Craft Research: Joining Emotion and Knowledge

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Abstract

This paper considers how craft and research can join in the enterprise of craft research, reflected in the new journal of *Craft Research*. The rationale is that craft research – i.e. research into, for and through craft practice – is still relatively new, and that craft is traditionally associated with the creation of artefacts as a source of experience and emotion while research is devoted to the production of knowledge.

The paper sets out the context of craft as a discipline and activity, which is bound to the sensibilities of material and material understanding, making and haptic perception as well as to the production of emotional values. It introduces the need for creative research in the crafts, which contrasts with the current strictures of research, and proposes experiential knowledge as the unifying conceptual underpinning of both.

The outcome and contribution of the paper is a better understanding of the relationship between craft and research, which will help makers overcome the opposing perceptions of craft and research. It explains the potential and value of research for the development of craft, both as practice and as discipline, and thus for advancing craft as a discipline that is viable and relevant for the future.

Key words

Craft Research, Experience, Emotion, Knowledge

1. Introduction

This paper investigates how research and craft can join in the enterprise of *craft research* to advance craft as a discipline that makes a contribution to future living. The rationale for the paper is that craft research – that is research into, for and through craft practice – is still relatively new, and that craft is traditionally associated with the creation of artefacts as a source of experience and emotion while research is devoted to the production of knowledge [1]. The paper argues that the two sides are joined by the aspect of experiential knowledge.

The paper begins by setting out the context of craft as a discipline and activity, which is bound to the sensibilities of material and material understanding, of making and haptic perception as well as to the production of emotional values found in human relationships and personal identity. The paper introduces the emerging need for creative research in the crafts and contrasts it with the current strictures of research and thus exposes the tensions between traditional perceptions of craft and research. The paper further examines the underpinnings of craft and research. It proposes that experiential knowledge is inherent in both and therefore can help overcome the tensions in the different perceptions of craft and research. It can thus serve to integrate investigative practice and theory in order to harness the potential and rigour of research for the development of craft, both as practice and as discipline.

The outcome and contribution of the paper is a better understanding of the relationship of craft and research, and of the value of research for advancing craft as a discipline that is viable and relevant for the future. These understandings have led to, and guide the journal of *Craft Research*, which is being launched in parallel with this conference, and which seeks to advance craft as a practice and discipline.

2. Perceptions of Craft

This section discusses the perception of craft as a discipline and practice, which is distinct from art and design through its reliance on the sensibilities of material and material understanding, on making and haptic perception as well as through its reflection on, and production of emotional values found in human relationships.

2.1 Craft between Art and Design

The term 'Craft' seems to be one of the most debated terms in the art world, which is nearly always defined by what it is not rather than by what it is. On the one hand, craft is widely regarded as a discipline of its own, for example as a mode of education but also more generally as a paradigm of working and through classification as a separate art form [2, 3, 4]. On the other hand, the crafts have proven elusive, especially when trying to grasp their essence [5].

The dichotomy between craft as a discipline or category, and the crafts as a diverse array of practices and positions [6] has persisted for some time. Greenhalgh [7], for example, identifies the crafts on the one hand as an 'unstable compound' because 'the word is used to collectively describe genres and ideas that formerly were not grouped together and that grew from quite different circumstances' [3]. On the other hand, he describes craft as a class, or even empire, of the late modern period, which sits alongside art and design, and which has 'never been in a healthier condition… poised for a radical new phase' [8].

This shift between the two positions is telling, because it is well established that factors which avoid definition such as variety and uncertainty facilitate change, development and growth [10]. In contrast, classification provides certainty and helps grasp the concept of craft. In terms of classification, craft is usually seen as a third category besides art and design [10, 11, 4). The comparison with art and design however raises certain problems. First, craft has to be defined, which – as we have just seen – is problematic. Then, it has to be compared to art and design.

In order to define craft, it has been analysed from different perspectives such as aesthetic, expression, function, technology, quality, domesticity, amateurism, museology, skill, and several more [11, 12, 13, 4]. Interestingly, many of these perspectives are shared by definitions and theories of art and design. For example, Carroll [14] identifies aesthetic, expression, and the institutional theory of art as three prominent theories by which to define art, and craft could certainly be defined by each of these. Dependent on which parameters are chosen for the analysis, craft appears to fluctuate on a continuum between art and design.

