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Domestic Machine Knitting as Tactile Art

Eleanor Smith

A thesis submitted to the University of Huddersfield in fulfilment of the requirements for the degree of
Master of Arts by Research (Art and Design).

The University of Huddersfield

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1. Abstract

This thesis explores the conceptual and practical ambiguity of domestic machine knitting which allows it to be appropriate in a variety of settings. The purpose of the study is to understand the perception of machine knit textile art in a gallery context, with a focus on embedded associations of knit and cultural shifts in galleries and museums of enabling and prohibiting touch. Initially, through practice-based research, a variety of methodologies were utilised in the study, with the method of making being defined by pre-existing familiarity and knowledge of knitting. Reflective practice encouraged a research journal to be the main method of reflection, whereupon colour could be determined as a method to encourage audience interaction and subtle approaches to tactility were explored to produce an installation that aimed to have audiences interact despite not appearing overtly tactile. Subsequently, methods of exhibition analysis were applied by utilising unobtrusive observation, reflection-in-action and photography, alongside anonymous questionnaires, to produce both qualitative and quantitative data. In response to emerging debates concerning the relevance of audience participation in textile-based exhibitions this study aims to highlight to audiences and artists using the textile medium, that interactions of touch should be allowed and encouraged in order to expand on the visual experience. Touch is a form of exploration that transforms the audience into participant. This study would be suitable for artists and academics who are enraptured by textile culture and developing knit-based practices in the gallery domain that employ strategies of audience interactivity and engagement with the artwork.

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2. Introduction

The term textile art (explored in detail in Appendix 2) has become more popular since its beginnings in the late 1950s (Searle, 2008) where it slowly started including the use of fibre in its many interpretations, and gradually became more common within the arenas of fine art. The research project investigates how this term is defined, before concentrating on the use of knitting as a form of textile art and how knit relates to tactility, which is the focus in the main body of the thesis. In order to be showcased within the same context and locations as more traditional forms of art, such as public spaces and galleries, both hand and machine knitting in this context were explored in order to understand and highlight any links to textile art and the values, such as craftsmanship, skill and attention to detail, often linked with craft. This was done through the analysis of practitioners using knitting as their creative practice to understand why they have actively chosen to use knitting as their expressive medium. The theme of Gender and Feminism (Appendix 1) became apparent. However, for the purposes of this research this theme was not explored as it did not inform conceptual motivations for producing the researcher's own artwork in the study. Furthermore, knit practitioners were also selected for investigation due to their practice focusing on tactility.

The installation artists Jenny Zig-Zag, J.W.Anderson and Rudolf Stingel are scrutinised for their methods of encouraging audiences to engage with touch. Through this enquiry, the pros and cons of displaying tactility were researched to explore the balance between audience interaction to develop understanding and meaning, with the awareness of risk for potential damage which may have impacted further responses. Tactility, defined as 'of or having the sense of touch' (Collins Dictionary, 1998, p555), is an association of knitting that was utilised in this study for challenging the perception of what a gallery context is, as the usual expectation of audiences is they are not allowed to physically touch work on display. The aim here is to challenge this to highlight the reasons why an audience might choose to interact with a knitted piece of textile art. Collecting data about the types of interactions in the study enabled the discovery of motivations behind participants' interactions, which in turn, allowed developments in practice to encourage more audience members to become participants.

The relatability of knitting had allowed the exploration of the audiences' haptic¹ interactions as well as interpreting the work both physically or emotionally. The repeat patterns of the human body and use of colour were designed to encourage the audience to venture closer to the installation to visually explore the work and then feel moved to physically touch, as it became more approachable due to the tactile² connotations of knitted textiles.

Under examination in the study, is knitting's ability to convey an artistic message that was not restricted by the domestic associations commonly identified with the medium. The function of knitted textile art is also

¹ 'relating to the sense of touch in all its forms...' (Paterson, 2007, p. ix)

² '... specifically the sensation of pressure...' (Paterson, 2007, p. ix)

discussed as a motivation for making, with consideration of post-display use, ensuring the work is still on view in an alternative setting, rather than being stored away.

Ultimately, the study explores audience interaction with a domestic machine knitted installation and communications of the right to touch artwork in public settings, incorporating research methodologies covering qualitative and quantitative data to collate viewer responses to the displayed work.

Knitted Textile Art

Knitted textiles has an ability to fit in a multitude of locations, and has a certain conceptual and practical ambiguity and adaptability which enables it to be appropriate in a variety of settings, such as domestic and artistic. This is due to its material qualities as well as visual aesthetic and potential for functional application.

By exploring knitting as more than a domestic craft, the boundaries are pushed in terms of context so it is made visible as a piece of artwork. The relationships and associations of knitting relate to the domesticity and familiarity with the medium, which can be utilised to create a language of expression to entice the audience to engage with the work, as some perceive it to be an everyday skill. This is due to it usually being shared through generations in a family, within the domestic setting of a home.

The research aims to show that knitting can utilise themes used by more traditional pieces of art, such as, life drawing of the human body as well as the importance of the artistic message and concept drivers often associated with art.

A further way to challenge the context of the gallery through showcasing knitting, was to allow the audience to physically interact with the knitted installations, something that is more commonly prohibited when viewing a piece of artwork. This allowed the artwork to be accessible to the audience in any location, rather than only specific groups, which reflects the ethos of the Useful Art Movement ³(Bruguera, 2011).

The personal heritage of knitting stems from the skill being passed down through generations, which is shared with many of the practitioners discussed in the thesis. It was a skill shared for its function as well as its aesthetic qualities. This is compared to David Pye's (2010) theory of the Workmanship of Risk and Certainty where the crossovers are detailed in relation to personal practice and leaving an artistic mark through a shared experience of touch.

Hand and machine knitting are very much established with making and craft, but appears to be less visible when talking about art. Knitting presents manifestations of the criteria of textile art; it is a skill; has a tradition and heritage; has a language and can be driven by process and concepts, but it is not commonly perceived in this context.

In this study, knit is used to expand the researcher's knowledge of the medium in practice, working from familiar knit processes to produce art installations.

³ Art that is useful rather than practical, where the focus is on the beauty of being useful and 'use' is viewed as an aesthetic category (Bruguera, 2011). In relation to this project, the Artwork produced as an installation is also instilled with considerations of the future use of the work, to increase the longevity of the individual pieces.

The unique characteristics of knit are utilised in the study by means of engaging the audience's familiarity of the knit medium to entice them to interact with the installation on display. Furthermore, knit as a material, produced on a domestic 7-gauge machine, is a versatile fabric that allows flexibility of display. This means the scope of installations is not static and not restricted to a single format of display, which is explored throughout the study. Research relating to knit practice has grown during the 21st century as its versatility is being acknowledged and utilised, to allow the full potential of knit as an interactive art installation to be explored in a multitude of ways. The use of knit in this study is process driven with a covert approach to tactility because the aim was to use the familiar properties of knitting to encourage participants to interact using touch. It can also be argued that as practitioners and researchers '... it is important to study things that are familiar and we think we already "know" ...' (Mayne, 2015 cited in Lampitt Adey, 2017, p87) because these can often be taken for granted due to attentions more commonly being drawn to specific or unusual forms of knitting (Lampitt Adey, 2017). Adey (2017) continues to suggest that knitting has been presented in different forms, such as, therapy, activism and art practice. Anna Fisk (2019) explores this in her research to determine the role of knitting in memorialisation. She conducted her research through interviews with practitioners in central Scotland, where they were asked to bring items of knitting to their interviews. Although tactility was not the focus of Fisk's study, it is worth noting that she writes '...that I could touch... (for the purposes of aiding my memory...) ...' (Fisk, 2019, p 556), showing the importance of having a tactile experience with the knitting as it is an experience that can be committed to memory and drawn upon in the future.

Alternatively, Anna Persson (2009) focuses on interaction with knit through a tactile experience, stating 'Both interaction and textile design are considered with the design of visual and tactile expressions.' (Persson, 2009, p1). Meaning, visuals and tactility are intrinsic when designing interactive knitting. In the research, Persson explores the expressiveness of textile materials that are interactive by focusing on the variables of tactile and visual properties in her knitting. Her explorations are carried out by experimenting with non-chemical burnout techniques, reactions to mobile phone signals, touch sensing textiles and expressional aspects of wearable technology (Persson, 2009).

The intended audience is academic, including scholars of knitted textiles as an art, design and craft practice as well as textile practitioners. There is considerable interest in new research into knitting as an artform, such as the site-specific work of Jane Scott and Elizabeth Gaston, and methods of social engagement, which is explored in Lou Baker's installations, both of which are discussed later in the thesis, and the field is promptly expanding. This new study investigates founded work in this field, focusing on knit as an idiosyncratic research method.

Main Aim

To better understand the intention and perception of machine knit textile art in relation to its gallery context, the embedded associations of knit, cultural and contextual shifts in enabling and prohibiting touch in museums and galleries.

Objectives

The objectives were to identify, through a literature and practice review, key examples in the historical development, and contemporary practice, of knit based textile art. To carry out an exploration of the intention and perception of knit based textile art in relation to its gallery context and the embedded associations of knit. To investigate, through a literature and practice review, the cultural shift in enabling and prohibiting touch in museums and galleries.

It was important to understand why an audience might choose to interact, so the motivations behind their interaction could be explored. The knowledge gained could then be applied in practice to potentially influence future interactions from other less forthcoming participants, to understand if interactions are something that can be influenced.

3. Context

In this chapter, three main areas are discussed; Heritage of Knit; Audience Interaction; Knit Installations. The history of knitting as an art practice is discussed alongside the heritage of knit to encompass the associations of knitting, such as comfort or hand knitting garments and accessories, which stem from domestic environments, where there can be a familial link that provides a variety of connotations, which is explored in the thesis. Through the literature, this is explored and then compared to artists working in the medium to better understand their motivations for using knitting as their art practice to observe any similarities with the researcher's practice.

Audience interaction underpins the research study, so an understanding of interactive art is examined alongside the exploration of varieties of possible interactions which, through the literature, highlighted touch as the focused form of interaction. This was determined through researching into the history of audience interaction in several contextual locations, such as Gallery and Public spaces. Barriers faced by participants both physically and psychologically are also discussed.

Finally, Knit Installations are explored in further detail, examining those that both encourage and prevent audience interaction. This is researched to understand the artists' motivations for allowing and denying the interaction of touch, whilst also highlighting alternative ways for audiences to engage with the knitted artwork.

3:1. Heritage of Knit

Knit Associations

Knitting is associated with the domestic environment, usually through a familial connection as it has a strong history of being a domestic practice (Turney, 2009). Many associations relate back to protection, love and maternal care. Hence, perhaps why it is still predominantly associated with female practitioners (Vannier, 2018), as it may have been the female members of the family home who carried out knitting. Jessica Hemmings (2018) refers to another association; knitting is something Grandmothers do. When talking about the press release for the *In the Loop* publication. A statement was made, 'Not your Grannies knitting book.' (Hemmings, 2018) suggesting that it is challenging these domestic, gendered, age and hobbyist associations, but the phrase itself actually makes them stronger, not necessarily helping the image of the book.

It can be these associations that prevent knitting being viewed as conceptual concerns of the maker because they perpetuate the idea that knitting is a popular amateur practice not worthy of critical attention. Levine (2013) adds these associations can create obstacles for knit artists who then challenge them in order for their artwork to be valued as art.

In the 21st century, Hemmings (2010) believes it is our practical need for knitting that has disappeared, therefore altering our relationship with the medium, whilst the evocative tactile qualities remain prominent. This is partly due to both new and long-time knitters creatively expanding the possibilities of

knitting, to extend beyond utilitarian and domestic purposes, but rather focused on unexpected outcomes and new meanings. One artist doing this is Dave Cole (Monem, 2008) who says he wants to take the domestic craft of knitting and bring it to the public arena, with the purpose of changing the nature of knitting and its known associations.

This is also executed by artists Jane Scott and Elizabeth Gaston who work in collaboration to use knit as a research tool to create site-specific, unique installations that integrate digital knitting and the processes of craft (Pannett Art Gallery, 2019). Their joint exhibition, *Post Digital Knit* (2019), showcased knitted pieces that react to the environmental

conditions by adapting their shape and having the ability to change colour. In this instance, the work is designed to consider how technology disturbs traditional making processes, by focusing on how craft thinking and digital technologies enable their work to be adaptive, responsive and bespoke (Scott, 2019).

‘Knitting is everywhere... it’s taken for granted’ (Turney, 2009, p5). The culture behind knitting is often perceived as ordinary and unchanging, which over time has meant those looking at it feel it has nothing more to say (Turney, 2009). It could be said the limited associations, due to their popularity, is what is restricting the views on knitting. Hemmings (2018) goes on to say that due to knitting becoming more popular in recent years, the associated stereotypes are becoming more entrenched.

However, these associations could actually provide a level of intimacy for the viewer. Charlotte Vannier (2018) expresses that ideas of memory and tradition are often associated with knitting and can help bring the audience closer to the work.

‘Knitting is incredibly inviting... draws people in, in a really powerful and useful way.’ (Hemmings, 2018). It can also be the complexity of knitting that can be used to highlight the level of skill to capture the audience’s attention. Knitting can be perceived as a predictable hobby-craft, leading it to be overlooked. Whereas in some cases, it can be quite technically difficult (Turney, 2009).

Interestingly, knitting has also been associated and considered as a form of folk art (Vannier, 2018). In this setting the associations are, rather unexpectedly, dark. Hemmings (2010) talks about knitting appearing in fiction and folklore, and how it is controversially used to depict grief, disappointment and loss, as a way to



Figure 1 *Growing Medium*, detail, Jane Scott, 2019



Figure 2 *Colour Sails*, Elizabeth Gaston, 2019

navigate these emotions. This encourages the notion that knitting has its own language (Hemmings, 2018).

With this vocabulary it can explore a range of topics using the associations it carries.

The concept behind a piece of knitted artwork can use the associations and language of knitting to make the work more evocative (Searle, 2008), as Lisa M. Lajevic & Kimberley Powell (2012) state knitting comes with its own practice of culture and social meaning which the artist can utilise. This is instigated during the creative process when the work is still gestating with the artist.

Vannier (2018) states it is the slow pace of knitting that attracts artists to use the medium because they have to build the work up slowly with their hands, which in turn slows their thoughts down. 'The lengthy creative process teaches artists patience and humility...' (Vannier, 2018, p6). This drives the work forward, meaning the artist can explore the underlying concepts during the construction process in a timely manner, in order for them to be visible to an audience, '...process and materials are what much contemporary art is about' (Levine, 2013, iv).

Knitting, therefore, is no longer purely bound by its domestic associations, and is no longer viewed as entirely ordinary (Turney, 2009). It can be anything; clothing; therapy; sculpture; protest or performance (Gschwandtner, 2007).

Knitting, depending on your cultural experience of the medium (domestic, academic and/or artistic) can be viewed as craft or art, and sometimes both. Despite this, Sarah Foster (2019) found that most media reports assume that pieces of knitting are not artwork, adding to the challenges faced by those working

with the medium. The work of Freddie Robins exemplifies this as she uses her work to blend the boundaries between craft and art by showcasing the underlying values of craft, of good quality craftsmanship and attention to detail. She states she is 'disrupting the medium from the passive' (Monem, 2008, p172), meaning she is giving knitting a voice in the art world where your work is expected to shout, whilst not compromising the qualities that make it so unique.

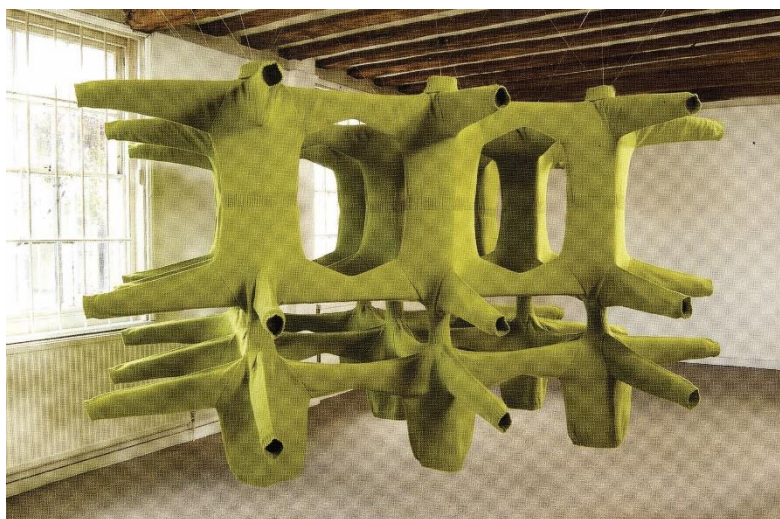


Figure 3 Anyway, Freddie Robins, 2002

Knitting has a vast range of associations that can be utilised by those creating the works for display, it is up to the individual artist as to which they want to make visible through the message they aim to convey.

[Expressing an Artistic Message](#)

Knitting can be understood as an everyday skill because of its familiarity and artistic message that is both respecting and then subverting conventional associations of knit towards contemporary outcomes. It is in effect, a form of emancipation that is being expressed. Freddie Robins believes it is this that allows knit to

cross a multitude of boundaries, therefore pushing it into the future of artistic practice (1999, cited in Gale & Kaur, 2002, p33).

The idea of bringing concepts to knitting was used infrequently before the 1960s, as it was only in the late 1950s when Fibre Art (including knitted constructions) began to emerge. Artists and craftspeople during the 1960s began to experiment with new materials and methods of making, such as knitting, as a way to rebel against the fabricated definitions of art (Searle, 2008). Jo Turney (2009) states that knitting was an ‘... interdisciplinary medium’ (Turney, 2009, p2), because many practitioners were utilising and manipulating knitting to diversify their creative practice. Based on this, the number of artists exploring knitting’s creative and artistic potential increased gradually throughout the 1970s and 1980s (Searle, 2008). An artist exhibiting this more recently, is Laura Kamian who was originally trained as a painter. Kamian used both mediums, but in very different contexts. Viewing her painting as serious and her knitting as more leisurely. Feeling guilty about how judgemental this view was, she decided to bring knit into her painting world, substituting her paints for yarn, with the end results being framed rather than worn (Searle, 2008). Kamian’s realisation shows she recognised that she viewed painting as superior to knitting, therefore, decided to readjust her artistic practice and values in order to include knitting as her practice. Showing she wants knitting to be viewed as art.

Sabrina Gschwandtner (2007) has investigated the art practice of artists choosing to work with knit and has concluded it is the versatility of knitting that appeals most to the artists. She continues to say the artists may actually be using the skill of knitting as a way to honour the history and tradition of the medium, as well as questioning some associations discussed earlier, for example, ‘... femininity, masculinity and domesticity’ (Gschwandtner, 2007, p16). For these artists, history and associations are embedded in the medium and form the foundations for the work they create. They are used as conceptual drivers. This is significant as Gschwandtner (2007) continues to add, during the 1950s, when the Fibre Art movement was beginning, many artists who chose textile mediums as their art practice, were trying to rid themselves of traditions, finding them too restrictive. Instead, they were searching to add meaning to their knitting in order to give it more dimension. This shows how the approaches to knitting and reasons for use have changed since the 1950s.

The knitting itself adds meaning directly to the artists’ work and gives a sense of direction (Vannier, 2018). The meaning behind a piece of knitting can be symbolic. As Karen Searle (2008) expresses, the symbolism can be easily found in the individual stitch ‘... it is a loop without beginning or end. Interconnected loops can be a metaphor for life and human connectedness’ (Searle, 2008, p9). This discusses the physical fabric

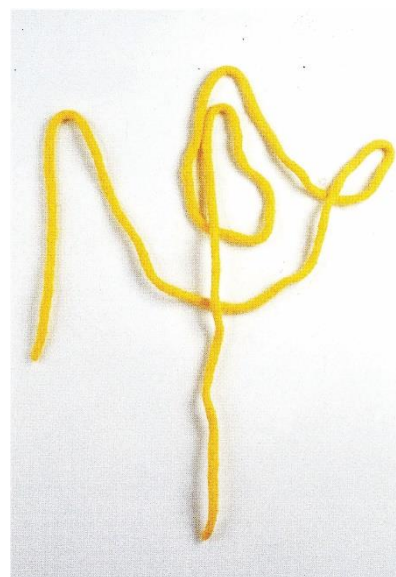


Figure 4 Yellow I-cord Gesture, Laura Kamian, 2006

of knitting and how it can be read artistically without needing an identifiable subject. The knitting itself can be the theme.

As well as being self-contained, knitting is also used to convey a variety of artistic messages, not confined to just the knitting. Turney (2009) makes the case, knitting can make social and political statements as well as challenging national and global issues. Due to this, it can carry a large variety of meanings and purposes.

This diversity has led to a renewed interest in the medium, furthering the expansion of knitting's capabilities as a means of expression. Knitting has been adapted and reinvented by artists, with some using it as a performance to bring knitting further into the view of the public, with the possibility of the audience directly interacting (Searle, 2008). Much like how David Revere McFadden refers to the work of Sabrina Gschwandtner as celebrating '...knitting as a vital and ever-evolving form of expression' (McFadden, cited in Gschwandtner, 2007, p4). It shows knitting is constantly growing, with the artists choosing to use the medium fuelling its growth because they are searching for ways to further express themselves. 'They are being inspired to rediscover, invent and reinvent, utilising a process that creates structure in order to deconstruct and reconstruct' (Vannier, 2018, p6). For some artists it is the process of making the knitting that fuel them forward, allowing them to be more creative and expressive.

Hemmings (2010) states knitting can be used as a tool by the artist not only as an act of making, but also thinking. This is because it forms a structure for both processes. Gschwandtner (2007) puts this succinctly when describing her own practice. '...knitting was not about what I was making, it was about the act of making.' (Gschwandtner, 2007, p5) knitting had become the focus as a process, rather than a means to an end. She continues to add, 'I started knitting to stop thinking' (Gschwandtner, 2007, p5), or rather overthinking, due to needing to make without focusing on the value added by herself as the artist, and what the meaning should be.

Searle (2008) concludes, knitting artists share one particular characteristic, '...they approach knitting with a sense of curiosity and wonder' (Searle, 2008, p16). This enables the full exploration of the knitted medium as a process and finished piece that continues to be saturated in history, tradition and artistic meaning that is free to interpretation by an audience.

Knit Artists

Commonly, perceptions of knit are rooted in the domestic environment, and participants bring these ideas with them when viewing knitted artwork. Therefore, artists can use these to enhance their work, in order to create a new memorable experience for their audiences. When interacting, participants will prepare themselves for the expected experience, but the artist is able to subvert this by using materials or subjects that contradict the perception of traditional knit.

The process of creating knitting is a very tactile method, whether it be done by hand or domestic knitting machine. 'Knitting has become an important way to reassert the tactile and social pleasures we all crave' (McFadden, cited in Gschwandtner, 2007, p4). McFadden is suggesting, as audience members or artists, there is a need to experience through touch and social interaction which as humans, is enjoyable because it

is a natural part of living. Knitting combines a means that enables these instincts to be met, by both viewer and creator. When speaking about the work of Jools Gilson, Bernadette Sweeney (2019) acknowledges the placement with the audience being in close proximity to the knitted artwork, the work becomes naturally accessible.

The following artists are being discussed because they have chosen to work with knit in their art practice due to a variety of factors having influenced their decision to use this medium.

For some, the end goal of needing to produce an outcome that is three dimensional and more sculptural in form, is why they have naturally turned to knit as an art form, it allowed them to work with fewer boundaries when developing their constructions. This can be said for Isabel Berglund who had her formal training in textiles at college, before graduating and moving into fashion knitwear (Gschwandtner, 2007). Having been familiar for many years with knitting and its capabilities of creating form, it was natural for Berglund to develop this as an art practice to produce sculptural pieces that would eventually encompass a whole room that immerses the audience in knitting.



Figure 5 City of Stitches, Isabel Berglund, 2003

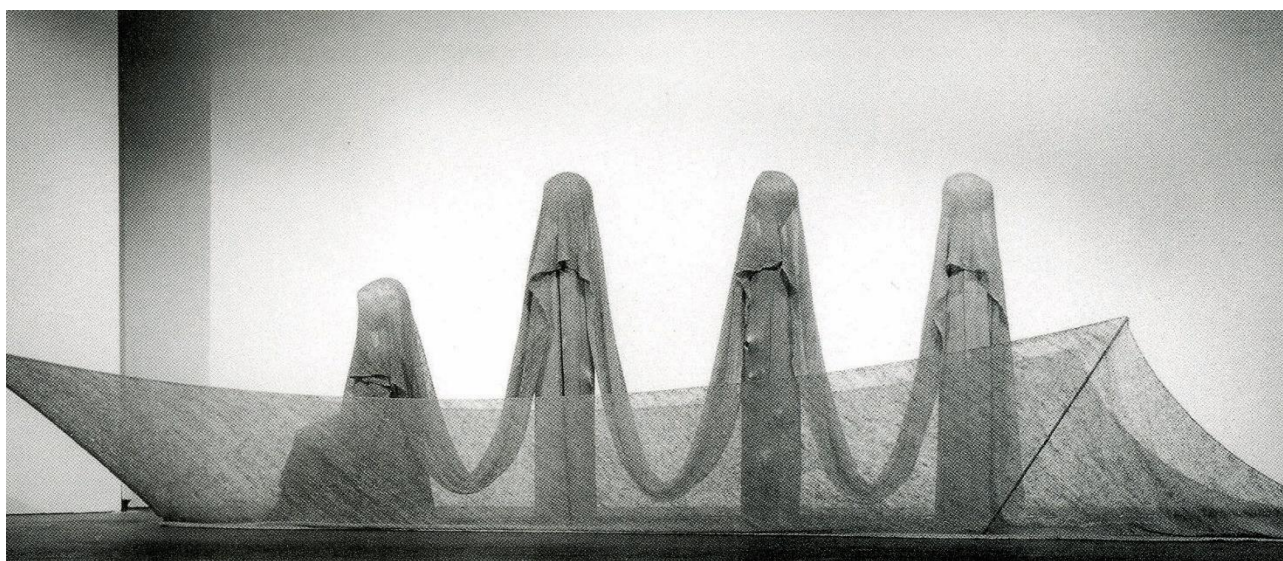


Figure 6 Boat with Figures, Katharine Cobey, 1999

Similarly, Katharine Cobey (Searle, 2008) feels that knitting is not restricted to purely fabric, it is a three-dimensional technique instilling a sculptural approach through the use of basic stitches.



Figure 7 Ascent, Donna L. Lish, n.d

returned to knitting in order to realise a more three-dimensional way of working.

It could be argued, that knit and needing to work in a constructed, three-dimensional and sculptural way appear to work well together with a large influence on choosing knit as an art practice.



Figure 9 Fiberglass Teddy Bear, Dave Cole, 2003

Material is one area that has a large association with knitting, as it connotes itchy wool, or bright acrylic yarn as well as much softer yarns.

Challenging this is artist Dave Cole who regularly knits with unconventional materials such as lead, fibreglass and electrical cables (Gschwandtner, 2007). This allows him to be more experimental in setting himself new challenges that fuel his practice. To contrast this, Jim Drain manages to challenge his materials by actually using the materials we do associate with knitting, but to communicate a message of 'hard

For the artist, Donna L. Lish, she found garment construction extremely frustrating, so when she discovered machine knitting, she was able to combine her love for knitting with her passion for making sculpture (Searle, 2008). Therefore, seeing the potential for both to work in tandem.

