

Where Surface Meets Depth: Virtuality in textile and material design

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The 'swatch' or sample format has been a common starting point throughout historical and contemporary practice in textile and material design. There are some basic conventions in the disciplinary tenet of textiles for the design of swatches and samples, which persist in design education and the commercial industry: trim it so there aren't any borders; make your design appear to go off the edge. It mustn't ever look like a picture, but it should usually be rectangular whatever size you choose. Make it look like it goes on and on and that you can buy as much of it as you want; mount it on card with a large border but only stick it down along one narrow edge so that it can move and be handled; it may already include a repeating pattern through its construction but, if not, at least give an indication that the design repeats. They will put it in repeat; it doesn't always matter if you can't wash it. It's about the idea. It'll be used as inspiration. ...

Materials are both formed as, and cut into, rectangular formats for the purposes of understanding their varied properties through viewing and handling. Although swatches and samples vary in size depending on certain factors – such as the intended application, the techniques and processes used, and commercial contexts they will be involved with – they mostly exist and perform as rectangular forms in trade shows, material libraries, studios, workshops, factories, shops and homes. In the chain of design, textiles and materials hold a foundational yet liminal position linked to their changing form as and within other designed objects, shifting from a sample or swatch to applied surface, or material form and/or representation of an(other) designed object. Textile and material design practice has and is expanding into an ever-broadening realm, encompassing cloth, chemistry and computation; the universalism of the way we view, handle and understand the 'swatch' in relation to these

changes in practice invite discussion. Atkinson et al. (2013) consider the 'tactile perceptions of digital textiles' in contexts where digital textile swatches are the communicative tool in a design scenario. Bruna Petreca's (2016) doctoral work recognizes the affective experience of handling and selecting textiles and materials and seeks to develop a framework for textile selection within the process of designing. These research projects develop ways to understand sensory perception through understanding materials and their properties *as* textiles.

This chapter deepens and balances this approach by developing a wider theoretical view of how virtual textiles and materials actually deliver affect. To do so, I begin by mattering, or giving importance to, the textile swatch or sample, uncovering its premise and critiquing its rectangular format as framing. Notions of framing are developed through the work of Anne Friedberg and her book *The Virtual Window* (2017), in which she uses the metaphor of the window or opening as a multi-perspectival framing device. Explored in the context of a post-digital viewpoint – one that recognizes the prevalence of computation in daily life – the framing of textile design is here developed into concepts of virtual windows and manifestations of computation. I identify five contemporary studios whose practice navigates the blurring boundaries of the actual and the virtual and the immaterial and the material. Their work represents textiles and materials with agency across both the actual and the virtual, utilizing material and immaterial design practice in a co-emergent and critical relationship. They are: Molly Smisko's mixed reality experiences which critique our relationships with elemental materials; Lucy Hardcastle's design of material and immaterial surfaces; Emilie Carsen's generative method of processing digital waste as textiles; Zeitguised's digitally rendered textiles which defy convention; and Angella Mackey's work which foregrounds the performance of textiles in the contemporary post-digital environment. In so doing, I seek out elements of a common framework to support and firmly bond these

varying forms of practice as 'textilic'.¹ What forms a framework are the structural elements that persist, and this chapter focuses on two simultaneously: *form* – the rectangular framing device of the swatch and the screen – and *materiality* – the relationship between tangible samples of matter and representations of intangible matter.

Mattering samples

Rails upon rails, piles upon piles, textile designs are ready and waiting. Taking up their predestined role as one choice out of many. Their colours, their motifs, their textures, their fibres, their weights offer promise in plentiful supply. They are presented as 'samples' or 'swatches': the archetypal rectilinear format of cloth used in manufacturing and commerce. When designing and making a textile, we think and work through rectangular or square structures – the loom, the silkscreen, the computer screen, the digital drawing tablet, the sheet of paper, the squares of a grid. For the purpose of exhibition or to invite trade, we present them also in rectangular formats, sometimes draped, sometimes flat. Rectangles, both rigid and soft, surround us. They are doors, windows, books, screens and textiles. Even bio-materials, such as kombucha 'cloth', are bound by the size and shape of the vessel or tank in which they are grown or cultured. Textiles, as lengths, samples and swatches, even when freed from the devices which make them, are bounded. Each swatch or sample contains design. Each represents a design process. Each should be understood as a designed object and concept in itself. However, the role of these rectangles of design are to deliver an example of properties and capacities that could exist in the world, in whichever way you imagine them to. Some experience this as the 'tyranny of the swatch' (Laughlin 2010), experiencing feelings of frustration caused by the limitations of bounded materials, which leave too much to the imagination, feeling they are not materially enough to be fully understood.

