What Does ‘Handmade’ Mean Today?

What I’ve always been really clear with in this business, that it only makes sense as long as I enjoy doing it, and you know it’s, I think it’s a very slippery slope in Australia, as soon as you’re paying wages and you need a bigger workshop, [...] you just end up offshore. (James B. Young, shoemaker and outfitter, established maker, October 2015)

The phrase ‘designer maker’ is being employed increasingly in the contemporary craft and design marketplace, especially among those seeking to make a full-time living from their practice. It marks those makers who may undertake original design and prototyping themselves, but who, in order to scale-up their production in ways not always possible for a solo hand maker, outsource some or all subsequent aspects of production to other makers or machine-assisted manufacturing processes. But despite widespread use of this phrase, some makers remain keen to manage the scale of their business. As a result, many of those craftspeople and designer makers we spoke to who were in a position to scale-up their production while stepping back from the making themselves were reluctant to go down this path. Elsewhere we have explored these issues in terms of balancing making income with quality of life (Luckman 2015; Luckman and Andrew 2018), as well as in terms of the desire to be a maker, to be doing the creative work oneself, and thus not ‘get too big’ with the added pressures and responsibilities of being an employer (Luckman 2018). In this

chapter, we home in more on what upscaling and outsourcing reveals about competing definitions of, and attitudes towards, the idea of ‘the handmade’. It also explores maker and thus perceived market attitudes towards handmaking versus other forms of production, including outsourcing and the use of digital tools.

THE EMERGENCE OF THE DESIGNER MAKER AND CONTEMPORARY ‘CRAFT’ SCALING-UP

Across its full spectrum of practice, the field of craft is notable for the collegial way it tends to be somewhat friendly and benignly competitive; but a key site of boundary contestation does come into play around the perceived legitimacy as designer makers (at least of the handmade) of those who outsource—or who are perceived to outsource—significant aspects of production. It is especially contentious when such vendors end up selling from stalls at any one of the proliferating—and consecrating—designer maker or design markets (e.g. Finders Keepers, Bowerbird, Handmade Canberra, Big Design Market). There they are often selling alongside makers who may employ one or two people (often family or friends), or—more likely—make everything themselves, often one-off pieces that are a real challenge to make and sell sustainably in the post-Etsy craft marketplace, where everything must be beautifully photographed and written up for online sale. In particular, it was those who outsourced production but sold at these kinds of markets around whom some subtle criticism accrued in the project.

Such potential criticism is a direct outgrowth of genuine wider anger that products are being sold as handmade when that may or may not be the case, or that the hands that made it were not ethically employed. But it is also a result of the kind of disavowal of craft’s connection to industry that has characterised the field since the Arts and Crafts Movement’s positioning of craft as the Industrial Revolution’s ‘other’ (Adamson 2013, xiii). Whereby the ‘decorative arts’ became divided ‘between those practices connected closely with the craft ethic and those seen to be centrally a part of the world of large-scale manufacturing’ and thus design (Greenhalgh 1997, 39). Throughout the twentieth century and beyond, this romantic legacy has impacted how crafts are positioned in the marketplace across much of the Global North. For example, writing about the iconic decorative glass manufacture around Venice, Rossi (2015) observes:

All these decorative details functioned primarily as signals of an elaborate manual manufacture. They implied a small-scale, laborious manufacture, one that is undermined by the large scale of production suggested by the catalogues' existence and the absence of any mention of their productive reality. The Weil Ceramics & Glass catalogue advertised its wares as 'Hand-blown ... by Barbini' but does not mention that the name 'Alfredo Barbini' referred both to an individual producer and, by the early 1970s, a workshop of 40 employees. Furthermore, even when Barbini was directly involved in the production, glassmaking was a necessarily collective process, with one *servente* (assistant) often blowing the glass as it was worked by the *maestro*, while other elements such as the decorative elements were made in another part of the workshop by other hands. Finally, 'hand-blown' does not necessarily mean free-blown: the identical profiles and decorative details of several of the wares in the catalogue suggest the use of pattern moulds in this glass-ware's production. This makes these objects no less crafted, but does mean that the skill involved was not necessarily what the consumer imaged. There is no sense of the scale and standardisation of production involved, a lack of knowledge that the bounded-off island of Murano, and the air of mystery it carried, did nothing to dispel. (101)

Today, in Australia as elsewhere, with the winding back of expensive studio education, this status of craft ideally as handmaking by a single maker is further reinforced by an increasing connection of craft education to art education as discussed in Chap. 3 and thus identification with the symbolic capital of a more traditional Bourdieusian European art field. Certainly, one of the key tensions in play in the identity choices and boundary contestations between crafts practice and designer makers lies between those who seek to identify their craft practice with the arts field, and those desiring of, or more comfortable with, an identification closer to the economic field of power that tends to be marked by identification with 'design' in some form. These are also the people around whom Bourdieu's (1993) sense of 'selling out' continues to resonate:

Producers and vendors of cultural goods who 'go commercial' condemn themselves, and not only from an ethical or aesthetic point of view, because they deprive themselves of the opportunities open to those who can recognize the specific demands of this universe and who, by concealing from themselves and others the interests at stake in their practice, obtain the means of deriving profits from disinterestedness. (75)