Interestingly, Karen Searle (Searle, 2008) writes that she was a knitter but moved into weaving. However,

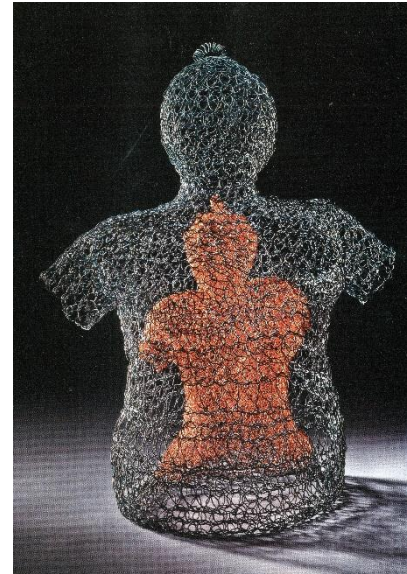


Figure 8 Woman Within II, Karen Searle, 2006

There are many associations surrounding knitting, which relate to more traditional and hobbyist craft approaches linking to use of materials, gender/feminism and a domestic context, as discussed in the Knit Associations section of this thesis. Therefore, many artists feel they must challenge associations to fuel their work.



Figure 10 I Wish I had a Break, Jim Drain, 2005

narratives cocooned in soft textures' (Drain, cited in Gschwandtner, 2007, p24), so the work contradicts and confuses itself and therefore the viewer.

The key findings from the artists discussed is their motivation to use knit, whether it be machine or hand knit, to create a sculptural outcome because the medium provides fewer boundaries for them as the artist and can be achieved simplistically through the use of basic stitches. This gives them the opportunity to engage their audience due to the recognisable knit stitch being used to form installation pieces that juxtapose the everyday expectations of what knit is and where it is found. Knit allows them to work in much larger scales, giving them the ability to immerse their audience and enhance communication of the artistic message. This is due to the knitted medium drawing the audience in and the artist subverting the stereotypical ideas of what knit can be. An immersive experience in a knit installation allows focus and a conversation between artist and participant to take place through the knitting itself. In turn, for some, the medium provides an opportunity to challenge the associations of knit by drawing attention to materials, context of the pieces and even the knit medium itself. Using knit as an art practice provides opportunities to engage the audience and challenge any preconceptions they may have surrounding knit and the piece they are viewing.

3:2. Audience Interaction

The focused areas being discussed in this section are the perceived expectations of behaviour in the gallery when viewing public art. Multiple types of interactions are explored before focusing on touch, which is analysed in order to understand the pros and cons of having this as an accepted interaction, in the context of viewing artwork. The link between touch and how this informs making and finding meaning, are explored by considering the impact on both artist and participant, as well as considering on the potential influence that the tactile associations, of knit and textiles may have on encouraging the interaction of touch in a gallery environment.

Interactive Art

In order for a piece of art to be deemed interactive, the audience has to engage with the work on display by creating an environment that is inclusive and approachable (TATE, n.d). 'Interactive art is a system that reacts to inputs... and generates responses...' (Her, 2013, p113). Responses are integral to the artwork as the audience is invited to interpret and experience the work rather than purely observe.

Visual and Tactile Interactions

An audience can interact with a piece of artwork in a variety of ways, as audience engagement relies on audience interpretations for them to truly engage with the work on display. Hooper-Greenhill notes (2010, p20) '... closely related to patterns of participation are patterns of interpretation and meaning.' The sense of sight; touch; hearing; smell and taste allow the audience to engage in all aspects of the pieces (Classen, 2012). Maurice Neville, Pentti Haddington, Trine Heinemann & Mirka Rauniomaa, (2014) continue to add, it is the object that influences the type of interaction and which senses are most appropriate to use. The objects engage the body in a way language also can. '...five engaging characteristics (incentive, transfer, accessibility, play and challenge)' (Her, 2013, p114). These characteristics are about gaining the attention of the audience as quickly as possible and keeping it, in order to turn it into an interaction or participation. The main interactions considered in this section are observation and touch.

Observation comes very naturally to the audience, especially given it is the strongest mode of associated interaction, as previously discussed. Observation as a means of interaction is enhanced by displaying objects in a well-lit location, sometimes situated behind a clear barrier, for example, glass or railings (Classen, 2012). This allows the audience to access the work on display and emphasises its visual aesthetic qualities. However, Classen (2012) also argues that purely observation, sight, detaches the viewer from the object because it creates distance between the two. Lee Ufan (2010) also adds that seeing has a shallow meaning, because it means the audience only acknowledges the artwork rather than reading into it. On the contrary observation can be '... a form of immediate knowing...' (Crary, 1988, p5) as observation is instantaneous and very little can be hidden (Crary, 1988).

With this in mind, Classen (2012) argues that touch corrects any misconceptions caused by only observing, using the example of lifting up an object to explore its weight. Maxine Bristow (2012) also adds that cultural

and artistic expression are strongly linked with touch as a means of interaction, as it links the viewer to the work almost immediately. In terms of craftwork and textiles, this remains the case as they were primarily created for the home and families (Classen, 2012). These are the associations the audience brings with them when interpreting the displayed work. 'Touch is a primary means by which we come to understand cloth...' (Palmer, 2015, p32).

When speaking about the aesthetic experience, Her (2013) asserts that touch and observation are both equally important, as this type of experience does not only refer to a physical interaction but includes the analytical mind, which both encourage the viewer to interpret the work on display. Observation is important in attracting an audience, '... bright colours were employed... for the purpose of luring people into touching them...' (Classen, 2012, p128). This implies it is the visual aesthetic from observing that ensures the audience approaches the work, before then interacting through touch in order to gain more tactile knowledge. The material form of the artwork is what is crucial to creating the experience (Kreplak & Mondémé, 2014). 'See with a feeling eye, feel with a seeing hand' (Goethe cited in Classen, 2012, p132). Touch is not a replacement for observation, rather, it is an enhancer (Ferris, 2001).

[History of Audiences Tactile and Observational Interactions with Objects within Gallery and Public Art Locations](#)

Constance Classen (2012) discusses the social norms of the gallery during the seventeenth and eighteenth century, where gallery-goers regularly touched the art on display. It was deemed to be a satisfactory viewing when the work was handled by the audience, as touch was viewed as part of the viewing experience. This was due to the etiquette of the period where the curator showcased the hospitality of the gallery or museum. '...deference be paid to the visitors or guests... rather than the objects on display' (Classen, 2012, p138). At this point, galleries and museums were not necessarily focused on protecting the objects on display, but rather the experience of the visitors. Conservation was not a high priority with curators during this period as it was not usually considered imperative to maintain artworks in their original state (Classen, 2012).

However, despite this openness to using physical interaction in the gallery, there was gradually a shift to prohibit this type of interaction. The shift began by museums and galleries carefully considering placement of their artefacts by displaying them out of reach, so it would be difficult for the audience to touch the pieces. A convenient consequence of this also meant the audience no longer needed to be chaperoned by a curator, instead they could view pieces on display at their own leisure rather than being watched vigilantly (Classen, 2012). However, for art museums, they were still deemed to be a space where behaviours were controlled with a guard being present to monitor the visitors, ready to remove anyone who was viewed as acting inappropriately (Hooper-Greenhill, 2010). Classen (2012, p146) notes that the '...sensing body was gradually taught to direct itself exclusively through the faculty of vision...'. This firmly encouraged the movement from touch being the main, expected interaction to placing the emphasis on vision, where the audience would expect to only observe the artwork. This meant the galleries' focus became a space for

learning by viewing (Hooper-Greenhill, 2010). Over time, touch was redundant as an interaction as it had become '... inappropriate and unnecessary...' (Classen, 2012, p145). The change was also encouraged as interacting through touch was becoming taboo, due to it being deemed disrespectful to the objects on display, whereas it had previously been the audience that were priority. The focus was altering to preserve the displays as well as the ideology that '...touch had no cognitive or aesthetic uses and thus was of no value...' (Classen, 2012, p145). Another influence on the changes to the type of interaction stemmed from the audiences' lack of knowledge on the appropriate way to interact with pieces on display, which could lead to pieces being damaged (Classen, 2012, p145).

Classen (2012) continues to explain that veneration of the artefacts continued into the nineteenth century, with ever increasing concerns for the preservation and conservation of the items on display. This was due, in part, to the increased number of visitors, which could potentially lead to an increase in the risk of damage. This has led to the modern expectation that touch or any other type of physical interaction is prohibited. This is echoed by Eilean Hooper-Greenhill (2010) who states the main values of an art museum are conservation and preservation, as well as education of aesthetic exhibits through showing knowledge. They are there to preserve the past, '...visually, artworks are not meant to be manipulated...artworks are treated as objects of exposure: they are to be seen, observed from a distance, but certainly not touched' (Kreplak & Mondémé, 2014, p295).

Despite this, Linara Dovydaitytė (2018) declares there is now an emphasis on interaction over the preservation of artworks, showcasing an alteration in the galleries' priorities. Although this change is taking place, there are concerns that this '...may challenge their habit of appreciating artwork as something precious and untouchable' (Her, 2013, p120), meaning the preconceived ideas that the audience is not allowed to touch the work on display may be difficult for the viewer to overcome. Nonetheless, Classen (2012) explains that by encouraging the use of physical interaction, it could make the work more accessible and gives the audience a chance to interact with something they would rarely have been allowed to previously.

This continues as the artworks move out of the gallery and into other public spaces, as it gives more opportunities for audiences to have private interactions, as well as being more exposed to the work due to it becoming situated in a familiar location they may pass daily, as if it were a monument (Folland, 2001).

Touch as the Main Interaction

Touch as an interaction for viewing pieces of artwork, of any material, can enhance the experience for the audience, as well as coming with potential risks for the artwork itself, '... haptic visuality as 'the metaphorical caressing of the surface of an object'' (Marks cited in Bristow, 2012, p47).

By allowing the audience to explore the surfaces of a piece of art, there is a risk of damage which is why a majority of exhibits prohibit touch, instead emphasising sight as the main involvement. Classen (2012) talks about touch being a supplement of sight because it allows us to investigate the properties of what is being displayed, intimately. Touch is an act of verification and reveals the material properties. Yaël Kreplak &

Chloé Mondémé (2014) also express this materiality influences how the audience then choose to interact, and it is through tactile manipulation that the audiences' knowledge of shape, texture and composition of an artwork is informed. Nevile et al. (2014) explains the creative arts can be valued and understood in a variety of ways by the participant. Examples are, aesthetic or function, display of technical skill, expression, representation, the artist's interpretation of ideas and depicted emotions.

Classen (2012) states tactile mediums have their own tactile associations for each individual participant which may encourage them to interact by touching the work. In fact, audiences may be encouraged to refer to their own memory of touch when engaging with an object made from similar materials, if not the same (Crary, 1988). '... touch, by implication remains subjective and limited...' (Bristow, 2012, p47) There is still a school of thought that feels the act of touching art pieces has a lack of conceptual sophistication because it provides narrow interpretations and is idiosyncratic (Bristow, 2012). However, Bristow (2012) also argues that a fundamental component of the sensory process of touch is actually non-discursive communication, implying that touch is sophisticated for forming a unique interpretation. 'In touch, people and objects connect' (Lajevic & Powell, 2012, p187). Ferris (2001) suggests touch closes the gap between the object being handled and the mind, allowing the audience to fully engage with what they are viewing. 'Touch by contrast, annihilates distance and physically unites the toucher and the touched' (Classen, 2012, p141). Textiles are approachable because they are viewed as functional, as well as symbolic (Bristow, 2012). Delia Dumitrescu, Hanna Landin & Anna Vallgarda (2007) add to this argument by stating that textiles have the ability to impact a room because they are deemed to be homely and approachable, which inspires interaction due to their familiarity. Dumitrescu et al. (2007) continue to add, it is a balance between the functionality and the aesthetic of the textile artwork that leads to an interaction through expression. 'As one of the largest categories of material culture, textile plays a fundamental role in structuring social rules and interactions' (Bristow, 2012, p48), this is because touch is an imperative act for the understanding of textiles, in order to aid the communication of meaning and assist interpretation (Classen, 2012). 'The hand is a friend of the brain' (Ufan, 2010, p548). The human body allows a participant to translate an experience, such as touch, and build an interpretation that forms an understanding of the object being handled. This is because both the mind and the body are fundamental to the learning process (Hooper-Greenhill, 2010). When talking specifically about knit, Folland (2001) agrees that knitting does not have the same barrier preventing the audience interacting with the medium, as perhaps other mediums may have. This is because 'knitting explicitly calls for tactility and touch as ways of knowing... as embodied meaning-making' (Lajevic & Powell, 2012, p187).

Touch Aiding Experience

'Everything we make has meaning, learned through experience' (Uglow, 2018, p9). The meaning of a piece of artwork is based upon the learnt experiences of the artist, through the creative and construction processes (Uglow, 2018). 'The selection and control of meaning lie with the communicator...' (Hooper-Greenhill, 2010, p16). It could also be argued the process of creating the knitted piece is more important

than the finished article itself, as the process relates directly to the meaning instilled by the artist (Foster, 2019)

Classen (2012) talks about the use of touch, as an interaction from the participant, being able to bring the artist and audience closer together through a shared experience. This in turn brings further meaning to the artwork because the process of making and finished piece is being experienced by both parties on some level, where the audience is able to bring their own interpretations. Hooper-Greenhill (2010) adds that learning takes place by the participant responding to a catalyst, which in this case, would be an Artwork from which they are then able to create meaning.

This is due to the audience using their own personal knowledge and prepossessed ideas, which influences their understanding of the work and what they believe is the meaning (Palmer, 2015). Equally, the material dimension of the artwork on display can actually aid the participant in understanding the culture of the work itself, much in the same way that language can help to explain ensuring the audience understands (Bristow, 2012). Jenny Uglow (2018) refers to every culture having their own conditioned response to certain variables, such as texture and colour. Therefore, suggesting the audience inevitably brings their own interpretations and meanings to the work being displayed.

Dovydaitytė (2018) discusses the inclusion of society in exhibits to encourage interactions, explaining how it acts as a form of communicating which encourages learning because it invites a wider audience to engage with the display. When writing about the work of Janet Morton, Tom Folland (2001) states it is the materials, scale and location that makes Morton's knitted work accessible to her audience because it is relatable, due to it being familiar to them, as well as having different connotations to that of perhaps more traditionally associated means of contemporary art. '... an important advantage of touch lay in its presumed ability to access interior truths...' (Classen, 2012, p141). The sense of touch ensures the work continues to be accessible and allows them to explore multiple senses when navigating the work, rather than purely relying on one, sight. However, Her (2013) expresses touch as an interaction should be more than just touching the surface of the artwork, as it should engage the brain of the participant. However, with some participants, this could affect relatability to the work on display, as it may only appeal to certain members of the audience, depending on the subject matter or task, if the work is too challenging for a wider audience.

'A hands-on approach to exhibits enabled visitors to acquire an embodied understanding...' (Classen, 2012, p139). Touch enables the audience to learn more about the work they are viewing because they are able to guide their interpretations through their own navigation (Her, 2013). Dovydaitytė (2018) explains it is these interpretations that alter the authoritative narratives of the gallery or museum because it encourages more perspectives to evolve in order to embolden engagement with the work being exhibited. This is due to the exploration process being fuelled by questions about the work, formulated by the audience, which inspires them to analyse the work further to answer said questions (Hooper-Greenhill, 2010).



Figure 11 *Mendings*, Anne Wilson, 1995

Neville et al. (2014) feel it is important for the audience to interact directly with the work they are experiencing as this builds up a personal interpretation, whilst also building a shared understanding with other audience members, as to how the interaction can be carried out. 'It is the social practices that are enacted in relation to these subjects that unlock their meaning...' (Bristow, 2012, p48).

The audience are able to learn from one another, this can help more participants to engage with the work and interact in other ways, thereby developing the artworks interpreted meaning to produce a narrative. 'As these explorations take on shape, they acquire meaning, and become art' (Uglow, 2018, p9). It is in the exploration of an audience that makes the work a piece of art. Therefore, the interaction is crucial.

It is the art object the audience responds to. It influences how they choose to interact, which builds their interpretation and builds meaning (Neville et al., 2014), '... so the visitor's interpretation was every bit as valid as mine' (Perry, 2018, p18). The artist creates a piece of work with their own ideas of its meaning, however, the audience can bring their own ideas which may allow them to feel a part of the work rather than an outsider. Their interpretations are encouraged to be valid through interaction.

'All these arguments arrive at the contextual realisation that a meaningful interactive experience is obtained through a (conscious) physical participation' (Her, 2013, p114). Hooper-Greenhill (2010) also states that the meaning of a piece of work is never static, as more people engage with them, the further the meaning is developed and understood.

Barriers Preventing Touch for the Audience

Overtime, audiences were encouraged to no longer touch pieces of artwork that were on display, as explained in the former section - History of Audiences Tactile and Observational Interactions with Objects within Gallery and Public Art Locations. This was encouraged by how the art pieces had been displayed and presented to the audience. This has led to a reduction in the perceived need to touch, by convincing the audience they were not missing out on an experience by not touching the artwork (Classen, 2012). 'Touch what you like with your eyes, but do not see with your fingers.' (cited in Classen, 2012, p146). Alison Ferris (2001) speaks about the work of Anne Wilson and the method she uses to highlight the tactile nature of the cloth she produces. Touch is more apparent in her work because she forbids it by securing her pieces behind a physical barrier, preventing interaction by the audience.

Classen (2012) draws our attention to a more associated traditional art medium, such as painting, explaining it is perceived to be less inviting with the interaction of touch, so reactions of touch may be less common due to the perception of visual interaction being more relevant. Whereas, a sculpted piece of work invites an instinctual reaction of touch, where the participant may wish to stroke the surface with their hands.

Barriers have been used, such as glass cases, but this did not necessarily deter the audience from touching the objects on display in the past, as it was an expectation they would be able to interact. However, despite the method of display, the objects were not protected against decay and damage (Classen, 2012). Ferris (2001) explains that objects are placed in barriers that prevent the interaction of touch, to protect them so the audience can continue to observe them in the future as they remain preserved. This being the main focus rather than to free the audiences' memory of how they may relate to the object.

As a means of protection, smaller pieces of work can often be found displayed in cases, with much larger installations or exhibits being displayed behind railings (Classen, 2012), all preventing the audience touching the pieces and focusing their interaction predominantly on observation.

In order to encourage an audience to interact through touch with an exhibition, these barriers created by the expectations of not being allowed to touch, need to be broken down. Her (2013) expresses the need to include contextual prompts for the audience, in order to ensure they access the work on display and form their own interpretation. The audience needs guiding through the context and content as this makes the engagement more fulfilling. '... people need a motivation to look at/interact with a work' (Her, 2013, p119). Introducing play into the interaction provides a sense of freedom for the participant once it is made clear what is expected of them. Exploration allows for the audience to learn from what they are interacting with and, in turn, potentially leads to continuous interaction. It supports accessibility and intrigue for the audience (Her, 2013).

Displaying artworks in public spaces can be challenging when encouraging audience interaction. Jiun-Jhy Her (2013) reveals the challenge of getting audiences outside of the traditional art locations to interact with work, explaining that audiences outside these gallery spaces may not be seeking an artistic experience, therefore, may be less likely to interact. However, it could be argued, over time, by showcasing the artwork to a much wider audience, not isolated to the gallery specifically, may encourage audience interactions once it becomes more familiar. The work attracts more diverse audiences, thereby removing the elitist associations with art in any form. This is because the art on display in these alternative locations becomes more relevant to society, rather than to just a select few (Dovydaitytė, 2018).

3:4. Knit Installations: Encouraging and Preventing Touch

Touch and interaction could perhaps be associated with knitting because it is embedded as part of the making process. The crochet artist Amy Shmierbach has been included as she has a very pragmatic

approach to physical interactions with her constructed fibre work, such as *Touch* (2002) which makes it explicitly clear what type of interaction is required, also stating 'I can just wash it' (Schmierbach cited in Lippard, 2019, p52). This shows the versatility of working with robust textiles whilst also implying a practical approach to her work to preserve it.

In this writing, touch and social interaction is being discussed with a focus on the interactions with a final knitted artwork.

Lou Baker is an artist focusing on social engagement, viewing her works as 'provocations' (Baker, 2018) to encourage audiences to interact and participate with her wearable installations. For the installation of *'Living Sculptures'* (2018) Baker produced an

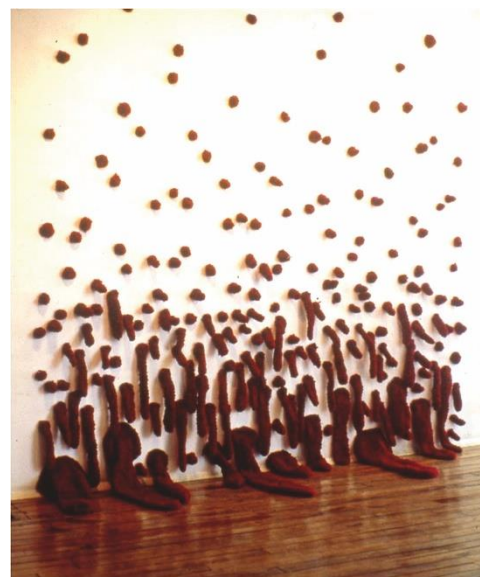


Figure 12 *Touch*, Amy Schmierbach, 2002



Figure 13 *Living Sculptures*, Lou Baker, 2005

invitation calling upon the audience to participate, clearly explaining what interaction they are able to do. They are invited to wear the sculptures in whatever way they feel appropriate, meaning they have to remove the work from the installation and handle it, becoming a part of it themselves.

Although important, the audience is not pressured into interacting if they do not wish to, as the work is designed to transform a space by being flexible in how it is exhibited,

as well as an interactive piece of work. This is aided by Baker's development of ensuring the pieces can be handled independently by the audience, meaning they can interact on their own without being aided by the artist or invigilator (Baker, n.d).

As a contrast, artist Althea Crome, is an intense knitter producing miniature knitted garments with fine silk threads. Crome (n.d) uses the garment as her canvas, feeling it adds a dimension of animation to her work, rather than feeling passive. Although her audience are not invited to directly interact with each piece through touch, Crome articulates 'by making the image wrap around a garment, the viewer is forced to orbit the piece... following a story line or theme from one side to the other' (Crome, n.d), implying the audience is given no option but to completely view the work because it has been given more dimension than just a flat surface, encouraging a more involved interaction from the audience.

Interaction is desired by the artists, and making it clear what type they want to occur. For both artists, it is encouraging the interactions through the visual aesthetics of their pieces, drawing viewers in and directing them to take notice, even if they do not physically interact.



Figure 14 Sheep Farm Duo, Althea Crome, 2019

The artists are bringing knitting into the public art arena to reduce the gap between other hierarchies, to get the audience to interact with the medium, primarily through visual aesthetic to attract them, before making it clear what type of interaction is required to experience the work.

To conclude, knitting as an art practice has developed from the humble domestic environment, usually with a familial connection. Due to its heritage, there are many associations (previously discussed in the Knit associations section) surrounding the medium as a skill to the materials used and where it is contextually placed as a finished item. From the artists discussed, these associations can be utilised to challenge or highlight the heritage of knitting and influence the artistic message for the audience to interpret, and possibly interact with.

Touch as an interaction with art used to be an expectation during the seventeenth and eighteenth century, however, began to decline in order to preserve the artefacts on show. This instilled the perception that direct interaction is not allowed, placing the focus on observation as the overriding form of engagement. Gradually, more institutions are re-evaluating their values, putting interaction on the same level of importance with preservation, if not above. Through the exploration, a variety of barriers were discovered which hinder the audience's ability to interact with artworks. The perception of not being allowed to touch is still very strong with audiences, alongside the presence of physical barriers, such as, wires, which feed directly into this perception. It was also highlighted that audiences need guiding through the interaction in order to feel comfortable doing so. It was emphasised that exploration of artwork allows for learning because it means the participant is able to understand the work because the material acts as another form

of language, bringing artist and participant closer together to form a connection. It was deduced, touch enhances observation, but is imperative when viewing textiles. Furthermore, knit specifically does not necessarily have the same barriers as other traditional mediums due to the associations it carries. However, one area of difficulty is getting participants to interact with artwork when not displayed in traditional art settings, as the audience may not be familiar with how to engage with the work being presented. The knowledge gained from the themes in this chapter will be applied in the Practice section to allow the correlation between literature and practice to be visible.

4. Methodology

Practice based research is defined as '...an original investigation undertaken in order to gain new knowledge partly by means of practice and the outcomes of that practice.' (Candy, 2006, p1). Over the period of twelve months, various entwining strands of investigation including exhibitions were developed, testing participant interaction using various modes of practice were undertaken throughout the research study.

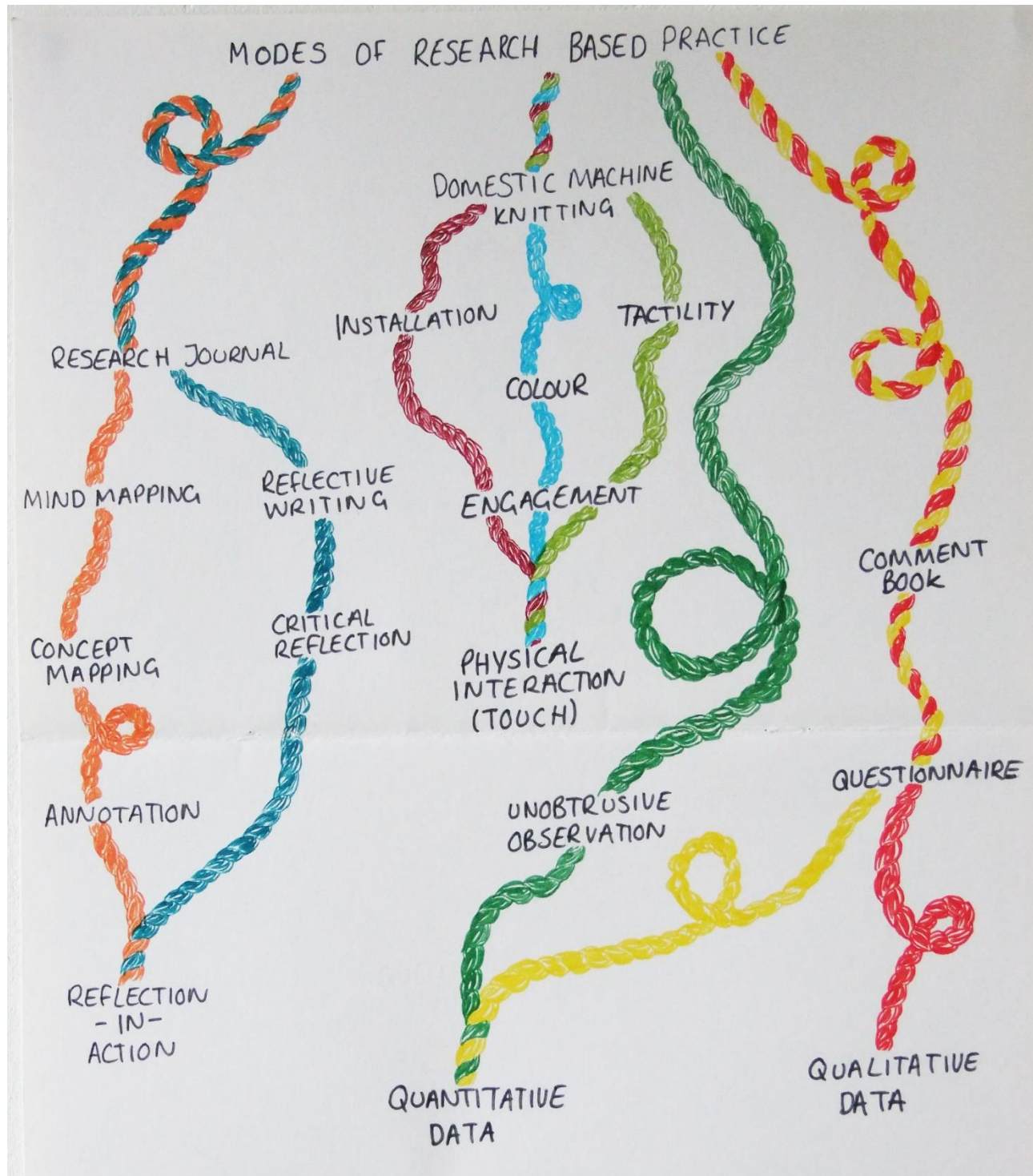


Figure 24 Author's Own Image, Modes of Research Based Practice Visual, 2020

A reflective journal allowed the journey to be recorded, capturing ideas or problems. It allowed closer examination of creative practice to understand the aim of knitting as a piece of artwork that adopts tactile qualities as the mode of practice, to focus on Haptics.

