



Research on women-led architectural practices

Pre-study report:

Examining the current state of research and existing data concerning women in the architectural profession.

FAR Laboratory of construction and architecture – project directed by Professor Paolo Tombesi

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1. Introduction

1.1. Background and presentation of the research project

Affirming Action – Latsis Symposium 2023

In March 2023 was held the Latsis symposium 2023, at the Swiss Federal Institute of Technology in Lausanne (EPFL), organized by Professor Paolo Tombesi. As was the goal of the previous online edition held in 2021, the 2023 symposium, called *Affirming Actions: Models of architectural agency from the work of women-led practices*, aimed to discuss and reflect on the work 15 international female architects and the way they run their practices. Those architects were not only invited on a gender-based motivation, or because they are at the head of architectural practices. They were also invited because their work demonstrated the ability to carry out a significant impact in the contexts in which they operated.

Examining different ways of practicing in relation to different aspects of the practice itself, ranging from sustainability to aesthetic, including materials, comfort, integration, scale, geography, culture, etc., the following 15 architects were invited to share their experience and insight on the profession in relation to the multidimensionality of their respective work:

Anna Chavepayre, Collectif Encore, Auterive
Laurane Coornaert, Degré 47, Bruxelles
Sophie Delhay, Sophie Delhay Architecte, Paris
Alessia Griginis, Vibes, Turin
Anupama Kundoo, Anupama Kundoo Architects, Berlin
Rozana Montiel, Estudio de Arquitectura, Mexico City
Toshiko Mori, Toshiko Mori Architect, New York
Salima Naji, Agence Salima Naji Architecte, Tiznit
Hannah Robertson, The University of Melbourne
Claudia Rodriguez, Taller Nuevos Territorios, Mexico City
Carol Ross Barney, Ross Barney Architects, Chicago
Marina Tabassum, MTA, Dhaka
Kerstin Thompson, KTA, Melbourne
Elisa Valero, Elisa Valero Arquitectura, Granada
Xu Tian Tian, DnA, Beijing

Although those architects come from different countries and have diverse backgrounds, within their singular work we can find strong common characteristics underlying, and even guiding, their action. Firstly, their work is often anchored to a local territory and/or particular type of space, making scale, geography, and space typology an essential dimension behind their practice. Also, many demonstrate an integrative attitude in their work, in several cases using a community-based approach, and always mindful of the cultural and historic context in which they intervene. Additionally, the question of sustainability is a recurrent problematic they integrate in their design strategies. Finally, the technics and materials they employ in the construction processes of their projects are always selected with great concern over their performance, availability, cost, or cultural value, etc., in accordance with the practical application of their work philosophies mentioned previously and making them not only a vague concept but an actual way of acting.

Actually, a significant common trait behind their approach is the way they are able to articulate their values with their practices, in a reflected, thought through and pragmatic manner, translating the core principles that motivate their action into concrete architectural projects.

Moreover, peer reviews, architectural journals, architectural awards, and prizes all seem to agree on the potential of those 15 female architects, of whom the work have been legitimately recognized.

(FAR Laboratory of Construction and Architecture, 2023)

Research project on women-led practices

As inspiring as it is, the collection of testimonies and discussions produced during the Latsis Symposium alone did not motivate the pursuit of interest in this topic in a research project. An observation made by Prof. Tombesi with his students while teaching the course “Political economy of Design” is actually what initiated the interest of the latter for this subject. Indeed, when given the assignment to find examples of architectural practices leading a specific type of exercise, most of the students came back with examples of architectural practices led by women. Looking at the sample of practices investigated by the students, supposed to represent a particular type of work, female firm principals were numerically over-represented in comparison to the actual proportion of female firm principals in the conventional architecture industry. Based on this observation, Prof. Tombesi set the hypothesis that this specific type of architectural practices is more prone to be led by women. This assumption opens a series of other questions regarding the contribution of women in the architectural industry and specifically considering this type of practices. These questions will hopefully be further investigated in the FAR Laboratory of Construction and Architecture. However, the first question that has to be answered, and that will be investigated in this report, is the following: What is the proportion of female architectural practices created and led by women?

