

## The tacit-turn: textile design in design research

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**Summary of contribution:** This paper introduces some of the key topics of my PhD thesis, supervised at the Royal College of Art in the department of textiles, which seeks to conceptualise textiles to elucidate design thinking in the field. This paper aims to situate the textile design discipline into the broader remit of design research, identifying specific contexts for textile design research.

Questions about the nature of design began to emerge in the late 1950s as a result of research into creativity, decision-making and management as well as advances in computer technology and artificial intelligence for problem solving. The academic discipline of 'Design Research' developed as it became accepted that design involved a very specific and distinctive type of knowledge. Bruce Archer was a leading exponent of this view and was fundamental in the inception of the Design Studies Journal and academic design research in general. In the debut issue published in July 1979, Archer presents a paper entitled '*Design as Discipline*' which prompts these questions from the editor, Sydney Gregory:

*"Can design be a discipline in its own right? If so, what are its distinguishing features? (What are the kinds of features that distinguish any discipline?) To what questions should the discipline address itself — in both research and teaching? What methodology does it use? What results — what applications — should it be trying to achieve?"* (Archer 1979)

Over the decades, these questions have been studied from the perspective of different sectors of design, most prominently in architecture, industrial design and engineering, the results of which have formed the basis of design research knowledge and still lead the academic discourse in this area. '*Design Studies*' remains one of the leading journals on design thinking and process but is heavily biased towards industrial and engineering design, as is the more recent '*The Design Journal*' published since 1998. Nigel Cross has been a key research figure in the area of design thinking and his 2007 book '*Designerly Ways of Knowing*' is collated as a summary of decades of his research. The book includes a chapter entitled 'Studies of Outstanding Designers' (Cross 2007:85), the three expert designers he studies approach design from an industrial or engineering perspective. Although Cross mentions that these designers are from different disciplines he does not acknowledge the similarities between those particular areas of design. Equally he does not explicitly recognise the variety of experience that may have been garnered from studying, for example, a leading ceramic designer, fashion designer or textile designer.

In relation to textile design, the context for disseminating research in the field is less developed. *'Textile; The Journal of Cloth and Culture'* published since 2003 focuses on issues of materiality, and cultural and historical studies and therefore is not well placed to kindle the discourse on textiles as a design discipline. The paucity of academic writing concerned with the idiosyncrasies of the textile design discipline marks it out as a taciturn in comparison to those disciplines of design that have been instrumental in the emergence of design research over the past five decades.

Peter Dormer (Dormer 1994:15) uses the word 'taciturn' as he describes the doer and maker who cannot adequately articulate their knowledge. Anni Albers (Albers 1944) states that the inability to give words to the experience of making and designing is not symptomatic of a lack of intelligence but an indication of an intelligence that expresses itself via alternative means; a type of internal intelligence that can be described as awareness, intuition or tacit knowledge. Albers values the internality of knowledge and argues that its' artistic or designerly outcomes provide us with a means of verifying this knowledge. Dormer agrees and notes that this practical (tacit) knowledge is difficult to articulate but can be demonstrated and that it is possible for it to be judged. He warns of the dangers of reliance on tacit knowledge and the importance of questioning it. To question the tacit, requires the ability to begin to objectify, articulate and challenge assumptions.

As the principles of design research are so rooted within specific design disciplines from which it was developed, can we presume that they are wholly applicable to *textile* design research? I will use the questions posed by Gregory in 1979 to begin an enquiry into the notion of textile design as a sub-discipline of design with specific methodologies, tacit knowledge and modes of behaviour. In this brief paper, I hope to explore some of the inadequacies of our epistemological understanding of textile design, and identify opportunities for a more integrated relationship between textile design and design research.

As Gregory ponders on how it might be possible to define a 'discipline' let us begin here too. Seminal author on tacit knowledge, Michael Polanyi (1958) provides a religious analogy that may help to explain and describe the collective mindset that drives individuals who call themselves 'designers'. He uses Christianity as an example of "...a *heuristic vision which is accepted for the sake of its unresolvable tension. It is like an obsession with a problem known to be insoluble, which yet, unswervingly, the heuristic commands; 'Look at the unknown!' Christianity sedulously fosters, and in a sense permanently satisfies, man's craving for mental dissatisfaction by offering him the comfort of a crucified God.*" (Polanyi 1958:212) In this analogy we can compare the tacitly experienced and communicated nature of religion with its collective vision of an all-encompassing and compelling unsolvable problem, to design. To profess to design also requires a shared view and an experience of a tension and a permanent dissatisfaction; one that considers that the world requires continual

transformation through the creation of new objects. When judged in this way, design could be seen as a 'broad church', structured through sub-disciplines or denominations that deliver teachings, which are largely similar but yet with some significant deviations.