In total, there were three exhibitions devised to understand the engagement of the audience in both gallery and institutional settings. To provide further information supporting contextual research, or highlight areas for development in practice, qualitative and quantitative data was collected. The main methods of data collection were, Unobtrusive Observation (Robson & McCartan, 2006) and Questionnaire (Gray & Malins, 2004). Observation was selected to discover how an audience interacted with a domestic machine knitted installation, capturing the variety of interactions, before focusing on why and when participants decide to interact.

Each set of data outcomes directly informed the next exhibition to develop an appreciation of audience interactivity, how, why and when it occurred in relation to the location of the installation and orchestration of the knitted pieces in situ. Alternative display methods were also deployed to understand the influence of display on the audience, making alterations for each exhibition as well as daily alterations in two of the exhibition periods, as a form of reflection-in-action (Schön, 1994). Donald Schön refers to this '...as an epistemology of practice.' (1994, p133). It is a way of acquiring and communicating knowledge, which in art and design areas is usually based on tacit and personal knowledge (Gray & Malins, 2004). Schön (1994) continues to add, this method is communication between situation and practitioner, where interactions are listened to and considered when adapting the situation.

4:1. Research Journal

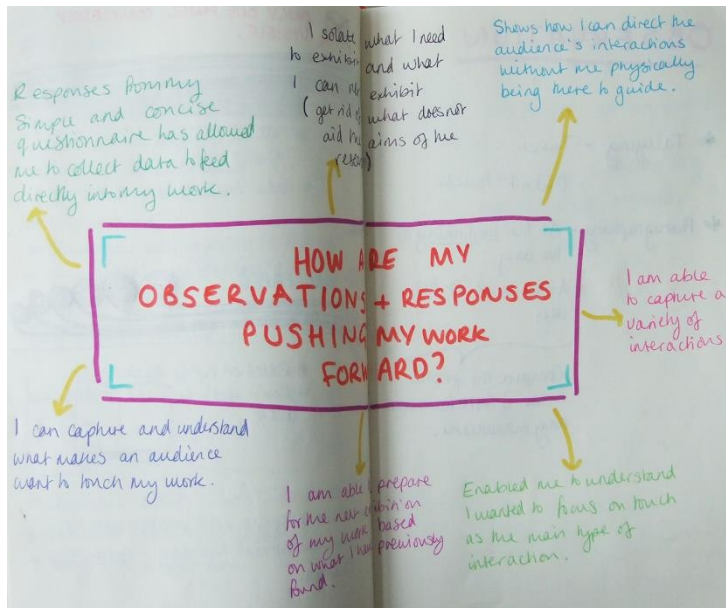


Figure 16 Author's Own Image, Mind Map Visual, 2019

A research journal was employed as the main method of reflection as it acted as an “off-loading’ device’ (Gray & Malins, 2004, p58) to evaluate and record ideas throughout the research practice. Mind mapping was a crucial tool in developing ideas (figure 16). Tony Buzan (Ayoo, 2007) states this is a thinking tool that allows for contemplation due to its free-flowing nature which encourages creativity and clarity. The method allowed ideas to be explored to view the possibilities of the research focus whilst working through any creative

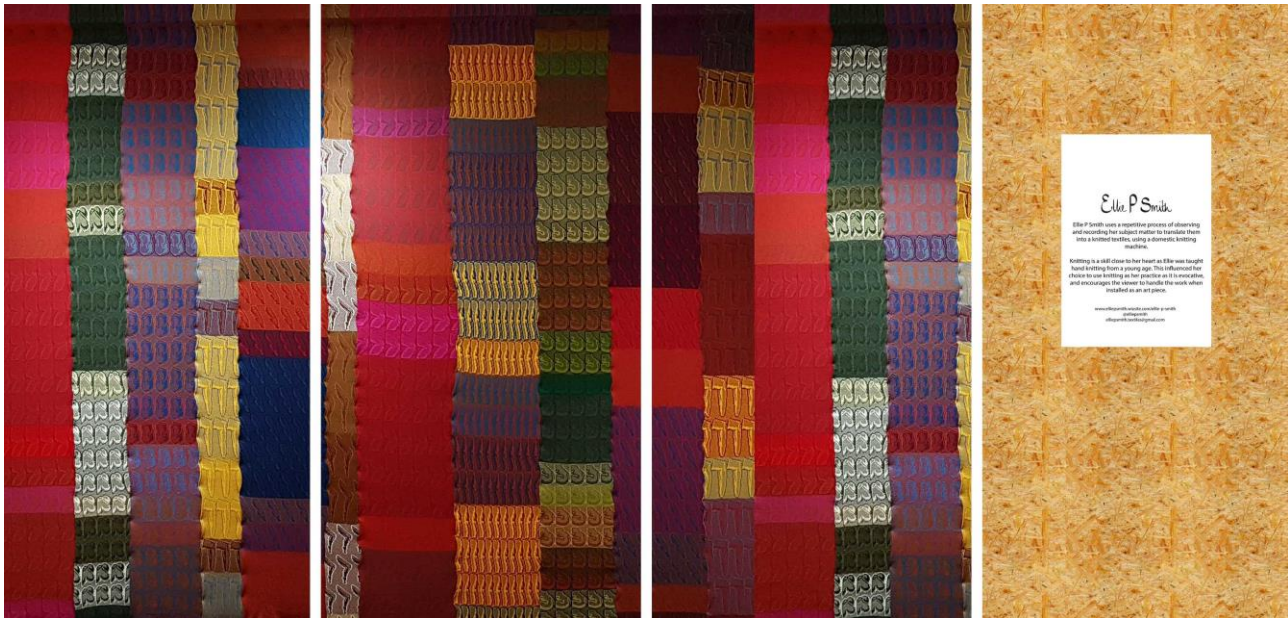


Figure 17 Author's Own Image, Digital Mock-up Design, Atrium #1, 2019. See artist statement in appendix 7

difficulties. Colour and imagery were added to enable clear communication of ideas. This continued through ‘concept mapping’ (Gray & Malins, 2004, p198) the installations and design work. It licensed a layout to be visualised through digital (figure 17) and analogue (figure 18) means before committing to a physical structure.



Figure 18 Author's Own Image, Hand Drawn Mock-up, Temporary/Contemporary, 2018

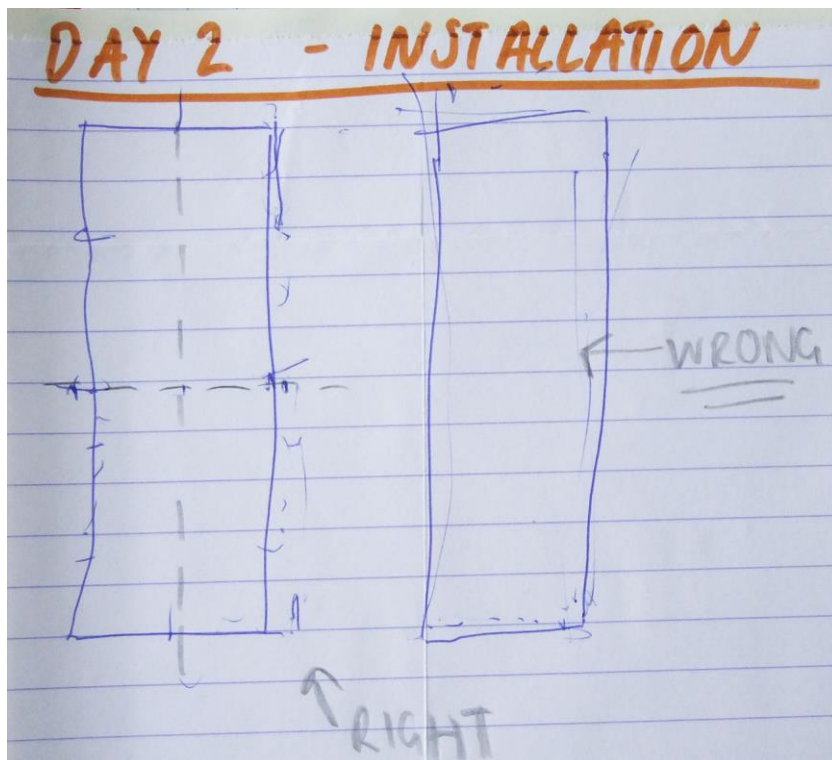


Figure 19 Author's Own Image, Knitted Panel Install Visual, 2018

They were reviewed logistically and creatively to ensure successful installation, whilst safeguarding the creative vision and research aims. Annotation aided the success of this method by providing opportunities to record additional technical details, such as, how to install the knit panel effectively (figure 19), as well as a location for critiquing (UAL, 2007-18). Reflective writing continued the critique as it accommodated evaluation of experiences as a form of self-supervision (Bassot, 2016 cited in Raby & Walker, 2017-19).

To further ensure clarity of the research focus, critical reflection occurred when reviewing the impact of the researcher in the exhibition space. Raby & Walker (2017-19) explain this method allows the analysis of the researcher's role within a situation to be reviewed, to determine why something was done and if alterations were made.

These methods allowed best practice and areas of concern to be recorded for development in further exhibitions, which is discussed in the Practice section.

4:2. Making (Knit Technical)

The researcher's familiarity with knitting defines the method of making in this research due to the importance of forming a tactile connection throughout designing and constructing, to portend the interaction of participants. It is also to extend knowledge learnt during undergraduate study.

METHOD OF KNITTING	PRO	CON
HAND KNIT  <i>Figure 20 Author's Own Image, Hand Knit, 2020</i>	• Hands-on approach • Detailed work is easier • Familiarity in domestic environment • Can manipulate each individual stitch	• Increased production time • Intensive on Hands • Large-scale means increased production time
DOMESTIC MACHINE KNIT  <i>Figure 21 Author's Own Image, Domestic Knitting Machine, 2018</i>	• Able to work large-scale • Retains uniqueness, individuality and spontaneity • Remains hands-on • Designs can be reproduced easily • Familiarity of method • Spontaneity of yarn changes (colour)	• Limited pattern scale (motif) • Lengthy design process (analogue)

	• Time efficient production	
INDUSTRIAL KNITTING MACHINE (Shima Seiki)  <i>Figure 22 Author's Own Image, Industrial Knitting Machine, University of Huddersfield, 2019</i>	• Increased scale opportunities, 'The possibilities of working on a vastly increased scale excites partly because of the way it flouts the traditional image of the homely small-scale knitter' (Ades cited in Robins, 2002, p2). • Efficient production • Easily reproduced • Familiarity with process	• Restricted contact in the process • Reduces diversity • Can't be spontaneous • Digital based • Limits artistic choices

Table 1 Method on Knitting Review

Referring to Pyes's (2010) theory of 'Workmanship of Risk' (Pye, 2010, p341), domestic machine knitting is situated between this and the theory of 'Workmanship of Certainty' (Pye, 2010, p341) due to embodying predetermination with limitations, whilst producing knitting in large quantities. The investment of time when creating work resonates with Pye's (2010) concept '... the best quality of workmanship can usually be achieved only by the workman spending an inordinate amount of time on the job' (Pye, 2010, p348). Working closely with each element of the process was important to reduce errors, which would aid the production of panels for future exhibitions.

The positioning of this research study suggests the Shima would remove the artist's mark because it knits work communicated from a computer. Meaning the artist's creative involvement is during designing and

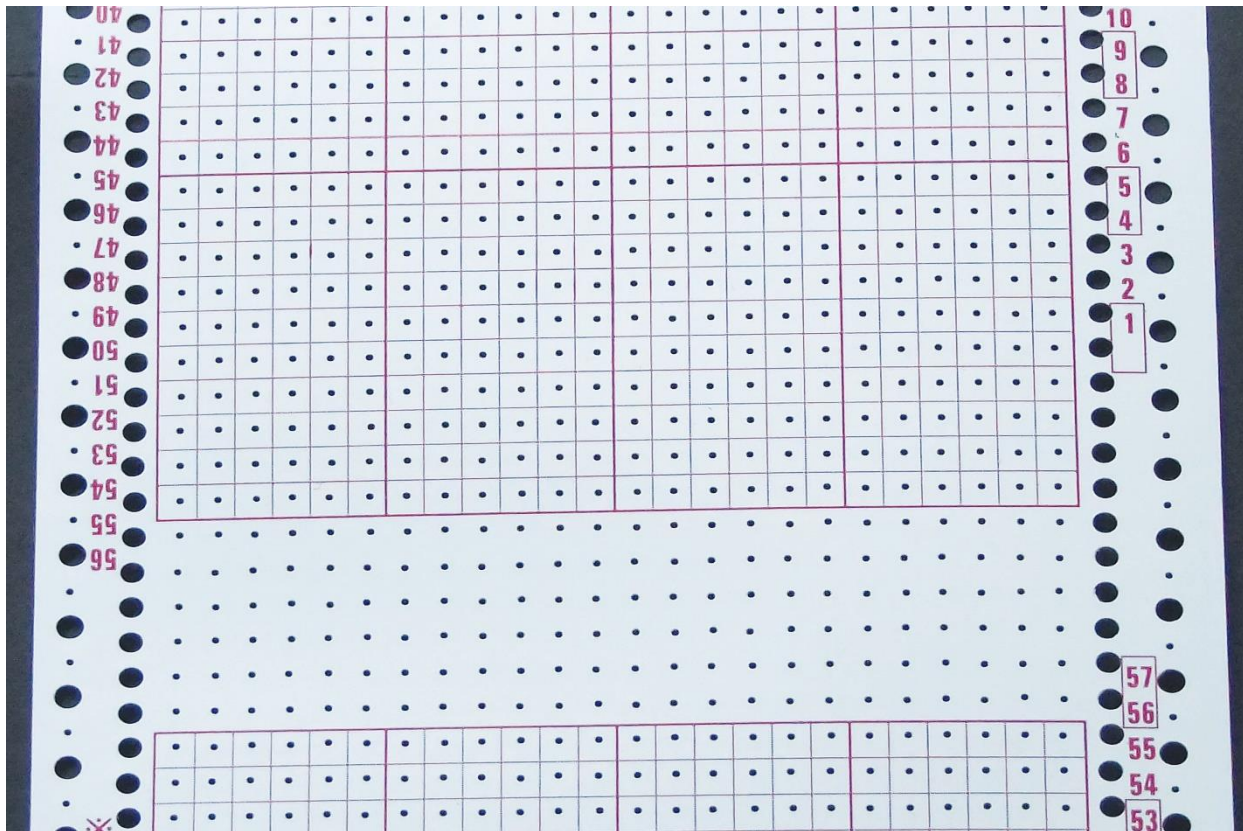


Figure 23 Author's Own Photo, Punchcard Detail, 2019

installing the work. Although efficient, this approach reduces diversity within an item because it knits the



Figure 24 Author's Own Image, Punchcard Design, 2019

original specifications exactly, with no further input from the artist.

Robins (2002) discusses her work and relationship with the knitting machine stating '... I treat machine knitting like hand knitting... I do a lot of hand work on the machine' (Robins, 2002, p5). Similarly, the focus on knit practice in this research study is to have direct involvement with the machine whilst applying the hands-on approach of hand knitting.

The flexibility and control of the domestic machine is what makes it the more relevant tool. The approach was pragmatic with a focus on design and planned production to reduce potential errors.

The scale of the work increased to the machine bed which works to 100 stitches in a single course. Potentially perceived as a limitation, it set a parameter to allow various sized panels.

Similarly, parameters set for motif designs were restricted to 24 stitches, the limitation of the punchcard paper (figure 23). Scale of motif was important as warping needed to be prevented. Therefore, restricted width directly impacted length of design, ensuring motifs remained in scale once knitted (figure 24). To compliment, wool was the chosen yarn because it maintained the structure of the motif as well as defining

individual knit stitches; in keeping the mechanically produced aesthetic unique to machine knitting, further highlighted with bold colours. The yarn type provided definition because the weights differed slightly, sharing similar properties to produce smoother textures. In previous research, creating overtly tactile samples had been developed (figure 25) to provide contrast between yarns, however, the yarns produced an unrefined appearance, and increased the risk of errors during the knitting process, due to yarns tangling and damaging the samples.

Wool, on the other hand, provided a homogeneous aesthetic and ran smoothly through the machine, to create a fabric with enough rigidity to showcase structure, and flexibility to display in a variety of ways. This would have been compromised had a variety of yarn weights been employed.



Figure 25 Author's Own Image, Machine Knitted and Fuled Samples from previous study, (from Left) Cash Wool/Viscose/Nylon, 2017

4:3. Colour

Colour was a method used to encourage audience interaction with the knitted installation. Jean Baudrillard (2005) states colours move into the sphere of leisure connoting freedom and absence of responsibilities. Therefore, it can be used as a tool to attract audiences due to vibrancy and contrast created through colour combinations, potentially leading to interactions of touch.

Karen Haller (2019) refers to one of Darwin's suggestions of use of colour in the natural world, attraction. Colour causes natural responses because it is a base instinct to notice colour. Haller (2019) continues to add '...colour became our primary signalling language...' (p23) suggesting colour was the first way of communicating, therefore prompting a response. Furthermore, colours can be viewed as '... metaphors for fixed cultural meanings.' (Baudrillard, 2005, p31), because they create physiological changes to deliver emotional experiences for the participant, which can relate to personal experiences and cultural situation of colour in homes. 'Every colour signal creates an impact.' (Haller, 2019, p26) these signals affect feelings, behaviour and thinking. When creating an exhibition designed to encourage interaction, these signals can be instigated because '... colours obey no principle but that of their own interaction...' (Baudrillard, 2005, p35). Application of colour does not focus on using singular colours to create an emotional response, but rather integrating multiple colours to both compliment and contrast, sparking interest from the audience in the first instance. Philippa Stanton (2018) states 'Colour is a constant creative deceiver...' (p72), it plays with the audiences' perceptions of what they are viewing. Utilised in knitting, the deception can be amplified due to the pixelated quality of the knitted structure, creating movement in the motifs that react when combining 2 yarn colours, this is because '...colours lose their unique value and become relative to each other and to the whole.' (Baudrillard, 2005, p35). Colour selection has a key role because 'colour contrasts are just as important as colour similarities...' (Stanton, 2018, p74) meaning every colour affects the perception of another when knitted next to each other. Consideration of colour placement took place during the life drawing stages of the research, often using contrasting colours to increase the impact of the image. Translated directly into knitting, it restricted the final palette for each panel, preventing every colour being utilised. To further enhance control of colour, yarns were swapped at key points during knitting to create a blended affect, so rows of motifs appeared as one piece, rather than individual strips within the panel. This was done by having only one alternating yarn change in any combination - staggering the changes so one colour would always overlap into the next combination. Pairing of colours allowed manipulation of the foreground and background giving the illusion of the motif advancing and receding within the knitting.

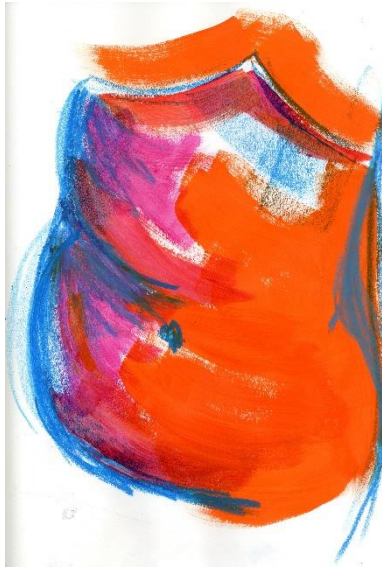


Figure 26 Author's Own Image, Torso Sketch, 2018



Figure 27 Author's Own Image, Knitted Torso, 2018



Figure 28 Author's Own Image, Knee Sketch, 2018



Figure 29 Author's Own Image, Knitted Knee, 2018



Figure 30 Author's Own Image, Elbow Sketch, 2018



Figure 31 Author's Own Image, Knitted Elbow, 2018



Figure 32 Author's Own Image, Bum/Thigh Sketch, 2018



Figure 33 Author's Own Image, Knitted Bum/Thigh, 2018



Figure 34 Author's Own Image, Leg Sketch, 2018



Figure 35 Author's Own Image, Knitted Leg, 2018

Table 2 Colour comparisons from drawing to knitted sample

4:4. Tactility

Tactility was utilised non-stereotypically, by not using obviously tactile materials such as textured yarns.

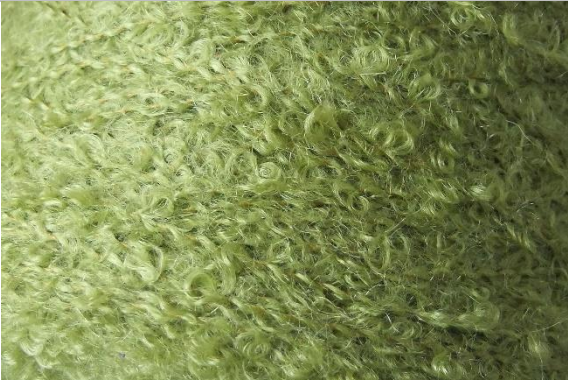
 Wool/Mohair/Nylon Bouclé	• Unless knitted on a higher tension, this yarn would create a dense fabric. • Bouclé yarn can get caught frequently in the domestic knitting machine. • Distorts the knitted motif due to being a textured yarn.
 100% Linen	• Very little stretch when knitting. • Very fine so would have had to run three cones together to make the same weight as the wool used in the final knitted panels.
 100% Shetland Type Wool (4ply)	• Created a fabric with a consistent tension. • Motifs were not warped. • Not too rough as a final texture. • Flexible to machine knit with – enough stretch.
 100% Pure Wool	• Slightly rougher texture. • Ran smoothly when machine knitted. • Created a fabric with few gaps between stitches. • No stitches were elongated due to wrong tension.

Table 3 Author's Own Images, Yarn Properties Comparison

Instead a subtle approach was adopted as the aim was to have a participant engage with an installation that may not appear overtly tactile when first viewing. This was achieved by using similar weights of wool yarn. The overall effect resulted in a manufactured appearance, possibly even commercial. In turn, this increased the audience's familiarity with the textile because it resembled fabric from other settings, such as, manufactured garments or interiors that are often unconsciously touched. This increased accessibility of the installation, which may not have been achieved if an overt approach to tactility was taken. Familiarity of knit was the bridge to get the audience to engage in a new context. This was explored further through display methods which were developed intuitively during the testing process, which when reflected on, revealed similar approaches to the display methods of stylists.

4:5. Methods in Exhibition

Unobtrusive Observation, a research method defined by Colin Robson & Kieran McCartan (2016), was utilised throughout the exhibition periods. Robson & McCartan (2016) explain the method is designed for experimental research, where participants are observed to analyse their actions to gain invaluable insights. This method provided opportunities to observe various audience interactions across three exhibitions, whilst reducing the impact of the researcher's presence in the space. In this research project, exhibitions were experimental because installations were exhibited to observe participants' interactions, that influenced alterations for the next exhibit. Furthermore, reflection-in-action (Schön, 1994) facilitated modifications throughout the individual exhibition periods. Revisions occurred daily, to ensure a new method of display was employed, in order to analyse the impact on interaction. During the final exhibition, photography was used to record the installation at the beginning and end of each day to analyse the imagery side-by-side to identify any movement of the display (table 4).



Day 1 AM Back



Day 1 PM Back



Day 1 AM Front



Day 1 PM Front



Day 1 AM Side A



Day 1 PM Side A



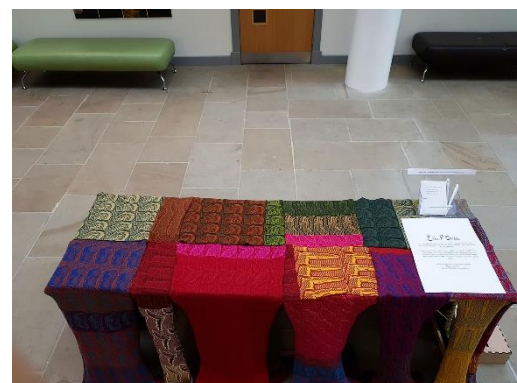
Day 1 AM Side B



Day 1 PM Side B



Day 1 AM Top



Day 1 PM Top

Table 4 Author's Own Images, Analysis of Imagery Example, Atrium #2, 2019

Quantitative data was collected because it allows the researcher to see similarities in responses and highlights any differences or relationships between data. The method allows for objectivity over personal biases because the researcher is kept at a distance from participants. Alone, the results are limiting since they provide numeric data without factoring in participants' thoughts and feelings (Learn Higher & MMU, 2008). Therefore, Qualitative data was used alongside to explain the quantitative response, thereby

avoiding pre-judgment of the interaction. This data provides further detail by recording attitudes and behaviours of the participants, creating an openness to encourage expansion of their response which can often release new topics to direct the research. Despite this, analysing data is time-consuming and systematic comparisons can be difficult due to potential for widely differing responses (Learn Higher & MMU, 2008). Both methods coalesced as a comment book, allowing for open-ended responses, and questionnaires developed specifically for each exhibition to refine the research. They enabled data collection of audience interactions by using a checklist of standard responses and provided an opportunity to broaden their engagement by adding a comment. Development of these questions were to reduce the impact of the researcher influencing responses. Learn Higher & MMU (2008) state this is a difficulty when working with this method of data collection as the researcher can unintentionally cause biases, which was found to be the case when developing the questionnaire (appendix 9) for the final exhibition (discussed in the Practice section).

5. Practice

In this chapter the main areas being discussed are as follows; Positioning, Tactility Interactions and Installation.

Positioning begins with literature reviewing Sarat Maharaj's (2001) theory of the undecidable and the Useful Art Movement (Bruguera, 2011) in relation to knitting as a medium, and an art practice that is able to fit into multiple contexts. This leads directly into a discussion about personal heritage with textiles and knitting, before moving more specifically to the relationship with hand and machine knitting. From here, creative processes are defined, having previously not been explored.

The discussion moves on to explore the topic of Tactility, focusing on the literature surrounding the making process, and how this aids the forming of a connection through physical making and handling of materials. A review of practice takes place, by examining personal experiences of motivation to touch displayed artworks, before moving on to study first-hand experiences of touch being allowed, whilst also observing the interactions of other participants in the exhibits being discussed. Based on this synergy, literature is referred to, to analyse the pros and cons of allowing an audience to touch the pieces on display.

Having been informed by the practice and theory of others, the exhibited installation practice is explored separately. First-hand engagement and observations with installation pieces are investigated to understand the interpretation of participation and researched further through literature to fully grasp the theory of participation. This section continues as a reflection of the 3 exhibitions; Symbiotic Process (Temporary/Contemporary: Market Gallery, 29th May – 2nd June 2018), Atrium Installation #1 (Richard Steinitz Building: University of Huddersfield, 18th – 22nd March 2019), and Atrium Installation #2 (Richard Steinitz Building: University of Huddersfield, 7th – 11th May 2019), which includes an analysis of audiences' responses and observations made throughout the exhibition periods.

5:1. Positioning

The creative process is very practical and has always been instinctive. Knitting is the chosen medium due to coming from a family of inspiring knitters who produced items as a hobby, which usually served a function. This approach influenced the personal use of hand knitting, whereas for machine knitting the practice differs. This is due to it being administered in an art context which is still viewed flexibly, as there is potential for the work to be placed in the domestic environment.

