Ida", Porto.

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Karin Schou Andersen

b. 1953 Denmark











Danish designer, **Karin Schou Andersen**, graduated at the School of Architecture in Aarhus. After working for several firms, she founded her studio, "KSADesign", in 1993.

Renowned for her work in industrial product design, including urban outdoor furniture where sustainability is a fundamental aspect of her work, she also developed packaging and graphic design. Schou Andersen has done extensive studies in the field of ergonomics, with particular regard to the needs of people who have impaired function in their hands and arms after traffic accidents, sports injuries and as a result of arthritis, multiple sclerosis or similar conditions.

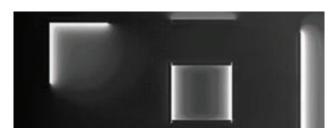
Andersen's best known design in this field is a series of flatware, designed in 1979, that are included in the permanent collections of the Museum of Modern Art in New York, Centre Pompidou in Paris, Design Museum Jerusalem and Design Museum Denmark.

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Carlotta de Bevilacqua

b. 1957 Italy







Carlotta de Bevilacqua graduated in 1983 in Architecture at the Politecnico di Milano. On the same year she started taking charge of her architectural, product and graphic design studio aimed at designing innovative spaces and buildings with reduced environmental impact and exploring new interpretations of the relationships among humans, architecture, nature and light.

As an architect, designer, entrepreneur and teacher she is involved in architectural and interior design, in Italy and around the world, also collaborating with other major architecture and engineering professionals. Carlotta de Bevilacqua is one of the main protagonists in the world of contemporary architecture and design. Designer with extensive experience and Art Director in "Memphis and Alias" from 1989 to 1993, she has developed an important path of research in the field of light, developing for "Artemide" innovative concepts and products that open new possibilities in the area of performance lighting, new sensory experiences and perspectives, as in the "Metamorphosis" and "ALSO" projects. She investigates aspects of light and environment relating to the ability of inducing feelings of wellness as also to offer new standards of quality and experiences, as she continues her design work with "Danese". From 2012 to 2013, she has been a member of the Board of Direction of Fondazione Triennale di Milano.

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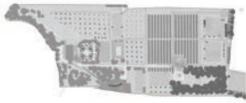
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Cristina Castel-Branco

b. 1958 Portugal









Cristina Castel-Branco graduated in Landscape Architecture from Instituto Superior de Agronomia (Agronomia High Studies Institute) in 1985; was a Fulbright–ITT grant holder and completed her Master's Degree in Landscape Architecture at the University of Massachusetts in 1989, having studied at the Graduate School of Design of Harvard University in 1988. She completed her doctoral degree in History of Garden Art by the ISA in 1993.

She began lecturing at the ISA in 1989 and currently lectures on the History and Theory of Landscape Architecture subjects. As a guest lecturer, she has taught post-graduate courses at universities in Madrid, Manchester and Tokyo. Cristina Castel-Branco oversaw the restoration of the Ajuda Botanical Garden (1994-1997) and served as the garden's director between 1997 and 2002. She was elected a voting member of the International Scientific Committee on Cultural Landscapes, ICOMOS, and World Heritage — UNESCO in 2006, and has since contributed towards various cultural landscape evaluation missions on behalf of the world heritage list.

In 1989, she founded, in partnership with Teresa Andresen, the "ACB — Arquitectura Paisagista" atelier and actually leads the atelier. She is also the author of several books on Landscape Architecture history, art and theory in addition to a series of articles published in specialist journals in Europe, the United States of America and Japan.

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Maria Auböck

b. 1959 Austria









Maria Auböck is an Austrian landscape architect and tenure professor at the Design Institute of Outdoor Spaces in the Academy of Fine Arts in Munich, Germany.

She was born in Vienna, daughter of the Austrian architect and industrial designer Carl Auböck (1925–1993) and studied architecture at the Vienna University of Technology. In 1985, she founded her own studio in Vienna, where she was joined by János Kárász in 1987.

The studio is now known as "Auböck + Kárász", developing several projects in European countries in the areas of open-space planning, parks, rehabilitation of historic gardens and outdoor urban design. Maria Auböck is a member of the Expert Committee of the European Prize for Urban Public Space since the 2014 edition and she has been acting as a member of several advisory boards for urban design, city planning and art in public spaces. In 2015, she received the "Silbernes Ehrenzeichen für Verdienste um das Land Wien" (Silver Medal for Services to the City of Vienna).

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Visualization ZOOM; Christian Wind; Bayerische Hausbau.

Caroline Bos

b. 1959 The Netherlands









Caroline Bos studied History of Art at Birkbeck College of the University of London. She later completed a Master's Degree in urban and regional planning, at the Geosciences Faculty of the University of Utrecht.

After co-founding "Van Berkel & Bos Architectuur Bureau" in 1988, she stopped working as a journalist to focus on being the internal critic for the practice, namely, essays and descriptions of projects that were yet to be designed. Also with her husband, Ben van Berkel, in 1999, Caroline Bos founded "UNStudio", a network of specialists in architecture, urban development and infrastructure. With Ben van Berkel, she was the editor of "Forum" (1985-1986) and the "ANY" publication "Diagram Works" (1998); her interest in the concept of the architect is reflected in the books she has also co-written with Van Berkel, such as "Delinquent Visionaries" (1990), "Mobile Forces" (1994), "Move" (1999) and "Design Models" (2006). She was a visiting lecturer at Princeton University and has taught at the Berlage Institute and UCLA.

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Toy, Maggie (ed.). The Architect. Women in Contemporary Architecture. New York: Watson-Guptill, 2001.

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UNStudio; Mercedes-Benz; Patrick Nagel, Michael Schnell, Future Cape Town.

Ana Costa

b. 1960 Portugal









With a degree in Architecture from the Faculty of Architecture of the Technical University of Lisbon (FAUTL, 1983), **Ana Costa** obtained her "Master of Architecture" degree at the College of Environmental Design in the University of California, Berkeley, in 1985 and two years later she completed "Marketing Fundamentals" at the School of Business Administration, University of California Extension, San Francisco.

During her years in California (1983-1989), she worked with the "Sandy & Babcok" architectural firm in San Francisco and later as the main architect in the "BLUEPETER" Design office in San Francisco, where she was responsible of several projects, including the "PIXAR" and "NEXT" computers' first stand exhibitions. She was also Director of Marketing for this design office until 1988. In 1989 Ana Costa returned to Portugal and, in 1991, she joined the Daciano da Costa Atelier as a principal architect participating with her father on several projects such as the interiors of the Centro Cultural de Belém and the furniture design for the Casa da Música in Oporto, among others. In 2005, she took the leadership of Daciano da Costa Atelier in Lisbon, Portugal, and in 2011 she enlarged her studio opening a branch office in São Paulo, Brazil, where she has developed several architectural and interior design projects.

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Dorte Mandrup

b. 1961 Denmark









Dorte Mandrup is a Danish architect, owner of the architectural practice "Dorte Mandrup Arkitekter", founded on 30 June 1999 and based in Copenhagen, Denmark. Dorte Mandrup graduated from the Aarhus School of Architecture in 1991 and from 1991-92, she also studied sculpture and ceramics at the G.S.C. Art Department in the United States. In the 20 years of professional experience, her ability to cut to the core of a problem is recognized and used in international jury contexts, as a lecturer and as a professor.

Among other professional appointments, she is a board member at the Louisiana Museum of Modern Art and appointed member of The Historic Buildings Council under the Act of the Ministry of Culture, on Building Preservation and conservation of buildings and urban environments. She also has been awarded numerous national and international awards, like the Bauwelt Prize, AR Award for Emerging Architecture, and the prestigious C.F. Hansen medal.

"Dorte Mandrup Arkitekter" engages in a wide variety of projects; cultural institutions, buildings for children and youth, sports facilities, education, housing, office buildings and master plans, as well as renovation and alteration of Federally Listed historical buildings.

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Cristina Guedes

b. 1964 Portugal









Graduated in Architecture by the Faculty of Architecture of the Porto University – FAUP in 1992, **Cristina Guedes** collaborated in the studio of the Architect Álvaro Siza between 1989 and 1990. Since 1996, she teaches in the Faculty of Architecture of the Lusíada University, Porto and has been invited to critics at Mendrisio Architecture Academy and ETH Zurich, Switzerland, TUWien, Austria and dARQ-FCTUC, Coimbra, Portugal.

In 1994 with Francisco Vieira de Campos, she founded the studio "menos é mais arquitectos" (less is more architects). Their main projects are a programmatic response related to specific contexts as in the "Archipelago - Center of Contemporary Arts", Azores (with architect João Mendes Ribeiro), the Gaia cable car, or the urban redevelopment for social housing blocks in Porto. They have also taken part in both national and international award juries and Cristina Guedes acted as Commissary of Portugal at the IX BIAU New Geographies.

Their work was recently recognized with the distinction of "International Fellowship 2017" from the Royal Institute of British Architects (RIBA) in recognition of their contribution to architecture and received the PREMIS FAD 2016 (Barcelona). The studio took part in national and international exhibits, such as the Biennale di Venezia 2016 - Reporting from the front, with the installation "Is it possible to create a public space within a private commission?".

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Inga Sempé

b. 1968 France









Born in Paris and among artists, **Inga Sempé** studied from ENSCI-Les Ateliers (Ecole Nationale Supérieure de Création Industrielle, Paris). After graduating, in 1993, she worked in several design and interior architecture studios, opening her own in 2000.

Between 2000 and 2001, she was a scholarship holder at the Villa Medici, Académie de France in Rome, collaborating with Italian companies such as "Cappellini" and "Edra".

In 2003, Sempé won Paris Grand Prize of Creation for design, showcasing her work at the Musée des Arts Décoratifs.

She works mainly with scandinavian, italian and french companies such as "HAY", "Ligne Roset", "Wästberg", "Alessi", "LucePlan", "Mutina", "Røros", "Moustache", "Svenskt Tenn" and "Gärsnäs".

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FIC Arquitectura Paisagista

b. 1969 Portugal









FIC Arquitectura Paisagista is a landscape architecture studio owned by **Filipa Cardoso de Menezes** (b. 1969) and **Catarina Assis Pacheco** (b. 1969). Founded by the two architects in 1997, three years after both graduated from the Instituto Superior de Agronomia (Agronomia High Studies Institute), the studio's work ranges from public space to private commissions, schools, institutional projects and urban planning. Menezes and Pacheco have learned through their professional experience, to accept and value variety in scale and typology on their projects, and have always aimed at an architectural approach that would consider and privilege the site, reflecting on its individual significance and continuously attempt to "unveil new interpretations of the landscape".

Their work has been widely published in books, catalogues and magazines, such as the book "Portuguese Contemporary Houses" or the 2012 "Secil Prize Catalogue". In 2013, Uzina Books published "Three Steps Landscape", a book written by Filipa Cardoso de Menezes and Catarina Assis Pacheco.

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Verónica Mota, João Morgado, www.fc-ap.com

Sofia Tsiraki

b. 1970 Greece











Sofia Tsiraki was born in Athens, Greece on November 1979. She graduated from the School of Architecture of the National Technical University of Athens (NTUA) in 1997, where she is an assistant Professor and PhD candidate in the department of Architectural Design. She has won the first prize in a range of architectural competitions, with some of her projects being widely praised.

The "House-box: Private residence and space of cultural activities in Koukaki" was nominated for the Mies Van der Rohe Award 2013. The project "The dissolution of the box: Apartment block in Gazi" has been awarded by the Hellenic Institute of Architecture First Prize 2013 for best built project throughout the years 2009-2013. She has worked as an editor and contributing author in three collective publications, and participated in several architecture exhibitions.

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Inês Cortesão

b. 1970 Portugal









After graduating in Interior Design at IADE (1994), and completing her Master in Interior Design at the University of Salamanca in 1996, she decided to study Architecture at Lusíada University of Lisbon, where she graduated in 2001. **Inês Cortesão** collaborated between 2000 and 2002 in João Luís Carrilho da Graça's architecture studio and, in 2002, she opened her own architecture office in Lisbon. In 2006 she created "bica-arquitectos" where, since then, develops projects in partnership, in addition to her individual projects. Her body of work already represents an example of design quality in which the elegance of gesture and the attention to detail gives an 'unmistakable watermark'.

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Cecilie Manz

b. 1972 Denmark









Cecilie Manz is a proeminent danish product designer who's built a solid career designing furniture, glass, lamps and related products, and working for clients such as "Lightyears", "Holmegaard", "Nils Holger Moormann", "Fredericia Furniture", "Fritz Hansen", "Muuto" and "Mooment".

She graduated at the The Royal Danish Academy of Fine Arts - The School of Design, in Copenhagen and studied as an exchange student, at the University of Art and Design in Helsinki. Manz founded her own studio in Copenhagen, in 1998.

She views all her works as fragments of only one elegant and subtle story, linked by their idea, their materials and aesthetics. All the projects revolve "around simplicity, the process of working toward a pure, aesthetic and narrative object."

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Ana Mestre

b. 1978 Portugal



Ana Mestre was born in Lisbon. She has an MDes, an MSc and a PhD in Industrial Design and Sustainable Innovation. Ana started her career in 2001 as one of the first eco-design researchers in Portugal. In 2004, Ana founded "SUSDESIGN – Design for Sustainability Studio and Research". In 2006, she created and directed "Design Cork" - the first internationally applied design research initiative for cork innovation. In 2009, she founded the "CORQUE DESIGN" studio brand.

Ana has a portfolio of more than 50 exhibitions, in several Design events around the World. In 2015, she was nominated as a Portuguese Design Award finalist. In 2016, she was selected by the Scientific Committee of La Triennale di Milano to exhibit her 10 years of design work in a special exhibition during the "XXI Century: Design after Design" international exhibition. Presently, she combines the direction of her design studio, "SUSDESIGN", based in Lisbon and London with a "Sustainable Design" research position at Nottingham Trent University in the United Kingdom.

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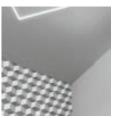
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Beatriz Ramo

b. 1979 Spain







Beatriz Ramo is a Spanish architect and urbanist that graduated from the Technical School of Architecture in Valencia (ETSAV), Spain. In 2002, after having received a scholarship to study at the Technische Universiteit in Eindhoven, she moved to the Netherlands. During 2003 and 2004, Beatriz Ramo worked at the "Office for Metropolitan Architecture" – "OMA" – in Rotterdam, where she has been based ever since. In "OMA", she participated in the CCTV - China Central Television Headquarters and TVCC -Television Cultural Centre in Beijing, the Wyly Theatre in Dallas and the Railway station area in Logroño, Spain, among other projects.

In 2006 she opened her own architecture firm in Rotterdam - "STAR strategies + architecture" -, a studio practice dealing with architecture in all its forms, working on projects and doing research in the fields of architecture, urbanism, and landscape design.

Since 2007, Beatriz Ramo has been a teacher at different institutions in the Netherlands and since 2008 she is managing and also a contributing editor at "MONU" magazine, bringing together challenging themes explored by interesting writers and theorists.

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STAR strategies + architecture, Paperjam.

Joana Leandro Vasconcelos

b. 1979 Portugal









In 2003, **Joana Leandro Vasconcelos** received her degree in Architecture from the Faculty of Architecture of the University of Porto (FAUP), and in 2007 she attended the "Master in Collective Housing" at the Technical Superior School of Architecture of Madrid (ETSAM), Polytechnic University of Madrid (PUC), with the attribution of a scholarship by ETSAM.

She collaborated with the architecture office "Manuel Correia Fernandes, Architects and Associates, Llda." ("mcf.a&a") working in projects of different contents. Afterwards (2004-2007), she worked in "GAIURB — Urban and Landscape Management of Vila Nova de Gaia", participating in the elaboration of urban renewal projects, in the review of the Vila Nova de Gaia Director Municipal Plan (PDM). In 2007, Joana Leandro Vasconcelos began to work individually, creating "atelier in.vitro", a young, dynamic and multidisciplinary structure, dedicated to architecture projects in its various forms, dimensions and scales, from object to landscape and from new constructions to rehabilitations.

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From 2016 to 2018 every 8th March, MoMoWo project partner ZRC SAZU (in collaboration with the project patron Slovene Centre of Architecture) organised a small exhibition 'To the Fore: Female Pioneers in Slovenian Architecture, Civil Engineering, and Design' at the DESSA Gallery in Ljubljana. The aim was bringing attention to MoMoWo Open Day activity and raising awareness of the project among the general and professional public, as well as increasing its media coverage.

The three exhibitions were dedicated to the Slovene female pioneers, the first pre- and post-war generations of female designers who left a strong imprint with their designs and drafts. They were the silent companions working in the shadows of professionally more acknowledged and better known male professors, colleagues, fathers, and husbands, so that, even nowadays, it is difficult to determine their actual contributions to numerous architectural masterpieces in Slovenia. Due to prevailing social prejudice, their work was restricted to only some fields of architecture, such as drawing of plans, designing parks and interiors, industrial and urban design, while they were rarely involved in working on building commissions independently; their domestic duties (such as raising a family) restricted their activities even further. Thus some of them redirected their creativity elsewhere, usually to the artistic domain.

The presented posters are the results of research carried out by the ZRC SAZU MoMoWo research team and external collaborators, as one of the project's aims is also to raise the interest of the professional public for research of a neglected part of Slovenian architectural legacy. The texts are conceived so as to serve as entries for the Novi slovenski biografski leksikon (New Slovene Biographical Lexicon), published by ZRC SAZU. After the project ends, the series of exhibitions and Open days will be taken over by the Slovene Centre of Architecture, who will continue the activities in collaboration with the ZRC SAZU, France Stele Institute of Art History, which will enable sustainability of the MoMoWo project in Slovenia.

The following pages present a selection of posters, where content has been slightly trimmed; the original posters in their entirety can be viewed at https://www.zrc-sazu.si/sl/zbirka/slovenske-arhitektke-gradbenice-in-oblikovalke.

Helena Seražin I MoMoWo Slovenia

Nari visa Bretuž . Majda Dobravec Sajovic . Nagda Fornar srič Kocemut . Mrst z Ivanše c . Nives Kalin Nehr, as . Juta Trucc / . Seta Nušič . . Gizela Šuklje . Branka Eancig Novak



Dušana Šantel KanoniPazin, 1908 – Ljubljana, 1988

In 1925 she enrolled at the Technical Faculty in Ljubljana to study architecture under Prof. Ivan Vurnik and finished her studies in 1932, as the first female graduate in architecture in Slovenia. After a one-year practice with architect Dragotin Fatur, she received a French scholarship and during 1933 and 1934 she furthered her knowledge in Paris at the École nationale supérieure des Arts Décoratifs, at the Decorative Arts Department. She was awarded the Enfance et Jeunesse diploma for teaching children decorative drawing; she also worked in the atelier of Au Boucheron, a Parisian furniture company. The society of the time was not in favour of employing women in technical

professions so she later took on odd jobs to make ends meet. She designed furniture, drafts for decorative crafts, and different types of embroidery. She was active in garden architecture; as an architect she was mostly involved in building adaptations. In 1933 she presented her designs at the exhibition of the Little Entente artists and Young Slovenian Architecture in the Jakopič Pavilion. During the Second World War she worked for the Vinko Križaj company and in 1945 she passed the professional exam. After the war. she was employed as a junior civil engineer and professor in various state services. In the 1950s she became seriously ill and gave up her professional work.