¹ 'Textilic' (Ingold 2010: 91) defines a material-led making process, which through Renaissance treatises became marginalized by the architectonic and hylomorphic models.

Fabric, frames and Friedberg

To begin her book *The Virtual Window*, Anne Friedberg quotes from Leon Battista Alberti's Renaissance treatise on painting and perspective, in which he uses the window as a metaphor. Alberti sees the window as an aperture, opening and closing, separating the spaces of here and there. The window is also a membrane, 'where surface meets depth' (Alberti cited in Friedberg 2006: 1). It is a frame, holding a view in place. Friedberg (2006: 1) expands and challenges Alberti's window of single point perspective when she considers it as a screen; at once a surface and a frame – 'a reflective plane onto which an image is cast and frame that limits its view'. She sees this screen as a 'virtual window' that changes notions of materiality, space and time. Alberti's window is not a transparent window on the world but a 'windowed elsewhere' – a virtual space that exists on the virtual plane of representation (ibid.: 243). Friedberg stresses that use of the word 'virtual' cannot be understood in its digital point of reference today but in its classical root in the word *virtus* (ibid.: 8), Latin for 'strength' or 'power'. In exploring the word 'virtual', Friedberg reminds us that that which is virtual possesses a power of acting without the aid of matter: '[a]n immaterial proxy for the material' (ibid.: 8). In this sense, virtual imagery has a 'second-order materiality' (ibid.: 11) and a liminal immateriality. Friedberg encourages freeing the term 'virtual' from its digital or 'information age' connotations, so that its 'material' connotations become more effective. Establishing this distinctive definition of the virtual helpfully illuminates a historical continuity between the virtuality produced through mirrors, painting, camera obscura, photography and film, and how we largely understand the notion of the virtual today.

Friedberg defines how the term 'virtual' distinguishes between any representation that appears "'functionally or effectively but *not formally*" of the same materiality as what it represents' (ibid: 11). Therefore she describes the 'virtual window' as both a metaphoric

window and an actual window with a virtual view; the metaphor functioning as the point of transference into the virtual (ibid.: 12).

Textiles framed as rectangles can be seen as the point of an 'ontological cut' (ibid.: 5). As Friedberg suggests, not simply between the material surface of their context and the experience contained within its aperture, but also its virtuality. Tim Ingold (2007: 1) – via Gibson's (1979) work, *The Ecological Approach to Visual Perception* – discusses the tripartite division of inhabited environments into mediums, substances and surfaces, and argues that materials are bound up in and between these, continually evolving in the 'flow of the currents of the lifeworld'. In describing the properties of a material in an environment, we are directly experiencing their *occurrence* within a lifeworld rather than the existence of an objective or perceived material with an intrinsic agency. Exploring and utilizing broader understandings of the material as an occurrence in combination with Friedberg's window metaphor through the schema of textile design bounded within the sample or swatch (or indeed screen) is useful. In doing so, we are drawing attention to the second-order materiality and liminal immateriality of conventional *and* emerging forms of textilic design, affording continuity between these practices.

Swatches as spiracles

A swatch is a portion of cloth, a piece of (or a sample of) fabric. The etymology of 'swatch' uncovers a shift of meaning, from the tally or tag attached to cloth to be dyed to the detached sample piece of cloth itself. The idea that the piece of fabric we handle as a swatch can always be considered as having a counterpart elsewhere – from which it is detached – sets up the established understanding of a textile swatch as a representative; both a promise and a possibility. The word 'swatch' and the term 'swathe' (connoting plentifulness) are both related to the noun 'swath' which at once points to a space covered by the single cut of a scythe ('a strip, lengthwise extent') as well as the agency of that space as a trace or vestige. This is

poetically reminiscent of Simone Weil's (cited in Scarry 1998: 77) 'tear in a surface': a tear, brought about by the action of tearing, produces both a 'thing' and a space; 'Small tears in the surface of the world that pull us through to some vaster space'.