Craft, as an object, has perhaps been analysed most extensively by Risatti [4] where it is compared to both art and design in turn, and analysed according to function and aesthetics. Risatti discusses the 'craft's unique qualities as functionality combined with an ability to express human values that transcend temporal, spatial and social boundaries' [15]. Despite this deep discussion, in the Postscript [16], Risatti falls back to a comparison of what he now calls fine craft with fine art. However, when compared to art, craft is often perceived as inferior in status, either subject to its economic value [17] or subject to assertions of lack of intellectual activity assuming craft as an activity of making that is devoid of conceptual aims [18]. Thus it is often simply regarded as supplemental [19]. Equally, when compared to design, craft has to compete in terms of the use of technology, mass-production and related economic value, and possibly functionality.

2.2 Craft, Experience and Emotion

One might ask then what the unique strength of craft is? As mentioned above, Risatti has summarised it as 'functionality combined with an ability to express human values' [15]. This is affirmed by Margetts [20] who sees craft as a 'free radical spirit which at the moment gives the work and its makers their remarkable quality' as well as by Britton [21] for whom the 'value of the crafts exist in their refusal to be completely one thing or another' and in their ability for 'subtle subversions of our expectations'. This remarkable quality of craft seems to emanate from the emotion bestowed on craft objects both by the maker within their creation and by the owner through possession, display and use. They consist in material quality and sensitivity of a craft object which imbue it with personal emotions and meaning, values and memory that can be perceived as related to the idea of the gift [22].

The aspect of emotion is central to most makers' practice, but is rarely discussed in the context of craft and is often a private, intuitive part of the creative process. Emotion is discussed, however, in the context of design [23, 24] where it is discussed in relation to user experience and attachment. Research in organizational management and planning, psychology and education [25, 26, 27] has shown that, if trained, we have a fine discrimination of emotion; that learning is related to emotional states and can be improved or hindered through positive or negative emotions respectively; and that emotion is used by practitioners to make planning judgments in their everyday practice [27].

This literature provides useful insights with regard to emotion, except that clear distinctions are not always made between emotion and experience. Experience relates to sensory perception [28] and observation [29] and emotion relates to feeling and affection [29], while experience as a verb can also refer to feeling. While there is a certain overlap, it is still important to distinguish them. Therefore this paper adheres to definitions of experience as "the actual observation of facts or events, considered as a source of knowledge" [29], and of emotion as the

personal and individual response to an experience, e.g. joy or anger, indifference or boredom, surprise or fear, etc.

In response to the recognition of the importance of emotion, more recently, funding bodies have encouraged makers to document and discuss the aspect of emotion in relation to their craft practice. In Abstracting Craft (1998), the emotional response of the craft maker within the process of researching is reciprocated by the audience. In the exhibition Textural Space (2001), curated by Lesley Millar [30], a group of Japanese textile artists created textile pieces that combined the traditional virtues of high modernist sculpture with sophisticated textile sensibilities and materials [31]. Some of the pieces sought to capture the emotions and sensations experienced in nature such as 'wind from the cloud' by Keiko Kumai and 'walking around the lake' and 'water pillar' by Chika Ohgi. Millar [30] points out that the haptic quality of Ohgi's work is attained by incorporating the viewer physically: 'The scale of Ohgi's installations extends the work beyond our visual periphery. Therefore rather than look 'at' the work our understanding is enhanced by our becoming 'part of' the work.' Gale and Kaur [31] consider that the sheer physicality of such pieces 'tends to defer a language based reading of the work, instead drawing on an emotional, spiritual or dramatic repertoire likely to inspire such feelings as awe and peace'.

In this debate, two things come forth: the aspect of human values which may be related to the intimacy or ambience of the craft object that evades either art or design because the former is usually for visual consumption and the latter is anonymous through mass-production. Although crafts are often exhibited in art galleries these days and thus removed from touch, their real strength seems to rest in the intimacy of handling, and their multi-sensory appeal including the visual, sound, touch, smell and taste.

The issue of intimacy is also of interest in relation to mass-production. With the advent of new technologies, mass-customisation is becoming increasingly available, potentially competing with the traditional domain in the crafts, as illustrated by the 'Unikat' (a unique piece, or small batch production up to the number of seven). Here the second aspect that has been revealed through the debate becomes important, which is the unique position of the crafts to experiment and subvert. Its ability to combine function and expression liberally (art, it seems, is by definition excluded from drawing on practical function whereas design has to obey to practical function to be viable) and to use them together to create subtle subversions of human values is what puts craft in a strong position [21, 11].

In summary, as a category or discipline, craft must claim equal status to the categories of art and design, but must also be distinct from both and in order to do so it has to shake off the image of inferiority as well as maintain its integrity in the face of new (technological) developments. In this regard, we have discussed two essential characteristics of the crafts: its intimacy and affinity to human values and emotion, and the ability to experiment and subvert. These characteristics help to define craft and to determine its intrinsic value.

