



Futurescan 4: Valuing Practice

University of Bolton, UK

23rd-24th January 2019

ABSTRACTS & BIOGRAPHIES

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Fashion and textiles practice intersects traditional processes and innovative technologies. Tacit knowledge acquired through hand skills, making, utilising equipment and working with processes is fundamental to developing understanding. Although practical learning is valued, the teaching of creative and making subjects is under threat in formal education. Within the fashion and textile industries there are skills shortages. Heritage crafts risk being lost as digital technologies and automation impact upon future generations.

The Association of Fashion & Textile Courses (FTC) conference *Futurescan 4: Valuing Practice*, provides an international forum for the dissemination of research, creative practice and pedagogy surrounding fashion and textiles. Contributions from established and early career researchers, postgraduates, practitioners, makers and educators regarding completed projects or work in progress under the following topics:

- Valuing Artisan Skills, Drawing and Making
- Learning from History, Tradition and Industry
- Collaborating and Cross-disciplinary Working
- Integrating and Connecting Digital Technologies
- Designing Responsibly and Working Sustainably
- Promoting Diversity, Employability and Community
- Investigating Creative Processes and Pedagogy

The conference includes keynote speaker presentations, full papers (20-minute presentations), short papers (10-minute presentations) and examples of practice-based work.

Association of Fashion and Textile Courses (FTC)

The Association of Fashion and Textile Courses (FTC) was formed in 1977. Today, the FTC exists as a subject association to promote and develop fashion and textiles through academic debate, education and research. Through its networks, the FTC has extensive links with industry, public and professional bodies and acts to advise on quality in educational matters nationally and internationally.

For further information see: www.ftc-online.org.uk

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KAREN NICOL

Textile Designer/Artist, Honorary Fellow RCA, Artist in Residence De Montfort University

Honorary Fellow of the Royal College of Art, Karen Nicol is an embroidery and mixed media textile designer/artist with a design business working in fashion, interiors and gallery, based in London. In the fashion world Karen has worked and collaborated with design houses including Schiaparelli, Alexander McQueen and Louis Vuitton. Her work covers both ready-to-wear and couture, creating designs, developing concepts, catwalk garments and production. The King of Qatar, the Pope, Estee Lauder and Gwyneth Paltrow have been amongst many clients commissioning her work for interiors. Screens for palaces, tableware for parties, upholstery fabrics and rugs. Karen has also produced own label collections for companies such as Anthropologie and Designers Guild.

Karen's aim, throughout her long career, has been to break boundaries in conventional fabric embellishment and to push the preconceived expectations of embroidery. Most of her work is produced on a hand governed embroidery machine whose basic simplicity allows hands on innovation and huge diversity. In 2010 Karen began to create art pieces to explore and develop her passion for the infinite possibilities of embroidery without the restricting practicalities necessary in fashion and interiors. She creates large embroidered and sculptured animals as vehicles for her textile explorations 'Couture Creatures' Napoleonic Polar Bears to Marquetry foxes. Karen has exhibited in galleries and art fairs around the world, with solo shows in London, Paris and New York.

Currently her three-year role as artist in residence at De Montfort University opens up new, exciting opportunities to mix the knowledge and practical skills gained from a hugely varied 40 years of practice with further exploration of modern technology. Karen was founder, senior lecturer and visiting professor of the Mixed Media MA degree course at the Royal College of Art, London and has taught and lectured in colleges around the world. In November 2015 she was made an RDI, a Royal Designer for Industry, by the Royal Society of Arts.



KATE HILLS

Founder Make it British, Organiser Make if British Live!

Kate Hills is the founder of *Make it British*, a platform to help UK manufacturers and British-made brands find more customers.

Founded in April 2011 as a way of supporting British brands that manufacture their products in the UK, *Make it British* originally started as a blog, but has now grown to include a British brands directory as well as features on British craftsmanship and a resource for designers wanting to find manufacturers to make their products.

Kate also runs the manufacturing trade show *Make it British Live!* which attracts over 5,000 visitors from 17 different countries, all looking to make their products in the UK

Now in its sixth year, the next event takes place in May 2019 at the Business Design Centre in London.



ANNE BODDINGTON

Professor Design Innovation, Pro Vice Chancellor Research, Business & Innovation, Kingston University; REF 2021 Sub Panel Chair for Art & Design: History, Practice & Theory

Professor of Design Innovation, Anne Boddington, is Pro Vice Chancellor for Research, Business & Innovation at Kingston University. Educated as an architect, an urbanist and subsequently as a cultural geographer, she has extensive experience of independent governance, over thirty years in leadership and management experience in higher education, nationally and internationally, spanning teaching, research, business and civic engagement with particular expertise in architecture, art, design and humanities. She is currently Sub Panel Chair for Art & Design: History, Practice & Theory for the U.K.'s Research Excellence Framework (REF) 2021.



LOU DALTON

Menswear Designer, Founder Creative Director of Lou Dalton

Lou Dalton's ethos is simple: brilliantly made clothing for men with an emphasis on authentic, enduring design.

Having left school at the age of 16 to become an apprentice for a bespoke tailor, Lou went on to study at the Royal College of Art, graduating in 1998. Since launching her eponymous label in 2008, her work has been defined by a hands-on precision and an instinctive flair for cut and fabric.

Lou's clothing is contemporary yet timeless, drawing upon the traditions of British craft and the narratives of her Shropshire roots in a way that is forward thinking and modern; never nostalgic. The garments are functional and understated at their core but immediately eye catching in their unbeatable quality and ability to elevate the wearer; a subtly impressive trait unique to all of Lou's designs that she sums up as "quiet noise."

With over two decades in the industry, Lou is one of the most experienced and skilled designers working in men's fashion today. Her long list of global clients and collaborators includes Grenson, Jaeger, an ongoing collaboration with knitwear specialists John Smedley and a new collaboration with Gloverall for AW19.

A1 Learning from History, Tradition and Industry

Moving the Bust Dart: The Fashion Designer, Sylvia Ayton's Relationship with Pattern Cutting

DR. KEVIN ALMOND, *University of Leeds*

The research explores the work and career of fashion designer, Sylvia Ayton (MBE) and her relationship with the craft of pattern cutting. Ayton graduated from Professor Janey Ironside's fashion school, at the Royal College of Art, London, in 1960. In her autobiography, Ironside noted, "One of the best results of the social revolution in Britain since the Second World War has been the release of many young designers to the world, whose potentialities would have been wasted before the war" (1973, p.113). Ayton's career evolved during this social revolution and is significant because of its flexibility and longevity. She worked as a designer in business partnership with textile designer, Zandra Rhodes, in the 1960s and as a commercial designer for a UK high-street retailer, from 1969 to 2002. This study will allow privileged access to her work archive, and will trace Ayton's involvement with pattern cutting throughout her career considering her experiences as a designer/pattern cutter for different markets. A review of the literature shows that pattern cutting has rarely been explored through the relationship of the designer with the craft, particularly designers such as Ayton who have worked anonymously for large companies or retailers. The underpinning research will bridge this gap by investigating the thinking, practices and paradigms of pattern cutting during a fashion designer's career. It will also help to identify a lasting reference point for the fusion of technology with design, expressed in the context of fashion design careers within the global fashion industry.

A1 Learning from History, Tradition and Industry

Swimwear, Skin and the Modern Surface

PAM BROOK, *Bradford College/Nottingham Trent University*

Working in collaboration with the archivist at John Smedley Limited and photographing their small collection of interwar swimwear three dimensionally on a mannequin, it became apparent that some of the cream-coloured bathers would have a nude appearance on the body. The introduction of 'Jaylax', a rubber core elastomer thread, into the knitting increased the sheath-like qualities of the garment. This built on the assertion of Symington Ltd of Leicester in their late 1930s marketing that their patented telescopic swimsuit would fit like a 'mermaid's' skin. The purpose of the paper is to explore the modernist swimsuit as a 'second skin'.

The modernist aesthetic in the design of swimwear complemented the denuded modern surface in the built environments in which they were worn, including lidos, hotels and ocean liners. During the 1930s companies such as Symington Ltd and John Smedley Ltd competed to perfect their versions of the garment both aesthetically and technically to fit the body like a second skin.

The concept of second skin or 'skin' and 'swimwear' as an expression is currently in use in the development of Speedo's new 'fast skin' range.

Using skin theorists such as Anna Anlin Cheng, Didier Anzieu and Stephen Connor this paper explores these technical and aesthetic developments in relation to the modernist surface and locale.

A1 Learning from History, Tradition and Industry

Fashion - Making a Discipline in the Making?

SUSAN CRAIG, *Manchester Metropolitan University*

DAVID LEATHLEAN, *Manchester Metropolitan University*

'All designers should absorb The Zeitgeist: art, literature, popular culture and products, architecture, electronics and interior design – all can be seen to influence contemporary fashion, and vice-versa'. Fox, 2012 (cited in Leach, 2012)

It is generally recognized that knowledge of creative processes is of relevance to design students, in the fields of fashion and textiles. We contend that knowledge of history, tradition, and past and present industrial practices is vital to the wider context of fashion studies, and equally relevant for fashion promotion and buying students at undergraduate and postgraduate level.

Constraints imposed by the current fee structure, by the speed of technological change, and by the disconnect in students' perception of education and assessment, has led to excessive focus on assessment outcomes at cost to deep understanding of the fashion industry, leading to gaps in both skills and expectations (Riley, 2017).

Only a limited number of students on design courses will proceed to careers in design. Many will work in the fashion industry, perhaps in buying or promotion, or at the very least interacting with teams in relation to such functions. The development of *cultural capital* is essential to develop the knowledge that will allow students to progress into various fashion industry roles, with positive implications for employability (Camps et al, 2016).

The fashion industry, although creative, demands interpretation and reinterpretation of past styles and ideas. These are the drivers of innovation and momentum in fashion, but are only possible through a knowledge of tradition, history, styles and colours acquired through students' embedded learning and personal development.

Learning and teaching also has to respond to fashions' impact on society and the environment. Awareness of historical context and innovative production processes is essential to achieve sustainability and other best practices. Through case studies of fashion buying and promotion students, we shall argue for the cross-curricula relevance of what is traditionally considered to be design-specific knowledge.

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A1 Learning from History, Tradition and Industry

A Practice Based Methodology for Research in the Archive

GINA PIERCE, *University for the Creative Arts Farnham*

My research focuses on the fabric samples and documentation held in the archive of the furniture company Parker Knoll Ltd, part of the Frederick Parker Collection. This archive is an under researched and under theorised resource, particularly in a creative context. The anonymous and neglected fabric samples are unknown to the textile community and I will be undertaking the first critical study.

The aim for this practice based research is to create material responses to the archive in the form of the 'interpretative object' that reveals and explores the context of the fabric samples' design, selection and manufacture. Here connections between the archive and the audience can be reflected upon to formulate a new model of pedagogical use of an archive both in design education, and with different social and community groups.

My research proposes an intention to explicitly act as an intermediary or transitional tool to inspire a selected participatory group into a guided activity. The project work undertaken will be reflected upon as to the success or otherwise of the models used for furthering the use of the archive as an educational methodology.

A1 Learning from History, Tradition and Industry

The changing relationship between Yorkshire fashion consumers and their clothing in the 20th Century

ELAINE EVANS, *University of Leeds*

The research explores preliminary work conducted for an extended research project that investigates how attitudes towards the quality and quantity of clothing possessions, their length of active service and their disposal has changed over the course of the 20th Century. This phase of the study utilises the Yorkshire Fashion Archive, housed at University of Leeds, as a resource to examine clothing and social history within the Yorkshire region in the 20th Century, and the value of the relationships between clothing and the wearer. The emotional connections to particular items of clothing are examined through interviews with donors and the oral histories connected to donated items. An object-based research approach is adopted to analyse a selection of the handmade and mended clothing from the archive. In an area such as Yorkshire with a rich textile heritage, the material objects and oral histories connected to them give a wealth of information about the lives of Yorkshire people in the 20th Century. This permits an analysis of the changes in the skill base in the region, both in commercial manufacture and the making of clothing in the home as well as consumers' shifting attitudes towards the clothes they chose to wear themselves.

B1 Investigating and Explicating Creative Processes

Biomimicry using Embodied Materials in Paper Making Workshops

DR. JULES FINDLEY, *University of Brighton*

Embodied materiality in my research was used as an investigation into the relationships between the affect of grief and the creative, embodied encounters with paper materials. In some types of traumatic loss, complicated grief can subsume the bereaved in a way like no other.

The research integrated creative practice, working with fibre-based materials, with the scholarly and cultural exploration of the literature and theory of mourning as a specific psychological state of mind. It was an exploration of the experience of mourning a complicated grief, through the sustained process of an embodied encounter with the materiality of making paper. Paper became the metaphor to discuss research questions that connected the maternal with affect in grief and the body that inputs Cartesian culture is feminised using affect of the embodied encounter with materials. The research was not into art therapy.

Using workshops in paper making, I was able to teach a module on fibre-based biomimicry to students to reflect on the relationship between materiality and affect. In making the substrate, I use the methodology of play; judgment is suspended, whilst the paper is being handmade to create individual materiality. Students learn to make paper and take their samples from the workshops home to hone their techniques, making more paper and reflecting on their new skills in their research blogs. This confirmed the space for the studio as the domestic, and the range of techniques from the students learning and my feedback fed into my learning and back out to the students again, fulfilling a circular feedback loop of educational and methodological techniques and reflection in the students and my research.

Keywords: Handmade, Paper, Biomimicry, Embodied Materiality, Substrate

B1 Investigating and Explicating Creative Processes

Dynamic Cutting: a new method of experimental pattern cutting using metaphor to activate tacit knowledge of material creativity and spatial creativity

DONNA SGRO, *University of Technology Sydney*

This creative practice research was conducted as part of my PhD by project at RMIT University. The values embedded in practices of fashion design are becoming better understood through research that is based in creative practice and undertaken by practitioners. In my experience as a fashion designer, the separation of design and pattern cutting in my practice impacted creativity in the cut of garments. This research aimed to expand creativity through pattern cutting by challenging this separation formed through my tacit knowing in practice. A metaphoric strategy was explored to adapt new methods for design from a study of butterfly metamorphosis. In this study, research *for* design was undertaken using mixed methods including growing butterflies, documentation, drawing and text-based analysis from a variety of disciplines on the subjects of butterflies and metamorphosis. Generative metaphors developed from this study of butterfly metamorphosis provided an alternative conception of a garment in the design process for pattern cutting. First, the garment was conceived as a transitioning insect body, then as a dynamic form, lastly as a chrysalis formation. This series of metaphors led experimentation in research *through* design of garments and textiles, resulting in two new concepts to describe creativity in pattern cutting using tacit knowledge. *Material creativity* refers to the creativity a practitioner experiences when designing and making garments through individual engagement with materials. *Spatial creativity* refers to the creativity a practitioner experiences when working with and analysing patterns in both 2D and 3D forms. *Dynamic Cutting* is a new method of experimental cutting for fashion design, which involves attuning to both material and spatial affordances. This research offers a new framework for thinking through, reflecting upon and expanding notions of creativity in fashion design using tacit, hand-based engagement with pattern cutting. It also demonstrates how a metaphoric strategy can be used to raise awareness of, and extend the application of, implicit knowing in practice.

B1 Investigating and Explicating Creative Processes

Spatial definers in surface pattern design – introducing alternative design variables as tools in the textile design process*

TONJE KRISTENSEN JOHNSTONE, *University of Borås, Sweden*

Within the field of textile design, the understanding of surface patterns is fundamental knowledge and a somewhat specific professional skill. The purpose here is to report on experiments explicitly introducing abstract spatial definers, such as “above”, “behind” etc., in the textile design process as basic surface pattern variables.

This idea was tested out in student workshops on four different European art and design universities during a period of three months. The primary focus of the workshops was to test surface patterns as spatial definers, by introducing a design variable that answers the question “what is the pattern doing as a space definer?”.

The results of the workshops demonstrated a potential of using conceptual spatial determinations as design variables, as the design solutions were clearly influenced by the introduction of these variables. In addition to adding to the knowledge of the field, the results can be used by designers who seek alternative working methods, or as material for reflection and inspiration when teaching surface pattern design in design education programmes.

Using workshops in teaching is a means of gaining valuable insights and learning in creative practice. Transforming this knowledge into teaching methods and pedagogical tools would allow methods and ideas to be re-thought, and unconventional ways of surface pattern design thinking to be explored. This paper contributes to the development of design methods and provides an alternative perspective on surface pattern design. It also highlights a small area that is rarely in focus in textile design research.

B1 Investigating and Explicating Creative Processes

Developing pedagogical tools for designing with invisible materialities through experimental design research

JYOTI KAPUR, *University of Borås, Sweden*

DR. MARGARETA ZETTERBLUM, *University of Borås, Sweden*

Usually we perceive textiles in our surroundings consciously through vision and touch. Designing the perception of space through textiles by using invisible materialities would essentially mean challenging our visual and haptic perception. The pedagogical tools for the creative process of designing textiles for invisible materialities like smell and sound in this paper, is explored through experimental design research methods. Through planned workshops with students from bachelor and master studies in textiles, fashion and spatial design, we plan to explore how sounds and smells of a space become design materials for designing textiles that define a space. Knowledge which can be used in the development of a curriculum for new kinds of textile design courses focusing on how sound, smell, touch and vision can play a major part in the design of textiles. The workshops are conceptualised to foster speculative approach when exploring materials, methods and ways of articulation through multi-modal techniques such as sound recording, film, photography and textile sketching. As an initial step the participants walk blindfolded through space to be able to focus on and investigate its dynamic nature by their auditory and olfactory senses. In progression, they investigate the phenomenon of invisible materialities being changed either by absorption, diffusion, reflection, or refraction when adding textile textures and suspended textile forms in space. Using this experimental set-up the students are asked to present their ideas as textile-sketches in scale 1:1 specific for the space using smells and sounds as design drivers. By altering the ambient conditions of a space such as temperature, moisture and airflow, another layer of patterning could be added to the design expressions. Expected outcomes of the workshops as new pedagogical tools are explorations and speculative sketchy ideas suggesting for novel textile design methods through smells and sounds as design drivers.

C1 Valuing Artisan Skills, Drawing and Making

An experiential investigation into the embroidery practices of the Chernobyl Babushka

CLAIRE A BAKER, *Northern School of Art*

This paper contextualises and personalises a cohesive and cogent line of enquiry into the textile practices of an obsolescent community, the Self-Settlers or Babushkas (бабушка- *grandmother or old woman in Russian*) of Chernobyl, through empirical research: observing, recording and gathering testimonies and histories in the field. Chernobyl, as Place (or rather non-Place) is the site of the world's worst nuclear accident of 1986 and is where;

the process of remembrance continues to activate the past as something, which ... is lived and acted, rather than represented. (Dean and Millar, 2005, p.14)

Post-accident 91,200 people were evacuated from areas around Chernobyl which are now deemed to be uninhabitable. However, 136 remain, their legacy the declining remains of a forgotten community, and a loss of tradition and culture, including their strong textile heritage which is dying out with them.

The 'Embroidery as a Language' project was implemented in order to discover how a common interest – embroidery, could be used to encourage stronger personal connections within the context of action research methodology. The discovery of the essentiality of its conservation was of deep significance. Alongside building an archive, the preservation of their history through personal experiences and narratives is paramount, and this paper reflects the focus on the self-settlers (those who returned to their homeland after being evacuated and dispersed due to the nuclear disaster) and their embroideries, as an on-going initiative and an experiential poignant investigation that has developed over the past four years and during a number of visits to the exclusion zone. By critically analysing the findings, and personally experiencing the difficulties in the daily lives of the Babushkas, witnessing their fight for survival and the critical role embroidery plays in their dying culture, the resulting conclusions include the personal experiences of the Babushkas of Chernobyl who have created stitched decorative textile outcomes in a style typical of their region, as well as the part embroidery has played in their lives, historically and in the present.

Furthermore, it is questioned: How does the location and current lifestyle of the Babushka affect the continuance of their regional, traditional, rural craft?

C1 Valuing Artisan Skills, Drawing and Making

A pedagogical approach to creative copying from photographic imagery: A drawing-led practice-based research inquiry

MARK PARKER, *Heriot - Watt University*

(Presenting: SARA KEITH, *Heriot - Watt University*)

I am a textile designer and academic with extensive experience of both working from my own photographs and of encouraging my printed textile design students to use their photography imaginatively in their designs. However, my recent involvement in academic research has made me aware that much of my established drawing practice has been implicit. I draw every day but have only relatively recently paused to interrogate the procedures I adopt. This paper describes the latest stage in an extended research project I am conducting with a colleague to re-evaluate traditional drawing-based copying methods for seeking reference and inspiration from visual sources. (Here, the term 'visual sources' is used to describe existing images, for example archival sources or photographs.) While being traditionally acceptable pedagogical methods, drawing-based copying techniques have now become undervalued on some textile design courses, and the term 'copying' has now become associated with unacceptable forms of practice that can have both damaging effects on the textile industry and undermine student creativity¹. I am now building on the methods established in our earlier research, whereby we developed a *Constructive Copying Workshop*² predicated on a list of terms for copying techniques intended to focus student attention on different types of copying from archival sources, and it is my intention to inform the content of a second workshop based on techniques identified to optimize the results of copying from photographs. Through my drawing-based practice I am working from one of my own photographs to conduct both a systematic investigation using the terminology defined for the first workshop, and a more exploratory use of drawing to identify alternative terms. Figures 1-4 show some of the drawings produced so far.

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C1 Valuing Artisan Skills, Drawing and Making

Fashioning a more flexible masculinity and the softening of soccer

CHRISTOPHER HODGE, *Northumbria University*

KYRA JEWITT, *Northumbria University*

This Paper describes a journey in research which crosses both geographical and gender boundaries to explore different contemporary expressions of masculinity in relation to male football dress and fashion. From the island of Flores in Indonesia all the way to the fashion billboards of Times Square, New York city, this paper will examine the feminisation of football culture and the deification of its most glamorous stars.

Using popular football cultural references and materials gleaned from a hyper-masculine past and combining local & global craft techniques, I set out to explore the new feminisation of football through the removal of boundaries in men's sports dressing and creating a more fluid approach which celebrates & deifies the modern football fashionista. Exploring movement and kinetic strength and juxtaposing the semiotics of hyper -masculinity against more recognised feminine forms and fabrications. The creative outputs which accompany the paper are a series of photographs and a short film (co-created with Kyra Jewitt).

Rethinking Men's traditional sports dress, through reinterpretation of sports kit and counterfeit designer garments, and introducing other global craft practices, this paper will focus in on the investigation of masculine semiotic codes in fluid dress, especially as an investigation of the erosion and transformation of the world of the traditionally hegemonic universe of men's soccer. The paper will focus on the Global Sports persona of David Beckham as an archetype of all that represents the 'New Man' and a living illustration of the embodiment of "Flexible masculinity".

C1 Valuing Artisan Skills, Drawing and Making

Walk Draw Make

GARETH WADKIN, *Leeds Art University*

This paper investigates the concept of being outside, walking in cities and finding nature as visual research stimuli. It also examines the importance and value of craft for fashion and textile design. At the start of each academic year I plan a series of educational visits and orienteering tasks for my students. The most successful activities are city walks, where students explore their new locality and develop design and making ideas. The overall objective is to introduce university teaching and learning, whilst promoting mindfulness, belonging and providing an opportunity for social interactions.

Walk-Draw-Make is a creative practice and pedagogical approach for academics to employ with students. I designed walks to explore Biophilic and Slow Design principles as well as Psychogeographical writings to support this visual investigation of the city. Before the walks I lead a discussion on the task ahead and provide insights into my own design and making practice. This includes how I use walking to develop design concepts and themes. Students are encouraged to map and record the walk by taking photographs, drawing, making notes, finding and collecting objects. During these activities I encourage discussion and for students to share and exchange thoughts, knowledge and responses to the project. Ultimately the aim for choosing this strategy and content was to develop and embed design thinking, for students to find and use primary visual research, gain a perspective on pattern and colour for their projects through a shared and social activity. The paper presents examples of the project in practice; it demonstrates a passion and commitment to preserve the traditional skills of dyeing and printing with university students, by using contemporary creative thinking, as well as examining its effectiveness on collaborative working, productivity, the transition from school or college to university, together with the health and wellbeing of participants.

C1 Valuing Artisan Skills, Drawing and Making

A case study of collaborative practice, working to promote cross-curricular thinking and making skills within schools.

CAROLINE PRATT, *Leeds Art University*

GARETH WADKIN, *Leeds Art University*

Within the changing landscape of secondary education, the role of making, and in particular drawing, is increasingly marginalised resulting in a skills shortage for those contemplating studying not just fashion and textiles or other creative disciplines but also courses that value the ability to work creatively and blend a mix of attributes at a higher level (a skill recognised by the Cultural Learning Alliance as crucial to the future of the economy).