The connection between objects, words and their meanings offers us new ways of knowing new forms of objects in new times. If we reconnect with these etymological definitions, a rectangle of cloth can be understood as representative of the presence of the material and the absence of the immaterial, simultaneously promising plenty and remembering traces. A piece of cloth tacitly promises the rest of the cloth, which is in its design and making and its application and use. The rest of the cloth is diminished in its material form by the absence of the piece yet gains new meaning through this separation. They operate as a material–immaterial continuum. When understood in this way the shape of the swatch is an opening of possibility and memories. These thoughts also draw us to the notion of the *spiraculum eternitatis* ('a breathing hole into eternity'), developed in the sixteenth century by alchemist Gerhard Dorn (Fremont 2017: 2). Just like Weil's small tears, Dorn's spiracle ('breathing hole') is understood as a window-like space into other realms. It is a threshold to alternative knowledge which can thus be manifested through functions of *translation* and *art-making* within our tangible existence (von Franz cited in Fremont 2017: 2). Dorn's idea of the spiracle was an effort to 'translate the untranslatable' and so, as is the nature of translation, this threshold allows movement in both directions and also in concurrence. Translation can be understood as a function of designing; translation and designing both employ decision-making and expression for the purposes of communication (Baule and Caratti 2017: 15).

In conventional textiles, designers are translating a narrative or 'mood' through the selection of the combination of material, forms, symbols, colour, context and function. This highlights the semantics of textiles (Andrew 2008), which develops from the use of repeating motifs, texture and colours. The patterning and repetition of symbols, motifs and motives

coordinate with the window-framing effect of the rectangular format to again indicate a space of possibility, which is both inviting and disorientating.² The repetition of pattern is momentarily truncated by the methods of framing, thereby affording and enhancing the spiracular experience. Absence here connotes possibilities and the spectral presence of immanent counterparts. This alludes to the operation of 'textasis' (Igoe 2013). 'Textasis', the tension of 'textility'³ (Mitchell 1997; Ingold 2010), recognizes etymological and metaphorical connections between text and textiles, between thinking, speaking, writing and making. Textasis suggests a movement between *stasis/enstasis* – unmoving, immobilized, subordinated, standing firmly within oneself – and *ex-stasis/ekstasis* – flow, excess, ecstasy, joy, insubordination, to be outside of oneself and the transgression of boundaries. In this sense, the rectangular swatch or sample can be understood as a spiracular framing device through which textasis plays out. The swatch/window, in the movement of textasis, becomes a frame for the act of designing textiles.

And so, the significance and role of edges, borders and surfaces as framing devices for textile designing, as the threshold between both the material and immaterial constituent parts, must be explored. The movement between material and immaterial through the swatch operates apparition-like: not always clearly visible, particularly once a fabric has been further cut, sewn, digitally rendered, stapled, glued and applied within the making and designing of other objects. It is thus important to explore what textiles can do before they are cut and sewn and in 'situ' (Lottersberger 2012: 46). In *The Material of Invention*, Ezio Manzini (1989: 183) prompts us to understand the primacy of a surface as well as 'the dynamic qualities that are concentrated in the surface'. He goes on to assert that the idea of static borders or edges of

² Jane Graves (2002: 47) mentions the Freudian unconscious delight and anxiety-inducing properties of pattern and repetition in textiles, creating a feeling of being 'on the edge of a nightmare', whilst using a dislocation of scale to 'manage' these qualities within the rectangular framing of a piece of cloth.

³ 'Textility', in the work of both Victoria Mitchell and Tim Ingold, defines a contiguity between textuality and tactility. Textasis explores the activity manifested from that contiguous positioning.

matter – in this context, the edges of a framed painting or a piece of cut cloth for example – is replaced by an idea of the surface as an interface, enabling an exchange of energy and information between the substances put into contact with it. He cites architect and designer Andrea Branzi (cited in Manzini 1989: 196):

Unlike the surface of a painting, ... a decorative surface implies infinite borders, and contains in each of its smallest parts the sum total of information in the entire system, since it contains the individual sign that is then repeated *ad infinitum*.

Manzini (1989: 192) also recognizes that repeated signs can create a rhythm. Repetition and rhythm indeed remain some of the characteristic features of decorative surfaces. Returning to the various framing devices through which the action of textile designs operates, repetitive and rhythmic action – spinning, weaving, stitching, knitting, printing, pasting, coding – translate creative processes into rhythmic texture, motifs, and compositions that 'go off the edge'. These repetitious aspects serve as signifier of the creative action of the maker as well as of the material–immaterial tension within textiles. Our visual and sensual perception implicitly manifests the apparition of the immanent counterpart. Just a small cut piece of textile is enough to do this.