3. Developing Craft through Practice-led Research

Above, we have discussed that the intimacy and affinity to human values and emotion, and the ability to experiment and subvert are the essential characteristics and strength of craft. To maintain its integrity in the face of new developments, craft practitioners have for some time begun to search for new ways in which to develop their work in order to remain at the forefront of their discipline, and to be able to compete with or take advantage of new technological and cultural developments such as rapid prototyping, rapid manufacturing and mass-customisation.

One significant tool that has become available to craft practitioners in the UK since 1992 is that of research. Since the integration of Vocational Colleges into Universities in 1992, the opportunity of academic research has become available also for the crafts with all its benefits and problems. On the one hand, the availability of financial support for research has made art and design into a sector in which research is thriving, on the other hand rules and regulations which have been developed to suit traditional science and humanities based subjects have caused debates and problems.

The most common research in relation to craft has been, and still is that of craft historical research, followed by research in material culture and anthropology. However, while of much interest, this kind of research has not the capacity to address the problems that craft practitioners face, and that they require to address in order to advance their practice because historical research will make first and foremost a contribution to the knowledge of (craft) history, or material culture research to the knowledge base of material culture.

Research of value to practising craft professionals however has to go beyond the historical and cultural domains to address the manifold problems and opportunities encountered in professional craft practice. These may be issues of technical nature related to technological advance, sustainability or material properties; they may be issues related to the methodologies of making to provide insights into different models of practice; they may be related to the formal and functional aesthetic of craft, to the expression and meaning of human values and emotion, or to the economic viability of craft, to name but a few. To this purpose, research in the crafts has begun to emerge – that is research into, for and through craft practice – and which is still rather new.

For example, digital technology including 2D and 3D modeling software, CAD/CAM and rapid prototyping have influenced the ways craft practice has developed, particularly in the last decade. In Abstracting Craft, Malcolm McCullough [32] investigated the possibility of ‘craft in the digital realm’ and suggested a growing correspondence between digital and traditional media, whilst supporting the case for ‘upholding human traits and values’. Issues in human-computer interaction and the development of holistic, improvised strategies were further investigated by craft practitioners undertaking PhD research. The synthesis of traditional and digital crafting approaches has resulted in hybrid practices that have advanced all fields, including ceramics [33, 34] and textiles [35] etc. However, craft practitioners are acutely aware that digital applications are not a solution in their own right, but add to the ‘spectrum of technology’ on offer to the maker. In ‘Deconstructing the Digital’, Masterson [36] explored the development of digital crafting approaches and the importance for craft makers wishing to further their practice to seek ways in which they could gain greater control over the processes and tools they use. Treadaway [37] reinforces the maker’s dilemma and the need to retain tacit, tactile knowledge of materials and processes that cannot be adequately simulated through digital platforms.

One of the problems that research in the crafts has encountered is the tendency to rely on intuition in the understanding of materials and processes, of aesthetic, emotional and cultural issues. This intuition is acquired through extensive experience of (manually) working with these materials and processes, which enables craft practitioners to acquire knowledge and skills that are based on experience, that are largely tacit, and that are the basis of expertise and connoisseurship [38, 39, 40]. Skill or knowledge of this kind can never be fully communicated, because "we can know more than we can tell" [41]. Being largely tacit, craft knowledge (experiential knowledge) is often perceived to be at odds with the traditional understanding of research and its contribution, which requires justification and evidence to be seen as rigorous.

4. The Strictures of Research

In this section of the paper, we set out in more detail the traditional understanding of research to explain why this might be problematic for the tacit understanding of expertise and knowledge of the crafts (and other vocational professions such as music).

Most research regulations, especially those for PhD's, require a 'contribution to knowledge', and they also prescribe a set of requirements as to how this contribution is to be communicated (e.g. AHRC [42]; RAE 2005 [43]; and many university research definitions worldwide e.g. Curtin University of Technology [44]; Indiana University Southeast [45]). The position of knowledge that is implicit in research through these regulations and requirements prioritises what is known as propositional knowledge [46]. The concept of propositional knowledge is defined as "justified true belief" [47], and is characterised by the 'proposition' or 'thesis' ("true belief") on the one hand, and the justification through adequate evidence on the other. The need for explicit justification traditionally requires all parts, and thus knowledge, to be explicit and generalisable [46].

