

Developing craft practice within and between workshops: an inter-generational comparative study

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Abstract

Note: this is a joint submission. This paper examines how designer-makers are helping to develop the next generation, through apprenticeships, shorter internships and other forms of engagement. It is based on a collaborative project, involving an established designer-craftsman and an academic researcher and educator with interests in craft businesses, environmentally sustainable innovation and entrepreneurship. The project comprises an empirical study that compares and contrasts practice and experience in two domains of craft production, ceramics and furniture-making, while also making reference to other areas, such as printing and musical instrument-making. In doing so, we seek to respond to the conference theme of studios and workshops as learning environments and/or modes of learning that encourage independence, personal responsibility and agency. Our study is based on semi-structured interviews with practitioners who span several generations across each domain. These include: Alan Caiger-Smith, who co-founded The Aldermaston Pottery in 1955, and the furniture-maker Philip Koomen, who set up his first workshop in 1975, along with apprentices and interns who have gone on to establish their own businesses, and representatives of organisations who have facilitated these exchanges. The interview evidence is supplemented and contextualised using related documentary and historical sources. We consider the antecedents of English craft furniture-making, tracing the inter-generational influence of Edward Barnsley's Froxfield workshops through the accounts of leading makers such as Alan Peters and Roger Holmes, and relating them to the experiences of our interviewees. Taking a similar genealogical approach, we draw parallels with contemporary developments in studio ceramics, including the role played by Bernard Leach, Hamada Shoji and the designer-makers that they inspired. The argument is framed by a literature review that addresses the nature of workmanship, learning and innovation in craft-based organisations. The project explores an observed pattern of informal apprenticeships and subsequent start-ups, and considers the factors that have encouraged the proliferation of 'next generation' craft enterprises. In addition to contributing to our understanding of this phenomenon, we draw out the implications for policy and practice. The broader aim is to consider how these models might be promoted and/or adapted in order to support emerging visions of the innovative designer-maker enterprise in a 'post growth' society (e.g. by examining how sustainable forestry principles have been incorporated into furniture-making practice). By comparing practice in different sectors, we hope to address potential constraints and limitations as well as providing insights that may be applicable to related fields, such as values-based social enterprises.

Introduction

This article forms part of a larger study examining how contemporary designer-makers are helping to develop the next generation, through apprenticeships, shorter internships and other forms of engagement. It is a collaborative project, involving an established furniture designer-craftsman and an academic researcher and educator with interests in craft business organisation, environmentally sustainable innovation and entrepreneurship.

Our article responds to the 2017 Making Futures conference theme: the role of studios and workshops as learning environments and/or modes of learning, which can encourage independence, personal responsibility and agency. It reports on an empirical study that compares and contrasts the experiences of practitioners who have been active over the last six decades. We focus on two domains of craft production, ceramics and furniture-making, but the analysis includes references to similar learning processes in other domains of craft practice. The article takes the form of parallel narratives, based on interviews with two practitioners who established their own workshops, along with two of their former apprentices.

Three related observations provide a starting point for our study. Firstly, from Edith Penrose's pioneering work on the growth of small firms, we recognise that the organisational growth process is closely related to the growth of knowledge within its boundaries (Penrose [1959] 2004, Clarke et al., 2014). Secondly, there is an increasing recognition that the skills and knowledge that underpin craft practice have distinctive characteristics (e.g. Pye 1968, Dormer 1994, Lehmann, 2012)ⁱ. Thirdly, that as a consequence there are likely to be significant differences in the ways that contemporary craft-based organisations develop, and in the mechanisms that enable craft practice to be transferred and translated across the generations, as compared to the processes found in other fields of activity.

In the findings section, we explore an observed pattern of informal apprenticeships and subsequent start-ups, paying particular attention to the processes that have enabled craft skills, knowledge and values to be reproduced and re-invented over time. Our primary aim is to shed light on what appears to be a distinctive growth dynamic, which has contributed to a proliferation of 'next' generation craft enterprises in recent years. In the concluding remarks we draw out some preliminary implications for policy and practice in this area.