Seen through this lens, these producers are profiting precisely from the ‘sacrifices’ required by others to sustain their not so disinterested practice, in contrast to practice that is deliberately grounded in a commitment to material, technique and provenance, as well as ethical labour practices, which affirms the symbolic capital—or ‘charismatic aura’—that accrues to the items produced in this way. Designer makers and design craft disrupt the taken-for-granted boundary-marking practices of established Western artistic fields. The key issue at stake concerns the opposition between two key sub-fields: the field of restricted production (handmaking) and the field of large-scale (or at least scaled-up) production. High-design items can be items of desire—limited, expensive and consecrated by the design field’s own gatekeeping structures. Design artefacts can also be (but rarely are) simply one-offs, for here ‘design’ denotes innovation and originality, but they also have the capacity for the kind of infinite reproduction more aligned with Bourdieu’s field of large-scale production (see Luckman (2020) for further discussion of this).

In this study we observed that, frequently, the relationship between craft and designer makers and the degrees of outsourcing and/or use of automation remains fraught. This is perhaps unsurprising in a market where consumer expectations are framed in terms of what can be an overly romantic vision of the realities of making, even on a small scale. Such expectations are the result of both the marketing (i.e. the story) surrounding products and their makers and the expectations potential buyers bring to the transaction themselves. Although many individually handcrafted items can be and are sold as distinctive items representing handmaking as an antithesis to mass production, the point at which something can be said to be still handmade or crafted was differentially contentious across the making practices examined in this study. Within the fields of craft in particular, especially those sectors that celebrate the handmade, the boundary of the definition of ‘handmade’ is hotly contested between those who choose to (or are perceived to) outsource aspects of production and those who keep it totally in-house. Of course, this itself is not a neat separation either. What does it mean if in-house makers employ other people on site? Indeed, what is the difference between outsourcing midway through the cutting of customised constituent pieces and starting a making process with ready-made purchased components? Handmaking processes have long imposed natural limits upon entrepreneurial growth for craftspeople, as is evident in the legendary artistic and cultural—but financially limited—success of the British Arts and Crafts Movement. More recently,

Warren and Gibson have noted how a number of competing factors such as 'uneasy relationships with retailers, declining margins, excessive debts, and corporate power' mean that most of the surfboard makers they interviewed in Australia, California and Hawai'i rarely move 'beyond their local base to become bigger commercial operations' (Warren and Gibson 2014, 7). Rather what they note 'artisanal forms of craft production' are thus bound by 'consistent limits to growth when making bespoke, functional objects for primarily local markets' (Warren and Gibson 2014, 7).

Theoretically, at least, designers are not bound by such limitations of scale; their practice is based on outsourcing production once they feel they have resolved prototypes ready for marketable replication. Hence the emergence of the figure of the designer maker in the contemporary artisanal marketplace as a mode of operation that does, potentially, enable scalable growth. Within the history of studio craft practice itself, the replication of a basic resolved design has long been a way craftspeople have derived a liveable, ongoing income that enables them to support their more artistic one-off or gallery-focused production. Moreover, at all stages of the making process, design is a necessary and central part of the creative method, as leading Australian craft, decorative arts and design writer and curator Grace Cochrane (2005) writes:

Those working in the crafts—potters, glass and textile artists, furniture makers, jewellers and metal-smiths—aspire to working out their ideas through a direct interaction, by hand, with their chosen materials, using a range of related tools and technologies. Like artists, they make their work for their own expression and satisfaction, and their customers are those who prefer the mark and name of a maker over objects that have been mass produced. 'Design' here, is as much part of the process as 'art' is part of the process, with, at the core, a crafts knowledge of materials and tools and the skills of the hand. (52)

However, as she goes on to note, design 'as a category of objects':

has been associated with the notion of working towards producing objects that serve a client or consumer's purpose. Designers either contract others to make their own 'signature' work, or are commissioned by companies who market their products with a 'designer label' around the designer's name, as well as the brand of the company itself. In acquiring these objects, the consumer enjoys becoming one of an elite group; the personal is universal. Despite the link with a personal identity through signatures and brands,

however (some of which, like Ian Thorpe's underwear, are 'celebrity-labels' rather than 'designer-labels'), a good deal of contemporary design has been stripped of any direct evidence of the human or the hand. [...] For some time I believe there has been evidence of a shift in consumer preferences in the design marketplace. People are again valuing the evidence of the hand, and the values that the handmade represents. [...] At the same time, there are huge changes in global manufacturing patterns that affect design and the crafts at many levels. [Whereas some overseas design and fashion houses, such as Alessi, have been able to respond to this market,] Australia's factories were generally unable to change flexibly for small production and most have already closed their handmaking operations. (Cochrane 2005, 52)

Interestingly, the favourable comparison between scaled-up, high-end design and handmaking as a model to learn from was echoed in our interviews with one of Australia's leading jewellers:

I learnt so much from the Alessi model. They also come from a craft background, one has to remember the family, you know, that everything in the factory is hand done, even the polishing. It is only the packaging that is automated. People don't think that it's hand pressed, hand finished. (Susan Cohn, jeweller and metal smith, established maker, November 2015)