Works (selection)

- Composable kitchen furniture exhibited at the Liubliana Grand Fair, undated
- Conversion of the student dormitory, Gradišče 14, Ljubljana, around 1935
- Conversion of the café Zvezda, ground floor of the Kazina building, Ljubljana, around 1935
- Design for Dr. Krivic's villa, Bežigrad, Ljubljana, around 1935, unrealised
- Design of a holiday hostel for poor children owned by the Yuqoslav Sisters, Suhi Vrh na Koroškem, around 1935
- Several adaptations of the Kodeljevo mansion, between 1941 and 1944
- Drafts for the new dyeing and finishing plant for Inteks company, Krani, around 1947
- Draft of a kindergarten, the so-called Home to Play and Work, Trbovlje
- Draft of the activists' home, kindergarten, and nursery, Ljubljana



Composable kitchen, Ljubljana, undated

Nadimira Bratuř, Najda Dobravec Lajovic. Mo da Fornazarič Kocmut. Marta Ivanick * I sves Kalin Nehrrar * Juta Kr. le . Lita Mušič. Dušana Santet Kanoni * Eancig Novak



Gizela Šuklje Jelsa na Hvaru, 1909 – Ljubljana, 1994

She graduated at the Technical Faculty in Ljubljana in 1932 with Prof. Jože Plečnik. She was his first female student to graduate at Ljubljana University. Šuklje won the French national scholarship to study at the Institut d'Art et d'Archèologie at the Sorbonne in Paris 1933/34, and worked in the atelier of architect Auguste Perret (1874-1954). She became an assistant volunteer at the University of King Alexander I and also worked in Plečnik's studio. She passed her professional architectural exam in Belgrade in 1938 and later obtained a permanent position at the Liubliana Magistrate building department.

The post enabled her to collaborate with her former teacher on some of Ljubljana's most important projects of the 1930s and 1940s. In 1946, Šuklje became a professor at the State School for Handicrafts (present-day High School for Design and Photography), later becoming headmistress (1969-1973). Documents attest to her broad creativity. which spanned a variety of fields. from architecture, interior design, book design, urban planning to landscape architecture, writing, teaching and public monuments, firmly placing her amongst the foremost female pioneers in Slovenian architecture.

Works (selection)

- Projects for the Tivoli Park children's playground and the canopy over the entrance to the open air sports grounds (demolished in 1961), (assistant to Jože Plečnik), Ljubljana, 1933
- Celebratory stands at the town Stadium (co-authorship with Jože Plečnik), Ljubljana, 1935
- Villa Epos plans (assistant to Jože Plečnik), Bled, 1936
- Plans for the interior decoration for the church of Saint Antony of Padua (assistant to Jože Plečnik), Beograd, 1936
- First plans for Žale Central Cemetery (assistant to Jože Plečnik), Ljubljana, 1937
- The Central Market (assistant to Jože Plečnik), Ljubljana, 1939-41
- Urban plan of Metlika (initialy in collaboration with Jože Plečnik), 1945
- Town park, Metlika, 1953/54
- Town park, Krško, around 1957
- NOB monument, Bojanci, 1978

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Urban Plan of Metlika, 1944-1945



Sonja Lapajne Oblak

Ljubljana, 1906 - Ljubljana, 1995

Sonia Lapaine Oblak graduated with a degree in construction from the former Technical Faculty in Ljubljana and became the first Slovenian woman to earn a degree in civil engineering, and first female urban designer. Between 1934-43 she worked on static calculations for reinforced concrete structures. for the Technical Department of the Drava Banate in Ljubljana, which were built by the state of the time, and supervised their construction. She worked with the most prominent architects of the time, including Jože Plečnik, Emil Navinšek, Vinko Glanz, and Edvard Ravnikar, In 1941 she

ioined the National Liberation Movement and was in 1943 arrested and interned at the German Ravennsbrück concentration camp. After the war she held important positions in various construction companies across Yugoslavia (Novi Beograd, Gradis) and spatial and urban planning companies in Slovenia. As director of the institute Projektivni atelje za arhitekturo, urbanizem in nizke gradnje Ljubljana she retired in 1969. In the 1950s she took part in drawing-up the development plan of the Pomurje region. She wrote several professional papers on urbanism.

Works (selection)

- Static calculation for the National and University Library building (architect Jože Plečnik), Ljubljana, 1935
- Static calculation and supervising the execution of reinforced-concrete parts of the secondary school III državna realna gimnazija (today Gimnazija Bežigrad, architect Emil Navinšek), Ljubljana, 1936
- Supervision of static calculation and execution of reinforced-concrete parts of the Yugoslav King hotel building (today Hotel Slovenija, architect Vinko Glanz), Roqaška Slatina, 1938
- Supervision of static calculation and execution of reinforced-concrete parts of the State School Polyclinic building (today Student Health Center of the University of Ljubljana, 1939
- Supervision of static calculation and execution of reinforced-concrete parts of the Museum of Modern Art (architect Edvard Ravnikar), Ljubljana, 1951
- Supervision of static calculation and execution of reinforced-concrete parts of secondary school building II gimnazija Maribor (architects Jaroslav Černigoj and Emil Navinšek), Maribor, 1952
- Coordinating the drawing-up of the Pomurje Regional Plan, 1958

Static calculations for Gimnazija Bežigrad (architect Emil Navinšek), Ljubljana, 1936



Darinka 1. Ititino . Atenka Kha . Pirnan . Janja Lap . Sonja Lapajne Volak . . . Lidija Podbregar . Barbara Rot . Uga Rusanova . Erna Eornžič . Mojea Vogelnik



Dana Pajnič Ljubljana, 1906 – Ljubljana, 1970

She attended the Probuda Art School in Ljubljana and Decorative Arts School in Dresden. In 1926/27 she enrolled in France Kralj's Ceramics School at the Technical Secondary School in Liubliana, where she soon became his assistant. She was considered the most talented among Krali's students and was as early as 1928 involved in the great retrospective exhibition Slovenian Modern Art 1918-1928. She designed unique studio ceramics and ceramics for everyday use, and soon started to take more ambitious steps towards becoming a sculptor. She appeared in the media and exhibitions where she was involved in the exhibition Women

in Slovenian Art at the Liubliana Grand Fair in 1932 and the Little Entente of Women in Ljubljana in 1938. In the occupied Ljubliana, she was active member of the Liberation Front, she was interned by the Germans to Ravensbrück for two years. After the war she married her long-term partner, architect Miroslav Oražem. In his house, they each had their own studio. There she was joined by Milan Cvelbar (1923-2001) who collaborated with her on unique design projects. After the war, she expanded her field of work to industrial design. She was drawn by new materials: wood, metal, and glass. She was included in selections of Yugoslavian design in exhibitions all over the world.

Works (selection)

- Coffee set, ceramics factory Dekor, Ljubljana, 1934
- Plate with a self-portrait with a bird, ceramics factory Dekor, Ljubljana, 1932–34, kept by the National Museum of Slovenia
- Swan, Keramika ceramics factory, Novo Mesto, 1935
- Two Little Horses, 1938, private collection
- Ceramics room of wholesaler Jelačin, Emonska 8, Ljubljana, ceramics factory Keramika, Novo mesto, 1937–38
- Grill with fish grilling utensils, 1959
- Jug and glasses, 1960s
- Carafe and glasses, 1960s



Coffee set, ceramics factory Dekor, Ljubljana, 1934

Vladismira Bratuž . Majda Dobrau Lajov c . Magda Fornarasič Besnut . Marta Ivanšek . Nives Kalin Vehovar . . . Seta Mušič . Dušana Šantet Kanoni . Girela Šuklp . Branka Eancig Novak



Juta Zdešar Krulc Radovljica, 1913 – Golnik, 2015

She graduated from architecture at the Technical faculty in 1937 under Prof. Ivan Vurnik with the graduation work, The Swimming Pool Complex in Radovljica. She passed the state examination to become a Chartered Engineer in Belgrade, where she worked with engineer Mihajlo Nešić until 1940 Between 1953 and 1957 she was an assistant to Prof Ciril Jeglič at the Faculty of Agronomy in Ljubljana in the course Gardening and Landscape Architecture. At the time she was involved in designing the Volčii Potok Arboretum. In 1955 the Yugoslav Hydrometeorological

Institute in Belgrade published Fenološki atlas Jugoslavije (The Phenological Atlas of Yugoslavia) with her drawings of plants, plant diseases as well as bird and animal pests. Her work consists of over 300 designs of planting on public surfaces and gardens for individual clients. Throughout her life she studied the plant life in Slovenia and botanical drawings. Her gardens were featured in magazines Ambient, Hiše, Vrtnar, Rože in vrt, Delo in dom, Delo in dom plus, and many others. In 2012, she received municipal award of Žiri for her work.

Works (selection)

- Villa Tartini garden, Strunjan, 1958
- Greening of residential area Radeče, 1961
- Kržišnik garden, Žiri, 1992–2015
- Zorjan garden, Žiri, 1997
- Kosler garden, Ortnek, 1999-2002
- Erjavec garden, Dilici, 2000-2003
- Riha garden, Ljubljana, 2001
- Trinkaus garden, Liminjan, 2001–2006
- Kersnik garden, Cerknica, 2002-2006
- Lamberger garden, Mala Loka, 2003-2006



Kržišnik garden, Žiri, 1992–2015

Sarinka Battelino . Stenk. Thaen Pičonan . Jan' . Lop . So ij Lapajne Volak . Dana Pajnič . . Barbara Rot . Viga Rusanova . Erna Eomšič . Mojea Vogelnik



Lidija Podbregar Zagreb, 1923 – Ljubljana, 2013

After graduating from the City Secondary School for Girls Lidiia Podbregar enrolled in 1941 in the architecture study programme at the Technical Faculty in Ljubljana and in 1947 graduated with Prof. Jože Plečnik with the design for the new building of the People's Assembly of the PRS. She was employed at Slovenija projekt and, between 1950 in 1960, worked at Projektivni biro Radovljica, Rudnik and Gradis in Ljubljana. From 1960 on she worked at the Research Centre of Giposs, a construction company from Ljubljana, where she researched the problem of basic

supply in residential settlements. In 1962 she took a study trip to Northern European countries with the aim of studying the commercial centres there: the report Commercial Centres Abroad has been preserved from the trip. Along with the many commercial centres for basic supply that she designed, the key part of her work was theoretical, e.g. the highly-visible presentation at the 12th conference of urban designers and planners in Rijeka in 1965 entitled Spatial and Design Concept of Commercial Centres in an Urhan Context

Works (selection)

- Design for the building of the People's Assembly of PRS in Liubliana (graduation work), 1947
- Office and residential building, Jesenice, 1958–1959
- Commercial centre for basic supply, Ulica Luize Pesjakove 11, Ljubljana, 1959–1966
- Commercial centre for basic supply, Vojkova cesta 3, Bežigrad, Ljubljana, 1959–1966
- Commercial centre for basic supply, Javornik, Rayne na Koroškem, 1959–1966 (demolished)
- Commercial centre for basic supply, Kranj, 1959–1966
- Competition entry Plaža (co-authors Marko Mušič, Stane Starc)
 Yugoslavian competition for urban planning and design solution of a commercial centre in Velenje, 1964



Commercial centre for basic supply, Ljubljana, 1959-1966

Nadisa Bratis . Majda Sobravec Lajovic . Magda Fornararič Focenet * Marta Ivanšek * Nives Falin Vehovar * Juta Frule Seta Mušič * Sušana Šantet Fanoni * Girela Šuklje * Branka Eancig Novak



Vladimira Bratuž Furlan – Laka Ljubljana, 1923 – Ljubljana, 2006

She simultaneously studied sculpture at the Academy of Fine Arts and architecture at the Technical Faculty in Ljubljana; she enrolled in both study programmes during the war (1942/43) and completed both in 1950. In the first years after her graduation (1950–1953) she was assistant to Prof. Jože Plečnik at the faculty and modelled his projects, while at the same time, she enrolled in a specialisation programme in sculpture under Prof. Frančišek Smerdu which she completed in 1952. She often collaborated

with Plečnik in projects involving architectural sculpture, e.g. the Butchers' Bridge at the Ljubliana Markets, and particularly in postwar NOB (National Resistance Struggle) memorials and tombstones. After Plečnik's death, she devoted her work entirely to sculpture and applied arts. In 1955 she was awarded the Diplôme d'honneur Cannes. Académie Internationale de la Céramique, for her work in the art of ceramics. Between 1967 and 1981 she was Professor in three-dimensional design at the School of Design in Ljubljana.

Works (selection)

- Chair for the inn Prešernov hram, Glavni trg, Kranj, 1947
- Facade of the Prešeren Theatre (in collaboration with Jože Plečnik and Ferdinand Jocif), Krani, 1948–1953
- Memorial to NOB victims (in collaboration with Jože Plečnik and Anton Bitenc),
- Dolenja vas in the Selška valley, 1949–1950
- Portrait of Jože Plečnik, Križanke, Ljubljana, 1951
- Monument to NOB (in collaboration with Jože Plečnik), cemetery, Zgornje Gorje at Bled, 1951
- Monument to the victims of WW1 and WW2 (with J.Plečnik, M. Detoni and A. Bitenc), Črna pri Mežici, 1952
- Bishop's Throne (in collaboration with Jože Plečnik), Cathedral, Ljubljana 1951–1957
- Fish, a playable sculpture, Tivoli, Ljubljana, 1958–1959
- Residence studio, Veselova ulica 11a, Ljubljana, 1977
- Portrait of Anton Bitenc, Križanke, Ljubljana 1981



Fish, a playable sculpture, Tivoli, Ljubljana, 1958–1959

Nadir i a Bratuž . Majda Su savec Lajovic . Mag la Fornazarič Kocsnut .
. Niver Kalin Nehovar . Juta Krule . Seta Mušič . Dušana Šantet Kanoni . Gizela Šuklje . Branka lancig Novak



Marta Ivanšek, née Ravnikar Ljubljana, 1920 – Ljubljana, 2003

She graduated in 1951 under Prof. Jože Plečnik: durina her studies she was involved in the seminar of her older brother. Prof. Edvard Ravnikar. After her graduation, she worked for companies Dom and Slovenija projekt. In 1954 she, together with France Ivanšek, went to Stockholm, Sweden, where she worked for five years. She worked in David Helldén's and then in Georg Varhely's architectural offices. After their return (1959), France Ivanšek and she became employed at the Institute for urban planning, but then they founded their own office. Studio

for housing and interior design. which was later renamed into Ambient. She worked in housing construction which she tackled comprehensively, i.e. from urban planning of residential areas to housing and interior design and from homes for the everyday user to those adapted for people with special needs. Her work included housing research and awareness-raising about the importance of the housing culture. For their exceptional innovations in architecture and interior design, she and France Ivanšek were awarded the Swedish IKFA award in 1986

Works (selection)

- Interior design of the store Dom on the corner of Cankarjeva and Beethovnova streets, Ljubljana, 1952
- Svea Kitchen (co-author France Ivanšek), 1960
- Survey among 195 housing units in Savsko naselje (co-author France Ivanšek), Ljubljana, 1961
- Shelving furniture Studio OSLO (co-author France Ivanšek), Meblo, 1964
- Exhibition Contemporary Equipment, Jurček at Gospodarsko razstavišče (co-author France Ivanšek), Ljubljana, 1964
- Interier shop (co-author France Ivanšek), Ljubljana, 1965
- Interior design of retirement home Tabor (co-author France Ivanšek), Ljubljana, 1965
- Neighbourhood of atrium houses in Murgle (co-author France Ivanšek), Ljubljana, 1966–1988
- Retirement home Poljane I (co-author France Ivanšek), Ljubljana, 1975
- Retirement home Kolezija (co-author France Ivanšek), Ljubljana, 1982



Interier shop, (co-author France Ivanšek), Ljubljana, 1965

Ne de mea Beatuž. Majda Dobrawe Lajovic.

Nives Kalin Nehovas. Juta Keule. Seta Shušič. Dušana Šantet Kanone. Gizela
Šuklje * Branka Eaneg Novak



Magda Kocmut, née Fornazarič Trieste, 1925 – Maribor, 2010

Magda Fornazarič enrolled in architecture at the Technical Faculty in Ljubljana in 1946/47, and in 1952 she graduated under Prof. Jože Plečnik. She started her professional career with architect Jaroslav Černigoj in the architectural office Projekt Maribor, under the supervision of Saša Dev. A few years later she started working for Komunaprojekt where she stayed until her retirement in around 1985. After the war, the work in an architectural office was mostly about team work: most projects were the result of close cooperation, particularly between Magda, her

husband Ivan, and her brother-inlaw Branko Kocmut. This collective spirit prevents an accurate assessment of the proportion of the work done by the architect herself. Nevertheless, she left her mark on many public buildings, particularly kindergartens, secondary and higher education schools, commercial buildings and hotels, as well as many residential buildings, both family houses and blocks of flats. Her arguably most famous work is her contribution to the renovation of the old city centre Lent in Maribor, for which she was awarded the Borba Prize in 1986.

Works (selection)

- The Boris Peče kindergarten, co-author Milan Černigoj, Maribor, 1957
- The Ivan Glinšek kindergarten, co-author Milan Černigoj, Maribor, 1959
- Medical Centre, Maribor Tezno, 1962
- Municipal People's Committee, Maribor-Tezno, 1964
- Secondary Medical and Cosmetic School, co-author Ivan Kocmut, Maribor, 1964
- Residential buildings along the Gosposvetska and Prežihova streets, Maribor, 1966
- Ormož Hotel, Ormož, 1967
- Terraced houses, co-authors Ivan and Branko Kocmut, Dobja vas, 1968
- Commercial building Kvik, co-author Borut Pečenko, Maribor, 1970
- Hotel Habakuk, co-author Ivan Kocmut, Maribor, 1974
- Preliminary design for development of Pristan, Maribor, 1975
- Extension of kindergarten Metalna, Maribor, 1975
- Collaboration in revitalisation of the Historical Centre, Maribor, 1983-1986

Commercial building Kvik (co-author Borut Pečenko) Maribor, 1970 Biba Mest k. Carmen Jež Gala * Renija Ština Grum . Ljeska Finžgas. Marije Covk . Metka Wihune . Šumi . Špelka Valentinčič . Staža Blažič Gjura



Milica Detoni Ljubljana, 1926 - Ljubljana, 1961

Milica Detoni graduated in 1952 under Prof. Jože Plečnik with the diploma work in which she designed the Bridge of Victory which was meant to connect Novi trg square to the planned access to Castle Hill. She got employed at the Institute of Monument Protection in May 1953; in 1954 she became assistant professor of Prof. Marjan Mušič at the Department of Architecture. being just the second woman to be employed in this department. She was active in the field of renovation of cultural monuments (in numerous projects she closely collaborated with Prof. Mušič),

she dedicated herself to the study and preservation of monuments dating from antiquity (necropolis in Šempeter, Emona). In 1960 she applied for doctoral study. In the spirit of Le Corbusier's work Vers une architecture (1923) she devised a measure reconstruction of Emona's building elements (modules) on the basis of Roman anthropometry. The results of her research work, which was tragically terminated in a traffic accident in 1961, were summed up in 1963 under the title Modular reconstruction of Emona and published by her husband, architect Tine Kurent.