Research methods

This collaborative study was conducted by a practitioner with more than 40 years of working experience as designer-maker, who has also conducted doctoral research into aspects of his working practice (Koomen, 2010), and an organisational researcher and educator who has examined growth and innovation processes in a variety of craft-based enterprises, ranging from artisanal cheese makers to small boat builders and musical instrument makers (e.g. Blundel and Tregear 2006, Blundel and Smith, 2013). We adopted a qualitative, interpretivist approach in order to explore the lived experience of designer-makers, with particular reference to work practices and learning processes. In addition to conducting extended semi-structured interviews with two individuals who founded their own workshops in second half of the last century, we also made contact with former apprentices and interns who have gone on to establish their own businesses. The interviews were transcribed and analysed by both researchers, who identified common themes. This primary research evidence is complemented with a wide range of documentary and historical sources, which have been used to corroborate and contextualise our findingsⁱⁱ.

Reinventing craft knowledge: an autodidactic journey

Alan Caiger-Smith and Philip Koomen began their individual craft enterprises, in pottery and furniture making two decades apart, establishing workshops in 1955 and 1975, respectively. Despite these differences, each has followed a remarkably similar path, with learning journeys that progressed from a largely self-taught (autodidactic) early phase to one in which learning became institutionalised in the workshops they created, and across a wider community of practitioners. In the opening paragraphs we outline some of the key themes that characterised their autodidactic phases and how these informed and shaped subsequent teaching styles and methodologies. We then consider the experiences of two former apprentices, Harriet Coleridge and Gordon Kent, who subsequently set up and run their own workshops. This section examines how the knowledge and skills of the ‘first generation’ practitioners were translated and incorporated into the practice of a subsequent generation.

We have structured these narratives around the popular notion that there are four stages in a craftsman’s journey, from apprentice through to journeyman, master and ultimately to storyteller / teacherⁱⁱⁱ. While Alan and Philip are both largely self-taught craftsmen, they both consider that their own journeys are marked by these four stages. In each case, the narratives traverse forty years of practice, from their early, earnest struggles to becoming established figures, mentoring future generations of aspiring crafts people.

Initial learning experiences of the ‘first generation’

Alan and Philip discovered craft in their early twenties. Both had already acquired a fascination with their chosen material (Alan – clay; Philip – wood) before they attended a formal college course (Alan – Central School of Arts & Crafts, London; Philip – High Wycombe College, Buckinghamshire). Alan’s interest in clay and pottery began in his teens, and when he made ‘naïve’ clay models of animals and people, which he sold to fellow students at Cambridge. Philip’s interest in furniture was ignited at his woodwork classes at secondary school and confirmed when he decided to become a self-employed carpenter before attending college. They were each seeking to learn as much as they could about their adopted craft. Alan was fortunate to be taught by the celebrated studio potter, Dora Billington (1890-1968), who was an expert in tin glaze, since this was a technique that Alan had been particularly keen to learn: ‘she was probably about the only teacher in England who would have promoted that sort of thing’. Philip enrolled on a furniture production and management course, which was the nearest he could find to what he wanted. However, the furniture course was more oriented to industrial production and did not provide the basic craft training he needed. In the event, he completed one year of a three-year course, describing the experience as, ‘humbling’ as he realised the limitations of his existing knowledge: ‘I had to unlearn a lot to be able to have humility and openness to learn about basics.’ Alan described this stage as, ‘classroom knowledge’, distinguishing it from the learning that was to take place later. However, this period was perhaps more significant for both practitioners as one of re-orientation to a new form of learning, recognising that craft skill is a hard-won form of what Philip described as, ‘conscious knowing through sustained doing’. While these college experiences introduced them to their respective craft domains, both Alan and Philip also displayed what might be termed an entrepreneurial, creative vision, which motivated them to set up their own workshops where they could apply themselves to developing their practice within the constraints of making an independent living – as Philip described it, ‘balancing learning with earning’. Both of them had a clear ethic, or belief, in the inherent value of the craft they wanted to master, and both saw their workshops as providing an economically sustainable way of creating beautiful but useful things. In each case, this decision to establish a workshop proved to be the basis for a lifetime of learning, which influenced the lives of the founders and many others.