This shift of market desirability towards the handmade is, as outlined in Chap. 1, the very context that has enabled the current growth of the marketplace for contemporary craft and designer maker goods. But this near fetishisation of handmaking—potentially at the expense of more economically sustainable modes of making—is significant, especially given the almost normative and possibly even less problematic relationship of craft to design at the more established and/or higher end of the local market. Ever since the Arts and Crafts Movement, the perceived failure (of craft at least) in the English-speaking world to be more than the province of relatively well-off producers and consumers has long limited its capacity to make realistic claims to offering a meaningful alternative to large-scale production. For Australian makers today it remains important for as we have written elsewhere (Luckman and Andrew 2018), the contemporary craft and design economy is masking considerable levels of un- or under-employment. The turn away from studio models of production and towards an idealistic vision of handmaking thus has substantial real-world impacts.

In our study, the majority of makers across all modes of practice and business orientation we spoke to felt the need to emphasise the handmaking aspects of their practice and to focus on handmaking, even at the expense of profitability. Sometimes this was not just about market expectation, but genuine personal commitment to making as part of an 'intentional economy' (Gibson-Graham 2006), as evidenced in comments by jewellery designer maker, Kate Hunter:

There's a lot of products that I find it difficult to compete with: laser cut stuff which is mass produced and it doesn't have the mark of the maker on it, like the hammer mark—I just find that endearing. I don't measure anything anymore, I'm not precise about anything anymore, I just do it and I just let it come out as not necessarily rough but as it happens [...] the mark of the maker is really important to me; I don't want it to be so highly polished that you can't see anything left of who made it. In mass-produced stuff I've seen enough of that in shops that I've worked in and I think it's soulless; it doesn't have that something that [says] somebody's two hands put this together. Or if you can see those marks and it was imported from overseas what were those poor people paid and I've been through Nepal and I've seen the guys sitting underneath the building and they have to make during a certain period of time because that's when the shaft of light hits down there so they can see what the hell they're doing. Then I've seen them begging in the shops for their work to be bought by the shopkeeper, so I've seen all of that in my travels and I just don't like it. [...] I mean that might be a suicidal business decision if you wanted to be a hardnose business, but I really like to relate to the people that buy my stuff and go "Oh, so you made this?" And I'm like, "Yeah". (Kate Hunter Designs, jewellery, established maker, November 2015)

Clearly, in this way, for many of the makers we spoke with, both the actual labour conditions under which a product is produced and the relationship to it this implies are an important part of the handmade end product their customers are purchasing:

I'd probably—I wouldn't be happy to outsource the final finishing process. I think one of the things is if people buy something off you and you're spruiking yourself as designer and maker you actually have to physically get involved with the making, and I think quality control goes down pretty quickly if you're outsourcing everything and you're just putting it in a box or you're sort of putting it together at the end [...]. It's just part of the busi-

ness and if that's how I sort of design the business around it, yeah I couldn't imagine getting to the stage where I was just doing a design and sending the files everywhere and never seeing them again, but never say never, but yeah I don't ever plan on being that sort of a designer. (Male furniture designer and maker, emerging maker, February 2016)

These makers would never outsource, and in the current consumer climate, that is a sound market-placement option.

However, outsourcing in some form has long been an important and central way many other makers have sought to scale-up and maintain an economically sustainable or even growing business. Nonetheless, as we have seen, it emerged as a problematic area for many of our interviewees even those selling as a designer maker, because of the persistent feeling that they should still, personally, be physically involved with the making:

No, no [I wouldn't outsource], purely for the fact that I think people are purchasing something that I've made, and the labour involved in it, and the handmade element is a big—it's a big—something that they're very interested in. People often sort of say, you know, could I automate the process perhaps, rather than outsource, so set it up so the machine just does it all, like more of a computerised thing. And I think even that dilutes the product a little bit [...] but yeah, I think the labour is an important part of it, and you know, I also like making. Although all the other things that come with the business are very important and take up a huge amount of time. The making of—the fact that I've been able to make a job of the making that I love is really why I do it, you know. I could probably earn better money stacking shelves at [the local supermarket], but I made it. (Meredith Woolnough, visual artist—embroidery, established maker, June 2016)

This desire to provide a handmade product is often coupled with a strong, personally felt desire to undertake such employment only on the condition—and so that—they can remain fundamentally makers:

So a lot of people say that to me [outsource/employ people], [...] I don't know, I just want to keep the control to myself. The thing is, I enjoy it, I enjoy being in the shed and doing it myself and that's the whole point. (Female, jewellery, established maker, July 2017)

We can see here echoes of the motivations for making discussed in detail in Chap. 2. A central part of the meaningful work experience being

pursued by most of the craftspeople and designer makers with whom we spoke was maintaining close proximity to the making process rather than being overrun by the business side of running a creative enterprise.