Works (selection)

- Plan and arrangement of the mine warehouse, Idriia, 1953
- Restaurants of Otočec and Stari grad castles in Dolenjska region, 1954
- Renovation of the birthhouse of writer Josip Jurčič in Muliava, 1954
- Plan for the renovation of the Old Mansion in Celje (in collaboration with Marjan Mušič), 1955
- Regulation plan for Slovenske Konjice (in collaboration with Marjan Mušič), 1955
- Studies for the renovation of Florjanska street in Ljubljana (in collaboration with Marjan Mušič), 1955
- Monument to the victims of the First and the Second World War (in collaboration with Jože Plečnik and Vladimira Bratuž), Črna na Koroškem, 1952
- Monument to women's demonstrations of 1943 on Kongresni trg square (in collaboration with Jože Plečnik and Božidar Pengov), Ljubljana, 1952–1953

Modular reconstruction of Emona, plan of house XII, Ljubljana, 1960



Biba Bertok.

Alexa Jeron - Lierka Finžgar - Marija Vovk - Metka Vrhunc - Milica Detoni - Nataša Stupar Sumi - Špelka Valentiniči - Staša Blažič Gjura



Carmen Jež Gala Beograd, 1925 - Ljubljana, 1965

In 1952, Carmen Jež Gala was the first woman to graduate in civil engineering from the Technical Faculty of Ljubljana after the second World War. She became an assistant at the Department of Steel Structures, thus becoming the first woman to work at this faculty, and in 1960 she was elected first female assistant professor. In 1959/1960, she broadened her knowledge at the University of Cambridge; in 1964 she lectured at the postgraduate level of the Sarajevo Faculty of Civil Engineering. Since 1949, she worked at the Institute of Steel Structures (IJK), from 1955 onwards known as the Institute of Metal Structures (IMK). The focus of her research work were namely steel structures, strength,

stability, the plasticity theory, and plastostatics. She also conducted preliminary research on the use of aluminium alloys in civil engineering. She was head of the IMK documentation centre and the chair of the study board at the Faculty of Civil Engineering. Her oeuvre consists of thirteen scientific and professional papers and dissertations published in domestic and foreign press. Everything that was written about her proves she was a highly respected professional, immensely popular with peers and students. Her pedagogical and scientific work, interrupted by her tragic death in a car accident. is a milestone in terms of women becoming key actors in the field of civil engineering in Slovenia after the Second World War.

Works (selection)

- Structural load testing of the Huda Južina railway bridge
- Portal deck crane for a steel-construction and lift workshop in Šiška, Ljubljana, 1953
- 110 kV transmission towers for Valjevo-Sevojno, 1953
- Jesenice aqueduct project
- Pressure pipe cover, Jajce II HPP
- Pressure pipe hydrostatic test, Moste HPP
- Structural load testing of the Dolgi Most Bridge at km 570-650 on the Ljubljana-Trieste line
- Transmission towers across the river Sava near Belgrade, 1952
- A hanging roof structure for the Exhibition and Convention Centre in Ljubljana
- FD Železničar stadium grandstand, Ljubljana, 1952



Dar's ka Battetino. Li nka Khaen Pičeman . Janja Lap . Sonja Lajojne Volak . D na Pajnič Lidija Podbregar . Barbara Rot . . Erna Eornisič . Mojea Vogelnik



Olga Rusanova Murska Sobota, 1927

Olga Rusanova enrolled at the Department of Architecture at the Technical Faculty of the University in Ljubljana in the academic year of 1945/46. She graduated in Auaust 1954 under Prof. Edo Mihevo with the thesis: The Restaurant Building for Litostroj. Following her graduation, she gathered work and academic experiences abroad (France, the Netherlands...). In October 1954 she joined Prof. Miheve as an Assistant in the Interior Design course, and she remained in this position until 1961. After becoming Assistant Professor, she was, for years, the only female lecturer at the Department of Architecture at FAGG

and between 1969 and 1971 the Department's first female head. At her retirement she held the title of Associate Professor in Interior Design. Her many studies on interior design for people with special needs are of utmost importance. Her well-thought-out ideas were also put into practice when she was involved in the drawing-up and updating of the Yugoslavian rules for student dormitories In 1966 she received the Borba Federal Award for Architecture for her work in this field. Also, she was awarded the 3rd prize at the international competition AS Design in 1971 for interior design of an education institution.

Works (selection)

- Interior design of Triglav Hotel (today Hotel Koper, in collaboration with Edo Mihevc), Koper, 1952
- Design and interior for Trieste's Slovenian House of Culture (in collaboration with Edo Mihevo), Trieste, 1954
- Interior design of a bookshop (in collaboration with Edo Mihevc), Trieste, 1955
- Interior design of a hotel (in collaboration with Edo Mihevc), Ohrid, 1957
- Design for Blood Transfusion Centre building (in collaboration with Dominique-Alexandre Louis), Nancy, 1957
- Interior design for Mariners' Club (in collaboration with Edo Mihevc), Piran, 1958
- Implementation and interior design for a primary school in Koper (in collaboration with Edo Mihevc), Koper, 1962
- Design of various institutions for disabled youth in Črna, Vevče, Maribor, and Slovenska Bistrica, 1969–72
- Modular furniture (Project 100 Schools for Yugoslavia under the Ministry of Education), Belgrade, 1971
- Master plan for a special needs school (co-author Marjan Božič and others), Ljubljana, 1976



CUDV Draga pri Igu, Draga, 1979

Biba B tok. Carenen Jež Gala * Kren a Šetina Grus. . Čerka šinogas. Marije Povk . Netka Vohune . N. lica Detoni . . Špelka Valentiniii . Staža Blažič Gjura

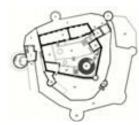


Nataša Štupar Šumi, née Suhadolc Ljubljana, 1927

She graduated with Prof. Jože Plečnik at the Technical Faculty in Ljubljana in 1954 and successfully defended her PhD thesis 'Architectural Heritage of the Karst' at the Faculty of Architecture of the University of Ljubljana in 1996. From 1960 till her retirement in 1994 she was employed as a conservator at the Institute for Monument Protection (Institute for the Protection of Cultural Heritage of Slovenia). As conservator and architect, she contributed significantly to the research and integral preservation of architectural heritage, especially in western Slovenia. She created an extensive documentary collection of architectural heritage and worked on more than 150 renovation, reconstruction. revitalization and valorisation projects, including castles, mansions, monasteries, historical town cores, Karst villages and houses, church buildings and other architectural, ethnological and archaeological monuments. She contributed to the reconstruction of architectural monuments. which were damaged during and after the Second World War. Results of her work were published in a number of monographs and articles, especially in the Journal for the Protection of Monuments (Varstvo spomenikov). In 2012 she was awarded the national France Stele Prize for lifetime achievement in the fields of conservation and restoration.

Works (selection)

- Renovation of the castle and houses in Predjama village, 1962-68
- Rihemberk Castle renovation, after 1962
- Hmeljnik Castle renovation, 1965-68
- Vogrsko Mansion renovation, 1968-80
- Renovation of houses in the Karst villages of Kobdilj and Šmartno in Goriška Brda, after 1960
- Renovation of the castle and the village of Štanjel in the Karst, 1970-88
- Urgent intervention works on Škratelinova hiša house in Divača, after 1970
- Renovation of Betnava Mansion near Maribor, 1976-91
- The Rotunda of Selo renovation, 1978
- Dobrovo Mansion renovation, after 1979



Rihemberk Castle renovation, after 1962

Wadismira Bratuž . Majda Dasravec Lajovic . Magda Forna u 22 Focemut . Marta Ivam k Nõves Falin Wehorce . Jula Krule . Ma Mušič . Dušana Santet Fan n . Gizelo Suklj .



Branka Tancig Novak Ljubljana, 1927 – Ljubljana, 2013

She graduated in 1954 at the Technical Faculty in Liubliana under Prof. Edvard Ravnikar with the thesis title: Contemporary Kitchen, She was employed at Central Institute for Home Economics of PRS, where she was active in different fields. Her focus was on the introduction of the contemporary kitchen into Slovenian homes. In 1954 she designed the first Slovenian mass produced contemporary, i.e. laboratory, kitchen. The kitchen units that were launched into the market in 1955 were, as

a great innovation, presented at the exhibition Stanovanje za naše razmere (Housing for Our Conditions) in 1956 in Ljubljana and in 1958 at the 2nd international exhibition Porodica i domaćinstvo (Family and Household) in Zagreb. Based on the several years of working with kitchen furniture, Tancig participated in the coordination of measurements and the production of fundamentals for designing kitchen furniture both in line with federal (1960) and republican norms for housing construction (1968).

Works (selection)

- Poster for the exhibition Arhitektura FLNRJ, 1951
- Contemporary kitchen furniture, Tovarna pohištva Maribor, 1954
- Book Small but Comfortable Apartments, Liubliana, 1954
- Book Kitchen, Design and Equipment, Ljubljana, 1958
- Equipment for Higher Housekeeping School in Groblje at Domžale, 1961
- Preliminary design project for the kindergarten in Ig by Ljubljana, 1984



Contemporary kitchen furniture, Tovarna pohištva Maribor, 1954 Darinka Battetino . Atenka Khaon Prieman . / ON JO LON . Sonja Lapajne Volak . Dana Pajnič . Lideja Podbregar . Barbara Rot . Uga Rusanova . Erna Eornšič . Mojea Vogelnik



Janja Lap Ljubljana, 1929 – Ljubljana, 2004

An architect, designer, and teacher, she graduated from the Technical Faculty, Ljubljana, in 1956, under Prof. Edvard Ravnikar. She took part in architectural and urban design projects and taught for two years at the Secondary School for Design and Photography. She furthered her knowledge at the Royal College of Art in London (Prof. Misha Black. Prof. Bruce Archer), where she received her MA, and then taught at the School of Architecture in Sheffield and at the Architectural Association in London, After returning to Slovenia, she was engaged in investigating the sociological aspects of housing

construction at the Sociology Institute; she held lectures at the Pedagogical Academy, and, for six months, at the University of Mosul in Iraq. She introduced the Open University study programmes in Ljubljana in 1989. Throughout her career, she engaged in glass designing. Excellence of her design is cofirmed in periodical publications (Arhitekt, Domus, Sinteza), participation and awards at BIO exhibitions, inclusion in the permanent design collection Neue Sammlung in Munich in 1987, and glass collection of the National Museum of Slovenia in Liubliana in 1997.

Works (selection)

- Glass tableware set for water, The Royal College of Art, London, 1964
- Vase Plamen (Flame), The Royal College of Art, London, 1964
- Microwave oven MVP 600, Iskra, 1977
- Laser stimulator LSA-02. Iskra elektrooptika, 1986
- TV indoor aerial Skat. Elrad. 1991
- Set of chandeliers Argentum, Zlatarna Celje, 1991
- Vases and glasses Konstrukta, Steklarska šola Rogaška Slatina, 1993
- Chalices Vivat, Dekor Kozje, Steklarna Rogaška, 1994
- Chalice Spomin (Memory), Steklarska šola Rogaška Slatina, 1996
- Pendant light Satje (Honeycomb), Dekor Kozje, Steklarna Rogaška, UKO Kropa, 2000



Glass tableware for water, Royal College of Art, London, 1964

Biba Be at. Carmen Jež Gos. * Krenija Šetina Grum . Ljerka Finžgar . Marij Noviz . Metka Nohem . Vilica Detom . No wa Stupar Sumi . Š. el sa Net s to až .



Staša Blažič Gjura Ljubljana, 1929 – Ljubljana, 2014

In 1949, she enrolled in the Faculty of Architecture of the Technical College in Ljubljana. She graduated in 1956 with 'A Hotel on the Selected Plot' - her mentor was Prof Jože Plečnik In 1957 she started to work at the Institute for the Development of the Old Town of Ljubljana, later renamed the Ljubljana Regional Institute for the Protection of Natural and Cultural Heritage, where she worked as an architect-conservator from 1968 until her retirement in 1993. She soon led projects of the renovations of town-based, ecclesiastical and castle architecture. Throughout her career she attended a number of specialist excursions in Paris, Germany, London and Italy.

During the 1970s, she worked alongside the experts of the Faculty of Arts in Liubliana, developing a conservation programme for the renovation of historic town cores. She formed a duo with the art historian-conservator Maida Frelih Ribič. They developed several conservation programmes for the renovation of buildings in the Old Town of Ljubljana. Her final largescale project was the renovation of the Central Market designed by Jože Plečnik. She received a Commendation awarded on the 30th anniversary of the Conservators of Yugoslavia in recognition of her work, and in 1996 also the France Stele Award and the Plečnik Medal.

Works (selection)

- Renovation of the urban block Cankarjevo nabrežje, Ljubljana, 1965–75
- Complete renovation of the F&B establishments, graphic documentation and interior design, Liubliana. 1970s
- Stična Mansion, interior design, Liubliana
- Žale Central Cemetery by Jože Plečnik, 1984 start of restoration works in the cemetery's chapels-of-rest, 1984–90 exterior renovation, 1991 interior renovation, Ljubljana
- Ljubljana Central Market designed by Jože Plečnik, graphic documentation, work supervision, 1995
- Start of restoration works at Bogenšperk Castle, Bogenšperk, 1960-90
- Dol manor compound, technical documentation for the restoration, Dol pri Ljubljani, 1979
- Kodeljevo Castle, redevelopment of the Jelovšek Chapel and the surrounding area, Ljubljana, 1985
- Renovation of the old town centre of Ribnica, 1987, 1988
- Fužine Castle, 1984 guidelines, 1989 inventorying and research, 1990 renovation, Ljubljana

Interior design of restaurant Pri vitezu Ljubljana, 1968



Davinka Battelino . Ater . a Kham Piiman . Janja Lap . Sonja Lapajne Obl k . Dana Pajnič Lidija Podbregar . Barbara Rot . Oga Rusanova . . Mojea Vogelnik



Erna Tomšič Ljubljana, 1925 – Ljubljana, 2007

She was born into a bourgeois family in Ljubliana and wanted to study painting. She was reluctant to attend the nearest art academy in Zagreb: in 1946 she decided to study architecture in Ljubljana. While in the third year of her studies, she became instructor demonstrator and assisted Prof. Plečnik until completing her studies. She graduated in 1956, under Prof. Jože Plečnik, with a project for the School of Decorative Arts. After graduating she remained at the faculty until Plečnik's death in 1957; she was then relocated to Ljubljana city

office, where she worked at the Residential Buildings Department, and soon after at the Institute for the Regulation of the Old Town of Ljubljana. In order to get at least two years of practical experience to pass a professional examination, she became employed at the Institute for Investments of Ljubljana, where she remained an independent and responsible designer, until her retirement in 1980. She devoted her life to designing sacred architecture and interior design, and particularly completing Plečnik's unfinished projects.

Works (selection)

- Renovation of St Stephen's Parish Church, Ribnica, 1958–1960
- Design of lamps, the baptistery, and tombstone in the Parish Church of the Annunciation, Nazarje, 1960
- Interior design in the Parish Church of the Nativity of Mary, Homec, after 1961
- Renovation of church equipment in the Parish Church of the Nativity of Mary, Kotor Varoš (Bosnia and Herzegovina), 1966–1968 (demolished in 1987)
- New rectory and tombstone for the clergy, Škrabčev trg 15, Ribnica, 1969
- Chapel of the Daughters of Mary, Help of Christians, Partizanska cesta 6, Bled, 1969
- Renovation of St George's Parish Church, Dobrnič, after 1972
- Finishing works in the Church of Saint Francis of Assisi, Ljubljana, 1974
- Furnishings in Grand Hotel Toplice, Cesta svobode 12, Bled, 1978



New rectory, Ribnica, 1969

Biba Ber st., Carmen Jež Gala * K. ijo Ština Grum. Ljerka Finžgar . Marij. Novk. Melka Vehune. Milica Setani. Ne laša Štupas Gumi . Staša Blažič Gjura



Špelka Valentinčič Jurkovič Ljubljana, 1931

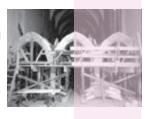
She followed in the footsteps of her father, architect Janez Valentinčič (1904-1994), and enrolled in the then Technical Faculty of the University in Ljubljana. She graduated from university in 1956 with the Ljubljana Tivoli Park riding hall project; her mentor was Prof. Jože Plečnik. She started a job in Museum of Dolenjska in 1957, and was mostly involved in the restorations of the Otočec Castle and former Cistercian monastery in Kostanjevica na Krki. In 1958, she found employment with the national Institute for the Protection of Monuments and from 1963 until her retirement in 1992, she worked as an architect-conservator at the regional Institute for the Protection of

Monuments Liubliana. For over thirty years, she was renovating castles that were destroyed during and after the Second World War in Slovenian regions of Doleniska and Bela Krajina. She also focused on monastic architecture, church renovations, and the exploration of contiguous monumental sites. In her work, she devoted a lot of attention to preserving the area surrounding monuments. Her conservation reports were published in the Varstvo spomenikov journal and she was also highly committed to fieldwork. She is considered one of the most prolific Slovenian female conservators who received a number of awards in recognition of her work, including the France Stele Award (1994).

Works (selection)

- Restoration of the former Cistercian monastery in Kostanjevica na Krki, 1957-92
- Restoration of Hmeljnik Castle, 1960-72
- Restoration of Turjak Castle, 1965-92
- Restoration of Smlednik Castle, 1967-72
- Restoration of Mokrice Castle, 1967-80
- Restoration of the Polhov Gradec Park and Castle, 1967 and 1994
- Restoration of the garden pavilion at Soteska Castle, 1972
- Restoration of the Stari Grad Castle near Novo Mesto, 1973
- Restoration of Žužemberk Castle, 1973-80
- Rehabilitation project and consultancy for Goričane Manor restoration, 1991
- Methodology for presentation of the castle ruins, Višnja Gora, 1991

Interior of monastic church in chartre house Pleterje Šentjernej, 1984



Mar'imi i Bratuž . Majda Do ri vec Lajovic . Magda Fornazorič Kochu – Mirta Ivanšek * Juta Frulc' Seta Mušič * Dušana Šantet Kanoni * Girela Šuklje * Branka Eancig Novak



Nives Kalin Vehovar

Ljubljana, 1932 - Ljubljana, 2007

Nives Kalin Vehovar completed her studies at the Faculty of Architecture, Civil and Geodetic Engineering in Ljubljana in 1958 (Prof. Edo Mihevc). She was employed as an architect at several Slovenian engineering offices and worked mostly in collaboration with her husband, France Vehovar. Together they worked on projects for industrial and residential buildings, but specialized mostly in designing hotel architecture. Their projects exhibit a particular focus on interiors, which are noted

for their simplicity, functionality, harmonious feel and innovative, custom-made furnishings in organic shapes and natural materials. In addition her independent, multifaceted activity included graphic design and corporate visual identity development. She was praised particularly for the industrial designs created with her partner, which were exhibited extensively and brought them several awards including the national Prešeren prize and BIO award for the NKVFV Pendant Lights.