The workshop: ‘a laboratory for learning through failure’

Alan and Philip’s first workshops became learning laboratories, as well as spaces to make a living. At this time,

observing and seeking to emulate the work of more experienced craftsmen played a fundamental role in the development of their own practice. For example, Alan describes how he learnt how to throw pots by watching the (industrial) Tilehurst Potters, observing their almost effortless actions and rhythm (Caiger-Smith, 1995: 13-14). By contrast, Philip began to learn his craft by restoring and copying antique furniture over a five year period, before focusing on the design and making of his own, one-off designs during the following four to five years. Both Alan and Philip referred to examples of learning through failure, now commonly recognised as an important form of learning in an entrepreneurial setting (e.g. Cope, 2011).

One of the distinctive characteristics of these craft-based workshops, highlighted by Alan and Philip, is their capacity to operate as a collaborative enterprise where knowledge is shared relatively freely, failures are reflected upon in a constructive way, and the particular talents and capacities of each member are encouraged and developed. Philip established his first workshop with a college friend and in that formative period they learnt from each other, discussing how something was going to be made, problem solving and celebrating each other's successes. Soon after Philip's partner left, he began to employ assistants; the second assistant, Steve Salt, who had just completed a BTEC qualification in furniture making at Rycotewood College, became his first apprentice. Philip recalled that they became an effective team: Steve developed into an exceptional craftsman who set the standard of craftsmanship for the workshop for subsequent trainees for nearly thirty years. Steve was a quiet and conscientious craftsman who taught by example.

Alan's first employee, Geoffrey Eastop (1921-2014), an accomplished potter who had worked previously at an established pottery, taught Alan, 'quite a lot about glazes and glaze and firing and the speed of firing and so on.' However, the learning was reciprocal as Alan was able to teach Geoffrey about using brushes and colour, having studied painting for one year at Camberwell School of Arts and Crafts. Other experienced artisan potters joined the workshop, including Alan's first apprentice, who was a recent school leaver. His workshop was also distinct in the way he selected trainees. While many workshops would only employ graduates from art colleges, Alan selected them intuitively on the basis of their enthusiasm and personality. He was always mindful that the different personalities would 'be happy together', and he chose people irrespective of their educational or social background. He also avoided the divisive tendency to have different categories of assistant, a practice employed by the celebrated potter, Bernard Leach (i.e. those needing a regular income and others with independent means), by ensuring that 'everyone who worked for me was paid.'

In both workshops there was no division of craft skill. Alan and Philip's own experience of learning through trial and error had spanned every aspect of the making process: they adopted a similar approach with their apprentices and trainees, encouraging them to learn every aspect of their craft. This contrasts with practice in traditional artisan workshops, where people often specialised in a particular aspect of their craft. One significant exception was the design work. Alan and Philip undertook all of the design work in their workshops, including their signature ranges and one-off commissions. However, the two designers entrusted the interpretation of their designs to the individual makers, work – recognising that they had the necessary aesthetic sensibility to produce good work. Alan allowed the potters to sign their work, which gave them individual recognition, while Philip preferred not to sign any work on the basis that each project or commission represented the collective effort of the workshop.

Both workshops were characterised by an active learning environment. People articulated their problems and shared their knowledge with one another, processes that affirmed tacit understanding as conscious knowing. For example, as Alan noted, 'they gained as much as they wanted because if you're doing that sort of thing ... a certain amount of technical talk will come up in a coffee break.' This kind of learning experience cannot be provided by formal courses in an educational institution; as Alan pointed out, 'this is a completely different way of learning.' In expanding on this point, he highlights the distinctive culture of this type of workshop, in its fine, yet dynamic balance between individual and collective contributions:

'The indefinable corporate spirit changes every time a new person arrives. A collaborative workshop and its repertoire of ideas changes gradually and continuously from year to year. Certain projects, like the big lustre pots, are only possible for a particular group of people. With less than seven people, that project could never have been considered. It proved how valuable a close, self-reliant group of makers can be and we ourselves were all astonished to discover what could be done.' (Caiger-Smith, 1995: 11)

Other sources of learning and creativity

The open flow of knowledge extended beyond the boundaries of each organisation, through engagement with members of the public, fellow craftspeople, and through commissions. For example, members of the Aldermaston Pottery were encouraged to discuss their work with their visitors, something that was facilitated by its location in a busy and easily-accessible town centre – Alan recalled that these open exchanges generated, 'an enormous number of really interesting ideas.' While Philip's workshop was sited in a more remote rural area, he has participated regularly in 'Oxfordshire Artweeks', an annual open studio event. This has created many opportunities for members of the public to learn about the craft of furniture making without feeling obligated to buy anything. The resulting discussions, and other feedback from visitors, has continued to inform the practice of Philip and other members of his team.