This case study documents a project undertaken as part of the Crafts Council's Make Your Future initiative which looks to partner schools, art teachers, makers and Higher Educational Institutes with the aim of promoting craft and making to the next generation. The project saw Wadkin and Pratt collaborate with a selection of Key Stage 3 students across 2 schools, with the aim of encouraging greater take up of Textiles and Fashion as a GCSE subject, helping to develop essential skills for creative thinking and improving motor skills in relation to making. Drawing upon the textile heritage of the North of England students developed contemporary fashion print outcomes that reinterpreted traditional woven textile techniques for the sportswear market. Focusing on improving hand skills through analogue design methods, linking with technology, science and mathematical concepts to further cross-disciplinary thinking and introducing them to roles within textiles and fashion not currently explored within the curriculum.

The project culminated in a collaborative exhibition at Leeds Arts University, celebrating the work produced across a number of institutes involved in similar projects across the region. As a result of this project, participants were given the opportunity to develop and explore competences required within the fashion and textile industries thus promoting the need for Universities to work with schools in order to protect creative education, foster essential skills and inspire the next generation of designers and creative thinkers.

D1 Designing Responsibly and Working Sustainably

Fast Forward: remodelling circular fashion for material longevity

DR. KATE GOLDSWORTHY, *Centre for Circular Design, University of the Arts London*

PROF. KAY POLITOWICZ, *Centre for Circular Design, University of the Arts London*

The increasing dominance of 'fast fashion' in the current commercial context, has resulted in a market full of products designed for economically efficient production (Fletcher, 2011). Clothing sales are increasing in volume and their lifespan is reducing (Ellen MacArthur Foundation, 2017). The prevailing and rightly accepted response to this issue is to focus on 'slowing down the fashion system'. However, researchers at UAL also acknowledge that there may need to be an alternative for parts of the clothing market (Earley et al 2016). Not all garment archetypes are suitable for long-life.

The emergence of 'fibre to fibre' recycling technologies allows us to think of longevity in a very different way; from a 'material recovery' perspective. This could be enabled through the recycling of materials, and not only through extending product life. The question becomes; can we make fast-fashion better, with lighter impacts on the environment? Can fast-recovery become a viable circular strategy for at least part of the fashion & clothing market? Can we achieve an overall reduction in 'environmental cost per wear' (Goldsworthy, 2017), with new material and production models?

This paper reflects on a practice-led and multidisciplinary project supported by Mistra Future Fashion which tests new proposals for the faster end of the fashion market (Goldsworthy et al, 2016). A new wearable 'paper' has been developed and other commercially available nonwoven materials reworked, as an inexpensive 21st-century fabric with an intentionally short lifespan, that can be effectively recycled or industrially composted. The materials were transformed through innovative finishing techniques with three circular concepts and tested with scientific partners for strength, recyclability, compostability and importantly, user perception.

**linked to exhibit proposal 'Fast-Forward Fashion'*

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D1 Designing Responsibly and Working Sustainably

Super-Slow and Circular: The Service Shirt and Textile Design for Industry in Practice

PROF. REBECCA EARLEY, *Centre for Circular Design, University of the Arts London*

Textile designers have a long tradition for being resourceful with materials – think of patchwork quilt-making or ‘boro boro’ mending – but the emergence of the circular economy design discourse (Charter 2018) and the highlighting of opportunities for textiles (EMF 2017) has enabled a differentiation between *linear* and *circular* practice. This considers the end-of-life of the material/product first, and makes all decisions based on this, around its whole lifecycle (production/use/disposal) (Fletcher 2008). Yet there remains a distinct lack of exploration through academic practice-led textile design research within an applied industry context.

By reflecting on previous practice work - including AHRC projects in which textile design practice approaches extended the life of garments through craft-level over-printing as well as super-slow 100-year design (www.upcyclingtextiles.net) – part one of the paper discusses the textile design practice approach developed to create *extreme extended-lifecycles* for circular fashion textiles.

In part two, the *Service Shirt* concept is discussed. Here, a brand provides most of the material state changes, enabling users to experience a variety of different ownership, rental and updating services, across a 50-year period. The concept was developed during a design-researchers in residence programme at a fashion brand.

The paper explores design for *ultra-longevity* - or super-slow - through a service system and user feedback approach (Ræbild & Bang 2017). It demonstrates design opportunities in using the framework of *lifecycle speeds* (Goldsworthy *et al* 2016) and circular business model innovation (Accenture 2014), to inform and guide future responsible/sustainable practice. The paper concludes with a revaluing of textile design research/practice for opening up industry-level opportunities, leading to new textile design practices and circular business models.

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D1 Designing Responsibly and Working Sustainably

Embedding Sustainability in the Fashion Designer's Toolkit

DR. ALANA JAMES, *Northumbria University*

The contemporary fashion industry is a broken system in need of reform, moving away from a dated linear model and adopting circular principles reflective of modern societal challenges. This paper explores how fashion education equips graduates for these changes, moving towards a more responsible future in the industry. The increased consideration for sustainability in fashion is dramatically changing the field of employability and consequently necessary skills for graduates. This shift needs to be reflected in higher education, preparing students to meet the requirements of industry employers. The need to think beyond traditional educational skills has never been more relevant, where design thinking tools and research informed teaching could aid in innovative and diverse approaches in the integration of sustainability within the creative fashion process.

This paper explored current methods of dissemination of sustainability within the context of fashion and textiles in higher education. Working with educators from the UK, China and Hong Kong, this project aimed to map the current international provision of sustainable pedagogy. Qualitative data sets were collated using creative activities during multiple focus group sessions. During the first phase of the project, tasks allocated to participants explored current teaching practices, evidenced examples of best practice and highlighted the potential barriers and challenges currently being faced. In phase two, participants were asked to identify catalysts for change in relation to a more integrated fashion curriculum. Analysis methods were reflective of the data collected, with content analysis and coding techniques utilised to find emerging thematic groupings and patterns in the data.

The international mapping exercise provided an in-depth insight into current practice, with the second stage of the project focusing on moving forward towards a more innovative and diverse fashion pedagogy. Several ideal scenarios were developed, with participants discussing integral factors at both a macro and a micro level. Detailed results formed the basis of a sustainable pedagogy roadmap, where a series of long and short term incremental steps to change were presented.

D1 Designing Responsibly and Working Sustainably

Animation, Fashion and Sustainability

KATHRYN MCKELVEY, *Northumbria University*

This paper presents an experiment, within a PhD project, to create a 2D fashion design tool using animation techniques. The tool appropriates Adobe After Effects software (incurring low costs) supporting innovation early in the design process: design takes place on the timeline, utilising rotating mood-boards and application of design elements to a fashion figure. The technique requires some prior knowledge of Photoshop and Illustrator, unlike specialist fashion industry CAD software, which requires much training.

Fast fashion and rapid consumption dominates the fashion industry, in response, some designers adopt a slow fashion philosophy, utilising local craft industries, or integrating vintage garments into their collections, many with innovative approaches to sustainability.

A research through design experiment explored whether the animation tool could support sustainable approaches to fashion. A foundational concept was to re-use and up-cycle by producing design for a limited edition range. Healthy stocks of men's white shirts are available in charity shops, allowing the concept to be repeatable on small scales. The shirts would not need to be cut into until ideas were developed. The retained proportions of the deconstructed shirts created realistic design propositions.

A method developed: firstly to photograph the shirts, deconstructing them in Adobe Photoshop. Fabrics were added to the deconstructed elements when imported into After Effects, creating new designs on the timeline. Construction and cut were considered, then hand drawn, large-scale prints were applied mixing the hand crafted with the digital process, adding unique selling points.

Reflective practice, in and on action, revealed that the figure and prints do not need to be repeatedly re-drawn, rotating mood-boards also reminded the designer of their research inspiration. An element of the unpredictable - moving from one transition to another - was also discovered, further advancing design development. Feedback from fashion lecturers revealed their perceived value of the technique.

C2 Valuing Artisan Skills, Drawing and Making

Clark Kent vs. Superman: Unmasking the Actual Superheroes of Haute Couture

DEAN LIGGETT, *Ulster University*

This research intends to rectify the 'off-the-record' status of contemporary artisanal textile innovators by recording and analysing their professional work experience, personal narratives and design output. The luxury value, quality and aesthetics of haute couture are frequently exhibited through the textiles created by hand, requiring exceptional skills and creativity. The continued reliance on hand skills is in contrast to the modern industrialised technological age. 'Artisanal' as a prefix is ubiquitous and used today by diverse industries as a marketing tool but is significantly absent in the reporting of haute couture collections.

Luxury brands highlight an illusion of the handmade, but currently the strategy of naming fabric creators is rarely manifested within the realms of haute couture. Historically couture houses did acknowledge and credit their textile collaborators so the question is "when and why has this practice changed"? As a consequence, the makers of the luxury textiles are now largely unknown and equally undervalued. Are these practitioners the 'Clark Kent's' of fashion, anonymously applying their artisanal skills for the accreditation of 'Superman' who comes in the guise of the celebrity designer and luxury fashion label?

To ascertain the contemporary contributions of makers, who continue to exhibit handmade artistry within the couture industry, primary material and sources, the generosity of individual textile designers, couturiers, established European ateliers and museum collections are employed to demonstrate an overview of current collaborative systems. In the context of today's cultural climate, with its celebrity fascination, the accreditation of artisanal fabrics has been obscured and largely masked. Only the figureheads of design houses are given notoriety and recognition and celebrity endorsements are 'encouraged' through favours offered to famed clients of luxury brands.

Social media coverage emphasises the personality cults of designers and celebrities, whilst hand skills involved in the creation of haute couture are ignored and often exploited. It is the enviable lifestyles of 'glamourheads' that generate fashion news and not the material reality. Although recent studies address some issues of imbalance and ambiguity within the evolution of haute couture, the visibility of luxury textile creators has rarely been investigated and is certainly under-represented in academic research.

C2 Valuing Artisan Skills, Drawing and Making

The banner: Fine art, Folk art, or 'graphic messages of hope' (Emery 1998)?

FIONA RAESIDE, *Northumbria University*

Whilst historic miners' banners have been given the term 'art' by those who study them (Emery 1998: Gorman 1973: Moyes 1974), this paper questions their place in artistic provenance as fine art, folk art or "*graphic messages of hope*" (Emery 1998). The paper also considers the banners and parade as 'performance art' and questions their power to elicit strong emotional reactions from both participant and spectator. Grayson Perry (2016) speaks of the paraded banners at the Durham Miners' Gala in spiritual terms, as "*a stirring folk art requiem*" and draws parallels with the parading of treasured artworks in Medieval Florence stating "*I realised that something equally reverent was happening here.*" Walter Benjamin ([1936] 2010: 14) proposes that a piece of art in its original and intended location possesses an "*aura*", and therefore the paper also explores whether a banner needs purposeful and 'lived experiences' in the parade in order for it to accrue value, or, whether through static exhibition (often related to educational activities) 'aura' can be assigned by the community or spectator who views it.

'Banner culture' appears to be enjoying a resurgence. The most notable example being the recent Artichoke (experiential art organisation) mass participation artwork celebrating women's suffrage ('PROCESSIONS 2018', 10th June 2018). This parade used craftivist banners of mixed media to form text and pictorial art representing and celebrating the diverse voices of women.

This paper unpacks contemporary and historic banner culture and the role of gender in realising the banners. By interviewing artists within contemporary but differing practice, I have been able to question their impact on contemporary banner-making in order to represent a community's physical and emotional identity.

Keywords: banner, community, identity, emotion, folk art, aura, craftivism

C2 Valuing Artisan Skills, Drawing and Making

The hidden craft of costume construction: an exploration from the makers' perspective

LIZ GARLAND, *University of Huddersfield*

Most theatre costumes are unique one-off garments, which are produced within a limited time frame. They are the translation of a given design made to the performer's individual body size and shape. Every show brings about its own challenges and unique experiences for the costume maker, who will experiment numerous times with construction techniques and fabrics. In addition to good sewing skills, costume makers need the ability to render the complex engineering of historical silhouettes, as well as working with modern and futuristic designs. Experienced practitioners develop an array of specialist skills, from historical corsetry and tailoring, to abstract animals, tutus and contoured garments using contemporary fabrics. However, although costume makers display great skill and a passion for their craft, they are rarely given credit for their creations, and research into this area of costume making is lacking. The aim of this study is to explore costume construction from the maker's perspective, with a particular focus on the pride of the maker, in order to examine and document this craft as it is establishing within the Fashion and Textiles practice discipline as an academic subject in its own right.

This study investigates costume makers' construction practices within the context of a medium scale repertory theatre. Through a range of semi structured interviews with members of the Wardrobe department team, a clear understanding is to be gained of the relationship staff have with the costumes they create. In addition, the interviews allow an exploration of how practitioners develop their standards and values in terms of their craft. It is clear that more research into costume construction as a separate practice from garment construction employed by fashion designers is needed in order to reveal the complexities of costume making as a specialist craft and industry sector.

C2 Valuing Artisan Skills, Drawing and Making

Constructing pattern: a new language of cloth

KATE FARLEY, *Norwich University of the Arts*

The language of pattern was transformed by the introduction of digital photography for pattern creation. Wood and stone photographs as visual textures are staples of surfaces for interiors, providing 'fake' pattern, replacing the artisan skills of handmade image and pattern making. This could potentially reduce opportunities for surface pattern designers. Inspired by Augustus Pugin's philosophy of 'truth to material' in response to 'fake' marble columns of the Classical Revival in the 1800s, this research paper examines the possibilities of pattern making rooted in material reproduction yet fundamentally away from facsimiles, exploring notions of imitation, duplication and the subversion of truth in hand-made image generation for surface pattern.

Woven cloth, a material of the domestic environment is the key driver of this practice-based research. The relationship between textiles, drawing and printmaking provide the investigation and development of contemporary small scale patterns as alternatives to photographic pattern. Visual research explores textiles as subject matter, and through the exploration of drawing tools, hand-made printing plates and paper manipulations, the language of constructed fabric is realised. What constitutes surface pattern as opposed to the substrate is questioned in relation to embossed and woven paper pieces, informing the dialogue between pattern, surface and construction.

Utilising the traditions of drawing and image generation to build repeating compositions, this investigation refuses the predictable in contemporary digital pattern design, and highlights the development of a new artisan pattern language for textiles, from textiles, embracing uniqueness of handmade marks and rhythm. The crossover and inter-connected dialogue between weave and print, united through drawing investigation produces a number of patterns of weave for cloth as well as laminate and vinyl, subverting the argument of imitation and real. This research contribution intends to influence and provoke print practitioners' thinking, to question traditional methods of pattern design, rather than a reliance on photographic 'fake' materials.

C2 Valuing Artisan Skills, Drawing and Making

Textiles as Documents

RACHEL JACKSON, *Arts University Bournemouth*

This short paper examines the potential for cloth to act as a document and how it might function as an alternative substrate to paper or vellum, inscribed with text-like information through the evidence of stains, rips, mends and wears.

The definition of the word “document” has been a source of debate since the documentalist movement in the early 20th century, which formed new concepts on what a document might be. In this paper I will demonstrate how we might expand the definition of the word “document” and apply it to artefacts of everyday clothing found in museum collections of textiles/dress.

This study questions the concept of a textile artefact as a ‘memory carrier’ (Merewether et al., 2006), using drawing and re-making as a way of documenting and analysing the ways in which artefacts might reveal narratives through their different signs of wear.

A2 Learning from History, Tradition and Industry

Embroidered Stories. Collaborative outreach conservation and digital analysis

LINDY RICHARDSON, *University of Edinburgh*

The paper seeks to demonstrate that learning, through personal practical hands-on involvement with precious archive items, can promote a sense of ownership and responsibility in the care and understanding of our national heritage whilst preserving it for future generations. The research connects diverse groups e.g., University staff and students, amateur enthusiasts and guilds, prisoners, Museum conservators, archivists and technicians, schools, refugees and migrants, with one another around shared activities linked to historic collections. The projects included as case studies employ analogue conservation methods to care for and learn from archival material as a research method, along with digital data analysis.

Heritage Lottery Funded project, Embroidered Stories conserved and re-housed 70 embroidered items from the Needlework Development Scheme (NDS) in handling mounts as well as creating fully annotated stitch analysis of each piece and explanatory videos of the stitches within the collection.

Digital tools employed for close analysis capture new data of objects held in University and national collections. Developed through 3D scanning and printing, high resolution digital photography and printing, along with x-ray and high-resolution scanning technologies, data collected contributes to deeper, and in many cases new understanding of objects. Magnification and 3-dimensional analysis offers fresh insights into archival items.

As part of the Iranian festival a collaborative project between inter-disciplinary groups of Edinburgh College of Art (ECA) Masters students and National Museum Scotland (NMS) curators, technical team, conservators will utilise analogue techniques contrasted with new technologies for intensive analysis of selected Iranian items from our National collection.

The results of the projects' activities and their effectiveness in sharing knowledge and understanding of the archives and ongoing accessibility for learning and teaching through these objects include blogs, social media, and a web-site tailor made as part of the research. A major exhibition of the results of this research is secured for November 2019-February 2020.

A2 Learning from History, Tradition and Industry

Learning from History, Tradition and Industry: The Suffragette Movement, Textiles and Fashion

ALISON GAULT, *Ulster University*

HAZEL BRUCE, *Ulster University*

This paper outlines a year-long project undertaken by staff and students from Textile Art, Design and Fashion at Belfast School of Art. The project commenced with the *Fashion and Freedom* Exhibition, a 14-18NOW commission which is a five-year programme connecting people with the First World War through a range of arts programmes working in partnership with cultural organisations.

A one-week project inspired by 14-18 NOW launched the academic year. “Deeds not Words” began with a lecture highlighting key moments in the Suffragette struggle, with reference to activists in Northern Ireland. The use of traditional handicrafts to raise funds, identify with the movement and covertly advertise events inspired students to create textile badges, brooches, aprons and artefacts to be exhibited alongside the 14-18 NOW exhibition. Students from all three years worked alongside academic and technical staff in this co-curricular project.

A selection of student work was then included in the Titanic Visitor Centre’s *Sisters* Exhibition as part of the *Inspire Conference* celebrating International Women’s Day. The focus of the event was to inspire young women across Northern Ireland. We discussed the work, the role of women in 2018 and future, aspirations, courage and confidence.

In tribute to the women of the suffragette movement, this years’ graduate fashion show began with garments and protest banners made by staff and students. We were then awarded financial support from the University to continue the project and ended the academic year collaborating with a local secondary school, Breda Academy. Students from first year and Masters worked with a member of staff and pupils to create a series of banners and corsages with pupils in years 9, 10 and 11. The banners were then part of PROCESSIONS in Belfast on June 10th 2018 celebrating the centenary of votes for women. The impact of the project was recorded through student and staff feedback, social media, photography and video.

A2 Learning from History, Tradition and Industry

Learning from The Cloth: Investigating 1980s Pedagogy, Creative Processes and Collaborative Practices

DR. HELENA BRITT, *The Glasgow School of Art*

Existing for four years, *The Cloth* was an innovative interdisciplinary creative collective formed by Royal College of Art (RCA) graduates David Band, Brian Bolger, Helen Manning and Fraser Taylor. With educational backgrounds in printed textiles, this group applied their painterly and expressive ways of working to a variety of creative contexts. They worked individually and collaboratively across different disciplines including textiles, fashion, graphics, illustration, painting, interiors and set design. Although widely recognised in the 1980s as a highly successful innovative collective, *The Cloth* have been overlooked by textile, fashion and design history. This paper focuses on initial activity and investigation surrounding *The Cloth*, related to a group of items held by the Archives & Collections of the Glasgow School of Art (GSA), donated by alumni Taylor. The collection contains drawings, sketchbooks, photographs, slides, magazines, letters, samples, textiles, garments, paper artworks and other ephemera relating to Taylor's time as a student at GSA (1977-1981), then at the RCA (1981-1983) and as part of *The Cloth* (1983-1987). Artefacts from this collection, relevant literature, other records, conversations and examples of creative practice are utilised and analysed to examine the pedagogical approaches and educational experiences which instigated the formation of *The Cloth*. Examples of the groups creative processes and collaborative ways of working will be described. The paper proposes that learning from the experiences and valuing the practices of *The Cloth* can positively inform and inspire contemporary textile design learning and teaching. Areas for follow-on activity will also be discussed.

Funding from the Textile Society's Audrey Archivist Award in 2015, permitted the cataloguing of the *Fraser Taylor and The Cloth Collection* at GSA (www.gsaarchives.net).

A2 Learning from History, Tradition and Industry

Weaving DNA: A study on overcoming disconnections between textile heritages and futures for improved sustainability

CLAIRE ANDERSON, *Hereford College of Arts*

HANNA DÍS WHITEHEAD, *Studio Hanna Whitehead*

'I see on your web page a nice photo with futuristic things, I like the future!'

[Hanna Dís Whitehead in reply to Claire Anderson, January 2014].

In 2014 the Icelandic product designer Hanna Dís Whitehead and Scottish textile designer Claire Anderson began working on their international collaboration Weaving DNA. This paper reports on their ongoing project and the connectivity of their imagination with the traditional craft skills and materials of partner Icelandic and Scottish heritage textile manufacturers.

Through the exchange and sharing of knowledge and ideas toward purposeful combinations of traditional textile heritages with the contemporary and with the future this project is rooted in a desire for improved sustainability. As explained by Professor of Design Daniel Charny, Kingston University, 'One of the biggest problems we have is that there's a wall in perception: traditional crafts are not seen as part of our future' [Franklin 2018: 115].

In 2016 the designers collaborated with historic Knockando Woolmill in the Spey Valley and designed the 'Esja' herringbone cloth, named after the Volcanic mountain range which can be seen from Reykjavík. The colours of the cloth are inspired by the buildings and landmarks of the city and surrounding areas of Reykjavík and imagine the possibilities of tribal camouflage for Weaving DNA's futuristic Nordic-Scottish tribe in this urban environment.

The Esja cloth was first shown at The Hiding Colour exhibition at Hverfisgallerí, Reykjavík as part of Iceland's design festival 'Design March 2016' and challenged audiences perceived notions of traditional textiles and their applications through a futures facing narrative and interactive display. New work in this regard can only help inform and enhance our understanding of the role which our textile heritages can play in re-evaluating what we already have and how this can help overcome disconnections between past and future.

Key words: Future, Heritage, Iceland, Scotland, Sustainability, Textiles

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A2 Learning from History, Tradition and Industry

Indigenous colourants native to the United Kingdom: their use in adjective and substantive dyeing and impregnation of cloth with application in contemporary textile design practice*

RACHEL DAWSON, *University of Bolton*

Colour has always been important to humans. Archaeological records tell us that early humans developed methods of adding colour to fibre as they learned how to use it to construct fabric for clothing, household, and ceremonial items. Dyeing was a precursor to embroidery, for in order for it to be worth applying a separate thread to fabric, the thread must be sufficiently different from the background fabric. Dyestuffs which made bright, fast colours were difficult to find and therefore both the dyes and items dyed with them were valuable trade items that drove trade routes even into the current age.

Research will reintroduce the use of indigenous natural colourants which were native and traditionally abundant in the North East of Lancashire, specifically the Forrest of Bowland, dating back to the 16th Century, in contemporary textile art, with focus on sustainability and cultural and historical heritage. Cloth and Cattle, were the trades employed by local people at this period. I am particularly interested in a wealthy land owner, Alice Nutter, also infamously known as belonging to the Pendle witches and sentenced to the death penalty at Lancaster castle in 1643 for witchcraft. She was an alchemist and dyer. Research will enable the development of historical native vernacular dye recipes to be reinvented within the community.

Historical Purpose of Indigenous Colourants

From the beginning of civilisation mankind has adorned their bodies and habitats with colour and pattern, using pigments and dyes from plants, animals, insects, shellfish, bark and nuts. These natural dyes and colourants are part of our cultural heritage, each individual culture possesses dye methods and techniques. This knowledge is rapidly disappearing within Western society. Research into natural colourants and impregnation of cloth could reveal new colours and extraction to be used on a larger scale within the textile industry and educational setting.

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C3 Valuing Artisan Skills, Drawing and Making

Thinking Through Making: Process, Transformation and the 'Mem-or-y' Series

MARLENE LITTLE, *Birmingham City University*

Simultaneously fundamental and complex, the experience of making is an integral element in a textile designer's journey, building tacit awareness of materials and processes as a significant element of personal expression. Focusing on the 'Mem-or-y' series, this paper takes an auto-ethnographic case study approach exploring the complex intersections and interweaving of both fabric construction and image processing as a means of exploring social issues, in this case the awareness of the significance of dementia as a growing social concern. Whilst the increase in the adoption of digital technology can put pressure on the time needed to develop and practice handcraft skills, hand and digital can be used as complementary processes to highlight the continued relevance of craft practices and mutually enhance practice outcomes.

Annie Albers (1982) urged that material be considered as a metaphorical means of communication. There have been many references made to fabric as a metaphor for life and the construction of memory. In the 'Mem-or-y' series this metaphorical approach is underpinned by detailed consideration given to the acquisition of nuanced substrate awareness, material performance, chance, serendipitous experiences and structured process enquiry within a research process that embraces thinking through making. This interdisciplinary approach to making moves between textile and photographic disciplines with an iterative cyclical approach where the material parallels that can be drawn between process investigations and the onset of dementia are compelling.