1.2. Purpose of the report

As mentioned above, the principal goal of this report is to investigate the proportion of practices created and led by female architects. However, it is not the only purpose behind this report. The main objectives of this initial phase of research are to identify up-to-date statistics concerning women-led practices and to analyze the current state of research on women in the profession in relation to our topic on interest.

Indeed, if the subject of women in the profession is not new and has been investigated before, both by academics and professionals, it seems that there are very few existing data and research specific to women-led practices. The lack of research concerning this particular type of practices, despite the belief that those practices could withhold a potential for the architectural industry, was an incentive to pursue a research project on this matter. Therefore, in this initial phase of research, the hypothetical lack of knowledge on this specific subject has to be evaluated.

Firstly, this report will present the methodology used to carry out this early research phase. In a second part, the report should present the sources uncovered as well as a description of the data found. Then, for different countries, the most relevant data found concerning architectural offices led by women will be presented. Additionally, a small analysis of the research conducted in each country will be provided. Finally, based on the given evidence, the report will conclude on the current state of research and available information concerning women in the profession.

2. Methodology

2.1. Definition of the framework

Boundaries of the research

The first step of this research phase consisted in setting the geographical limits of the frame in which the investigation was going to be completed. The first limits set were country dependent. Thus, it was decided that the research would focus on eleven countries: Australia, Belgium, Canada, France, Germany, Italy, Portugal, Spain, Switzerland, United-Kingdom, and United-States. These countries were chosen because of its long-lasting attachment of the architectural practice to a well-developed professional system, in which there is usually a deep tradition around the exercise of architecture and a strong value attached to the title of architect. These professional systems are often embodied by professional bodies in charge of representing, regulating, and also monitoring the profession. All of this makes it easier to find information both in terms of quantity and quality.

Additionally, the research was extended to International and European scales (without investigating independently each country comprised in these scales).

Type of data investigated

Investigating data specific to women-led practices inherently entails to investigate data related to women in the profession. Thus, during this investigation finding quantitative data on female-led practices started by reviewing and listing quantitative data on women in the profession.

Description of the framework

The framework in which the research was going to be carried had to be established strategically in order to optimize the process of investigation. The most evident source of data were national architects' organizations or professional bodies, often in charge of monitoring the profession. Consequently, for each country the research consisted of looking through those organizations' websites. Research through these organizations often permitted to uncover other organizations related to the profession or to the female in the profession and to extend the research to their websites. Sometimes the research also led us to referenced work, concerning women in the profession, derived from architecture journals, universities, etc.,

Moreover, during this investigation phase, a list of potential informers (organization and persons) that seemed to have a particular interest in the matter was also established. Those potential informers were later on contacted to check if they had a knowledge of the existence of additional data.

Additional details on the framework and associations contacted can be found in the following summary scheme (i.e. figure 1).