MOVING FROM MAKER TO EMPLOYER

Given this, another way to grow a business but still maintain the much-desired capacity to stay in touch with the creative side of it is to employ other people to work with you. Unsurprisingly, we came across many instances of this—both on a regular basis and more ad hoc (e.g. just during peak times):

She's been around about three months now, [...] she comes on average just two hours a week and she does the assembling of necklaces and gluing of earrings and things like that. So she's my production assistant and she's very good, she didn't have any background at all in arts and crafts but it's quite simple to do. So I've trained her up and when times get busy, it was busy a couple of weeks ago, she did a full day's worth of work instead of her two hours. So she's very casual, very flexible as well. (Female, lasercut jewellery, established maker, November 2016)

A recurring practice was to carve off one of the more repetitive, less creative aspects of production—such as basic assembly—to hand over to someone else:

I would like to have the option to have one or two people to help. So, whether it's being able to outsource sewing—the printing I will never outsource because I really love doing it and I can't imagine not doing it—but things like outsourcing sewing when demand is big is definitely something I'd like to look at some time soon. (Simone Deckers, textile designer, established maker, March 2017)

Owing to the short notice, the unpredictability of working hours and the fact that employees would not uncommonly be present in the home, the employment relationships were often informal. Employees were often personally known to the maker and the work often provided through the desire to help out friends and family:

The only person I hire is—I've got a girlfriend, her daughter who's sort of like a daughter to me, she's just turned 17 and she makes my, I have little

denim noughts and crosses boards which just have the hash thing sewn in to them and they're overlapped around the edge—so I [outsource] that out to her and she does that, which is great. Every day I just ring up and say, I need 20 more boards and I'll get them in the post so it's good. [...] because I've often thought, where do you source your staff, and for me my thing is I always think of people like my friend's daughter. (Female, ceramics, established maker, November 2015)

But others viewed the responsibility for someone else's income security, coupled with the costs and paperwork of becoming an employer, as major barriers to taking on staff:

I want to be the only person in my business. [...] I won't outsource anything. [...] first of all I don't want that responsibility of being responsible for someone else's income in a way, so and plus I'm a bit of a control freak; I used to be a project manager and [...] I don't want any impacts on my business, I want to manage my whole business and a lot of the courses that I've talked about are maybe you could outsource your bookwork. No, I quite like doing my bookwork; I don't want anyone knowing my bookwork either, I don't want anyone looking at my books and making judgements on my bookwork, I like knowing my bookwork. So there's a lot of things you could outsource [but] I'm like no, if my business needs to be outsourced I've gotten too big and I'll scale it back, so I feel like at the moment I am as big as what I can be, I'm as busy as what I can be, I don't want to get any busier; it means too many compromises. (Female, glass jewellery, established maker, May 2016)

Although not a major theme in the interviews, the concern about 'getting too big' recurred often enough to be worthy of comment. Indeed, it will return in further interview excerpts in this chapter and is connected with another of the key findings from the study, namely, that the majority of craftspeople and designer makers we spoke with are reluctant entrepreneurs. Indeed, most eschewed any identification with entrepreneurialism at all (Luckman 2018).

For those engaging in the practice, one approach to mitigating concerns over outsourcing too much of the making work and thus losing quality control and one's own involvement in making, or of having a product perceived as 'too far' from 'genuinely' handmade, was to outsource minimally while retaining control of hand assembling and finishing. By 'minimal' outsourcing, we are referring to strategies of keeping in

contact with the process of making while limiting outsourcing to those aspects of the production least connected to creativity and more easily replicated *en masse*. Frequently, an important part of this process was to collaborate with local fabricators, often themselves self-employed or working in a small business, people with whom it was possible to have a direct relationship and talk to face-to-face, jointly encouraging and supporting each other as part of a complex, interconnected and enabling local making ecosystem:

And that's part of the reason why I'm really passionate about keeping as much stuff onshore, as possible, because it means you can have meetings either face-to-face or over the phone, have a real sort of dialogue with someone who's making it with you or for you, or whatever, and really sort of hone that manufacturing process and have a real dialogue, as opposed to, like, sending a CAD [computer aided design] file overseas to a factory that might not necessarily be all that worker-friendly or environmentally friendly. (Male, furniture and lighting designer maker, established maker, February 2016).

I make most of my stuff myself—yeah, people pigeonhole you a bit, which I don't like. [...] I've got lots of connections in Adelaide, well-used sometimes. A lot of them we just develop when we're an associate at the JamFactory [and so] fabrication, CNC and stuff like that, I outsource. [...] It is really important to have contacts, industry contacts, and to build up relationships with them as well. (Liam Mugavin, furniture maker and designer, emerging maker, September 2015)

This approach was particularly common among those working with smaller wooden items. The introduction of computer numerically controlled (CNC) cutting tools is particularly notable here for both outsourced production and in-house technological upskilling. Additionally, when working with materials with which they were not familiar, some makers commented upon the value of outsourcing as a way to access additional expertise and new ideas:

All the wood, all the timber side of it, I prefer to do myself, just because I can do it to start with, and I guess I can maintain the quality and the level of the detail that I want. But things like metal work and any sort of synthetic products, textiles, those sort of things I'm not familiar with, I'd like to try my hand at them but if there's a piece that I want to put in the shop or to

go out to a client, then [I'm] more than happy to collaborate and outsource those sort of things because it's silly not utilise someone else's expertise. (Curious Tales, furniture maker, established maker, February 2016)

