

CRAFTS PRAXIS AS A DESIGN RESOURCE

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ABSTRACT

Much of the recent, and indeed historical discourse in the applied arts has been focused on the nature of craft as a process, and the modification of this process through the appropriation of new technologies. Little has been said, however, on the subject of the alternative values and experiences which craft may be able to contribute to the design of technological products. This paper seeks to analyze contemporary craft for its potential as a design resource with especial relevance to the field of Human-Computer Interaction. *Contemporary craft* is differentiated from the more traditional *craft*, and the importance of its consideration is underlined with reference to Actor Network Theory. The goal of creating artifacts for agentive meaning making is proposed, and what it means to apply a crafts approach to design is elucidated, based on a series of semi-structured interviews with practitioners at Edinburgh College of Art. Finally, a preliminary set of design principles is presented for further discussion.

Keywords: craft, embodied design, experiential design

1 INTRODUCTION

The range of inter-related issues facing the Human-Computer Interaction community include a shift from primarily visual to increasingly multi-modal paradigms, as well as a need to design for 'the everyday' as demographic segmentation begins to appear inadequate. Consumer trends towards the 'authentic' echo HCI's current expansion to take account of emotional and experiential design research, and challenge the 'seamless' framework of new systems and technologies design [1], [2], [3], [4]. As such, the dispersion of computing systems from the desktop into the world around us offers designers the opportunity to deliver more, rather than less tangible artefacts, which may become more richly present rather than invisible and abstracted from us. Similarly, as unsustainable patterns of consumption become an area of concern to all communities of design, empathic design would also seem to offer a useful approach to embedding values, which may extend a product's lifespan [5].

HCI and interactive product design highlight the issue of the relationship between form and function, simply because computers *do things*. The ideal form of the Bauhaus appears logical when a user centred design methodology is used, and the goal of good fit through affordances is central, but quickly becomes insufficient when computers may do almost anything [6], [7]. However, if the product is recast as a 'context for experience' [8], then it becomes possible to treat computation as a medium rather than a means to a functional end, allowing '*a meaningful relationship between physical form and computation*' to emerge [9]. This has also been described as designing an 'expressional', rather than a functional artefact [10], and expression and potential for meaning are of particular interest to wearable technologies. Actor Network Theory

holds that artefacts, as well as humans, act as agents in the creation of meaning - in other words, everything we use, wear, do and say defines us, creating a dynamic system of social meaning [11]. It is not the job of these artifacts to disappear, rather they play an integral role in the experience of the socially active human, and we cannot attribute meaning to something that cannot be engaged with. For consumers to be able to engage with new technologies it is important that design makes them somehow accessible; instead of closing off avenues for appropriation through rigorous user-centred design, the artefact must come closer to being an artwork, open for subjective reading and agentive meaning making [12]. With its roots in the functional, and its process in the expressional, then, contemporary craft may become a design resource for the production of meaningful interactive products, and the next section deals with the process of the contemporary craftsman, in an attempt to draw out more generalisable principles for design.

2 UNPACKING CRAFT

Historically, of course, *craft* has played different roles in relation to both design and art; now analyses deal with the porosity of borders between these fields of practice, and close attention is being paid to both the experiences of production, and the cultural constructs surrounding products [13], [14], [15], [16]. Crucially, craft is no longer an unconscious activity borne of necessity, but a “form of practice” uniquely “situated between art and life” [14]. To attempt a more detailed description of *contemporary craft* practice, semi structured interviews were conducted with five practitioners around the following core questions:

- Please describe your working process?
- What kind of values do you feel is embodied in these processes?
- How do the objects produced convey these values?

These interviews have been deliberately confined to the craft genre of contemporary jewellery. The participants have all graduated within the last three years, and are currently involved in post-graduate diplomas, masters or artist’s residencies. Four are graduates of Edinburgh College of Art, the other from Birmingham. The resulting protocols were combined with transcripts and papers resulting from presentations by more established makers [17], [18], [19].

As Malcolm McCullough wrote: “there remains a realm where scientific production cannot go, where mechanized industry finds too little demand to go, and where artistic discourses dare not go... there we find craft.” [20]. If, as suggested in the introduction, the demand for the ‘authentic’ and the experiential is rising significantly [3], [5], mechanized production may now find motivation to go there (‘mechanized production’ being any pre-deterministic design discipline, including HCI and interactive product design). The question is how the values of craft may be preserved in the process?

2.1 Process: Visual Research and Material

Craft design can be described simplistically as a three-step process: a period of visual research, the development of that material into a final design, followed by the realization of that design. Successful contemporary craft achieves something more than this, though, and it is this element that distinguishes it from good design. The respondents sought to articulate this in their way of working, and related it to wider

frameworks of consumption and economic structure. There was an acknowledgement that drawing as a primary source of information was important, but more significantly, these practitioners do not take the step between the visual research and the finished design literally. Instead, drawing is seen as a way of engaging deeply with source material, source objects being kept around the workspace for their 'essence'. Those who had tried explicitly to develop drawings found that they sacrificed spontaneity, introducing distance between themselves and the source material, and between themselves and the material being manipulated. In this situation, existing visual language instead of growing personal expression became predominant and all were happier allowing source material to permeate their thinking, emerging later "through their hands". This can be described as a process of internalization in contrast to a "copying of surface strategies", in which the drawing as an object is not the important outcome. Instead, drawing is a technique for entering into an embodied ontological relationship, or synthesis, with the world [16].