C3 Valuing Artisan Skills, Drawing and Making

Christian Dior, the toile: what lies beneath?

CAROLINE HERZ, *Manchester Metropolitan University - Manchester Fashion Institute*

DR. KATHRYN BROWNBIDGE, *Manchester Metropolitan University - Manchester Fashion Institute*

GEORGINA HOUSLEY, *Manchester Metropolitan University - Manchester Fashion Institute*

The purpose of this investigation is to draw attention to the undervalued skills and knowledge needed to create well-fitting garments that make women feel good about themselves and comfortable with their bodies. The study focuses on a Christian Dior toile, held in the Manchester Fashion Institute archive.

A systematic review of secondary data sources tracked the origins of the Dior Jacket toile, and compared historical methods used to determine sizing dimensions with current practice. Practice based methods including: observation and measurement of the toile, the application of 3D body scanning technology to measure and assess the participant's bodies, pattern cutting and garment construction were conducted and results were evaluated through a series of fit tests using traditional and no traditional technology driven methods.

Findings show that the toile dates back to 1961 and a fashion image was found that depicts the way it was expected to fit the body at the time.

The pattern evaluation and the participant feedback suggest that fit expectations have changed since 1961. A number of interesting sizing related issues were found including a dramatic dimensional change in the relationship between body measurement and size codes. It was however, the fit evaluation sessions that present the most interesting findings and clearly demonstrate the high level of skills needed to meet the fit expectations of individual women. In conclusion it was clear that the ability to create garments that fit so well they make women feel good about their bodies is difficult to acquire yet undervalued.

C3 Valuing Artisan Skills, Drawing and Making

Today, I'm going to be a...

REBECCA RYDER-CADDY, *Coventry University*

The paper is part of a larger PhD study which works to develop garments, accessories and wearer experience to nurture a positive sense of self identity and to enhance the wellbeing of wearers, age 8-10. The aim of this paper is to begin to explore the need and potential impact of working with children, aged 8-10 to develop design features; exploring common symbolism and narratives in the multisensory experiences associated with choosing and wearing Fashion items.

Fashion as a subject is about more than products; it's about story-telling, communication and narrative. The link between Fashion and Identity has been well considered in the context of menswear and womenswear, but is woefully underexplored in the area of childrenswear. This study considers children of *pre-social* age (those too young to officially register for a social media profile); the selection of this age category is important for numerous reasons developmentally, and is explored fully within the paper with primary reasons summarised through it being broadly accepted in social science that age 12-13 forms the beginning of cognitive identity formation (Erikson, 1993 and Warin, 2010), but 59% of UK 10 years old have already created a public facing personal profile on social media (knowthenet.org.uk, 2014). Here we seek to address how a more interactive design development process can lead to more intelligent product design for this audience, potentially to help foster a sense of self before it's cognitively formed. The paper considers theories in multisensory perception, including synaesthesia as well as looking at approaches to working creatively with child participants in other fields, which includes references to anthropomorphism and post humanism. There is also emphasis on masks in the study considering cultural and Fashion based references.

The results of this exploratory study will support practice led development of conceptual pieces and eventually commercial Fashion products for the benefit of the target age group.

C3 Valuing Artisan Skills, Drawing and Making

The Creative and Educational Value of Developing Textile Craft Skills between UK and India*

DR. JULIE KING, *University of Northampton*

In November 2017 second and final year students from The University of Northampton were funded to attend a week long textile crafts programme at Amity University, Greater Noida in India. The students worked alongside Indian counterparts to learn more about traditional textile dyeing and decorative techniques. This paper examines the value of the experience and the subsequent impact such a learning and cultural programme had on the student group both for the graduating final year students and the continuing second years students.

The study tour arose as a result of observations that many current textiles students at the University of Northampton are utilising more digital technologies to produce their textile designs, and the art of hand printing and dyeing skills along with craft techniques has been reducing in recent years. The Design Council highlighted a skills gap specifically in the craft and clothing sectors in their 2017 report, *Designing the Future Economy*:

A lack of skill, experience or qualifications in the applicant base – particularly in the craft, clothing and product/industrial design sectors. (Design Council, 2017:7)

The study trip encouraged students to explore textile craft techniques and hand dyeing, working with staff and students from Amity. It was also supplemented with visits to factories to understand how such techniques can be applied mass production. The paper explores the benefits of such exchanges, using models such as Boyer's 1990 proposal of four principles of learning, or four overlapping forms of scholarship of Discovery, Application, Integration, Teaching.

It subsequently maps the progress of the Northampton students in applying their new found skills upon their return to study and into the final year of study to assess the impact of the study programme.

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F1 Collaborating and Cross-disciplinary Working

Sound absorbing textile surfaces in the urban landscape – collaborative research in textile and architectural design

DR. KRISTINA FRIDH, *HDK - Academy of Design and Crafts, University of Gothenburg*

DR. MARGARETA ZETTERBLOM, *The Swedish School of Textiles, University of Borås*

DR. PAULA FEMENÍAS, *Department of Architecture and Civil Engineering, Chalmers University of Technology*

Design of woven and knitted structures can be compared to the formation of buildings' facades and constructions. However, textile designers do not generally participate when the exterior structure and facades of the building take shape, but rather when textiles and materials for the indoor environment are chosen, often with the intention of enhancing the acoustic qualities of spaces. In this research project, a textile designer, focusing particularly on sound design, collaborates with two architects, and the benefits of incorporating textile designers in the early stages of building projects are found to primarily explore and improve the sound landscapes in outdoor environments.

In order to search for and develop new approaches, methods and techniques in the field that is described as textile architecture, textile facade modules were designed and produced, and the design process was examined and evaluated from the point of departure of the two design fields, for example, to compare the methods of sketching in different scales. Questions such as "who is actually prototyping" arose, as well as the search for finding common references and concepts, both in history and today, to strengthen the collaborative work.

The practice-based experimental work is important for the encounter and merge of the two design fields, not least to put different textile techniques and materials to the test to examine how they can affect the sound landscape and experiences of space. The keywords for the laboratory work were technique, method, perception, stage-setting and context, which connect both to textile design and architecture. The different textile materials have been chosen to comply with the requirements of external climate impact and rough outdoor environments, and in groups of demarcated design experiments, the textile techniques weaving and hand tufting were explored and the modules were tested in the acoustic test laboratory.

Keywords: Textile design, architecture, acoustics, facade modules, urban landscape.

F1 Collaborating and Cross-disciplinary Working

Collaborating and Cross-disciplinary Working - Imaginative empathy and use of Somatic perception in the design of a therapeutic mask for Diabetic Retinopathy

SARAH MOREHEAD, *Northumbria University*

This research is from a collaboration with Noctura over a two year period. It explored the design, development and making of a Sleep Mask to house a non-invasive light-based therapy for the treatment of patients with diabetic retinopathy. The two-part therapy consists of a Pod that contains organic light-emitting diodes (OLEDs) and a soft cushioned fabric mask to house the hard structured Pod. The relationships, discussions and problem solving surrounding the felt experiences of the stakeholders were important in trying to redesign the mask to elicit greater compliance in wearing the mask whilst asleep. The design of existing mask had interfered with patients' rest and inhibited the duration of wear and thus the efficacy of the treatment. My experience as a Contour Designer using stretch technical fabrications was instrumental in the development process where my collaboration flipped from expert to empathic participant.

Alfred Margulies, in his publication *The Empathic Imagination*, talks of Keats' "negative capability". He explores Keats' interest in empathy and his pursuit in the 'goal of feeling himself into the reality of the other, as if to illuminate the object contemplated from within.'

Connecting with this pursuit, I aimed to elicit clear felt experiences about each person's somatic understanding in using the mask. It was also important that I became part of the Noctura team. I volunteered my own personal felt experiences, where valuable, in medical and interpersonal engagements to allow for meaningful open dialogue that was not restricted to the normal formalities of a business meeting. The relationship-building and congruence in this collaboration aided my understanding of the different sensibilities to illness, to the body as subject and the body as object. The design processes and understanding was inclusive leading to the use of empathic imagination.

The resulting mask prototype received 85% positive feedback in user trials. The individuals felt more comfortable in their sleep and wore the mask regularly, in a medical lexicon, compliance. The mask is awaiting a specialised production to manufacture bulk trials for an NHS Trust.

F1 Collaborating and Cross-disciplinary Working

The Wallpaper Wall: Inside|Outside

JO PIERCE, *Central Saint Martins, University of the Arts London*

PHILIPPA BROCK, *Central Saint Martins, University of the Arts London*

Studio Houndstooth

The Wallpaper Wall: Inside|Outside project takes archeological, material culture and community engaged research approaches within the discovery, recording, archive development of domestic wallpapers from two social housing tower blocks in London prior to their regeneration, and the resultant local community engagement and visibility initiatives using these wallpapers.

In both 2012 and 2015/16-17 the opportunity arose for Studio Houndstooth to document wallpapers in decanted flats in East London, to record a 'moment in time' contemporary historical archive of everyday, social housing home wall decoration. This archive has huge significance - there are good historical archives of wallpapers & wall coverings from palaces and stately homes but there has never been such a large record of in situ domestic wallpapers from within two neighboring blocks.

This research also explores how these wallpaper images have been returned back and used with the original community through an engagement initiative with previous residents of the blocks and the local Estate Board. The paper will also discuss how textile design workshop methods, such as The Studio Houndstooth's ludic textile and pattern making approach can foster dialogue around community identity, connectedness and transitioning change in the built environment during a large scale regeneration project.

The resultant outcomes of this community engagement activity and liaison with the regeneration developers have led to the creation of hoardings and wayfinding to the local Community Cabin whilst the regeneration continues, and a public, community led gallery exhibition at Canary Wharf, London.

Keywords: Community engagement and visibility; Domestic wallpapers; Ludic workshop methodology; Archeological techniques; Archive development; Societal

F1 Collaborating and Cross-disciplinary Working

Nonahedra' Virtual Fashion Film

RACHEL HOMEWOOD, *University of Portsmouth*

ALEX COUNSELL, *University of Portsmouth*

Virtual and mixed reality is a fruitful environment for the development of fashion and textile designs, as well as an approach in showcasing innovative two and three-dimensional work. The market sector in virtual reality is growing exponentially, the technology will become more accessible to the consumer, through the continued advancement of technology and greater interaction between applications such as wearable and mobile technologies. The potential in developing new approaches for design, fashion production, and retail is limitless.

The University of Portsmouth has significant capabilities in motion capture technology, real time graphics, visual effects and virtual reality.

This project is a cross-disciplinary collaboration between academic staff across faculties, one with a background in industrial and studio practice in fashion and textile design, working in partnership with a principal technician whose expertise includes motion capture, real time graphics, visual effects and virtual reality. Through a mutual interest in the exploration of how fashion, textiles, intersects with digital technology the immersive virtual fashion film '*Nonahedra*' has been created. This unique interactive fashion film encompasses two and three-dimensional imagery. Our aim for this film was to showcase the BA (Hons) Fashion and Textile Design students' major collections in a virtual environment presented at Graduate Fashion Week. The film was generated using Unreal Engine, utilising visual components which included digital projection, 3D animation, motion capture, film and photography of the nine students work selected. The virtual environment created includes nine stages, each stage was designed purposefully in order to showcase each student's work in a unique way, in connection with their design themes. The environment is playful and surreal, the audience is able to interact with the environment itself using virtual hands in order to view the work in greater detail.

G1 Integrating and Connecting Digital Technologies

Valuing material engagement and process-led enquiries: performative approaches through multi media textile exploration within textile design pedagogy

FIONA HAMBLIN, *Nottingham Trent University*

This paper focuses on a 3 week multi media textile 'rotation', which takes place in the first year of the Textile Design degree at Nottingham Trent University. During workshops, students explore a range of hard and soft materials including recycled or scrap store materials; silicone; as well as photography and digital projection. The focus is on material engagement and process-led enquiries, where the tactile is central and a key question is 'what does it do?' posited through the lens of performative materiality.

"materiality can be viewed as a design context, and design can be treated as a form of vibration (in the sense of Jane Bennett's idea of "vibrant matter") that disturbs and creatively animates the material world and adds new forms of movement to already moving and dynamic materials" (Yelavich, S.; Adams, B.(Eds.), 2014: 9–10)

Many Textile Design students tend towards a tactile engagement with materials, although this sometimes gets lost when focussing on the visual, since we have been trained to perceive vision as our primary sense. Aesthetic value does, and should, consider how things look, but if we dissect sensory experience in this way and reinforce the hierarchy of the senses, we miss something important. Tactile, bodily, multi-sensory, multi-modal engagement with 'stuff' has an important role to play in re-imagining our relationship with the material world.

The focus on materiality is becoming more prevalent within textile design higher education. This paper will explore the impact of such an approach, not only in terms of perceptible outcomes in final degree collections and graduate destinations, but in terms of design practice. This paper exposes the value of integrated, rhizomatic approaches to material-digital-physical engagements exploring performative possibilities such as movement, light, and transformation.

A focus on materiality has the potential to encourage students towards sensorial, emotional and well being agendas considering drivers for a better future, whilst improvisation and material play provokes the unexpected.

Yelavich, S. & Adams, B. (Eds.), 2014. Design as Future-Making. Bloomsbury Academic: London, UK.

G1 Integrating and Connecting Digital Technologies**Digitally Supporting Embodied Touch Knowledge During the Development of Garment Designs**

DOUGLAS ATKINSON, *UCL Knowledge Lab, University College London*

Traditionally, garment design and making skills are developed through hands-on interaction with materials, guided by skilled makers in an 'education of attention' (as proposed by Ingold after Gibson). This process directs learners' attention to tactile and embodied cues influencing design development outcomes and successful making. Current digital tools for garment design development (e.g. CLO 3D, Lectra Modaris, OptiTex) only utilise visual feedback and mouse or touch screen input, neither supporting or utilising fashion designers' embodied knowledge. Human Computer Interaction research has created experimental tools for garment design development and to capture touch practices so that physical making skills can be preserved. However, practitioners have rarely informed these solutions and little attention has been paid to tactile sensation, as opposed to gesture and movement. This study addresses the research gap, facilitating twelve MA Fashion Design students to explore how they used touch when developing garment designs through physical making. Further they considered how this might be digitally supported. Participants engaged in autoethnographic reflection, sensitising them to their tacit use of touch and facilitating discussions around its perceived purpose, or the understandings gained from it. This was followed by an introduction to digital technologies which sense touch and gesture, or provide tactile feedback. Combining an understanding of these technologies with their autoethnographic reflections, participants proposed design concepts for digital tools to support their use of touch during physical garment design development. Qualitative data was gathered during the workshop in the form of personal reflections, interviews and group discussion, along with documentation of the design concepts. This was supplemented with first person 'lifelogging' camera images of participants' touch activities. The data was thematically analysed to derive a set of design considerations for touch based digital tools to support garment design development. Issues around conceptual engagement with touch sensation and the individuality of garment making practice are highlighted as fruitful sites for further study.

G1 Integrating and Connecting Digital Technologies

How changes in technology stimulate the creative process

CLAIRE EVANS, *The University of Huddersfield*

The role of the designer is not simply to translate patterns but to creatively interpret them. The pattern designer's creative choice of tools, whether pencil and paper or CAD/CAM, is central to the realisation of two dimensional pattern pieces into three dimensional garments. There is a need for research investigating the impact of integrating developments in technology on the creative processes and output of designers.

As pattern cutting technology has advanced perceptions have changed. With CAD/CAM the creative aspect of pattern cutting is often ignored; the pattern designer is now sometimes viewed as a mere technologist. Consequently, there is a need for the fashion industry to be reminded of the creative output and skills provided by pattern designers. Furthermore there is a lacuna in knowledge surrounding how technical tools impact on the design processes. The hypothesis behind this research is that CAD/CAM can foster and galvanise creativity in the designer and enhance their outputs rather than merely speeding up processes.

This study investigates the interplay between changing tool technology and creativity and how tools are utilised by designers to realise their own creative potential. As technology becomes more sophisticated and designers become fluent in its use it is now being used to interpret pattern designs before they are even cut out. This interplay invites consideration of whether or not a pattern designer's creativity is affected by the tools selected. This is explored through reflective and critical examination of designers' tool use and consideration of how appropriate tool choices best support and enhance the process of creating garments.

G1 Integrating and Connecting Digital Technologies

How does health feel? Exploring sensory and affective dimensions of wearable technology*

MARION LEAN, *Royal College of Art*

Textiles' input in multidisciplinary projects is often shrouded by the other disciplines; seen as mere decoration, or addition instead of textiles' 'designerly' contribution as a whole. By examining the role of the textile designer and associated methodologies in collaborative environments we might formally identify approaches for tackling established disciplinary barriers.

In response to the World Health Organisation's 'call to action' to tackle the global obesity crisis, this paper presents part of a practice based PhD study which explores a role for textile thinking to reveal hidden intimate conversation and visceral transactions with our bodies' unseen processes translated by technology. There has been a recent trend for employers providing staff with health incentives and rewards relative to wearable technology use; for example logging steps using fitness trackers. This means as increasing number of people have access to these technologies, but what is the experience of relationships with health data, beyond the corporate rewards? Towards development of the idea of 'meaningful design' using technology to understand our own bodies, the research presented is a collaboration between textile design researcher, industry (technology) partner, and a ladies community exercise group.

A co-design methodology is employed where participants in a workshop setting inform research questions through discussion, while engaging in movement sessions using body sensors. The concept of affect is explored to identify its role to influence human experience of their relationships with health. The workshops considered alternate sensory experiences to interpret personal health, made possible through objects intended to support health including smart materials, wearable technology devices and their data. Moving away from the typical screen/numbers based interface of digital technologies the aim is to consider alternative, qualitative feedback systems and their application potential.

Following opportunity to explore affective and sensory dimension of digital health during closed feedback sessions with a community group, results of the study are presented as an interactive public exhibition. This enables the public and wider community group to consider the ways that risks of sedentary lifestyle is being tackled from perspective of materials and design; challenging assumptions of the role and impact of textile design and thinking.

C4 Valuing Artisan Skills, Drawing and Making

Material Culture Studies at the Royal School of Needlework

DR. CLARE ROSE, *The Royal School of Needlework*

The Royal School of Needlework BA(Hons) in Hand Embroidery for Fashion, Interiors, Textile Art is designed to integrate Studio and Theory teaching so as to develop student skills holistically. Students are encouraged to work with the RSN Handling Collection, which contains several hundred pieces ranging from stitched fragments to whole garments. These pieces are used to support the teaching of traditional stitch techniques across all three years, and as the starting point for an Object Analysis essay for BA1 students. This is based on the Material Culture methodology of Jules Prown (1993), refined for textiles by Valerie Steele (1998) and Ingrid Mida and Alexandra Kim (2015).

This research task requires students to investigate and analyse the look, feel and construction of a chosen piece, and determining how its effects have been achieved. Is the surface decoration woven in or stitched on? Was it part of the original design, or added later? Have there been any alterations or repairs to the object? They are then asked to identify similar pieces in museum collections and publications in order to compare and evaluate their piece. This investigation is open-ended, allowing students to reach their own conclusions supported by the evidence they have found. As most students choose different pieces, the project acts as an introduction to independent research. The scheduling of this project in the first year of study embeds critical and analytical approaches to visual and textile sources in students' experiences. Investigating the design and making practices involved in a historic textile provides a perspective on their own emerging practice. Moving from tactile analysis of a textile, through visual analysis of comparisons, to a written presentation of their findings, builds student confidence in verbal reasoning and expression of ideas.

C4 Valuing Artisan Skills, Drawing and Making

Stitching the Future: Embroidery, Education and the Beryl Dean Teaching Award

HANNAH MAUGHAN, *Falmouth University*

In 2011 the Beryl Dean Educational Trust in partnership with the Embroiderers' Guild, announced a new award for the teaching of embroidery. The award was established in honour of the late Beryl Dean, one of the UK's leading embroiderers and educationalist, to recognise and reward teaching excellence within the current adult education sector.

The award was also conceived in response to recognised growing concerns that for many reasons due the context of the times, the relevancy of and engagement with embroidery, and the rich education provisions in the UK were being undermined, with a potential demise of high-level skill, knowledge and interest.

The inaugural award was launched in 2013, and runs for a 10 year period. The award has attracted a great deal of interest, and whilst it is currently half way through the cycle, the detailed application criteria and rigorous interview process has already generated in depth data and research, capturing valuable and insightful evidence of the current landscape of embroidery education within in the UK.

This paper disseminates and reflects on the research drawn from the award to date, through its documentation and in conversation with participants, illustrating the breadth of education on offer and its outreach and impact, evidencing a broad range of pedagogical styles and approaches, including commonalities and innovations, showcasing good practise, whilst highlighting challenges and potential areas of concern.

Responding to the research, the paper explores and considers new and potential opportunities for the award to take forward, evolve and action, in order to sustain and develop the future of embroidery and its education, one that wholly embraces the integration of cutting edge of digital technologies yet rightly continues to be underpinned by heritage skills and the traditions of hand making.

Keywords: Embroidery, Education, Hand, Digital, Future

C4 Valuing Artisan Skills, Drawing and Making

Enhancing the learner experience in textile design HE through drawing and making, collaboration and socially engaged practice

DR. KERRI AKIWOWO, *Loughborough University*

JEMMA BAGLEY, *Charnwood Arts*

SARAH GREEN, *Charnwood Arts*

KERRY WALTON, *Loughborough University*

This paper builds on existing theoretical perspectives regarding enhanced academic practice within Higher Education, particularly undergraduate textile design education at level 4/first year. From a student-centred standpoint involving individuals and groups of learners, *collaboration* and *socially engaged practice* were employed as alternative practical methods for teaching and learning in addition to drawing and making, within a pedagogical framework. This methodological approach focused on student engagement inside and outside the 'classroom' in order to foster new insights about the anticipated benefits to a students' holistic educational experience in relation applied design practice, curriculum, personal and professional development. This was achieved by engaging externally within local geographical, historical and societal parameters throughout Leicestershire, United Kingdom. Human-centred and programme aspects of scholarship were considered from a textile design perspective.

A collaborative partnership between first year BA (Hons) 'Textiles: Innovation and Design' students at Loughborough University, School of the Arts, English and Drama and local community arts and media organisation, Charnwood Arts was established in 2014. Spanning four years (2014–2018), this annual collaboration involved four different cohorts, approximately 340 students in total, who each undertook a live project brief which focused on drawing and design through hands on making and textile/materials exploration. The projects were underpinned by an historical element or combination of histories relating to the individual student and in response to aspects of Leicestershire's past and social history including: the Industrial Revolution and migration in the mid-twentieth century; a rich heritage in UK textile production, along with other industries such as bell founding and transport. Selected drawings and design samples were publicly exhibited in Leicester and Loughborough.

By focusing on enhanced academic practice in this manner, applied practice in a textile design education context was elevated through collaboration and social engagement. An emphasis on drawing and making steered the process of teaching, learning and student development whilst stimulating the interests and motivations of project partner, Charnwood Arts. Outcomes of this work suggest new approaches to HE level 4 scholarship relevant to educators, learners and curricula in creative disciplines. The study also recognised benefits to external project partners and local communities.

C4 Valuing Artisan Skills, Drawing and Making

‘Some things you mite like to know...’ Textiles as a medium for raising awareness about scabies; an interdisciplinary approach

DR. VIKKI HAFFENDEN, *University of Brighton*

STEFANIA LANZA, *Brighton and Sussex Medical School*

DR. NATALIE RAMJEEAWON, *Brighton and Sussex Medical School*

Textiles are tactile and have an enduring interest to the public. They sit next to the skin, making them a perfect medium with which to explore skin conditions. Scabies is a stigmatising skin infestation caused by a mite and often wrongly associated with poor hygiene. It affects the young and the old. Presentation of signs and symptoms differ in the elderly, which often leads to delayed diagnosis and outbreaks in residential care homes.

Aims: To use creative, textile-based methods to raise awareness of scabies to primary school children. To help reduce the stigma of this common condition by educating children to challenge incorrect beliefs held by their families.

Objectives: To deliver information in an accessible manner and integrated into creative workshops in local schools. To produce textile artefacts and develop stories and key messages to feature in textile-based games and educational animations.

Methods: We organised primary level workshops where children created textile artefacts (3D scabies mites, beanbags and scabies games). These were used to inspire story-telling workshops. Secondary age students working with a professional scriptwriter and animator developed ideas into educational animations featuring the textile artefacts.

Results Prior to the workshops 77% of children had not heard of scabies and reported being surprised by the biology of the mite; ‘they put eggs in the skin’, and signs of scabies; ‘they are hard to see on elders’. 87% reported that they enjoyed learning about scabies; ‘you don’t have to be dirty to get them’ and 77% told family members about scabies. 84% enjoyed making the textile mites and 74% enjoyed making other textile artefacts.