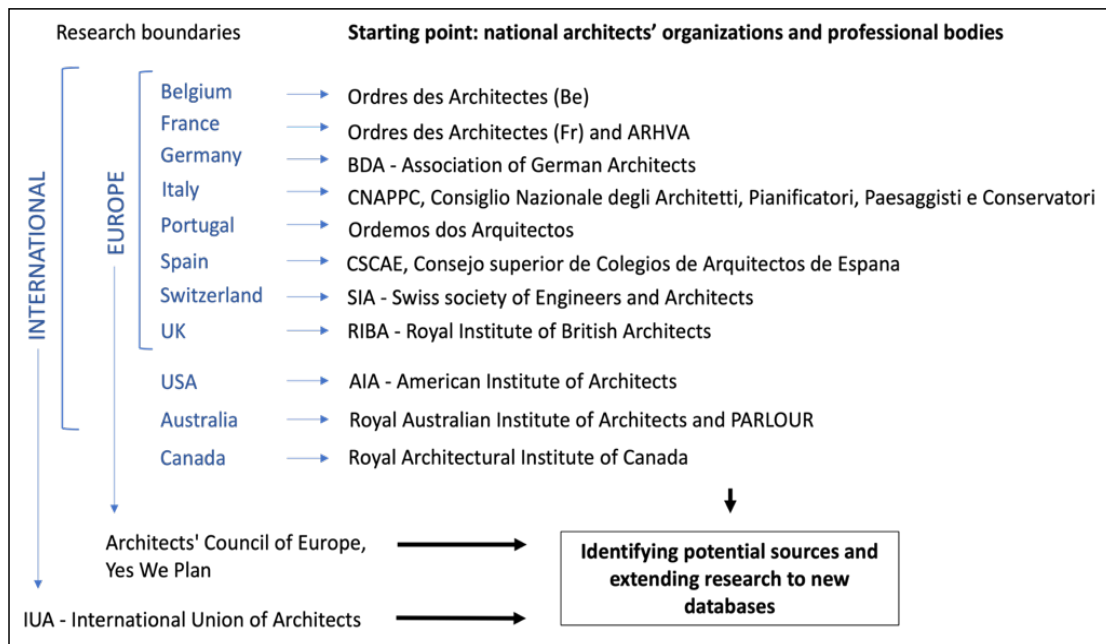


Figure 1: Summary scheme of investigation framework

Directing the investigation from the star toward specific sources may seem to limit our evaluation of the existing data. However, we can confidently assume that usually, the information concerning the practice of architecture or women in the profession or simply demographics on the profession, is either produced by these organizations and related organizations, or relayed and mentioned in their reports, articles, etc., Thus, it is supposed that this framework already enables a comprehensive investigation of the data regarding female in the profession and consequently data on women-led practices, if it exists.

2.2. Sorting the data

As mentioned previously, during this investigation, the data overviewed was extended to women within the profession. To enable a subsequent analysis of the data retrieved, this data was listed and labelled. The categories and labels were assigned according to the following attributes:

- Organization and type of organization that published the data.
- Origin of the data.
- Type of topic addressed in the documentation.
- whether or not it contains a data regarding the proportion of practices led by women.

Thus, each documentation analyzed that regarded women in architecture was listed and labelled according to different attributes, of which, the type of topics addressed in the documentation. This attribute was described by the following categories:

- General demographics and information (e.g., proportion of female architects, age distribution according to gender, regional proportion of female architect, etc.).
- Socio-professional statistics (e.g., employment status, professional position, hours worked, type of employment contract, etc.).
- Information regarding the practice of architecture (e.g., type of projects, distribution of tasks, etc.).
- Firm related information (e.g., size of the firm, type of firm, age of the firm, etc.).

- Income, pay-gap, or other financial related statistics.
- Personal information and work-life balance data (e.g., number of children, presence of a partner distribution of domestic tasks in the household, etc.).
- Academic training (e.g., proportion of female graduates, proportion of female at different academic stages, etc.).
- Discrimination, harassment, gender inequalities and professional barriers.
- Award, prizes, and contests (e.g., participation of female to contests, proportion of female amongst contests winners, etc.).
- Other.

To be noted that socio-professional statistics encompasses general statistics related the professional exercise and its organization whereas information regarding the practice of architecture encompasses information specific to the professional exercise of architecture.

Relevant data, that is the proportion of offices run by women could probably be found in the 'Socio-professional statistics' or 'Firm related information' categories.

Also, the documentation was categorized according to its publisher, its origin, the type of organization it comes from, the type of documentation and finally, whether or not it contains information of practices led or created uniquely by women.

3. Results

3.1. Documentation investigated

In total more of 100 documents were reviewed. The documentation containing information on women in the architectural profession was listed and analyzed. The following graphs should help summarize the data investigated.

