

# **How do women industrial designers succeed in the workplace? Getting in and getting on**

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## **Abstract**

In Australia, despite comprising half of the design student population, women remain under-represented in the design world and rarely hold senior leadership roles or win high profile design awards. This qualitative research, focussing on the workplace experience of nineteen female industrial designers, explores how these women achieve success and the facilitators and barriers. Overall, success was defined as happiness, work-life balance and enjoyment and engagement with the design process; impact was also important, with one defining success as seeing a stranger using a product she had designed. Most found the industry to be male dominated and struggled to secure their first job, explaining the challenge of learning specific software programs and then developing the confidence and courage to actively contribute design ideas. A variety of different strategies was utilised to secure their first job, contacts, mentors and role models later empowering over half to develop their own design start-ups. The decision to become an entrepreneur was a conscious choice, enabling these women to follow their design passion with more flexible, parenting-friendly hours. This qualitative research provides some nuanced insights into how these women navigated entrenched gender stereotypes and traditionally masculine workplace norms. The findings suggest the need for more radical approaches to facilitating women's recruitment, retention, and progression.

## **Key words**

industrial design, gender, career, career development planning, success

## **1. Introduction**

Despite comprising half of the design student population at university, women remain under-represented in the design world and rarely hold senior leadership roles or win high profile local, state or national design awards (Anthony, 2001; Fowler & Wilson, 2012; Roan & Stead, 2012). This gender inequality in career progression and visibility is illustrated very clearly in the architecture professional accreditation process: women comprise almost half (44%) of architecture students in Australia, yet only one per cent are directors at architectural firms and less than a fifth (ranging from 16-25% in each state) are actually registered

architects (Matthewson, 2012). In the last decade, despite an approximately equal gender distribution among graduates from design disciplines, there remains an under-representation of women actually working in the field. This disparity raises an obvious question, specifically addressed by this research: what happens to these bright young women when they leave university and try to enter the design workforce? Where are they in the workforce and why they not represented, especially at the higher echelons of the profession? This qualitative research explores these questions, focussing on the experience of female industrial designers in Australia.

### **1.1. Women in Design**

To date, little empirical research has investigated women's experience in either design education or the workforce, although significant anecdotal reporting suggests that women are under-represented in senior leadership roles and at high profile design awards (Anthony, 2001; Fowler & Wilson, 2004; Fowler & Wilson, 2012; McMahon & Kiernan, 2017). As there is no published research relating directly to the focus area of this research, women in industrial/product design, looking to other design discipline areas (where women are also in the minority) provides some initial insight into the potential issues and barriers for female industrial designers.

A handful of studies have begun to look at the engagement of women in the architecture profession, which is renowned for supporting a highly male-dominated work environment and gendered professional culture. This small body of emergent research identifies the aggressive, competitive and masculine work environment as alienating women from the practice of architecture, explaining how most universities report that more women than men have graduated in architecture, yet these graduates are not present in the profession (Department of Labor, 2008; Roan & Stead, 2012; Sanchez de Madariaga, 2010; Whitman, 2005).

In the first comparative cross-national study of architects in three European countries (the UK, Spain and France), Caven, Navarro-Astor and Diop (2012) interviewed 66 women architects. Overall, there was a sense of "resigned accommodation" amongst these female architects, who described how they had little knowledge or understanding of the masculine work environment prior to entering it. University education left them ill equipped for site-based work, and they developed strategies such as the use of humour and emphasising their

“otherness” to build their professional standing and highlight the value of their different skills (specifically, better communication, complaining less and creating fewer problems). There was a sense that these positive attributes hindered their advancement as they “just get on with the job”.

## **1.2. Women in creative arts**

As design is positioned across two very different fields (engineering and creative arts), it is important to explore if and how gender might impact the experience of women in creative arts careers, such as performance, design, creative writing, music, film, choreography and art, as well as in STEM fields (Science, Technology, Engineering and Mathematics). Although only a handful of studies have explored gender inequality issues for women in creative arts, the findings have generally been very similar to those investigating the experience of women in STEM fields. Women are under-represented in both production and decision-making roles, with existing cultural frameworks about art and gender disadvantaging women in both direct and indirect ways (Schmutz & Faupel, 2010).