Post-digital textile works

We live in a post-digital context where notions of the digital and the analogue intertwine in an increasingly sophisticated way. The post-digital defines a position in which the novelty of the digital has been overcome and its value is becoming fully integrated into our lives (Openshaw 2015: 5). Florian Cramer (2015: 17–18) reminds us that the digital need not be computational and the analogue can indeed perform computationally. Post-digital textile design utilizes both digital and analogue techniques and practices to create outcomes such as

bio-design, virtual reality works, smart interfaces and materials, as well as print, embroideries, weaves and knit. The shared reference points and language of the digital and the textile have been stated before, pioneered by Sadie Plant in *Zeros + Ones: Digital Women and the New Technoculture* (1997). Textiles, in their typical form, can be understood as digital at the time of their production: numbers of counted warp strands, a predetermined number of stitches. Afterall, the 'digital' denotes something divided into discrete units; with the noun 'digit' denoting a finger or toe. A digital system can be basic or highly complex, but it is systematic and traceable. What makes textiles analogue is our relationship with them, the way we interact with them, wear them out, imbue ourselves into them. Yet once out of use they can be unravelled; each strand or row once again can be counted. Cramer (2014: 18) points out that '[t]he structure of an analogue signal is determined entirely by its correspondence (analogy) with the original physical phenomenon which it mimics.' As is understood, textiles and cloth were archaically created to mimic natural surfaces such as hair, fur and skin, not only for their function but for their sensorial qualities (Eadie and Ghosh 2011). And so textiles, which at their point of production can be considered digital, ape the analogue qualities of the body. This analogy then evolves ambiently to become a sort of meta-analogue surface. The affect of textiles is then derived through their virtuality as defined by Friedberg. Post-digital textiles and materials derive agency from notions of the surface as a designed object throughout cultural history, as well as the significance of their virtuality and existence as a networked representation.

We experience a significant proportion of post-digital culture via computational screens. These screens are reformulating our view and experience of the world and our ability to act on it and within it (Openshaw 2015: 9). It is indeed already possible to interact with computation through a range of materials, from Jacquard by Google – a woven fabric interface already available commercially as garments – to Caroline Yan Zheng's (2019) research into soft robotics, where the tactility of the materials is the primary route to

engagement with computation. However, the screens we do use are still mostly made of hard, flat glass. Our tactile relationship with them is limited, but the surface absorbs and transforms us. When using computer screens, we are used to seeing multiple, framed and layered images. We can choose how to work with them, inviting a visual hierarchy or seeing all at once. A screen as a surface is fractured by and given depth by that which takes place within it. This represents a 'remade visual vernacular' which 'requires new descriptors for its fractured, multiple, simultaneous, time shiftable sense of space and time' (Friedberg 2006: 3). In post-digital design practice, screens and materials can be said to co-emerge as integral sites of design processes, leading us to question where the boundaries between screens and materials are – if any exist.

This notion of co-emergence is fundamental to David M. Berry's (2015: 44, original emphasis) concept of the post-digital 'constellation': 'The postdigital, as an aesthetic, gestures towards a relation produced by digital *surfaces* in a bewildering number of different places and contexts.' Berry refers to Bruno Latour's (cited in Berry 2015: 45–46) critique of the digital, in which he denounces the abstraction of the digital and draws attention to its basis in the material and socio-technical world; hardware, silicon and binary code. In developing his concept of the post-digital constellation, Berry condemns Latour's understanding of the digital as a set of observable practices in complex data. For Berry (2015: 47), this is insufficient in representing the contemporary omnipresence of computation and the relationship of the digital and the analogue. It only interrogates a fraction of the 'digital iceberg' which is created through layers of abstraction, from material manifestations of computation through to digital traces. In the post-digital constellation, the digital must be understood as a historiographical spectrum layered and entangled with the social and material analogue in highly complex ways.

Post-digital textiles exist along a continuum of forms of practice. They often exemplify textasis in their oscillation between the digital and the material, performing the spiracular

function in both their process and outcomes. In qualification of this, five examples of post-digital textile design practice are presented below. In these examples, intangible work is anchored in the material world through the design and making process or at the point of interaction via mixed reality. Material forms are augmented, altered, tested, mimicked or made 'virtual' through computation.