A 'discipline' requires disciples; individuals who feel drawn to a particular set of teachings, tacitly learn and adopt the rules and rituals associated with the discipline allowing them to guide their thoughts and behaviours. Disciples follow and embrace the teachings, which may be explicit and written down or implicitly communicated. They will take comfort in knowing they share their fundamental beliefs, thoughts, and behaviours with others. Essentially the disciple has a tacit relationship with the discipline, which is both internal and personal and external in relation to other disciples across time and location. In a paper exploring the notion of the 'discipline' in design, Salustri and Rogers (2008:299/7) state that, "*Once we have learned to do something in a certain way, we will tend to do that thing the same way forever, or until a "better" way presents itself (and sometimes, not even then). In this way, we will tend to not try other ways to do a thing because we have learned one way of doing it.*"

So once indoctrinated in a discipline, it can remain with us almost indefinitely. This supports the notion of a quasi-religious design discipline. If we do accept that the compulsion to design as well as other activities and experiences associated with designing are universal then we must also ask why most designers specialise within one area or sub-discipline of design?

In a recent paper referring to Kuhn's 1962 book '*Structure of Scientific Revolutions*', Wang and Ilhan (2009:5) "*propose a sociological distinctiveness to the design professions which, is really their key distinguishing signature.*" They oppose the notion that individual design professions hold specific knowledge (and note that there are social, historical and market-led reasons for this concept being maintained in academic writing) but rather that they are all centred round the '*creative act*'. They describe a '*sociological wrapping*' around the '*creative act*' and proceed in their investigation by questioning what a profession *is*. Wang and Ilhan advise that in order to define a design profession one must decipher what it does "*(with any general knowledge that assists in the creative act) in a sociological process of defining itself to the larger culture.*" (Wang & Ilhan 2009:7)

The textile design discipline appears to attract a broad range of disciples. The term 'textile practitioner' can at once describe students, artists, craftspeople, hobbyists and designers of various levels of expertise, approaches and experience all with markedly different approaches to following and embracing the 'teachings' of the discipline. Certain traits in objects, behaviours or even people may be considered '*textiley*' amongst textile practitioners, a word that is difficult to define but easily understood within the discipline. Textile design encompasses teachings from the broader disciplines of design, technology, art and craft, indicating that textile design disciples have formed both a personal and collective tacit understanding of a specific blend of knowledge. What remains to be examined is whether this

knowledge and its associated methodologies serve as, in Wang and Ilhan's terms, a general knowledge contributing to a more generalised creative act or design process or whether it may offer a new paradigm for design research. If sociological wrapping defines the public and professional identity of a profession or discipline, how is textiles wrapped, who has contributed to its wrapping and why so and does it need to be modified or updated?

I suggest that to begin to understand this, it is useful to consider the textile design discipline as an entity; including textile designers, designed textile objects and the textile design process. When seen in this way it is possible to identify certain traits that allow us to characterise textiles. Below, I propose particular embodiments of the character of textiles. I use the word 'Textiles' to denote an entity once again. I have selected feminine archetypes on which to explore the sociological wrapping of textiles. These roles have been selected as they draw attention to the complex and dichotomous epistemology of textiles. Textiles as an entity may at one time subscribe to all of these archetypes.

*Textiles is a mother.*

It is universally fundamental in its ability to enable other objects to come into existence. It is a fertile ground that invites (and requires) partners to participate in realising new creations, a site of origination. Textiles implicitly relates, adapts, communicates and gives continuously and changeably on a physical level.

*Textiles is a geisha.*

It must use all its performative, decorative and seductive characteristics in order to communicate its exquisiteness to patrons. Patrons are courted ritually and continuously and once a relationship has been organised, the patron receives a particular level of control over the behaviour of Textiles, who responds by expressing the potential of sensory pleasure. Textiles communicates a submissive character, which belies the reverence given to its highly accomplished and wide-ranging skills. This relationship is difficult for those from particular social cultures to understand properly, however the indigenous social perspective provides alternative readings of the situation.