Creative arts careers differ markedly from STEM careers in that they challenge dominant cultural standards of career success, typically offering a lifetime of career instability, competition and low pay (Brooks & Daniluk, 1998). Thus, it is interesting to note that the limited research on women in creative arts careers often identifies two unique factors not often detected within the STEM literature: (1) a strong, all-encompassing passion to pursue their (artistic) career and (2) significant opposition from family and friends for embarking on an artistically-inclined career path that is (typically) difficult to succeed in, unpredictable and poorly paid.

In their recent research exploring the experience of 21 female creatives (art directors, copywriters, and creative directors) working in advertising, Windels and Wei-Na found that the industry was still very much a deeply rooted boys’ club “built around male norms, with systems in place to privilege male perspectives” (2012, p. 510) and where women’s “voices, perspectives, and work were devalued” (2012, p. 511). Essentially, the participants felt it was easier for men to get to the top, as the creative department had a strong masculine paradigm that restricted women’s ability to grow their careers. At a social level, these American women saw junior-level men socialise and form relationships with senior-level males; they felt they could not form the same bond, partly due to gender differences and partly because

friendships between younger women and senior men can be seen as inappropriate. At a professional level, these female creatives also described being disadvantaged by gender-stereotypes and being pigeon-holed into working on less prestigious “female” assignments throughout their careers; one explained how they never worked on projects about beer but always on ones about tampons, and these projects were seldom “buzz-worthy” or represented in national awards (Windels & Wei-Na, 2012).

### **1.3. Women and the industrial design profession in Australia**

Given the limited research exploring the experiences of female designers, this study focuses specifically on how female industrial designers fare in the workplace. Industrial design often operates in a parallel way to the creative industries where there are networked clusters of small-to-medium enterprises, sole-traders and micro-businesses (Ashton, 2015; R. Bridgstock, 2011) where the work is often freelance or short-term contracts due to the fluidity and movement within these types of businesses. The Design Institute of Australia (DIA) regularly carries out a salary survey across the design sector, reporting that the self-employed designer’s salary dropped in 2013 with a significant drop being experienced by industrial designers (Robertson & Design Institute of Australia, 2014). The transition into industry could be seen to involve three interlinked stages: preparation, actual transition and outcomes in the labour market. It is not necessarily a linear path, as qualifications alone do not guarantee immediate entry into the workforce (Haukka, 2011; Haukka, Industries, Innovation, Council, & Technology, 2009). To date, there has been no published research investigating the experience of female industrial designers in the workplace. This research, an in-depth qualitative case study of 19 Australian female industrial designers, explicitly addresses this knowledge gap and focuses on their workplace experience.

## **2. Research Method**

Given the very small body of literature exploring the experiences of women in design, an exploratory qualitative research approach was utilised due to its appropriateness for investigating unstudied populations and issues. To better understand the unique individual “lived experiences” of women in industrial design, we adopted a phenomenological approach where the researcher identifies the essence of human experience (Creswell, 2009; Liamputtong & Ezzy, 2009).

### **2.1. Participants**

This interview study was conducted with women who had graduated from an industrial design course at one Australian university, and at the time of interview in 2011 they ranged in age from 21 to 37 years and had graduated between one and sixteen years ago. The majority (74%) were currently practising industrial designers, and reported working in a number of industries, from in-house design work at a major appliance company through to designing, producing and bringing to market their own products. Table 1 outlines the specific socio-demographic information, including current employment, position title and year of graduation.