Learning has also taken place between different workshops. For example, in the mid-1990s Philip worked with Lucinda Leech, an Oxford-based furniture maker, to found a peer community for furniture makers, where they could share problems, get advice and explore mutually beneficial initiatives such as joint exhibitions or collaborations to address technical issues. The original face-to-face meetings were superseded by an on-line forum, which was set up early in the new millennium, and membership has now exceeded 300. Furniture exhibitions have also created shared spaces where furniture makers can showcase their latest work and meet in person to discuss mutual interests. The development of computer numerical control (CNC) manufacturing technologies for use in woodworking has also prompted an increase in the level of collaboration; a result of the high cost of investment in such technology as well as its potential to increase productive capacity. For example, following an organised visit to another business, Waywood Furniture, to see their new CNC machine, Philip collaborated with them on a new commission for Oxford University's Blavatnik School of Government.

Both Alan and Philip identified specific prompts for new phases of creative innovation. For example, in the 1970s Alan was invited to participate in ceramic exhibitions, which created new opportunities to develop his work beyond the purely functional. According to Alan, 'the exhibitions widened the field' in this respect. However, while developing this interest he continued to emphasise the inherent qualities of 'pottery for use' in comparison to the 'almost exclusively visual' interest in non-functional ceramics, and held to the view of a productive, reciprocal relationship between art and craft:

'Most vessels are to some extent sculptural, and functional pottery is continually enriched by ideas and experimentation from non-functional ceramics.' (Caiger-Smith, 1995: 132)

Philip began to extend his concept of furniture through a series of experimental designs that explored the relationship between furniture and sculpture, notably the Pondlife bench (1998), which also used locally sourced timber (Figure 1). This approach was further developed in 2013 when Philip began to develop a creative methodology, 'Ideas in the Making', supported by Arts Council funding. This project, which explored and questioned the relationship between art, craft and design, has now become the focus of his creative work. Reflecting on this development Philip commented that, 'I think the seed of this idea was sown when I visited Boston Museum of Art, and through my study of the Baha'i teachings on the meditative nature of the creative process'.



Figure 1: Pondlife bench by Philip Koomen (© Philip Koomen Furniture)

It is also worth noting that commissions have been the catalyst for some of Alan and Philip's most significant work. The commission for a newly built Roman Catholic parish church of a series of dishes entitled, 'The Stations of the Cross' was particularly significant for Alan, both creatively and spiritually (Figure 2). He saw it as a creative innovation in the sense of, 'being asked to add something to a centuries' old tradition of religious iconography.' On a spiritual level, he was required to contemplate the significance of the Easter story in order to prepare suitable design drawings, 'I had to get inside... had to be living inside what was described in the narrative, as far as I could'. The project took about a year, during which people from the parish visited his workshop to see work in progress, a response that was itself a source of inspiration (Caiger-Smith, 1995: 107). Philip also highlighted a church-related commission, for new choir stalls at Dorchester Abbey, as being the most significant and complex project he had undertaken, as well as the most creatively and spiritually rewarding. In particular, he regarded the consultative process with the clients, which guided the design process, as his most innovative to date, and the project as representing a pinnacle of collective achievement for the workshop.



Figure 2: *Stations of the Cross* by Alan Caiger-Smith

The 'journeyman' stage: creating a cycle of transformation

During the interviews, Alan and Philip reflected on how, once they had become competent in their basic craft skills, their learning broadened as they sought a more holistic understanding of the creative process in their particular field. This next stage could be equated with the traditional 'journeyman' stage, though the nature of the learning differs in many ways from that of the journeyman in a traditional craft setting. In Alan's case, this stage was marked by his decision to build a wood-fired kiln, which he later justified in the following terms: 'So far as I can estimate the costs, it compares favourably with electricity, for which the local cables would be inadequate anyway, and breaks about even with gas, even allowing for the cost of our time [i.e. collecting and cutting willow]. But it produces better results than either and it also has a positive effect on everyone's morale. Everyone has something in each wood-firing and everyone takes their turn in fuelling it, and this is a cohesive, unifying factor for each member of the workshop, very different from turning on switches or adjusting gas pressure.' (Caiger-Smith, 1995: 24)

He became an authority on the history of tin glazes (Caiger-Smith 1973) and also began to research what constituted a good blend of clay, a learning journey that began with testing clays from different UK regions which was followed with a research trip to various potteries in Spain, followed by chemical analysis of the clay constituents by research institutions, including the British Museum Research Laboratory.