Findings: Schools were keen to participate, children engaged with the creative textile opportunities and learnt key messages about scabies. Most children passed their knowledge about scabies onto other family members.

E1 Promoting Diversity, Employability and Community

Textile Trajectories

ANNE MARR, *Central Saint Martins, University of the Arts London*

How can textile making enhance the employability of homeless and vulnerably housed residents?

This article discusses how textile community activities can enhance the employability of homeless and vulnerably housed residents as well as their mental health and wellbeing. The author uses the London-based 'Home and Belonging' textile programme as an action research case study to explore new methods for design engagement activities. As part of the two-year project a group of homeless and vulnerably housed residents took part in a number of bespoke textile and art workshops to support their personal development.

The author initiated a new arts programme with the Crisis Skylight Centre in Brent, based in Harlesden, one of the UK's most economically deprived areas. The project included 35 Crisis members, who have been affected by homelessness over the past two years. Participants reflected on their personal journeys of belonging and responded to the diverse findings through textile making. All participants are local residents who took part in a series of textile workshops between Spring 2016 – Summer 2018 developing a collection of T-Shirts and bags, up-cycled tapestry designs, embroidery badges as well as textile animations. The communal making activities were mapped through data collection which demonstrates the increased self-esteem of the participants leading to enhanced team working skills, communication skills as well as creative and business skills.

The paper analyses the specific benefits of communal making and reviews existing methods. The author concludes to recommend the value of creative making activities and life-long adult learning in order to develop transferrable professional and specific textile skills as well as increasing the well-being of inner city communities.

E1 Promoting Diversity, Employability and Community

Envisioning The Invisible Muse: a personal, practice-based response to the changing role of the older fashion muse through the medium of fashion illustration

ANN MARIE KIRKBRIDE OLD, *Northumbria University*

This paper describes a creative research engagement between a fashion illustrator and her septuagenarian muse. It details a series of short projects designed to consider how older women are represented in fashion, and the muse's relationship with her clothes and her own body. The research is set in the broader context of seeking to better understand the role of the older muse in fashion, with the long-term aim of helping to create a more inclusive fashion community.

The practice-based research began as an exercise in exploring diversity through the medium of fashion illustration to foster understanding of the barriers to the older woman's engagement with fashion, and to enter the debate on older women's 'invisibility' in fashion. Through a combination of drawing and conversations with a septuagenarian muse, the issue of her visibility to the industry and, most importantly, to herself, was investigated.

As a creative practitioner, the researcher/artist's understanding of a problem space always begins with drawing (from life) and conversation. Drawing, as a way of knowing, informed personal understanding of the older muse's physical and emotional relationship with her clothes. In conversation the barriers and incentives to her engagement with fashion were also revealed, and potential creative solutions emerged for further consideration.

The research presentation will discuss the challenges and opportunities afforded to the researcher/artist in working with an older muse as expert representative of her generational cohort. It will reflect on how their relationship evolved during the creative process, as a result of the muse's expert contributions to the framing of the problem and solution spaces. It will also discuss how the muse's role shifted in response to a jointly designed 'Selfie' project, which enabled her to view herself through a fashion lens. It will also reflect on how, when visually navigating the tension between fashion and age, cross-generational feedback impacted on the researcher/artist's personal creative practice.

E1 Promoting Diversity, Employability and Community

Hidden Gems

BEV LAMEY, *University of Central Lancashire*

AMANDA ODLIN-BATES, *University of Central Lancashire*

ALEX HURST, *University of Central Lancashire*

In this Arts Council funded collaborative project, university academics worked with fashion designers, textile artists, a scarf stylist, makeup artist and photographer, to inspire mothers and daughters from the local Asian community to create original designs, interpreting a small selection of the Asian textiles from the Gawthorpe Textile collection. The collection is an important repository of textile artefacts that symbolises the significance of the Textile heritage of Lancashire. Our main aim was to uncover hidden gems from the textile collection and from the local community.

The process of drawing, colouration and CAD design culminated in contemporary digital scarf designs. Scarves are something this group of women wear every day, so the choice of the hijab or headscarf as a vehicle for the creative expression of our project was always very important to us because of its cultural significance and therefore bore greater personal relevance to the participants. The way you wear your hijab says as much about a Muslim woman as the way you style your hair says about a westernised woman. The title Hidden Gems also makes an oblique reference to the ongoing debate about modesty within fashion, which has evolved to become an important cultural and economic force over recent decades. Modest clothing is now an international symbol for inclusion and empowerment for women across cultural, ethnic and religious boundaries with the hijab being the most recognisable symbol of modesty.

Our project culminates in photographic portraits showing each participant wearing their own scarf design in the library at Gawthorpe Hall. The portraits speak of layers of meaning, emotions, identity and image. These images transcend time and culture, powerfully creating a bridge between tradition and modernity. The project has been a catalyst for cultural engagement reaching out to new audiences engaging with the collection.

E1 Promoting Diversity, Employability and Community

Textiles behind bars, a medium for political voice?

LINDY RICHARDSON, *University of Edinburgh*

Textiles is the perfect medium for contemplative thought, for consideration, for time. Having worked on outreach projects in Scottish prisons for the past 2 years, I have witnessed the impact of slow stitching on the prison population grow from strength to strength. Embroidery is slow, embroidery takes time, embroidery passes the time, embroidery eats up time, embroidery is perfect to while away the hours locked up in a cell.

Telling this story is not the easiest either practically or politically. Many believe prisoners are locked up to be punished and do not deserve the privilege of art classes, of art materials, or indeed of an opinion.

We live in a world where our activities are constantly recorded and verified by the images we take on our phones, posted on social media and then approved by 'likes', which in turn justify our activities and achievements. Phones are banned in prisons. Activities go unrecorded. Time moves on and, in the tedium, days repeat themselves...again and again.

This paper does not benefit from the usual endlessly rich photos recording every workshop, put together in a visual feast of a PowerPoint to illustrate the story. In prisons no-one is allowed phones or laptop. Not teachers, volunteers nor prison staff. The paper/presentation is enriched by a handful of prisoner's drawings, by the comments recorded in my notebook e.g. one woman thrilled to be allowed to take her pack back to her cell of one needle, 2 pins and a handful of threads. "I can't wait for tonight. I will be stitching my wee heart out in my cell". The paper will also present the wonderful legacy of these prisoners' voices in stitch, as part of the large banner made by a community of individuals who were not actually able to meet nor participate in the event the project was designed for, paraded through our Capital city at the front of a march of 10,000 women and emblazoned on social media across the world for all to see in statements such as 'Prisoners are powerless, Barred from voting and My voice should count wherever I am.'

E1 Promoting Diversity, Employability and Community

Creating a skills based curriculum culturally relevant to a diverse student cohort

BUDDY PENFOLD, *De Montfort University*

NICOLA TAYLOR, *De Montfort University*

DR. PINKY BAZAZ, *De Montfort University*

Prompted by The Freedom to Achieve project, the BA Textile Design team at De Montfort University sought to create a curriculum culturally relevant to their the diverse cohort, particularly BAME students. Through a series of student led co-creation events, the feedback was a desire to be aware of Textile practices beyond Europe, and acknowledge the heritage links that Leicester has with India.

The Textiles Design BA students were from mixed media, constructed textiles and print pathways. Discussions centred on two main areas:

- Wanting to learn traditional Indian craft hand techniques not taught on the DMU textiles course.
- An understanding of how hand crafted designs would translate into mass manufactured fabrics by visiting textile manufacturing industry

A #DMU Global trip to India was created for September 2018 with partnership institute NIFT (National Institute of Fashion Technology). NIFT was chosen as 'Students are also encouraged to respect and derive the best from our own (Indian) traditional arts and handicrafts'. The DMU students voted on which hand craft skills they wanted to learn and a week long programme was designed to include traditional hand embroidery and woodblock print techniques.

It is hoped that the outcomes will include a sense of community and acknowledgement of the joint heritage between DMU and NIFT students by sharing hand skills. Visits to traditional and industrial manufacturing factories will give an insight into global sourcing and subsequently enhance employment skills and build confidence through international experience.

The inclusion of Industry visits would give world working environment with professional role models.

The trip is providing an opportunity for a more inclusive learning environment with active learning of India's inspirational design heritage and hand crafts. By encouraging the students to be involved in designing the programme, they have taken ownership and engaged at a high level.

The students on the trip have compiled a presentation for the next year group, closing the loop and ensuring the learning experience is sustained in future years.

B2 Investigating and Explicating Creative Processes

TAKING NOTE: Annotated portfolios as a method to analyse experience within process and practice

CATHRYN HALL, *Centre for Circular Design, University of the Arts London*

This paper explores the method of portfolio annotation to aid designer analysis of their practice based research within industry processes and collaborative practice. Historically, this approach has been used to support the analysis of objects with text. Yet more recently it has been brought to the field of 'research through design' with examples such as supporting analysis of designer interviews. This paper presents the author's use of portfolio annotation to interpret the experience of the designer beyond the object to involve experience of industry processes within their practice. The annotations capture the author's understanding of industrial systems and together with practical experiments to produce materials samples.

The method is demonstrated through a field visit following the author's collaboration with an industry partner to understand and test textile recycling processes. It was conducted using a field research methodology combining conversation, documentation with physical experiments. The memories from the field were engendered by using a zoomed in photographic technique, resulting in a 'portfolio' of key images of the experience around which annotations were added. These annotations were used to draw out designerly and emotional insights for analysis in the form of a table. The images in this case acted like an object, as in the original method, by becoming an abundant source of information from the processes and memories/emotions embedded. The findings aim to support similar research in the field of annotated portfolio and it is hoped that by providing an approach to produce a distinct data set for the abstraction of insights this method could assist designers' understanding of practice-based research through design. More specifically, provide a method for designer researchers to extract insights on many levels when experiencing industry processes and material sampling.

B2 Investigating and Explicating Creative Processes

The Envelope Project

HAZEL BRUCE, *Ulster University*

The **Envelope Project** emerged from Cloth, Colour and Communities of Practice, a programme developed for the Higher Education Academy What Works? Student retention and success change programme. The original project was designed to embed co-curricular learning and new community of practice in students on BA Hons Textile Art, Design and Fashion at Ulster University.

The **Envelope project** continues those themes but focuses on the pedagogy of art and design, specifically how to foster confident, diverse and experimental approaches to practice.

As 'expert' tutors we ask students to embrace a culture of ambiguity, change, risk and experimentation. We wondered if we were asking students to work in a way we were reluctant to, so began to develop an approach to teaching that tested that suggestion and reinforced our community of practice.

The first test gave the project its name. Sixteen colleagues were given an envelope containing a deliberately mundane selection of dyed paper left over from a colour theory workshop. There was no brief, just a week to make something with the contents of the envelope.

To date, 4 colleagues have set their own "Envelope Project". Each is very different, the only rule is to engage and participate. The work created is presented and discussed with groups of students. Technicians, artists in residence, academic staff and PHD students take part and these large group events have become an really meaningful part of the programme. This paper will examine a range of staff and student responses to the project, how the project has changed our approach to teaching, and the impact it has had on our students confidence in their own work. It will examine emerging themes and illustrate rewards, the potential pitfalls and our plans for the next phase.

B2 Investigating and Explicating Creative Processes

Fashion Thinking

SUSAN POSTLETHWAITE, *Royal College of Art*

Investigating Creative Processes and Pedagogy. Fashion Thinking.

A new generation of leaders is needed within the fashion industry with a combined skill-set of designer-led innovation underpinned with technology and engineering excellence. I will outline the possibilities for producing a new type of multidisciplinary fashion student/ researcher/ designer who can rise above existing “siloed” training structures and paradigms. The machinery and techniques commonly taught and practiced within the fashion industry have not significantly changed in the past 100 years. However, the recent coming of age of ad-hoc manufacturing technologies (including Additive Manufacturing - AM), nanotechnology, biotechnology, electronics enhanced fabrics (commonly referred to as “smart fabrics”) and digital design processes now enable the fashion industry to take a giant leap forward. When combined with newly developing practice based and practice led research methods this collection of technologies and abilities - “transformative technologies”- will fundamentally change the future of the Fashion Design Industry.

Using the UK Fashion Industry as a case study, my research aims to fuse traditionally isolated knowledge bases through an industry- academic framework to enable the development of agile manufacturing systems, smart materials and fashion design innovations. The proposed impact of this work will be to equip future thought leaders in fashion design with a new understanding of how advanced technologies can interface with the fashion industry and innovative tools/ knowledge that will diffuse into the wider fashion/ design community. Leveraging these technologies and understanding the scope of their impact, a new generation of cross-disciplinary researchers and practitioners will serve as the avant-garde of the UK Fashion Industry, guiding the development of these paradigm changing technologies through applied innovations within industry - its functions, siting, transportability and social impacts. Pioneering and propelling the UK Fashion Industry forward, there is a need for individuals capable of developing a new methodological approach that I propose as Fashion Thinking.

B2 Investigating and Explicating Creative Processes

TRUSTING TECHNE: An exploration into the creative value of ‘learning by doing’

JANIE TWEDDLE, *Leeds Arts University*

NICOLA KNIGHT, *Leeds Arts University*

This paper/presentation will take the form of a testimonial experience when piloting two projects; one with level 4, and the other with level 5. Students were required to start the design process by participating in a series of kinaesthetic workshops solely based on exploratory pattern cutting principles. Thinking of a concept and sourcing any visual inspiration/references as a methodology was prohibited, thus interfering with students’ preconceived notions of what constitutes a linear design system.

The research problem relates to the concern that students are becoming increasingly preoccupied with creating a ‘strong concept’ to inform the design process. This can result in students gathering futile research predominantly existing of secondary online references, and takes the emphasis away from the craft and physicality of fashion design. Important factors such as fabric properties and cut become overshadowed by the concept, or selected in order to suit, often resulting in a contrived final outcome. Students can feel frustrated because they can’t think of a concept, or lack the technical skills to translate themes into viable garment designs.

Encouraging design ideas to emerge from creative cutting principles rather than from a concept/theme aims to embed ‘Techne’ (practically applied knowledge), and emphasise the importance of tacit epistemologies in a pedagogical context, to enhance creative impact and instigate autonomous learning. The paper/presentation will be supported with images of the working process, toiles, patterns, and final garments, and will serve to illustrate the creative potential of eliminating the concept from the design process from the onset of fashion design study.

B2 Investigating and Explicating Creative Processes

Productive Projects – Examining Design Process Journals for Postgraduate Student Learning

JULIA MACLEAN, The Glasgow School of Art

Most creative practitioners keep records of their process, usually in the form of sketchbooks, drawings, notebooks, prototypes and suchlike. This tends to be unsystematic, with most of the formative work and thinking often discarded. The recording and communication of design process tends to focus on significant developments, leaving ephemeral elements, and those regarded as obvious or mundane largely undocumented (Cross 2011). In terms of understanding and articulating creative practice, this approach is problematic (Agnew 1993). Incomplete and selective documentation can lead to superficial understanding, and when recalling early stages from memory, practitioners are more likely to rationalise and formalise their process, tidying-up aspects deemed messy or irrelevant.

The Design Process course at the Glasgow School of Art (GSA) seeks to enable postgraduate School of Design students to develop methods to systematically capture and articulate their individual design process as it evolves through a research log; effectively composing a case study of their own design practice (Gillham 2000). Drawing upon a range of visualisation and reflection methods, as well as tools for recording and analysing the individual design process, students develop greater insight into their design practice and its potential (Gillham & McGilp, 2007). This paper explores the effect that the Design Process course has on students learning focusing on knowledge and skills, and transference to current and ongoing design practice. Utilising a multimethod approach comprising questionnaires, interviews and design process examples, the study comprised fourteen students from the School of Design, including three Fashion and Textile Design students. The key findings from the study will be presented and areas for future investigation described.

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D2 Designing Responsibly and Working Sustainably

Colour Trans:form:ation

DR. ELIZABETH GASTON, *University of Leeds*

It is widely acknowledged that textile processing is increasingly unsustainable, for example textile dyeing is experiencing a rising use of water, leading to a scarcity of freshwater globally (Easton, 2009, p145). It is imperative to investigate alternative strategies to colouration and whilst there is no single resolution to the problem, using design intelligence from diverse design specialisms, in this instance knitted fabric design, can offer a realistic framework within which to develop solutions.

Following established design methodologies, successful knit design requires knowledge of materials, process, technology and aesthetics which is utilised in unique combinations to create a specified product. Disrupting this approach to design through the application of innovative technologies or removing the concept of designing for a specified product, this unique body of knowledge can question wider societal problems, including textile coloration, and determine a range of solutions through knitted fabric design practice.

The paper will report on the development of sustainable textile coloration through innovative lighting technologies. New research explores the breadth of colour gamut achievable with a limited palette of yarn (so minimising dyeing) when recognised optical effects, for example optical mixing, are observed in different lighting conditions. The iterative design/research methodology used exploits the materiality and structural knowledge inherent in knitted fabrics and allows the creation of unique fabrics, which would be unachievable in any other medium, to test ideas abductively. A feature of this methodology is an acceptance of unexpected outcomes that challenge the concept of designing for a specified product. The fabrics produced are not in themselves functional, except as a communication tool for the knowledge revealed through the design research.

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D2 Designing Responsibly and Working Sustainably

Making Matters: textile sampling as a driver for innovation in the circular economy

LAETITIA FORST, *Centre for Circular Design, University of the Arts London*

This paper argues that in order to face current and future sustainability challenges in the textile industry, the hands-on approach of creative textile designers can be harnessed not only to develop new solutions to material recyclability issues, but also to help in developing new design mind-sets in the circular economy.

The paper will present insights from the ongoing practice-led PhD project 'Textiles for Disassembly' and focus on the importance of making in the textile design process. This research addresses the challenges posed by blended materials to efficient recycling. While technological progress is allowing to recycle more types of materials, to achieve fibre to fibre regeneration, simple and mono-material textiles are still more economically and environmentally sustainable (Ostlund, 2015). Creative textile design is however intrinsically linked to the juxtaposition and combination of different materials and techniques (Dormer, 1987). Moving away from a mono-material approach to recyclability, the project explores design for disassembly as a solution to maintain the potential of blends while allowing for individual components to be recovered for recycling. Thus, the constraints laid down by recyclability criteria can be creative impulses rather than limitations (Brown, 2009).

Current approaches to sustainable innovation mainly come from a problem-solving perspective which is removed from the textile designer's experience (Igoe, 2013). Through playful experimentation in sampling textiles for disassembly, this research aims to explore solutions from a design and making-led perspective. Textile design practice and material experimentation in the studio have been used as drivers for material innovation. These not only lead to original recyclable materials which combine resources for optimal performance and aesthetics, but also elicit guidelines for the creation of textiles in the circular economy.

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D2 Designing Responsibly and Working Sustainably

How can delivering Saturday Clubs to 13-16 year olds affect their longer term educational choices within the area of Fashion?

KELLY JOSEPH, *Manchester Metropolitan University*

The Joint Council of Qualifications (JCQ) found that 26,800 fewer students took art, design and tech GCSEs in 2017 compared to 2016, while figures from UCAS found that 14,000 fewer students took creative subjects at university level (Jones, 2014). The fashion industry contributes £28.1 billion to the GDP, and in 2015 employed 880,000 people in the fashion sector and continues to grow, however students are continually not engaging with creative subjects. The focus of this research is the analysis of the Fashion and Business Saturday club that has run for three consecutive years at Manchester Fashion Institute, and its impact on the students, aged 13-16 years old, who participate. This paper evaluates the engagement of the club members and, their developing understanding of many aspects of the fashion industry, and the access to creative and educational opportunities they are unable to access within their schools.

The research approach adopted utilises weekly feedback from the students, feedback from parents and guardians and the impact the club has had on the students at the end of the twenty-week programme in regards to confidence and educational choices.

Data has been captured from the first series of Saturday Club sessions in 2016 providing three cohorts, of over 60 students from 20 schools. Data collection will continue and as the project grows year on year, the wider the reach the greater potential for impact on fashion education and the industry.

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C5 Valuing Artisan Skills, Drawing and Making**The Living Arts: Valuing skills of Phulkari artisans of Punjab, India**

DR. ANU H GUPTA, *Panjab University/University Institute of Fashion Technology & Vocational Development, Panjab University, Chandigarh*

PROF. SHALINA MEHTA, *Panjab University, Department of Anthropology*

Craft has always been of immense value for women in the society of Punjab. They learnt the skill of embroidery and implemented the same in their surroundings by crafting articles not only of day to day use but also for ornamental items too. *Phulkari* is one such traditional embroidered craft practiced by women on their veils and ensembles. These were extraordinary bridal textiles mostly embroidered for trousseau. The intricacy of the work reflected the skill of the embroiderer- usually the bride herself (or her mother/grandmother/sisters). This craft diminished during the colonial and initial post-colonial period. The revival of this craft was undertaken in the post-colonial phase by various agencies at different levels: Government and non- government. One such effort to revive '*Phulkari*' was through empowering the women artisans. Numerous training programs are organized on embroidery and entrepreneurial skill development for women artisans so that they can learn, enhance and value their own skills. These women are given financial assistance and are linked to several marketing platforms like emporia, craft *bazaars*, crafts fairs where public in large can view and buy the hand-crafted items. Enabling them to sell their products has encouraged these women, who in the rural pockets practice and prepare articles of *Phulkari* for the market. This boost has also increased the number of artisans preparing *Phulkari* products. Many boutique owners, designers, vendors from the major markets of Punjab and surrounding areas are regularly approaching these artisans to prepare different *phulkari* products. Valuing the skills of these artisans has led to the design intervention of the products too and many artisans are selling their products through the online portal and other mediums. Several artisans were interviewed to understand their status before and after they have started embroidering for the market. Though the amount earned by them is not so pronounced but they voiced that this craft has helped them to learn the way to interact with the world outside the four walls of their homes and they are now confident of making many of their personal decisions at their own. The craft has given them respect and socio economic freedom.

C5 Valuing Artisan Skills, Drawing and Making

Making or not making in new disciplinary educations

LENA HÅKANSON, *Linnaeus University*

At the Department of design at Linnaeus University our educations are new discipline educations. The students get an orientation in many fields, focusing on sustainability. Metadesign and speculative design are example of design fields we teach and we work transdisciplinary. We teach very basic knowledge in different materials like textile, wood, plastic and clay, but the focus in our educations is working in projects with processes and developing concepts. We have developed our educations with Change as a key word, we want our students to make change in society by using design.

Do the students really need artisan skills in these new fields? They are not going to be craft persons and the time is always limited in an education. My answer is yes. I think it is important for students to get the opportunity to learn basic skills, for example to be able to make prototypes. It is also common for designers nowadays to run making workshops in different fields of society and to be able to do that in a professional way, you need to have good knowledge in making.

In my research I have worked with different workshops focused on making. The aim is to get students interested in the practical, material based field and give them tools to learn what they need based on their own interest. "One-a-day" is a project where students get the possibility to deepen their knowledge by doing the same activity or technique every day for a specific period. We meet once a week for group feedback and discussions about learning, artistic work and personal development. During the project the students make written reflection weekly, as well as summarize their experience afterwards. I take notes and photos to document all our meetings. Afterwards I analyze the material. In my paper I am going to discuss experiences from this project as well as other project with the aim to get students interested in working material based.

C5 Valuing Artisan Skills, Drawing and Making

Theory and Body Scanning: the lost dimension to pattern practice and why we need to find them again

MARYAM AHMED, *The University of Manchester*

YUTING WANG, *The University of Manchester*

DR. SIMEON GILL, *The University of Manchester*

DR. STEVEN HAYES, *The University of Manchester*

Pattern cutting has long been considered a craft, where a maker uses their skills to create a block which reflects the garment shape, usually modern cutters are guided by one approach which through use they modify to create patterns which suit their requirements. The cutting of patterns has not always been this way, tailors explored the discipline as an engineering science, with detailed knowledge of the body and its anatomy. One major change is tailors would cut a pattern for each client, now however we create standard blocks and modify them to the size, shape and proportion of the wearer. To really empower clothing production we need to bring back the engineering science, whilst leveraging the many benefits of modern approaches to pattern cutting. This research explores the evolution of pattern cutting as a discipline and then with reference to technology (body scanning) outlines where theory and practice needs to be developed to capitalise on technology; whilst remaining conscious of the individual and their unique size, shape and proportion and how this drives requirements of the pattern. Body scanning allows us to capture data of the body that has historically been difficult to capture, we can explore shape and also collect new measurements, as well as define dimensions, which were not possible previously. Using this data allows the challenging of existing techniques, as well as the proposal of new ways of creating patterns. This exploration further enables the identification of key themes in pattern theory, like subjective and objective elements in pattern drafting and provides a foundation for proposing the theories which are required to evolve pattern cutting practices.

C5 Valuing Artisan Skills, Drawing and Making

Make and Think

STEPHANIE WOOSTER, *University of the West of England, Bristol*

As makers we instinctively know what works and how we work.

As educators there is the need to evidence and articulate.