(Table 1)

## **2.2. Procedure**

All participants responded to a broadcast email to female graduates of the course inviting them to participate in the research. Data collection in the form of in-depth interviews was conducted by the author (an experienced female Industrial Designer and academic) in a central convenient location. The Bruce and Lewis (1990) three-hurdle model was used to explain the factors that influence career advancement of women in design: getting the qualification (hurdle 1); getting the first job (hurdle 2); and becoming a success (hurdle 3) guided interview question development. The digitally recorded interviews were transcribed into text for analysis. The data was then read and re-read to identify key words articulated by the participants, first individually and then as a group to establish patterns of meaning (Creswell, 2003; Liamputtong, 2009).

## **3. Results**

Focussing specifically on women industrial designers' experience in the workforce, the thematic analysis identified four key themes, which will be discussed in turn: breaking into the industry; once in the door; gender hurdles; and the move to entrepreneur.

### **3.1. Theme 1: Breaking in – “I went to a lot of interviews, lots and lots of interviews”**

As the quotes in Table 2 illustrate, successfully breaking into the discipline after graduation required a number of different strategies and the conscious adoption of proactive career management behaviours, specifically: networks and networking; traditional and non-traditional pathways; and design competitions and internships. Networks and networking were critical, with over half of the participants (63%) recalling that they actively engaged in

networking to gain their first design job and that university academics and their final year self-directed major project enabled them to get that first job.

Approximately a third of the participants (37%) reported following a more traditional path to find their first job, describing using employment websites but needing to be proactive in following up and cold calling. A minority reported consciously utilising non-traditional pathways as stepping-stones to their preferred career. For example, one took a job as a receptionist in a retail design-based company, which allowed her to remain connected to the industry and to build her network. A fifth (21%) described consciously engaging in career planning activities designed to facilitate their ability to get a job, such as internships and entering design-related competitions to build their portfolio and industry standing.

(Table 2)

### **3.2. Theme 2: In the door – “basically, just understanding the workforce”**

Key challenges for these women in the first years in the workplace centred around the development of a professional career identity, with over half describing how they wanted validation of their career choice and years of study, and strongly desired the label designer on their business card. As the industrial design course offered a broad scope of experience, like most recent graduates, these design graduates described needing to build both their confidence and product-industry specific skills. Two key sub-themes emerged: developing self-confidence as a designer (specifically learning the discipline and language of the work); and embracing travel.

First, as the quotes in Table 3 illustrate, having secured their first jobs, these women then described an ongoing process of building confidence in their own design skills and growing their understanding of the whole process of getting a piece of design to market in practice, from design to production and marketing. Industrial designers recalled the challenge of “learning the discipline of work” (#13) and unique workplace protocols – as one explained, it was about “trying to fit in and learn at the same time as doing your job” (#14). Second, travel features prominently in the career of a designer, as the place of manufacture in Australia has moved from being “down the road” to predominantly in Asia. A critical part of a designer’s work is communicating with manufacturers, checking methods and materials and production techniques; this is often best achieved face to face, especially when establishing new relationships. These women recalled how, in the early stages of their career traveling, they

were usually in a junior role and supported by a senior colleague. As women travelling to China and Korea, they experienced differing levels of respect for their position as a designer:

I know in one place we went to, they made the women go out of the room while the men did the business and then the women could come back in, It was just ... so degrading, [but] that's the way they do it (#02).

Communication was often a significant challenge, with many of these women describing how they would utilise their design skills of drawing to facilitate understanding. Another, who was travelling alone a lot, described how she learned Mandarin to build up her confidence and found these language skills also helped in “getting good relationships, getting good pricing and stuff” (#02).

(Table 3)

### **3.3. Theme 3: Gender hurdles – “guys will never get that”**

Just over half of these designers (52%) described experiencing gender based issues and stereotypes in their workplaces, specifically: gendered behaviours, including sexism; male gate-keeping, where different standards are applied to women; and stereotypical perceptions of their skills and abilities. As one explained, the glass ceiling was there.