Works (selection)

- Monument to Railroad Workers, co-author Boris Kalin, 1958
- Corporate visual identity and poster design for the Liubliana Wine Fairs, 1959–63
- NKVFV series of wood veneer pendant lights, co-author Franc Vehovar, 1960–63
- Salt and pepper shaker set, oil and vinegar bottle set, co-author Franc Vehovar, 1965
- Health resort. Čateške toplice, co-author Franc Vehovar, 1963–65
- Semiconductor factory, Trbovlje, co-author Franc Vehovar, 1964–66
- Alpina Hotel, Kranjska Gora, co-author Franc Vehovar, 1970-73
- Breza Hotel, Podčetrtek, co-author Franc Vehovar, 1976-77
- Family house in Trzin, co-author Franc Vehovar, 1979-80



NKVFV Series of Wood Veneer Pendant Lights, 1963

Nadien ra Bratuž Majda Dobravec Lajovic Magda For zari Tornut-* Mast vanšek * Niver Kalin Nehovar * Juta Kruli * Dušana Šantel Kanoni * Gizela Šuklje * Branka Eancig Novak



Seta Mušič, née Jelisaveta Jurkovič Ljubljana, 1930 – Ljubljana, 2017

The pioneer of Slovenian television set design graduated in 1958 under the supervision of Prof. Edo Mihevc at the FAGG. She started working for the television and stayed there for more than three decades. She first worked as an architect and took over the reconstruction of the old radio building, she was also involved in the design and construction of the transmitters at Kryavec and Nanos. She headed the construction of the new studio, which became the first major studio in Slovenia, modelled after the best European centres. Then she dedicated her work completely to set design.

With her rich collection of works. comprising more than 2000 set designs, she left an indelible mark on the television in Liubliana. Most of her works strive to reflect a contemporary, at times experimental visual expression. In her work, she frequently uses unconventional means of expression and materials. Her work drew the attention of the international community: in 1962 BBC included one of her set designs into a book of proceedings of the International Television Design Conference in London. She received many recognitions and awards for her set designs.

Works (selection)

- Anton Marti, Silence, the Broadcast Begins, 1962
- Georges Čačavadze, Marsh Bird, 1965
- Anton Marti, Eurovision Song Contest, 1967
- Mirč Krageli, Five Lines of the Stave for a Song, 1967
- Tuesday Night, 1967
- Mirč Kragelj, Etude for the Camera, 1967
- Alojz Srebotnjak, Karst Suite, 1968
- Anton Marti, Partly in Earnest, Partly in Jest, 1968
- Primož Ramovš, Echoes, 1970
- Lojze Lebič, Five Impressions, 1971
- Anton Marti, What Will Be Will Be, 1979



Echoes, set for a ballet by Primož Ramovš, 1970

Vlad i Isa Bratuž. Majda Jornaranii Kosmut Masta Ivanšek * Nives Kalin Vihovar * Juta Kruli Sela Mušii * Dušana Šantet Kanoni * Gizela Šuklje * Branka Eancig Novak



Majda Lajovic, née Dobravec Liubliana, 1931

In 1959 she graduated at the Faculty of Architecture, Civil and Geodetic Engineering (FAGG) under Prof. Edvard Ravnikar. After graduation she became employed as a designer at the Institute for Cooperative Construction in Ljubljana; she later worked at the architectural office Tamar and then at the AB architectural office from its establishment in 1964 until 1988. Until her retirement in 1996, she was resident architect and designer of museum exhibitions at the Technical Museum of Slovenia in Bistra. Her best-known work is the primary school building in Kranjska Gora. From her

student years onwards she was also involved with graphic design; perhaps the two most acclaimed posters were the ones from the exhibition Housing for Our Circumstances in 1956 and the first BIO exhibition in 1964. The latter was included in the permanent exhibition of MoMA in New York and presented at the exhibition Designing Modern Women 1890-1990. She designed the logos for Stol Kamnik, Šumi, AB biro and Tekstilindus Kranj. Between 1960 and 1962 she was assistant to Prof. Ravnikar at FAGG. Occasionally she wrote for the journal Arhitekt.

Works (selection)

- Yugoslavian pavilion at the XIVth Triennial in Milan, co-author Grega Košak, 1968
- Primary school, Kraniska Gora, 1965-70
- Miran Jarc primary school, co-author Janez Lajovic, Ljubljana, 1972-75
- Milena Kumar primary school, Ljubljana, 1972-75
- Setting up of Lavička Pharmaceutical and Medical Collection at Lek factory, Ljubljana, 1984
- Reconstruction and extension of the Ljubljana City Theatre, co-author Janez Lajovic, 1973
- Design and setting up of the Museum of Postal and Telecommunications Services, Stara Loka, 1980-83
- The Boris Kraigher square, co-author Janez Lajovic, Ljubljana, 1984
- Carmelite Convent, Sora, 1986
- Design and setting up of museum exhibitions for the Technical Museum of Slovenia, Bistra, 1988-96



Primary school, Kranjska gora, 1965-70

Bibo B tak. Carnen Sex Gala Gre i ja Šetin Grum . Lerka Finžgar . Melka Vihune . Milica Detoni . Nataša Štupar Šumi . Špelka Valentinčič . Staša Blažič Gjura



Marija Vovk Bled. 1931

Mariia Vovk studied at the Department of Architecture of the Technical Faculty of Ljubljana. In 1959, she graduated from university under Prof. Ravnikar. She got a job at the company Projektivni Atelie Liubliana. In 1961, she left Slovenia: at first, she worked in Lausanne, Switzerland, followed by Skövde in Sweden (1962-1963), and Finland, where she moved in 1964, working for the architectural firm of the town of Helsinki (HKR). Enriched by her Scandinavian experience, she returned to Ljubliana in 1967. In 1969, she started working for the Urban Planning Institute (UIRS), where she remained

until she retired in 1990. She was initially involved in the planning of BS 7 residential neighbourhood in Ljubljana and a large-scale expansion of the capital of Dalmatia Split III, after which she focused on research into the housing facilities for seniors. In 1975, she did postgraduate studies at the Institute of Social Studies in The Hague, the Netherlands. As an architect. researcher author of numerous publications and consultant in decision-making committees she was closely involved in adapting the built environment to suit the needs of persons with disabilities - she was a pioneer in this field.

Works (selection)

- Numerous book cover designs, a wicker chair designed for the 1956 exhibition Housing for the Conditions We Live In, Ljubljana
- Regional Programme of Adult Housing in Slovenia, Ljubljana 1967
- Standards for Construction and Equipment of Buildings for the Elderly, Liubliana 1972.
- Concept design for the Nursing Home Ljubljana Bežigrad, 1973
- M. Vovk, Slovenian Nursing Homes, Ljubljana 1983
- Study Materials for the Reconstruction of the Slovenian National Opera and Ballet Theatre Ljubljana (in Terms of Its Accessibility and Usability for Persons with Disabilities), Ljubljana 1991
- M. Vovk, Guidelines for the Construction of Housing Facilities for the Elderly, Ljubljana 1998
- Corporate visual identity and a logo for the Gerontological Association of Slovenia, 1977
- Handbook Planning Built Environment and Adapting It to Suit the Needs of Persons with Disabilities, Ljubljana, 2000

Wicker chair,

Housing for the Conditions We Live In Ljubljana, 1956

Biba Bestote. Carnen sež Gala Esenija Šetina Grusn . Marija Novk . Metka Vihune . Milica Detoni . Nataša Štupar Šumi . Špelka Valentinčič . Staša Blažič Gjura



Ljerka Finžgar Zagreb, 1937

Lierka Finžgar concluded her studies in 1963 under Prof. Edo. Mihevc. She was first employed at the Centre for the Advancement of Trade and Packaging in Ljubljana, and in 1964, an expert job in the Meblo factory in Nova Gorica and dedicated fully to furniture industrial design. When the company was reorganized in 1972, Meblo Design department was established. Finžgar was head of the department until 1984; until her retirement in 1992, she was an independent expert on design in the Liubliana branch of the Meblo company. The most innovative was her design of modular furniture

which meant a step away from set production. She favoured designing seating furniture and proved herself also in preparing presentations of the Meblo factory at Belgrade annual fairs. She travelled abroad extensivelly: she negotiated foreign producers of materials, visited international furniture fairs and participated in congresses on design. She received numerous awards and accolades for her achievements: the Golden Key (Zlati ključ) of Belgrade Fair (1967, 1969, 1970, 1976, 1988) and the Zlati spoi (Golden Junction) at the Furniture Salon in Ljubljana (1969, 1971).

Works (selection)

- A-programme of modular furniture system, Meblo, Nova Gorica, 1967
- HO system furniture, Meblo, Nova Gorica, 1969
- E-programme of modular furniture system, Meblo, Nova Gorica, 1970
- Dining table and chair Skandinavija, Meblo, Nova Gorica, 1976
- Seating set Lahti, Meblo, Nova Gorica, 1978
- Semi-armchair Kemi, Meblo, Nova Gorica, 1979
- Armchair Bergen, Meblo, Nova Gorica, 1979
- Programme of modular furniture system Formanova, Meblo, Nova Gorica, 1979
- Exhibition rooms of the Meblo factory at Belgrade Fair in the years 1982, 1983 and 1984
- Modular furniture system Forma 88 (co-author Angel Susič), Meblo, Nova Gorica, 1988

Modular furniture system Formanova and armchair Bergen Meblo, Nova Gorica, 1979



Danika Battelina. Atenka Kham Pičman . Janja Lap . Sonja Lapajne Volak . Dana Pajnič . Lidija Podbregar . Barbara Rot . Uga Rusanova . Erna Eomšič . Mojia Vogelnik



Darinka Battelino Ljubljana, 1940

In 1976 Darinka Battelino successfully defended her PhD dissertation at the Faculty of Architecture, Civil Engineering, and Geodesy, University of Ljubljana, and thus became the first female Doctor of Science in Construction in former Yugoslavia. Between 1963 and 1991 she taught at the Faculty of Architecture, Civil Engineering, and Geodesy in Liubliana. and between 1977 and 1991 at the Faculty of Civil Engineering in Maribor, From 1991 onwards she gave lectures at the University in Trento and between 1993 and 2007 at the University in Trieste. She supervised or co-supervised many graduation works. In 1982 she received the Kavčič Award for her exceptional teaching achievements in

civil engineering. Her research interest was geotechnics and she dedicated her work to the introduction of triaxial tests in small cylindrical soil specimens, gabion support structures, and introduction of reinforced soil into the Slovenian area, where she did pioneering work. As a researcher she attended professional meetings domestically and abroad and is the author of many geotechnical studies, reports, and projects as well as many scientific and professional papers. In 1993, she was among the founding members of the Ljubljana Society Soroptimist International, a global women's organization dedicated to providing equal opportunities and improving the position of women.

Works (selection)

- Design and construction of support structure using reinforced soil for the earthworks of Ljubljana-Podutik access to the western bypass, 1980
- Design of support structure using reinforced soil for the Šentilj Border Crossing, 1981
- Design of support structure using reinforced soil for the road Pobreška cesta in Maribor, 1981
- Investigation of behaviour of two test motorway earthworks in highly deformable soil in Malaysia, around 1985
- Two experimental studies of dynamic loads of earthworks using reinforced soil, Ljubljana, 1993
- Refurbishment of the guarry slopes Piave Dal Cin in Italy, around 2000

Design of support structure using reinforced soil for Pobreška road in Maribor, 1981



Bilia Berle K. Carmen Sež Gala . Krenija Šetina Grum . Ljerka Finžgar . Marija Vovk . Metka Vihune . Milica Detoni . Nataša Stupar Šumi . Špelka Valentinčič . Staša Blažič Gjura



Biba Bertok Celje, 1941

After her baccalaureate, she enrolled in 1960 in the newly-founded B Study Course at the Faculty of Architecture, Civil and Geodetic Engineering in Ljubljana. When the B Study Course was abolished, she continued her studies in the class of Edvard Ravnikar. She graduated in 1966. In 1968 she was employed at the Češnjica woodworking company in Železniki which later grew into the Alples furniture factory. Being the first designer of the factory, she laid its foundations for industrial furniture design. Between 1972-1987 she was employed at the Design Centre by the Slovenijales company where Tatiana Coloni, Polonca Rojec, Lado Ercegovič and Lado Košir were also active, headed by architect Marjan Gašperšič. In 1987 she decided to continue her professional career on her own. Throughout her working career, she took account of maximum practicality of the furniture. technological capacities of the factory and materials available at the time. She also paid great attention to proper presentation of products in the shops. She received numerous awards and accolades for her work in the field of design, among others also the Prešeren Fund Award together with head of the Design Centre at the Slovenijales company, Marjan Gašperšič (1981), Golden Medal of the 7th Biennial of Industrial Design (1977), and the Timeless Slovenian Design award (2013). In 1991 she was given the mandate of the president of the Designers' Sociey of Slovenia.

Works (selection)

- Hallway programme Alfa, Alples Furniture Factory, Železniki, 1968
- Hallway set Beta, Alples Furniture Factory, Železniki, 1969
- System furniture Artus, Alples Furniture Factory, Železniki, 1970
- Children bed Nataša, Tovarna lesne galanterije v Rimskih toplicah, 1973
- Young people's furniture Nana, Garant Furniture Factory, Polzela, 1973
- Young people's furniture Mak. Sora Furniture Factory, Medvode, 1976
- Programme Manta, Stil Furniture Factory, Koper, 1976
- Programme Aba, Polet Furniture Factory, Duga Resa, 1980
- Piece furniture Plima, Oprema Woodworks, Izola, 1988-89



Programme Manta, Stil Furniture Factory, Koper, 1976

Darinka Battelino . Atenka Kharn Pri nen . Janja Lap . Sonja L'no jne Obl L . Dana Pajnič . Lidija Podbeegar . . Oga Rusanova . Erna Eornšič . Mojca Vogelnik



Barbara Rot, née Demšar Gornji Logatec, 1944

She enrolled in the architecture programme in Ljubljana in 1963 and graduated under the supervision of Prof. Edvard Ravnikar in 1970. She continued to work with Raynikar at the Institute for the Construction of the Revolution Square in Ljubljana (she drew the staircases along the Ljubljanska banka and Maximarket buildings and a set of three street lamps). She worked as an independent culture professional; in the 1980s she worked at Atelje za projektiranje Idrija and GPG Grosuplje. In 1996, she established her own architectural studio Miroti, which she headed until her retirement in 2004. She worked with her husband, architect Božidar F. Rot. on many projects in the course of her employment in Idrija. Her work is characterised by taking a comprehensive approach to architecture, from the sophisticated urban contextualisation of structures to architectural design, attention to detail, and inclusion of artwork in architectural design. She received several important awards for her work: 1982 together with Božidar F. Rot – the Preseren Fund Award for the Jože Mihevc Primary School building in Idrija; in 1996 with Staša Blažič Giura and Vlasto Kopač - Plečnik's Medal for restoration of Plečnik's Central Market in Ljubljana.

Works (selection)

- Trg revolucije (Revolution Square) in Ljubljana 1970–74 (collaboration in Edvard Ravnikar's project)
- Jože Mihevc Primary School (co-author Božidar F. Rot), Idrija, 1981
- Nursing home (co-author Božidar F. Rot), Celje, 1983
- Restoration of Plečnik's Central Market (co-authors Staša Blažič Gjura, Vlasto Kopač), Ljubljana, 1994–95
- Urban design and architecture of the Trata cemetery, Škofljica, 1997–98
- Primary school and kindergarten (co-author Božidar F. Rot), Godovič, 2004
- Idrija kindergarten, Arkova ulica 7, Idrija, 2006
- Architecture of farewell buildings and organisation of the surroundings, Borovnica, 2011



Jože Mihevc Primary School (co-author Božidar F. Rot), Idrija, 1981

Credits

Dušana Šantel Kanoni

portrait and foto – Courtesy of Private Archive of Dušana Šantel Kanoni

Gizela Šuklje

portrait and foto – Courtesy of Museum of Architecture and Design (MAO), Ljubljana

Sonja Lapajne Oblak

portait – Courtesy of Anton Smolej; foto – Courtesy of Slovene School Museum, Ljubljana

Dana Pajnič

portrait – Courtersy of MAO; foto – *Arhitektura* 1, no. 6 (1932), 183

Juta Krulc

portrait – Courtesy of Maja Kržišnik; foto – UIFS ZRC SAZU (Simona Kermavnar)

Lidija Podbregar

portrait – Courtesy of Archive at University of Ljubljana;

foto - https://sl.wikipedia.org/wiki/Savsko_naselje

Vladimira Bratuž

portrait – Courtesy of Archive at Faculty of Architecture, Ljubljana; foto – UIFS ZRC SAZU (Andrea Furlan)

Marta Ivanšek

portrait and foto – Courtesy of Archive of France and Marta Ivanšek Foundation

Magda Kocmut

portrait – Courtesy of Magda Kocmut's family; foto – Evidenca in valorizacija objektov slovenske moderne arhitekture med leti 1945-1970, Ljubljana 2004 (http://www.evidenca.org/?object=93)

Milica Detoni

portrait – Courtesy of Marjeta Pollak; foto – Milica Detoni and Tine Kurent, Modularna rekonstrukcija Emone, *Situla* (Ljubljana: Narodni muzej Slovenije, 1963)

Carmen Jež Gala

portrait and foto – Courtesy of Institute of Metal Structures (IMK)

Olga Rusanova

portrait – Courtesy of Archive at Faculty of Architecture, Ljubljana; foto – Courtesy of CUDV, Draga at Iq

Nataša Štupar Šumi

portrait – Courtresy of Štupar Šumi families; foto – Nataša Štupar-Šumi, Obnovitvena dela na Rihemberku v letih 1962 do 1964, *Varstvo* spomenikov 9 (1962–1964), 23–35

Branka Tancig

portrait and foto - Courtesy of MAO

Jania Lap

portrait – Courtesy of Lap family (foto by Dejan Habicht); foto – Courtesy of MAO

Staša Blažič

portrait and foto – Courtesy of Arhiv ZVKDS OE Ljubljana

Erna Tomšič

portrait – Courtesy of Ajda Balderman Baliž; foto – UIFS ZRC SAZU (Andrea Furlan)

Špelka Valentinčič

portrait and foto – Courtesy of Špelka Valentinčič Jurkovič

Nives Kalin Vehovar

portrait and foto - Courtesy of Vehovar family

Seta Mušič

portait – Courtesy of Seta Mušič; foto – Courtesy of Archive of RTV of Slovenia

Majda Dobravec Lajovic

portrait and foto – Courtesy of Majda Dobravec Lajovic

Marija Vovk

portrait and foto - Courtesy of Marija Vovk

Ljerka Finžgar

portrait – Courtesy of Ljerka Finžgar; foto – Courtesy of MAO

Darinka Battelino

portrait and foto - Courtesy of Darinka Battelino

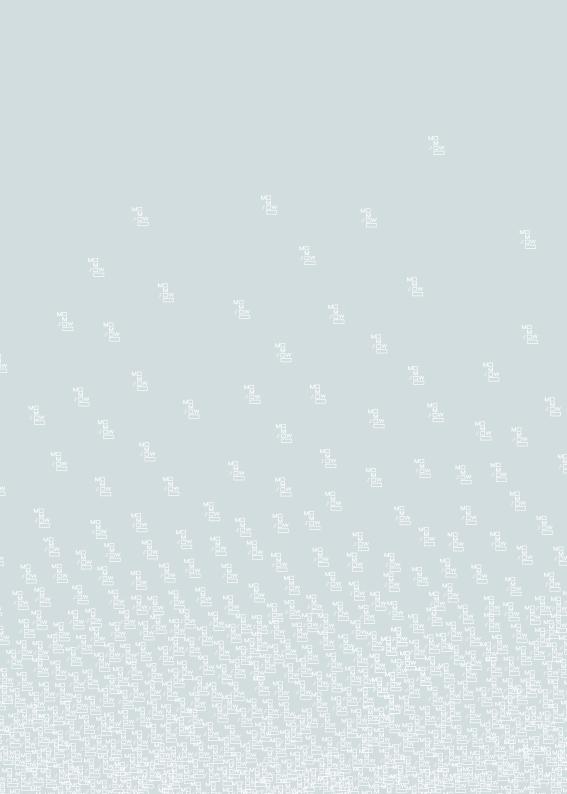
Biba Bertok

portrait – Courtesy of Biba Bertok; foto – Courtesy of MAO

Barbara Rot

portrait – UIFS ZRC SAZU (Helena Seražin); foto – UIFS ZRC SAZU (Simona Kermavnar)





Marjan Groot Vrije University Amsterdam (MoMoWo Netherlands) This text presents some reflections on travel and tourism on the basis of the publication MoMoWo Women, Architecture & Design Itineraries across Europe (2016), edited by Sara Levi Sacerdotti, Helena Seražin, Emilia Garda, and Caterina Franchini (hereafter named MoMoWo-Itinerary). This collection of eighteen itineraries was one of the first publications of the MoMoWo project. The itineraries provided data on 125 works by female architects and/or designers between 1918 and 2016 in Barcelona, Lisbon, Paris, Turin, the Netherlands, and Slovenia. When connecting travel and tourism with architecture, design, and women, one can think of a production side and a reception side.