I will introduce the work of the make and think research group of the University of the West of England, Bristol's Art and Design department and one of the workshop created by them. The 8 members of the group come from textiles, interiors, design, art, print, curating, practice theory, fabrication, management, academic, research and technical.

'Interrogating the Unspoken' is one of the workshops developed where the group worked in pairs without speaking to create an object for the head. The aims of the workshop were; to question how we use communication within the act of making, to test whether communication within the creative process is verbal, visual, tactile or a mixture of all these, to consider the potential for communication through materials and process.

Reflective discussion, filming of the activity, filming of interviews, object and sketches have been collated to build a teaching resource that moves from a focus on the correct outcome (and grades) to methods of investigation for a range of subjects and the many forms of communicating's that maker use.

A3 Learning from History, Tradition and Industry

Collaborating with Industry: From Oil & Gas to the High-End Luxury Accessories Market through a Knowledge Exchange Partnership

JOSEPHINE STEED, *The Robert Gordon University*

KEITH GRAY, *The Robert Gordon University*

AMY GAIR, *The Robert Gordon University*

This paper discusses a Knowledge Exchange partnership with a heritage Scottish textile manufacturer and how collaboration can facilitate greater dialogue between academia and business. The paper examines the mutual benefits to the different stakeholders through supporting the company with open innovation and risk taking whilst advancing academic research, specialist expertise and knowledge towards commercial and real world application and solutions. The paper describes the early stages of a project formalised through a Knowledge Transfer Partnership (KTP) which focuses on new product diversification for the luxury market and the cultural change and challenges required for the company shifting from quantity, durability and function to cutting-edge design and quality manufacture.

Originally established in the late eighteenth century to make products for the fishing industry, the manufacturer involved has continued to produce handcrafted, bespoke and customised products within the global Oil & Gas sector. The project explores new opportunities within the high-end accessories market that builds on the company's 200-year heritage, expertise within manufacture and their unique industrial range of products. The paper describes how academic/business collaboration can positively encourage strategic innovation, and help reposition businesses within a changing economic landscape. The paper goes on to reflect on how Knowledge Exchange partnerships are a mechanism with mutual benefits, where pooling individual knowledge and resources can facilitate strong, sustainable and authentic relationships that can provide tangible impact of new knowledge generation and application within a scholarly and research context that can be clearly aligned to notions of bringing value to the sector, users and the curriculum.

A3 Learning from History, Tradition and Industry

The Traditional Textile Art of India: Preserving and Reviving the Glorious Heritage

DR. SIMRITA SINGH, *Northern India Institute of Fashion Technology, Mohali , Punjab*

The history of Indian Textile art unravels a breath taking variety that reflects the diverse and intense moods of the Indian culture and heritage. For centuries, these have been distinguished for their great aesthetic and functional value and can be said to be an amalgamation of a number of influences that have embedded their stamp historically and geographically. Beginning from the Indus Valley Civilization to the present times, the cultural scene has seen major and subtle incorporations, adaptations and adoptions. The Textile Handicraft of India is an important part of the culture connecting to the past and shaping the future. This is particularly true as skill is given a significant place especially in rural and tribal communities. Rajasthan is known for fabric colouration and embellishment in the form of *Lehariya* - tie and dye and block printing, Kashmir is recognized for its *Pashmina* shawls and *Kashida* embroidery; Punjab for *Phulkari* ; West Bengal for *Kantha*; Uttar Pradesh for *Chikankari* and the list is endless. Majority of the crafts are related to the geographical location reflecting the regional distinctiveness. In the present times the contemporary designers are constantly embedding traditional crafts into their designs. The diversity of India's textile art skills makes it a treasure of inspiration for designers. Manish Malhotra the most well known Fashion Designer presently reigning the Indian fashion market , spoke about the resurgence of the breathtaking handicraft of Punjab – the *Phulkari* , at the Philadelphia Museum of Art. He focused on how the graphic prints and patterns are used as accessories and traditional and indo western wear. Ace designers Abu Jani and Sandeep khosla have turned the traditional heritage handicraft of Uttar Pradesh –*Chikankari* into timeless art pieces adorned by the best around the globe. The duo have kept the tradition alive by keeping the motifs and the *kaarigiri* alive by keeping them intact but juxtaposing them on the best of fabric and textiles along with a lot of sophisticated value additions. The present paper discusses their role in preserving and promoting heritage and traditions through innovation, design interventions and solutions in detail.

A3 Learning from History, Tradition and Industry

Looking Back to Look Forward: Reanimating Textiles for Novel Design and Manufacturing

PROF. BROOKS HAGAN, *Rhode Island School of Design*

Industrially produced textile samples woven in France during the 19th and early 20th centuries were shipped all around the world and had a significant impact on the types of fabrics produced at US textile mills and elsewhere. These fabrics were capsules of fashion and timeliness, suggesting ideas about color, scale, graphics and surface to the broader industry, and providing new material for interior and apparel application.

The structural complexity of many of the samples implies an intimate connection to equipment and specialized techniques used in manufacturing. In the context of today's shrinking manufacturing base, we explore these fabrics as repositories of the industrial weaving process and as a roadmap to new textile samples that, in turn, inform future connections between equipment and production.

In this paper we examine woven textile samples from the RISD Museum Costume & Textile Collection with a focus upon Jacquard figured leno weaving and varied-height looped and cut pile techniques. The leno process relies upon an added harness element called a doup-heddle which functions as a parallel, programmable loom language in tandem with the Jacquard mechanism. The pile process calls for a unique set of hand tools and procedures to achieve variation in height and directionality of the pile.

Utilizing a computerized tomography (CT) scanning process, we are able to demonstrate the behavior of the yarns and the sequencing of the action within each sample. We then set up looms to create new samples informed by the old constructions, resulting in novel tools that draw upon rapid prototyping and complex computational modeling to reanimate these industrial techniques as viable strategies for contemporary fabrics.

This work is supported by the Virtual Textiles Research Group at Rhode Island School of Design and aligns with the current RISD Museum show, *Repair and Design Futures*.

A3 Learning from History, Tradition and Industry

Women climbers and their clothing: what can we learn from historical sources and industrial practice?

FIONA KITCHMAN, *Northumbria University*

“The Grepon has disappeared. Of course, there are still some rocks standing there, but as a climb it no longer exists. Now it has been done by two women alone, no self-respecting man can undertake it.”

Etienne Bruhl, *French Alpinist and Guide*, 1929

From 1838, women achieved significant first ascents in the Alps and beyond overcoming the physical challenges of the environment, but not always the prejudices and social mores of a male-dominated society.

This paper explores the design of women’s clothing worn in the mountains from the Victorian era onwards with a focus on how they may have been specifically cut to enhance and facilitate movement, possibly with the use of the bias cut. The research aims to synthesise the knowledge gained from engaging with historical artefacts and sources with the author’s own industry experience as a designer of outdoor performance clothing.

Enquiry to date has taken the form of a practice-based exploration of how period garment construction methods could be re-imagined through creative pattern cutting to enable a female mountaineer to move freely and climb without restriction. Joining ergonomically-placed seams with bias cut panels allow the traditional woven wool fabric to stretch and move with the body and facilitate movement in active use.

The paper will outline the historical context and then investigate the choice and availability of textiles for making the garments compatible with the end use and environment in which they were worn. It will document how the cut, cloth and construction of the garments, together with how they were worn as layers on the body might have impacted on the performance of women taking part in outdoor activities.

A3 Learning from History, Tradition and Industry

Learning from history, tradition and industry

CHRISTIE ALEXANDER, *The Glasgow School of Art*

As an educator and design practitioner within Knitted Textiles and Knitwear Design, the cycle of learning and teaching is continual. I am eager to discover new methods and materials for both teaching and designing as these inform and inspire my work as educator and design practitioner. Within textile design education it is believed that in order to educate one needs a solid understanding of the historical and contemporary context of their specialism. This is realised by not only examining and innovating from tradition, but by researching and understanding technological advances. As production and expertise moves increasingly towards digital manufacturing, the characteristics and qualities found in traditional fabrics are still widely replicated in industry.

This paper (and accompanying exhibits) presents a series of small-scale practice-based research projects, undertaken with industry partners. Each project will be used as a case study to evidence how learning from history, and industry can inform contemporary knit design and education. In particular, undertaking these research projects has enabled me to engage with industry partners and learn from their expertise.

Reflecting upon these projects highlights how integrating traditional knit stitches and heritage yarns into newly created textiles allows an exploration and experience akin to that of a student. In turn these experiences influences and inform the delivery and content of the courses that I teach on. Through describing this series of practice-based projects I intend to illustrate how I have learned from history, tradition and industry and articulate why and how I incorporate this into my teaching practice.

F2 Collaborating and Cross-disciplinary Working

ManCraft: Textile crafting and emergent dialogue supporting the wellbeing of vulnerable men

SARAH GREEN, *Loughborough University*

ManCraft is a community-based textile craft group for men, established as the main method of research for this practice-based PhD. Building on existing evidence of the therapeutic benefits of textile crafting to the health and wellbeing of individuals, this research seeks to examine the therapeutic use of textile craft processes for vulnerable men's wellbeing, as men's experiences remain under researched. The ManCraft practice is motivated by concern for the high mortality rate amongst men in the UK and the findings of my previous practice-based research which identified certain issues preventing men from engaging with textile craft processes in a mixed-gender group. This research focuses on the vulnerabilities of the men in the ManCraft group over a generalised concern for men, to discover whether textile craft processes and dialogue can help participants develop greater autonomy, agency and reinvent individual identities to improve wellbeing.

This paper draws on evidence from a specific discussion during the ManCraft practice, recorded in my observational journal, to advocate for wellbeing as a social process, shifting the focus from the individual acquisition of wellbeing to foreground relationality, social interaction and notions of responsible wellbeing. The notion of wellbeing as social process is supported by my adoption of a person-centred approach to the practice, which advocates that the whole person be taken into consideration and prevents divorcing the person from other aspects of wellbeing.

The practice draws on five evidence-based categories, identified by Mary Leamy and colleagues as crucial to an individual's mental health recovery: Connectedness, Hope, Identity, Meaning, and Empowerment (CHIME). Using the CHIME categories as a starting point for discussion participants identify that connecting and forming strong social bonds are crucial to their wellbeing. The enhanced human communication observed through the practice implies that the craft processes are the tools facilitating meaningful, therapeutic social interaction in the form of dialogue.

F2 Collaborating and Cross-disciplinary Working

J. G. Ballard and Making: An Experiment in Collaborative Practice

BETH WHITE, *Birmingham City University*

THOMAS KNOWLES, *Birmingham City University*

J. G. Ballard and Making was a pilot project which ran in the second semester of 2017 at Birmingham City University. It brought together students and teachers from the schools of English and Fashion with the open brief of responding creatively to Ballard's *Vermilion Sands* (1973). In this paper, we sketch some of the pedagogical methods and techniques employed on the project such as the Exquisite Cadaver, and the challenges and rewards encountered in responding creatively to Ballard's text.

Ballard's (1930-2009) work is highly visual, steeped in the visual cultures of the twentieth century. He once described himself as a frustrated painter: "I think I always was a frustrated painter. They are paintings, really, my novels and stories", and several studies have drawn attention to the great debt which he owed to the Surrealist and Pop Art movements. *Vermilion Sands* riffs on Surrealism and the cinematic. It is set amongst sand seas, singing statues and sand yachts, and it is peopled by jaded film stars and sinister auteur directors wearing psychotropic clothing. That the stories centre around different creative collectives – each attempting to surmount, or revelling in, the malaises of beach fatigue and cultural exhaustion – made them a gift.

In response to these stories, students produced spiral staircases to nowhere; motorcars with word-cloud exhausts; a ligree of metallic owers gazing at us through decadent gauze; vegetative, singing typewriters producing music to which jewelled insects, emerging from the pupil of an enormous eye, dance.

1 'An Interview with J. G. Ballard', in J. Goddard and D. Pringle eds. *J. G. Ballard, The First Twenty Years* (Hayes, Middlesex: Brans Head, 1976), p. 9.

2 See, for example, Jeanette Baxter, *J. G. Ballard's Surrealist Imagination: Spectacular Authorship* (London: Ashgate, 2010).

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F2 Collaborating and Cross-disciplinary Working

The Clothing Durability Dozen: interdisciplinary industry and educational approaches to clothing longevity

ANGHARAD MCLAREN, *Nottingham Trent University*

KATHERINE WEST, *Nottingham Trent University*

HELEN HILL, *Nottingham Trent University*

STELLA CLAXTON, *Nottingham Trent University*

PROF. TIM COOPER, *Nottingham Trent University*

In order to enable interdisciplinary systems thinking for sustainability in the fashion industry, the knowledge and skills of industry practitioners require development. Additionally, departmental silos within industry and higher education often cause different practices to exist in isolation, preventing effective collaboration and inhibiting change towards more sustainable fashion. Sustainability literacy, collaborative skills, and understanding the roles different departments play in the complex global fashion industry are vital in giving practitioners agency to place sustainable design strategies at its heart.

This paper assesses trials of a tool-kit – The Clothing Durability Dozen (Cooper et al, 2016) – developed as part of a Defra-funded project that explored the technical, behavioural and strategic obstacles to implementing sustainable practices that extend clothing lifetimes. By supporting collaborative approaches across disciplines in higher education and industry, the tool-kit seeks to enable users to overcome those barriers and support wider adoption of design for longevity. Trials of the tool-kit were undertaken with three clothing brands, conference delegates at PLATE 2017, and NTU staff and students in fashion and textile design, and fashion management disciplines. The paper will present an overview of the tool-kit, describe its origins and purpose, assess the response of users in the trials, and explore its potential use.

The paper aligns with two of the conference themes by analysing and discussing strategies, methods and tools for sustainable fashion, and the challenges and value of collaborative interdisciplinary working. The industry practice perspective will focus on agency: who has the knowledge, skills and power to make sustainable change, and how can it be enabled and facilitated effectively? The initial impact of the tool-kit on sustainable fashion education in line with principles of Education for Sustainable Development will also be discussed. Consideration will be given to how the tool-kit contributes to the future of fashion, design practice and sustainability.

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F2 Collaborating and Cross-disciplinary Working

Collaborative Practice as an exploratory means to investigate the 'Transformative Power of Pattern'

EMMA HAYWARD, *Leeds Arts University*

LAURA SLATER, *Leeds Arts University*

This paper explores findings from an experimental workshop in which learners and practitioners worked collaboratively, a shared experience wherein participants investigate approaches to surface pattern design and application. We consider the 'transformative power of pattern', reconsider the tools we utilise and the potential for pattern to transform beyond the preconceived perception of print to product. From the perspective of a print & surface pattern design degree course, we consider the transposition of two-dimensional pattern to three-dimensional surface and object.

We consider the notional boundaries of the discipline whilst challenging and re-inventing process, approaches and potential outcomes, 'multi-disciplinary' practices emerge through a transformative pedagogic tool as participants explore their 'disciplines' through 'non-disciplinary' means. By utilising alternative materials and methodologies which reflect pre-determined practices and knowledge we present an alternative practical hands on approach to thinking through inherent process. In addition to this we introduce risk-taking, reflection and the opportunity to learn from the unexpected. Learning through experiential methods becomes a means to challenge creative design thinking and problem-solving whilst also encouraging exploration through making, experimentation and collaboration.

F2 Collaborating and Cross-disciplinary Working

'What We Wear Is Who We Are'

SUSAN NOBLE, *University of Portsmouth*

The clothes we wear are a primary means of self-expression and more significant polysemic objects, than mere translators of transient trends.

The project; 'What We Wear Is Who We Are', aimed to explore levels of interpretation, self-expression and societal communication cross-culturally of clothing by young people who are markedly adept at reading the signs and signifiers of dress. This student-led project was devised to recognise and appreciate this tacit knowledge and use this as a starting point to explore, recognise and appreciate cultural differences and develop simpatico student groups for the purposes of co-designed outcomes. 'Dress on the contrary is a strong form of meaning, it constitutes an intellectual, notifying relation between a wearer and their group'.^[1]

(Barthes, 2006)

The primary objective was to explore the messages and codes of clothing, identifying commonalities of expression across two cultures whilst recognising and valuing differences. 'That's why cultural appropriation is not the same as cultural exchange, when people share mutually with each other – because cultural exchange lacks that systemic power dynamic.'^[2]

(Johnson, 2016)

Students worked in pairs to make an outfit that expressed the message that they had identified together which they wanted to communicate. Working on a short, intense project, the students had to think quickly, be intuitive and make decisions by trusting their own creativity and expertise. The co-design process enabled them to work together to explore, recognise and appreciate cultural diversity whilst creating genuine mutual understanding. It ensured that the student's designs resulted from the development of authentic relationships forged through the common need for self-expression. '

The work has so far been presented in both institutions to students, staff and the public, disseminated in two exhibitions, one in Portsmouth and one at the prestigious headquarters of the project sponsor, New World Land China. Further collaboration is being planned.

^[1] Barthes, Roland (edition 2013) *'The Language of Fashion'*. Bloomsbury Academic.

^[2] Johnson Maisa, Z (2015) *'What's Wrong with Cultural Appropriation?'*. <http://everydayfeminism.com/2015/06/cultural-appropriation-wrong/>

C6 Valuing Artisan Skills, Drawing and Making

Museum Collections and Collaboration: Examining heritage, craft knowledge and creative practice

DONNA CLAYPOOL, *University of Bolton*

This paper focusses on the visual interpretation and critical analysis of archival materials and objects relating to textile production, held within Bolton Museum, and its relationship with the University and the town. Bolton has been acknowledged as the birthplace of textiles, with Flemish Weavers settling in Bolton in the 14th Century, introducing the manufacture of woollen cloth.

Research concentrates on early doctoral research by practice and a two-year funded project, using the wider museum collection of artefacts, pattern books, objects and machinery as rich narrative of the town and workers in the textile industry. This project concentrated predominantly on the last two centuries, forming part of a staff/student collaborative project with the museum.

The presentation outlines early findings, examining links with social narrative, production and global trade. The collection offers insight into historical design processes and forms the basis for visual research, artworks and designs. Through practice based enquiry it asks the question 'what can we learn as designers about the cultural, social and historical references found through the critical analysis and practical interpretation of archival material?'

Students have developed artworks responding to the broader history of textiles during the 18th - 20th Centuries within Bolton and surrounding areas, including textile machinery, manufacturers, mills, pattern books, textile quilts and bolt stamps with a specific focus on textile history and place.

Responses to objects and artefacts included interpreting the starting points in a broad manner, researching not only the pieces for their aesthetic value, but also in terms of the historical context through analysis; broadening their knowledge and experience of material culture. Interpretation through practice involved visual research through drawing, painting and collage techniques through to sampling processes, supported by staff-led workshops. Students were able to utilise a combination of processes including traditional and digital print, non-woven textiles, laser cutting, including the creation of wood blocks for printing, and machine/hand embroidery.

Student design-led outcomes have recently been exhibited at Smithills Hall, Bolton, home of the Ainsworth Family of Bleachers in July 2017. The collaborative staff / student exhibition takes place at the Bolton Museum Art Gallery in January 2019.

C6 Valuing Artisan Skills, Drawing and Making

Revolution Fashion Artisan: Pedagogies of Fashion Thinking

SAM HUDSON-MILES, *Leeds Art University*

Broadly speaking, the issue of sustainability in the fashion industry is nothing new (Fletcher, 2016; Gwilt, 2014; Siegle, 2008), and it continues to gain momentum; unsurprising, given that, despite the warnings, there are more garments in circulation than ever. However, although the inherent problem with 'Fast Fashion' lay in the over-production and over-consumption of clothing, to, ultimately, satisfy the consumer's desire, we cannot blame the consumer. We must return to the first stage of the cycle; the designer, and contemplate how we, the educator, can awaken the student's relationship to their practice, with a sustainable and conscious mind-set.

In her 2015 Anti_Fashion Manifesto for the next decade, Li Edelkoort (2015) stated that we are witnessing "the end of fashion as we know it", making reference to the impact of 'Fast Fashion' on the future drivers of the fashion eco-system; today's 'Generation Y' fashion design students. Edelkoort declares that the expectation to create accessories, brochures, to arrange shows, photography, and communications, only serves to dilute the essence, and purpose, of 21st century, sustainable, fashion design thinking.

Within a year of the publication of Edelkoort's manifesto, Kate Fletcher's 'Craft of Use' (2016) project paid homage to the 'tending and wearing' of garments as much as their creation, revealing the expression of fashion 'in a world not dependent on continuous consumption', where garments, whilst 'sold as a product, are lived as a process'.

This paper considers these two globally renowned fashion educators' predictions and practices, and demonstrates ways in which their influence has served as a bedrock in the advancement a BA (Hons) Fashion curriculum, in the context of sustainability, and a conducive re-alignment of fashion design thinking and practice, pedagogically.

An case study will demonstrate the methodologies applied by a final year BA (Hons) Fashion student through a graduate collection that articulates a holistic approach to sustainable design practice. From mindful practice at the initial stages of exploration, to a collection that takes a non-binary approach, not only in its aesthetic, adaptable sizing and fit offer, but in offering solutions to wider social, economic, and consumptive issues.

C6 Valuing Artisan Skills, Drawing and Making

Playing the Field

DR. SARA KEITH, *Heriot-Watt University*

The transference of skills and design thinking from one discipline to another is often unconscious in the language of a textile practitioner, with fluid magpie like assimilation of materials and techniques from many other fields both within the dialect of the visual arts and beyond, to seemingly unrelated industries.

This paper examines a combination and range of skills more commonly associated with those of a Japanese artisanal dyer to those of a jeweller or engineer. During this body of work the adoption of dye techniques was an already familiar practice and therefore a natural solution to the challenge of changing scale; absorbing meters of textiles to the intimate scale of electroplating equipment.

The act of playing with unaccustomed materials, in this case silver, demanded a reexamination and adaption of a familiar making process. In turn this opened a series of “what if’s”. The aspect of play (or ideation in the world of design thinking) is a vital process and too often impatiently overlooked by students seeking a more immediate result. This paper interrogates and values this aspect of the design process, particularly at the intersection of interdisciplinary practice.

EXHIBITS: Learning from History, Tradition and Industry

Looking Back to Look Forward: Reanimating Textiles for Novel Design and Manufacturing

Prof. BROOKS HAGAN, *Rhode Island School of Design*

Industrially produced textile samples woven in France during the 19th and early 20th centuries were shipped all around the world and had a significant impact on the types of fabrics produced at US textile mills and elsewhere. These fabrics were capsules of fashion and timeliness, suggesting ideas about color, scale, graphics and surface to the broader industry, and providing new material for interior and apparel application.

The structural complexity of many of the samples implies an intimate connection to equipment and specialized techniques used in manufacturing. In the context of today's shrinking manufacturing base, we explore these fabrics as repositories of the industrial weaving process and as a roadmap to new textile samples that, in turn, inform future connections between equipment and production.

In this paper we examine woven textile samples from the RISD Museum Costume & Textile Collection with a focus upon Jacquard figured leno weaving and varied-height looped and cut pile techniques. The leno process relies upon an added harness element called a doup-heddle which functions as a parallel, programmable loom language in tandem with the Jacquard mechanism. The pile process calls for a unique set of hand tools and procedures to achieve variation in height and directionality of the pile.

Utilizing a computerized tomography (CT) scanning process, we are able to demonstrate the behavior of the yarns and the sequencing of the action within each sample. We then set up looms to create new samples informed by the old constructions, resulting in novel tools that draw upon rapid prototyping and complex computational modeling to reanimate these industrial techniques as viable strategies for contemporary fabrics.

This work is supported by the Virtual Textiles Research Group at Rhode Island School of Design and ties to the current RISD Museum show, *Repair and Design Futures*.

EXHIBIT: Learning from History, Tradition and Industry

Textile Heritage Retold; Drawing Inspiration from the Hawick Textile Archives

EMILY QUINN, *Heriot-Watt University*

The exhibition consists of a collection of textiles-based artworks reflecting the heritage of the Scottish Borders, particularly the Scottish Borders Archives (1), along with the preliminary drawings and collages. As the textile industry in Britain continues to decline, the associated communities, skills, tacit knowledge and traditions are in danger of becoming lost forever. Former textile mills are decommissioned and left to decay, the few remnants of a once proud industry are boxed in archives hidden away. By exploring through research, reassembling, and making, I have tried to bring this important part of our local heritage back into view and open to the interpretation of the observer.

The main aim of the research is to provide a visual commentary on a community bound together by a once thriving industry, exploring how the fabric of life is inextricably embedded within the indigenous textiles from a certain locale.

The process began with the mining of archival material such as photographs of the workers, visits from notable dignitaries, events, branding, advertising, hand written correspondence, sales ledgers, design books and colour cards.

The historical material from the archive is brought back to life and re-told through the displacement of visual elements taken out of their original context and re-represented through collage and subsequently digital print processes. The chosen substrates are fully fashioned seamed stockings, fragile and ephemeral that evoke and represent the pioneering technology used by the Hawick mills in the production of stockings and undergarments.