Positioning was difficult because the work can be viewed in multiple contexts. This echoes Sarat Maharaj's (2001) theory of the undecidable when discussing textile art.

Textile art is at home in an art context but is also appropriate in other contexts. It is moveable (Maharaj, 2001, p7). Maharaj refers to Jacques Derrida stating the undecidable is '...something that seems to belong to one genre but overshoots... and seems no less at home in another' (Derrida in Maharaj, 2001, p7). This felt apt because it has a history of being in the domestic setting, but is equally at home in a gallery context to be displayed as art. Maharaj (2001, p8) suggests this overspill for textile art is because the work retains its textile associations of making and serving a purpose, even when on display as a piece of art. Valerie Cassel Oliver (2010, p13) reinforces this point by stating fibre artists are able to elevate the materiality of their work through their skills as makers, without undermining the possible functions of their work outside of this art context. Based on this, these associations do not (or should not) reduce the impact of textiles as art, instead they enhance because it becomes relatable for the audience.

Multiple functions for pieces are being considered throughout the creative process. The first function; to be displayed, to engage the audience through touch. The second; consideration of purpose of the work after it has been displayed – this is usually domestic, for example, reupholstering dining chairs. This stems from a fear of work becoming redundant after being displayed and confined to storage.

Similarly, artist Andrea Zittel created an installation piece, *'Palimpsest'* (2019) which consisted of an exhibition of uniform-like garments, where the audience are encouraged to engage with each piece, by wearing them outside the exhibition space. The audience are able to remove the pieces from the installation and wear them home. This is because Zittel wants her work to have different uses aside from being displayed. Her work focuses on ways of living, so it is crucial her work is lived in (Porter, 2019). In the context of this research, although the audience were not taking the knitted installation home, it was installed in a gallery and public space to



Figure 36 *Palimpsest*, Andrea Zittel, 2009

encourage interactions by participants in that location.

Returning to the 'undecidable' (Maharaj, 2001, p.7), it succinctly describes the positioning of knitting in this research because as a finished piece, knitting showcases a learnt skill and technique that flexibly nurtures the creation of art pieces as well as domestic objects.

Despite this, there has always been an internal battle between the functionality of the piece against the artistic vision.

Tania Bruguera (2011) speaks about the Useful Art Movement which focuses on art being useful rather than practical. Design differs because it celebrates making a practical object beautiful, whereas the Useful Art Movement aims to focus on the beauty of being useful, making the use, an aesthetic category and an important component in creating the artwork.

A fundamental part of this movement appears to be the relationship art has with peoples' lives, homes and the everyday. Meaning the work appears attainable and is appreciated enough to be viewed in someone's home. Bruguera continues to add the art is not solely to be admired, but also for idea generation. However, the use of the art could be for admiration due to impacting positively on the audience.

During the research, the audience suggested alternative uses for the knitting, such as garments, drawing from the everyday/familiar relationship with knitted textiles. The installation was being admired for its potential future use, echoing to the ideas in this movement.

The main points Chris Mansour (2011) has highlighted from the movement are the expectations that art should not be limited to purely being contemplative or representational. Instead, art needs to be accessible and adaptable. Thereby allowing the art to impact on society every day, to draw inspiration and allow wider audiences to be exposed in a variety of settings not restricted to galleries.

Alistair Hudson, curator of The Whitworth Gallery, shares his ambition to '...change the way people think about art – to normalise it in life and stop making it exceptional' (The University of Manchester, 2018). He infers that art is still perceived as elitist and needs to challenge the pedestal it is on. As for knitting, it is already perceived to be normal and situated in peoples' homes, therefore, naturally fitting in with the Useful Art Movement (Bruguera, 2011) ethos. The movement supports the appreciation of knitted textiles both inside and outside the gallery, which in turn is a celebration of the everyday.

Personal heritage

Textile knowledge gained pre college and university derived from family members, with knitting being the main influence and was a skill passed down through generations. This is shared with many of the artists using knit as their practice.

Knit as a practice was inherited through its function, especially when knitting by hand. However, when positioning the installation pieces, the approach of Andrea Zittel was not adopted - where a functioning object is created for an audience to directly engage with. Rather, the approach of Tania Bruguera is espoused, where the influence of creative inheritance inspires the production of useful knitted art to be appreciated as an installation and inspire further purposes beyond the installation.

Process

The creative process combines two parts. Artistic process; conceptualisation of displaying work, and, design process; focusing on production.

Initially, the research focus aimed to produce knitted versions of recognisable, everyday textile objects, such as, blankets. The conceptual drive was to produce something familiar to the audience that was perceived to be approachable, which had the potential to encourage engagement with the object when displayed in a gallery.

However, during the production of these items it became apparent the artistic vision was no longer being achieved, instead, the objects were simply reverting further into the domestic, so it was decided to no longer continue producing these objects, but to focus on utilising knit qualities in other artistic ways.



Figure 37 Author's Own Image, Textile Object Samples, 2019

Throughout, the human body was being depicted in knit by creating repeat patterns. This method stemmed from an interest in creating impact by building up small individual elements to construct large images. This enhanced the research because the repetitive process of drawing the body, translating it onto point paper and transferring to punchcard paper, meant the final image was better understood when knitting.



Figure 38 Tracing Process, Roanna Wells, 2017

Roanna Wells is a fine artist who uses a similar approach in her work. She concentrates on subtle structure through the regular marks made with a paint brush on paper, believing a ‘... greater depth of knowledge, understanding or impact can be discovered through the act of repetition and the study of multiples...’ (Wells, n.d). This is because the artist learns about the mark and how alterations can be made to manipulate it to achieve a goal in a finished image. Well’s method is controlled, creating neat and regular order, which allows subtleties that she aims to depict to become obvious to the viewer, because they establish uninterrupted movement along the pieces.

Similarly, Sue Lawty (Pritchard, 2006) draws comparisons relating to the rhythmic process of her woven tapestries and her work with stones. Lawty builds up her large-scale pieces with smaller individual stones placed in a grid-like pattern, replicating a woven structure. The structure is actively designed to invite the audience to closely observe the work to notice the subtle nuances between each stone (Toast, 2019).



Figure 39 Order, Sue Lawty, 2007

For Wells, the introduction of audience interaction for ‘*Tracing Process*’ (Wells, 2017) meant she was able to entice her audience’s intuition to leave their mark on her work, in order to explore how it differed from her own approach when using the same materials and equipment. She contrasted these by filling in any spaces with regular marks adhering to her usual structure. This approach meant the audience could view marks created by the artist which acted as a guide for adding their own, but with a level of flexibility due to the response being open-ended.

Both in creation and observation, repeat pattern encourages exploration as each element acts as a subtle variant. Using the same image from start to finish in one piece, means that an image for comparison is created, generating an exploration opportunity to discover subtle differences in each motif. This is further manipulated through yarn type, which adds a unique visual aesthetic directly impacting on the visual perception of the designed motif.

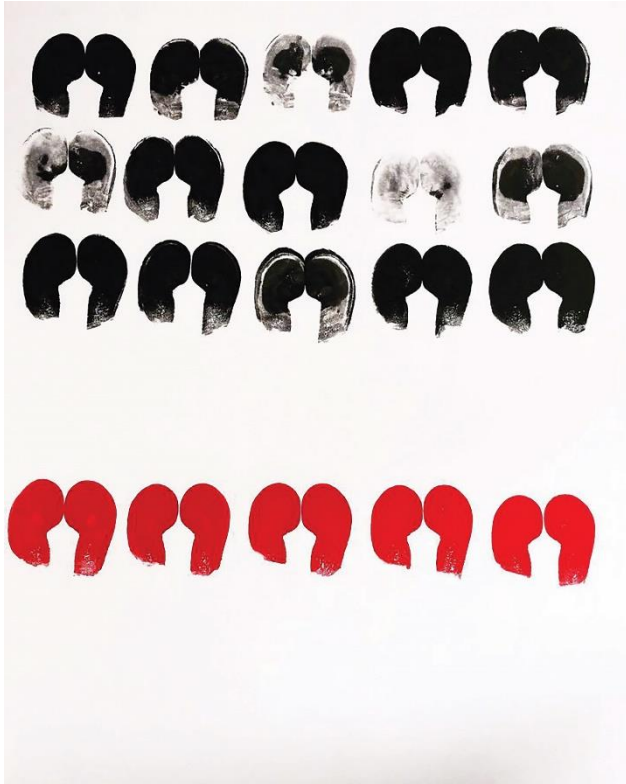


Figure 40 *Unknown, Harris Lithos, n.d*

Artist Haris Lithos uses bold striking colours in his large-scale work, physically printing clothes and models to create his body prints. Despite the prints being a repetition of the same area, there are still variances which making each print unique (Brady,2016). Taking a direct print is an intriguing way to showcase the human body as it provides intimacy whilst retaining objectivity of the subject. Objectivity of the human body is focused on for the knitted motif in this research, where the body is viewed as a visual object, rather than highlighting associated political issues. The human buttocks had previously been focused on, however the aim here was to broaden the topic to the whole human body, whilst continuing to isolate each section to examine connections and structure, with the inclusion of cross-sections.

To further investigate the Human Body, tutored life drawing sessions acted as the catalyst to gain knowledge of how to capture the image being observed. The aim was to interpret the body, capturing its strain and areas of harshness and softness. From this approach, it became apparent the research focus was not about recording accuracy, but rather capturing the artistic interpretation of the human body as an object.

It was important to capture these interpretive drawings in knitting to show the direct translation between the mediums, and how one informs the other. The artist Gisèle Toulouzan (Vannier, 2018) knits her subjects by hand, having translated them from her favourite famous paintings or directly from her own photographs. This approach is fascinating because of the complexity of translating the type of

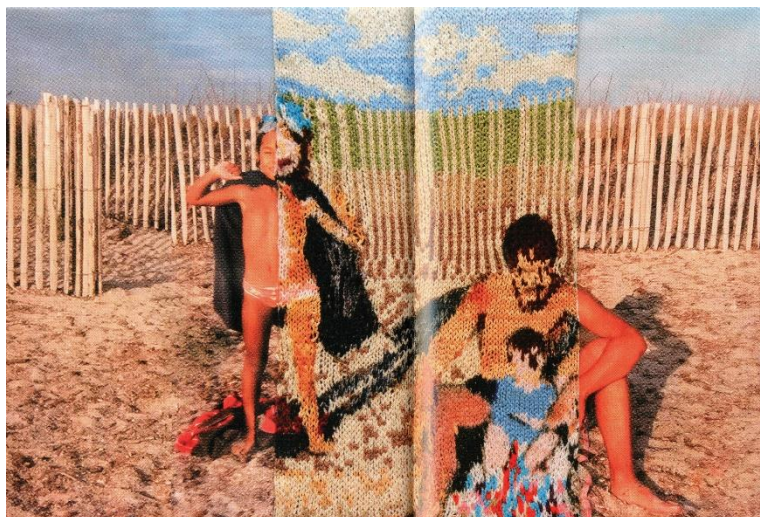


Figure 41 *Almanarre*, Gisele Toulouzan, 2016

image used, to the knitting. However, this approach suits the method of making because more variances of colour can be worked when hand knitting. For domestic machine knitting, the image needs to be simplified in order to accommodate 2 yarn colours per course (if not using intarsia), which is why in this research the



Figure 42 *The Stripper*, Solène Lebon-Couturie, 2014

original drawing of the human body is simplified and drawn with restricted colours to allow for a simpler translation. Toulouzan describes knitting as ‘...just photography or painting by different means...’ (Vannier,

2018, p192), showing knitting is as much an artistic tool as more familiar methods, such as painting, which are regularly used to depict the human body. Similarly, artist Solène Lebon-Couturie (Vannier, 2018) feels a strong link between knitting and illustration in her work, especially for her hand knitted portraits. Lebon-Couturie uses simplistic colour palettes because it creates a clear image for her audience to view and makes the ‘slight imperfections’ (Vannier, 2018, p18) of the knitted stitch more visible, highlighting her contact. The Human body and knitting are already closely related, so it seemed natural to depict in machine knitting. Knitting covers and protects the body everyday through various worn clothes. It drapes over the surface of the body, hinting at the shapes beneath. However, the research focus is to place the body at the forefront on the knitted textile, by embedding the body designs in the fabric.

5:2. Tactile Interactions

Textiles are naturally tactile and this can be amplified when used to produce large-scale installations, to encourage a tactile interaction.

Installations are capable of channelling tactile interactions because their scale suggests the energy exerted during their construction and the movement employed to install the work. If the possibility of engaging through touch is allowed, then it can be understood further by the audience.

Physical Touch

Physical touch was the main aim of the installation, defined as ‘gentle tap, push, or caress’ (Collins Dictionary, 1998, p573-547), however the term can be interpreted differently. June Hill defines touch as ‘...ability to rouse tender or painful feelings with an individual human being’ (Hill, 2012, p37), meaning the work can emotionally impact the audience and may not render purely physical reactions. However, by allowing the audience to physically touch the installation it provides potential elicitation of emotional responses, which in turn may encourage further interactions from the same or more participants.

In order to achieve this aim, reasons for wanting to touch artwork needed to be understood. It was analysed that engagement was often guided by intrigue of the material, wanting to explore construction to



Figure 43 Author's Own Image, Verso, Cornelia Parker, *The Whitworth*, 2017

admire skill whilst also testing personal knowledge of the textiles. With this in mind, tactility is important because it enables the object to be manipulated to observe from multiple angles, with the reverse often able to expose the secrets of its construction.

Artist Cornelia Parker shares

this interest with an attraction for undersides and backs of objects.

Parker's exhibition *Verso* (Parker, 2017), held at the Whitworth, Manchester, showcased the reverse side of hand sewn button cards documented through photography, with a single card at the centre of each frame. The images highlighted the functional stitch construction holding the buttons in place on the front of the card, which would have originally been the intended viewpoint. Parker's view is the '...front presents a conscious and recognisable face to the world, the back is often disorganised, unconscious and ultimately perhaps more honest' (Parker, 2017). This can be said for knitting, with sides often referred to as *Right and Wrong Side* in many hand knit patterns. The design is usually created to be viewed from the front due to the perception that it is refined and complete. However, it could be argued this diminishes the appreciation of skill and time invested into the piece's creation, especially by those not familiar with the medium. The reverse of jacquard knitting reveals a complex image that contains floats of yarn necessary for the success of the motif. It also exposes loose ends of yarn that may have been stitched in, further exemplifying skill of the maker. The creative narrative is exposed when the reverse is visible as it explains the journey of the finished object and provides an alternative aesthetic resulting from the designed imagery on the front.

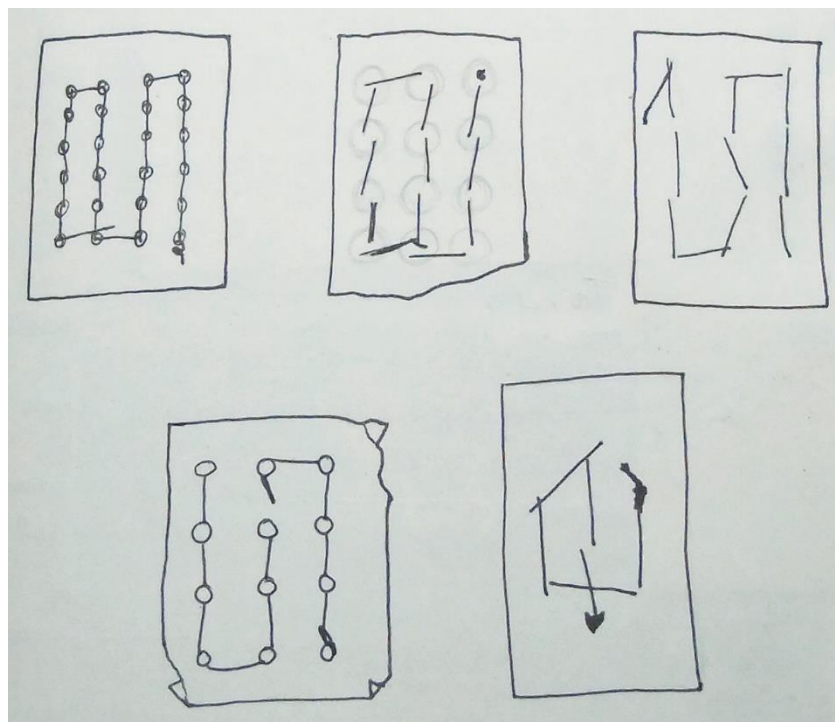


Figure 44 Author's own Image, Sketches taken from *Verso*, Cornelia Praker, 2017

Brief Theory of Participation as an Invite to Interact

Linda Candy & Ernest Edmonds (2011) feel interaction and participation with installations are becoming more common, resulting in audiences becoming familiar with the concept and possibly engaging, even when not allowed. They continue to add, interactivity has no limitations and is a spectrum ranging from a simple action to complete submersion.

It is argued that participatory art is designed to '...break down barriers between audience and maker, and between audience and work' (Kluitenberg, 2016, p160), bringing all parties together to share an inclusive experience. Mark S. Meadows (2003) stresses the importance of making the parameter of interaction clear to the audience as it encourages confidence because they understand what is required of them. To emphasise, 'communication is implied wherever there is interactivity' (Meadows, 2003, p37), meaning the interaction allows the audience to have direct communication with the installation.

Zafer Bilda (2011) writes about the 'Experience Design Approach' (Bilda, 2011, p164) which he defined as creating experiences in any medium, making it clear they can be interactive as long as an experience is instilled into the designing of the artwork. This is due to having a direct effect on the audience because they are being encouraged, provoked or tempted to respond to the displayed work (Candy & Edmonds, 2011).

Examples of exhibits

The work of Jenny Zig-Zag, J.W.Anderson and Rudolf Stingel are explored as artists encouraging interactions of touch within their installations, through the use of artist statement, chosen medium and signage.

Jenny Zig-Zag exhibited her work *Every Contact Leaves a Trace* (2018) as part of '2018 MA', Dean Clough, Halifax.



Figure 45 Author's Own Image, *Every Contact Leaves a Trace*, Jenny Zig-Zag, Dean Clough, 2018

One piece was an installation situated in the centre of the exhibition space, incorporating a vast amount of mixed media, found materials and journals. There was a single tall construction, pieced together with sections of old wooden furniture bars that were displaying small hanging prints, with one section reaching out along the floor depicting Zig-Zag's own prints. An open suitcase containing a collection of small journals was placed nearby, with enough space to walk between the two. The third element was an old wooden drawer, placed at a similar distance, encasing three printed samples. The distance between each element made it feel as though the audience were able to walk in between, however, the placement was close enough to make it apparent they were part



Figure 46 Author's Own Image, *Every Contact Leave a Trace: Detail*, Jenny Zig-Zag, Dean Clough, 2018

of the same piece. Along with the lack of barriers and markers, the installation became enigmatic, resulting in questioning whether or not the audience should walk through or touch. Zig-Zag's artist statement (Appendix 3) provided some clarity.

'Putting any of this current body of work behind glass protects it and makes it easier to exhibit but detaches it from immediacy with the viewer...' (Zig-Zag, 2018).

Zig-Zag (2018) states there is value in using glass to protect and install her work with ease, however, she suggests this has a negative impact on the viewer, as it creates a barrier, detaching them from the experience. By removing the glass, Zig-Zag is able to give her audience the option to fully engage and experience her work.

In conversation with Zig-Zag, she stated she did not want to display signs expressing the audience could or could not touch because she wanted them to respond intuitively. This was evident in the way her work was exhibited because there were no barriers surrounding any of her displays, to allow the audience to walk through the work if they chose to.

In discussion, Zig-Zag expressed she allows her audience to touch the pieces and began to demonstrate by being extremely delicate when handling the individual elements. This revealed the artist's knowledge of the fragility of the work, however, highlighting a potential for damage if a participant had interacted who lacked this knowledge or was not familiar with how to approach this type of display. Despite this, Zig-Zag felt 'damage' forms part of the narrative, as nothing stays pristine.

Close proximity and direct contact with the work exposed new experiences that may not have been visible when observing from behind a barrier, such as, experiencing the delicacy of materials first-hand especially for the laser cut elements. If only observation from a set distance was the allowed interaction, the variety of developed textures would not have been apparent.

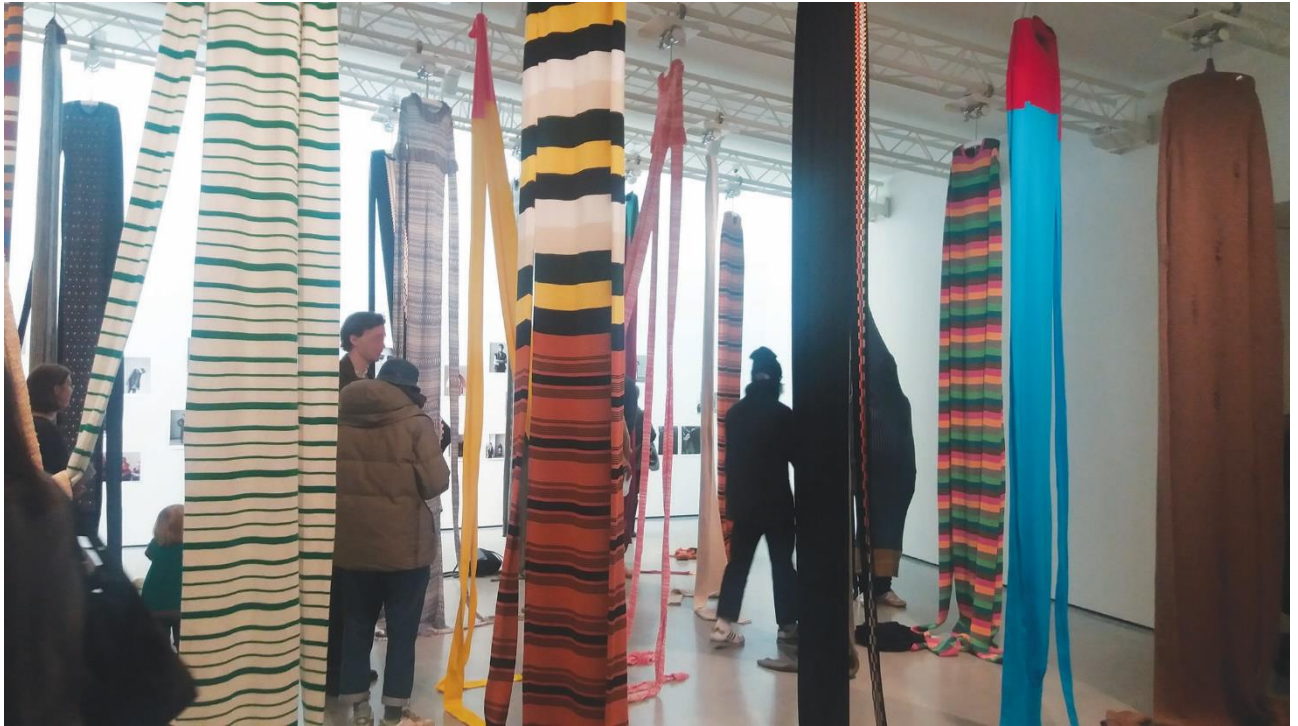


Figure 47 Author's Own Image, 28 Jumpers, J.W.Anderson, The Hepworth, 2017

J.W.Anderson's 'Disobedient Bodies' (Anderson, 2017) exhibition at The Hepworth, Wakefield, was incredibly inspiring, especially his own installation '28 Jumpers' (Anderson, 2017) which consisted of suspended, elongated jumpers for the audience to walk through. The installation showcased a functional garment, a common fashion item, as an art piece by exaggerating the length and allowing the audience to have complete freedom to interact with the work. Each of the 28 jumpers were unique, presenting a variety of bold coloured and textured yarns as a solid or striped garment; textured stitch construction (ribs, ladders and tucks); complex jacquard designs and garment structures featuring cuffs and fringes; all designed to entice audience interaction. The jumpers were evenly spaced and suspended from the ceiling to fill the exhibition room, whilst leaving enough distance for the audience to walk in and amongst the jumpers. Anderson wanted his audience's interactions to be open-ended to reduce the pressure of engaging in a certain way. Interaction on some level was inevitable as the way Anderson displayed his work meant they had to either walk through or very close to the installation in order to move to other parts of the exhibition.

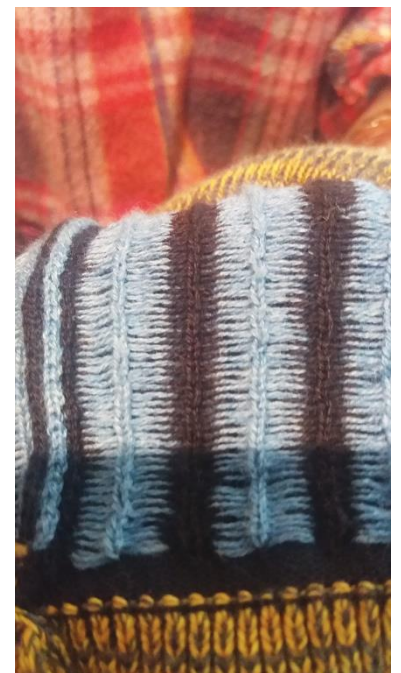


Figure 48 Author's Own Image, 28 Jumpers: Detail, J.W.Anderson, The Hepworth,

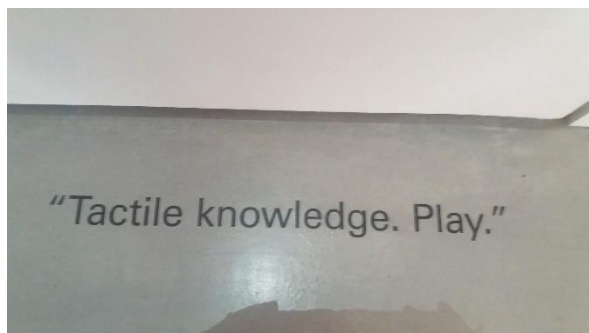


Figure 49 Author's Own Image, Sign, J.W.Anderson, The Hepworth, 2017

Anderson made it clear which interaction he felt was appropriate by presenting signs, along with text in the exhibition guide. Anderson expresses tactile experiences can aid an audience's understanding of an exhibit, enhancing their knowledge due to allowing exploration of every dimension of the work, rather than observing from restricted angles.

The interactions of the audience were observed to form part of the research.

- Participants observing the work from the edges.
- Children plaiting the jumpers.
- Touching (lightly with hands [placing/squeezing/brushing past]; moving the work; wearing the jumper)
- Some adults were undoing the plaits and knots, returning the work to its original display.
- Brief observation before moving to the next room.

At first, it became apparent adults were observing from the edges whilst children played in the installation. However, once the children moved, the adults entered the work. The large number of visitors added to the success, meaning there were few occasions when the installation was empty. This reduced the creation of a perceived barrier for the audience because as new participants were arriving, they observed previous participant's interactions, which influenced their own.