Origin of the data

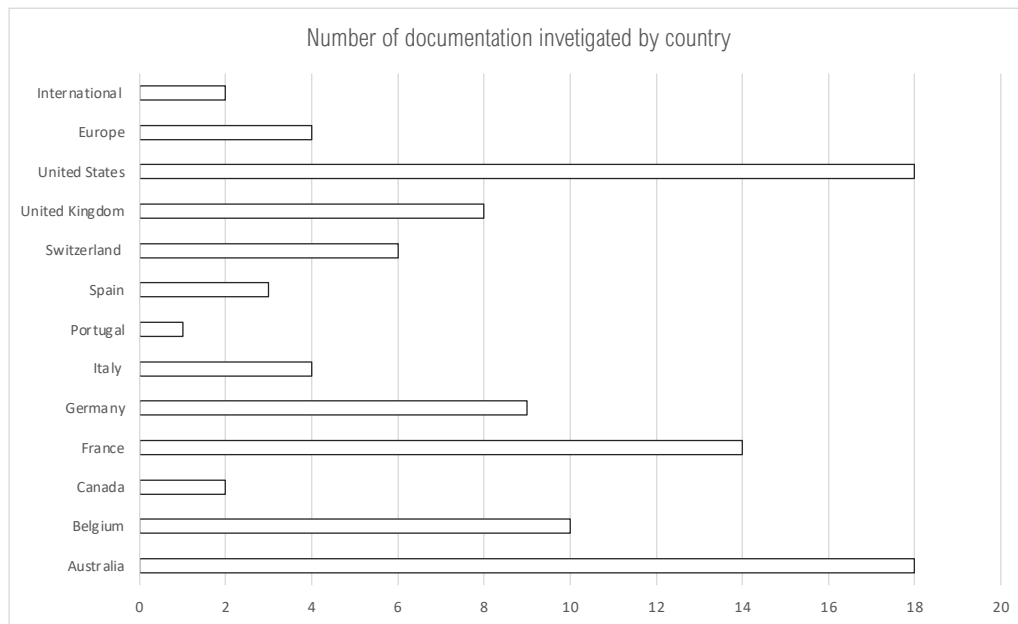


Figure 2: Origin of the documentation

The figure 2 shows that a lot of documentation comes from Australia or the United States, followed by France and Belgium. However, these statistics have to be interpreted more in depth. Indeed, some countries produce a lot of documentation with statistics on women in the profession, but in reality, those statistics only enable a superficial analysis of the work conducted by women in the industry. For example, the Order of Architects in Belgium regularly publishes statistics giving the proportion of women in the profession but very few other statistics regarding female architects. Actually, the countries that produced the more thorough investigations concerning female in the profession are Australia, France, Spain, and the United States, who have all published reports specific to female in the architectural profession that contained many statistics enabling to understand their professional situation.