The production side would include:

- 1. Women who travel and afterwards describe their journey in a travelogue or guidebook of for others to enjoy. Women composing architectural routes along buildings and design by women, as in the *MoMoWo-Itinerary*, are likely to form a select group within the already chosen *genre* of itinerary-guidebooks for contemporary architecture and design only.

 2. Women who write as 'armchair travellers' without travelling themselves. In some cases, the writers
- 3. Women who travel to see architecture and design, or even contemporary architecture and design: they are most likely informed by professional interest. Not many, however, do record their visits to the newest architectural events or buildings,

of the entries saw not every building of the MoMoWo-Itinerary, and so they too

are partly 'armchair travellers'.

but if they do they write for aficionados and insiders.

The reception side would include:

- 4. Women who travel in the mind only: these formed the main consumer market for commercially published travelogues offering adventurous trips to experience without travelling. Since the nineteenth-century women writers also wrote for this growing market of readers. Involvement of visual media such as lanterns, slides, and later film and television stimulated wider commercialisation of such travels, with visual equivalents guided by male and female reporters exploring remote places and landscapes as virtual travels.

 5. Women who travel while guided
- 5. Women who travel while guided by an itinerary composed by others: they could easily, albeit wrongly be considered uncreative mass tourists as opposed to individual creative travellers. Stimulating ever more touristic travelling, popular tourist guidebooks for travelling, emerging in the early nineteenth-century, educate travellers beforehand. They generated a canon of mass tourist destinations by focusing on historical heritage sites and landscapes alongside information about customs and manners, food, geography, and linguistic advice. Guidebooks were varied from their first appearance, but the market expanded enormously after 1945 with ever more specific routes targeted at particular audiences, for example, single women. Many of these guidebooks suggest the traveller's individualism and exclusiveness: however, they might not be that different from regular tourism as they claim (Laderman, 2016).

6. Women who experience architecture on a journey without explicitly aiming for it; this applies in particular to cities. In fact, since the mid-nineteenth century, women shopping for novelties would have experienced the most sophisticated architecture of the time in department stores with impressive light halls constructed from iron and glass and with up-to-date technical facilities such as elevators. Likewise. they would have experienced prestigious city-architecture in the highbrow neoclassicist *beaux-arts* idiom when visiting museums, or a mixture of historicist styles when staying in grand hotels. Commercial destinations often mapped urban transport lines and train stations and marked urban building types. Such nineteenth-century and early twentieth-century developments are not so different from what happens today.

Intersecting Histories and Geographies

The MoMoWo-Itinerary is a mixture of cultural itinerary and tourist guidebook. It is not a travelogue, although, in between the lines, it tells about the routes that MoMoWo partners together began to explore during the first project phase, about their cultural sensibilities and, for the more recent buildings, about their choices.

Concretely, each partner composed three itineraries covering three geographical areas, either in a city or an entire country and with 19 to 23 stops for the three all together. The routes were not visited by the same person and are not likely to be visited on one journey too. It is not a commercial guidebook

for cultural tourism and its widespread marketing. On the contrary, its concept is one of surprise, liberation, and conflict with existing itineraries and guidebooks (Bird, 1996, 42–43). This it is due to the primary criterion of selection; the routes are formed to connect architecture and/or design by women from just after the First World War in 1918 to the latest examples from 2015–16. In this respect, it is both a counter-itinerary and counter-guidebook.

The combination of countries/cities, time frame, and selection criteria make the contents of the *MoMoWo-Itinerary* unique from a historical perspective. Emilia Garda and Caterina Franchini thoroughly explained the choices, criteria and methodology of the selection in their chapter *Discovering Tangible Cultural Heritage Created by Women around Europe*.

Four project partners focussed on cities: Barcelona in Spain, Lisbon in Portugal, Paris in France, and Turin in Italy. The other two partners from the Netherlands and Slovenia designed routes that covered several regions of their country and included buildings in rural and suburban areas. Besides these differences, the geographical situatedness of the partners in Europe offers an unexpected cartography: a roughly triangular connection formed by in-betweens of a South-West-East baseline of Turin (Italy), Oviedo (Spain), Lisbon (Portugal), and Slovenia; and two upward northern sides to France and further to the Netherlands (Fig. 1). Considerable differences in densities of population and political and economic constellations make this European

consortium a geographical unity that is as insensible as many others (Bracewell, 2016). But it does share intellectual, historical, and architectural frameworks. As such, it can make sense to compare this seemingly random consortium of European nations with States that constitute North-America or Latin-America

Comparison

The composers of the *MoMoWo-Itinerary* meet all the above six categories. The *MoMoWo-Itinerary* provides lots of data about previously unknown names and works by women designers, engineers and architects between 1918 and 2016, and contextualised findings within socio-historical perspectives for each of the six among cities and countries involved in descriptions of buildings. The methodology of comparison for further insights comes up next. Table 1 compares the earliest two mentioned works by women architects, the first two graduated women architects and their building types for all itineraries. From Table 1 it appears that the Netherlands, Paris and Slovenia itineraries present the earliest realised projects or buildings by pioneering women. The 'styles' of the earliest buildings by women architects in the Netherlands and Slovenia are typically local, respectively vernacular expressionist Amsterdam School and vernacular folk. The *MoMoWo-Itinerary* has two buildings by women architects in the international modernist idiom between the mid-1920s and late 1930s. (in the Netherlands); besides these buildings there is an interior design

by Ada Bursi (Turin) and furnishings, fittings and interior design by Charlotte Perriand (France). Surprisingly France was late in giving opportunities to women in the fields of architecture and design (Bonnet, 2016; Mesnage, 2017). Modernist works after 1945 are numerous in all countries. The number of women architects who realised works increases enormously after 2000 for all counties/cities. **Table 2** compares the typology and chronology of their buildings: the three largest fields standing out are public culture, commercial leisure and housing.

Dissemination and Appropriation

The dissemination and reception of the MoMoWo-Itinerary can only be suggested by the number of copies distributed by all partners and the number of views of the online version on the MoMoWowebsite. Since its publication on 1 July 2016, with a run of 3000 prints, the MoMoWo Guidebook has been distributed for free during numerous public presentations of the project, the MoMoWo Travelling exhibition, the Open Day and Symposium 2018. Copies have been sent to libraries and donated to tourist offices. MoMoWo SiTI (Istituto Superiore sui Sistemi Territoriali per l'Innovazione, Turin) mapped the online views. The number of views does not tell anything about real visits to buildings of the MoMoWo-Itinerary; for that, we need other types of testimonies, perhaps a post-touristic travelogue. To follow the routes will require investment in time, in particular, those covering entire countries, though it is achievable.

However, the MoMoWo-Itinerary is also a concept for travelling and tourism. The reading of the introductive chapters, entries of buildings and the comparison the images certainly maps a route of architecture and design by women in the reader's mind to be contextualised or framed with any other personal experiences and knowledge (Kinsley, 2016, 244).

Captions

Fig. 1. *MoMoWo-Itineraries* across Europe. Map by the author, 2018.

Table 1 - Overview in chronological order of pioneering women designers and/or architects of MoMoWo partner countries, deduced from the *MoMoWo-Itinerary*. Note that not all women were the single creator of the work, as indicated by 'and others'. Data processing by the author.

Table 2 - A typological overview in chronological order of buildings in MoMoWo partner countries designed by women, deduced from the *MoMoWo-ltinerary*. Data processing by the author.



tab

City/Country	Earliest two mentioned works/buildings in MoMoWo-Itinerary	First two graduated architects a/o designers
Netherlands	1913, Interior 'House 1913' – Margaret Kropholler (pseudonym Greta Derlinge) 1918, villas 'Meerlhuis' – Margaret Kropholler	1908–10, Margaret Kropholler 1926, Jakoba Mulder
Paris	1917–1924, interior flat Rue de Lota, Mme Mathieu Lévy – Eileen Gray 1927, Bar sous le Toit; 1929, furnishings and fittings for Villa Church and Villa La Roche – Charlotte Perriand	1902, Julia Morgan , worked in California 1925, Charlotte Perriand
Slovenia	1922, Cooperative Business Bank – Helena Vurnik 1935, Celebratory Stands of the Stadium for Orel Catholic Sport Association – Gizela Šuklje	1932, Dušana Šantel 1932, Gizela Šuklje
Turin	1929, linoleum design – Ada Bursi 1957, 1966, church and parish complex Santa Teresa di Gesù Bambino – Studio Zuccotti (Maria Carla Lenti, Giovanna Maria Zuccotti)	1925, in Rome, Elena Luzzatto Valentini 1927, in Rome, Annarella Luzzatto Gabrielli
Lisbon	1942, graphic design; 1956-58 tile panel 'O Mar' – Maria Keil 1972, atelier Conceição Silva - Maria João Eloy	1942, in Lisbon, Maria José Estanco 1943, in Oporto, Maria José Marques da Silva
Barcelona	1973, social housing "Walden 7" – Anna Bofill and others 1984–90, Joan Mirò Library – Beth Galí and others	1936, in Madrid, Matilde Ucelay 1964, in Barcelona, Mercedes Serra Barenys

City/Country	1918-30	1930-50	1950-80	1980-2000	2000-14	Total
PUBLIC CULTUR	E: museum,	theatre, arch	ive, library			27
Lisbon					6	6
Turin				3	2	5
Barcelona				2	2	4
Netherlands				1	3	4
Paris				2	2	4
Slovenia					4	4
COMMERCIAL L	EISURE: hot	el, shop, bar, ı	restaurant			25
Lisbon			2		5	7
Turin				1	4	5
Barcelona					4	4
Slovenia					4	4
Netherlands					3	3
Paris					2	2
HOUSING: socia		_		1	0	24
Netherlands	2	1	1	1	3	8
Paris			*	4	3	7
Barcelona			1		3	4
Turin			1	1	1	3
Slovenia				1	1	1
Lisbon	DOMMENT.		mada navle			14
OUTDOOR ENVI	RUNWENT: S	square, prome	enade, park,	-	3	14 5
Barcelona				2	1	
Turin Lisbon			1	Z	1	3
Netherlands		2	ı		ı	2
Slovenia		Z	1		1	2
PUBLIC SERVIC	E. education	crèche host			'	13
Slovenia	L. caacation	, crecile, mos	2		4	6
Netherlands			-		3	3
Turin			1		1	2
Lisbon					1	1
Paris					1	1
OFFICE, BANK						7
Barcelona					2	2
Lisbon				1		1
Netherlands					1	1
Paris					1	1
Slovenia	1					1
Turin					1	1
SPORTS						5
Slovenia					3	3
Turin					2	2
TRANSPORT, PO	OWER PLANT					5
Netherlands					2	2
Lisbon					1	1
Slovenia					1	1
Turin					1	1
OBJECT ARTEF	ACT					4
Paris			3	1		4

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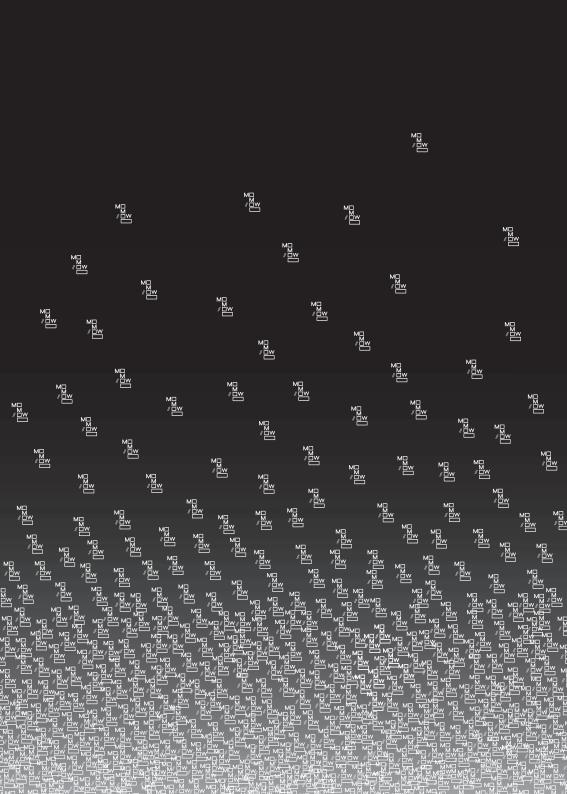
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Case Studies

10

Research Centre of the Slovenian Academy of Sciences and Arts, France Stele Institute of Art History (MoMoWo Slovenia) Helena Seražin

Before the MoMoWo project, the women architects, civil engineers and designers had rarely been the subject of scientific research in the Slovene art history and history of architecture. Apart from the first studies, carried out by Tina Potočnik (2016) on the topic of female students of Professor Jože Plečnik, only a small number of short presentations of women in architecture had been published in daily newspapers and magazines (Prelovšek, 1994, 8; Prelovšek, 2006, 17; Zupančič, 2006; Zupančič, 2009). Numerous scientific contributions to the topic were accomplished within the MoMoWo project. Alenka Di Battista (2017) researched the role of women's magazines in the dissemination of knowledge of modern home design before the Second World War. Helena Seražin (2018) investigated the participation of women at the Faculty of Architecture at University of Ljubljana before and after the Second World War, while Barbara Vodopivec (2018) tackled the topics of the first women architects employed at the Slovene Institute for the Preservation of Monuments and Slovene female civil engineers. This text however summarises the results

This text however summarises the results of the research on female pioneers in Slovene architecture, civil engineering and design, who graduated before the end of the Second World War, some of whom had already been presented in the series of exhibitions under the title *To the Fore: Pioneers in Slovene Architecture, Civil Engineering and Design.*The term 'pioneer' most suitably applies

The term 'pioneer' most suitably applies to the women who fought the gender prejudices widespread in the Slovene society. In the first decades of the twentieth century, these biases remained deeply rooted in the conservative ways of life and thought typical of nineteenthcentury Austro-Hungarian Empire, of which Slovenia has been part of until the end of the First World War. The Empire belonged to the most backward European countries concerning the education of women: the State was reluctant to found girls' gymnasiums, which would prepare them for higher education (Cindrič, 2009, 247). For those who wanted to study design, the best solution was to enrol in the Kunstschule für Frauen und Mädchen (Art School for Women and Girls), also known as 'Damenakademie' -a female equivalent of the Academy of Fine Arts in Vienna- or the Kunstgewerbeschule (Arts and Crafts School) at the Museum für Kunst und Industrie in Vienna.² The idea of a woman studying at the Technical University to become an architect or a civil engineer remained unheard-of. Painter and designer Helena Kottler Vurnik (1882-1962), one of the first pioneers in Slovene design, studied at the Damenakademie.3 Sculptor and designer Dana Pajnič (1906–1970) was another designer with an artistic background (Zupančič, 2016) as she attended the Probuda Art School in Ljubljana and the Decorative Arts School in Dresden. The first officially educated designer was Jela Vilfan (1906–1998) who studied at Damenakademie and Kunstgewerbeschule ("Vilfan Jela," 2013).