[I'm] pretty much just still a designer maker, predominately I do most of the design work, outsource some of the manufacturing procedures and then do the final assembly myself, so that's, yeah, pretty much how it's still going and anything new that I'm developing I'm sticking to that model. [... I outsource] laser cutting, sandblasting, powder coating, that sort of stuff. Mainly I just do the timber finishing, sanding and stuff and finish myself or pay someone to do it if the job's big enough. [...] CNC I've just used [since] uni, it's like a tool, like it's—out of all the tools in the workshop to me it's, you know, that's the one I'd use more than anything and so we were making tonnes of boxes and it was like okay, well I take two hours to make this box or I pay someone two hours to make this box, it gets cut out on the CNC in 10 minutes and then someone screws it together in you know, half an hour, so it was kind of like, okay, well, yep it was more an investment in how we could be doing things and I'm sort of looking how to use it to cut cardboard to develop other boxes and things like that. [To scale-up] eventually what I'd like to do is outsource more work on the CNC with me driving it, essentially. (Male, furniture designer and maker, emerging maker, March 2018)

Again, even with CNC cutting, to mitigate the potential quality control, cost and market-impact downsides of outsourcing, many makers preferred to outsource locally as a way of supporting and maintaining a local supply chain and skill base, even if it was more expensive than outsourcing to another city in Australia, let alone overseas:

Well, my lights that I've made are steel and ply[wood], and I've made one out of copper too. So it's just—and that was the good thing at the end of second year at uni—I sort of made stuff that was very heavily based on me physically doing everything, [but in] third year I concentrated on designing things that were component-based, so I get Tas-Fab, which is a metal fabrication [company in Launceston] to do the laser cutting of the metal components. [... So] the metal components then go to the powder coaters, which are a kilometre away. The people that make my ply are a company on the North Coast [... in] Somerset, called Specialty Veneers, and it goes to Hobart then to a company called Xanderware and then they do the laser cutting and basically it comes back to me and I do the sanding and finishing and stick it all together. [...] That's another important thing that I'm finding is, if you help supporting other businesses to help your business grow sort of thing, [...] that's another good thing about being in Tasmania. Fair

enough, we don't have 27 different people who do laser cutting we can go and ask, but you do actually develop a personal relationship with them and even if it's just on the phone, they know what you're doing and they know what you're about. I'll go and see the people from Tas-Fab and actually talk to them and yeah, I think it's definitely a good way to do things. Obviously it may be a little bit more expensive than you can probably do it in Melbourne or Sydney or something like that, but it's just what you've got to deal with here. (Male, furniture designer and maker, emerging maker, February 2016)

This approach ticks boxes in terms of being able to keep an eye on quality and workplace ethics—knowing and having faith in local labour laws. It also enables makers to be in close contact with fabricators, allowing them to innovate and work through problems together:

Outsourcing production but still keeping the bits that I like to do, so the hand-knitting—there would always be a component of a handmade something even if it meant my website was five jumpers that are machine made and then a one-off handmade piece. That would be ideal. [I'd still be looking to use Australian suppliers and labour...] it's really expensive and from what I've heard from other designers, manufacturing in Australia isn't always that ethical itself, but the places where I have gone to do my production I've met and I visited and I know [them]. (Female, textile design, emerging maker, March 2016)

I guess, that's where I do need some business management in that I don't really know how to take it to the next step. If I want to go—right, I need to grow this a bit bigger, to turn it into a business that is my super fund, without me having to work my fingers to the bone until I die—that's where I need some assistance, because I have this business model, that if I do get bigger, what I want to do is actually to outsource the sewing to other stay-at-home mums and keep it all in Australia. Every now and again, someone comes and says, "Oh, why don't you take it to Bali?" It's because that's not what I want to do with my stuff. I want it to be made in Australia. I want it to be limited edition runs, but if I take it to the next level, I guess the beauty of that for me is that I can spend more time designing and less time sewing. I work up prototypes of new products. I design, and then I outsource that—kind of, right, well, we're going to make 49 of these because I think once it hits 50 it's mass production. [...] I want to do the creative stuff. I don't want to be stuck in being a manager. I'm not an entrepreneur. It's not what I am. (Robyn 'Boo' McLean, custom textile design, homewares and accessories, established maker, July 2016)

A (very few) others still sought to go further afield and outsource production of their designs to factories in Bali or China in particular, but again they were at pains to explain the lengths to which they went to check on the production processes, especially the labour conditions, in any—even offshore—factories to whom they outsourced all or an aspect of production:

We have had them manufactured in two different places now. We started in Indonesia, had problems with consistency of quality [...] and ability to scale, so China was the answer to that and that's been good. So, a lot of the behind the scenes with that manufactur[ing] process in terms of having a process and in particular a quality control process [...] was kind of spelled out and documented last year as well, in addition to the packaging and stuff like that. [...] So, that process which was quite manual before and labour-intensive for me in particular has now been [...] outsourced, with due care to quality and process. (Male, leather accessories, emerging maker, March 2017)

This openness to offshore production, or at least to so proudly speak to it, was relatively rare in our study. We were far more likely to hear, 'Going offshore scares me', or 'I don't want to lose control of the quality of my products'. Such production models remain sectorally contested and controversial, even when designer makers insist upon quality production and site visits to check the conditions in which the workers are operating.