Figure 50 Author's Own Image, 28 Jumpers:detail, J.W.Anderson, The Hepworth, 2017



Figure 51 Author's Own Image, *Untitled*, Rudolf Stingel, Tate Modern, 1993

Rudolf Stingel's work '*Untitled*' (Stingel, 1993) was on display at the Tate Modern, London. Its appearance was simple at first because it was an installation of bright orange carpet, covering the length of gallery wall. It stood out because the vibrant orange jarred against the

rest of the white walls. Stingel (1993) states his work is '... undermining traditional notions of artistic authorship' (Stingel, 1993, artist statement), because he believes it is the audiences' interactions that complete his work. Without this, the work remains unfinished. The installation is accompanied by a sign making it clear the audience can interact directly with the work, whilst also providing clarity on what types of interactions are and are not acceptable, 'Shape and sculpt the carpet with your hands. Please don't use pens, pencils or markers' (Stingel, 1993, gallery sign), giving explicit guidelines to the audience. This could be perceived to limit the variety of possible interactions due to providing limitations. Through observing the interactions of audience members the impact of the sign became clear. Many of the interactions occurred before the participants read the sign, with some not reading it at all. Therefore, it could be argued it does

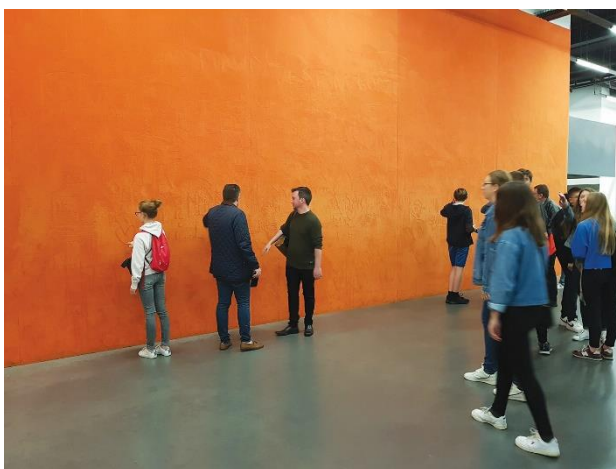


Figure 52 Author's Own Image, *Untitled*, Rudolf Stingel, Tate Modern, 1993

not limit the interactions, as it was rarely acknowledged. However, some participants walked past the work before reading the sign, then, returned to touch.

When footfall was low, there were fewer interactions, but this increased as more participants arrived. As with '*28 Jumpers*' (Anderson, 2017), it appeared as though some participants were copying each other. Participants were observing each other's interactions (drawing imagery and text with their fingers as well as stroking the wall, with some

participants observing) without witnessing negative repercussions, meaning the interactions were perceived to be acceptable, therefore safe.

Pros and Cons of displaying Tactility

Displaying tactile work that allows the audience to interact through touch can have many positive results, but also provides opportunity for negative responses.

Allowing direct contact reduces any perceived barriers that may be between the viewer and the work, especially if there are no physical boundary markers.



Figure 53 *Townlets*, Yelena Popova, *The Art House*, 2018

Yelena Popova uses this approach in her work *Townlets* (2018) where the audience is invited to interact with yellow and black foam constructions of a plutonium atom, to reconstruct or destroy. The concept was to make an artwork that is ‘...open for other people to get involved or to enjoy... something for them to play with’ (Popova cited in The Art House UK, 2018). This unguided interaction allows the audience to

engage with the work intuitively to be able to explore. The concept of play suggests a childlike spontaneity, instilling a sense of freedom and a loss of inhibition in the participant which allows them to fully engage. In this context the audience can be considered ‘...as *active meaning makers*...’ (Christidou, 2018, p2) because they are constantly interpreting the display, which aids in seeking meaning and intention of the work.

Interpretation and understanding can be solidified for the audience through their interaction, especially when they are unguided, as it can provide new meanings (Cooper, 2003).

Dimitra Christidou (2018, p1) feels that “‘attracting’ and ‘holding power’” are categories that are considered to be acts of learning, as they indicate the audience’s engagement and interest in an art piece by whether or not it attracts and sustains the audience’s attention. Once these categories have captured the audience, they may be more likely to explore and interact.

Neville et al. (2014) explain, objects are an integral part of everyday human interaction and environment, and they have more value than the physical and symbolic meaning, which is discovered when experienced first-hand. This concept can be applied to installations as they create experiences for each participant to potentially engage all senses, instead of being restricted to observation, which has previously been viewed as being superior, ‘Aesthetic experience is currently viewed as special...’ (Cupchik, Vartanian, Crawley & Mikulis, 2009, p84). Interaction may have a lasting impact on the audience because an opportunity to learn about the work has been provided, so participants can form a level of understanding around concepts and

construction through physical interaction. Engagement provides an opportunity for the audience to further relate to the work displayed (Nevile et al. 2014).

In comparison, it could be argued, an installation is less protected without a barrier, leaving it vulnerable to damage. To allow interactions whilst protecting the work, there may need to be limitations on the types of interaction, which can be clearly communicated through signage. However, this could hinder the experience as it may feel prescribed, or pressure a participant to interact. The presence of other participants could relieve this, as audience members can alter how others interpret and respond to the same piece of work (Christidou, 2018), which alongside signs, can act as providing permission. Roman Ondák uses this approach to facilitate interactions with his piece *Measuring the Universe* (2007). The



Figure 54 *Measuring the Universe*, Roman Ondák, 2007

installation was exhibited at the Museum of Modern Art (MoMA) consisting of a collection of participants' heights and names written on a wall. Measurements were taken throughout the exhibition period, building up a dense stripe along the middle of the wall. Ondák expressed, participation was spontaneous and accessible to anyone who entered.

Measurements were taken consecutively by MoMA staff and Ondák, which proved

successful as it meant the queue of participants observed each interaction to know what was expected (The Museum of Modern Art, 2009). Here, observation enabled the installation to work without signage which could have impeded the aesthetic of the final display.

Based on the analysis of these exhibitions and first-hand experience of tactile interaction, the information informed the research focus, to create installations that bring interaction of touch into the audiences' experience.

5:3. Installation

Analysis of First-Hand Engagement

Several installations allowing and not allowing audience interaction were visited to inform the research and to investigate personal interaction.

Works by Serena Korda, Giuseppe Penone, Chiharu Shiota and Rosemarie Trockel were selected based on the call for interaction by the artist or witnessing accidental interaction, where prohibited.



Figure 55 Author's Own Image, *Daughters of Necessity*, Serena Korda, The Hepworth, 2018

Korda, exhibited her ceramic sculptures, *Daughters of Necessity* (2018), at The Hepworth. Placed in the centre of the room they created a focal point with the artist statement positioned on the wall opposite, next to the entrance. Korda's choice of interaction called on her participants to listen, because the ceramic pieces were designed to capture the ambient noises in the gallery and amplify them. The interaction was mentioned

briefly towards the end of the statement (Appendix 4), making it clear the audience could be in close proximity to the pieces. However, there was still hesitation around interacting, which was partially influenced by a sign depicting a hand with a strike through at the base of each vessel, indicating no touch was allowed. This caused questions surrounding the ability to interact due to a fear of accidentally touching or falling on the pieces. Whilst observing the work, the invigilator approached to highlight the type of interaction permitted and reinforced the signage.

To begin with, there were few audience members and no interactions, however, as footfall increased, participants began to simulate the interactions of the researcher. This showed



Figure 56 Author's Own Image, *Daughters of Necessity*, Serena Korda, The Hepworth, 2018

participants had observed interactions perceiving them to be safe examples, which influenced their own. Overall, despite the statement clearly expressing the correct interaction, a level of anxiety remained due to the visibility of signage deterring touch. In this circumstance, the invigilator was pivotal in ensuring participants interacted.

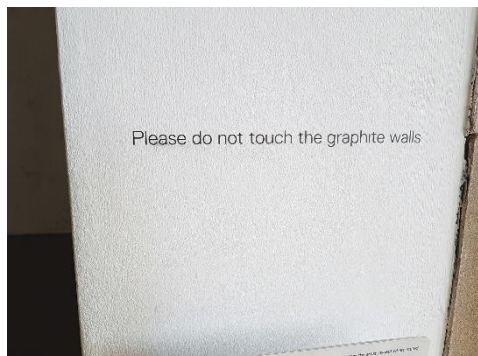


Figure 57 Author's Own Image, Sign, Giuseppe Penone, The YSP, 2018

To contrast, *A Tree in the Wood* (Penone, 2018), by Giuseppe Penone at The Yorkshire Sculpture Park was visited twice, resulting in comparative observations. The audience were explicitly asked to refrain from touching any of the pieces through the display of signs in the gallery.

The walls of the gallery had been covered in graphite highlighting their texture. This was noted because when first visiting they were covered uniformly with graphite, however, on the second visit, visible scuff marks were evident. The marks appeared

serendipitous, even accidental - conceivably caused by bags, coats and arms which appeared to correlate when observing audience members walking through. However, some indicated they had occurred with intention.

This highlighted that not all touch is intentional but can be accidental and instinctual.

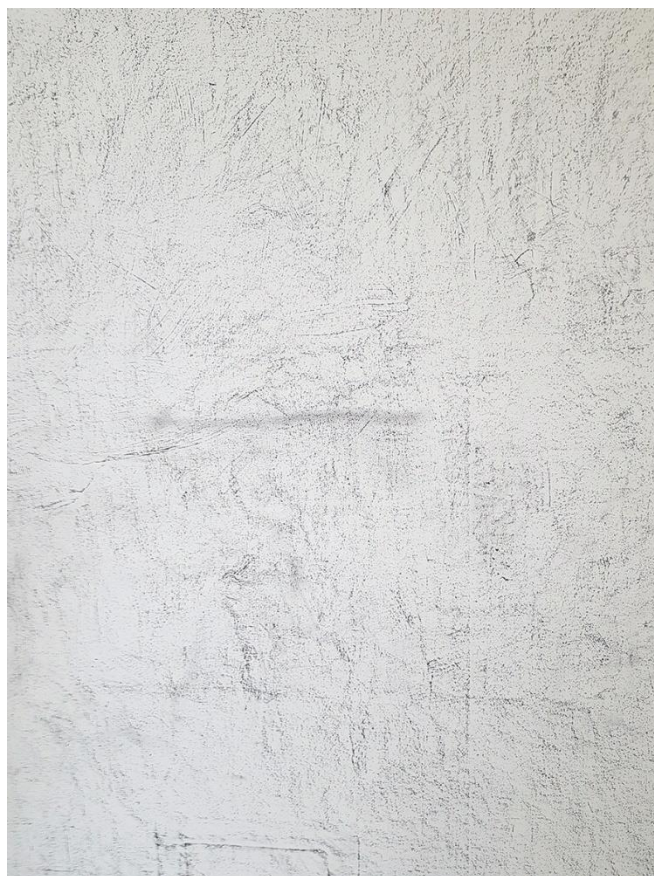


Figure 58 Author's Own Image, *A Tree in the Woods*: detail, Giuseppe Penone, The YSP, 2018



Figure 60 Author's Own Image, *Beyond Time*, Chiharu Shiota, The YSP, 2018

Another example is Chiharu Shiota's exhibition, *Beyond Time* (Shiota, 2018), at The Yorkshire sculpture Park. Shiota completely filled the Chapel Gallery, from floor to ceiling with an explosion of white yarn projecting from a wire piano in the centre of the room. Signs had been placed to prevent the audience touching the installation.

During observation, the majority of audience members adhered to the signs, with invigilators stepping in to reinforce.

Similar to Penone's (2018) exhibition, accidental



Figure 59 Author's Own Image, *Sign*, Chiharu Shiota, The YSP, 2018

touch was also noted. Observing the audience from the balcony above the installation, provided a unique perspective whilst ensuring the audience were unaware

of the researcher's presence.

Sections of the installation tapered down to meet the walls and floor, creating a curved edge. Some participants walked closely to the base of these curves, which resulted in them accidentally touching the installation, but not assertively enough for them or the invigilators to notice. Using a camera was a common interaction, however, some participants were not taking photos. Instead, they held the camera in their hands. Observing hands revealed many participants kept them in their pockets or had their arms folded whilst manoeuvring round the installation. This could be perceived as a tactic to create a barrier between themselves and installation to prevent touching the work, due to lack of a physical barrier.



Figure 61 Author's Own Image, *Beyond Time: detail*, Chiharu Shiota, The YSP, 2018

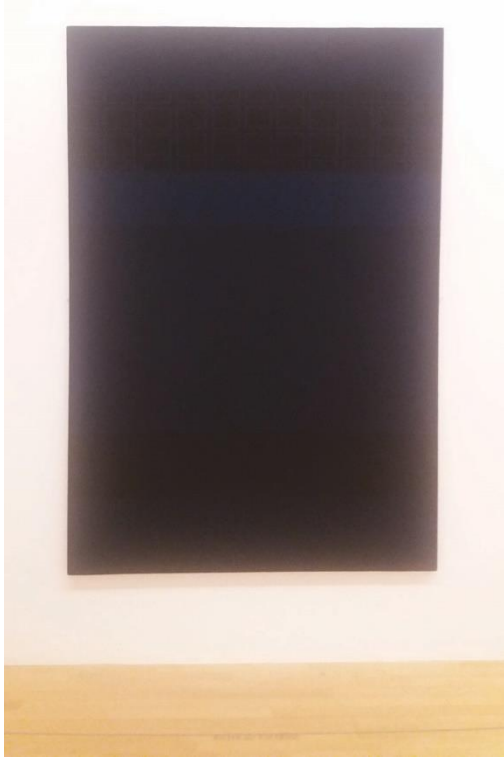


Figure 62 Author's Own Image, *Untitled 1986*, Rosemarie Trockel, Tate Liverpool, 1986

To contrast, Rosemarie Trockel's piece *Untitled 1986*, at the Tate Liverpool, used a wire barrier to distance the audience away from the work. The piece is machine knitted fabric stretched over a wooden frame, much like a traditional stretched canvas. At first, the piece appears to be plain knit, but is actually a subtly designed jacquard, using two shades of dark blue. The display method made it apparent observation was the intended way for an audience to engage. Unfortunately, the barrier meant the subtleties of the design were diminished as they were not easily visible from the set distance. The impact of the piece on the audience potentially may have been compromised further due to some audience members

not having knowledge of machine knitting, but also for those that do, not recognising the structure (due to distance) in a different context.

Overall, analysing these observations directly impacted the research focus to guide the display of an installation, the types of interactions aiming to be achieved and how to encourage this. The research clarified the inclusion of an artist statement within the exhibitions, as well as possible signage making the desired interaction clear. It highlighted that physical barriers would not be used, in order to reduce the perception of touch being forbidden.

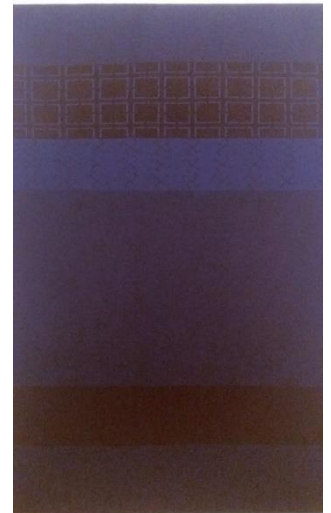


Figure 63 Author's Own Image, *Untitled 1986: detail*, Rosemarie Trockel, Tate Liverpool, 19

Symbiotic Process (Temporary/Contemporary: Market Gallery, 29th May – 2nd June 2018)

Aims

To use the gallery space as a platform to exhibit the versatility of knitted textiles and inclusion within textile art.

Objectives

During the exhibition, the audiences' interactions will be continuously observed and display alterations made daily during the exhibition period. The alterations were designed to influence variety of interaction, to encourage direct audience engagement. Each change was alongside the previous days' alterations, forming a cumulative process.



Figure 64 Author's Own Image, *Knitted Wall*, Ellie P Smith, *Temporary/Contemporary*, 2018



Figure 65 Author's Own Image, *Process Wall*, Ellie P Smith, *Temporary/Contemporary*, 2018

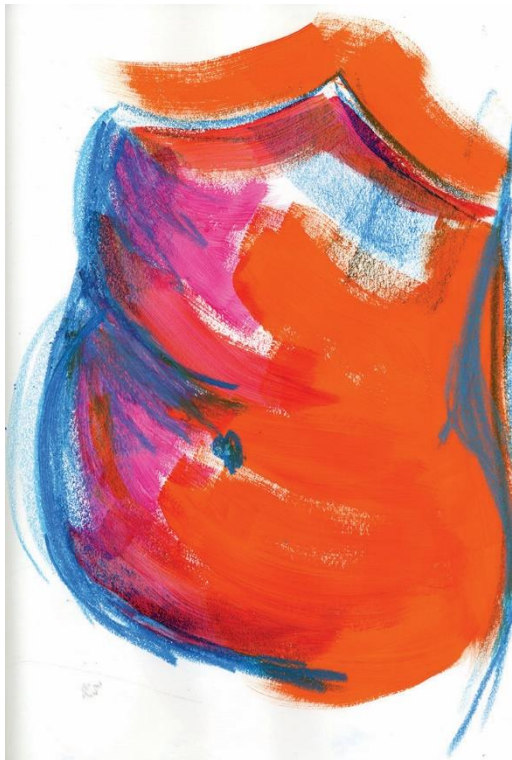


Figure 66 Author's Own Image, Process Wall: Detail 1, Ellie P Smith, Temporary/Contemporary, 2018

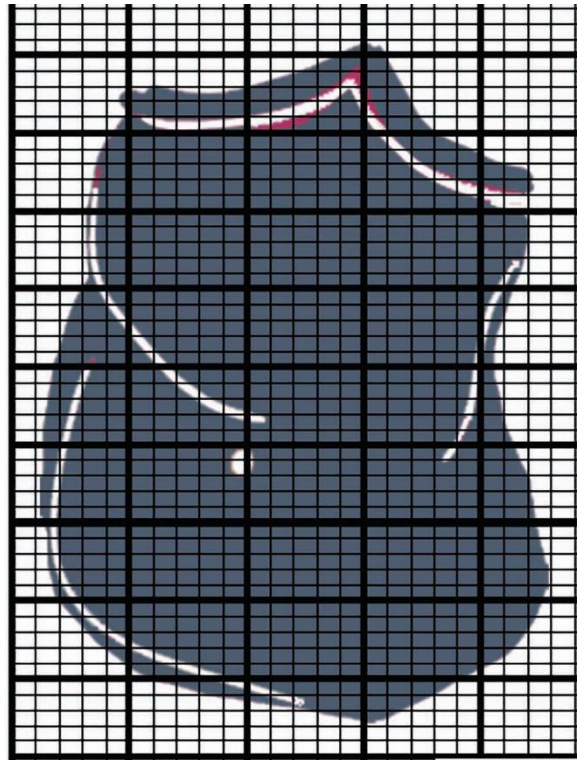


Figure 67 Author's Own Image, Process Wall: Detail 2, Ellie P Smith, Temporary/Contemporary, 2018



Figure 68 Author's Own Image, Process Wall: Detail 3, Ellie P Smith, Temporary/Contemporary, 2018

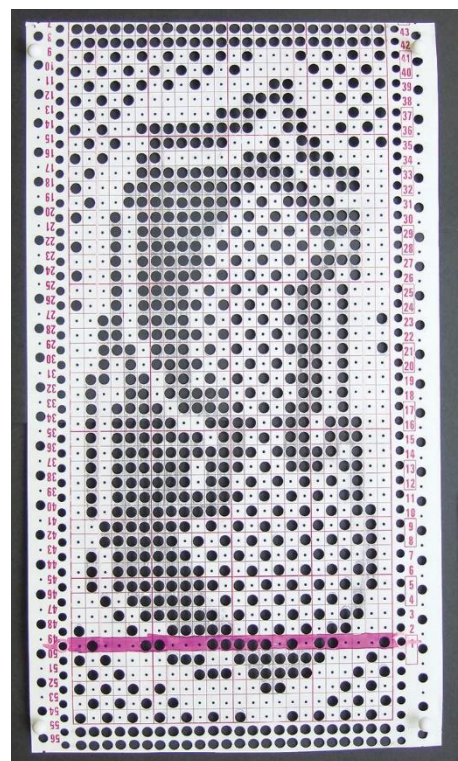


Figure 69 Author's Own Image, Process Wall: Detail 4, Ellie P Smith, Temporary/Contemporary, 2018

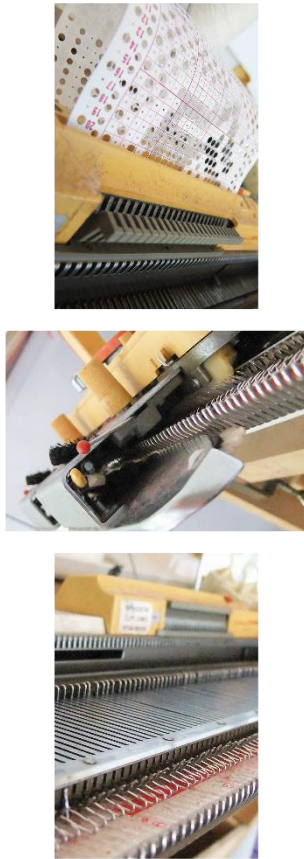


Figure 70 Author's Own Image, Process Wall: Detail 5, Ellie P Smith, Temporary/Contemporary, 2018



Figure 71 Author's Own Image, Process Wall: Detail 6, Ellie P Smith, Temporary/Contemporary, 2018



Figure 72 Author's Own Image, Process Wall: Detail 7, Ellie P Smith, Temporary/Contemporary, 2018



Figure 73 Author's Own Image, Process Wall: Detail 8, Ellie P Smith, Temporary/Contemporary, 2018

Observation/Responses

The table below records key themes and interactions that occurred during the exhibition, in order to analyse the correlation between interactions and alterations.

Day	Changes	Observation	Audience Responses
1	- No Signage - No Verbal Consent	- Touched without hesitation. - Touched the non-padded side first, before moving across to the other side.	Asked if they were able to touch both works; when they were told “yes”, they went on to touch.
2	- Verbally introduce booklets - Verbal Consent to touch - Artist Workshop	- Hands in their pockets and experienced the work visually. - Knitted samples got attention. (Black & White; Cushion Sample)	- Verbally communicating - audience members became excited and more animated - Gentleman reminiscing – personal history with textiles.
3	- Signage - Continued with Verbal Consent	- Touching the knitted wall. - Lifting up the samples so they could see what was on the back. (PROCESS WALL) - Attempted to do this on the knitted wall, on the edge of the doorway. - Cushion sample getting attention as well as the punchcard. - Read the sign before touching - Popularity of touching the area by the doorway into the next gallery. - People had been walking closer to the work. - One of the longer panels that stretched out onto the floor had been disturbed.	- Audience members passing on their textile experiences, some of which were specifically about memories of knitting machines. - Talking about the colours whilst stroking the wall. Touch prompted people to ask how it was made - Audience members were thrilled they were able to touch the work, with one member saying that you so often cannot, and found it refreshing to be able to touch. - Mentioned I have brought life drawing into another area that maybe it is not used to being seen in.

			Having the work [knitted wall] displayed on the wall, might be causing a barrier because of how pieces are traditionally displayed on the wall.
4	Tucked under the panels	- Keeping hold of the bags with both hands, one of which was also touching their face. - Audience getting much closer to the knitted wall. - Observing the work visually. - Touched the knitting along the length of the wall as they walked, with some just pressing it with their hands.	One viewer double checked that he could touch it and expressed his gratitude and stated that textiles is designed to be touched.
5	No alterations	- Holding their bags or holding a small piece of their clothing in their hand. - Walked very close to the knitting and the process wall. - Children - Without hesitation, they walked straight up to the knitted wall and touched it. - Left edge by the doorway was getting more attention. - For the process wall, both the cushion sample and the black & white sample were being touched. - People were stroking the wall.	Colours mentioned

Table 5 Symbiotic Process, Observation Notes and Summarised Audience Responses

Observations during the exhibition were invaluable compared to audience responses. They pushed the research forward because interactions were able to be captured discretely by the researcher, and related to the aims of the exhibition. Some participants responded by conversing with the researcher or left a written comment (Appendix 5).

Reflection

The aims and objectives of this exhibition were broader as it was designed to gauge the spectrum of possible interactions, to analyse what the research was going to achieve. Over time, it became clear the primary motive was to have an audience engage through touch with the installation.

During this exhibition, it was achieved by making daily changes to the installation throughout the exhibition period, thereby influencing the interactions, making it clear to the audience touch was permitted.

Initially, the knitted panels spilled out onto the floor, inadvertently creating a physical barrier between audience and installation. A proposed change, therefore, consisted of rolling excess fabric under, to allow for a closer proximity to the piece. Plans were also developed to have each panel knitted to sit flush against the floor, resulting in further reduction of barriers for future exhibitions.

Unobtrusive observation (Robson & McCartan, 2016) proved successful as a means to record audience interactions throughout the exhibition period, from 9:30am – 4:30pm, as the audience were not aware of the formal observations. However, the researcher's presence as an invigilator may have hindered the types of interaction witnessed, due to the audience possibly feeling accompanied in the space. Therefore, positioning of the researcher would be reconsidered to ensure interactions are not hindered and their relation to planned alterations remained visible.

Informal conversations between researcher and participants occurred naturally and had not been planned as a research method. Notes from conversations recorded participants sometimes spoke of their textile or knitting experiences. However, they did not often refer to touch and were mainly anecdotal. Written comments such as, "this was a very interesting experience visiting today and really enjoyed listening about this amazing journey, thank you" (anonymous participant comment) digressed from the objectives, providing no additional narratives of interaction. For this reason, neither method would be implemented during the research, nor would researcher prompted conversations, due to potential leading of feedback and inauthentic responses.



Figure 74 Author's Own Image, Knitted Wall: detail, Ellie P Smith, Temporary/Contemporary, 2018

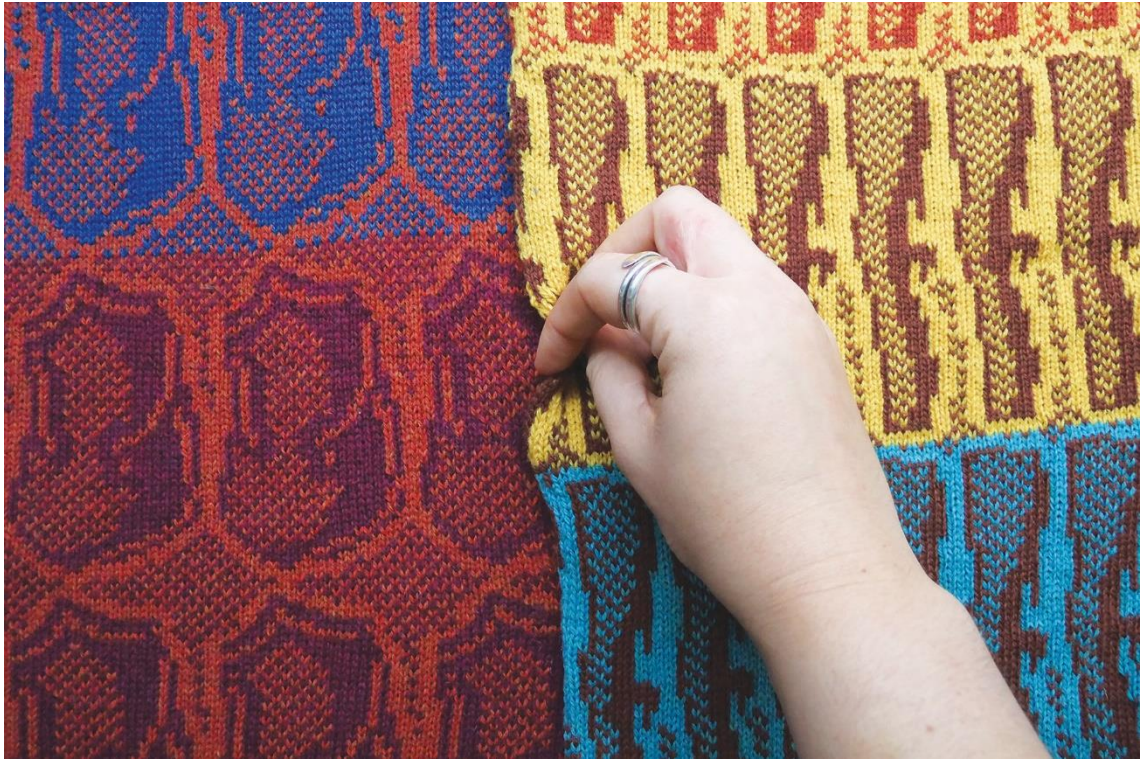


Figure 75 Author's Own Image, Knitted Wall Interaction Mock-up, Ellie P Smith, Temporary/Contemporary, 2018

Atrium Installation #1 (Richard Steinitz Building: University of Huddersfield, 18th – 22nd March 2019)

Aims

Building on knowledge from the previous exhibition, the aim was to exhibit in a new public location, to approach a different audience and observe unprompted interactions.