Experiential or tacit knowledge (also: non-propositional knowledge) in contrast is regarded as knowledge derived from experience, although there are variations [48, 28]. Experiential knowledge is perceived to be important for art, craft and design, because it can provide data, verify theoretical conjectures or observations etc. While experiential knowledge can be described, some part of it evades communication and remains tacit. It is therefore also termed 'tacit knowledge'. Because of its (partly) tacit nature, experiential knowledge does not easily yield to practices of justification and evidence traditionally used in research [48, 40].

The particular understanding of knowledge in research is related to a particular understanding of research conduct, termed 'rigour'. The idea of rigour in research has developed to achieve equity in terms of research conduct and quality across different disciplines, projects, etc. Rigour is understood as intrinsic logic or causality embodied through "the chain of reasoning" [49, 50, 51]. Rigour has at times been disputed as a criterion of positivist science. However Tobin and Begley [52] argue that rigour is a criterion that transcends individual paradigms:

> Rigour is the means by which we demonstrate integrity and competence [53], a way of demonstrating the legitimacy of the research process. Without rigour, there is a danger that research may become fictional journalism, worthless as contributing to knowledge [54]. However, in response to Morse's caution, we suggest that qualitative researchers are not rejecting the concept of rigour, but are placing it within the epistemology of their work and making it more appropriate to their aims.

In this sense the notion of rigour can pertain to both scientific and philosophical, positivist and constructivist, quantitative as well as qualitative study. Its parameters will vary dependent on the paradigm of study [55, 56]. While traditionally the parameters of rigour are validity, reliability, objectivity, and generalisation, for qualitative research they may be re-interpreted as credibility, dependability, confirmability and transferability [57]. Thus paradigms determine which knowledge framework is employed in general, while rigour offers tangible criteria for linking methods and knowledge. This understanding of rigour seems to hold the key for reinterpreting knowledge and for integrating and communicating experiential knowledge within research in relation to the requirement of the contribution to knowledge.

5. Craft Knowledge within Research

In this section, we discuss how craft knowledge can be dealt with in research in relation to propositional knowledge, justification and the criteria of rigour in research. The proposition we are making is that craft knowledge is based on both experiential and propositional knowledge. For example, in making a piece any crafts person will draw on propositional knowledge, e.g. material science or chemistry, such as material structure, melting point, ductility or chemical composition, which is essential but not sufficient on its own to understand the materials any crafts person might deal with. Experiential knowledge is necessary in addition to this to enable the successful manipulation and judgments made in relation to working with any particular material.

In dealing with experiential knowledge, essentially, there are two ways. There is a simple answer to understanding and integrating experiential/tacit knowledge within research. If we understand experience as "the actual observation of facts or events, considered as a source of knowledge." [29], experience can be recorded and used as evidence for propositional knowledge. This is very much in the sense of experimental science, albeit may be qualitative.

However, there is a more complex response, which seems to us to be closer to reality: although some part of experiential knowledge can be recorded through description, there is another part of experiential knowledge, which remains tacit and therefore elusive, and which Polanyi has characterised as "we can know more than we can tell" [41]. This tacit knowledge generally allows a fine discrimination of experience, both in terms of perception and emotion, which for example is pertinent in the observation, expression and understanding of music where it needs the expert's trained eye to observe the gestures with which musicians communicate during performance. Similarly this seems to be true for the making and comprehension of craft, hence the emphasis of expertise and connoisseurship mentioned above.

The question is then, how research can take account of experiential/emotional values and judgments in form of expertise and connoisseurship, and the intuitive/emotional judgments made based on (personal) experience.

As we have said, experiential knowledge can partly be captured through description. This can be used to describe and compare the parameters of judgments made on an experiential/emotional basis. For example, where a comparison is made on an experiential basis, it may not be 'objective' in the sense of being quantifiable, but it may be confirmable. For example, one can compare the coefficients of ductility of, say, silver objectively but this means little in actual workshop practice unless it is supported by experience of how ductile and/or flexible one silver alloy is in comparison to another [58]. In such a situation, any decisions about which and how to use

any particular material will be made on the basis of this experiential knowledge, rather than on the basis of impersonal, objective scientific knowledge.