Interestingly, towards the end of the study, a new, key area of outsourcing to enable growth—paying other people to do the non-making tasks required of the creatively self-employed—really started to kick in as both realistic and having potential. Most examples concerned the marketing and retail side of operations:

Mostly help in the shop I think, [...] so that I can have a day off, you know? Get someone in to do retail, more retail, and they might do a bit of sanding or a little bit of that at the same time, but yeah, nothing too difficult. (Naomi Schwartz, jeweller, established maker, August 2017)

Notably, social media was starting to be also situated in these necessary business terms, rather than just as a personal or individual networking activity:

Ideally it would be great to hire someone to do the admin or the networking side of things or whatever, but that's not realistic at the moment. I am sort of thinking two-year plan and then reassess. (Emma Young, glass artist, emerging maker, March 2018)

My sales through Instagram grow definitely if I post something somebody probably wants to buy it, which is awesome. But that is really time-consuming and a bit dull, I don't mind a little bit of social media but I'm not in for just sitting on my phone for hours and hours and hours. [...] I would happily outsource social media if it got to a point where that was worthwhile, I would definitely outsource my accounting because that is totally not my niche at all, and it just is hard work. (Established maker, jewellery, July 2017)

Makers have long used business support services such as accountancy, business planning, photography and website development. Our interviews revealed that, increasingly, marketing and social media promotion, as well as paying retail brokers to get products into independent stores, are also being seen by makers as desirable means by which to keep doing the making that they love, while also allowing business to expand.

DIGITAL MAKING FUTURES FOR SMALL-SCALE PRODUCTION

The timing of the study meant that we could explore the emerging use of newer digital technologies, such as CNC cutting or milling as we saw above, but also additive manufacturing (AM or 3D printing), which offer new modes of production and even business growth (Figs. 5.1, 5.2 and 5.3). Whereas outsourcing CNC cutting or milling is a more established process and thus an increasingly normalised part of many makers' supply chains, AM is a newer technology, not yet established. Thus, although we sought out makers employing AM to be part of the study, very few were visibly doing so (mostly jewellers) and there seemed to be a reluctance to talk about their business. Again, this may partly be due to concerns about how the market will respond to products produced in this way. Thus, in this newer, broadened-out mass market for the craft and the handmade, we need to challenge David Pye's (1995, 20) pronouncement that 'Nobody [...] is prepared to say where craftsmanship ends and ordinary manufacture begins.' Certainly, in this day and age, whether or not they are able to articulate where the line should be drawn, romantic visions of handworking persist at the expense of much common sense machine intervention, even if modern and digital mechanisms are far removed from the 'dark satanic mills' of the Industrial Revolution. In her ethnography of North American lutherie (guitar making), anthropologist Kathryn Dudley (2014) explores the use of CNC routing alongside other automated

Figs. 5.1–5.3 Future Shelter in Perth (<https://futureshelter.com/>) uses a range of both digital and more traditional tools to produce a wide range of homewares and accessories. (Photographs: Rosina Possingham Photography)

processes through the lens of perceived authenticity and the degree of 'acceptable' automation in handmaking practices. Though she observes the presence of some purists among both makers and consumers, her research also valuably points to the level of integration of both digital and handmaking, even within large commercial workshops such as the Martin factory. This said, she observes that management is much keener for visitors to see the hand assembling area than the automated areas where the wood is cut (97).

The most enthusiastic comments we encountered around the making potential of 3D printing concerned its capacity to make parts to repair traditional making tools. Our most cherished example of this came in an interview with the women at the Handweavers and Spinners Guild of Victoria. To organise the interview, they had been responding to an email on the one internet-connected terminal they had in their back office. The interview took place in this space, at the rear of their street-facing shop-front and meeting space in Brunswick in inner city Melbourne. The facility was full of the beautiful work of members, much of it for sale, and there were some more precious or specialist pieces on display (including the shawl so fine it could be pulled through a woman's wedding band). While resolutely 'old school' in their own making practices, they were well abreast of the growing significance among fibre workers of AM as a means of replicating missing or broken parts of older technologies to keep them going, in this case, spinning wheels. A member's husband had previously undertaken this repair for them using his woodturning skills, but was no longer able to do so:

Speaker 1: Well people are doing that [3D-printing bobbins] actually. On one of the Ravelry groups, it may have been Majacraft, which is a wheel manufacturer in New Zealand, it may have been theirs, but one girl was talking about using a 3D printer to make bobbins, and then some chappie who was the brother of some other member got involved and he had one and he made one that you can actually pull apart, and so you could post it, so, yeah, so they've actually been making bobbins.

Speaker 2: Yes, because there really aren't that many manufacturers of wheels and looms anymore, whereas like in Victoria there used to be, 30 years ago, 40 years ago, there were probably half a dozen people making spinning wheels, and now there

is nobody. And most of it comes from New Zealand, Ashford and Majacraft. [...] You just can't get spare parts for these, unless you know a woodturner or somebody who is handy with things, to get things repaired is difficult. That's why most people today go and buy just—it's all too hard, they go and buy a new wheel—yeah, particularly spinning wheels you cannot get spare parts for them. (Victorian Handweavers and Spinners, June 2015)

Much of the emphasis around showing off AM has been on the new, including through demonstration making of far more random useful plastic objects than the world will ever need; however, the repair functionality of AM in a low-carbon future remains an under-explored area. Rather than saturate the world with more 'stuff', AM has the capacity to work alongside skills such as knife sharpening, shoe repair and more readily identifiable craft skills, with a focus on keeping quality items functional. (The issue of craft practice and environmental impacts will be explored in detail in Chap. 7.)