Keywords: Drawing and Collage, Textile Archive, Textile Industry, Textile Heritage, Luxury Hosiery

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EXHIBIT: Learning from History, Tradition and Industry

What is Urban Fabric?

ANNE MARR, *Central Saint Martins, University of the Arts London*

MS. PHILIPPA BROCK, *Central Saint Martins, University of the Arts London*

MS. JO PIERCE, *Central Saint Martins, University of the Arts London*

LINDA FLORENCE, *Central Saint Martins, University of the Arts London*

What is Urban Fabric? reveals diverse notions of belonging materialised through textile projects from Textile Future Research Community researchers based at Central Saint Martins. The group exhibition will include Philippa Brock, Linda Florence, Anne Marr and Jo Pierce showcasing different perspectives on Urban Fabric research: from community engagement activities to city data collection. Suggested pieces range from wallpaper archaeology discovered in domestic East London settings, to inter-woven London underground travel patterns as well as digitally embroidered community 'badges of honour' and textile animations developed with Crisis Skylight Brent members.

Studio Houndstooth - Philippa Brock and Jo Pierce - are compiling a significant archive of how people decorated their domestic spaces using wallpaper. This wallpaper 'archaeology' documents both how the flats were left when the residents moved out, and also the evidence of layers of wallpapers. Exhibition pieces will be 5 printed banners 1m wide x 2.5m long

Linda Florence's research is focused on how we trace our travels, discovering new places in London and breaking away from the familiar path. Working with computer programmer Julian Fenner, they designed a program that interprets the data contained on an Oyster card. This data is transformed into a woven pattern representing all of the London Underground stations visited by the user. The design can be changed by adding more destinations to the Oyster card when traveling in London. Exhibition pieces will include 5 woven badges and a location/ data poster (1mx 1.5m).

Anne Marr has initiated a new arts programme with the Crisis Skylight Centre in Brent one of the UK's most economically deprived areas. The project included 35 Crisis members, who have been affected by homelessness over the past two years. Participants reflected on their personal journeys of belonging and responded to the diverse findings through textile making. Artwork on show will include a textile animation film created by the participants as well a photo documentation from the project.

EXHIBIT: Learning from History, Tradition and Industry

Learning from history, tradition and industry

CHRISTIE ALEXANDER, *The Glasgow School of Art*

As an educator and design practitioner within Knitted Textiles and Knitwear Design, the cycle of learning and teaching is continual. I am eager to discover new methods and materials for both teaching and designing as these inform and inspire my work as educator and design practitioner. Within textile design education it is believed that in order to educate one needs a solid understanding of the historical and contemporary context of their specialism. This is realised by not only examining and innovating from tradition, but by researching and understanding technological advances. As production and expertise moves increasingly towards digital manufacturing, the characteristics and qualities found in traditional fabrics are still widely replicated in industry.

This paper (and accompanying exhibits) presents a series of small-scale practice-based research projects, undertaken with industry partners. Each project will be used as a case study to evidence how learning from history, tradition and industry can inform contemporary knit design and education. In particular, undertaking these research projects has enabled me to engage with industry partners and learn from their expertise.

Reflecting upon these projects highlights how integrating traditional knit stitches and heritage yarns into newly created textiles allows an exploration and experience akin to that of a student. In turn these experiences influences and inform the delivery and content of the courses that I teach on. Through describing this series of practice-based projects I intend to illustrate how I have learned from history, tradition and industry and articulate why and how I incorporate this into my teaching practice.

EXHIBIT: Collaborating and Cross-disciplinary Working

Hand crafted textile products accompanied by a short 10m documentary film 'Stitching Stories'

SHIRLEY MCLAUCHLAN, *Edinburgh University*

MADDIE CLARK, *University of the West of Scotland*

Addressing Integrating and Connecting Digital Technologies:

Work submitted is a collection of 3 hand stitched textile products with an accompanying short documentary style film. The film supports the products by demonstrating the design process in the which the textiles were made. The textile pieces are described as modern-day family heirlooms.

Both pieces of work i.e. the film and heirloom pieces are in response to the above category.

The hand-crafted heirlooms have been designed and crafted by Shirley Mclauchlan (Edinburgh University School of Design Textile dept.) her design work focuses on her role as a practicing sustainable designer.

The process will be filmed by Maddie Clark final year (BA Hons) Broadcasting student from University West of Scotland. The collaboration will record hand skills that may be in danger of being lost as the impact of digital technologies speed up the making process.

The film will document the process and further examine the relationship between the designer and the client. The design work will demonstrate how skill and material choice can help to maximise the longevity of a product. Exploring the notion of modern-day family heirlooms.

The collaboration will be a celebration of digital technologies and craft focussing on the benefits one can have on each other instead of opposing each other.

EXHIBIT: Collaborating and Cross-disciplinary Working

Corporate to Cool

ANGELA ARMSTRONG, *Coventry University*

ANN MUIRHEAD, *Coventry University*

‘Corporate to Cool’ has evolved out of an ongoing collaborative project ‘Counterfeit to Counter’. Started in 2010 and involving staff and students from Coventry University (CU), Coventry Cyrenians (CC) (a charity for the homeless) and Coventry Trading Standards (CTS).

CU were approached by CC who had been donated counterfeit goods by CTS with the intention that they would be de-branded by the charity, then sold on to raise funds. CC did not have the skills set to de-brand the counterfeit product and sought the advice of the fashion team at CU. The project led to the development of a concept charity store through which upcycled counterfeit garments could be sold. With government cuts to local council budgets, CTS began to focus on the seizing of counterfeit pharmaceutical and electrical goods that pose a danger to public health. Counterfeit fashion was no longer a priority and the range of counterfeit product available for development diminished.

CC are currently receiving more surplus or out of date corporate wear and uniforms as donations and the project has developed into one that now upcycles corporate wear that is still sold on to raise funds.

‘Right now, in the UK over 39 million people are given corporate uniforms – that’s more than 16,000 tonnes of corporate wear. Nearly 10% of this is being recycled or reused when it is no longer needed, but that means over 90% goes to landfill or gets incinerated.’ (Uniform Reuse, January 2018)

‘Corporate Cool’ is a range of concept upcycled contemporary fashion garments designed and made by CU academics, Angela Armstrong and Ann Muirhead.

EXHIBIT: Collaborating and Cross-disciplinary Working

‘Nonahedra’ Virtual Fashion Film

RACHEL HOMEWOOD, *University of Portsmouth*

ALEX COUNSELL, *University of Portsmouth*

Virtual and mixed reality is a fruitful environment for the development of fashion and textile designs, as well as an approach in showcasing innovative two and three-dimensional work. The market sector in virtual reality is growing exponentially, the technology will become more accessible to the consumer, through the continued advancement of technology and greater interaction between applications such as wearable and mobile technologies. The potential in developing new approaches for design, fashion production, and retail is limitless. The University of Portsmouth has significant capabilities in motion capture technology, real time graphics, visual effects and virtual reality.

This project is a cross-disciplinary collaboration between academic staff across faculties, one with a background in industrial and studio practice in fashion and textile design, working in partnership with a principal technician whose expertise includes motion capture, real time graphics, visual effects and virtual reality. Through a mutual interest in the exploration of how fashion, textiles, intersects with digital technology the immersive virtual fashion film ‘Nonahedra’ has been created. This unique interactive fashion film encompasses two and three-dimensional imagery. Our aim for this film was to showcase the BA (Hons) Fashion and Textile Design students’ major collections in a virtual environment presented at Graduate Fashion Week. The film was generated using Unreal Engine, utilising visual components which included digital projection, 3D animation, motion capture, film and photography of the nine students work selected. The virtual environment created includes nine stages, each stage was designed purposefully in order to showcase each student’s work in a unique way, in connection with their design themes. The environment is playful and surreal, the audience is able to interact with the environment itself using virtual hands in order to view the work in greater detail.

EXHIBIT: Collaborating and Cross-disciplinary Working

Sedentary Lifestyle: Sensory Response

MARION LEAN, *Royal College of Art*

Following the opportunity to explore affective and sensory dimension of digital health during closed feedback sessions with a sporting community group, the proposal is an exhibition of the development. This enables the public and wider community group to reconsider the ways that risks of sedentary lifestyle is being tackled from perspective of materials and design. Visitors will explore the ways that we can/do/could interpret health data from wearable devices using alternative sensory output as generated by the initial workshops and iterative design sessions. The intention of the proposed event is to generate feedback from visitors as to how they might like to feel, hear, interact, play and use their physical activity data in ways that would be more meaningful. Visitors would be try out novel sensor systems and invited to contribute to a bank of alternative data physicalisation feedback systems, whilst learning about ways that design, new materials and emerging technologies are being used to monitor and improve health.

A novel textile sensor system means visitors can explore how their own data can be manifest in novel sensory formats creating a live exhibition. Current work in progress intends this installation will take the format of a 'sophisticated Twister' mat using pressure sensors to collect user impact.

EXHIBIT: Collaborating and Cross-disciplinary Working

Fast Forward Fashion

Dr. KATE GOLDSWORTHY, *Centre for Circular Design, University of the Arts London*

Prof. KAY POLITOWICZ, *Centre for Circular Design, University of the Arts London*

This exhibit represents part of the practice element of a multidisciplinary project, supported by Mistra Future Fashion (2011-2019), which sought to create new proposals for 'fast forward' fashion (Goldsworthy et al, 2016). A new paper-textile was developed with Swedish science partners and transformed through innovative finishing techniques and technologies to add visual and tactile qualities, durability, and functionality for use. Both traditional and hi-tech processes were developed and these have been tested with the scientific partners for strength, recyclability, compostability and importantly, user perception. Full results were presented in November 2018 as part of the project showcase 'Disrupting Patterns' in London, with Swedish fashion brand 'Filippa K'

In the 'Fast-Forward' concept, a wearable 'paper' has been co-developed by the Centre for Circular Design (UAL) and RISE: Bio-economy, Sweden. Other commercially available nonwoven materials were also reworked, as an inexpensive 21st-century fabric with an intentionally short lifespan, that can be either recycled or industrially composted. The paper fabric is made from unbleached wood pulp and other bio-based materials, and finished using combinations of natural dyes, laser surfacing, and efficient ultrasonic construction, depending on the material content. PLA and RPET nonwovens have also been used as alternative concepts, with focus on the reduction of all materials energy and chemicals at every stage. With automated production, consumers could customise each garment's colour, pattern and shape. Acknowledging that disposable fashion forms part of most wardrobes, this new material is intended to offer a more sustainable approach to fast fashion.

The first in a series of garments and samples is currently on show at the V&A 'Fashioned from Nature' exhibition. In November 2018 the complete series was presented alongside the 'Service Shirt' concept (Earley, 2018) which represents the 'super-slow' part of the project. Industry collaborators 'Filippa K' also launched their latest Front Runners garments as part of the project showcase 'Disrupting Patterns' in London, at Chelsea College of Arts.

Watch a film about the project here: <https://www.vam.ac.uk/articles/the-future-of-fashion>.

EXHIBIT: Collaborating and Cross-disciplinary Working

Imagining Neutopia - Dressing for Evacuation

KERRY CURTIS, *Bath Spa University*

‘Imagining Neutopia’ is a series of works which fabricates and documents fictional scenarios. Through participatory experiences; human identity, the value of objects and materiality are explored and curated, with the aim to contribute to climate change dialogues.

Dressing for Evacuation is the first project in the series. The photographed subjects in this project were asked a ‘what if...?’ question and to respond to the scenario of an imminent major environmental disaster. This fictional event is set in the UK, a nation with minimal experience of ‘states of emergency’. Imagining how we may dress, and what we to choose to stuff in our pockets during a large scale emergency evacuation, may offer insights into what we (humans) have close to hand, value or deem as useful in the event of a major disaster, and therefore how prepared/unprepared we may be.

EXHIBIT: Valuing Artisan Skills, Drawing and Making

Dynamic Cutting: a new method of experimental pattern cutting using metaphor to activate tacit knowledge of material creativity and spatial creativity

DONNA SGRO, *University of Technology Sydney*

This creative practice research was conducted as part of my PhD by project at RMIT University. The values embedded in practices of fashion design are becoming better understood through research that is based in creative practice and undertaken by practitioners. In my experience as a fashion designer, the separation of design and pattern cutting in my practice impacted creativity in the cut of garments. This research aimed to expand creativity through pattern cutting by challenging this separation formed through my tacit knowing in practice. A metaphoric strategy was explored to adapt new methods for design from a study of butterfly metamorphosis. In this study, research *for* design was undertaken using mixed methods including growing butterflies, documentation, drawing and text-based analysis from a variety of disciplines on the subjects of butterflies and metamorphosis. Generative metaphors developed from this study of butterfly metamorphosis provided an alternative conception of a garment in the design process for pattern cutting. First, the garment was conceived as a transitioning insect body, then as a dynamic form, lastly as a chrysalis formation. This series of metaphors led experimentation in research *through* design of garments and textiles, resulting in two new concepts to describe creativity in pattern cutting using tacit knowledge. *Material creativity* refers to the creativity a practitioner experiences when designing and making garments through individual engagement with materials. *Spatial creativity* refers to the creativity a practitioner experiences when working with and analysing patterns in both 2D and 3D forms. *Dynamic Cutting* is a new method of experimental cutting for fashion design, which involves attuning to both material and spatial affordances. This research offers a new framework for thinking through, reflecting upon and expanding notions of creativity in fashion design using tacit, hand-based engagement with pattern cutting. It also demonstrates how a metaphoric strategy can be used to raise awareness of, and extend the application of, implicit knowing in practice.

EXHIBIT: Valuing Artisan Skills, Drawing and Making

Disrupting Ornamentation: Using Walter Crane's historical design methodologies to influence contemporary craft practice

HARRIET LAWTON, *Manchester Metropolitan University*

Using the Manchester School of Art collection of the MMU Special Collection Archive as influence, this abstract proposes an artwork display which will explore whether Walter Crane's historical design methodology can be applied today to visually investigate a collection of historical objects and create a series of contemporary craft compositions. This body of work responds to an overall research investigation into how the study of ornament at Manchester School of Art in the late 19th and early 20th century can inform contemporary craft study.

In 1893, Walter Crane suggested that the Manchester Municipal College would benefit from the forming of an object library that would provide reference and influence to students of design. This suggestion triggered the forming of the early Manchester School of Art archive. Crane went on to introduce new methods of design teaching including 'ornamental art', which used historical objects as a visual tool for students.

A practice-based methodology supports an investigation into a selection of these early archive objects; taking influence for making from contemporary practice, including the work of Lubna Chowdhary, along with historical source material, such as the drawings of Crane's student Emma Louise Bradbury. The fundamental notion of ornamentation as surface pattern will be interrogated through creative experimentation, using Crane's design controls to influence design practice.

The visual display 'Disrupting Ornamentation: De Morgan vase x Pilkington's Vase' will exploit ornamentation from two historical object surfaces. Across three collections, ornament will appear at multiple scales and in multiple materials; with 2D fabric layers appearing alongside 3D ornamental forms. The ornamental elements will not be fixed, inviting viewers to interact with and alter compositions.

The overall aim is to build a series of dynamic contemporary craft compositions which demonstrate the way historical ornamentation can be realised as an independent form, removed from the original object surface.

EXHIBIT: Valuing Artisan Skills, Drawing and Making

Soft Pictures - Re-making the Hattersley

CLARE LANE, Leeds Art University

“Soft Pictures”(1) (brightly coloured and embroidered textiles), are the antithesis of their subject matter, the derelict industrial space, and yet they both inform the product of my practice.

Whilst the ruin has an historical discourse of its own, as does the derelict building of the 21st century, my enquiry is into the specific time zone of the transitional space and the contemplation of the process of entropic transformation, as an enquiry into the making, unmaking and re-making of the fabric of our lives. Documenting through photography can record the atmosphere of this transitional state but it can’t capture the process of change. To extend the process of documentation into a textile medium, entails a process of making, which mirrors the unmaking state of the site explored. In some sense I am trying to re-make the space, through the textile. Glen Adamson (in Thinking Through Craft) comments that “craft only exists in motion” and through my exploration of these spaces I attempt to explore the “craft” of decay and the process of change.

The subject of my exhibited work will be to try to address the dichotomy between the two processes of the “craft” of decay or change, and the re-crafting of its observation through “soft pictures”. It will have a specific focus on two derelict Hattersley Looms. Over the last three years I have been based at an old textile mill near Leeds which is undergoing transitional development. My explorations of this site over the last three years, has developed from documenting, to a more involved interaction with the space.

The pieces I propose to exhibit include an embroidered textile response alongside photographs of site interactions. There would be one Loom textile piece measuring 150cm(h) x 100cm(w) which would be on timber stretchers pre-strung and with mirror plates. The photographs would be in an accompanying book. This would be A3 landscape and need a small table (double A3 width) for viewing.

(1) "Soft Pictures" is the title of a 2014 exhibition at the Museum Re Rebaudengo in Turin.

EXHIBIT: Valuing Artisan Skills, Drawing and Making

Conversation with Selves

JOANNA NEIL, University of Glasgow / Blackburn College

Moving to the Sound of My Thoughts is a recent series of drawing and textiles developed as work to reflect with.

Digitally recording both visual and audio of myself making work and reflecting on it (digital auto-ethnography), I experienced versions of my work and myself that were new. I developed a new analysis and understanding of my practice and I became drawn to exploring work that did reveal more.

The imagery of me tumbling, unclothed is not just about being stripped bare and exposed in the sense of auto-ethnography; the work is about times I have felt at my most vulnerable, a depression, feeling weighted down. Several 'performances' including me submerged in a swimming pool and curled up on the bed were documented.

A subsequent video piece used the amplified sound of my heartbeat through water speakers. The sound became physical and visual; water movement pushes within this enclosed space self-portrait drawings from the documentation of lying on the bed. A variable rhythm of movement is created from spoken thoughts and simultaneously recorded heartbeat. Footage of exhibited video: <https://vimeo.com/256282620>.

Conversation with self

My imagined alternative 'selves' have at times been celebratory and empowering. These identities and possible ways of being-in-the-world although reflecting moments of incapacitation and the experience of loss of control evolved into visions of powerful alter egos. These internal images of the self, which manifested as performed and documented identities symbolise empowerment and change. The 'you' and the 'I' are both me. Additionally, the auto-ethnography facilitates being both inside and outside of practice.

Conversation with Selves is a drawing developed from the recent video piece. My amplified heartbeat played through water speakers choreographed the movement of several submerged small-scale self-portraits. In this piece, the imagery of the tumbling self becomes a tableau. The portrayal of vulnerability is also one of confident empowerment, celebrating the body and its performative and acrobatic possibilities.

EXHIBIT: Valuing Artisan Skills, Drawing and Making

Textile Hybrids

ANNE MARR, *Central Saint Martins, University of the Arts London*

REBECCA HOYES, *Central Saint Martins, University of the Arts London*

Over the past four years the authors have been working on exploring the boundaries between textiles and ceramics with an aim to use process-led open-ended research to develop new hybrid materials. The exhibition includes two different series of work 'Glaze Grids' as well as 'Hybrid prototypes 001'.

These series of modular glazed ceramic pieces explore the fusing, melting and glazing possibilities of basalt and silica and have resulted in new research findings as well as prototypes for potential interior applications.

Basalt and silica are used industrially for its strengthening and reinforcing properties and the authors research explores new material potential for the fusion of heat-resistant textile materials with clay and in its application as a glaze medium.

For "Hybrid prototype 001" (2014-2016) the authors tested how hybrid amalgams of silica, basalt and porcelain slip would withstand the extreme temperatures required of the firing process. Fusing clay with high-tech textiles, and looking to retain the tactile qualities of hard and soft, their playful process-led approach created unexpected outcomes by capturing the instant act of knotting into ceramic artefacts. The hybrid material outcomes and experiments, using direct glazing onto textiles, offer new future material possibilities for design applications.

"Glazed grids" (2016-2017) investigates and exploits the specific melting and fusing points of basalt, the resulting material hybrids, in the form of prototype modular tiles. Through careful control of temperature a range of colours, material finishes and soft grid textures were created – intricately fusing woven textile structures into ceramic glaze. By using woven basalt structures and basalt-based glazes the authors experimented with different firing temperatures in order to manipulate colour shades as well as controlling the tipping point from textiles into hybrid materiality.

The results are a playful range of interactive pattern combinations which can be generated by combining the geometric tiles modules – with a proposed applications for architectural and interior environments.

Processes used:

- 573C Quartz inversion – clay becomes ceramic
- Firing - 600C Biscuit firing of clay
- Fusing -1100C basalt mesh is fused with glaze
- Glazing -1060-1280C Basalt and other glazes

Basalt melting 1290C

EXHIBIT: Valuing Artisan Skills, Drawing and Making

Exploring jacquard weaving as an applied digital practice for textile design research and development

Dr. KERRI AKIWOWO, *Loughborough University*

LUCY DENNIS, *Loughborough University*

A practitioner-research investigation into reinterpreting historical fashion and textiles artefacts through digital design process was undertaken by an undergraduate Textiles: Innovation and Design student specialising in Integrated Digital Practice. The collaborative exploratory study was co-supervised by academics from two different design disciplines: Textile Design and Product Design and Technology; and by an Organic Chemist as to support the coloration aspects of the work. The research was underpinned by a textile design perspective and jacquard weaving was identified as a relevant process to consider and explore how objects from the past may be redefined using an applied approach, particularly in terms of contemporary design. Future development opportunities within a textile design research context were also considered such as new knowledge relating to methods, techniques, procedures, software, processing parameters, creative insights and production implications, for example. The project demonstrates a synthesis of historical objects with research insights through creative digital technologies and systematic investigation.

The Collections Resource Centre in Leicestershire, United Kingdom, was employed for the study of selected archival garments. Three items from different eras were chosen and interrogated further using qualitative data gathering methods such as: observational drawing, sketch, photography and colour studies. This first-hand examination of the garments along with hands on interpretation and a CAD approach steered the design process which focused on trompe l'oeil three-dimensional illusion techniques. As such, the practice elements of the project explored draping, fringing, tonal colour, stripes, florals, folds, pleats, frayed edges, gathers and ruffles as inspiration. Design demonstration of experimental ideas and techniques include drawings, paper manipulation and digitally woven samples. Results of this work identified areas for further investigation regarding digital jacquard weaving and design innovation relating to: precision with colour; bespoke gradient techniques; and engineered reversible fabrics.

EXHIBIT: Valuing Artisan Skills, Drawing and Making

Silver as Dye

Dr. SARA KEITH, *Heriot - Watt University*

The transference of skills and design thinking from one discipline to another is often unconscious in the language of a textile practitioner, with fluid magpie like assimilation of materials and techniques from many other fields both within the dialect of the visual arts and beyond, to seemingly unrelated industries.

This practice examines a combination and range of skills more commonly associated with those of a Japanese artisanal dyer to those of a jeweller or engineer. During this body of work the adoption of dye techniques was an already familiar practice and therefore a natural solution to the challenge of changing scale; absorbing meters of textiles to the intimate scale of electroplating equipment.

The act of playing with unaccustomed materials, in this case silver, demanded a reexamination and adaption of a familiar making process. In turn this opened a series of “what if’s”. The aspect of play (or ideation in the world of design thinking) is a vital process and too often impatiently overlooked by students seeking a more immediate result. This practice interrogates and values this aspect of the design process, particularly at the intersection of interdisciplinary practice.

EXHIBIT: Valuing Artisan Skills, Drawing and Making

Valuing Cut

LILIA YIP, *University of Brighton*

Pattern cutting is traditionally written about, taught and treated as distinct from fashion design, with most pattern cutting created in response to a sketch or an idea expressed another way (McQuillan and Rissanen 2016). In this separation, pattern cutting is rarely seen as a creative activity that generates the idea, and whilst being acknowledged as a sophisticated skill, it is nevertheless considered subservient to design.

I propose that in order to integrate pattern cutting within the design process, one must be conscious of how it activates design. This project investigates the relationship between pattern cutting and culture to show how the tacit knowledge of a practitioner may interact more fully with fashion design practice and theory. Specifically, it explores how pattern cutting and its cultural ramifications, which are often part of a designer's tacit knowledge, can be made apparent within the design narrative.

The origin of clothing begins with a rectangular piece of cloth. According to anthropologists, in all known human cultures, the ubiquitous nature of dress seems to point to the fact that dress or body adornment is one of the means in which bodies are made social and given meaning and identity (Entwistle, 2015).

Culture is so deeply embedded in pattern cutting that one of the basic patterns almost all fashion students are taught is the "kimono block" (Aldrich, 1996). In *Soul of Things*, I use the rectangle as the basis from which to explore the merging of traditional clothing forms with modern sensibilities, combining flat and form cutting techniques while also constructing spatial and temporal meanings in relation to body and identity.

This design approach engages the mind, body and material in a creative process that cannot be replicated simply by sketching, leading to an outcome in which the processes and techniques of pattern cutting achieve a presence, allowing it to be discussed and appreciated as a integral part of the design process.

Keywords: pattern cutting, fashion design, tacit (or embodied) knowledge.