2.2 Material

For some, this research stage was spent almost entirely with the material being manipulated to form the final object (raising interesting questions as to the practice of modeling with alternative materials). This was seen to impart a particular tacit spatial awareness only to be gained in "playing about with things three dimensionally". For one respondent, the work was explicitly about "keeping things in the finished piece that normally people make an effort to get rid of". She described this as "like having the sketchbook and the finished product all in one", and the "honesty" of making the process accessible in this way can be found in other important contemporary work [21], [22]. Material was also seen to be the source of what has been described as the metaphor and myth of transformation [23], where the agentive power felt by the maker is mirrored in the experience of the owner through the knowledge of the transformation of "a useless lump of metal, or a piece of plastic" into "something beautiful, wearable, useful...". Further, the potential for change is generalisable by the owner to other areas of life, and thus choosing to buy craft objects may not only be perceived as political, but also as personally empowering.

2.3 Value

The challenge embodied by the craftsman engaged in making a new work was seen by all respondents as the "strongest point of craft", its "greatest benefit", essential both for successful idiomatic expression, and for a metaphorical value related to that of transformation. Market forces and the need to supply many similar items were felt to erode this, as the need to identify and solve successive problems was diminished, to the extent that one practitioner said she would "rather make my money some other way", than make what is known by galleries as "production jewellery". Finally, the ability to challenge thinking, and to take risks, was felt to be almost a responsibility of the craftsman. This is again a metaphorical element from which the cultural construction of craft as essentially economically marginal and thus political in nature, has emerged. In the literature the domestic nature of craft is also raised, as an historical factor which allows critical work to take part in 'real life' and so to be a kind of 'intervention', in the fine art meaning of the word, closing that gap between how a thing is first seen, and how it is imagined in use [14], [24]. To be able to do this, though, the work needs to encompass the familiar and the provocative through the skilful manipulation of medium

with an 'aboutness' which often differentiates art from design [25], and at odds with the ideal of cognitive 'seamlessness'.

3 TECHNOLOGY

There were two main concerns with technology: commitment to the original expression, and a loss of the explorative process. Technology may destroy expression found by other means, but it simultaneously affords new ranges of expression. This remained an unknown for the younger respondents, yet formed a central part of the discourse for the more mature makers. Although not an understanding reserved solely for new technologies, it has historically been their sudden appearance that typically results in a reappraisal of craft values and processes [26]. Dehumanization was felt to be due to the removal of the work from the immediate realm of the maker, for example, one of the younger makers forges small components which could be cast, but this was seen as something which someone else would do, and not just someone, but "somewhere", outside of the workshop environment, whereas, of course, this process may also be appropriated by the maker for their own ends. When this happens, the "something in the putting the hammer to the metal" may be equally present in the control of the centrifugal casting process, or in the pouring of the molten material into the mould. Silversmith Gilbert Riedelbauch sees a more positive alliance between craft and technology, one that stretches from craft's origins into its future. He holds that craft lies in the control of the artist "over the whole digital making process, from design to production" [27]. Similarly, Janne Kyttanen of Freedom of Creation Design sees their work as provoking the Rapid Prototyping industry, in using the process to manufacture finished pieces rather than prototypes, and Helen Rees wrote in 1997 that "even the most ardent champions of craft would agree that manufacturing is not necessarily a dehumanizing process" [28]. What these concerns did find resonance with was Pye's analysis of 'diversity', that is, the levels of effective range of the formal elements within a design: "every little incident of form and surface and every departure from regularity however minute will begin to tell as a formal element at some particular range" [29].

4 DESIGN PRINCIPLES

Craft is "without design" [16], and yet is essential to design in finding "quality in matter" [30], but what can be taken from this rich and subjective information? Is it possible to abstract something from contemporary craft, into another culturally constituted domain, without losing any of these qualities? The set of principles here lays out the key features that emerged from this work. It is quite probable that elements of these can be identified in interactive product design as it stands, and it should be stressed that this list is merely intended as a spur for further discussion and practice based research.

- the risky non-predetermined process results in original visual language, seen to embody particular political and metaphorical values
- internalization of material – both source material and the material being worked – is essential for the development of original visual language
- this internalization is achieved through action – techniques include drawing, direct manipulation of material, and repeated exposure to the material
- 'material' may include traditional materials, technologies, processes and methods, each having their own affordances and constraints

- control over formal expressive elements at diverse effective ranges is dependant on an embodied understanding of the process of production
- signifiers of craft are not to be confused with the original visual language which emerges only from the internalization of material
- the embodied nature of the design and making process results in an embodied relationship for the consumer with the artifact (that is, both are exploratory and both create meaning through action)

5 CONCLUSION

‘Craft’ as a cultural construction produces objects perceived as ‘authentic’ by consumers, and elements of authenticity are understood to be implicit in the production processes, materials, workmanship, exclusivity and authorship of these objects [23]: each is a strand in the embodied experience in the consumption of craft artifacts, informing narratives of social value. Which of these then leads to extended product lifespans, or to a more intimate experience of ownership, remains an interesting research question. In the meantime, the increasing availability of flexible manufacturing techniques means that craft and design are becoming more closely related, as craftspeople are able to produce beyond the human scale, and designers are able to economically justify producing unique pieces. By outlining the principles of current contemporary craft practice above, it is hoped that any designer or craftspeople will be able to assess more fully the manner in which they work, with a view to being able to produce socially meaningful interactive artifacts.

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