Molly Smisko of Smisko Ackerman is a digital artist based in New York and was trained in textile design at Chelsea School of Art and Design in London. She has developed work in mixed reality (XR) like *Assimilation* (2016). The person experiencing this example of design enacts the properties of the spiraculum. Their body is the interstice or interface between the tangible and the intangible. In *Assimilation* we see a stark surreal landscape in VR, whilst the tangible environment is rather bland. In [Figure 5.1](#) we see a wall mounted fan, a bowl of sand and a flimsy white curtain. The main image is the virtually inhabited environment. The experiencer sees and hears the familiar effects of the elements: wind blowing sand, water rippling and bubbling. In the tangible environment we feel sand, we feel water and the movement of air across our skin. The properties of these materials, both tangible and intangible, augment each other and force us to question them too. The gap between the digital and analogue worlds are exposed affording a post-digital critique of these elemental materials. Smisko also creates digitally rendered, animated textiles. In *Membrane* (Smisko Ackerman 2018), a pulsating, ruched body of digital fabric is seemingly internally lit and expands and contracts alarmingly, moving towards us of its own volition within the frame of the screen. We then see folded materials encapsulated within a liquid form, as well as shiny visceral surfaces being forcibly stretched by something (a hand maybe) off-screen and out of our frame of vision.

Lucy Hardcastle is a London-based digital artist with a background in both textile design and information experience design at the Royal College of Art, London. Hardcastle's practice blurs the tangible with the intangible. She uses sketching, glass blowing techniques, 3D

printing, flocking, hand dyeing fabrics, 3D rendering, digital animation, photography and sound effortlessly to create 'real and imagined touch, visual illusions and sensual aesthetics' (Hardcastle 2017). Liza Mandelup's profile on Hardcastle (2016) shows her at work, shifting through the various 'frames' of her practice. Her rectangles of cloth, selected for texture, dyed to a specific shade, expand and are extracted into their material properties through her practice, much in the sense of an exploded technical drawing. These material properties tell 'condensed stories' (Ingold 2007: 14) and move into new realms as they are rendered digitally, taking on new forms which do not behave in ways that we have come to expect in the flows of mediums, substances and surfaces in our tangible environment. Rather they perform in new ways, dictated by different forces – algorithm, code, hardware, screens, eyes. In *Archetypes* (2019), fibrous textures are seemingly growing on ice or some other crystalline structure, then tumour-like growths appear and become part of the thing which captivates us, wrapped in tendrils. These glistening and furry surfaces seem to crackle, melt and yet grow before our very eyes (Figure 5.2).

In a blog post for the exhibition series *Rethinking Matter*, curator Pamela Grombacher (2017) uses the work of textile designer Emilie Carlsen as a discussion point for digital materiality in reference to Paul M. Leonardi's (2010) article 'Digital materiality? How artifacts without matter, matter':

Her textiles are not the simple inscription of data, but are instead the product of a mutually constitutive exchange between data and fabric. She materializes data as textiles, and then digitizes these textiles to create new data, blending digital and analogue processes in a back-and-forth that blurs the material and the immaterial realms. (Grombacher 2017)

Grombacher suggests that Carlsen's textiles defy Leonardi's depiction of data as immaterial, unless it is manifested materially. Her practice leaping in and out of the spiracle, Grombacher describes how Carlsen begins in the digital realm with what she calls 'digital waste', working this into designs which she then prints onto different materials to create varying textural and colour effects. She often then rescans these printed materials to produce new permutations of the digital imagery (Figure 5.3).

Zeitguised are a multi-disciplinary, Berlin-based digital studio, who specialize in the creation of 'exquisite realities' which carry 'hallucinative narratives of shape, color and behaviour relations' (Zeitguised / F°am 2018). Their archive of work includes a number of projects where digitally rendered textiles are the focus. *Emancipath* (2018), a collaboration with Danish interior fabric manufacturer Kvadrat, is an interesting exemplar. Kvadrat are known for their high-quality canvas textiles and in this film Zeitguised introduces new qualities to these textiles through the means of '3Dcgi craft'. Canvas becomes flexible, fluid, stretchy and it bubbles. Organic rippling shapes with 'fabric' surfaces detach from angular foundations: an emancipation. They play with our understanding of how textiles *are*. They describe how they have knowingly moved the tiled textures across the geometric shapes to expose the work as a digital construct. This act of post-digitality in turn forces us to question known rules for dealing with tangible textiles: fabric grains running – literally moving and flowing – in opposing directions, the complexity of cutting and piecing of cloth to fit around 3D and moving shapes, weave structures that should not stretch, but do. In the work of Zeitguised, these are arbitrary restrictions. In this piece, the edges are what instantiates these questions. The edges/selvages are moved to the centre of the frame in an act of folding (Deleuze 1988). The capabilities of this immaterial cloth, though recognisable through a weave structure, is unknowable, unpredictable and unreal (Figure 5.4).