This study revealed other valuable support roles played by digital tools, including their value in making the bespoke tools and forms used to make custom products, especially items such as moulds, jigs and templates. CNC technology is now widely used to produce easily replicable design items across a number of materials; wooden and Perspex jewellery, for example, are now a ubiquitous part of the retail designer maker landscape. More recently, it is being employed in the fashion industry as a tool for working with fabric. The use of AM in designer making is not yet as extensive as the more established CNC cutting, which is reported to be the most regularly used process in fab labs. However, this level of take-up of the 'low-hanging fruit of the new' also presents its own risks around market saturation:

We've definitely seen the laser cutting come through to a saturation point [...] of a certain style, too much of it. I see less of it now [...] the laser cut wooden brooches and things that were easily done but, well maybe people are being more creative with that technology turning [cut wood] into lights. 3D printing, haven't seen a huge amount. There's a little bit of jewellery that has come through on 3D printing. (Jane Barwick, Bowerbird Design Market, June 2015)

Unlike AM, individual makers have increasingly invested in laser CNC cutters. As the technology has become increasingly pervasive, smaller-scale and user-friendly, they were able to see the benefits of bringing this aspect of their making process in-house:

So with my laser cutter now being in-house, it means that my turnaround time for designs is going to be quite quick. So previously I'd make a design, or sketch a design, draw it on a computer, send it to my laser cutters, they'll send it back within three weeks. And then I may find that, oh I don't quite like that design, or it needs tweaking, so I redo it and that process can take up to three months. Now that it's all in-house, I suspect it's going to be a lot easier and the momentum will be there and the passion to create more designs will be consistent, [...] rather than being dragged out, painfully over three months or two months. So it's going to be now about scheduling time in my diary to do that and one of the things I'm doing over the next two weeks, is actually creating a 12-month plan for next year and what am I going to be doing every week, what am I going to be doing in January, February, March. And they're one of the things that I'm going to schedule out blocks of time to experiment with new designs and, and whether or not I add to the designs that I have, like I have the abstract collection, will I add, just add more abstract and more animals or will I do a whole new collection that's completely different to what I have at the moment? (Female, lasercut jewellery, established maker, November 2016)

This maker had no formal training but looked online (to YouTube videos in particular) to teach herself how to use her new cutting tool.

A number of makers we spoke to stood out as pioneers of new models of making, organised around taking advantage of the affordances of digital tools:

So we bought some textile printing gear and the laser cutter [...] we're on our third machine now, so we basically just roll it over, upgrade it, upgrade it, roll it over, upgrade it. [...] we bought a 3D printer at the end of last year, and at the moment, it's been making stuff for the workshop and I've been essentially playing with it. [...] For me as an engineer I am blown away by that, I'm like, it's not going to go into production tomorrow, but to be able to draw stuff and then just print it out, is a big [thing], in all of our making and so we've, the last thing we did was we 3D printed some moulds, which I think is really interesting, and so our whole workflow is actually digital. (Male, homewares, established maker, August 2018)

Importantly too, new designer maker business models are steadily becoming established around the AM-enabled possibilities of on-demand production, which ‘replace supply chains with demand chains’ (Pine and Gilmore 2011). One of the early pioneers was Shapeways, which is now just one of many online platform providers of 3D printing services. But even here, where makers have the potential to outsource production for a global market, there remains a frequent emphasis on hand finishing ‘raw’ subcontracted components in the context of digital outsourcing:

I make jewellery. So at the moment I’m mostly working on 3D printed jewellery [bangles, rings, necklaces, brooches]. They are 3D printed [by someone else] but I still do a lot of handwork [...]. So what I do is basically I design everything and then I get it printed from someone else, and when it comes out of the printer it’s rough and white so I dye them and I finish them all by hand so they are still unique just to keep them still particular because people associate 3D printing with mass production, which is actually not very true. (Valeria D’Annibale, jeweller, emerging maker, March 2016)

When working from such a model, not only is the market potentially global, but the business can be more mobile than is the case for most makers who remain variously tied to their making spaces:

[I use a] few different ones: Impress, in Holland. Materialise, which is in Belgium, and these are for nylon. For the metal pieces, [...] I 3D print the wax [mould] and I custom in silver. So for this, I can actually find a local business to do it for me. That was the same in Sydney. So in Sydney as well, I used local businesses to do my metal work, and same in Rome, I can find someone that can print wax and cast, but not nylon for some reason. [...] The need to be mobile,] yeah, that’s why I base my business right now in this way, with the 3D printing and the designing, mostly better than actually making, I mean most of the time on my business is designing rather than making, because it’s not home-made. So it’s a little bit different, but that was my point right now. (Valeria D’Annibale, jeweller, emerging maker, October 2017)