It sounds like you are kind of complaining about it or - but it does exist. It's a bit of a glass ceiling and it is quite low in industrial design. I think, also, women have a different approach to design. (#07)

Only a handful of women described overt ongoing sexism, with one recalling a workplace where the owner and most of the staff were male. The few women designers employed were in accounts and finance, and had to actively flirt with the owner to do some design-related activity. She recalled how her own opportunities were significantly limited, as she was the only one who didn't flirt with him:

He liked the girls to banter to him and I didn't. So he didn't like me. He thought I was weird ... They played the game, they flirted with him and they got on well. You know, flirtation is harmless but not when it has to be a part of your job (#13).

More commonly, these women recalled male gate-keeping, driven by the underlying assumption that women are less able to make and produce the models required by these three dimensional, traditionally masculine design disciplines. Women felt they had to “try harder” and outperform their male colleagues, with women of child-bearing age subjected to scrutiny regarding their plan for having children. In contrast, a number also described using their gender and “otherness” to their advantage, charming suppliers and manufacturers:

I think also in some ways it's been beneficial for us being women because - like, with suppliers and things, they find that quite refreshing. They are generally male dominated and they see these two friendly, youngish girls coming in and they are like, ‘Oh, we will make a sample for you for free’. So I think in some ways we have played that card to our advantage a bit. (#19)

Finally, in terms of stereotypes, a number of women described how they perceived men to be more confident in their work, more willing to take more risks in both the workshop environment or product development and in promotion of themselves, and stereotypically more suited to this three-dimensional manufacturing based profession. These women described developing strategies to overcome this, becoming strong:

I think you have got to be quite strong because I found it's a massive boys' club. When I was starting, with the suppliers especially, if they saw any kind of weakness and they saw that you are a girl, they sort of - they try and walk all over you’ (#12).

This confidence, or ego, in men was further seen to be a reason for the difference in pay, with their male colleagues perceived to be more experienced at negotiation and willing to push for it. In contrast, they felt if a woman is assertive she is seen as “pushy” or “full of herself” (#04).

#### **3.4. Theme 4: The entrepreneurs “... if I don’t do it myself, I will never do it”**

Just under half of this group (42%) decided to back their own abilities and embrace their entrepreneurial spirit, creating their own businesses where they design, manufacture and supply their own products. Products produced by this group range from eyewear, jewellery and accessories, headphones and footwear to furniture and lighting. All these entrepreneurs described a passion to create something of their own, expressing delight and satisfaction when they received positive feedback from a user or saw their product in use. As one noted,



“I have to give it another go otherwise this voice won’t go away” (#01). Rarely did they step directly from university into their own enterprise, with almost all describing an initial experience working for others in order to develop their knowledge, skill base, contacts and confidence. Further, the majority identified the importance of a mentor or role model, often an employer or family member who assisted in aspects of their new business:

Somebody that did help me a lot was one of my friend’s dads who does have a lot of products made in China. He was great in terms of negotiating the price and telling me all about shipping information and what all the terms were, customs and getting through all that. (#01)

As one noted, she had known from her second year at university that she wants to start her own business (a design consultancy) but knew that she first needed “some solid work experience before then, both to learn on the job, make contacts, network, all that kind of thing” (#15). The major motivations for entrepreneurship stemmed from dissatisfaction, either with the types of work, levels of creativity and work life balance.

#### **4. Discussion**

This study has provided insight into the experience of Australian female industrial designers in the workplace, identifying the perceived key facilitators and barriers to succeeding in their chosen careers. First, consistent with a large body of research, these women designers described how the transition from university to workplace is often a time of change and uncertainty for an individual, with the defining of career goals, finding a job and understanding what is expected proving to be challenges (De Vos, De Clippeleer, & Dewilde, 2009). Proactively planning for this transition and networking, specifically developing and maintaining relationships with relevant others who may be able to provide career advice or employment advocacy or opportunity at this early stage, was critical for “getting that first start” and early career success (Bridgstock, 2013; Eby, Butts, & Lockwood, 2003).