EXHIBIT: Integrating and Connecting Digital Technologies

Design and pattern engineering of functional men's business dress shirt

KWAN KI VANNESA CHU, *The Hong Kong Polytechnic University*

Dr. CHU-PO HO, *The Hong Kong Polytechnic University*

Dr. JOE AU, *The Hong Kong Polytechnic University*

Dr. JIN LAM, *The Hong Kong Polytechnic University*

Traditional mass-produced patternmaking systems of anthropometry data collection, interpretation and applications in men's business dress shirt design and grading practices with respect to ergonomic performance are based on insufficient knowledge and fail to meet the specific demand of the potential user group: male Chinese office workers with an apple body shape. Although functional design tools are integral to apparel design because they increase the range of movement, designers are generally unfamiliar with the design principle and application of pattern engineering design. This paper proposes a method to measure the dynamic anthropometric data of the potential user group during eight quasi-static office postures. Experimental work is carried out to collect 20 measurements of 7 male Chinese subjects in both static and quasi-static office postures. One-way ANOVA is used to analyse how key quasi-static office postures affect body measurements in a static state; these key measurements describe the characteristics of the apple body shape. The subsequent step describes a method to analyse the woven garment/body relationship to determine key stress areas on the body in key quasi-static office postures and the direction and location of functional design tools in pattern engineering design. Finally, the design principle of 4D pattern engineering is proposed to create a functional business dress shirt design.

EXHIBIT: Investigating and Explicating Creative Processes

Build Back Better

ZOE HILLYARD, *Birmingham City University*

Ceramic patchwork is a creative and distinctive solution to the challenge of mending broken ceramics, exploring the potential of a traditional hand-stitched process within a different context. Researching fragility, resilience and impermanence through colour, pattern and form, they are intimate practical investigations into tension and structural possibilities. Stitch is used functionally, with the mechanics of construction laid bare and the endeavour of making made explicit. Born of cross-disciplinary inquiry, pieces sit somewhere between solid and broken, beauty and flawed, ceramic and textile.

Inspired by remote communities, where lives are fundamentally shaped by landscape and climate, I am interested in how textiles and craft skills often play an important part in livelihood activities. A year working in Mongolia provided a valuable insight into nomadic culture and a less materialistic approach to living. Reviving the fortunes of discarded items, ceramic patchwork seeks to extend the lifecycle of objects, creating artistic statements from mass-manufactured outputs. Focus is placed on treasuring rather than amassing possessions and celebrating the associations and imperfections that materials can gather.

The work exhibited is a series called *Build Back Better*. It is the result of field research following the devastating 2015 earthquakes in Nepal and considers the impact of multiple cycles of trauma. It reflects the pride expressed by craftsmen in continuing generations of family involvement with reconstructing cultural sites after such events. Each structure represents the journey of a unique set of materials through cycles of physical change, studying their reaction and resilience to the forces experienced. The work also became an exploration of personal risk-taking, as at times, action was required that put in jeopardy qualities that were precious and had been hard won. The structures invite discussion about sustainability and the basis of value judgments in the context of different communities and cultural experiences.

EXHIBIT: Investigating and Explicating Creative Processes

'Mem-or-y'

MARLENE LITTLE, *Birmingham City University*

'Cloth, more than any other human-made goods, abolishes apparent dividing lines between art and life, both past and present'. (Constantine & Reuter, 1997)

Through direct engagement with textile and photographic processes, this series explores the growing incidence and public awareness of the many forms of dementia but particularly Alzheimer and Vascular dementia.

This wearing or abrading of memory is explored through an interdisciplinary approach that references analogue family photographs explored through the medium of textile substrates. Connect, disconnect, utter blankness, disorientation, disintegration, confusion, clarity, tangles, shadows, shrinking, tissues beginning to wear away, scattered and lost, bleached out, sparse, erased, emptiness, blank space, lost form, drooping and unraveling, sense of space and form is fading, repeating, becoming further and further apart, fragile, fading out and fading in - these words and phrases, sourced from novels and personal accounts that explore the experiences of dementia provide a vocabulary of conceptual, visual and tactile references for the development of the series. There is a commonality of varying degrees of disappearance or transformation – from the 'gaps' that appear in recall: the creased, faded, well-handled materiality of the analogue family photographs and the physicality of the unraveling threads and thinning constructions of the deconstructed textile substrates. The series presents the potential of 'fabric' as a metaphor for exploring significant, personal social concerns.

EXHIBIT: Designing Responsibly and Working Sustainably

The Service Shirt (Earley, Forst & Wardropper 2018)

Prof. REBECCA EARLEY, *Centre for Circular Design, University of the Arts London*

LAETITIA FORST, *Centre for Circular Design, University of the Arts London*

KATHERINE WARDROPPER, *Independent*

Textile designers have a long tradition for being resourceful with materials – think of the history of patchwork quilt-making or ‘boro boro’ mending – but the emergence of the circular economy design discourse (Charter 2018) and the highlighting of future opportunities for textiles (EMF 2017) has enabled a differentiation between *linear* and *circular* design practice. This considers the end-of-life of the material/product first, and makes all design decisions based on this, around its whole lifecycle (production, use and disposal) (Fletcher 2008). Yet there remains a distinct lack of exploration through academic practice-led textile design research within an applied industry context.

By reflecting on previous practice work - including two AHRC projects in which textile design practice approaches extended the life of fashion garments through craft-level over-printing and super-slow 100-year textile design (www.upcyclingtextiles.net, 2003 - 2015) – this new shirt concept demonstrates a textile design practice approach developed to create extreme extended-lifecycles for circular fashion textile products.

In the Service Shirt concept, a brand provides many of the material state changes, enabling users to experience a variety of different ownership, rental and updating services, across a 50-year period. It was developed within a scientific research consortium and during a design-researchers in residence programme at a fashion brand. Earley created the shirt prototypes to reflect the state changes that the brand would need to operate: these include digital dye sublimation over-printing three times during a 15 year period, gradually building a light coloured print up to a solid black. Further transformations are achieved through using the shirt to line a jacket (Laetitia Forst) and jewellery-making (Katherine Wardropper).

This exhibit explores design for ultra-longevity approaches and demonstrates opportunities for textile design practitioners in using the framework of *lifecycle speeds* (Goldsworthy *et al* 2016) as well as circular business model innovation, to inform and guide future responsible and sustainable practice. The concept enables us to understand how we can revalue textile design practice for its ability to open up industry-level opportunities.

BIOGRAPHIES

MARYAM AHMED, *The University of Manchester*

Maryam Ahmed is a PhD student at the University of Manchester, she has taught pattern cutting and is currently engaged in research looking to develop new methods for creating custom bodice patterns from body scanning data.

Dr. KERRI AKIWOWO, *Loughborough University*

Dr Kerri Akiwowo is a Practitioner-Researcher and Lecturer in Textiles at Loughborough University, School of the Arts, English and Drama. She is also Pathway Leader for Integrated Digital Practice on the Textiles: Innovation and Design undergraduate programme. Her PhD is in *Digital laser -dyeing: coloration and patterning techniques for polyester textiles*, attained at Loughborough University in 2015. More broadly, her creative practice, research and pedagogical approach encompasses: Textile Design, Textile Patterning and Coloration Processes, Textile Assessment, Textiles for Apparel, Dress History, Digital Design Technologies, Collaborative and Interdisciplinary Methods and Research Informed Teaching within Design Education. Kerri has previously worked in academic roles at other HE institutions, as well as a freelance and studio textile designer, specialising in screen and digitally printed textiles, hand painted textiles, novel surface techniques and textile finishes for denim and engineered placement design for lace and embroidered fashion. She also creates artwork for display and has presented and exhibited both her practice and research internationally including: Italy, Estonia, Japan and Australia. Within the UK, Kerri has shown work at the ICA and the Science Museum, London. Kerri is a member of the Textile Design Research Group at Loughborough University and a Higher Education Academy Fellow.

CHRISTIE ALEXANDER, *The Glasgow School of Art*

As a graduate of GSA I have an BA (hons) in Textiles and an Mdes in Textiles as Fashion. I specialised in knitting and knitwear and have continued to teach and practice at a national and international level. Working with a various fashion/costume designers and artists to create their concept or recreate archive pieces for fashion collections, artists branded products, costume and accessories for film and TV productions. Working in this way provides many diverse challenges such as diagnosing stitch structure, pattern construction, sourcing yarn, colour matching and so on. Every freelance project requires different skills and quantities to be made. I prefer to collaborate with people who require limited edition or bespoke pieces as opposed to multiples of the same product. I believe in making fabric and garments with an awareness of the knitted stitch structures traditional use, respect for the origin of the yarn and the context of the project within a contemporary context.

DR. KEVIN ALMOND, *University of Leeds*

Dr Kevin Almond is a lecturer in fashion at University of Leeds. He has held various posts in academia and the fashion industry and has published widely. He organized and chaired *The International Conferences for Creative Pattern Cutting* in 2013 and 2016. These events were an opportunity for academics and industrialists to present current research about pattern cutting and to network. Selected articles from the conference were published in two special editions of *The International Journal of Fashion Design, Technology and Education* entitled 'Creative Cut'. He is a former trustee of The Costume Society and a reviewer for numerous academic journals.

CLAIRE ANDERSON, *Hereford College of Arts*

Educator and Textile designer Claire Anderson's work is characterised by a creative exploration of how textile use and application can address broader societal concerns of sustainability as well as advance our understanding of related concepts and how this can interrelate to offer new perspectives and insights to students.

She is a Glasgow School of Art trained textile designer with an excellent working knowledge of Textile disciplines and specialist training in embroidery and print. In 2013 Claire graduated from the prestigious Material Futures Masters programme at Central Saint Martins in London with an innovative materials focused direction in her work which underpins her teaching.

BIOGRAPHIES

ANGELA ARMSTRONG, *Coventry University*

Angela Armstrong: Senior lecturer, Coventry University & Design Director SOWN. Angela Armstrong is Senior Teaching Fellow and Course Director for Fashion at Coventry University. Angela worked with colleague Ann Muirhead setting up Future Armour a University Spin Out company. Taking on the challenge to establish a recognisable, strong premium workwear brand in the UK, using the latest smart fabrics, cutting edge manufacturing processes and creative pattern cutting. Angela is currently working with Murray a corporate wear design company to develop a greater understanding of the impact of corporate clothing on productivity and well-being. Angela is a Design Director of SOWN an innovative garden and lifestyle company and a founder of the award winning ReFreshed Unltd which has achieved recognition in the Green Gown Award, Coventry Compact Award, Lord Stafford Award and Coventry Excellence Award.

DOUGLAS ATKINSON, *UCL Knowledge Lab, University College London*

Douglas is a PhD candidate at UCL Knowledge Lab, working with the ERC funded IN-TOUCH: Digital Touch Communication project: <https://in-touch-digital.com>. His prior experience in design research focuses on interrogating touch perception of physical and digital materials and an interest in the sensory, multi-modal and cross-modal experience of making. His PhD research focuses on digitally capturing the forms of touch used to gain knowledge and mediate the making process during the hands-on development of a garment. This embodied knowledge, gained through interactions with materials, tools and bodies (or their surrogates) is vital, yet increasingly lost as fashion education is digitised and skilled makers do not pass on their expertise. A thorough understanding of touch behaviour in this context, and the possibilities for it to be digitally captured and replayed, may inform future interface and peripheral designs. Helping to digitally support embodied knowledge and enable its transmission. It will also be vital in informing fashion education strategies.

Douglas also holds a part time Research Fellowship at London College of Fashion and guest lectures on fashion and digital technologies at various UK Universities. Before joining the academic community, Douglas trained in fashion design and worked as a garment pattern cutter.

CLAIRE A BAKER, *Northern School of Art*

Claire A Baker has been a lecturer of BA (Hons) Textiles and Professional Practice, at The Northern School of Art (*formerly Cleveland College of Art & Design*) since 2009. She is a practising embroidery artist whose research is concerned with abandonment, memory, place and the lost, with a focus on the traditional and historical influences of textile craft and the positive intervention of modern technology. That is inevitably disseminated through pedagogical methods.

Claire has based her research work within the Chernobyl Exclusion Zone for the last five years, building archives and working in the field. One of her intentions is to ensure that some of the historical embroidery motifs peculiar to the area are not forever lost due to the lack of future generations and the destruction of a community and its culture. She set up the 26:86 Collective in 2015 leading a successful touring exhibition showing accessible, multi-discipline artworks based on the effects of the world's worst nuclear accident and the effects thereof which are still prevalent today. This exhibition attracted over 12,000 visitors.

She has recently completed an MFA at Manchester Metropolitan University.

DR. HELENA BRITT, *The Glasgow School of Art*

Dr Helena Britt is the Subject Leader for Printed Textiles and Undergraduate Coordinator at the Glasgow School of Art (GSA). Her research encompasses aspects of contemporary and historical British textile design including utilisation and interpretation of archival resources; printed textile design and creative processes; art and design education, research, practice, scholarship and teaching linkages. Recent projects include 'Pioneers of Post-War Pattern' and 'The Glasgow School of Art Fashion Show, 1947-2017'. Helena was principal investigator for 'Interwoven Connections: The Stoddard Templeton Design Studio and Design Library, 1843-2005', funded by the Royal Society of Edinburgh and Design History Society. Currently, Helena is Chair of the Association of Fashion & Textiles Courses (FTC).

BIOGRAPHIES

PHILIPPA BROCK, *Central Saint Martins, University of the Arts London*

Philippa Brock is Woven Textiles Pathway Leader & Researcher (TFRC) at Central Saint Martins, UAL. Brock also works as an independent designer, artist and curator and is co collaborator with Jo Pierce with their Studio Houndstooth, a materials & textile research lab. Brock also set up and edits the professional weavers resource site and blog, The Weave Shed.

Brock recently exhibited her latest experimental multilayer, 3D digital jacquard woven series '1580' in a solo exhibition at Guy Goodfellows Gallery and co – curated with Samuel Dempsey the 'Weaving Futures' Exhibition at London Transport Museum, exploring woven design processes, transport data manifestation innovation, designer residencies and live digital TC2 jacquard weaving. All the works were created as the exhibition progressed.

Brocks work ranges from research into innovation in 3D digital jacquard power loom production methods, sustainability, e-textiles, designing textiles for the industry, through to trend packages and exhibiting digital woven jacquard art works internationally. The Crafts Council have her 'Nobel Textiles' works in their permanent collection.

Currently Studio Houndstooth are working on The Wallpaper Wall, a social engagement and visibility project working with, documenting and archiving domestic wallpapers and facilitating community workshops with these wallpapers for hoardings and exhibition.

PAM BROOK, *Bradford College/Nottingham Trent University*

I am currently a lecturer in Critical and Contextual Studies at Bradford College having stepped down from my role as Head of School of Art to give more time and attention to my PhD which started in 2015. The PhD is entitled 'Health, Hygiene and Fitness: Modernism and the Swimsuit' and is being studied at Nottingham Trent University in the Fashion and Textile department.

I have worked for many years in Art and Design education, initially in Further Education at Keighley College until 2002 when I took up the post of Head of Foundation in Art and Design at Bradford College. Since then I have worked in HE as Curriculum Team Leader in Fashion, Textiles and Interiors and Head of School of Art.

I am a Fellow of the Royal Society of Art and a Senior Fellow of the Higher Education Academy.

I am currently President of Bradford Textile Society but will relinquish this role in August 2018. I will however continue to be a member of the committee and active in the Design competition.

HAZEL BRUCE, *Ulster University*

Hazel Bruce is a lecturer on Textile Art, Design and Fashion at Belfast School of Art, Ulster University. She is a Senior Fellow of the Higher Education Academy, with research interests in curriculum design, co-curricular working, transition, belonging and developing communities of practice in higher education. She has been a textile artist since 1990 and is a member of the 62 Group of Textile Artists. Current work explores the impact of limitations on creative practice and importance of space, balance, tension and pattern in composition.

DR. KATHRYN BROWNBRIDGE, *Manchester Metropolitan University - Manchester Fashion Institute*

Dr Kathryn Brownbridge is a Senior Lecturer in Fashion design at Manchester Fashion Institute, Manchester Metropolitan University. Her formative years in fashion was as a designer for her own fashion company in Manchester, making clothes for clubbers. In 2001 Kathryn completed an MSc, which led to an interest in how the use of innovative 3D technologies could be used to improve fashion practice. Her PhD (2012) explored the application of body measurements in the whole garment knitting industry. Since then the research has been focused more on the impact of failing fashion systems on people and the environment and the stories that embody unworn garments.

BIOGRAPHIES

KWAN KI VANNESA CHU, *The Hong Kong Polytechnic University*

Vannesa Chu is a PhD candidate at the Institute of Textiles and Clothing, The Hong Kong Polytechnic University, Kowloon, Hong Kong. Her research interests include functional clothing design, ergonomic, 3D scanning technology and pattern engineering.

DONNA CLAYPOOL, *University of Bolton*

Donna Claypool is Programme Leader at the University of Bolton, a PhD candidate and Co-Chair of the North-West Craft Network. Donna has extensive experience as a textile designer, maker and lecturer for over 25 years, teaching printed textile design and employability for commercial and craft practices.

As part of a PhD by Practice Donna is undertaking a creative and critical response to the Joseph Johnson archive collection held in Bolton Museum in order to gain an understanding of the designs, including historical and cultural significance of this pattern based collection, both nationally and internationally. By practically examining and reinterpreting the woven based patterns she intends to highlight the aesthetic and educational value of this design collection, for the teaching of undergraduate students and for engagement with the local community.

The study of craft and design processes is an inherent part of her teaching practice, and as such Donna has developed an undergraduate project, to run concurrently with her own research. This project focuses on the history of textiles in Bolton, examining heritage, craft knowledge and creative practice through museum collections. A staff/ student collaborative exhibition opens at the Museum in January 2019.

ALEX COUNSELL, *University of Portsmouth*

Alex's expertise ranges from Motion Capture and Visual Effects (VFX) through to Real Time Graphics and Virtual Reality (VR). He is very driven and passionate about how technology has the potential to be applied over many different fields and is actively engaged in many collaborative and interdisciplinary projects that explore this.

Alex's research uses the latest technology to explore new areas of development and collaboration between the Arts and technical disciplines such as Virtual Reality, Motion Capture, Virtual Production and Visual Effects. The most recent of which is the 'Fatherland' VR theatre performance, in collaboration with Limbik Theatre and producer Laura Doye. The project has successfully completed a prototype stage, and is now embarking on the next full development stage at present. There are funded by the Creative XR initiative run by the Digital Catapult Centre and Arts Council England.

Alex has also established a successful motion capture studio at the University of Portsmouth. It has established links with numerous industry partners and practitioners, such as The London Symphony Orchestra, SuperUnion and the Imaginarium Studios. Graduates from his studio now work across the world at companies such as Vicon, the Imaginarium Studios, Weta Digital, ILM and Rockstar Games.

SUSAN CRAIG, *Manchester Metropolitan University*

Susan Craig is a Fellow of the Institute of Chartered Accountants in England and Wales, with over thirty years' experience in practice and industry. Currently a Senior Lecturer in Fashion Business at the Manchester Fashion Institute, she lectures on fashion business strategy to both undergraduates and postgraduates.

Her research interests include the promotion of sustainable shopping habits through improved understanding of personal fit and colour preferences and the impact of social media on youth fashion consumption. She has recently presented her co-research on the impact of social media and the emergence of 'hyper-social shopping' at the GAMMA conference in Vienna (2017) and the ECSM in Limerick (2018).

BIOGRAPHIES

KERRY CURTIS, *Bath Spa University*

Kerry Curtis is the Assistant Dean of the Bath School of Art and Design, Bath Spa University. She has experience in leading schoolwide curriculum review projects and developing design curriculum through previous roles as Head of Department for Fashion, Textiles and 3D Design (2008-2016) and as Senior Teaching Fellow (2005-2009) for Bath Spa's Centre of Excellence in Teaching and Learning (CETL). In 2018, she has delivered workshops at part of The Future of Indian Design Education - a collaboration between British Council: Knowledge Economy Partnership: Internationalising Higher Education.

As a textile designer, she has extensive experience in working internationally with many fashion houses and manufacturers, including working in-house for Valentino, Alberta Ferretti and Nina Ricci, and a consultant for many more brands such as Chloé and Stella McCartney.

Kerry Curtis's creative practice explores preparing for an uncertain future as climate change impacts the natural world and humanities role within it. The overarching research project is titled 'Imagining Neutopia', comprising of sub projects and collaborative activities asking design-led questions, presenting fictional narratives and curating responses. The research aims to influence positive behavioural change in individuals, in thinking about and preparing for, our future environment.

RACHEL DAWSON, *University of Bolton*

Lecturer – Artist – Colourist

The portfolio of work reintroduces the use of indigenous natural colourants, which were native and traditionally abundant in the North East of Lancashire, specifically the Forrester of Bowland, dating back to the 17th Century, with focus on sustainability and cultural and historical heritage.

The alchemy and production of naturally dyed fibres influences the use of colour within her own methodology and ideation as an artist. Her practice starts with the botanical species being grown and harvested in their natural habitat, then the textile process, by means of non- factory manufacture, commences. Reinvention of traditional native dye techniques, with emphasis on the sustainable 'green economy.' The creation of these recipes has resulted in a collection of dyed fabrics with colour trends.

Rachel has exhibited internationally at Mood Brussels, Pall Mall London for Wool Modern Week alongside Alexander McQueen and Vivienne Westwood, the Platform gallery, Knitting and Stitch show Harrogate and Newhouse in York. She has also run workshops across Lancashire at National trust properties and English Heritage mills, where a dye garden has been placed after winning bronze at the RHS Tatton in 2015.

LUCY DENNIS, *Loughborough University*

Lucy Dennis is a textile designer who graduated from Loughborough University, School of the Arts, English and Drama in 2018. She gained a first class undergraduate degree, with honours in BA Textiles: Innovation and Design. Her keen interest in innovative digital design processes and textile design research is demonstrated by explorative ideas and hands on methodical and technological investigation. Adept skills in Adobe design software have aided her progression of digital practices including: digital print design, laser cutting, digital embroidery and jacquard weaving. She has also explored 3-D printed textile possibilities. Lucy enjoys integrating these techniques and working with varied software and parameters in order to realise and propose new design opportunities. In her design practice, Lucy often uses historical references to develop contemporary themes and contextualise her work in the modern world. This enables her to explore concepts which inspire pioneering digital techniques by reinterpreting historical textile artefacts through technological design intervention. This juxtaposition steers original and unconventional applied digital outcomes.

BIOGRAPHIES

Prof. **REBECCA EARLEY**, *Centre for Circular Design, University of the Arts London*

Rebecca Earley is Professor of Sustainable Fashion Textile Design and co-founder and co-Director of Centre for Circular Design at Chelsea College of Arts, University of the Arts London. Previously Becky was Director of the Textile Futures Research Centre (2010 – 2017) at Central Saint Martins as well as leading the research in the Textiles Environment Design unit at Chelsea, developing sustainable fashion textile design strategies, curating exhibitions, facilitating workshops and creating materials, models and prototypes.

Becky graduated from MA Fashion at CSM in 1994 and set up her B.Earley studio with help from the Princes Trust and Crafts Council. Her award-winning textiles using her print technique on to recycled PET fleece - the *heat photogram* - became popular with buyers and collectors, until 2000 when she ceased production and moved full time in to sustainable design research. In 2007 she was nominated as a Morgan Stanley Great Briton for her contribution to sustainable fashion textiles in the UK.

Becky now works with organisations to evolve/embed sustainable design research within corporate culture; clients include H&M, Filippa K, and VF Corporation. She currently works on two Swedish-based projects with Research Institutes of Sweden (RISE), developing circular materials and strategies for industry implementation.

CLAIRE EVANS, *The University of Huddersfield*

Claire Evans is a Senior Lecturer in Fashion Design at The University of Huddersfield with over 15 years of experience in teaching fashion design. Her teaching is informed by 10 years of industrial experience running an award winning fashion label, retailing and wholesaling globally. Claire has an extensive knowledge of practical and academic fashion design, pattern cutting, grading and pattern design software. As part of her PhD she has been investigating how the tools chosen for lay planning impact on creativity, efficiency and output.

She is passionate about debunking the myth that pattern cutters simply transcribes patterns. The interpretation of pattern designs through technology has become more effective and we are witnessing an altering and blurring of garment design and production stages.

The pattern cutter is pivotal in integrating and embracing technology with traditional tools. There is a growing need for the fashion industry to become more sustainable and the Pattern Cutter has a key role to play in evolving sustainable garment production methods.

ELAINE EVANS, *University of Leeds*

A graduate of the University of Leeds, Elaine worked as a garment technician, before joining the School of Design, University of Leeds in 2001, and is now a Senior Teaching Fellow in Fashion Design. Her teaching specialism is garment technology, construction and pattern cutting.