Objectives

To understand why the audience chose to interact with the installation and at what point, to determine the possible influence of displaying an artist statement.

Layout

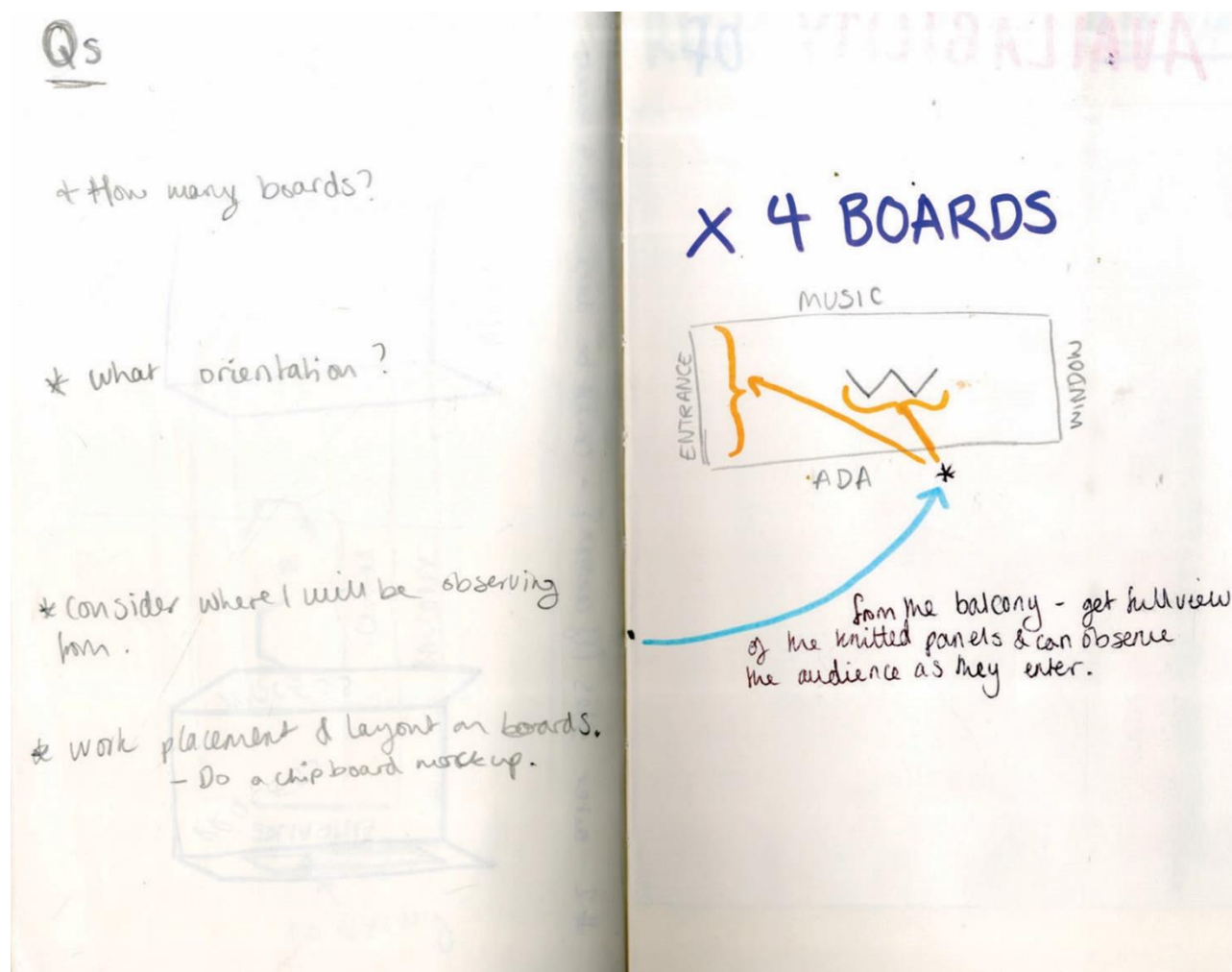


Figure 76 Author's Own Image, Atrium #1 Display Sketch, 2019

Throughout the exhibition period no alterations were made, with signage kept to a minimum. Explicit permission for interaction of physical touch was not given, only the inference from the artist statement (Appendix 7).



Figure 77 Author's Own Image, Atrium #1 Installation, Ellie P Smith, University of Huddersfield, 2019

The process display faced the music department side of the Atrium as it was not the area being observed.



Figure 78 Author's Own Image, Atrium #1 Installation, Ellie P Smith, University of Huddersfield, 2019



Figure 79 Author's Own Image, Atrium #1 Installation, Ellie P Smith, University of Huddersfield, 2019



Figure 80 Author's Own Image, Atrium #1 Installation, Ellie P Smith, University of Huddersfield, 2019

Logistically, positioning of the knitted panels, in relation to the balcony, took priority as it enabled the covert observation of audience interaction to be carried out discretely and effectively, due to clarity of viewpoint. Furthermore, the knitted wall needed to be viewed first and the artist statement last, to provide an opportunity for participants to touch the work before gaining knowledge of the project.

Observation/Responses

For the purpose of this section, the audience will be referred to as participant due to their engagement with the work.

Quantitative data was collected to record frequencies of interactions and when they occurred. The data has been visually displayed in a chart.

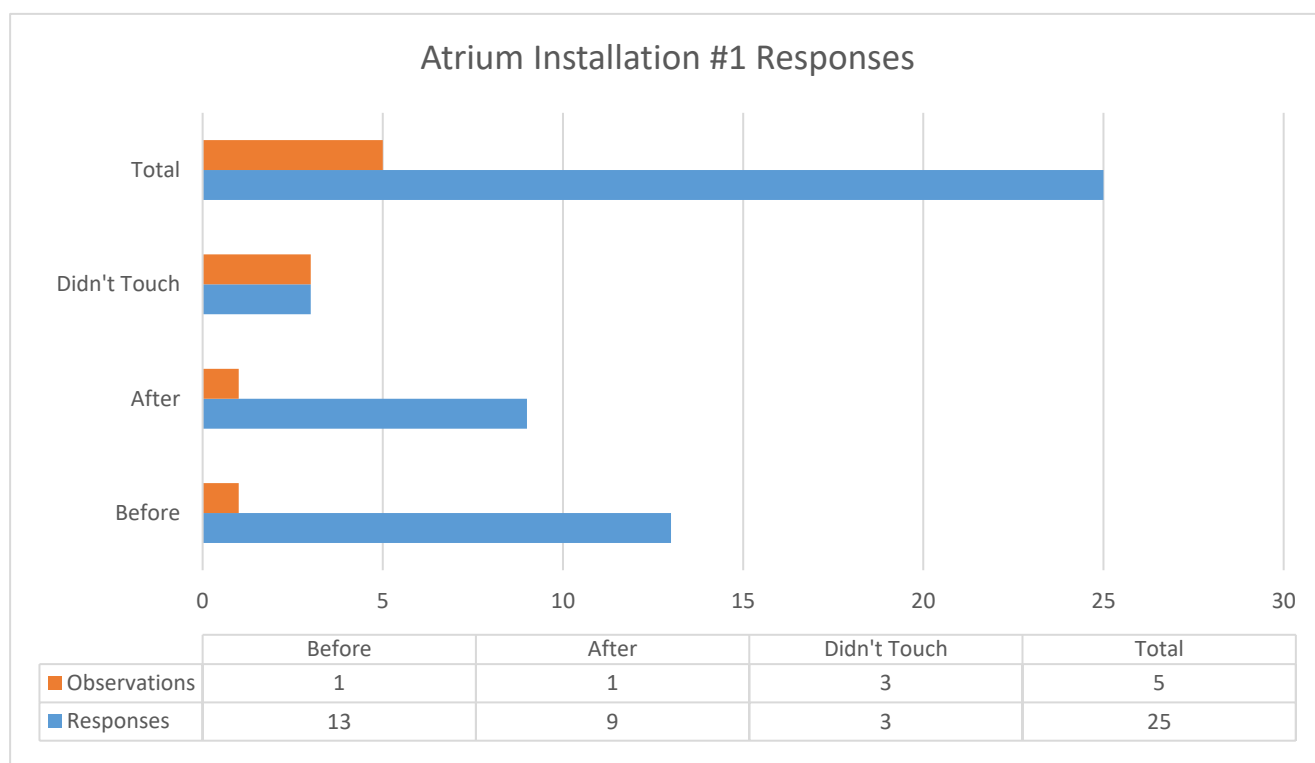


Table 6 Atrium Installation #1 Audience Response Graph

Responses from the participants' self-completion of a questionnaire were consistent, whereas, observations proved difficult to record, due to the researcher's work commitments preventing attendance to all planned observation times.

Qualitative data was collected alongside quantitative, to provide reasoning, in the participants' own words, for why they interacted when they did. The data is compiled in the table below, by themes derived from comments (Appendix 6) from the 'Why?' section of the questionnaire, in relation to when the interaction occurred.

WHY?	BEFORE	AFTER	DIDN'T TOUCH
	What did it feel like?	Texture	Why would someone want to touch?
	Closer look at the body parts	Needed Permission	Artist's not necessarily wanting you to touch their work (acknowledged it looked touchable)
	Texture	Colour	Out of respect (eating)
	Tactility	Impolite/Disrespectful to touch	
	Appealing	Instilled in us <u>not</u> to touch	
	Pattern	Didn't want to damage	
	Observation	Imagery suggested it was to observe rather than touch	
	Referred to as fabric	Uninviting method of display (suggestion of draping)	
	Colour	Wanted context first	
	Textile Quality		
	Nostalgia		

Table 7 Atrium Installation #1, Audience Response Summary

Overall, the majority of participants touched the installation before reading the artist statement. However, those who returned after reading the artist statement, clarified in their responses, the statement provided permission to touch the installation, thus challenging their expectation of not being allowed. "Because after reading the sign, I felt I was allowed to. Impolite to touch" (anonymous participant comment). Keywords such as, 'permission', 'impolite' and 'disrespectful' were used often when participants spoke about hesitating to interact. The perception being, it may not have been the artist's desired interaction. Echoing this, another participant wrote, "Because Artist's don't always want people to touch their work; although it does look extremely touchable" (anonymous participant comment), meaning they did not touch the installation, but were still able to appreciate its tactile quality. Two participants added "I do not want to cause any potential damage" (anonymous participant comment) and "I was eating an apple. Didn't want to leave a stain" (anonymous participant), thus showing a commendation of the investment of time and energy, whilst also acknowledging potential fragility.

One participant appended, “I wanted context about the artwork first...” (anonymous participant comment), implying the artist statement provided context, so they could understand the concept, which in turn possibly influenced their interaction.

To summarise, exploration appeared to be the main motivator for observing and touching the installation, with many participants referring to colour and pattern attracting them. Closely followed by texture, “The texture looked interesting. And the patterns almost drew me in to see how they felt” (anonymous participant comment). Therefore, it could be argued visual aesthetics attract participants, allowing them to formulate opinions or questions, but the act of touching facilitates an understanding of the medium. This is deduced as responses refer to the properties rather than the concept of the installation.

The display method was described as uninviting: “... mounted flat it does not invite you to feel it in the way you would if draped” (anonymous participant comment). Although not initially considered due to previously experiencing low engagement because no contact was allowed when visiting installations, in the context of allowing touch, draping could encourage exploration through touch. Based on this, encouraging exploration was highlighted as a key motivator for curating future installations.



Figure 81 Author's Own Image, Installation Mock-up, Ellie P Smith, 2019

Reflection

The process wall no longer felt relevant to the installation and the participants' experience, potentially detracting from the focus on the knitted wall to collect responses. However, the artist statement (Appendix 7) was crucial for some participants' interaction, "Wasn't sure whether I was allowed to until I read the description!" (anonymous participant comment). The statement had proven to be a successful tool in ensuring participants felt safe interacting, without needing further signage.

An anonymous questionnaire (Appendix 8) was used to concisely capture responses easily, without overburdening participants to provide too much detail. The format was successful because it allowed for qualitative and quantitative data to be collected, thereby fulfilling the research aims. The comments section collected valuable responses, in the participants' words, due to the clarity and impartiality of the question.

Implementation of unobtrusive observation (Robson & McCartan, 2016) was altered for this exhibition by increasing the distance between installation and researcher, who was located on the balcony above. This was so a clear view was retained whilst reducing the risk of being associated with the installation. However, due to being employed in the Art, Design & Architecture school at the university, this was still a risk due to being recognised by students and staff, possibly impacting on data collection due to potentially influencing participant decisions to interact with the installation.

Observation provided less data than the questionnaire because it was reliant on observing the work at pre-planned intervals which proved difficult to attend regularly. Surprisingly, some timeslots were quieter than expected, resulting in few or no interactions. This was further impacted by reduced footfall due to the timing of the exhibition, during students' academic deadlines. Therefore, this method was unprofitable because interactions were not able to be recorded effectively.

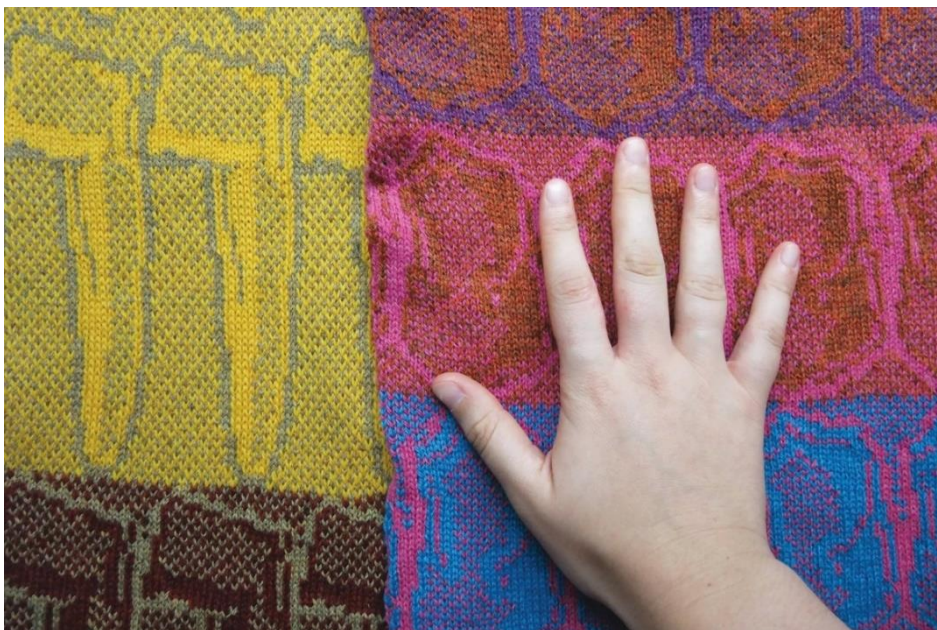


Figure 82 Author's Own Image, Atrium #1 Knitted Wall Interaction Mock-up, Ellie P Smith, University of Huddersfield, 2019

Atrium Installation #2 (Richard Steinitz Building: University of Huddersfield, 7th – 11nd May 2019)

Aims

The third installation aimed to test a variety of display methods.

Objectives

To explore the effectiveness of each display method in engaging viewers to physically interact with the pieces, through touch.

Layout

Each display method was designed to incorporate edges, having previously been highlighted during Temporary/Contemporary, for encouraging physical touch. The displays were changed daily.



Figure 83 Author's Own Image, Atrium #2 Installation: Day 1, University of Huddersfield, 2019



Figure 84 Author's Own Image, Atrium #2 Installation: Day 2, University of Huddersfield, 2019



Figure 85 Author's Own Image, Atrium #2 Installation: Day 3, University of Huddersfield, 2019



Figure 86 Author's Own Image, Atrium #2 Installation: Day 4, University of Huddersfield, 2019



Figure 87 Author's Own Image, Atrium #2 Installation: Day 5, University of Huddersfield, 2019

Observation/Responses

The charts below showcase the quantitative data recording volumes of observed participants interacting with the installation. They depict a clear visual of the number of interactions, comparative to the daily display alterations, captured both through observation and participant responses.

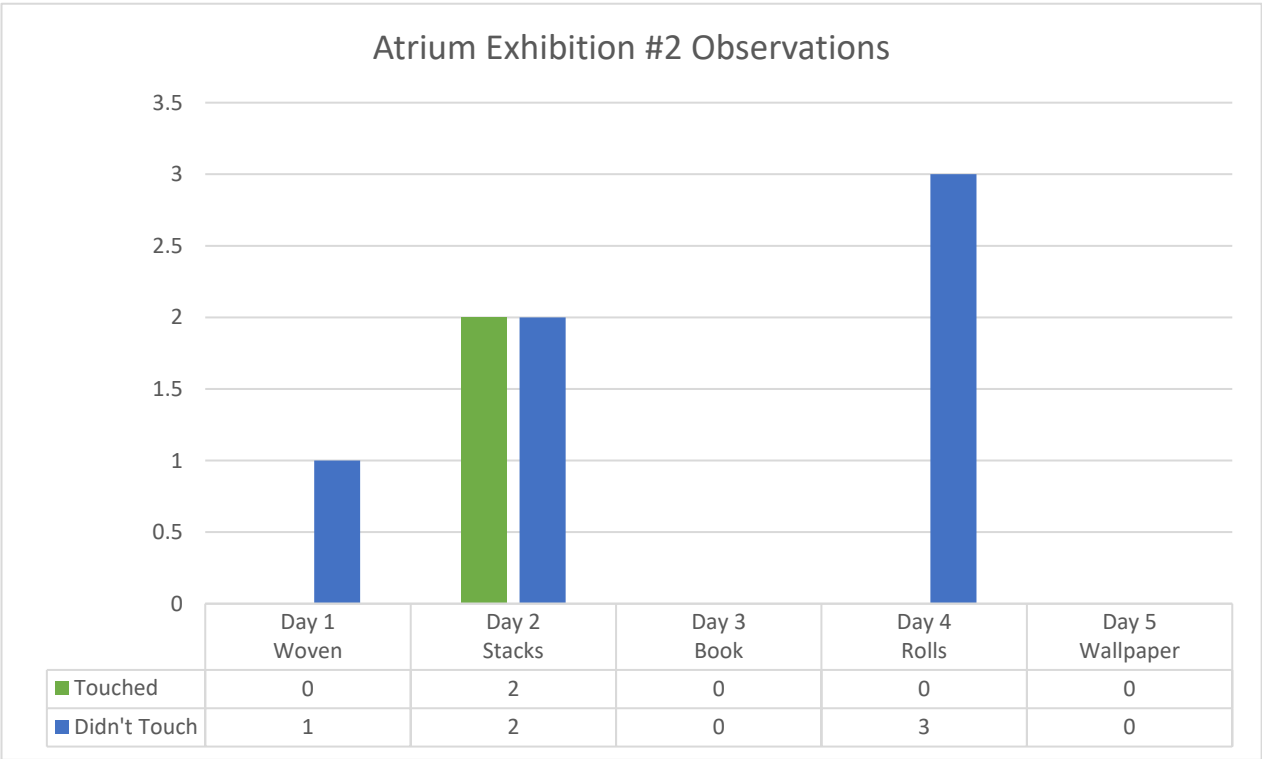


Table 8 Atrium Installation 2 Audience Observation Graph

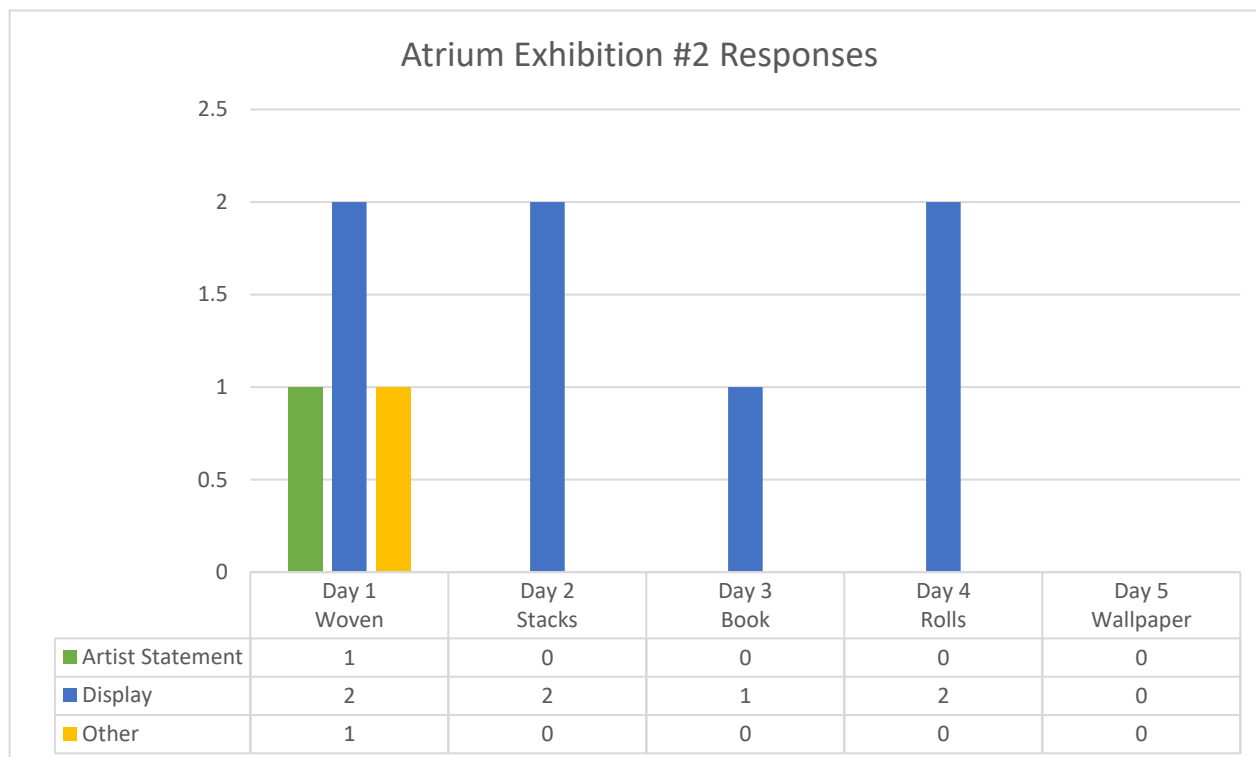


Table 9 Atrium Installation #2 Audience Response Graph

The table below provides quoted comments that detail the reasoning for the interactions, supporting the quantitative data in Table 5, recorded by participants on the anonymous questionnaire (Appendix 9). The 'other' section, highlights alternative external influences affecting the participants, not listed by the researcher.

Two comments are underlined as they were from a single participant, ticking both the artist statement and display. This correlates to the charts, where there were eight participants in total, but there appear to be nine.

DAY/DISPLAY METHOD	ARTIST STATEMENT	DISPLAY	OTHER	OBSERVATION/MOVEMENT OF WORK
DAY 1 WOVEN	<u>'The colours and the sample tonal colours are attractive. Also to figure out what the motifs are.'</u> (anonymous participant comment)	No comment	'Couldn't control myself!' (anonymous participant comment)	Panel unrolled - Spread out along floor - Put back by another participant Slight movement of panels around the base.
		<u>'The colours and the sample</u>		

		<u>tonal colours</u> <u>are attractive.</u> <u>Also to figure</u> <u>out what the</u> <u>motifs are.'</u> <u>(anonymous</u> <u>participant</u> <u>comment)</u>		
DAY 2 STACKED		'It's fab' <u>(anonymous</u> <u>participant</u> <u>comment)</u>		Movement of top edges. Artist Statement moved to below the panels. Slight disturbances to the piles. A broken end on the floor next to the installation. Some folded over sections appeared.
		'Can't miss the colours. Reminds me of being dragged around textile shops with my mum as a kid (the smell of the cloth!) <u>(anonymous</u> <u>participant</u> <u>comment)</u>		
DAY 3 BOOKS		No comment		Colleague speaking to me whilst touching the work (I was rearranging) Approached by another member of staff from the music school (I was rearranging) - Loved the work – specifically the back. Referred to liking scarves

				because both sides are visible. - Asked about the aftercare of the fabric/what could it be used for after it has been displayed. Some edges made flat – no longer folded over
DAY 4 ROLLS		‘Pretty, looks very inviting’ (anonymous participant comment)		Subtle movement of the ends along the table edge. Longer ends moved further along the floor.
		‘I saw the display and came to have a look, before reading the card I was already touching the work. I love knitting and the texture and was invited by the colours + patterns. The work is really beautiful’ (anonymous participant comment)		
DAY 5 WALLPAPER	No responses	No responses	No responses	Subtle movement of ends along table. - Nearest Artist Statement

				An end linked up to the trail of panels - Was previously hanging straight. Few people were observing the work as they walked past. - Did not go over to the installation.
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Table 10 Atrium Installation #2, Audience Response and Observation Summary

Once again, the exhibition was impacted by timing, with a further reduction in footfall due to having lower levels of potential participants on campus during term three.

From observations, there were fewer participants interacting through touch. However, the quantitative results for responses showed displays were positively impacting seven participants by encouraging them to interact through touch. Upon further analysis, results showed Day 1 (WOVEN), Day 2 (STACKED) and Day 4 (ROLLS) were most successful for physical interactions.

Day 5 was trialled on Saturday to observe if there were any volume or interaction differences from those recorded during the weekday. However, with reduced footfall and no participant completing a questionnaire, it proved unsuccessful.

Reviewing the comments, key areas encouraging participants to approach and touch the installation were highlighted. Colours and motifs were frequently referred to by those engaging because of the display, with others expressing it was the textile itself warranting touch. However, no responses made a direct connection to display methods being the main reason for interacting.

Photographing the installation in the morning and at the end of the day meant any movement of the installation could be captured even if participants' interactions were not observed.

Day 1 (WOVEN), one of the panels was witnessed spread out along the floor. In between making a second observation, it had had been returned to its original placement, no longer rolled, making two interactions



Figure 88 Author's Own Image, Atrium #2 Installation: Day 1 (WOVEN) AM (left), PM (Right), University of Huddersfield, 2019

evident. This engagement showed participants had tried to undo another's interaction by returning the installation to its original display.

Day 2 (STACKED) and Day 3 (BOOKS) were notable because of their apparent similarity. When stacked, the panels were folded neatly with their edges flat. At the end of the day, there were some disturbances showing participants had lifted the edges and had not returned them.



Figure 89 Author's Own Image, Atrium #2 Installation: Day 2 (STACKED) AM (left), PM (Right), University of Huddersfield, 2019

Day 3 however, the panels were displayed to resemble open books, folding back the edges to simulate the opening of a page, to entice the audience to lift the edges during their exploration. This time, participants returned the panels to flat surfaces.



Figure 90 Author's Own Image, Atrium #2 Installation: Day 3 (BOOKS) AM (left), PM (Right), University of Huddersfield, 2019

Upon analysis, a theme of 'putting the work back' to what had previously been viewed or reducing apparent previous interactions, was appearing; possibly a product of the ideology that audiences feel they should not touch an installation.

Leaving excess yarn was decided based on reducing waste and possibly utilising as part of the installation. During this exhibition they aided the recording of subtle or possibly accidental interactions through their movement, for majority of the displays.

Overall, based on responses, Woven, Stacked and Rolled were popular display methods, which was reflected with observations, including the Books display.

Reflection

The installation was exhibited in the same location as previous, to allow for data collection and comparison under the same conditions, whilst observing how the installation's display affected the interactions of the same type of audience. However, they may have previously experienced the work, meaning it no longer

entices them, causing a reduced number of responses. Further to this, despite rearranging the display every day to encourage audience interaction, the results showed it was the aesthetic properties of the textiles themselves that achieved this, not necessarily the method of display.