Philip began to investigate the grading system of American hardwoods, which led to a series of projects with AHEC (American Hardwood Export Council). These collaborations illuminated his understanding of temperate forestry. This, in turn, brought his attention to the ecological and economic crisis of British forestry and the Chilterns region in particular where his workshop is located. This led him to complete a practice-based PhD over a period of six years, during which investigated the potential of timber from local woodlands and the creation of a local cycle, sourcing local timbers, drying them at this workshop and using them to design and make furniture (Koomen, 2006).

Becoming 'master craftsmen'

The development of their craft was also directly linked to making a living. Balancing the creative and the financial is always challenging for a craft enterprise. Craft enterprises are driven by human values rather than maximisation of profits. Alan and Philip faced the same challenge of creating a sustainable craft enterprise. In the early 1970s, faced with the distinct possibility of closure, a recently retired corporate business consultant volunteered to review Alan's business model and offer recommendations. As he struggled to provide information requested by the consultant Alan realised he was very ignorant about many aspects of his business. The lengthy report recommended significant change including increase in prices but perhaps more significantly a substantial reduction in the product range, from over 100 to 40 items, and a reduction in the number of experienced potters. The study showed the productivity to the business of an apprentice was around 10% of an experienced potter. Alan gradually increased the number of experienced potters and reduced the number of apprentices; he also reduced his product range and increased prices. However, he maintained a core team of eight potters as he had discovered through trial and error this was the optimum number to maintain everyone's wellbeing. He discovered his intuitive conviction that there was an optimum size to a craft enterprise, which was validated by the economist Ernst Schumacher's popular book, *Small is Beautiful: A Study of Economics as if People Mattered* (Schumacher, 1973):

'It was a profound reassurance to read that book. Schumacher showed that for every kind of activity there is an ideal size and number. Some things, he said, can only be done on a small scale, and in some areas of work enthusiasm, trust, experience and the qualities of individuals are more important than technology and expansion.' (Caiger-Smith, 1995: 43)

In the mid 1990s Philip was also faced with the problem of viability. Commissions were taking much longer than estimated for and costs were not covered. Philip, following consultation with his team, introduced a project bonus system to compensate a reduced basic wage but reward increased productivity when commissions were completed on time. Within eighteen months everyone's earnings increased following greater productive efficiency. In 2000 Philip introduced profit sharing in addition to the bonuses and, by 2007, a Limited Liability Partnership (LLP) was formed giving every member of the team equity in the business. When they reflected on this period, both Philip and Alan indicated that it had taken about twenty years to develop a craft-based business model that was both creatively and economically sustainable, and so to complete their journey from apprentice to master craftsman.

In May 1993, Alan decided that it was necessary to close Aldermaston Pottery, mainly as a consequence of the economic recession. However, over a period of 38 years since setting up his workshop, Alan had helped to train some 80 potters, of whom 36 went on to establish their own workshops. Shortly after the closure, Alan commented that, 'rather than try to hold on, losing momentum as the years went by, it was better to finish in style, to hold a big exhibition, to arrange some ceremony and a party of celebration (Caiger-Smith, 1995: 209-10). His philosophical perspective is underlined by the following reflection:

'The workshop could not have continued in the same form forever and ever. People and places, motives and ideals, flourish for a while and gradually change. A similar enterprise starting today would develop differently and would take into account a very different economic environment.' (Ibid.: 209)

Philip continues to work from Wheelers Barn in South Oxfordshire along with a part-time assistant, Dan Harrison. In August 2017, the last of his apprentices moved on, after a period of 12 years with the workshop, to take on a supervisory role at the Rycotewood Centre. In total, Philip has trained about 20 craftspeople, including interns and trainees; nine of these have since set up their own workshops. We now turn our attention to their stories.