This necessity is also confirmed in other fields of study. For example, Hoch [59] explains that "social psychological research studies the effects of cognitive emotional interaction on planning judgment" and that to "combine cognitive and emotional ideas about planning" will help to understand "the kind of planning judgments practitioners make in their everyday practice." Further in organisational context, Mumby and Putnam [60] provide a similar example for the reliance on emotional knowledge, which seems transferable to the crafts. They explain that:

> We advocate recognition of the knowledge-producing dimension of emotion [61]. This view runs counter to common-sense notions that contrast emotion with reason and exclude emotion from knowledge construction. Emotion and knowledge typically appear as antithetical terms. In contrast, we suggest that emotions ground legitimate rational responses to organizational behaviour. Emotions constitute a way of knowing that differs from but complements traditional rationality. This concept of emotion stems from the belief that social actors seek mutual understanding and a communication community characterized by solidarity, mutual dependence, and ethical behaviour [62]. This orientation is not merely cognitive or instrumental, but it is comprised of sentiments about what is good, right, and possible. Thus, for example, understanding feelings about what constitutes ethically correct decisions is just as significant as analyzing the organizational procedures that lead to decision outcomes. [63]

This observation explains why there is a need to integrate knowledge gained from experience and emotion. In practice, most of these decision will be made tacitly and remain tacit. In research, the minimum may be to acknowledge, describe, and document its use through text and visual evidence, and to explain the competence employed as well as the consequences of doing so. The benefit is that in this way knowledge from experience can be shared and discussed to improve it further. This area has been researched for example by Wood [64].

We want to conclude with two examples from craft, which demonstrate both the use and need for research and it's acknowledgment of experiential and emotional knowledge to advance craft thinking and practice. The first example is by Katherine Harper [65] where she invokes the following scenario asking the reader

> to trace the web of connections between contemporary technological textile developments, personal narratives, hand-crafted textile artefacts, and my material and theoretical practice.
>
> Imagine a bed that pulls back its quilt for you and your lover, remembers how you both curve together, adjusts to cool or warm you, and forms the hollows in your pillows to cradle your heads… With programmable fibres and responsive Bluetooth (wireless) technology, as used for example by Tomoko Hayashi in her Intimacy Across Distances project (2004), this level of automatic and magical material response becomes a design possibility rather than a future-science dream… [65]

In this example, Harper invokes emotion and imagination as a tool for conjecturing future scenarios as a starting point for new design developments that may expand the traditional understanding of hand-crafted textile artefacts. The second example presents research by the ceramicist Michael Eden for whom research has opened the door to experimental freedom. Eden is undertaking practice-led research for an MPhil at the Royal College of Art, and following two decades as a traditional ceramicist, has spent recent years experimenting with digital

technologies, 3D modeling software and producing objects using rapid prototyping. His current work with the Digital Manufacturing Centre (DMC) at the Bartlett Institute for Architecture, University College London, has allowed Eden to work with exceptional intricacy and to design integral moving parts, meaning as a ceramicist he is no longer constrained by traditional material properties, the effects of the wheel, or gravity [66]. Eden's embracing of digital technology is not in opposition to more traditional processes, but it has enabled him to develop a new methodology.

> What I'm looking at now is perhaps a different creative language, and expressive ideas that are less to do with material processes and more to do with ideas, concepts and stories, using historical and cultural references to promote a debate about craft, art and design. And I'm so very happy to be in this grey area I inhabit, that's not quite craft, not quite art and not quite designs. [66]

6. Conclusion: Craft Research

This paper has explored the notion of craft and its intrinsic characteristics in relation to research. It has looked at the potential value of research for understanding and advancing craft as well as at the tensions between needs and requirements of conducting research in the crafts. It has explored the idea of experiential and emotional knowledge as a strength of craft, and how it can be utilised and integrated within research to overcome the perceived dichotomy between research and craft knowledge and their respective practice.

There seems to be a need to develop rigorous research in the crafts driven by the recognition of the potential and value of research for the development of craft, both as practice and as discipline, and thus for advancing craft as a discipline that is viable and relevant for the future. Potential themes that emerge are material and technological issues centering on the use of new technologies in support of traditional craft practice; methodological concerns seeking to capture methodologies of making and to provide insights into different research practice models; and conceptual concerns with the intrinsic values of craft such as its ability to capture and invoke intimacy and emotion. Indeed it seems to be these intrinsic characteristics of craft, its affinity to human values, and its ability for exploration of technology and for the subtle subversion of human values which determine the inquisitive nature of craft and which relate it to research.

Based on this recognition, we have established *Craft Research*, the first peer-reviewed academic journal dedicated to the development and advancement of contemporary craft practice and theory through research. The aim of *Craft Research* is to portray and build the crafts as a vital and viable modern discipline that offers a vision for the future and for the sustainable development of human social, economic and ecological issues. This role of craft is rooted in its flexible nature as a conduit from design at one end to art at the other. It gains its strength from its at times experimental, at times developmental nature, which enables craft to explore and challenge technology, to question and develop cultural and social practices, and to interrogate philosophical and human values.

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