The focus of the installation was to encourage exploration by enticing the audience to pick up and examine the knitted display. This was achieved with a selection of final display methods.

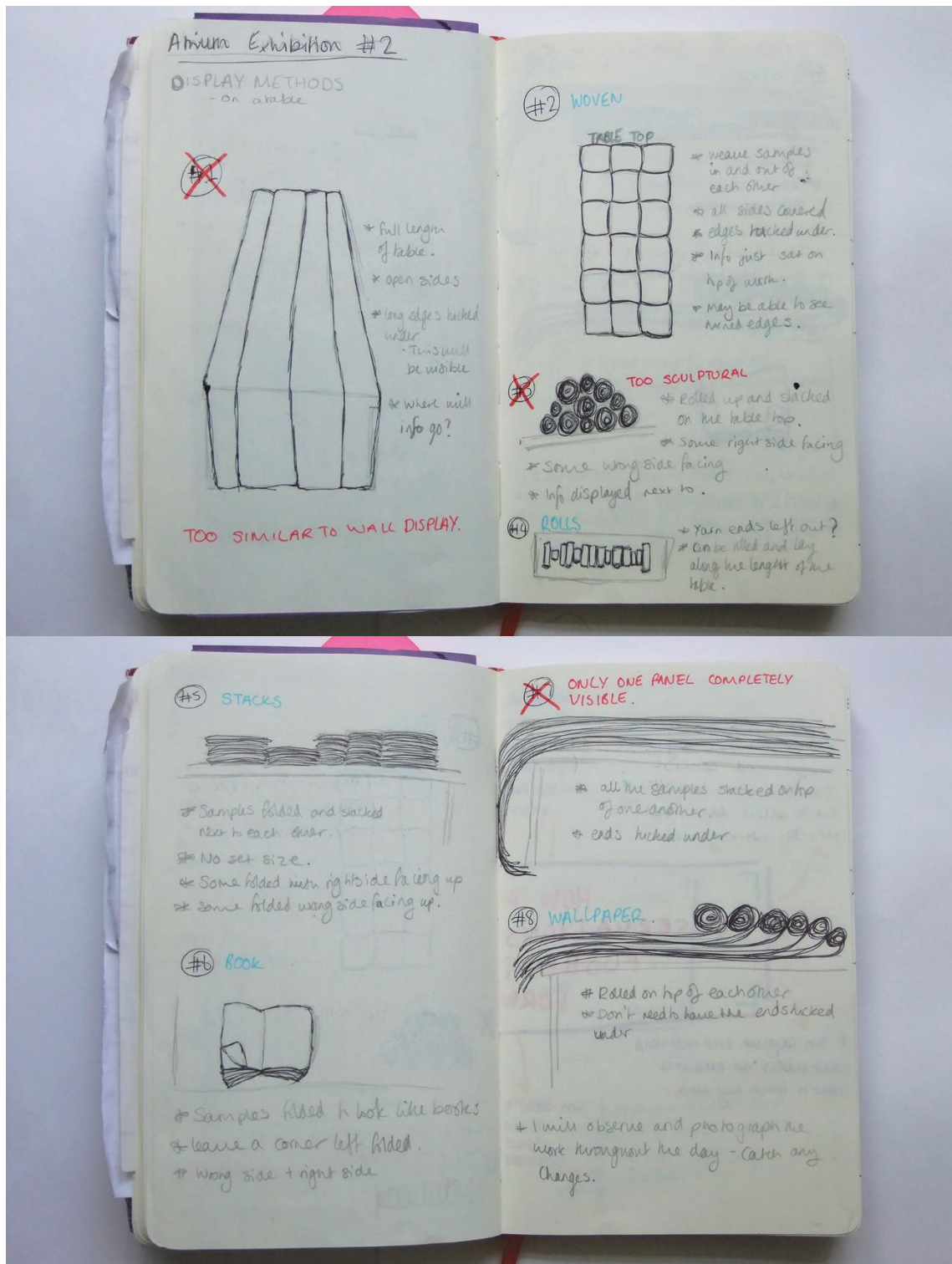


Figure 91 Author's Own Image, Atrium #2 Display Sketches, 2019

Woven; Stacked; Books; Rolls and Wallpaper were chosen because they created edges to be lifted. They showcased front and reverse sides of the panels, advocating complete immersion, by not limiting the experience to the front facing perspective.

Display methods for each day were determined so responses could be collected daily to ascertain if certain methods increased interactions. Moreover, creating intrigue was necessary as the installation was exhibited to potentially the same audience; altering the display daily provided the capability to create more interest.

An anonymous questionnaire (Appendix 9) was implemented, and the question was altered from the previous one, so knowledge pertaining to how the work itself may encourage interaction through its display could be collected. Finalising the question was difficult as it needed to keep the participants' responses authentic, and not guide them. Ultimately, '*Why did you touch the work?*' proved to be restrictive as it assumed participants had interacted with touch, providing no commenting opportunity for those that did not. Going forward, question revisions would accommodate those interacting in alternative ways.

The reliant method for tracking interactions was photography, using it to capture five angles (Top, Side A, Side B, Front and Back) for analysis, to highlight small interactions through any movement. This enabled data collection that may not have been captured through other methods, such as, unobtrusive observation, which remained inconsistent.



Figure 92 Author's Own Image, Atrium #2 Knitted Wall Interaction Mock-up, Ellie P Smith, University of Huddersfield, 2019

6. Conclusion

The purpose of this investigation was to encourage an audience to become participants by having them directly interact with a domestic machine knitted installation, through touch.

This was to allow opportunity to observe a range of interactions and explore the reasons why participants felt inspired to touch the display. Part of the focus of the study was to acknowledge and showcase the versatility of domestic machine knitted fabrics and their ability to be deemed appropriate in an art setting through an installation piece, as well as the domestic environment.

The context chapter has highlighted that knitting of any kind can be both practically and conceptually driven, utilising the common associations by either challenging or utilising them, to communicate the artistic message through the tactile medium. When focusing on interacting with art, the interaction of touch was expressed as a factor that was becoming more common within viewing art (Candy & Edmonds, 2011), and a desired interaction by the artist. Having been an expected part of the viewing experience during the seventeenth and eighteenth century, galleries are observing a shift back to touch as an interaction to enhance the audience's experience, with the priorities of conservation and preservation no longer being the main focus. This is due to the audience experiencing exploration to aid finding meaning in the artwork.

Knitting as art '... has become an important way to reassert the tactile and social pleasures we all crave' (McFadden, cited in Gschwandtner, 2007, p4), which lead to tactility being explored to understand reasons for interaction with artworks. Although touch was the main focused interaction, the responses were left open-ended due to letting the audience interpret the work for themselves, thereby interacting how they wanted to. This was echoed by artist Lou Baker who views her work as 'provocations' (Baker, 2018) to inspire interactions from her audience, whilst also ensuring they do not feel pressured to carry out her preferred interaction.

The installations were designed to observe a range of interactions to understand what impacts the audience, to either influence or deter them from interacting in any way, as well as touch. The key areas discovered were;

- installation placement
- content
- influence of other participants
- audience's body language
- physical and psychological barriers.

These discoveries here, directly influenced the exhibition process, informing the installation design each time the work was exhibited. During Symbiotic Process the main findings were the impact of the artist being the invigilator in the space. This possibly hindered the audiences' interactions because they were aware of an invigilator, due to the intimate size of the gallery. Despite this, they remained unaware that

their interactions with the installation were actually being observed. The work initially ran onto the floor from the wall, this was altered as part of the research, where the observation was made that more interactions of touch took place once the physical distance between the audience and the work was reduced. This finding was reinforced by Sweeney's (2016) point of acknowledging the placement of the work and the audience, to ensure they are both in close proximity to one another, as it allows for the knitted artwork to be accessible. During this period, all interactions were appropriate, but it was noted, the audience were in fact touching the pieces on display, influencing the motivations for the next two exhibitions.

During Atrium #1, the focus became an investigation of why the participants chose to touch or not touch, and at what point they did so. Interestingly, it revealed the majority of the participants touched the installation before reading the artist statement (which highlighted the interaction of touch). However, it was also interesting to read that those who touched the work, having read the statement, actually needed this in order to feel they had permission to do so. Her (2013), Meadows (2003) and Christidou (2018) reflected this, as they all expressed the audience needing clear parameters of how to interact with artwork, with some participants still requiring permission in order to feel comfortable with the appropriateness of their interaction. The self-completion questionnaire permitted the participants to note any other factors that encouraged them to interact with the installation. One main point that arose, was the influence of the colours and patterns in the knitting and how they initially attracted the audience to the work, before they engaged through touch. Classen (2012) had also referred to the use of colour being a method to attract audiences, to encourage them to approach the exhibited work, to then reach out and touch. Christidou (2018) used the categories attracting and holding power which acted as a useful tool to analyse whether the installation was keeping the attention of the audience, leading them to interact through touch. This was successful, based on the data that was collected.

Atrium #2 had similar motivations for exhibiting, but with the refined focus on understanding why the audience interacted, to comprehend if the display method had influenced their choice. This exhibition was not as successful as the previous two due to its timing, but observations were made showing the audience were stopping to observe the work as they walked past, rather than touching. This supports Hemmings' (2018) statement regarding knitting being an inviting medium that attracts people to view it. Participants were still interacting with the installation, but there was no mention of the display method having influenced them. The responses, however, reinforced the points made from Atrium #1, that it was the colour and patterns that invited the audience over, with the addition that it was the knitted textile itself that acted as a motivator for touch, not how it was displayed.

Upon reflection, the limitations of the research have been the restricted audiences, due to displaying the work in a university building, which as Her (2013) expresses, displaying the installation outside a traditional art location will have made it more challenging to get the audience to interact; despite being presented to an audience that are perhaps familiar with visiting galleries. This may not have given an accurate depiction

of how the more general public may have interacted. The initial exhibition of the work was held in a gallery space (Temporary/Contemporary) in the town centre which was open to all members of the public, but there was a reduced footfall throughout the day and not all the public walking past entered the gallery. Reduced footfall also impacted interactions during Atrium #2 due to the time of year the work was displayed in an education establishment, meaning the majority of potential participants had returned home after the term had finished. Another limitation was the impact of an invigilator for Symbiotic Process, because it reduced the interactions due to being in close proximity and also provoked some participants to begin a conversation, which was interesting but did not produce relevant data for the research.

A difficulty during the designing of a questionnaire for Atrium #2 was the final question did, in fact, guide the audience in their answer, and did not accommodate those that did not touch the installation. Despite this, overall, the questionnaires proved to be invaluable in capturing the audience's responses, as the observations made proved to be less reliable due to not being able to attend the designated timeslots, as well as difficulties predicting busy periods to capture data. For Atrium #1 and #2, the installation was displayed in the same location to capture data under the same conditions, however, this did not provide as much quality data as had been hoped for. The audience had become familiar with the work which may have reduced the interactions, because they may have already participated previously.

To further develop this project, an area of exploration could be the impact of the display on the interactions of the audience and to better understand how this may influence them in participating, especially when paired with experimenting with a variety of locations and target audiences. In the broader sense, influences on interactions may be more personal to each participant. Therefore, an exploration of these reasons would add more background to each individual experience and uncover commonalities to reach a potentially broader audience. This could be achieved via 1:1 interviews with participants after they have viewed the installation.

The impact of an invigilator felt influential during this project. An investigation into the reasons for having an invigilator in the gallery space could be carried out, whilst also examining how they are capable of enhancing the audiences' experience and capturing their responses. This in turn could be carried out alongside research into the areas of touch and how this compares with the values of conservation and preservation, to determine if the three concepts can work simultaneously.

Ultimately, knitting is a tactile medium that is capable of being showcased as a piece of artwork that the audience can touch. However, further development is needed to understand what it means for the audience to be able to interact through touch and the triggers for haptic engagement, utilising a range of materials and surfaces, whilst also ensuring the approaches and duty of the gallery are not negatively compromised.

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9. Appendices

Appendix 1: Gender/Feminism

The female gender and feminism have been closely linked with the use of, and exploration of textiles because it has a history of being viewed as women's work. This can often be a theme for artists to use in their work as they try to bring it away from this arena whilst also acknowledging its past. It also links quite closely with use of material. Rosemarie Trockel uses her choice of material to challenge the "feminine" quality in her work by incorporating knitted garments into framed pieces using other media that may be perceived to be more attuned to a traditionally "male" artistic venture (Monem, 2008). Similarly, Mark Newport uses knitting in order to question masculinity, as it can be viewed as a female medium which he juxtaposes with his production of superhero suits that perhaps has a more male orientation (Monem, 2008). Similarly, John Krynick feels that his gender adds to the meaning of his work because he is a male practicing a domestic art that is seen to be predominantly female (Searle, 2008).

Linked to gender, is feminism which a proportion of artists have chosen to have influence their work, as well as acknowledging the opportunities this has offered creatives especially within textiles. Barb Hunt (Searle, 2008) credits feminism for allowing artists to use practices such as knitting in their artwork, which has brought them out of the domestic environment. This is why, within her work, she chooses to use pink yarn to knit her pieces, as it makes a statement about her own gender – linking back to use of materials.

Appendix 2: What is Textile Art?

Introduction

The exploration of Textile Art is intriguing because the term has been used quite broadly, as well as having variations that are more precise. The main areas focused on here are, the impact of the end location and context of a piece of work in aiding the definition of Textile Art; briefly exploring the history and therefore the heritage that is associated with the use of textiles and influencing it as an art form; analysing the art hierarchy and where Textile Art may be best located within it. Finally, the influences of skill and craftsmanship as the valued process in creating a piece of Textile Art.

Location/Context

Colin Gale & Jasbir Kaur (2002) state that Textile Art is used to describe textile pieces of work that are exhibited in galleries or public spaces, much like installations and paintings. Therefore, it is the end location of the work that aids in defining the term. They also go on to say the term covers a wider area of practice that is able to include decorative values and the unique qualities of fabric, whilst also making complex statements through the media, public spaces and in the home because it is content in any location or context. It has its own culture and message to communicate. Turney (2009) believes knitting does just this, as it has a vast heritage with its history playing a large role in what the material presents for the audience to read in the present. Knitting is able to be reflective of current issues, whether they be social, cultural or political because it has an ability to communicate through its audience's associations and personal knowledge of the medium.

Heritage/History

Textile/Fibre art began to be more visible in the late 1960s. By the 1970s feminists, artists, critics and writers were confronting the definition of art to include a range of practices, one of which, being textiles (Jefferies, Wood Conroy & Clark, 2016). 'The great works that have been produced in the fibre medium during the last decade have validated the whole movement' (Constantine & Larson, 1974, p7) this period acted as the catalyst for the use of textiles in an art context as it allowed an audience to consider the materiality of textiles and the powerful nature of its own unique message (Jefferies et al, 2016).

Bradley Quinn (Monem, 2008) expresses that Textiles has previously been viewed as functional which has meant it had been dismissed from the art world, despite it being able to adapt to different contexts.

Textiles are ambiguous and often seen as invisible due to the contexts we are used to viewing them in, but they can be perceived as a form of "Guerrilla art" (Hamlyn, 2012, p18) because they have an ability to leap out at you and get your attention, simply by changing their context (Hamlyn, 2012). To support this, Turney (2009) suggests that knitting, as a textile practice is not based on needing to knit something of use or purpose, however, it is in fact the history of the medium itself that drives the need to create and contribute as a practitioner to a long line of knitters, thereby keeping the practice alive. It is a discipline with its own heritage and history, much like art history, that can be observed to have developed over time. The main

difference being, between knitting in an art context and art itself, is that in knitting there is a lack of recorded named practitioners. This could be a reason as to why knitting remains associated within the domestic environment. But it is worth considering the heritage that knitting communicates as this can potentially link knitting closely to an art practice. Jan Haworth (Monem, 2008) firmly believes “There are no rules in art. It’s as simple as that.”(p5). Meaning there are no longer barriers between what materials you use to define your practice. When looking at the definition of Art, it speaks about beauty, skill and how it creates knowledge (Collins Dictionary, 1998). This could be argued for the wider creative process, as it is about bringing together the skills and ideas of the artist, to produce something that can be viewed and interpreted as beautiful, depending on the message the artist wants to convey.

In fact, Anne Hamlyn (2012) believes that even within practices that can be defined as ‘*Textile Art, design and craft*’, the textiles defies these boundaries, with the end use not limiting the artistic message, but rather enhancing the experience.

Hierarchy

Nadine Monem (Monem, 2008) refers to craft-art, which has been associated with textile art, and explains that within craft-art and decorative art, textiles has become the underpinning of fine art. Mildred Constantine & Jack L. Larson (1974) also state, ‘The rigid line distinguishing the fine and the so-called decorative arts has become uncertain and in fact seems to have disappeared.’ (Constantine & Larson, 1974, p7) meaning that in 1974 the hierarchy was already shifting. This shows that textiles within these areas has become recognised as art, thereby lifting its status. Traditional textiles once had a great social status, especially in ancient cultures, which gradually over time faded, however, with a new context, textile art can reinstate and raise the status of textiles, and the culture that comes with it (Gale & Kaur, 2002). This showcases the development and acceptance of textiles as an art medium, as Peter Dormer (1994) made a statement that work using a craft medium such as textiles was only likely to be considered art if it was subverting or denying the craft element of the piece, expressing that the skill was the least important part of the display. To contrast this, Constantine and Larson (1974) believe that if, as an artist, you are going to choose the aesthetic over the function, then it is actually necessary to have heavy involvement of skill, which encompasses intense creativity and aesthetic awareness that is ‘basic to any work of art.’ (Constantine & Larson, 1974, p8).

Furthermore, Quinn (Monem, 2008) speaks about textiles breaking into the contemporary art field and finding its voice. The fact that textiles is now visible in this field, shows that being “new” and “shocking” is no longer cutting-edge, but instead, using softer materials that have a sense of tradition, is. ‘The brilliant colours and simple composition of the modern painter are merely substituted for the woven pictures of pageantry, allegory, and history of the past.’ (Constantine & Larson, 1974, p7) This shows that textiles are still showcasing some of the same themes that more traditional pieces of art exhibit, it is just the choice of medium being used in order to add another dimension or language to the work. Turney (2009) states for knitting, the arts and crafts movement ‘... promote craft as an alternative to consumer culture.’ (p.46)

suggesting that it is not produced on masse, much in the same way, what is deemed art is not either. She then goes on to say knitting became an alternative to the contemporary. This suggests that knitting is very much linked to its history, which could be preventing it from being viewed as modern, therefore, this could be preventing knitting being able to be seen as art. However, Hamlyn (2012) argues that Textiles is extremely accessible and can therefore actually engage with the change from domestic object to artwork because of the relationship it already has with the viewer.

‘...its wholeness, the inseparability of all its fundamentals, its materials, its techniques – demands to be experienced aesthetically as art beyond craft.’ (Constantine & Larson, 1974, p74)

Skill/Craftsmanship

Gale & Kaur (2002) explain the term Textile Art can cause some friction, especially with fine art and craft due to the undefined use of traditional techniques balanced with concepts leading the practice. One of the ways it differs from fine art is that the priorities of textile art are aesthetic content and technique in the construction, whilst still sharing a link in the way the work is presented to an audience to showcase the textile qualities. The use of textile skills can be perceived as ‘...technical constraints on self-expression...’ (Dormer, 1994, p7) whereas, in truth, they are capable of being expressive as well as being the content of the work. To contrast, the definition of Fine Art is ‘Art produced to appeal to the sense of beauty’ (Collins Dictionary, 1998, p202-203), which expresses the need to be aesthetically pleasing as a finished piece rather than having an emphasis on the process of producing said work. It is these qualities and technical processes that closely link textile art to craft, as they are an integral part of the work. ‘...process and content are interdependent...’ (Dormer, 1994, p8) This means it is hard to work out where one term ends and the other begins due to the overlap of skill that is formed through the process of making, and the goal to showcase this as an expressive piece of work.

An advantage of this cross over is if the conceptual drivers and overall message for a piece of work is misunderstood, the textile element is still able to continue a conversation, “...textiles are all-inclusive and not elitist.” (Hamlyn, 2012, p174). Meaning that textiles are familiar to their audience, and more importantly, it is accessible. However, Gale & Kaur (2002) believe there is still a level of elitism within textiles through the use of skills being shown, which is similar to fine art. Despite this, it still remains inviting because it is there to entice the audience to discover and reflect, much in the way we do with traditional art.

Constantine & Larson (1974) express that artists who use fibre as their medium have managed to merge creativity, intuition, principles and skill to bring together an aesthetic article. Interestingly, Gale & Kaur (2002) go on to say, with modern textile art, the beauty of a piece can be the main goal of creating a piece of work and this is a sufficient mark of content. This differs greatly from modern fine art where intellectual content is extremely important and beautiful visual aesthetic can be seen as naïve. Despite this, they also express that actually, what makes a textile artist different to a craftsperson, is they are more likely to be concept driven with the work they produce, thus linking them to the fine art way of working. Which

arguably reflects Dormer's (1994) view that the practical skill of making is undervalued even within textile art. Similarly, it could be argued that the production of non-functional items that contradict the regular textile associations are what makes a textile artist (Hamlyn, 2012). However, it can be said that knitting has been limited in this area, remaining quite low down in the art field because of the apparent emphasis on its heritage as a means of association, rather than a depiction of creativity, which is what thrives in the art hierarchy (Turney, 2009). Hamlyn (2012) continues to add, when referring to knitting, that it is in fact the nature of constructing a textile object, such as hats, that influence the artistic forms when moving into an art context. '...craft knowledge is separable from meaning in the visual arts – that technique is merely the means by which ideas are executed rather than conceived.' (Dormer, 1994, p26) The skills and structures are transferable and play an incredibly important role within the textile arts, as they are constantly being rethought and therefore aiding the creative process throughout, as opposed to being limited to just the end result.

Conclusion

Gale & Kaur (2002) write, even as a term in its own right, within Textile Art there is disparity as to how the term is used. The term can be used quite freely within textiles to describe a variety of work because it is self-explanatory, meaning it is easier for the artist to explain the materials and processes involved in producing their work. Rather than explaining, it is the level of skill that influences the creativity, with concepts driving the work forward, and beauty being, possibly, the main goal for the finished article, as this unifies the expression and content whilst still having a level of familiarity for the audience.

Turney (2009) states that knitting as a garment is able to take on its meaning from the context in which it is placed. If a fashion item is able to do this, then it should be possible for a piece of knitting, created as an art piece, to do this also. Therefore, allowing knitting to be seen as a textile piece of art.

Another thought is that Textile Art is separate from fine art, but is however equal to it. They see it with the same value and importance. To contrast, there are also practitioners that feel it is actually a genre within fine art, therefore not separate at all (Gale & Kaur, 2002). Ultimately, Textiles is being viewed as an art form, it is just a matter of understanding where it is placed within art, as it encourages accessibility due to it having a sense of tradition that is linked with showcasing creative skill.

In order to be textile art, the work must include textiles and be appropriate to showcase in a context that we perhaps associate with fine art, and the artist defines themselves as a textile artist (Gale & Kaur, 2002). So it is the choice of medium and display context that define when to use the term, and it is the artist that controls this. Hamlyn (2012) would agree with this as she feels that textiles provide the foundations for someone that defines themselves as a textile artist. It provides them with a link to the past to challenge the present and future by using a medium that is loaded with heritage and decorative values to be able to make complex statements.

Textiles has such a large history, but within the art field it is relatively new, which is why it is hard to define. Gale & Kaur (2002) suggest it is up to the artists that feel they work in this area to define the term, as it is

their own experiences, backgrounds and values that have influenced their practice to be textile art. These will inform the messages they want to communicate in their work and the perceptions they want the viewer to make. The lack of textile art history means that we have to rely on textile art practitioners to guide the ideas of what textile art is and how it maybe differs from other categories, or even where it overlaps. This is due to them being able to understand the materiality of textiles and adding their own artistic message, whilst also acknowledging the functional/domestic associations the viewer may have. With this in mind, knitting can often be viewed as unchanged and in a state of stasis, which could be limiting the context of the textile medium, as it is not deemed to be contemporary. However, it is about challenging these associations of knit by using its own history and heritage to create something that is viewed as contemporary, thus allowing it to be seen as “art” (Turney, 2009).

“Versatility is the beauty of textiles, but also complicates their categorisation.” (Hamlyn, 2012, p.365)

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Every Contact Leaves a Trace¹

In an age and culture where the dominant desire is for that which is new and flawless, the accidental has its own particular beauty. I am reminded of the Japanese aesthetic of imperfection, centred on an appreciation of ageing, decay and the fragility of life.

As I make, reuse and rework marks, some are eroded, fragmented or lost whilst others materialise to take their place, signifying traces I leave on others' lives and those left on my own.

Found objects, discarded, unwanted or lost, become part of me. I contemplate to whom the items belonged; how I might use or represent them in my work; and whether it is acceptable to change or destroy things that are part of someone else's history.

The vulnerability of pieces I create connotes the ephemeral nature of life. Putting any of this current body of work behind glass protects it and makes it easier to exhibit but detaches it from immediacy with the viewer; it loses something of the precariousness as if trying to preserve life exactly as it is now. And that, certainly, is impossible.

"It's hard to remember that this day will never come again. That the time is now and the place is here and that there are no second chances at a single moment." (Jeanette Winterson, *The Passion*)

Jenny Zigzag
2018

¹ The title of this work refers to Edmond Locard's principle upon which forensic science is founded. He proposed that when two surfaces come into contact, each will leave a trace upon the other. Someone breaking a window to enter a property, for instance, may retain tiny fragments of glass on their clothing whilst leaving fibres and fingerprints on the broken pane. He was concerned with physical contacts but I extend this to more ethereal, social, psychological and intellectual traces.

Figure 93 Author's Own Image, Artist Statement, Every Contact Leaves a Trace, Jenny Zig-Zag, Dean Clough, 2018

Gallery 6

DAUGHTERS OF NECESSITY: SERENA KORDA AND WAKEFIELD'S CERAMICS

The Hepworth Wakefield is home to a rich and eclectic collection of ceramics, including work by many of the most celebrated potters, ceramicists and sculptors of the 20th and 21st centuries. For this exhibition, artist Serena Korda has selected pieces from the collection to display alongside her own works, exploring where each object sits between practical function and sculpture.

Korda takes the title of the exhibition from an essay written for Wakefield Art Gallery in the 1950s. Charting relationships between the handmade and the industrially produced, the author Hugh Gordon Porteus refers to pottery as 'one of the very first, rough working daughters of Necessity'. He suggests that early clay vessels were made in response to domestic needs, with no special importance placed on aesthetic or ritual value. In the context of a white-walled art gallery, the status of an object becomes more complex. What does it mean to place a pot on a shelf, or on a plinth for display? If we cannot touch or handle these objects, does their potential function exist only in our imaginations?

Looking to Greek mythology in her research, Korda found that the three daughters of Ananke (the personification of Necessity) are collectively known as the Fates, controlling the destinies of gods and mortals. In Plato's *Republic*, the Daughters of Necessity are said to control the rotation of eight heavenly spheres, each of which resonates at a different pitch as it turns.

Korda is interested in the relationships between this ancient cosmology and theories of quantum physics, in which everything in the universe is described as energy and vibration. The two works she presents here combine her experimental approach to working in clay with her interest in the acoustic properties of ceramic sculpture.

In *Hold Fast, Stand Sure, I Scream a Revolution*, individually cast porcelain mushrooms are suspended from the ceiling. A number of these bell-like forms are fitted with contact microphones, capturing the natural reverberations of the porcelain within the room. In *Resonators*, four large richly glazed vessels pick up the ambient sounds of the gallery environment and amplify the air flowing through them. These are hybrid objects, at once sculptures, musical instruments and pieces of scientific apparatus. Korda invites you to place your ears to each opening, becoming part of the work as you listen to the space inside each vessel.