After the First World War, Slovenia became part of the newly established Kingdom of Serbs, Croats and Slovenes (1918), later renamed as Kingdom of Yugoslavia (1929). At that time, especially the Slovenian Catholic circles were very reluctant to let the women study at university, wondering who would then take care of home and family? The reasoning of the State against women's higher education was based mostly on the following statements and recommendations: the contact of both genders in the lecture room presents a moral hazard: lectures would have to be adapted in a way that wouldn't offend women's ears; society does not have any need for female judges, lawyers, doctors, teachers, soldiers, etc.; men are the leaders and set the social order (Cindrič, Studenti s Kranjske, 255–57). The condition of women began to change with the new legislation, which allowed them free enrollment to all schools and universities. Thus Slovenian women were finally admitted to study civil engineering and architecture at the Technical Faculty of Ljubljana. The first general courses in architecture and civil engineering had been held at the Technical Faculty since December 1919, when the University of Ljubljana was established. However, specialised courses in architecture only began in 1920, with the arrival of Professor Jože Plečnik (1872–1957) (Grabrijan, 1968). The first women enrolled at the Department of Architecture, led by Professor Ivan Vurnik (1884–1971), were Milena and Slavica Vencajz in the academic year 1921/1922, but they were admitted to attend only one semester as 'non-regular' students, while the first regular student was Dušana Šantel (1908-1988) in 1925/26.4 Surprisingly, one-year earlier (1924/25 winter semester) two regular students enrolled at the Department for

Construction: they were Vera Gadsiatzky Greate (b. 1894) from Russia,5 and Marija Golias (b. 1906), the first Slovene female student in Construction.6 The first female who graduated in architecture under the supervision of Professor Vurnik was Dušana Šantel in 1932, after failing the final exam twice. Only a month later Gizela Šuklje (1909-1994) became the second woman to graduate in architecture; she was awarded relatively high grades in comparison with male students and was a student of Plečnik (Seražin, 2016b). Also in 1932, Sonja Lapajne Oblak (1906– 1995) was the first female to graduate in construction (Vodopivec, 2016). From 68 female students, who enrolled in the course of architecture before 1943/44. only ten managed to graduate before the end of the Second World War: apart from Santel and Suklje, Marjanca Kanc Čuček (1909–1988, grad. 1933), Katarina Grasselli (1910-1990, grad. 1935), Juta Zdešar Krulc (1913–2015, grad. 1937), Karolina Kodrič (b. 1914, grad. 1939), Marija Grafenauer Vogelnik (1914–2008, grad. 1939), Marija Bahovec (1914-1981, grad. 1940), Magdalena Neřima (1916-2001, grad. 1940) and Sonja Batista Trenz (1918–1999, grad. 1944). At the Department for Construction. the situation was much worse; out of 16 female students only two graduated before 1943/44: Sonja Lapajne Oblak and Zorka Sodnik (b. 1915, grad. 1941) (Fakulteta za arhitekturo, 1979, 108–09). Six of the female graduates in architecture were Plečnik's students. which at first sight corroborates Tina Potočnik's hypothesis that more female students chose his seminar due to the

nature of his teaching, which favoured artistic expression rather than the more engineering aspects of architecture -a style closer to Vurnik (Potočnik, 2014).7 Women were aware of their artistic abilities, they were all excellent draughtswomen (Figs. 1, 2), and some of them took in consideration the possibility of enrollment at the Academy of Fine Arts, but decided to gave up due to reduced professional prospects (Potočnik, 2016). They renounced because there was no art academy in Ljubljana at the time8 and possibly also because of the perception of female artists in pre-war Slovene society, which remained based on asymmetric gender distinction: Kunstübende Frau (woman practising art) versus *Kunstler* (artist) (Smrekar, 2017, 24). This was the case with Marija Grafenauer Vogelnik who in 1945 enrolled on the painting course at the Academy of Fine Arts in Belgrade and later became an artist. Among them Vladimira Bratuž (1929–2006) who became sculptor (Seražin, 2016c), and Alenka Kham Pičman (b. 1932) who became a painter (Viki Šubic, 2016a). Most of the first female students came from well-situated families of Slovene politicians, higher rank officials, industrials or entrepreneurs, intellectuals and artists from different towns, such as Ljubljana, Trieste and Gorizia.9 This social structure began to change just before the war when the first students coming from working-class families entered the University. 10 In line with public expectations, the range of practising professionals in the case of the first Slovene female architects, designers and civil engineers proved to be somewhat

they will find it easier to thrive in the administrative department, whereas as an independent architect they would not always be able to enforce their will at workers properly. Most suitable for them would be designing interiors (Innenarchitekt), which requires a separate specialisation' (Sušnik, 1932, 277). In the 1930s, Slovene society was not guite ready for women architects; Santel took on odd jobs to make ends meet. She designed furniture, produced drafts for decorative crafts and different types of embroidery, dealt with garden architecture and building adaptations (Lozar Stamcar, 2009, 519). Apart from many articles, she also published a manual How Do I Furnish My Apartment (1939) (Di Battista, 2016). Šuklje's position was the direct opposite, as she soon became Plečnik's volunteer assistant at the University, and worked in his studio. She passed her professional architectural exam in Belgrade in 1938 and later, with Plečnik's help, obtained a permanent position at the Ljubljana Magistrate Building Department. The post enabled her to collaborate with her former teacher on some of Ljubljana's most important projects of the 1930s and 1940s (Seražin, 2016b). Sonja Lapaine was also destined for office work. Between 1934 and 1943 she worked on developing static calculations for reinforced concrete structures for state-commissioned projects at the Technical Department of the Royal Banate Administration of the Drava Banate in Liubliana and supervised their construction. She thus worked with the most prominent Slovene architects of

limited. 'As far as women are concerned.

the time (Vodopivec, 2016). Juta Zdešar Krulc also passed the state examination to become a Chartered Engineer in Belgrade, where she worked with engineer Mihajlo Nešić until 1940 (Viki Šubic, 2016b). Marjanca Kanc Čuček worked as an architect for her colleague Ladislav Kham (1937–38) and the Construction Company of Vili Battelino (1938–39) (Zupančič, 2013, 80). Before the war, Kanc and Lapajne became candidates for the first female members of the Slovenian Chamber of Engineers but were never admitted due to the change of the political regime (Zupančič, 2013, 84). During the Second World War women took an active part in the National Liberation Movement –among them were also students of architecture and civil engineering Albina Zorka Gradišnik (1918–1944),¹¹ Mira Ružič Kraigher (1916-2004) and Sonia Lapaine-12 -which gained them new social status in regard of gender equality and economic independence. Within the new State of the Socialist Federal Republic of Yugoslavia, some of the pioneers mentioned above gained leading positions in large State construction companies and at educational institutions, and strongly influenced the post-war Slovene architecture and design, paving the way to younger generations of women.

Captions

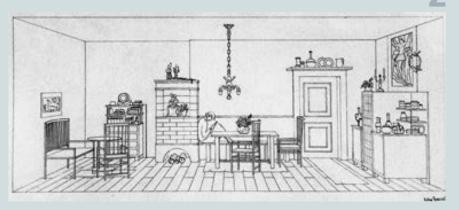
Fig. 1. Marjanca Kanc, Singlewoman's room, mid-1930s

Fig. 2. Katarina Grasselli, Living room, mid-1930s

Both figures are from *Lučine: Nadaljevanje: 118 izbranih del arhitektov Tehnike Univerze Ljubljanske: 1929–1937.* Ljubljana: Ognjišče akademikov arhitektov, 1937.



2



Notes

- (1) Within the context of the MoMoWo Open Day activity (2016, 2017 and 2018), France Stele Institute of Art History and Slovene Centre of Architecture prepared three consecutive exhibitions in the Dessa Galery in Ljubljana. See the attachment in Part II of this book.
- (2) The Kunstschule für Frauen und Mädchen was established in 1897 as a private school and became public in 1908. The Viennese Academy of Fine Arts opened to women only in 1920. See Smrekar, "Življenje in delo," in Helena Vurnik, 24.
- (3) About her life and work see Hrausky, 1994, 75; Prelovšek, 1994, 66–9; Zgonik, 2007, 190–1; Seražin, 2016a, 30–31.
- (4) ZAMU (Zgodovinski arhiv in muzej univerze v Ljubljani; Historical Archives and Museum of the University of Ljubljana), Tehniška fakulteta, Osebni izkazi, boxes VII–3 and VII–7.
- (5) Vera Gadsiatzky Greate moved in Ljubljana from Oxford University, where she passed some exams, but prior to that, she studied civil engineering at the Female Politechnic in St. Petersburg. ZAMU, Tehniška fakulteta, Osebni izkazi, box VII-7, winter semester 1924/25.
- (6) Although Marija Golias was the first female student in civil engineering at the Technical faculty in Ljubljana, she was not the first to finish her studies; after ten semesters she changed her study for geodesy in 1929/30. ZAMU, Tehniška fakulteta, Osebni izkazi, boxes VII-7, VII-17 and VII-25.

- (7) According to the archival documents between 1920 and 1944 Plečnik had 28 female students of which 15 graduated (some of them after the war), and Vurnik had 40 female students of which only 7 gaduated. ZAMU, Tehniška fakulteta, Osebni izkazi; Faculty of Architecture, Register of graduated students of architecture, book 1.
- (8) That was the reason why Erna Tomšič decided to study architecture instead of painting. Boc, "Erna Tomšič"
- (9) ZAMU, Tehniška fakulteta, Osebni izkazi. Many students from Trieste, Gorizia and Vipava came from the Slovene ethnical territory that after the First World War became part of Italian Kingdom; they came to study in Ljubljana mostly because of Slovene language.
- (10) ZAMU, Tehniška fakulteta, Osebni izkazi.
- (11) Gradišnik was killed in summer 1944 during the fights between partisans and German army.
- (12) Lapajne was in 1943, as the Liberation Front party secretary, arrested and interned at the German Ravennsbrück concentration camp (Vodopivec, 2016).

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After the Second World War, the situation in Europe gave women new opportunities to develop their creativity professionally. Along the need to restore cities damaged by the war, an effort to build a new face of Europe arose. The phrase 'building peace' became a leitmotif of the political propaganda of the Eastern bloc since in this geopolitical area women entered the field of architecture and construction in higher numbers than in Western Europe. They were expected to join the process in a role equal to men. Officially, the equality between women and men did not mean a continuation of feminist initiatives of the inter-war period. According to the East European regimes, such activities represented manifestations of the capitalist world where women had to fight for their rights, unlike in the socialist countries where women were given the opportunity to realise their potential. The truth was that women could not stay at home; everyone had to be employed on a mandatory basis. However, making the men and women equal in the Eastern Bloc provided a solution to the shortage of skilled labour after the war. The demand for engineers opened the door into areas that had been hardly accessible for women in the previous period. The increased number of women in the field of architecture and construction and their equality proclaimed by the State authorities did not mean the actual situation was ideal. As women discrimination in various forms has persisted until the present day, it is worthwhile to look at the historical circumstances that gave them the opportunity to express themselves

creatively after the end of the Second World War.

By taking as reference the book Ideological Equals. Women Architects in Socialist Europe 1945–1989 (Pepchinsky and Simon, 2017), this case study is not necessarily in search of an unambiguous truth but aims to get a better understanding of the situation. The testimonies of the post-war women architects often provide a more positive picture of the past than the one offered by the newspaper sources from that period or that can be construed from the number of women mentioned in the architectural literature. Hence, this text does not provide a comprehensive assessment of women's creative work in the post-war period. Its objective is to point out what characteristics the women architects and engineers in the third guarter of the twentieth century had and in what areas they could realise their creative potential.

Women in Architecture and Construction of Post-War Europe

In Eastern Bloc countries, namely East Germany, Slovakia, Slovenia, Hungary, Poland, Romania and Estonia, two major groups of women were involved in construction: those who got their degrees in architecture before the Second World War and those who enrolled at Universities after the war ended. Country-by-country the literature suggests that the careers of the former group had been slightly more accessible, with less discrimination, as after the end of the war they were ready to work in the design studios and institutes which in Eastern Europe were primarily –if not solely– run

by the State. Women from the second group completed their studies in the early 1950s, which meant that it took a few more years for them to gain the necessary experience to be able to even apply for more significant projects. In the inter-war period, not every country had schools for architecture, and if it did, women rarely studied at them. In Germany, only a few women studied in the inter-war period; it was not until the 1950s when the number of female students started to grow (Engler, 2017, 8). Poland had a unique position due to its strong representation of women architects in the 1920s and 1930s, whose work -mainly carried out in collaboration with their husbands-architectsconstitutes a significant contribution to Polish Functionalism (Marciniak, 2017, 63). Likewise, in Romania, the first women studied already in the 1920s, and prior to the Second World War, the equal status of men and women had been guaranteed through guilds formed by architects (Zahariade, 2017, 79). In Hungary, there were restrictions limiting the number of women studying at universities that remained in force until 1945. Just a small group of women had studied before that year, and it was this small group that consisted of the most prominent personalities of Hungarian post-war architecture (Haba, 2017, 35). In Estonia, which was part of the Union of Soviet Socialist Republics (USSR), women were officially recognised equal by the government in 1936. While they were encouraged to enter professions traditionally held by men, before 1945, only two women obtained an architectural education (Ruudi, 2017, 92).

Unlike in Slovenia, in Slovakia womenarchitects entered the scene after the war. In Slovakia education in architecture started at the Department of Architecture and Civil Engineering SVŠT (now STU) only in 1946. Therefore the first female graduates started working in 1950 (Moravčíková, 2017, 48). While, as proved by the MoMoWo research summarised by Helena Seražin in this book, in Slovenia women graduated in architecture already in the 1930s and they gained important positions in large State construction companies and at educational institutions within the new State of the Socialist Federal Republic of Yugoslavia. The circumstances mentioned above suggest that the women who started working later did not have sufficient experience at the time when their male colleagues, who got their education during the inter-war period, applied for significant government contracts. Government building projects were not only an exciting challenge for architects but, at the same time, they received the attention of the media which increased their chance to become known by people.

Building Types 'Dominated' by Women

The place of prominence among the building types designed or co-designed by women is held by buildings with functions such as education, including pre-school centres, social and public services and cultural buildings. Women were also active in the interior design and the design of furniture, monument conservation, landscape and garden architecture. They had a lower chance to work on major government contracts or large-scale projects. For example,

in Germany, women were active in all areas, but a majority worked in the areas mentioned above. It was more challenging to get to positions of importance, as evidenced by the low percentage of female representation in the Board of Directors of the German Architects' Association (BDA), and the even lower percentage of women in the Board of Architectural Academy. In fact, in the 120 years of the Board's existence, only one woman succeeded, Iris Dullin Grund, who was also the chief architect of Neubrandenburg. A possible way out of this situation of disparity was offered by choosing less desirable positions, often outside larger cities, or a narrow specialisation, as was the case with Gertrude Schille, an expert on light pre-cast reinforced concrete structures for planetariums, whose work became renown even at international level (Engler, 2017, 9-14). After the end of the Second World War, architecture in Slovenia gained importance via restoration of the devastated country in ruins, the industrialisation, search for housing solutions and the construction of the infrastructure and of new urban zones. Political propaganda portrayed a woman in popular media as a 'worker-mother', capable of handling both her job and family. Collaboration with husbandsarchitects enabled the women to work on a broader range of projects. One of the personalities with the widest range of work was Marta Ravnikar Ivanšek -sister of the architect Edvard Raynikar - who is considered to be a pioneer of innovative residential building techniques together with her husband, Franco Ivanšek. Magda

Fornazarič Kocmut, who also worked with her husband, architect Ivan Kocmut, designed a variety of buildings as well (Potočnik, 2017, 22-26). In Hungary, women have primarily involved in the profession thanks to the onset of industrialisation, which brought about the formal equality of women also in the field of architecture after the end of the war. One of the major institutions for construction design in the field of industry was the Industrial Building Design Company Ipari Épülettervező Vállalat (IPARTERV), founded in 1950, that employed more than thousand employees (Haba, 2017, 37). It was the group of women architects and engineers who have worked in the field before the war and often held more prominent positions through political contacts, who greatly helped the empowerment of women. One of them was the engineer and architect Johanna Wolf, a member of the group that invented a unique Hungarian method for prefabricated concrete. Another prominent professional was Eszter Pécsi, an engineer who designed construction systems for several significant buildings in the 1930s and was in close contact with the leading members of the Hungarian division of the Congrès Internationaux d'Architecture Moderne (CIAM). There were also women architects, who studied after 1945 who became successful, for example. architect Zsófa Tevan, who worked for some construction companies, held the position of construction supervisor and was also involved in women's building brigades. Due to her contacts and abilities, she had been already

appreciated when she was a student, and she became a member of the New Architectural Society. After the marriage to architect Károly Perczek, who was considered to be an enemy of the regime, she was expelled from the Heavy Industrial Design Office NÉTI, but she gradually succeeded in re-establish her position in the field thanks to close professional cooperation with Johanna Wolf (Haba, 2017, 37-39). After 1956, the situation was improved by the industrial program of Kadar's government that enabled women to gain more prestigious positions within principal State-owned design offices. Women were able to prove their equality to men and were involved in the planning of large complex industrial structures. Architects such as Éva Czuppon and György Rácz have been given the opportunity to realise the architectural design of paper factory in Dunaújváros (1967). Éva B. Mueller has designed projects for agricultural and industrial research institutes where she managed to incorporate elements of Hungarian vernacular architecture into modern architecture. Moreover, some of them succeeded to work not only in State design offices but also on other projects, such as Olga Mináry, who held a prominent position at IPARTERV's design office, though she gained recognition mainly through the design of residential buildings. She received the most prestigious Hungarian architectural price for a housing complex in Óbuda, Budapest (Haba, 2017, 41, 43). When Slovakia became free from the Stalinist doctrine, the situation improved in the late 1950s, and the

increase in construction production opened the possibilities for women in the field of architecture. Viera Mecková is considered to be the most prominent Slovak female architect of the twentieth century. She was employed at the Žilina State design studio, where she worked with her husband, architect Jozef Mecka, on a wide range of projects and won several architectural competitions. What makes her unique is her architectural approach based on a significant trend of the Czechoslovak architecture of the 1960s that used abstraction as a working method of designing spaces. volumes and facades. In the 1970s, in her free time, Mecková began to work on visionary projects of the architectural group VaL (Voies et aspectes du Lendemain / Ways and aspects of tomorrow), where her creative potential was fully manifested, and VAL's work became world-renowned. Other prominent women architects in Slovakia similarly worked in cooperation with their husbands-architects. For example, Milica Marcinková, whose work was influenced by Scandinavian design, is the author of educational, health and cultural facilities. Architect Ol'ga Ondreičková attracted attention with her design of the communication centre for the Štrbské Pleso mountain resort. In her work, she often used contrasts of façade materials, as seen at the post office buildings in Bratislava and Prague (Moravčíková, 2015, 85-99). In other countries of the Eastern Bloc. it was equally not common for women to get access to more significant projects. As mentioned before, working with husbands-architects increased the work

opportunities for women. Also, focusing on a specific architectural or construction solution could help women to stand out and establish themselves in the field. For example, in Poland, a researcher and architect Maria Piechotka developed some innovative solutions together with her husband Kazimierz Piechotka, when designing residential complexes (Marciniak, 2017, 66). In Estonia, women architects were given more opportunities via the EKE Projekt State design office that specialised in the rural architecture (Ruudi, 2017, 93).

The position of women in the second half of the twentieth century is shown using specific cases to illustrate their activities that contributed to the reconstruction of post-war Europe, though the examples also prove that women remained somewhat overlooked. The smaller representation of women in influential positions, such as heads of creative teams, as well as their noteworthy disinterest in presenting their work, was reflected in the small representation of women not only in professional journals from the period but also in historiographical publications. Despite the fact that from a historical perspective, the position of women in the civil engineering and construction was discriminatory, women mostly did not show any particular interest in gender-related visibility of their work, on the contrary, such a perspective was perceived in some cases as degrading (Moravčíková, 2015, 85; Bencová, 2016, 125). Even in the case of projects considered less relevant by the company, they did not consider their work to be less important for architectural practice.

Captions

Fig. 1. Mária Krukovská and Irina Kedrová, the first women architects in the state-run design studio Stavoprojekt Bratislava, around 1960. Photo byJozef Nový.

Fig. 2. Kindergartens were one of the typical assignments for women architects. Štefánia Krumlová, a kindergarten in Záluhy, a local subdivision in Bratislava, 1974. Photo by Rajmund Müller.