Angella Mackey is experienced in the design of physical–digital hybrid fabrics. Zeitguised goes as far to call these 'phygital'. Mackey undertakes 'design explorations' for

dynamic fabrics that have the abilities of a computer screen. She asks, '[w]hat would it be like to wear fabrics like this?' In her 2019 work with Phem, she wants to show us, asking us to choose a video we want to wear. Mackey uses live green screen technology to facilitate this dynamism. In the work of Phem, phigital textile designs come about through sym-poiesis. Tangible fabrics are designed or chosen using specific colours or shades, and the semiotic propensity of these colours is expanded in the digital realm. Mackey designs 'digital shimmers' which are the animated intangible layers that will be incorporated onto real cloth and into our sensory perception through the rectangle of a smartphone screen. In an archetypal post-digital approach, Mackey produces all this through off-the-shelf apps, purposely exposing the digitality and encouraging further processing and digital granularity by filming screens showing films.

These textile practitioners are playing in and through the spiracle, layering up performances of textilic design. This layering, coupled with concepts of frames and windows, creates a *mis en abyme* (Friedberg 2006: 14), functioning as nested apertures fading from view. This nesting does not simply suggest a metaphoric scaling, but an extension, multi-dimensionally, into virtuality.

Matter, in our view, is an aggregate of 'images'. And by 'image' we mean a certain existence which is more than that which the idealist calls representation, but less than that which the realist calls a thing – an existence placed halfway between the 'thing' and the 'representation'. (Bergson [1908] 1998: 9)

Immaterial textiles

After considering the work of these practitioners, it is easy to accept that the digital can have material qualities. Their ability to deliver affect is evidenced above. Virtual textiles and materials are wholly affected by the flows between medium, substance and surface: the

quality of the hardware being used, the speed of the data connection, the sensory preferences of the experiencer. I suggest here that textilic practice, often manifested conveniently within frame-like geometries, can offer a spiracular experience – an opening which affords types of experience belied by their tangible forms.

In the work of Smisko Ackerman, Lucy Hardcastle and Zeitguised, the use of sound is particularly affecting. The sound we associate with tangible materials is most often instigated by our interaction with them. Soft crispness, a hollow wobble, a squeak, a subtle or zipping sound caused by friction against skin or a nail ... silence even. I assume that, as we cannot actually touch works of immaterial textiles, sound is incorporated as part of the design process. In the examples given, it appears that these sounds are also created through computation, containing aural motifs and repetition, and sometimes with no obvious beginning or end. There is a knowing and experimental choreography between the sound and the immaterial materials. Sound here is a contributor to the digital materiality we are experiencing. Contemporary electronic music is often created entirely digitally, sometimes imitating or directly using recorded sounds made by people and instruments in other spaces and at other times. New Materialist scholars Heidi Fast, Taru Leppänen and Milla Tiainen (2018) attend to the physicality of sound through vibration: vibrations engage materials, bodies and spaces in

[a] mutually affective field of resonance, which surpasses, yet also reshapes, the subjective experiential register. ... the vibrations of sound waves attest to, animate and enhance the liveliness and agential capacities of matter. ... vibrations focus our attention to the interconnectedness and co-occurring of human and more-than-human materialities, bodies and entities.

Vibrations are transversal and disperse into other sensory registers (ibid.). And so sound, or the vibrations caused by sound, may be a more direct access point to the materiality of digitally rendered textiles than the visual. Vibration is of course recognized as a type of 'distance touch' or a 'structured pattern of pressure changes' (Katz [1925] 1989 cited in Ratcliffe 2018). These works bring the experiencer's body in direct contact with digital materiality, thereby emphasizing the quality of 'stuff' within complex assemblages (Deleuze and Guattari 1987, Delanda 2016) or constellations (Deleuze and Guattari 1987, Berry 2015).

I return to the passage at the beginning of this chapter, purporting to the 'conventions of textile design'. With our developed understanding of immaterial textiles, these conventions take on new meaning and emphasize the expanded practice of textile design; that is, textilic design in the post-digital. Rectangles of fabricated fabric, textilic works, become tears in our collective consciousness, framed so as to become windows into other realms. Swatches and screens both offer a virtual materiality where presence implies absence and vice versa. Post-digital textilic works occur as condensed stories delivering sensory affect. Through rectangles, we experience embodied, enacted information. This information exists as a counterpart, within *and* beyond the material itself. The consideration of the presence of the absent counterpart can be understood as a substantive element of the act of designing textiles. Whether the textile is created through rectangular silkscreens or computer screens, they can offer information, experience, affect and possibility across the borders of their material and immaterial existence.