As part of our new Ceramics Fair on 5 May 2018, Serena Korda will be joined by musicians for a performance of structured improvisation in this gallery, combining the bells of *Hold Fast Stand Sure, I Scream a Revolution* with electronics, strings and vocals.

Figure 94 Author's Own Image, Artist Statement, *Daughters of Necessity*, Serena Korda, The Hepworth, 2018

Appendix 5: Symbiotic Process Comments

Absolutely loved the exhibition, really interesting and loved chatting to Juliet about her process and experiences.

Really brilliant!

Found this exhibition really interesting, informative and wish it every success. Very good.

This was a very interesting experience visiting today and really enjoyed listening about this amazing journey, thank you.

What a joy it has been to see this lovely exhibition. We as students have found inspiration to produce work of such a high standard. Thank you.

Excellent exhibition. Really interesting and insightful. Thank you.

Nice to see textiles on show and get a sense of the process. Also great to be able to touch the work and talk to the artists.

I will spread your work and tell people to visit. Thank you Ellie for talking me through it. Good luck on your journey. I hope you meet interesting visitors with beautiful stories to tell. Keep in touch!

Like the look of the stitching on cloth that give icon information. A picture speaks 1000 words. It gets me talking and thinking about new ways to convey information.

Appendix 6: Atrium #1 Comments

BEFORE

I used to have a punch-card knitting machine myself, so I touched it out of nostalgia.

Because it looked soft.

Because I always touch textiles to evaluate its quality.

The textured looked interesting. And the patterns almost drew me in to see how they felt.

Looked appealing

Looked texture

Attractive colours

Interesting patterns

Interesting fabric. Wanted to feel the texture of surface.

Cuz I felt like it

It looked appealing. I enjoyed the way the different patterns draw the eye in different directions.

It looked really tactile... and that's how I roll! Ps. The pattern/colours are fab & would also look great as a jumper or dress.

Blank

Because it looked soft and I was curious what it felt like.

I cheated and asked you what you were cutting on the guillotine.

Because I wanted to see what it felt like and to get a closer look at the body parts.

AFTER

Did not think it was respectful touching art work.

I wanted context about the art work first. This is amazing work, very unique Ellie!

Pictorial quality of fabric suggested it was something to look at rather than touch... mounted flat it does not invite you to feel it in the way you would if draped.

I do not want cause any potential damage.

Wasn't sure whether I was allowed to until I read the description! Beautiful work.

It is instilled in us NOT to touch the work so the viewer assumes otherwise!

I touched it to feel the texture of the knit and if it has different texture of the imagery.

Didn't know if it was ok.

Interesting textures.

Beautiful colours.

Because after reading the sign, I felt I was allowed to. Impolite to touch.

DIDN'T TOUCH

Why in the world would I feel compelled to touch it?

Because Artist's don't always want people to touch their work; although it does look extremely touchable.

I was eating an apple. Didn't want to leave a stain.

Ellie P Smith

The Artist uses a repetitive process of observing and recording the Human Body to translate them into knitted textiles, using a Domestic Knitting Machine.

Knitting is a skill close to her heart as Ellie was taught Hand Knitting from a young age. This influenced the use of Domestic Machine Knitting as her practice due to its evocative nature, and the way it encourages the viewer to touch the work when installed as an art piece.

www.elliessmith.wix.com/ellie-p-smith

 [elliessmith](#)

elliessmith.textiles@gmail.com

Did you touch the work before or
after reading the Artist's statement?

☐ Before ☐ After ☐ Didn't
touch

Why?

Why did you touch the work?

- ☐ I read the artist statement.
- ☐ The display was inviting
- ☐ Other

Appendix 10: Definitions

Key Word	Definition
FUNCTION p222	1. Purpose something exists. 2. way something works 5. Operate or work.
FUNCTIONAL p222	2. Practical rather than decorative.
PRACTICAL p423	1. Involving experience or actual use rather than theory. 3. Adapted for use.
USEFUL p597	1. Put into service.
PURPOSE p440	1. Reason for which something is done or exists. 3. Practical advantage or use.
ART p28	- Creation of works of beauty, especially paintings or sculpture - Works of art collectively - Skill - Non-scientific branches of knowledge
TEXTILES p563	- Fabric or cloth, especially woven
CONTEMPORARY p109	- Present day, modern - Living or occurring at the same time
FINE ART p202-203	- Art produced to appeal to the sense of beauty
FINE p202-203	- Of delicate workmanship
CRAFT p118	- Skill or ability - Skilled trade
TOUCH p573-574	1. Sense by which an object's qualities are perceived when they come into contact with part of the body. 2. Gentle tap, push, or caress. 6. Come into contact with 7. Tap, feel, or stroke. 9. Move emotionally.
TACTILE p555	1. Of or having the sense of touch.

Table 11 Table of Definitions, Collins Dictionary, 1998

Appendix 11: Process Explanation

1. Life Drawing

For me, the human body is something I feel very drawn to. I often find myself observing people as they walk past. Looking at how they move and how their limbs appear to be joined together. Life drawing allowed me to explore this further as you can observe a life model directly from their skin.

I choose to objectify the model in order to strip them of personality, and remove any politically charged statement that may be embedded in the idea of focusing on the image of the human body. I wanted to create an innocent depiction of the human body, based purely on it as an object to work from, not a person.

I wanted to observe the construction of the human body as a whole, to understand the form that I was seeing, to then be able to deconstruct it through isolation for further examination, to be able to influence the interpretations I was creating further down the process.

My motivations were about considering this theme in textiles, as we are used to having textiles next to the body, by having it touch our skin. But I wanted to depict the human on and as part of knitted textiles. I decided to attend taught life drawing sessions because I wanted to understand the human body through observation, whilst also understanding how to draw it in order to capture what is visible. Also, because it is a discipline that was new to me due to my background being in textiles. The approach to drawing felt very different and I wanted to be able to understand the methods I was using in order to get the most out of them.

During these sessions, what I found most liberating was the reasoning as to what we were trying to depict. The observations we were making were about interpreting the body through the use of line and proportion in order to convey the strain of the postures and compare any areas of harshness and softness to really analyse the flesh and bones. All these approaches enabled me to further understand what the body was going through in order to observe and then interpret on the page.

During the sessions, I was looking at the body as a whole, with the aim to get it all on the page. Once I had a selection of drawings, I decided to work back from the original drawings on a separate piece of paper or



Figure 95 Author's Own Image, Life Drawing (LEFT), Torso (RIGHT)

sketchbook. This was so that I could further focus on each individual component of the body in isolation, using the same techniques explored in the session. It allowed me to further interpret the observations I was making as well as considering the function and purpose of the drawing itself. I needed to remember that the drawings were to be translated into knitted textiles, where there were going to be restrictions. Therefore, some of the drawings needed to be simplified through this reinterpretation drawing process. The limitations were using block colours with limited colour palette, because as a knitted fairisle piece, I can only use 2 colours per course (single knitted row). This is the approach I used at the beginning of my work, but once I felt confident using the life drawing techniques I was learning, my approach began to alter slightly. I no longer felt the need to draw back from the original drawings. This was because during the sessions, I was reflecting on what I was trying to collect and the function these drawings were going to have. Therefore, I was focusing on shape and form, more than I had done previously, ensuring the original drawings were going to meet the next step of being translated into knitted textiles. This approach became far more efficient because it meant I could create my designs much faster as I was merging two steps of the process into one single step, making sure that I was recording my observations of the human body.

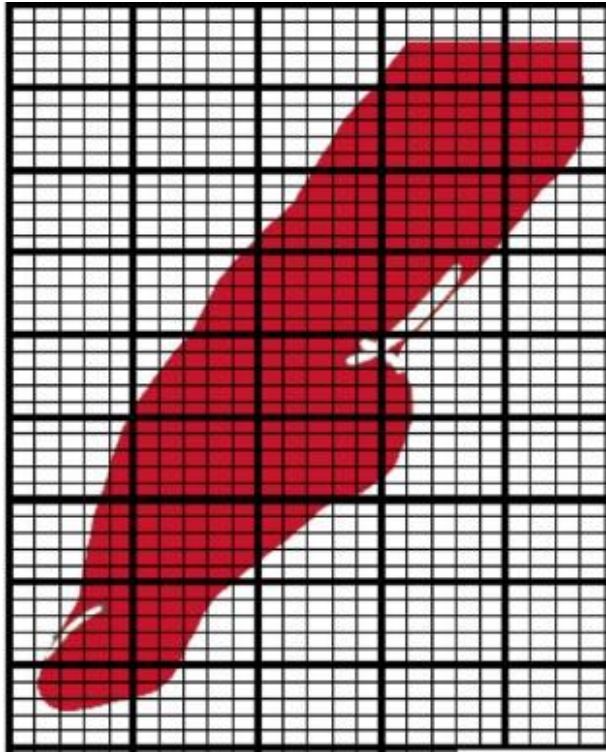


Figure 96 Author's Own Image, Stich Design on Point Paper (TOP), Fairisle Mock-up (BOTTOM)

2. Transfer to Graph Paper

For logistical reasons, the next step for transferring the drawing to be created in knit, was done digitally. The hand drawn images needed to be traced digitally to capture the shape of the particular body part being depicted in order to keep to the original interpretation. It also meant the scale of the drawing could be altered proportionally. Another limitation in this translation, was the stitch pattern repeat of my knitting machine, which is 24 stitches. This method meant I was able to ensure the base of the drawings fit within this restriction without it warping the rest of the image, and becoming misshapen. This image was then taken forward as a reference for the next process.

I wanted to be able to create a visualisation of what my work could potentially look like, which is why I decided to create some digital visualisations that were very based. It was a useful tool because it meant I could predict any potential problems as well as altering any design decisions before they became more permanent in the textile. It became more efficient in the early stages.



Figure 97 Author's Own Image, Punchcard Punch

3. Draw and Punch design onto Punchcard

This step was very much a hand process. Based on the digital tracing on graph paper, I began to transfer the image onto the punchcard using a pencil. This still allowed room for interpretation, as some of the lines of the body parts were not obvious as to which stitch they were going to be visible in. This enabled me to take creative license with some of the placement of certain colours of stitches, ensuring my artistic hand is present in the work, rather than it being purely observation. The process of punching the design is very intense because each hole is punched individually, which can take a very long time as the designs increase in size. Although rhythmic and repetitive, concentration is really important as mistakes can happen which will need to be rectified. For me, I found this hand process really important, because it allowed me to know my designs really clearly

and still feel very much a part of the making process, which I am used to having in my hand knitting. The physical contact at every stage allows me to feel involved and provides me with the artistic connection I feel is important when creating a piece of work, both as a final piece, but also as the individual contributing components. This is something I feel is lost when you rely solely on digital methods to create a piece of work.

4. Test Design – (Black & White) make any amendments

Testing the design was really important because even with a digital mockup and an idea of what the piece could look like, I needed to be certain the knitted sample did the original interpretation justice. It needed to resemble the original depiction as it was a translation of this into a different medium. I also wanted the motifs to become recognisable the longer they were observed by an audience. This was important because I



Figure 98 Author's Own Image, Black and White Machine Knitted Sample (Nose)

want the audience to know where the designs have come from as well as get them to spend more time engaging with the work to encourage exploration.

In a more practical sense, the high contrast of producing this sample in black & white meant that any stitch that seemed out of place was more obvious to me and I could amend this on the punchcard before creating a sample in my chosen yarn.

5. Select Colours (Based on original drawing or another colour palette – from primary research)

Colour selection was really important because this is what brings the work to life. The colours are selected based on the original collection of colours from the drawing itself or if the drawing was done in black or grey, I use a colour palette produced from primary imagery I have collected based on the combination of colours. The final selection of colours does not have to be an accurate representation of the shade of colour in the original image, but rather just the colour itself (light or dark). This is another area I felt was more creative and allowed my artistic approach to come to the forefront because I allowed myself to play around with the colours I was using and which yarns would work best together, within the restrictions of the specific colours needing to be used.

6. Knit colour sample

Once the amendments had been made, I created a coloured sample in order to get an accurate visual of how the yarns worked together with their colour combinations, along with the final design of the motif. I found this part of the process really rewarding as it meant I could see my designs come to life.

7. Knit large piece (128 stitches) (Technical – work out numbers to make correct measurements)

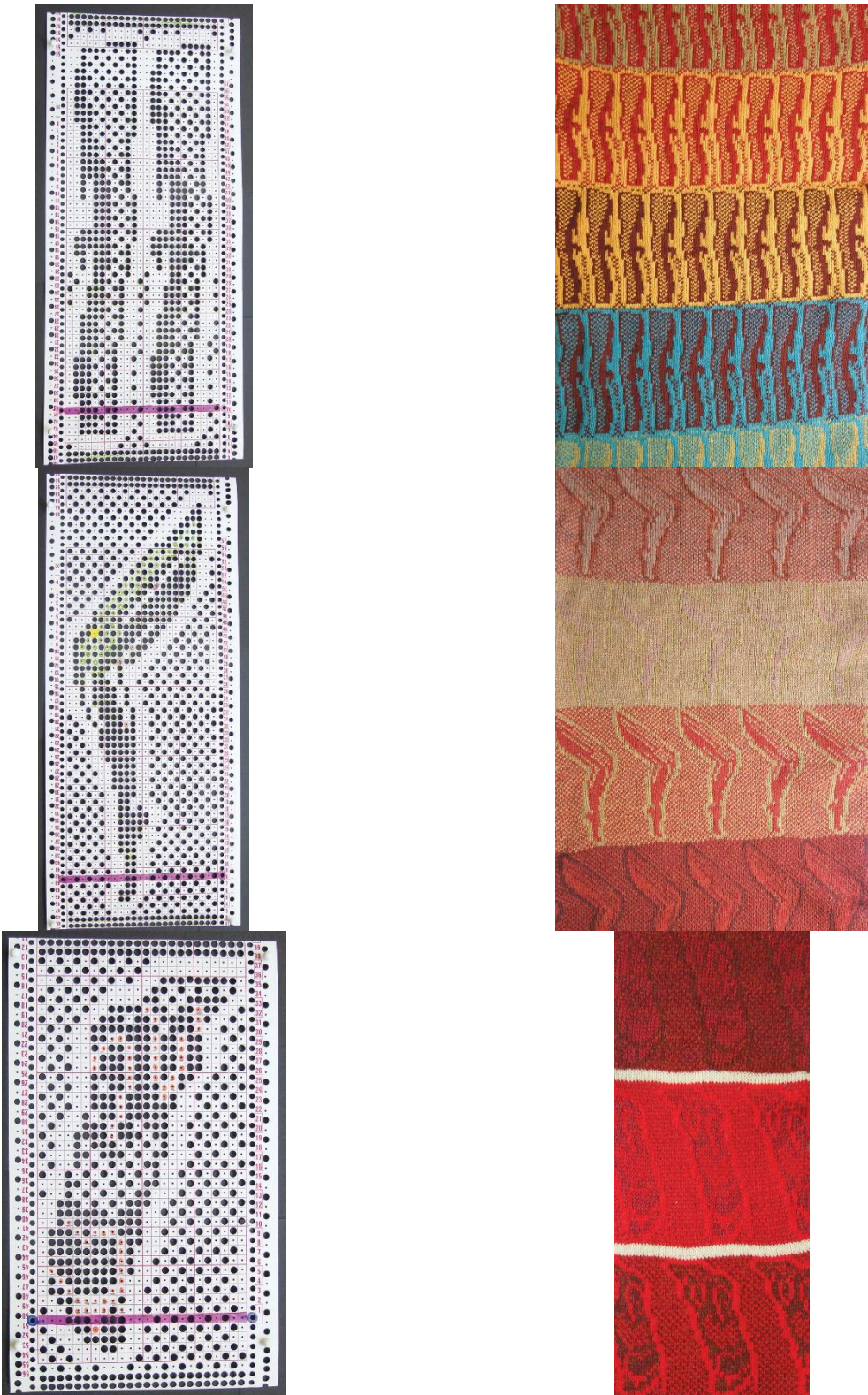
The final stage was creating larger pieces to be installed as an art piece. This required quite a lot of technical notes as I needed to work out how big my pieces needed to be for the space they were in. However, despite this, I found the approach I took to the life drawing was the best approach. As the more accurate I tried to be, the more incorrect my calculations were. Therefore, I decided to be approximate, meaning I stuck to the same stitch notes for the scales I wanted to work to, but allowed the finished measurements to fluctuate. This meant I could respond to them during the installation process of the artwork to ensure it fit the space, usually giving me more fabric to work with. This was due to the nature of the materials I was working with and what their individual qualities are despite it all being wool.

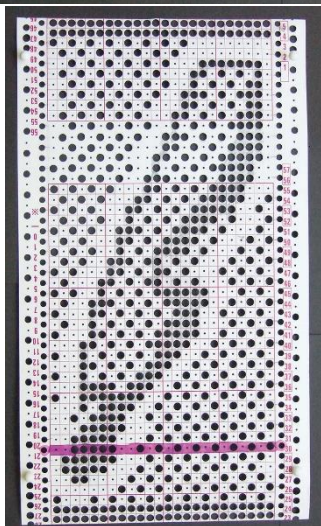
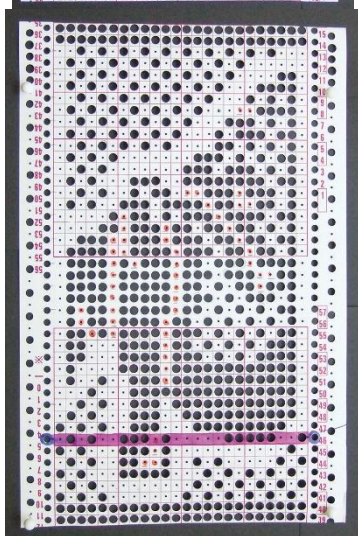
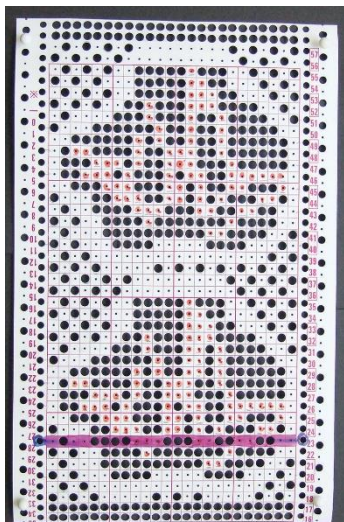


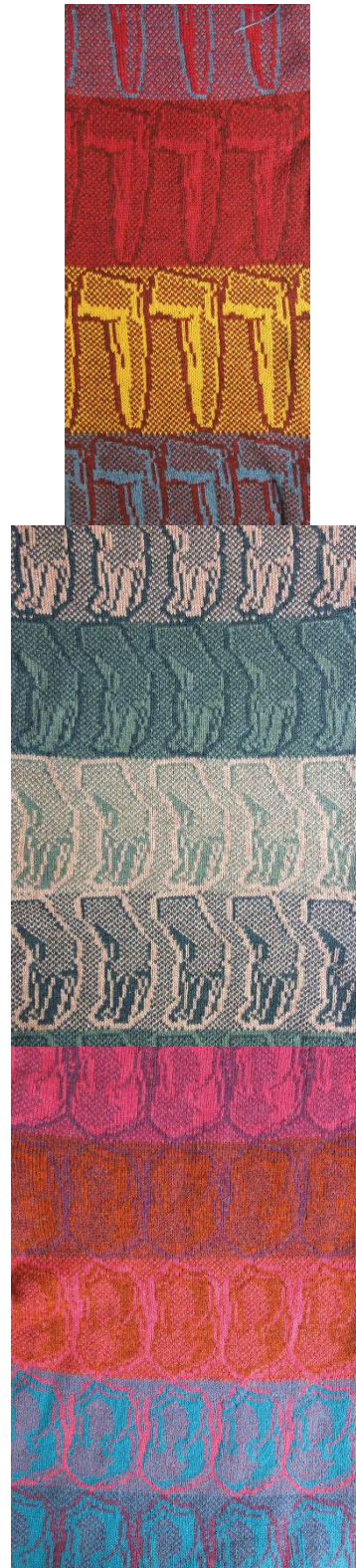
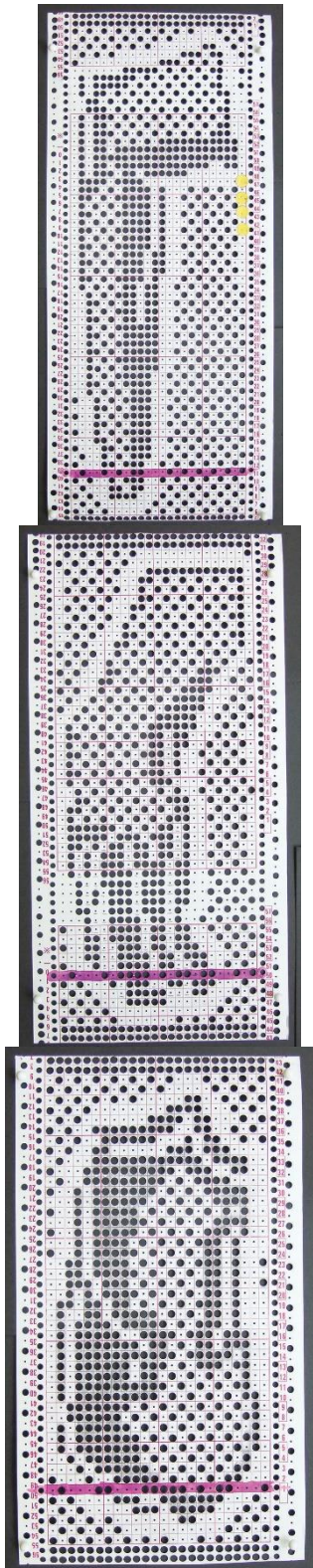
Figure 99 Author's Own Image, Machine Knitted Sample (Hand)

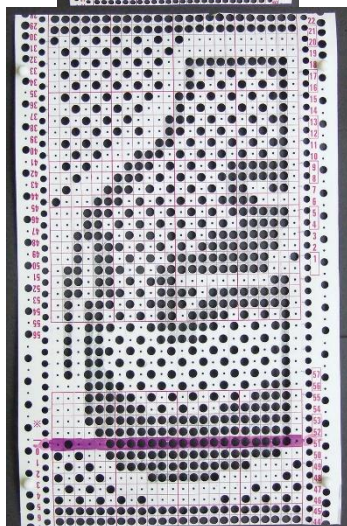
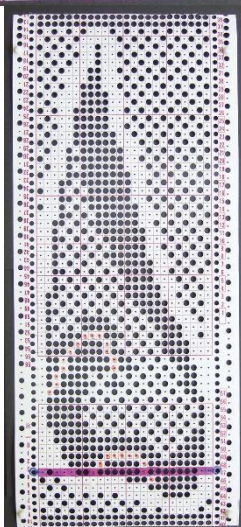
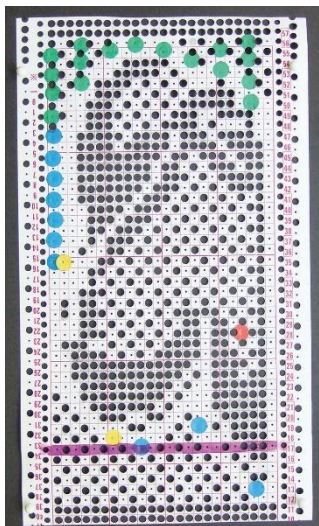
Appendix 12: Catalogue of Designs (Punchcard and Knitted Sample)

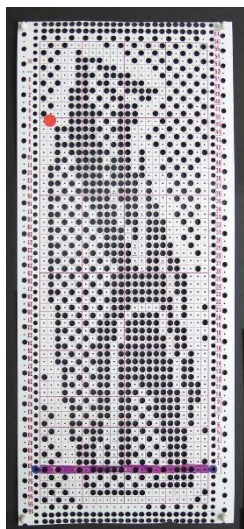
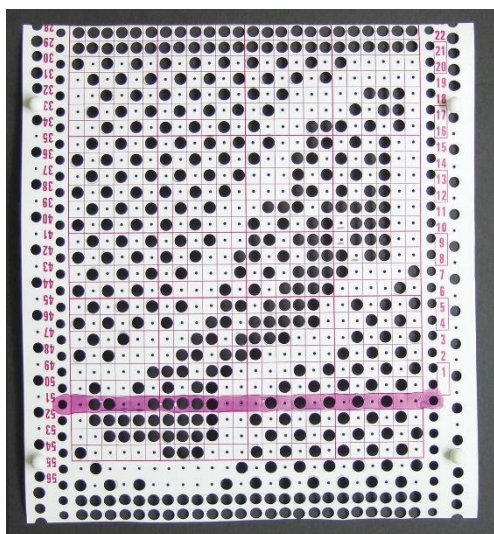
Table 12 Author's Own Images, Punchcard Designs and correlating Knitted Design

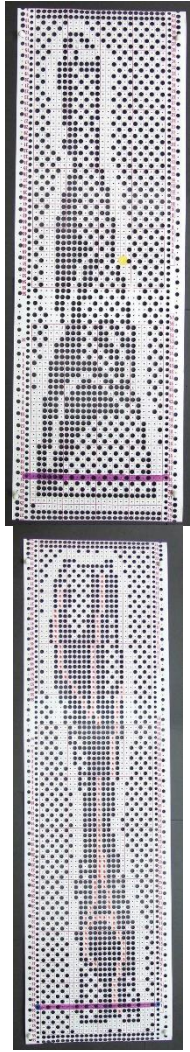












Appendix 13: Symbiotic Process Artist Statement

ELLIE P SMITH (Researcher)

Art and Design (MA by Research) 2017-2019

KNITTED TEXTILES, HUMAN BODY, CREATIVE PROCESS

Exploring knitted textiles in an art context, through creative process and personal experience

- *Textile Art*
- *Domestic Machine Knitting*
- *Family*
- *Human Body in Isolation*
- *Colour*
- *Gallery*
- *Process*

In a literal sense, textiles' is art. I find it to be expressive and creative; it is an art form and it is emotive – everything that art should be. Art is an expression of the artist and the skills they possess, amalgamated into a piece of work to show to others.

With this in mind, I consider the emotive nature of knitted textiles... it is close to the skin, close to the heart and close to the mind. Textiles has been experienced by its user, viewer and maker, through touch, which provides a connection. Bringing this into an art world means it can explode and open up how textiles and art can be viewed together.

Knitted textiles has always been natural to me. I have been surrounded by knitting my entire life, having come from a creative family with a keen interest in textiles and a desire to create. I find there is something so calming about the physical act of knitting. This is the same when it comes to using the domestic knitting machine. It becomes a full body experience because I have to manually move the carriage across the bed of the machine in order to knit a row.

I have used the human body in isolation to create intrigue and exploration, as it may not be obvious at first what the designs are. The human body is relatable as everyone has one, but by detaching each section from a whole body, they become an object rather than something to compare yourself to. This paired with the use of colour makes it more playful and pleasing on the eye, to encourage discovery.

I am passionate about getting knitted textiles into more art gallery spaces, to be recognised as art. I want the knitting to take over the gallery, to alter the environment by not allowing the walls to be visible in the areas it occupies. This way, the gallery has no choice but to show off the textiles.

Through this exhibition I have been able to investigate my own creative process, which up until now I have not necessarily paid much attention to because it is entrenched in me. My relationship to my craft and the machinery I use is quite a close one because I see it as an extension of myself. Everything has to be in sync in order to work properly and effectively. If I am having an off day, then my machine will pick up on this and I will struggle to produce a piece of work on the first attempt, if at all.



Figure 100 Author's Own Image, Symbiotic Process Exhibition Poster, Temporary/Contemporary, 2018