Here, we note an issue that will be discussed in depth in Chap. 6—the ongoing strength of face-to-face buying behaviours, in part because it allows the buyer to literally get a *feel* for the product. Introducing new processes and materials into the world of online retail can be a hard sell:

I tried to sell online but that's not really a channel that works for me. [...] I really, I always thought that because I work mostly with, like 3D printing but 3D printing in nylon, I believe that it's something that is a little bit different [for] most people. [...] So I just always thought that probably online sales don't really work for me because the material is so different that it's not easy for people to imagine what it is, by seeing a photo or reading a description online. [...] What I sell online is mostly to people that found me at the markets, [...] they get something, they like it, they go back home and then buy online. (Valeria D'Annibale, jeweller, emerging maker, October 2017)

Participants in our study frequently knew of the emerging digital tools, and many had even had the opportunity to experiment with them, often at university or school. Overall, however, despite there being examples of making innovation, this experience had not led them to feel that the technologies yet had anything superior or additional to offer to their existing practices:

[I explored Benson 2020, a 3D printer to make moulds for slip casting, but] I just felt that at the time it would take too much effort away from what I'm doing at the moment. So, although I'm interested it just seems a bit too much hard work at the moment. [...] Yeah, you have to get the right tools and then develop it all. So, and then yeah I'm not sure people will buy it either. (Female, ceramics, established maker, November 2016)

I've used 3D printing to go with my ceramics, [but] I wouldn't think about replacing a piece with a 3D printing piece. [...] Shapeways actually offers ceramic 3D printing, so you could print your porcelain pieces, so everything I've seen made that way is pretty [...] there's nothing, I've not thought anything has benefited from that process. (Vanessa Holle, ceramicist and designer maker, established maker, August 2016)

In his iconic 1968 book on craft and making, *The Nature and Art of Workmanship*, leading British architect, industrial designer and craftsman David Pye (1995) famously proffers two key typologies of making: 'the workmanship of certainty' and 'the workmanship of risk'. The latter is associated mostly with skilled craft practice, where 'the quality of the result is continually at risk during the process of making' (20), being not predetermined but rather 'depend[ent] upon the judgment, dexterity, and care' of the maker (20). By contrast:

The workmanship of certainty [...] always to be found in quantity production, and [...] found in its pure state in full automation. In workmanship of this sort the quality of the result is exactly predetermined before a single saleable thing is made. (20)

Once set in motion, he acknowledges the workmanship of certainty may look easy, but this ease is a realisation of significant skills and risky workmanship (i.e. it can represent the height of skill, not its absence). He posits this framework as a far more useful way to approach the issue of the workmanship underpinning making, rather than the persistent but unproductive division between ‘handmade’ and ‘machine made’. Indeed, the dichotomy is ontologically unstable. Just as hand assembly by people employing iterative judgement is an essential part of most highly mechanised production chains (e.g. the car assembly line—still), so too are tools and machines central to ‘handmade’ practice (e.g. the saw, pottery wheel, lathe and furnace). In this richer understanding of the human–tool–machine relationship, we can see echoes of Donna Haraway’s (1985) figure of the cyborg and its embrace of both the fetishised high tech *and* taken-for-granted low tech and thus frequently invisible tools, and of how new tools become visible and a source of concern at the expense of the relative invisibility of ‘older dependable artifacts’ (Wajcman 2015, 3).

That aside, in a marketplace clearly valued by consumers and experiencing growth as a direct result of an especially middle-class consumer fight-back around the ubiquity of ‘made in China’ objects, we found a powerful emphasis on the ongoing value of the ‘workmanship of risk’ in the contemporary craft economy. Through a focus on handmaking processes, claims can be made as to the uniqueness of each individual object:

I think that people just appreciate that it’s not mass produced and that they’re getting something that [...] they can see that] each piece is individual and it does have its own little anomalies going on, it’s not like the one next door to it or the one next door to that. It’s not that you’re whipping out a replacement as soon as you’ve sold that piece, [like] you’re ripping out an exact replica replacement for it and popping that on your jewellery store stand—it’s like it’s, once that piece is gone it’s gone. [...] you know, you can’t say ‘oh, that’s a one of a kind’ if you’re mass producing. (Kate Hunter Designs, jewellery, established maker, November 2015)

Today, some craftspeople and designer makers are embracing the possibilities of technology to address two of the major challenges facing

craft- and design-based small and medium enterprises. Namely how to affordably prototype and innovate when the risks of 'blue sky' experimentation are high, and how to scale up a cost-effective, reproducible/customisable production line. The issue of scale—moving from a low-turnover, part-time and/or unsustainably low-income practice to an economically as well as personally sustainable one—has long been a key challenge for craft makers. Many are reluctant entrepreneurs and even more reluctant potential employers, often pursuing this kind of work as a perceived antidote to speeded-up lives and who thus regularly spoke to us of not wanting their business to not get 'too big'. It is into this space that iteratively programmable digital tools such as CNC routers and AM are slowly gaining some traction as enablers of new modes of localised, small-scale manufacturing. But all this gives rise to new takes on age-old questions around the nature of the handmade and the point at which an item ceases to be considered handmade in the eyes of both producers and consumers.

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