The apprentices' experiences – the 'second generation'

Harriet Coleridge began her apprenticeship with Alan Caiger-Smith at Aldermaston in her early twenties; she was a PhD student without any arts or craft education and with no practical experience, and the training lasted for around four years. Gordon Kent, in contrast, had his first work experience at Philip Koomen's workshop at fifteen years of age. Gordon already knew that he wanted to be a furniture designer-maker. He subsequently combined six years of vocational and design education in furniture making and design (BTEC and BA Honours) with periods at Philip's workshop. He describes his initial experience as a schoolboy as mainly observation combined with basic tasks: reflecting back he commented that, 'I was just sanding and lifting'. However, Gordon also described how this early workshop experience enabled him to see the whole process of making furniture from selecting wood to seeing the finished piece. Harriet was attracted to the idea of working in Alan's pottery despite her lack of experience. She found the initial stage of learning very challenging, including the core requirement of being able to centre a pot, and in hindsight thought it surprising that Alan was willing to take a completely untutored trainee. However, it was how he had learnt his craft and the approach became the 'template' for his teaching style. Harriet reflected that she persevered because she enjoyed the workshop atmosphere, and because Alan trained her in all aspects of pottery.

In this section, we review a few indicative examples of the learning experiences that Harriet and Gordon recalled during the interviews^{iv}.

'Apprenticeship' - learning about quality and the work ethic

Gordon described how his practice has developed by combining craft skills with a refined sense of proportion, in order to produce furniture that is both functional and aesthetically appealing. He felt that both the skills and the sensibility require refinement through continuous practice: 'Just doing it again, and again, and again, and again, is the greatest skill you need – and I think that's the key to it – a thing of beauty.' Gordon also referred to the ability to remember ideas, processes and techniques, which he characterised as, 'a doing and a seeing memory' as a key to his learning. He felt that, while his abilities in this area were limited to his own workshop, it was valuable precisely because it enabled him to recall anything he had practised over many years.

Harriet had also learnt how to recognise quality. She noted that it was, 'no good cutting a corner or thinking if I skip this bit, or don't do it very well at all, I'll make it right, patch it up later – or somebody else will.' She said that the apprenticeship at Aldermaston Pottery taught her how to observe. At the beginning of her training she couldn't see the differences in pots, 'they all looked exactly the same to me', but in during the apprenticeship, 'you learn to look when you're making.' She contrasted this experience with, 'Learning independently, where you might think "oh that's good enough". You learn to evaluate quality.' In addition, the apprenticeship helped develop a fine-tuning of aesthetic sensibilities through feedback from others, and by looking at other potters' work. In her words, 'Your eyes tune in; your brain tunes in to the rhythm of the sentiments; your eyes tune in.'

Both Gordon and Harriet commented that workshop-based training was very different from that provided at art college. While the latter encourages self-expression from the outset, in an apprenticeship you can, 'express yourself later on', once you have learnt the relevant skills and techniques. In addition to teaching her how to make pots, Harriet emphasised that the apprenticeship taught her a strong work ethic, which she described as, 'the discipline of just pitching up.' Gordon felt that was able to develop a good work ethic while at college and University because he was also able to help out at Philip Koomen's workshop during the holidays. He reflected that this ongoing exposure to the workshop environment 'was absolutely vital' to his development as an independent practitioner: 'That keeps the reality of things [...] because college life and work is totally different from real work.' Harriet also highlighted the way the Aldermaston Pottery offered a rounded training:

'[Alan] had us doing different things which again was completely contrary to the business model. But he always said, if you're going to maintain your enthusiasm, retain your enthusiasm, you know, you should see the pot through from beginning to end.'

After graduating with a design degree, Gordon continued to work for Philip, on a full- or part-time basis, for about ten years. Initially, this involved making Philip's designs, but as he gained in experience Gordon was able to develop his own design skills by assisting Philip on new projects. Gordon commented on the importance of these interactions for his personal development: 'We always discussed everything a lot [...] there was always bits of design influence to go into projects.'

Contrasting 'journeyman' experiences

Both Harriet and Gordon had no experience working at other workshops before they set up their own businesses. In contrast to the 'first generation', they had spent several years in a workshop environment, but despite this both commented on the value of gaining additional experience before attempting to establish a workshop of your own. For example, Gordon recognised that he had gained valuable interpersonal skills through seemingly unrelated work experience as a ski host in France, which had given him the ability to talk to a wide variety of people. He described the ability to, 'listen, understand and communicate with your client really well,' as a fundamental requirement when he established his own workshop. His more recent experience of employing French journeymen ('compagnons')⁴ has also helped him appreciate the value of learning from other workshops:

'If I could change my career I would have worked in different workshops, just to see different things, different practices, different processes, different attitudes. I think it is the best possible way for your career.'