*Textiles is a spinster.*

Textiles is considered simple, naïve and uncomplicated not forthcoming or interested in articulating what makes it special or unique. Its muteness has impeded its ability to forge relationships. Textiles can be intelligent and interesting but may be overlooked by those looking, merely, for beauty. In response Textiles sometimes opts out, preferring to remain academic, free to pursue its own interests and out of the reach of potential suitors.

These labels carry significant meaning and can be more deeply explored not least from a feminist perspective. They are gendered because textiles as a designed object, a way of

thinking and a way of being, exhibits traits that are considered characteristically feminine. The description of each archetype explains the centrality of relationality to textiles. Designed textile objects are innately highly relational, a quality of which textile designers are aware. At the same time, textile designers must regularly court manufacturers and other types of designers who are looking for textiles to help them realise their own design ideas. Most commonly, textile designs need to be bought and given an application before they can interact with the larger society. To do this textile designers often produce a wide range of designs made to address and satisfy the market requirements as far as possible. A large proportion of perfectly acceptable textile designs will never be sold or put into production. There is of course a contingent of the most innovative textile designers who do not wish to participate in this courtship of commerce. They are encouraged by and operating within academic institutions. Some, but few, are successful in achieving both academic and commercial acclaim.

The descriptions also allude to the pleasure-giving qualities of textiles, which may be subtle and tactile or decorative and sensorial. They also point to the unspoken nature of textile design, it may be or taken for granted, disregarded or unrecognised for their input in the design process and the resulting designed object. This muteness has resulted in textiles accepting a considerably less active role in the pertinent debates of design research today.

If these labels help us to understand how textiles, as a design discipline and designed object, presents itself in the larger culture, they can also be used to uncover design thinking and methodologies for textile design. Within my continued research, I seek to explore how a this sociological understanding of textiles may help in articulating the form of the '*creative act*' (Wang & Ilhan 2009) for textiles.

Returning to the quotation from Gregory, he goes on to ask what kinds of questions a discipline should address itself to, and so let us apply his query to textiles. Their primary roles as designed objects are to provide shelter and modesty but also to deliver a tactile and visual experience. Of course textiles also have functions connected with their roles, for example as filters, carrying devices or to respond to heat or light. In this paper, I want to focus on textiles' role as agent of tactile and visual experience, specifically its decorative characteristics. David Brett provides an explanation of decoration and identifies and legitimises it as transformative, alluding to its visual and tactile qualities and its role in sensory perception and social function (Brett 2005). Brett uses examples from textile design to help form his definition of 'the decorative':

*" I begin to see what decoration is for. It completes. It brings buildings, objects and artefacts to completion in and for perception, by making them easier to see, more finished, more easily focussed upon. It completes in and for social use by making them into signs and symbols for*

*our endeavours and beliefs. It completes in and for pleasure by inviting the eye to dwell and the hand to caress. It completes in and for thought by making objects memorable. Decoration, by completing our world, completes those who live in it...."*

Brett (2005:264)

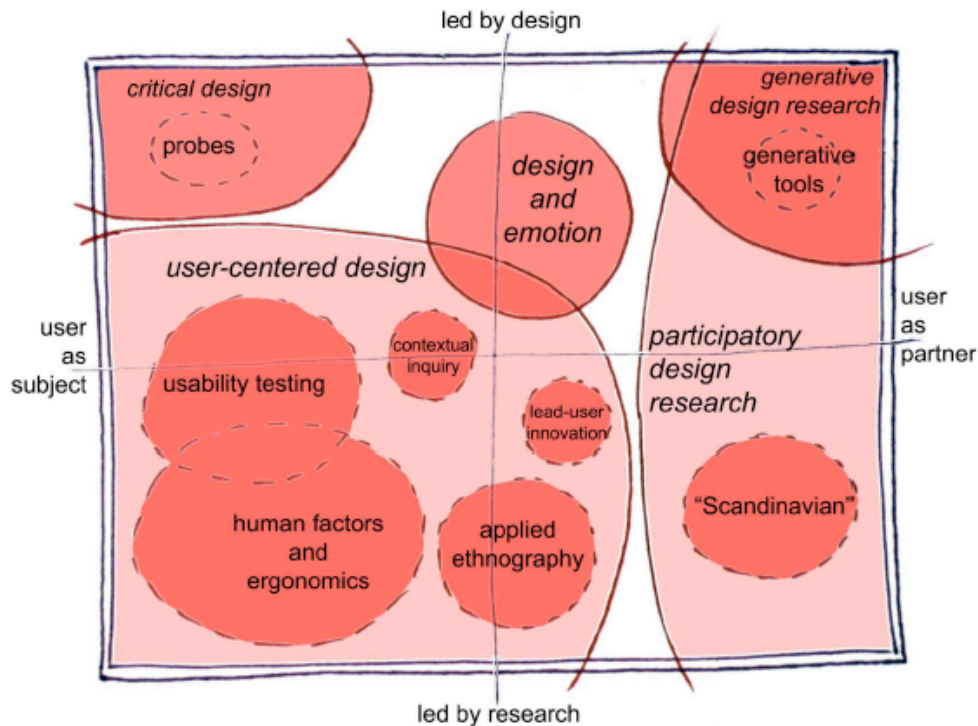
He continuously talks of the role of decoration for providing pleasure, but textiles can be earnestly functional and elaborately decorative at the same time, yet the multifarious qualities of textiles can often be unseen, forgotten or unspoken:

*"...in many or most cases we have got so used to this ornament that we look upon it as if had grown of itself, and note it of no more than mosses on the dry sticks with which we light our fires."* (Morris 1877)

Jane Graves extends Brett and Morris's inclusion of textiles as a form/mode of decoration by closely associating textiles with pattern. She gives a psychoanalytical account of pattern (Schoeser & Boydell 2002:45) in which she describes how decoration is converted through repetition into pattern. She suggests that textile *is* pattern, whether or not pattern is woven in as a design, as the natural texture resultant from weaving or knitting or as printed onto a textile surface. This approach to '*disentangling textiles*' (Schoeser & Boydell 2002) allows a deeper conceptualisation of not only the outcomes of textile design as designed objects but also the intentions, behaviours and thinking of the textile designer. Similarly to Brett and Morris, she correlates textiles (pattern as textiles) with pleasure and describes how, in particular the printed textile designer, is free to play with the powerful qualities of pattern and uses Freudian concepts to describe how the unconscious is drawn to pattern for its addictive and disorientating qualities. So, textiles as designed decorative objects can be seen as sometimes imperceptible yet tacitly addictive, emotive and pleasurable but how are these 'meta-functions' of textiles understood within the discipline and how does it affect the issues to which textiles, as a design discipline, addresses itself? The nature of the ill-defined design problems that textile designers address have not yet been adequately explored or critiqued and subsequently there are no clear debates that could begin to offer answers.

Archer and Gregory (1979) also prompt an exploration of the methodology of design. Tacit knowledge is embodied in the designed outcomes of textile design and exhibited in the textile designer's approach to design thinking and the behaviours and activities they undertake within their design process. Can a textiles orientated approach to design be correlated with a more concrete methodology within the broader remit of design research?

Design research is currently seen to encompass four main areas. These are outlined by Sanders and Stappers (2008) in the diagram below as; critical design, participatory design, user-centred design and design and emotion.



(Sanders & Stappers 2008)

Further research into textile design from a design research and philosophy of design approach will allow for specific sites in the topography to emerge as suitable for textiles. For example, the work of Anne-Louise Bang, based at Kolding School of Design in Denmark is exploring user-centred design in woven textiles and researchers in the Textiles Environment Design (TED) group at Chelsea College of Art & Design, UK are using participatory design methods to create more sustainable textile and fashion products.

'Design and emotion' is represented as the smallest field within this 'topography of design research' (Sanders 2006). It has been charted but is yet unmapped; it does not feature any distinctive research methods, tools or smaller fields of research within it. However it is this centrally located field that seems to lend itself most to the characteristics of the entity of the textiles discipline. Seeing 'design and emotion' *through* textiles could also allow for a better understanding and more overlaps with the other fields of design research. Currently, the overlap with 'user-centred design' describes the role of industrial design (including interaction design and product design) within 'design and emotion' as promoted by The Design and Emotion Society. 'Design and emotion' is placed almost at the central axis of design thinking; led by design, led by research, with the user as subject and / or partner. If it is agreed that 'design and emotion' is a field ripe for input from the textile design discipline, how might this input reshape the field or vice versa? 'Design and emotion' is situated closer to design than

research; if textiles were to adopt a more research focussed approach, what effect would this have on the nature of the textiles discipline and how it is perceived?