Second, transition to workplace culture seemed to be one of the largest hurdles; this is particularly acute if they have not engaged in any type of work experience during their education as it can provide context for their learning and understanding of graduate positions (Butcher, 2009; Perrone & Vickers, 2003; Walters, 2018). Graduates often perceive a tension between the skills they have developed while under academic guidance and those expected by potential employers. The university aims for broad transferable skills that will allow

graduates to be flexible and adaptable to changing work environments whereas employers often focus on specific skills and abilities for their specific conditions (Ball, 2002; Davis, Savage, & Miller, 2009; Haukka, 2011; Perrone & Vickers, 2003; Smith, Clegg, Lawrence, & Todd, 2007).

Third, understanding the globalised, networked world of 21<sup>st</sup> century creative work is a valuable capability and may further lead to exposure to jobs in non-traditional sectors (Bridgstock, Goldsmith, Rodgers, & Hearn, 2015; R. S. Bridgstock, 2011). For these women, travel, predominantly to Asia, highlights the shift in the work of the industrial designer and how many companies involve designers more closely in all the activities of design-to-market. The ability to communicate in foreign languages along with international views are additional attributes that assist with new graduate employability (Yang, You, & Chen, 2005).

Fourth, the study illuminates the historical development of this discipline, being similar to that of engineering in that they both have an image of being dirty or technical and to do with machines, and are both industries that have been established with masculine patterns and values (Bruce, 1985; Bruce & Lewis, 1990; McMahon & Kiernan, 2017; Powell, Bagilhole, & Dainty, 2006). Although there has been an increase in the number of women making their way into the industry through successful education (Lockhart & Miller, 2015a), there are still significant gendered hurdles that the women face. Nonetheless, to achieve success and acceptance in this space, women often modify their behaviours by adopting male attributed traits such as toughness and competitiveness, or alternatively utilise deference, a more acceptable feminine characteristic. Often the types of work that are available to women in this space offer little creativity and responsibility, resulting in reduced opportunity for advancement (Windels & Mallia, 2015; Windels & Wei-Na, 2012). The women in this study who have been frustrated by these constraints and barriers have stepped away from the convention and developed their own entrepreneurial working environment producing their own products, taking control of the whole product to market process and how they work. “So our studio is not open on Fridays, so that is part of our lifestyle choice” (#10). The move to self-employment most notably occurs at a time when they have developed confidence in their business skills and knowledge (Hanage, Scott, & Davies, 2016; Heilman & Chen, 2003; Henry, 2009; Langowitz & Minniti, 2007).

## **5. Conclusion**

There has been an increase in the number of women studying design at university, specifically industrial design. In this paper we have considered some of the issues that challenge women when pursuing their careers after graduation from university. These findings are based on the experiences of 19 female industrial design course graduates interviewed. Some experiences and challenges appeared consistently across the interviewees even though their time in the workplace and type of work experiences differed. A number of the challenges or hurdles that were identified may hinder them in achieving their desired success. The understanding of these hurdles is important as they can be seen to push the women out of the mainstream industry to self-employment. This move often does provide a space for women to follow their passion and to tailor their work environment, although it removes women's voices and sensibilities from the centre of the field.

This discipline-specific research, when read alongside that of other disciplines such as architecture, advertising and the creative industries, begins to suggest that there are common problems for women working in these creative fields (Adeokun & Opoko, 2015; R. S. Bridgstock, 2011; Caven & Diop, 2012; Windels & Wei-Na, 2012). In particular, it highlights that there is still gender discrimination, a "boys club" where women are held to different standards – made to prove themselves, often offered the less creative jobs and thereby less remuneration, and there is little flexibility in place and hours of work making management of family and children difficult.

Future research should examine the experience of men also moving into this field to provide further understanding of how the industry embraces and treats all new graduates. Similarly, such research could investigate whether there is attitudinal change occurring: if younger men who studied alongside these women and who have not experienced any discrimination during their study (Lockhart & Miller, 2015b), have embraced the diversity and skills set women may bring to this creative environment.

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