Having completed four years of training with Alan, Harriet left the Aldermaston Pottery in 1987 in order to set up her own studio, producing pots in the tin glaze earthenware tradition. She described the next three years as an extended period of learning, after which she felt, 'pretty competent'. This involved some collaboration with her husband, a fellow potter: 'He would throw things that were too difficult for me and then gradually I learnt and probably he would teach me.' Commissions were an important part of Harriet's learning experience. For example, the repetitive task of making identical salad bowls might require producing many extras in order to create a satisfactory matching set. Harriet also noted that the act of selling work was an essential part of the process:

'You still need to sell the pots, psychologically to progress and just to get rid of them. If you couldn't have been able to sell, it [making] would have ground to a halt.'

This journeyman stage continued when Harriet and her husband moved to the United States in 1994, where she shared a workshop with two other potters and a weaver, as well as meeting a variety of craftspeople. During her time with these potters, they built a wood and salt-fired kiln, which stimulated a new phase of learning, including new types of glaze and a renewed attention to the underlying form:

'So I started making stoneware. And that was really like starting again; having the throwing skills, but otherwise completely starting again.'

Harriet noted how her practice had benefited from interactions with the potters in the United States, who willingly shared their knowledge and published their recipes. She was able to test and develop them, which led to further innovations in her own work. On her return to the UK in 2001, Harriet established a new studio where she has continued to experiment with stoneware and shino glazes. This period was characterised by trial

and error but, in common with Alan Caiger-Smith, she recognised that mistakes were an important source of learning and innovation:

'In pottery generally you learn more from your mistakes. Without mistakes I think you don't – you certainly don't progress. You might go on churning out the same thing.'

Gordon set up his own workshop in 2002, in a large barn once used by the sculptor and war artist, Eric Kinnington (1888-1960). Gordon identified the three factors that encouraged product innovation in his workshop. Firstly, clients' briefs, secondly timber with unique qualities and thirdly production processes. In relation to the latter, new machinery and processes can inspire different ideas, 'we think very carefully about things and how we can use the machinery in different ways, often results in unusual products.' There were also interactions between these factors. For example, Gordon might be discussing the client brief with members of the team and then, 'looking at the machines in a different way to create some interesting forms.'

Becoming a master craftsman

Gordon shared the workshop with two other furniture makers, but as his workload increased he employed his first assistant. The business has since grown and he currently employs three assistants. He has also invested in new machinery. While he has been able to grow his business organically, he considers the initial capital investment requirement to start a workshop as a major barrier to aspiring furniture makers. Echoing the earlier comments of Alan Caiger-Smith, Gordon reflected that the most challenging aspect of his craft had been learning the business skills necessary to manage a growing workshop:

'You learnt to juggle two balls, then it becomes three and it's now about seven or eight.'

These, 'practical business things' included technical issues, such as understanding taxation and insurance requirements, and knowing how to make good decisions such as buying or leasing a van or getting an accountant. An ability to select new team members was also vitally important, as previously highlighted by the 'first generation'; Gordon was careful to select people who have the right qualities as well as the necessary skills. Although the business side was challenging, Gordon saw it as being, 'all part of the process'; from his perspective, 'it's all learning'.

Concluding discussion

This project has made two main contributions that we hope to develop in future work. Firstly, in relation to methods of inquiry, we found the collaborative ('practitioner / academic') to be an effective way to explore technical, embodied and values-based dimensions of craft practice, which might otherwise prove elusive. The relationship was mutually beneficial, with the practitioner (Philip) taking on dual roles, as a conventional research 'subject' and an equal partner in the tasks of evidence-collection, analysis and authoring. The role of the academic researcher (Richard) was complementary, his separation from the immediate domains of practice being used to challenge assumptions and compare other types of craft practice. Secondly, the wider project is generating new insights into the ways that craft skills, knowledge and values are being reproduced and re-invented (Ferris, 2016). This includes efforts to unpacking learning processes over time, connecting individual and social, and organisational contexts. We conclude the paper by outlining a number of practical implications. These include: identifying effective modes of learning for designer-makers; and ways in which the models described in this paper might be adapted and redeployed for other contexts, such as contemporary 'business incubators':