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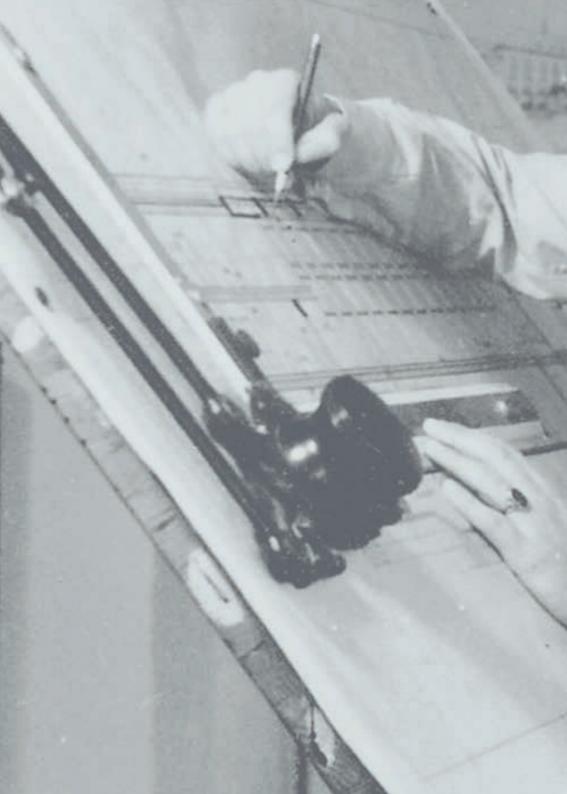
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In November 2011, following the great world economic 2008 crisis, the Spanish Architects Union (SARQ - Sindicato de Arquitectos) carried out a survey which produced data of great concern. Only 48.5% of architects claimed to be working in jobs related to their training, while the other half was either unemployed or working in positions which required lower qualifications or specialisations. In the SARQ 2013 survey, almost 12% of participants were working in other countries, the majority in Europe, but also 4% in Chile and 2% in Peru. The bursting of the housing bubble has forced many professionals to move to Latin American countries since 2008. and some of them have encountered unexpected professional barriers. Sometimes their Spanish university degrees are not recognised. Therefore, according to the newspaper La Vanguardia (5 May 2013, 36) architects are unable to 'work as professionals, but rather as collaborators, under the corresponding precarious conditions'. Despite these main barrier, Latin America has been the second destination chosen by women architects who have been forced to emigrate, although with a slightly lower percentage than their masculine colleagues, perhaps due to the situation of 'inequality of rights, security and conditions for women' (Matesanz Parellada, 2015, 57) which still unsolved in some countries. This case study will attempt to offer a brief overview of the professional activity of Spanish women architects in Latin

America, by identifying both the main players and their major projects. For several reasons -e.g.

American countries and direct assignment - there are some prominent projects signed by women designers on the other side of the ocean. One of the first works is by architect Elisa Valero Ramos who in 1996 restored Los Manantiales restaurant: a masterpiece of reinforced concrete shell building signed in 1958 by the Spanish architect Félix Candela (Seguí Buenaventura, 1994). Of greater importance is the project by Carme Pinós: the tower block Cube-I in Guadalajara (2002-05). It is an office block designed with wellventilated spaces, with a central axis of three concrete cores that channel the installations and vertical circulation. From the central body, the horizontal beams project as overhangs supporting the post-tensioned slabs of each floor (Vial, 2006) (Fig. 1). In 2014 the Mexican group Cube entrusted Carme Pinós with the Cube2. a high rise building which rejected parallel lines, thus developing an almost sculptural language. The award-winning project Auditorium Cerro Juli in Areguipa (Peru), designed in 2014 by María Langarita and Víctor Navarro, must also be mentioned. It was conceived as a flexible space under a complex metal roof which diffuses the strong glare of the city ("Auditorio", 2015). In 2015. Clara Olóriz was a member of the GroundLab (London) winner team of the design competition for the redefinition of the *Nueva Alameda* Providencia: a public space renovation in the main avenue of Santiago de Chile (Bosch, 2016). At the same time, from

internationalisation of professional

studies, personal contacts in Latin.

her studio in Barcelona, Clara Solà-Morales together with her husband, the Mexican architect Eduardo Cadaval, built projects in several countries, especially in Mexico. In the Aztec country, the Casa TDA in Puerto Escondido (Oaxaca) is worthy of attention. It is constructed out of reinforced concrete and shows a remarkable system of terraces open to sea views. Also of interest are the bungalows and *Lounge of Tepotztlán*, a tourist resort where architecture blends with nature.

One of the activities that women architects have developed in Latin America has been interior design and decoration, coinciding with a 'design boom' in countries such as Peru (Tapia. 2013). This is the case of Montserrat González, a representative in Peru of the *Infinityinner* platform and who collaborated in the organisation of the Casacor Fair in Lima, which was devoted to architecture, interior design and landscaping in Latin America. Together with her studio Go-ON Design, she has also been associated with DesignWeek and ExpoDeco. both in the Peruvian capital.

Concerning product design, it is necessary to mention Georgina Casanova McClure who, together with Mexican engineer Ulises S. Águila, has founded the brand *Llums de Gràcia*, which rescues traditional techniques and craftspeople with innovative design elements in seating and lighting.

However, without a doubt, the most interesting field where many Spanish professionals have acquired particular importance in Latin America is that related to urban planning, or, in other

words, the socially committed reflection on urban space. One of the most noted Spanish women architects in this field has been Ana María López Ortego, who declares herself to be 'more a social activist than an architect' (Valencia, 2015). She has worked in Colombia since 2010 in Arguitectura Expandida, a laboratory where professionals collaborate with other collectives for the self-building of spaces. Their multidisciplinary, urban laboratories research take action in poor, problematic and unplanned areas. Apart from her works with Arguitectura Expandida, some projects in the Potocine of Ciudad Bolívar in Bogotá stand out, with a structure of Colombian bamboo (quadua) and exterior of alveolar polycarbonate. Another original case has been the project Bogotá invisible (2008) by Nerea Calvillo, a reinterpretation of social, ethnic and genre interactions which are apparent in the Colombian capital and which have led to a mapping of the immaterial. Later, in Santiago de Chile, she developed *In the Air*: a web application that shows microscopic

Occasional interventions in the Latin American landscape have been carried out by Spanish studios such as that of Margarita Jover from *Estudio Alday y Jover*. In her recent project of recuperation of an ancient aqueduct and bend in the Piedras River in San Juan in Puerto Rico (2015), she strengthens urban connections with a park, thus improving contacts with the river. The intervention of Belinda Tato

agents in the air that should be taken

into consideration when making political

and other consultants from the Banco Interamericano de Desarrollo have come together in a project of reactivation of public spaces in the historical centre of the Ecuadorian city of Cuenca (2015–16). Within the *Iniciativa Ciudades Emergentes* y Sostenibles (Initiative for Emerging Sustainable Cities) in Cuenca Red, she has used a participative process for the management of urban strategies to 'prioritize the pedestrian over the car, to regulate parking space, to try to make the centre of the city more user-friendly' (El Mercurio, 2015, 14), as well as redefining six unique spaces for public use. This is the same participative process used in the reactivation of the historic centres of Asunción (2014) and Tegucigalpa (2015). Environmental sustainability, one of the most important Millenium Objectives in cooperation for development, has been one of the professional concerns developed by Spanish women architects in Latin America. One of the most notable volunteers in its history is Ana Sugranyes who, in 1976, was already working on community projects in El Salvador and later in Guatemala, Perú and Chile, where she has studied and published reports about social housing politics. In 2015 she was awarded the TOESCA Prize for her contribution to the development of Chilean architecture (Arias Laurino, 2016). Sandra Bestraten completed her final project for graduation in 2003 with a design for the *Universidad Indígena of* Chiquitania in San Ignacio de Velasco (Bolivia) based on self-building systems and organisation of construction in stages, thus allowing the involvement of the local people. Supported by the Cátedra Unesco de Sostenibilidad

decisions.

(Unesco University Chair in Sustainability) of the Universidad Politécnica of Cataluña, Bestraten worked on the environmental and social transformation. of a rubbish tip in Medellín (Moravia), an artificial mountain of garbage which has been transformed into a flower plantation managed by the women's organisation Cojardicón (Muxi, 2018). Women's empowerment and collective work are concepts that have also been applied in the Fitekantropus project in Lima (2017), with the collaboration of Paula Villar. in the construction of a new common. dining room in a depressed area of the city **(Fig. 2)**.

The architect Pilar Calderón has also worked since graduation in the programme Servicio País in Chile for the eradication of poverty in Patagonia, which, since 1995, involves young professionals who may contribute in their respective specialities to the improvement of poor, isolated rural areas. A more technological but related to the cooperation development is being carried out by Belén Orta, in collaboration with the Pontificia Universidad Católica in Perú, to achieve a construction system resistant to seismic movements with prefabricated, sun-dried brick armatures (Orta, 2016). In the same way, Eugenia Lacarra has developed a method of low-cost self-built housing made of seismic resistant materials. This project was awarded first prize in the XVI Bienal Panamericana de Arquitectura in 2008. Concerning school architecture, it is necessary to mention the project *Escuela* M3. awarded the Corona de Colombia *Prize* for a model for educational facilities adaptable to different climates, spatial needs and natural risks. Three Spanish

women worked as part of the *Team M3H1*, namely Sandra Argüello Calderón,
Paz Argüello Meza and Isabel Escudero
Herrera

To conclude this overview it is necessary to mention: Angélica Puno, professor at the Universidad Autónoma Néstor Cácerez de Puno (Peru): Carmen Mazaira from Puebla (Mexico) where she is involved in social activism as demonstrated in the exhibition When Architecture Dies, a tribute to those affected by the earthquake of September 2017 (El Sol de Puebla, 2017, 3); and Isabel Martínez Abascal's coordination of the LIGA, A Space for Architecture in Mexico City. It is here, in 2017, that another Spanish woman, Paula García Maseda, has developed a project named Remote Interludes, a creative collaboration from both sides of the Atlantic. The work of Gabriela Sanz Rodríguez must not be forgotten either. Since 2011 she has lived in Lima and has run the firm Arquitectura Verde, committed to sustainable design. Finally, it is necessary to include Marisa Martín from Bogotá (Colombia) who is responsible for the firm La7^aK, specialised in the design of museums, as well as Marta del Olmo, involved in PlayAchomo, a temporary public space in Guatemala, conceived as an installation consisting of colourful textiles following the best traditions in indigenous fabric production.

Captions

Fig. 1. Carme Pinós, Tower Block *Cube I*, Guadalajara (México), 2002–05.

Fig. 2. Sandra Bestraten and Paula Villar, Communal Dining Room *Fitekantropos*, Lima (Peru), 2017.





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10 7 4

Marjan Groot Vrije University Amsterdam (MoMoWo Netherlands)

Historical research after craftswomen and women designers in the Netherlands from 1940 to the present day is still a desideratum. It is a desideratum because, as has been acknowledged in feminist and women's histories since the 1980s, history writing should aim for a more inclusive representation of peoples and groups in society. This is not to say that women designers operating in the Netherlands after 1940 have remained unnoticed: far from that. Work by women has been exhibited and published, and museums have collected it. 1 Until about 1990, this happened mostly on a national scale; after 2000, the international dissemination of their work was supported by publications in English: Hella Jongerius, Claudy Jongstra, Ineke Hans, and Irma Boom are often cited (Miller, Sparke, McDermott, 2009; Powilleit, Quax, 2008). This case study wants to use the general findings from research after women designers between 1880 and 1940 for a hypothetical reflection on the period 1940 to 2015 (Groot, 2007).² Between 1880 and 1910, and then again between 1918 and 1940, the number of women designers and craftswomen gradually increased; this was brought about by the impact of education and societal changes in the First World War. The years between 1940 and 1990 appear to differ from the years after 1990 with the continuing internationalisation and the internet for the dissemination of work. The number of female designers continued to grow after 1940, and the chances of a successful career were possibly mostly affected by two

interrelated developments.

1) The gradual increase of support through government funding for design after 1950 which stimulated commissions for government-related buildings such as embassies and offices, as well as funding of design publications. 2) Internationalisation which encouraged the publication of lavishly illustrated monographs about female (and male) 'star-designers' in English after c. 2000.3 Collaborations with national luxury industries such as ceramic or metal factories were marketed already before 1940, also with the aim to promote national design; these continued, yet remained relatively small-scale, while international collaboration increased.4 Moreover, the type of design evolved. Today, a renowned designer like Hella Jongerius may receive commissions for the interior design of aircraft from companies such as KLM; others work with Philips, IBM, or BMW.

History and Gender Constructions

Research conducted on women designers and craftswomen in the Netherlands between 1880 and 1940 formulated the following questions:

- 1. Via which channels and from whom did female designers receive written renown?
- 2. What was the women's share in exhibitions?
- 3. Which initiatives did women take to work in studios and to establish galleries and shops?
- 4. What was the significance of official organisations and mutual contacts?
- 5. Which position did women occupy in the various disciplines related to design?

- 6. How did they articulate their ideas on design?
- 7. How was the design of their work assessed by third parties, i.e. the historical reception?⁵

Addressing these questions led to a more inclusive history alongside the established history of male designers, with mutual connections, similarities and differences. It became clear that women were operational in many fields and that a small group of designers was extremely active. They even participated in the discourse (initiated by men) on 'good design'. Due to their gender, most active women were 'condemned' to 'feminine' disciplines, but by working professionally as designers and artists, they could experience and express their identity in their field. Only a few women were feminist-oriented from the 1880s onward: most wished to manifest themselves primarily via their work.

The gender approach produces a dilemma as well: if one's attention is only drawn to the corroboration and maintenance of a general and (mostly negative) stereotype image of women, by social structures and connotations that are evident from the disciplines that women practise, such as folk art and activities with textiles, or from reviews of their work, no justice can be done to what women actually achieved within these fields. Neither will this bring out the fact that, at the same time, they were accepted in their work by female and male colleagues, and that they attained the same innovative level as men, the latter aspect being a starting point used by many design and architectural historians. An overall gender perspective

denies individuality and confirms stereotypes. With an acknowledgement of the positive aspects that a gender approach offers for the awareness of ideologies, there is the danger that this angle of approach can reinforce the negative features.

Visibility

Right from the outset and during the entire period 1880 - 1940 women were involved in exhibitions of contemporary applied art and crafts, even if these exhibitions were relatively small and the women themselves were always in the minority. There were specialist exhibitions for example on textiles but also general exhibitions of applied art. Visibility at exhibitions expanded particularly after 1902, and seemed to reach a peak in the period around 1920. After that, a smaller group of women was still very actively involved, closely linked to the activities of the professional designers association V.A.N.K. on the exhibition circuit. At general exhibitions, work by women was frequently combined with work by men. After 1940, special women's exhibitions disappeared, and, similar to the years after 1910, general national and international exhibitions became more important. Solo exhibitions increased, both in galleries and museums. 6 Major career retrospectives also happen but are still rare. Between 1880 and 1940, women designers who exhibited frequently were often important to studios and shops. Women began studios, showrooms and joint enterprises just as readily as men and some studio-showrooms existed just as long, sometimes even longer than

similar enterprises instigated by male designers. From the first studios, an increasing number of designers began to present themselves individually and professionally. At the same time, from around 1913 onward, the network of showrooms that presented their work to the outside world became more refined. In this network, women were important as initiators, leaders, and in co-operative enterprises with male colleagues. The showrooms and galleries repeatedly brought the same circle of designers together, often within a specific city or region, and the showroom's social function must have been of significance. Showrooms kept designers and craftswomen active too. I would suggest that this continues after 1940, with more specialised galleries for jewellery, textiles, or ceramics becoming active next to all-round galleries (Koch, 2003; Leidelmeijer, Kester, 2007). Exhibitions stimulated reviews, and the role of iournalism became extremely important for reception of the work, which it is still todav.

Between 1880 and 1940, women could participate in all networks that were important to their functioning as professional designers and craftswomen. Many of them were involved in the Dutch professional association, V.A.N.K., of which they could become a voting member right from its incipience in 1904 and which accepted women who worked in all disciplines. However, the association sanctioned the stereotype gender roles via disciplines such as textile work by female members. Women from higher social classes were more than others active within

this association, also in organising exhibitions. Besides the network of the professional association, art associations were also important for the visibility of craftswomen.

Between 1880 and 1940, the disciplines

Disciplines and Design

in which women worked professionally changed a little in the course of time. The Table (Fig. 1) shows the numbers and percentages of women divided over the various disciplines until 1940; the right column gives suggestions as to their continuation after 1940. As indicated in the Table, some categories of practices remain relevant for the period 1940 to 2017. A significant change is that many more designers produce their work in collaboration with factories or companies. Weaving, for example, was an important studio craft before 1940 but further developed industrially in collaboration with highquality textile factories such as De Ploeg in Bergeijk or Van Besouw carpet factory (e.g. work by Diek Zweegman; Bree, Ros, Unger, 2011). More recently, since 2005, the Textile Museum in Tilburg started to invite designers to work with advanced computer-operated machines in their textile laboratory. Here, Aleksandra Gaca designed a 3D-woven interior fabric for the Renault concept car SYMBIOZ, an autonomous electrical car to be plugged into your house as additional modular and multifunctional room (Fig. 2). Practices in ceramics, which include designing and decorating Delftware and porcelain on the one hand and craft pottery on the other hand, basically continued as before 1940: likewise for

ceramics related to decorative art and ceramic design applied to architecture (e.g. the work of Babs Haenen). Design styles, of course, changed significantly. After the late 1990s, leading women designers were given commissions by ancient Delftware factories, such as Royal Tichelaar Factory in Makkum that promoted so-called 'Dutch design' via Hella Jongerius, the male/female duo Studio Job (Job Smeets and Nynke Tynagel), and the female/male duo Studio Makkink & Bey (Rianne Makkink and Jurgen Bey). A recent and prestigious work by Royal Tichelaar and Jongerius, is a curtain of 30,000 hand-manufactured glazed porcelain beads knotted in a pattern following old maritime techniques for the U. N. North Delegates' Lounge, New York, United Nations/Netherlands Ministry of Foreign Affairs (Fig. 3). It forms an ensemble with chairs designed by Jongerius and several modernist chairs by male architects-designers. Since circa 1905, applied graphic design gradually became one of the most popular practices for women: today, this is presumably still the case. Metalwork mostly evolved into jewellery design, also-though not only-by experimenting with non-precious metals and materials since the 1960s. The importance of two-dimensional decorative design increased considerably. Female interior architects were rare before 1940 but their numbers grew after 1945, both for high-brow design as well as for the more commercial field of home decoration. By contrast, female furniture designers were rare and are still so today, leaving cabinet making and furniture design as predominantly male fields. A striking

difference is the increase of women in architecture and exhibition design, especially after 1989. Before 1940, if any, exhibition design was a male affair. Architecture was not included in my research after the years 1880 to 1940, but as Erica Smeets-Klokgieters has shown recently, more women graduated as architects and engineers besides Margaret Kropholler, even though their practices were less well presented as hers (Smeets-Klokgieters, 2017).