In recent years there has been a phenomenal growth in innovative textile design work dealing with sophisticatedly complex problems concerned with sensory perception, aesthetic and haptic pleasure and social function; for example textile designers are applying their knowledge and thinking to design for architectural, healthcare and wellbeing and automotive applications. They are working with material scientists, engineers, chemists and industrial designers; the innovative work of Jenny Tillotson and Rachel Wingfield serve as good examples. These relationships are forming because each party recognises and values a particular quality of knowledge that they wish to access in one another in order to develop and further their practice in their field. Kavanagh (2004) and Kavanagh, Matthews & Tyrer (2008) give several case studies that attest to this. The rapid growth of this type of interdisciplinary work at the cutting edge of textiles is serving to highlight its particular 'designerly ways of knowing' (Cross 2007). The activities of these textile designers will start to enlarge and stretch the 'design and emotion' methodology until more detail emerges and overlap with the other design research fields occur, and will be where the specificities of textile design thinking and knowledge will be found.

Whilst it may be true that within academia, textile design is turning 'smart' and looking towards innovative interdisciplinarity, it is also true that this type of work has only a small immediate impact on the majority of textile designs that consumers wear and decorate their homes with. What links textile designers working within the commercial sector with those more concerned with innovation is that both activities require the utilisation of a tacit knowledge of textiles to make items aesthetic and/or haptic; abilities and knowledge which have not been given adequate attention, value or gravitas.

Undergraduate and postgraduate textile design students are working and playing with wood, metal, sound, animation, plastics, glass as well as fabric, thread and yarn within their textile design process. It is during their education when textile designers most tangibly feel the breadth of the methodology of textile design and discover the function and meta-functions of textiles. It is only when they come into contact with industry or other fields of design do they start to tacitly understand what distinguishes the textile discipline. And it is when they see their designs in context or in use do they begin to acknowledge the relational, emotive and communicative qualities of the textiles they have designed. This knowledge continues to be implicitly communicated from designer to designer, tutor to pupil, but not explicitly articulated out towards industry or other fields of design. They tacitly synthesise this information, and therefore it remains inadequately critically evaluated in any explicit way useful for design research academia. This then creates a disjuncture between a textile designer's tacit concept of textile design and the understanding of it outside of the discipline. Many graduates of textile



design degrees find that what was happily accepted and even lauded as textile design within the educational setting is inappropriate or misunderstood in industrial or commercial settings.

This disjuncture seems to be largely accepted within the textile design discipline itself, although a handful of authors have sought to address it by examining the knowledge and processes of textile design. Alison Shreeve opens up the conversation about tacit knowledge in textiles in 'Material Girls; Tacit Knowledge in Textile Crafts' (Johnson 1998) and in doing so emphasises the need for more extended research in this area. James Moxey in 'The Representation of Concepts in Textile Design' (Moxey 2000) also studies textile design students. His study focuses on describing the outcomes of textile design thinking, such as moodboards and samples. These two studies focus on how the knowledge that textile designers share is communicated or displayed in an educational setting. Rachel Studd (2002) provides a detailed overview of the textile design process in a variety of industrial contexts as a way of defining a model and subsequently provides some insight into textile knowledge and thinking.

Referring back to Gregory's questions about design as a discipline and applying them to textiles shows that there is still some ground to gain before textiles is more broadly understood, and not simply practised as, a form of design. One challenge to overcome when attempting to discover the distinguishing features of the textile design sub-discipline is the requirement to make explicit the tacit knowledge closely shared amongst the textile 'disciples'. Gale and Kaur's 'The Textile Book' (2002:190) recognises that,

*"In the absence of a significant interest from the chattier academic disciplines, the task of establishing such a discourse rests quite clearly with the textile community itself."*

In returning to both the title and structure of this paper it is evident that the entity of textiles, including the discipline, the designed object and the designer, is traditionally taciturn. Textiles, as a sub-discipline of design is not so much '*sociologically wrapped*' (Wang & Ilhan 2009) as '*sociologically swaddled*', resulting in a lack of activity in the wider discourse of design research. This paper aims to illustrate that there are clear areas in the existing design research discourse in which textile design, could provide a unique perspective and a new voice amongst the historically '*chattier disciplines*'.

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