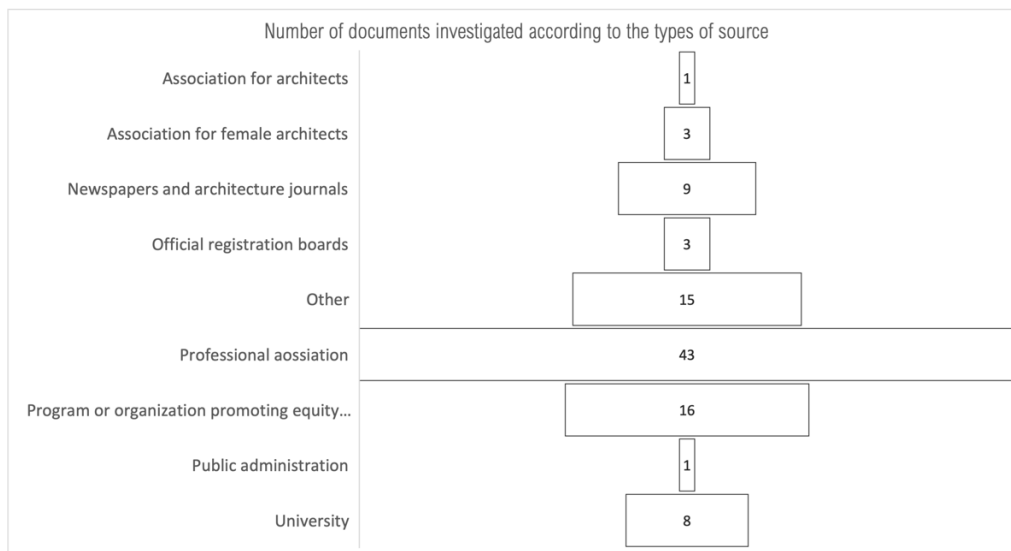


Figure 3: Types of sources producing the documentation

When looking at the type of sources producing the documentation, we can observe that most of the documentation is produced by professional association. Indeed, those organizations are in charge of regulating the profession, and this usually necessitate for them to conduct surveys and collect data in order to monitor the profession. Also, their role within the profession and their linkage toward the exercising architects facilitates the collection of data.

Finally, another type of source that produced a lot of the data regarding female architects, are program or organization promoting equity in the profession. Certainly, because the collection of data is complementary to their activity as advocates for equity.

Recurrent topics

The Figure 4 shows the types of information classified according to the themes addressed in the documentation (c.f. part 2.2 Sorting the data.).

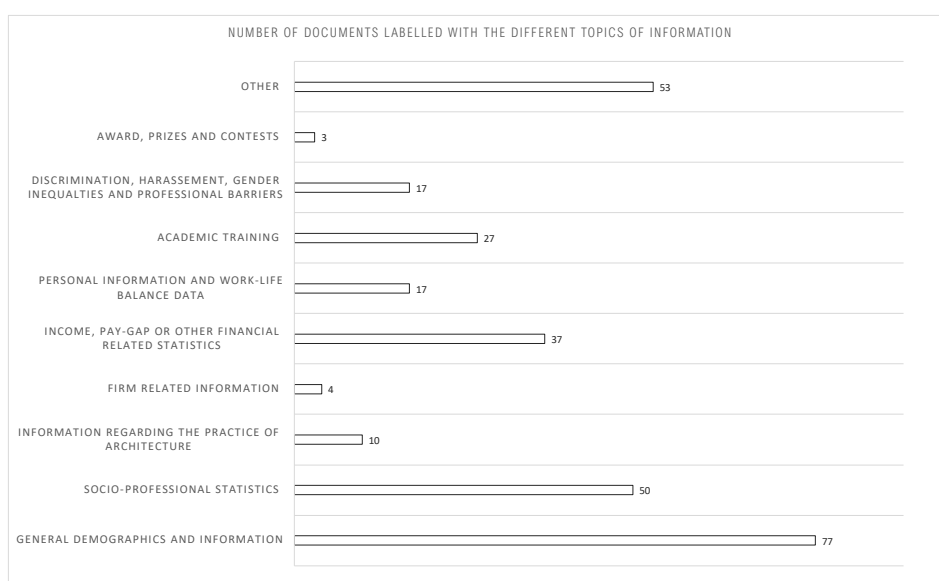


Figure 4: Type of information contained in the documentation and occurrence

We can see that the most common information is data regarding general demographics and information. Usually, this data includes the proportion of female architect in the country and also age distribution among female architects. Another recurring type of data is socio-professional statistics. They generally comprise data describing the organization and modalities of the professional exercise (female employee and employer proportion, full time vs. part-time exercise, professional status, etc.). Although these data enable a sociological understanding of the position of women in the profession, they do not give any specific information regarding the architectural work and the practices that goes alongside about female in the industry. In fact, in the documentation explored, there are very little information regarding the practice of architecture in relationship to the gender of the architects.