- **Intergenerational learning:** creating a resilient craft-based business enterprise requires an extensive skill set, with capabilities that range across design, making, marketing, managing, training and creative and business entrepreneurship. The narrative accounts of our first generation practitioners, who acquired their skills over extended periods (i.e. around two decades), suggest that there are few shortcuts; academic study cannot, in isolation, provide the necessary alternative in forming the rounded designer-craftsman. The accounts of our 'second generation' practitioners demonstrate that intergenerational workshop learning does have the potential to accelerate this kind of learning but further research is needed in order to examine the most effective learning strategies, and how these may be integrated with more formal programmes of study.
- **Integrating college and workshop training:** Our study suggests that formal (i.e. college-based) technical training courses can provide a sound introduction to craft technique, which can also prepare students for more extended, workshop-based apprenticeships of the kind described in the article. Degree programmes, including foundation and honours level courses, provide opportunities for students to develop valuable creative and design skills, as well as related studies such as design history and critical studies. However, it is important to ensure that academic study is combined with appropriate workshop experience. If this combination is lacking, students can become 'over-qualified' for apprenticeships and, as a consequence, lack the rounded skill-set that is required for their longer-term success as practitioners.
- **Shared workshops and incubators:** setting up a workshop can be prohibitively expensive, especially for capital-intensive crafts like furniture making. Though they are not covered directly in this article, shared workshops can offer a viable alternative, and may be particularly attractive to those who have already worked together, whether as part of their formal education or as fellow apprentices. Though relatively few in number, the craft incubator also has considerable potential as a way of adapting and extending the kinds of workshop-based apprenticeship that we have described. For example, the Sylva Foundation Wood Centre is an incubator initiative located in rural South Oxfordshire, in England. As part of a vision to integrate the previously disparate domains of 'forestry and wood culture', this charitable foundation has created a 750 square metre incubator to provide workshop facilities for designer-makers working in wood. The enterprise is now in its fourth year and has over 25 members including an independent sawmill, a shared machine shop and newly created community woodland. The initiative was a collaboration between Gabriel Hemery, a forest scientist and chief executive officer of the charity, and Philip Koomen acting as pro bono adviser to the project. Progress has been very encouraging: there is a growing sense of community with increasing levels of inter-workshop cooperation within the incubator. It is also developing links with a local educational institution (Rycotewood), which sponsors a one-year residency for appropriately qualified graduates, and there are plans to develop new courses on professional and entrepreneurial skills for designer-makers who are either planning to set up a workshop or have done so recently.

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ⁱ For example, Simon Brett's (1994) classic study of wood engraving is built around substantial sections entitled 'The Hand' and 'The Mind', and much of the recent literature is concerned with this elusive inter-relationship between different aspects of this 'embodied knowing' (e.g. Parolin and Matozzi, 2013).

ⁱⁱ Examples include Caruthers (1992) historical account of Edward Barnsleys' furniture making workshop, Cardozo Kindersley, Hoare and Sherwood's (2013) descriptions of the workshops established by the engravers David Kindersley and Lida Lopez Cardozo Kindersley, and Caiger-Smith's own (1995) reflections on his own experiences in creating the Aldermaston Pottery. Philip Koomen conducted the interviews with Alan Caiger-Smith and Harriet Coleridge, while Richard Blundel interviewed Philip Koomen and Gordon Kent. For an extended discussion of the use of historical approaches to examine craft practice and organisation, see Blundel (2018) and other contributions to the edited volume, Bell et al. (2018).

ⁱⁱⁱ While the traditional forms ('craftsman', 'journeyman', 'master') have been retained here, it is also important to acknowledge the gendered nature of this terminology and its role in a broader craft discourse (e.g. Hughes, 2012).

^{iv} This part of the project remains a work in progress, and will be the subject of subsequent research outputs that examine the nature of craft learning and practice in a contemporary workshop environment.

^v Gordon has not established formal apprenticeships. Instead he has had five French furniture makers ('*compagnons*') who are undergoing their journeyman training for five years before they can call themselves an '*ebeniste*' (cabinet maker). He offers student internships but few have been taken up. This may be due to the current high demand for cabinetmakers, which means that graduates have many options for paid work.