Earning a Living between 1880 and 1940

Prior to 1915, almost no woman could live from her craftwork or designs, let alone do this over an extended period. It was challenging for women to work independently, even if they were supported and respected by their male colleagues in the exhibition circuits and professional organisations. Even when the merits of education became more self-evident after the mid-1890s. the number of independently working female designers did not increase significantly. They had to liberate their work from the connotation of housework and handicraft as a kind of hobby. Once married, many women focused on the household and the family. Also, many women who displayed talent in their work had no opportunity or ambition to develop themselves further. Women were forced to seek other employment due to economically tight times, but that also applied to their male colleagues. Most of the women's work was based in the home or studio, and they worked as freelance designers or independent contractors. The number of female designers

employed in industry, besides production workers, is negligible. The few women who worked for a shorter or longer period in a discipline outside textiles were ideal examples and role models within a socioideological framework in which women were accepted as designers. Women could demonstrate that they were indeed capable, but few achieved the same status as male designers. The number of professional designers did increase, but hardly significantly. This is likely to be different after 1940, but it remains to be researched to what extent. In the design of their work, women kept up with the times and co-shaped pioneering modern ideas in their disciplines. However, keeping up with the times could also mean that they 'denied' technological advancement by linking forms of handicraft to housework, folk art and 'primitive' art. This not only applied to female work; applied art as such represented a need that clashed with the industrial age, nevertheless retaining its raison d'être. This seems still the case of much craft and design by women after 1940. Recent developments importantly cross the borders between design, craft, sculptural art, biology and/or state-of-theart IT. An example is the work by female/ male duo Lonneke Gordiin and Ralph Nauta who collaborate in Studio Drift since 2007 and currently have their first significant solo exhibition Coded Nature at the Stedelijk Museum in Amsterdam.7

Table

Women practitioners and designers with areas of craft and design in The Netherlands. From appendices listing names, exhibitions, and members of the professional crafts and design organisation V.A.N.K. in Groot, 2007.

* 566 was the total of names found in the research published in 2007. The total of practitioners in different specialist fields was 577 because a number of women practised several disciplines. ** The number of ceramic painters between 1880 and 1940 is by far the largest of all specialist design fields because women worked in (art) workshops of factories with a serial production line. A total is hard to give here due to lack of exact lists of employees, but there were at least 188 women with personal signatures for various ceramic factories. The figures in this table are derived from lists in a lexicon of women designers offering 28 names of paintresses who worked for a factory for a relatively long time and/or designed patterns and decors. It is a rough indication.

Total of women practitioners and designers found in primary sources between 1880 and 1940*	566 (726)*	% of 566	Hypothetical suggestions for 1940 to 2017
Artneedlework	72	12,7%	few
Batik	39	6,8%	very few
Graphic design/illustration	58	10,2%	>>> (many more)
Illustration Art	34	6%	>>> (many more)
Calligraphy	4	0,7%	equal or less
Bookbinding	27	4,7%	equal or less
Leather art without bookbinding	9	1,5%	>> (esp. bags design)
Weaving/plaiting	80	14,1%	equal
Lace-art	21	3,7%	less (hardly any)
Metal art and enamelling	19	3,3%	> (esp. jewellery)
Ceramic painting and decorating**	28(>188)**	4,9%(26%)**	>>
Pottery art	14	2,4%	>>
Furniture and interior design/architecture	7 (2)	1,2%	>>>
Exhibition design	-	-	>>>
Design and decorative design	16	2,8%	>>> (many more)
Leaded glass	6	1%	>
Woodcrafts	7	1,2%	equal
Sculpture/statuettes	7	1,2%	>>
Diverse textile	40	7%	>>
Diverse general	59	10,4%	>>
Showrooms and shops	24	4,2%	>>
Journalists and critics	6	1%	>>





Captions

Fig. 1 Aleksandra Gaca, Fabric for the Renault SYMBIOZ concept car, 2017. Accessed February 27, 2018. http://www.textiellab.nl/nl/actueel/aleksandra-gaca-ontwerpt-stoffen-interieur-visionaire-renault-symbioz.

Fig. 2 Hella Jongerius and Royal Tichelaar Makkum, Lounge chairs and Knots & Beads Curtain for the eastern façade of the U. N. North Delegates' Lounge, New York, United Nations/Nederlands Ministery of Foreign Affairs, 2013. Accessed February 27, 2018. https://www.tichelaar.nl/projecten/u-n-north-delegates-lounge-new-york.

Notes

- (1) To indicate some, in chronological order: Tichelaar, Bakker, 1995; Verschuuren, Van Mourik, Boekbinder, 1998; Holsappel, 2000; Moorsel, 2004; Bree, Ros, Unger, 2011. For a general overview of the twentieth century, though with few women designers, see Seumeren-Haerkens, 2010.
- (2) Results for the period 1880 to 1940 are published also online https://books.google. nl/books?redir_esc=y&id=kf_A8YENhRQC&q. since 2007. While the Dutch language limits dissemination of findings, since 2007 the internet as a research source has importantly gained in connectivity and relatives of women discussed in this book find their names and contact me every now and then with archival material and work they still have of some of the women I mentioned.
- (3) See Schouwenberg, 2003; Ineke, Hinte, 2003; Lauwen, 2005; Kayoko, 2006; Lommen, Boom, Haller, Lane 2010; Schouwenberg, 2011; Wijers, Richard, Edelkoort, 2017.
- (4) For example Hella Jongerius for Nymphenburg in Germany, Stefan Scholten and Carole Baijings for Arita in Japan.

- (5) By historical reception I mean discussions of works in their time. Later reception by scholars concerns the formation of narratives about decorative art and design.
- (6) Recently, for example, *True Life* by Ineke Hans in Gemeentemuseum The Hague, 2003-2004; *Out of the ordinary*, tenth anniversary of Studio WiekiSomers (Dylan van den Berg & Wieki Somers) in Boymans van Beuningen, 2014 (https://www.boijmans.nl/en/exhibitions/studio-wieki-somers-out-of-the-ordinary); *Ancient Light* by Claudy Jongstra in Fries Museum Leeuwarden, 2016 (https://www.friesmuseum.nl/te-zien-en-te-doen/tentoonstellingen/claudy-jongstra/).
- (7) See "Studio Drift: Coded Nature," Stedelijk Museum Amsterdam, accessed 27 June, 2018. https://www.stedelijk.nl/en/news/studio-driftcoded-nature-?

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10 1 10

Maria Helena Souto Universidade Europeia IADE (MoMoWo Portugal) Some professional fields are attributed, a priori, more to men than women. The design is one of them and this vision is supported by general design histories that that reinforce, far too easily, a history of male 'heroes'. In addition to the gender bias and its blindness to the contribution of individual women, there is also a refusal to recognise the importance of collaboration in the design process. This was the cases of the French Charlotte Perriand (1903–1999) or the German Lilly Reich (1885-1947) and their working relationships, respectively, with Le Corbusier (1887–1965) and Mies van der Rohe (1886–1969), in which they often emerged as the passive 'other' in contrast to the active, male creator and producer. While these examples are nowadays more studied and acknowledged, there are still many creative-women-designers who remain in the shadows, especially in countries where design has quite relatively been fully acknowledged as a discipline in its own right. In the case of Portuguese design, we are facing a country with a late industrial process associated to a technological backwardness, and the existence of a long dictatorship (1926–74), with strongly isolationist, colonial and economically protectionist agendas that marked the late outbreak of design in Portugal (Souto, 2016a, 71). Moreover, the first cycle of Portuguese modernism is historically bound up with the military coup of 1926, which led to the Estado Novo (New State) dictatorship, established by the 1933 Constitution. In this period, the names of Portuguese creative-women linked to the avant-garde movements are mainly associated with

painting. Some of them, however, also worked in the graphics as illustrators and theatre set designers. In these two design fields, we highlight the examples of Mily Possoz (1888–1968) and Alice Rey Colaço (1892-1978), whose works in the 1920s and 1930s reflect the influence of the Art Déco. In the following decade, women-designers worked mainly in advertising where they were expected to provide a women's perspective as consumers.

Maria Keil (1914–2012), who belonged to the second generation of Portuguese modernist designers, despite she started as a painter, quickly took on other art forms, highlighting her pioneering role in illustration and advertising, but also in scenography, costume, tapestry, furniture and ceramic-tile design. She continually tried to reject the arts' systems of the past, because she was a resolute advocate of collaborative and craft-based design, creating works that straddle and blur the traditional divisions. between art and craft, handwork and industrial production, amateur and professional. Her multifaceted body of work is not only innovative but also provocative in a country with a profoundly conservative dictatorship that reserved for women the status of a 'home fairy'. In fact, the 1933 Constitution stated that the husband was the head of the family and that he had the authority, while the woman had to play the role of a mother devoting herself to her home (Cova, Costa Pinto, 1997, 73).

Maria Keil was part of the *Estúdio Técnico* de *Publicidade* - ETP (Technical Studio of Advertising). At the ETP, Maria was the

first woman to participate in pioneering graphic design works for Portuguese advertising; many of whom have been included in ads for the women's lingerie manufacturers *Pompadour*, since 1942. With a subtle irony, she went beyond the point of view of a woman as a consumer wondering about the status of women in the 1940s.

Although the ETP team had developed several works for the *Secretariado de Propaganda Nacional* - SPN (National Propaganda Secretariat), Maria Keil sought to distance herself through forms, colours and motifs from historical and folkloric themes –be they nationalistic or historical – which some artists created (with varying degrees of quality) due to dictatorship demands.

Maria Keil has a special place in the history of post-war Portuguese azulejos (ceramic tiles) as one of the leading creators in the modern reinvention of the tile art tradition. She was part of a group of artists who, by a variety of paths, reached the position of carrying out tile work on public art commissions. Although the figurative design persisted in her tile work since 1954 (Pais, 2014, 52), she also experimented with combination of geometrical patterns, where triangular motifs overlap in an infinite and dynamic visual web-like composition. This prismatic pattern is very evident in her distinguished tile panel, *O Mar* (The Sea, 1956–58), set on the wall in one of the Infante Santo Avenue's residential complexes. Suggestive evident reverberations of Op Art influence, lending her a unique modernity to her work, paved the way for what would become a central

theme of her ceramic work: the Lisbon underground, designed by her husband, modernist architect Francisco Keil do Amaral (1910–1975).

When women are mentioned it is often in conjunction with, and therefore 'subsumed' under, a male partner or family member (Buckley, 1986), but this was not the case for Maria Keil. The collaboration with the two was vital for Maria's path, but she was never in her husband's shadow. When she was widowed, her work was already a reference that she continued tirelessly, and in which the design and project research was constant. In Lisbon underground, despite the recurring themes, all motives have unique features and their own identities, varying in each underground station, showing the maturity of the artist's sensitivity through a striking combination of traditional Portuguese tiles in contrast with the modern language (Fig. 1). Maria Keil's experiments in ceramic design continue to be a source of study and inspiration for younger generations of architects and designers, such as the works designed by the architects Catarina and Rita Almada Negreiros,

design continue to be a source of study and inspiration for younger generations of architects and designers, such as the works designed by the architects Catarina and Rita Almada Negreiros, already a reference in the contemporary reinvention of ceramic tiles. In their studio, CAN RAN Arquitectura - Ateliers de Santa Catarina, they promote active interdisciplinary work between architects, artists and designers. Granddaughters of one of the major artists of Modernism in Portugal, the painter, illustrator and writer José Almada Negreiros (1893–1970), Catarina and Rita –as a multidisciplinary as their artist grandfather– develop together various types of projects: from

housing to architecture renovation, from public and private facilities to public spaces, from lightning to ceramic tile design. In Lisbon, the tile panels Vai Vem (Comes and Goes) that cover two small walls as part of the urban requalification project of the area next to the Bica lift, under the direction of architect Teresa Nunes da Ponte, are an excellent ceramic intervention (Souto, 2016b. 55). Another relevant work is the project Cota Zero, for the of the Terreiro do Paço Terminal Station, an enlargement and transformation project by the Daciano da Costa/Ana Costa studio (Souto. 2016c, 50). Catarina and Rita designed a ceramic tile set into the ceiling of the vestibule connecting an underground station with a ferry terminal. The work establishes a metaphorical relationship between the continuum movement of passengers and the Tagus River which accentuates the ever-changing genius loci (Fig. 2).

For the development of modern ceramics in the second half of the twentieth century, Portugal receives contributions from foreign creators, among which stand out some women as Hansi Staël (1913–1961) and Mirja Toivola (b. 1933) (Henriques, 1999, 38, 132; Ferrão, 2014). Hansi Staël was a Hungarian ceramics designer based in Portugal between 1946 and 1957. In the interwar years, she attended the Academy of Fine Arts of Budapest and the School of Arts and Crafts in Vienna, During the Second World War, she lived in Stockholm, where she worked on textile designing and editorial illustration, experimenting in ceramic decoration and painting. In Portugal, Hansi Staël's production

was prolific, mainly working as an art director and head designer at the newly founded ceramic factory SECLA between 1946 and 1959. In 1950, Staël founded the SECLA Studio, actively contributing to the aesthetic renewal of the ceramics. factory production also grounded on the collaboration of invited artists; one of these was the Finnish designer Mirja Toivola. Having begun her studies at the Helsinki Ateneum, she moved to London to attend the Central School of Arts and Crafts, and she finally studied at the École des Arts et Metiérs in Paris. There she met the Portuguese painter and graphic designer João da Câmara Leme (1930-1983) whom she married, and the couple moved to Portugal in 1957 (Leme, 2015).

Miria Toivola worked for SECLA in the early 1960's, designing table services for children as well as coffee and tea sets for everyday life using feldspathic stoneware with a matte brown and white glaze. Two of these ceramic sets were exhibited at the International exhibition of Industrial Design in 1965, Portuguese historical design exhibition led by the sculptress and glass designer Maria Helena Matos (1924–2015) in the context of her activities at INII - Instituto Nacional de Investigação Industrial / National Institute of Industrial Research (Souto, 2017, 25). Mirja also worked for the *Sociedade de* Porcelanas de Alcobaça S.A. - SPAL, a Portuguese porcelain company, which held in 1970 a design competition where the tableware *Miria* china service won. the 2nd Prize. She exhibited this service. together with others she designed for SPAL at both the 1st and 2nd Portuguese design exhibitions, also carried out by the

INII under the leadership of Maria Helena Matos, respectively in 1971 and 1973. This Institute was created in the late 1950's, when the economic policies of the dictatorship of the New State changed with an enhancement of the industrial sector, directly linked to the application of the *Planos de Fomento* (Foment Plans) whose elaboration was the reaction to the demands brought by the end of the Second World War. Although the I Plano (1953–58) and the *II Plano de Fomento* (1959–64) gave continuity to the model of autarky, in the *II Plano* the amount invested to stimulate the economy and particularly the basic manufacturing industry was extended in line with the entry into European Free Trade Association - EFTA, of which Portugal was one of the founding countries on 4 January 1960 (Souto, 2017, 24). The INII began its activities in 1959 and comprised several laboratories associated with technology that had the purpose of supporting industrial sectors. Architect António Teixeira Guerra was responsible for presenting a proposal to the INII director, engineer António Magalhães Ramalho, aimed at the constitution of a nucleus of investigation associated to the questions around the Art and the Technology. Teixeira Guerra himself initiated this proposal which, in 1960. led to the creation of the *Núcleo* de Arte e Arquitetura Industrial (Art and Industrial Architecture Nucleus) whose first activity was to develop the processes related to product design and their production methods. These actions began at the manually crafted crystal-ware factory of Marinha Grande, the Fábrica-Escola Irmãos Stephens

(Stephens Brothers' Factory-School), where Maria Helena Matos had already worked, and where she deepened her knowledge in glass design through a scholarship granted by *Fundação Calouste Gulbenkian*. At the end of 1960, knowing her work, Magalhães Ramalho invited her to collaborate with the *Art and Industrial Architecture Nucleus*, where she would replace Teixeira Guerra as responsible for it.

Under her leadership, the INII promoted various actions that became fundamental for the affirmation and disclosure process of Portuguese Industrial Design. In an improbable context dominated by men, Maria Helena Matos achieved by her merit as a designer, her ability for action and the respect from her peers. She knew how to work hand-in-hand with the Stephens Brothers' Factory craftsmen and with them, learnt to add value to the design of their glass objects. Her previous course of ceramic painting at the School of Decorative Arts António Arroio (Lisboa) and the collaboration with the ceramic factory Viúva Lamego contributed to these experiences. These early studies and works in ceramics led Maria Helena Matos to resume her academic training, entering the sculpture course of the School of Fine Arts of Lisbon ended in 1956. From than on. without completely giving up sculpture and her experiments in pottery, she ended up finding in the glassware her field of election. Inspired by Scandinavian design, Matos' glass design reflects a modern formal expression and an incessant search for the potentialities of glass specific language, in line with the defence of product design in the

Portuguese industry. Through her actions at the INII, she valued professionalism by giving visibility to the other designers and encouraging equality between men and women designers, these have been key outcomes for the inclusion of Portuguese design in the History of Modern Design. Nowadays, one of the most promising design fields is related to sustainable innovation. One of the Portuguese designers that stood up in this field is the young Ana Mestre (b. 1978). After graduating in Design at IADE, she obtained her PhD in Industrial Design and Sustainable Innovation from TU Delft in 2014. She currently combines the direction of her design studio, SUSDESIGN, based in Lisbon and London with a Sustainable Design research position at Nottingham Trent University. Ana Mestre started her career in 2001 as one of the first eco-design researchers in Portugal, and, pursuing the paths of Portuguese Design associated with women's leadership, she created and directed *Design Cork* in 2006: the first internationally applied design research initiative for cork innovation, the raw material in which Portugal is one of the leading producers.

Captions

Fig.1. Maria Keil, tile Mural for Alvalade Underground, 1972, Lisbon. © Collection of the Museu Nacional do Azulejo.

Fig. 2. Catarina and Rita Almada Negreiros, *Cota Zero* project in the new ticket hall of the South and Southeast River station, Terreiro do Paço, Lisboa, 2011. © Daniel Blaufuks



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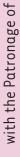












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The European Cultural-Cooperation Project MoMoWo

MoMoWo is a four-year project devoted to women -architects, civil engineers and designers - active in the world of construction, a crucial sector where the female gender -traditionally invisiblehas found it more difficult to assert itself. The project aims to value the experience of women who have worked in the past to create a bridge between generations. As such, this is why in the project title there is a reference to the Modern Movement, a historical stage in which professional women have known their first emancipation from the point of view of work in the world of design and construction. The different actions -project management, cultural, creative, communication and support activities – have been jointly planned and targeted, not only to reach the highest possible number of participants but also to create a platform for sharing skills and knowledge for the continuation of activities beyond the time limits of the project. To guarantee greater access to documentation and knowledge, free and open-access modes have been privileged. The primary tool of communication is the website, appropriately recalled and amplified through the use of social networks. The different actions of the project have been closely linked to each other, starting with the International Design Competition for the MoMoWo's visual identity and promotional objects, in which we wanted to create the identity of MoMoWo through a bottom-up approach, involving young designers. To continue with the database which is the subject of this book, an essential cultural moment of research and information gathering was conducted, comprising the organisation of three workshops and public interviews with women professionals held in Leiden, Ljubljana and Oviedo. These were crucial stages of involvement and cultural comparison culminating in the international symposium at the Polytechnic of Turin (June 2018). All these initiatives reverberated through countless public presentations. The Open Day of women's professional studios in partner countries has taken place every 8th March in three years, a media event par excellence that, through the contemporary opening to the general public of professional studios run by women, allowed the involvement of the younger generations, thus going far beyond the theme of gender. The International Photo-Competition for reportage on women designer's own homes has aimed at highlighting the difficult conciliation between home and work. The Travelling Exhibition, with its stops in several cities of Europe, spread the visibility of women's creativity. Finally, the travelling exhibition book, the guidebook of architecture and design itineraries, the open-access publications on the results of workshops, the e-book on the symposium results, and this book represent the main outputs of the project.

Not for sale