In addition, a lot of the other subjects frequently encountered (personal information and work-life balance; discrimination, harassment, gender inequalities and professional barriers; income, pay-gap or other financial related statistics) are used to put in evidence the difficulties and inequalities female may encounter during their professional career in comparison to male architect. Thus, this data are not originally meant to provide an understanding of their work or work methods.

Finally, out of the 100 of documents reviewed, statistics regarding architectural practices created and led only by women were found in only four documents. Out of these four documents, two originated from Germany and concerned only self-employed architects.

3.2. Country analysis of the data and existing research on female architects

This part focuses on a country-based analysis of the data concerning female-led practices and an analysis of the existing data on women in the profession. The latter is articulated around the following questions: What type of data can be found? Who produces this data? Can we find data specific to our topic of interest, that is architectural practices led by female?

Also, the bibliography from which the relevant data originated will be presented.

Australia

In Australia, according to Gill Matthewson's and Kirsty Voltz data analysis, women account for 21% of sole practitioners, 14% of the partners and 11% of directors. Also, 24% of them are owners of a small, unincorporated business and 13% of a large, incorporated business. (Matthewson, 2017 and Russel 2012).

Additionally, in 2016, out of the 16991 censused architects, male and female, only 3,5% were female and owners incorporated and 3,6% were female and owners unincorporated whereas 41% of them were female and employees. In comparison, out of all the censused architects, 17% were male and owner of an incorporated, 9% were male and owner of an unincorporated business and 23% are male and employees. Looking at the statistics in another way, 28% of the owners of unincorporated practices are female whereas 17% of the incorporated practices owners are female. If incorporated practices are associated to larger offices, it seems like women are more prone to own small practices. Also, they represent. Small proportion of the architects owning and probably managing a practice. (G. Matthewson, 2018)

None of this data specify whether or not women have sole ownership of the architectural offices if they direct it alone or with a male partner.

Bibliography:

- Matthewson, G. (2017). The numbers in a nutshell: Women in architecture, Australia. In Parlour. Parlour. <https://parlour.org.au/wp-content/uploads/2017/06/Numbers-in-a-Nutshell-2.pdf>
- Russel, G. (2012). Percentages of women in Australian architecture. Parlour. <https://parlour.org.au/workplace/who-counts/>
- Parlour Census Report 2001–2016: Women in Architecture in Australia. (2018). Parlour.

There are multiple organizations reporting on the situation of women in the architectural profession in Australia, especially Parlour, which strongly advocates for women in the profession. Thus, the professional position of women in the profession is regularly monitored. However, in the statistics retrieved it is never specified whether women in ownership, directing or managerial positions operate alone. Thus, it is hard to conclude on the number of practices exclusively led by women.

Belgium

No data

There are no data in Belgium concerning the practices created and led by women and more generally, there is very few data on women within the profession. The statistics found were the proportion of female architects, the proportion of female registered architects and the proportion of female project authors and interns. These statistics were produced by the national professional body, l'Ordre des Architectes. Also, there is a female architect group invested in the subject of women in the profession (Women in Architecture Belgium), but their main objective is to promote the work of female architects. No data originating from this organization were found.

Canada

No data

Even though the subject of equity in the profession is present in the professional body and that there are associations advocating for female architects (Women in Architecture Vancouver and Building Equality in Architecture regional groups), it seems like this interest is not associated with a numerical or statistical analysis of female in the profession. The only statistics found was the proportion of women architects in Canada.

France

In 2021, the proportion of female according to the type of professional exercise shows that 32.9% of the female exercise as liberals (independently), and 30.1% as associates. Among those associates, it is not specified which manage the practice alone. (CNOA 2022)

Bibliography:

- CNOA. (2022) Archigraphie)

Both the national professional body (Ordre des Architectes) and the organization Femmes Architectes, promoting equity in the profession, have conducted through research on female in the profession. Also, there are other organization or research group investigating this subject. However, this research

is mostly done with a sociological approach, using socio professional indicators to analyze the position of women in the profession. The position of women regarding the architectural practice is only expressed through their employment status, that is, are they employees, public servants, liberals, associates, other... There are no data specific to the way women lead architectural practices and no statistics on the proportion of female sole firm leaders.

Germany

In Germany, architects may work as self-employed architects (liberals) or employed architects. Self-employed architect may work on their own or provide services to architectural practices similarly to employees. According to a study on self-employed architects of the German Federal Chamber of Architects, 28% of the office owners are women and 21% of the architectural practices are owned only by females. Additionally, the smaller is the size of the office the greater is the proportion of female owners, going from 35% of architectural practices with one employee owned by women, 18% for practices with 2 to 4 employees, 6% for practices with 5 to 9 employees and 3% for practices with more than 10 employees. (BAK Strukturbefragung Gesamtbericht Selbstständige, 2022)

These statistics were conducted on the base of self-employed members only, which represent only 33% of the chamber members. It is not clear whether these statistics are representative of the profession in general. (Strukturbefragung Kurzfassung aller befragten Kammermitglieder mit Abbildungen, 2022)

Bibliography :

- 2022 BAK Strukturbefragung Gesamtbericht Selbstständige. (2022). Bundes Architekten Kammer. https://bak.de/wp-content/uploads/2022/10/2022_BAK_Strukturbefragung_Bericht_Selbststaendige_Gesamt.pdf
- 2022 BAK Strukturbefragung Kurzfassung aller befragten Kammermitglieder mit Abbildungen (2022). Bundes Architekten Kammer. https://bak.de/wp-content/uploads/2023/05/2022_BAK_Strukturbefragung_Praesentation_FINAL.pdf

Although there are many female associations for female architects in Germany advocating for equity, there are not a lot of quantitative research on this matter. There are very few quantitative data concerning female architects outside from the data provided in the report of the Federal Chamber of Architecture that can be found in reports not specific to women in the industry.

Italy

No data found.

General distribution of the female in the profession, as well as gender pay-gap or information related to the academic training were found, but no data on the number of practices led by women. There is an association called AIDIA, which represent female architects and engineers, and on the website of the national professional association, a program called AEQUALE, promoting equity in architecture, is mentioned, but no data published by them were discovered.

Portugal

No data found.

Very few data monitoring the profession were found. However, an observatory of the profession is mentioned on the website of the Order of Architects which may allow the collection of data in the future.

Spain

According to the CSCAE 2022 survey, 45,6% of the female respondent are the founding partner of the office in which they work (65,2% for males). 4,9% of the female respondent are a partner and 4,2% director (respectively 3% and 5% for male respondents).

Also, 66.1% of women own their study and 80.47% of all architects own their study. (CSCAE notebooks, 2018)

The statistics needs to be regarded with the fact that a lot of architects own their study in Spain.

Bibliography:

- I. Sánchez de Madariaga (director). (2022). Study about the women in the architecture in Spain,.CSCAE,
- CSCAE notebooks, no2, Superior Council Of Spanish Associations Of Architects , december 2018

Although in most of the report there are very few information specific to women in the profession, the CSCAE 2022 report on the situation of the women in the architectural profession is very thorough. However, it does not provide the specific information researched. The statistics seems to suggest that the data have been collected but not in the goal of analyzing practices led by women.

Switzerland

In Switzerland, according to a 2004 research paper, only 20% of female architects between 25 and 39 that run their small practices without employee and with or without partner.

Bibliography:

- Research paper cited in a letter retrieved from the SIA – Network of Women:
On the underrepresentation of women in the architectural profession, Christina Schumacher, 2004

There are very few data specific to women their relation to architectural practices. Most of the data found were proportion of female architects and statistics related to female in academic programs. Réseau Femme et SIA, which is an association for female architects affiliated to the professional association, collects on its website some of the data produced in Switzerland concerning female architects.

United Kingdom

According to a 2018 benchmarking survey, the proportion of female partners, directors and sole principals increased from 16 to 19%. However, it is not specified if those architects exercise alongside male partners, directors or principals. (RIBA, 2018)

Women in Architecture UK survey completed by 265 participants, 15% were business owners. (Women in Architecture, 2021)

Bibliography:

- Bridging the gap women gender architecture. (2018). RIBA. <https://www.architecture.com/knowledge-and-resources/knowledge-landing-page/bridging-the-gap>
- The future of women in architecture : survey results & call to action. (2021). In Women in Architecture.

The business benchmarking reports, which are not accessible for free for nonmembers, may contain data on the proportion female architects and their professional status. However, this information does not seem to specify whether or not female architects in directing position operate alone or alongside male partners. A recurring information concerning women in industry concerns the gender-based pay gap in the profession. Also, there is a report carried out by the association Women in Architecture (UK) but it does not provide significant quantitative data.

United States

According to the Equity by Design survey, around 2% of the female respondent worked in an all female-led practice and around 1% of male respondents worked in such offices. Men represented around 53% of all respondents, while female represented around 47% of them. (Equity by Design, 2018)

Bibliography:

- Equity by Design [EQxD], Equity in Architecture Survey 2018

Although there are a lot of guides toward equitable practice (produced by the American Institute of Architects) and that the subject of women in the profession is addressed, not a lot of data show the role of female in practices. The equity by design surveys offers the most extensive reports on female architects in the US and they produced the only surveys that clearly provides a quantitative

Europe

In Europe, 28% of sole principals are female, and 24% of directors and partners are female.

Bibliography :

- The architectural profession - 2018 sector study. (2018). Architect's council of Europe

In Europe, both the Architect's Council of Europe and YesWeCan program collected data on women in the profession. Most of this data are general demographics and there is no data that relates women to the practice of architecture.

International

According to a worldwide survey completed by 1,152 women in the field of architecture, among students and professionals, 3% were directors, 2% associate director or project director and 2% sole practitioners. (Tether, 2016)

This data does not specify the proportion of female exercising alone or with fellow female directors.

Bibliography:

- Tether, B. (2016, February 26). Results of the 2016 Women in Architecture Survey revealed - Architectural Review. Architectural Review. <https://www.architectural-review.com/essays/results-of-the-2016-women-in-architecture-survey-revealed>

Even though some surveys on female in the profession were conducted at international scales, no data was collected on female-led practices. Also, the usability of this data can be discussed because the professional context may vary from one country to another. Therefore, analyzing the practice of an architect in a country may involve a different consideration than doing so in a different country. Also, no specific sources collecting data on female architects were identified. Most of the sources encountered were architectural magazines.

4. Conclusion

During this initial phase of research over a hundred reports containing information regarding women in the profession were investigated. However, most of this information does not enable a thorough understanding of the type of work carried out by women in the profession or by female-led practices.

The few statistics quantifying the number of practices directed by women varied from 2% to 20% according to the source. These differences may be due to different factors: methodology used to collect the data (i.e. surveys in opposition to official databases), the sample used in the surveys or even the country in which the data were collected. Indeed, the architecture industry and the conditions and framework in which one may exercise this profession vary from a country to another. For example, the proportion of female leading a firm in one country may be higher than in another country simply because it is more common to own a firm in this country. Thus, an analysis of the profession and the practices associated to it have to be analyzed dependently from the country's professional and industrial context.

Additionally, the number of practices led and/or created by women is rarely quantified. Indeed, most of the data collected is used to analyze the situation of women in the profession in a socio professional approach aimed to point out gender dynamics or inequalities. The focus of the research project carried out in the FAR laboratory is rightly to shift this tendency and concentrate the research on the actual work carried out by female architects in the industry as architects and not only as professionals. This could permit to identify a new model of architectural practices, hypothetically more susceptible to be directed by women and having potential for the future.

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<https://memento.epfl.ch/public/upload/files/AFFIRMINGACTIONSPROGRAMSPEAKERSPDFENFR.pdf>
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