Alongside her teaching role Elaine co-manages the Yorkshire Fashion Archive, which is a publicly accessible resource housed in the School of Design and comprises a collection of 20th Century clothing, accessories and fashion publications. The Yorkshire Fashion Archive explores the interactions between clothing and the social and cultural history of Yorkshire in the 20th Century.

KATE FARLEY, *Norwich University of the Arts*

Printmaker and pattern designer Kate Farley's creative practice spans art and design contexts with projects, design collections, collaborations and commissions united through practical research of visual communication exploring narratives. Recent projects include posters on London's underground network and an awarding winning design for the Window Film Company. Clients include London Transport Museum, Barbican Centre, David Mellor Design. Kate's works on paper are represented in a number of collections including Tate, British Library, Manchester Metropolitan University and Yale Centre for British Art USA. As an academic Kate is currently Course Leader of BA Textile Design and BA Fashion at Norwich University of the Arts. Kate studied Printed Textiles at Leeds College of Art and Design in the mid 1990s. An MA in Book Art from Camberwell College of Art followed (1998).

BIOGRAPHIES

DR. JULES FINDLEY, *University of Brighton*

Jules Findley's practice and current research is in embodied materiality, which has led to questioning in-depth areas of emotions around complicated grief and memory using the methodology of affect and repetition in making paper, in making paintings, drawings and sculpture. The studio is the home, the domestic environment, used as a source of comfort, where the artefacts are stored instead of food on the shelves. The tools used reside in the kitchen, such as the kitchen blender. Focusing on fragmentation, layering using the hand in mixing substrates to produce paper, using charcoal mixed into a paste to draw and paint from specific burnings. Examining loss and absence from a maternal perspective generating handmade paper and embodied materiality. Elements such as soil, charcoal and ash are used in the paper, and small sculptures using paper based clay.

LINDA FLORENCE, *Central Saint Martins, University of the Arts London*

Linda Florence produces bespoke hand printed wallpaper and installation artwork for public, commercial and domestic interiors. Her printing techniques incorporate a mixture of traditional and new technologies. Her clients have include the Victoria and Albert Museum, The Jerwood Space, Swarovski, The National Trust, Ted Baker and Penguin. Linda has won multiple design awards including a British Design Award and is currently visiting professor Weißensee Kunsthochschule, Berlin and senior lecturer at Central Saint Martins, London.

Research Interests: Linda has developed a broad portfolio of projects through her design practice. These include research consultation into arts within healthcare for Macmillan Cancer Support and public engagement projects for the National Trust and V&A. Her practice often looks at participatory design and co-design and utilises traditional making processes and new technologies to make site specific design work. Many of these projects include audience interaction with the final work or have resulted due to workshops as part of the making process. Linda's research is embedded into her teaching practice and has been exhibited in many a galleries around the world including the Museum of Arts and Design in New York (MAD).

LAETITIA FORST, *Centre for Circular Design, University of the Arts London*

Laetitia Forst is a multi-technique textile designer trained at ENSAD Paris in skills covering weave, knit, print and other textile embellishment techniques. Her practice explores the tension between technical challenges and creativity in sustainable design for textiles. Her ongoing PhD research project at the Centre for Circular Design at University of the Arts London aims to explore design driven solutions for incorporating ease of recyclability into textiles. The project takes a pro-active approach to developing alternatives to the unsustainable status-quo in the creation of blends through the use of design for disassembly, the design of products and materials that can be taken apart to divert their components from waste streams.

The practice within this project involves visualising information regarding blends and recyclability for use by designers, sampling proof-of-concept textiles and developing guidelines for designing for disassembly in textiles.

DR. KRISTINA FRIDH, *HDK - Academy of Design and Crafts, University of Gothenburg*

Researcher (PhD), Director of Studies doctoral education and Architect at HDK – Academy of Design and Crafts, University of Gothenburg, Sweden

Kristina Fridh is a researcher and Director of Studies for the doctoral education at HDK – Academy of Design and Crafts, Faculty of Fine, Applied and Performing Arts, University of Gothenburg. Her research field focuses on spatial design and conceptions of material and materiality and specifically Japanese architecture, including the interaction between interior and exterior spaces.

Fridh is the project leader for the ongoing artistic research project "Urban Materiality – Towards New Collaborations in Textile and Architectural Design", which incorporates Margareta Zetterblom and Paula Femenías, and is funded by the Swedish Research Council. The project implies building a new interdisciplinary research platform for textile architecture. In the project, new design knowledge, methods and practice are developed from the joint collaborative and artistic processes based on the three participants' fields of competence – textile design, architecture and sound design.

BIOGRAPHIES

LIZ **GARLAND**, *University of Huddersfield*

Liz Garland trained in the art of costume construction on the prestigious Theatre Wardrobe Course, at Liverpool City College (formally Mabel Fletchers). She first started working on the Costume with Textiles course at Huddersfield University in 2006. Prior to this she was the costume supervisor at Bretton Hall College, and ran costume construction projects for The University of Leeds.

Although her main career path is now within education she has had a wealth of experience both in live theatre work, film and television. She worked as a freelancer costume maker for many prestigious companies and still maintains close contacts with the industry. Theatre work includes: Theatre Clwyd, Sheffield Crucible, Manchester Library and Forum Theatres, Wexford Opera Festival, City of Birmingham Touring Opera, Oldham Coliseum, D'Oyle Carte Opera Company, York Theatre Royal, Northern Ballet and The Janet Smith Dance Company. Film and television include: Angels Costumiers, Boda Television, SC4 and The BBC.

Liz's research interests include the study of pattern making via mould making, the concept of the costume store as a living archive and the changing relationship between costume and clothing in terms of preservation, performance, research and education.

DR. ELIZABETH **GASTON**, *University of Leeds*

Dr Elizabeth Gaston is a design practitioner, researcher and educator specialising in knit design. Her design practice focusses on the innovative use of colour, structure and form in knitted fabric. Extending her doctoral research into the inter-relatedness of colour, pattern and texture in Fair Isle knitted fabrics current projects investigate the use of optical effects and coloured light to manipulate colour and therefore pattern perception in knitted fabrics to extend product longevity through variation in design. Her iterative design/research methodology utilises design thinking and craft process.

Recent papers include:

Gaston, E.A and Scott, J.C. 2018 [Forthcoming]. The Yorkshire Year of The Textile: A review. *TEXT Journal*. **44**(1). Available from www.textilesociety.org.uk/text-journal/.

Gaston, E. A. 2018 [Forthcoming]. Crafted Futures: a craft/technology collaboration. *Journal of Textile Design, Research and Practice*. **6**(1). Available from <https://www.tandfonline.com/toc/rftd20/current?nav=tocList>.

Gaston, E. A. 2017. Public Craft. In Casse, N. and Jones, V eds. *Connecting Threads*. Leeds: Stanley and Audrey Burton Gallery. Pp 10-13.

Recent exhibitions include:

Crafted Futures. 2016. Armley Mills Leeds and Stanley and Audrey Burton Gallery, Leeds

Inflection. 2016. The Royal, Armouries, Leeds. (with Jane Scott).

Elizabeth is the Programme manager of BA Textile Design at the University of Leeds.

AMY **GAIR**, *The Robert Gordon University*

Amy Gair is a Knowledge Transfer Partnership (KTP) Associate on an design innovation project between The Robert Gordon University and Montrose Rope & Sail. She trained as a textile designer specialising in woven textiles. After completing her Masters in Design at Glasgow School of Art she gained industrial experience within the Scottish heritage market as a woven textile designer with Alex Begg & Company.

BIOGRAPHIES

ALISON GAULT, *Ulster University*

Senior Lecturer and Course Director for the Ba (hons) Textile Art, Design and Fashion Course, Alison is also Employability and Placement lead in Belfast School of Art, Ulster University. A Senior Fellow of the HEA and a Fellow of the RSA, Alison is the Ireland Chair for the International Federation of Knitting Technologists and has presented at many conferences including IFKT, EFYE and AUTEX. Alison is a partner in a number of collaborations nationally and Internationally and has been a Keynote speaker in Belarus and Romania. With expertise in the area of fibres, yarns, materials and 3D knitted textiles. Recent projects have included an *IntertradeIrelandFusion* collaboration with Inis Meàin Knitting Company based in the Aran Islands off the West Coast of Ireland. Research projects around fabrics for health and well-being with knitted products being used to provide innovative solutions for diabetics. Consultancy work supported by InvestNI working with SME's bringing innovations to local industry. Current research includes creating sustainable materials for composite products for health and well-being and also the automotive, aeronautical and construction industry.

Dr. KATE GOLDSWORTHY, *Centre for Circular Design, University of the Arts London*

Kate is Reader in Circular Textile Design and Co-Director of the Centre for Circular Design at UAL. She is a designer and academic working to bridge science, industry and design through multidisciplinary & practice-led research. In 2012 she completed the first UK practice-based doctorate focused on 'designing for the circular economy' and continues to explore future manufacturing and recovery contexts towards effective circular systems.

In her current research projects *Mistra Future Fashion* (2015-2019) and *Trash-2-Cash* (2015-2018), Kate continues to explore the potential of design to engage a more circular fashion and materials economy through collaboration with stakeholders from all parts of the textile supply chain. She is interested in the potential for technology and new production models to provide more sustainable future solutions; nonwovens production, hi-tech finishing processes and chemical recycling developments are all part of this remit.

Kate publishes widely on her research topics and exhibits her design work internationally. She is a member of the EPSRC EC Forum in Manufacturing Research, contributes to UK policy development and was recently named by the Guardian as one of the UK's top ten circular economy experts.

KEITH GRAY, *The Robert Gordon University*

Keith Gray is a lecturer in Fashion & Textile Design at Gray's School of Art, Robert Gordon University. He has specific expertise and interest within the luxury fashion accessories market specifically within menswear where he has worked as a designer with high-end brands; Hardy Amies, LVMH group and as accessories designer for Paul Smith. He is the founder of accessories brand Obar creating minimal and functional bags with a strong British provenance.

SARAH GREEN, *Loughborough University*

Sarah Green is a community-based arts practitioner working in collaboration with local arts organisation, Charnwood Arts. She holds a BA in Fine Art and MA Art in the Public Sphere from Loughborough University. In 2015 Sarah was awarded a fully funded PhD studentship from The School of the Arts, English and Drama at Loughborough University. Her current research explores the therapeutic use of textile craft processes and it's potential to improve men's wellbeing. As part of her practice she established ManCraft, an all-male community-based textile craft group, which takes place once a week at Charnwood Arts.

BIOGRAPHIES

DR. ANU H **GUPTA**, *Panjab University/University Institute of Fashion Technology & Vocational Development, Panjab University, Chandigarh*

Dr. Anu H. Gupta is Assistant Professor at University Institute of Fashion Technology & Vocational Development, Panjab University Chandigarh. With PhD. in Social Anthropology and Master's in Clothing and Textiles, she has worked widely on training of artisans and skill & design development. She also taught at Northern India Institute of Fashion Technology, Mohali and headed various Departments, Resource Centre and State Initiative Design Centre- a project of DC (Handicrafts) Ministry of Textiles, Government of India. With twenty two years of experience in education, research and skill development; she has published and presented many national and international papers.

She has undertaken many industrial projects and assignments with Vardhman; Tynor Orthotics; Khadi and Village Industries Commission; Phulkari Cluster Rajpura; Silk mark Organization of India; International Dolls Museum; Rotary Club; Social Welfare Department, Chandigarh Administration; Ministry of textiles, Government of India, O/O Development commissioner (Handicrafts), Hoshiarpur and Punjab Heritage and Tourism Promotion Board.

DR. VIKKI **HAFFENDEN**, *University of Brighton*

Dr Vikki Haffenden is a Senior Lecturer at the University of Brighton with extensive experience in knitted textile design, knitwear design, industrial and technical knitting. Vikki holds a Fellowship from the HEA, is a Fellow the Royal Society of Arts and a Freeman of the Worshipful Company of Framework Knitters. Her publications include award-winning books on hand and machine knitting as well as academic texts encompassing her special interest in body size, body shape and clothing fit. Vikki's research experience includes working with 3d body scanning and cross-disciplinary research in Design for Ageing Well, and her approaches include user-centred design, co-design with beneficiaries and cross-disciplinary collaborative working.

FIONA **HAMBLIN**, *Nottingham Trent University*

Fo (Fiona) Hamblin is a Senior lecturer in Textile Design at Nottingham Trent University. Personal practice is centred around the body, where materials play a central role in exploring performative, spatial, tactile experiences of making work. Her research explores phenomenological perspectives and theories of material engagement, including the integration of digital practices. Cross-disciplinary dialogue and collaboration is key, for example, projects have incorporated film, sound, dance, jewellery and anthropology, with textiles based approaches. She is a member of the Digital Craft and Embodied Knowledge Research Group in the School of Art & Design, NTU.

Prof. BROOKS **HAGAN**, *Rhode Island School of Design*

Brooks Hagan is a textile designer, artist and researcher. He works with numerous firms such as Pallas Textiles and Mulberry Silk (India) and technology leaders such as Under Armour and Apple, Inc. A current project with computer scientists at Cornell University and Stanford University investigates advanced visualization for the design of constructed textiles and is funded by a \$1.2M grant from the National Science Foundation (NSF). In 2015 Hagan cofounded the textile technology company Computational Textiles Inc, which was awarded non-dilutive NSF SBIR support to catalyze private sector commercialization of the most promising technological innovations. Computational Textiles launched its first software product, *Weft*, in 2017.

Hagan's research with the Virtual Textiles Research Group (VTRG) investigates historical industrial textile processes and 3D weaving for rapid prototyping. Hagan collaborates with many fine artists and works with the Dieu Donne Papermill in New York to explore paper materials and textiles. He is an Associate Professor at RISD where he has taught since 2006 and served as Graduate Program Director and Head of the Textile Department.

BIOGRAPHIES

LENA HÅKANSON, *Linnaeus University*

Lena Håkanson work part time as a senior lecturer at the Department of design at Linnaeus University in Sweden. She teaches textile and pattern design, screen printing and tutor in various design project.

She also works as a freelance designer (specialized in pattern design and textile product design) and workshop leader. As a maker she exhibits her work, often embroidered and printed textiles.

Her main interest in teaching and research is making and learning. She is interested in how to get strategies to identify and define what to learn and how to learn it, in the material based field.

CATHRYN HALL, *Centre for Circular Design, University of the Arts London*

Cathryn is a PhD researcher at University of Arts London at the Centre for Circular Design (CCD). She joined CCD previously as the research assistant, on the Mistra Future Fashion programme. She is currently undertaking her second year of practice based doctoral study on mechanical textile recycling under Dr Kate Goldsworthy and Professor Rebecca Earley.

EMMA HAYWARD, *Leeds Arts University*

Emma Hayward is a Subject Leader for the Surface Innovation and Material Concepts strand. She previously studied BA (Hons) Textiles at the Glasgow School of Art and MA(Textiles) at the Royal College of Art. Throughout her Practice she has become particularly interested in a cross-disciplinary approach to Textiles.

Emma's approach to teaching at all levels, is to encourage an innovative, cross-disciplinary and collaborative approach to textiles and design, to further establish the links required between our practitioners and industries of the future.

CAROLINE HERZ, *Manchester Metropolitan University - Manchester Fashion Institute*

Caroline Herz is a Principal Lecturer in Fashion Design at Manchester Fashion Institute, Manchester Metropolitan University. As a designer in outerwear and tailoring for 18 years, Caroline has established a keen eye for design, garment fit, and the quality of products. Her main interests have been associated with style and fit for the adult female consumer. For her MSc in Clothing and Product Development (2007), Caroline examined the role and function of the personal shopper for women between the ages of 40 – 60 years, which led to her developing a 'blue-print' in the format of a training manual (visual aid) for personal shopping services for retailers. Since then her focus has been that of heading up placements and employability for her Faculty. Caroline is currently developing a coherent guide on how to help women understand what suits and flatters them best in order to build confidence and self-regard.

ZOE HILLYARD, *Birmingham City University*

Since graduating in Embroidery in the 1990s, Zoë has worked fractionally in academia teaching textile design, initially combining it with work in the knitwear industry, before later pursuing research interests in the role of craft and design within international development. Interested in resilience, Zoë explores practice-based approaches through both craft and pedagogy. Zoë is currently Senior Lecturer in Textile Design at Birmingham City University and a Fellow of the HEA.

Zoë's work featured in *Nexus: Meetings at the Edge*, a Fife Contemporary 2018 exhibition exploring the ways in which 21st century artists and makers are changing preconceptions about their art forms. She is a member of Contemporary Applied Arts, exhibiting at COLLECT 2017. She ran a public art event titled 'What do you Treasure?' as part of London Design Festival 2017 alongside her first solo show, *Balancing Tensions*, at The Anthropologie Gallery, London. Her ongoing *Kiln Cracked* collection makes use of the pieces ceramicists make that emerge from firing flawed. Zoë has previously created bespoke collections for the British Museum and has made site-specific work for the National Trust. Her work features in the collection of Plymouth Museum & Art Gallery and in international private collections.

BIOGRAPHIES

CHRISTOPHER HODGE, *Northumbria University*

Senior Lecturer Fashion Communication Northumbria University.

Fashion Photographer and Stylist.

My current research describes debate over contemporary views and perceptions of masculinity and femininity in relation primarily to fashion aesthetics but also to investigate my perceived emergence of a third gender, a step forward from traditional androgyny and the redundant term 'metro sexuality' towards a genre of garment design that is outside of conventional classification and is by its nature therefore neither masculine or feminine. I am currently describing this term 'met-aesthetics'. This is a place where the individual has the freedom to express themselves without societal constraint and to create their own personal aesthetic code, drawing on tacit and adopted creative references to 'design' a specific and personal visual framework within which to exist. These ideas are explored through garment crafting, styling photography and film making.

RACHEL HOMEWOOD, *University of Portsmouth*

Rachel graduated from Liverpool John Moores University with a BA (Hons) Degree in Fashion and Textiles. After graduation, Rachel embarked on a successful 13year career in Industry, working on a variety of product areas for major high street retailers, covering womens and mens; managing a design team for multiple UK and European brands.

From 2006 to 2010, Rachel worked at Southampton Solent University lecturing on a number of their fashion courses. This was followed by an appointment as Senior Lecturer at the University of Portsmouth, teaching on the BA (Hons) degree course in Fashion and Textile Design.

Her research examines the interaction between fashion and textile design and how emerging digital technologies can enrich the design and presentation process. Rachel is testing the boundaries of the creative process for fashion and textiles concepts using the 3D drawing tool Google Tilt brush, sculpting designs directly on an avatar in virtual reality and the exploration of three-dimensional textiles. It has allowed the students to expand their own creative responses through the application of digital technology. Through cross disciplinary collaboration Rachel has worked on multiple projects in the faculty using virtual reality in order to present and externalise graduates work using immersive technology.

GEORGINA HOUSLEY, *Manchester Metropolitan University - Manchester Fashion Institute*

Georgina Housley is a Senior Lecturer in Fashion Technology at Manchester Fashion Institute and teaches final year and second year Fashion, Design and Technology students. She also heads up the FDT placement programme working closely with stakeholders from the fashion industry securing internships for her second year students.

Her previous experience was as a fashion designer and pattern cutter in the North West manufacturing industries. Georgina also had her own business working with young fashion designers during the Madchester period. Heavily immersed in the fit and size of garments she has continued her active engagement into body shape working with the body scanner at Manchester Fashion Institute.

Current research interests include the nurturing and retention of creative pattern cutting and making skills in the UK. Her love of vintage costume has informed her recent contribution to "Dress" a collaboration with the mental health charity 42nd St and the Horsfall museum. Georgina continues to work on methods of drafting creative patterns to promote and instil best practice with her fashion students.

BIOGRAPHIES

REBECCA HOYES, *Central Saint Martins, University of the Arts London*

Rebecca Hoyes is an associate lecturer BA Textile Design at Central Saint Martins. She is a textile designer and practice based researcher with an interest in traditional and digital craft techniques, material culture and the social and cultural contexts for design.

Rebecca has worked as a design consultant on a diverse range of projects with Industry and NGO partners. Recently in partnership with the British Council and Turquoise Mountain Trust Rebecca has facilitated design collaborations between artisan communities in Asia, Africa and the Middle East working with heritage techniques for a contemporary context.

Rebecca regularly contributes to colour and material insight workshops defining future colour and material directions for Industry.

Research Interests:

Rebecca's research focuses on pattern and material exploration with a specific interest in traditional and digital methods of textile production, low impact print and dye techniques and contemporary pattern language. Current projects integrate sustainable design practice within the luxury market. Ongoing material based research explores the possibilities of material innovation through cross disciplinary practice.

SAM HUDSON-MILES, *Leeds Art University*

Sam Hudson-Miles has extensive experience of academic leadership and curriculum development. Currently the Course Leader for BA (Hons) Fashion at Leeds Arts University, the only independent arts university in the north of England, Sam has recently led the successful approval of a new undergraduate fashion course, the development of which has offered the opportunity to design a curriculum that instils an informed, and responsive focus on fashion thinking. With its context of 'narrative' and sustainable practice as its core ethos, the course structure positions graduates into the world with a strong sense of identity and a clear sense of articulation, whether this be from a personal, social, political or ethical stand point.

Sam's pedagogical interests directly link to Li Edelkoort's 2015 'Anti_Fashion' manifesto, central to embedding a sense of value and connection between fashion students and their practice. This encourages an alignment with 'slow', artisanal approaches, in response to a growing business, and consumer, need for fashion artisans that produce beautiful, crafted, niche products. This ethos is paying dividends, through recognition on an international platform, with two students' sustainably-centred collections having been selected as two of only five finalists, for the GFW18 'Considered Design' Award, sponsored by Elgin of Scotland.

ALEX HURST, *University of Central Lancashire*

Alex Hurst is a freelance commercial photographer specialising in portraiture as well as being a part-time lecturer at UCLan. Social cohesion is an extremely important issue in her work.

RACHEL JACKSON, *Arts University Bournemouth*

Rachel Jackson is a PhD student at Arts University Bournemouth working with drawing and textiles. Her research focuses on artefacts in collections of textiles/dress, using drawing and re-making as a way of documenting and analysing the ways in which artefacts might reveal narratives through their different signs of wear.

BIOGRAPHIES

KELLY JOSEPH, *Manchester Metropolitan University*

Kelly Joseph is the Fashion and Business Saturday Club lead tutor which is part of The National Saturday Club initiative, and runs in association with The British Fashion Council. In addition to this she is Programme Support Tutor on the BA(Hons) Fashion Promotion course at the Manchester Fashion Institute.

Her interests lie within sustainable fashion and previous experience as a co-creator for Manchester based, ethical fashion co-operative Stitched Up. She is particularly interested on how these issues are addressed within fashion education. These experiences have allowed her to develop her work with the Saturday Club alongside various fashion based outreach work, such as the identification-tee workshop run with local refugees from the Children's society, and including introductory fashion workshops within local schools and colleges in the Greater Manchester area.

DR. ALANA JAMES, *Northumbria University*

Dr Alana James is Senior Lecturer in Fashion in the faculty of Arts, Design and Social Sciences at Northumbria University, Newcastle. Specialising in sustainability in fashion, her creative practice adopts a research-informed approach to educating the next generation of designers in challenges facing the contemporary fashion industry.

Alana's research explores the relationship between fashion consumers and brands in the broader context of social and environmental responsibility. Further research interests include supply chain transparency and accountability and design as a tool for the implementation of circular innovation strategies.

TONJE KRISTENSEN JOHNSTONE, *University of Borås, Sweden*

Tonje Kristensen Johnstone is a senior lecturer in textile design and a PhD candidate at The Swedish School of Textiles, University of Borås, Sweden. She has an MFA in Textile Art from the School of Design and Crafts, Gothenburg, Sweden. For more than ten years, Kristensen Johnstone lectures in textile design with a specialisation in textile print, surface pattern design and design methods. Her PhD research focuses on surface patterns, spatiality, and pattern relations in textile design, and aims to explore surface patterns as spatial definers and what they mean in the context of surface patterns. Her practice based design research includes contributions to methods and tools; using abstract design variables in the design process to explore how spatial determinations can be interpreted, understood and applied in the design process. Kristensen Johnstone's research often involves working with design students within textile and fashion design. Using workshops in teaching as a means of gaining valuable insights and knowledge, is an idea that is close to the researcher's heart.

JYOTI KAPUR, *University of Borås, Sweden*

PhD Researcher

ArcInTexETN | arcintextetn.eu | Marie Skłodowska-Curie Research at the Swedish School of Textiles | University of Borås, Sweden

Specialised in knitwear fashion design from India, I have been practicing my profession since 1996 across different countries - India, Germany, China and Switzerland. In addition, I did a Master's Degree in Textile and Clothing Technology in Germany, graduating with a Best Graduate Award from VDI- 2005, Baden Wuerttemberg and an Award for Outstanding Achievement of a foreign Student from DAAD-2004. Later I graduated with Master of Arts in Transdisciplinarity from Switzerland, before joining the PhD doctoral studies in Design, within the ArcInTexETN network H2020 project in, Sweden.

Through the artistic research, I connect textiles to spatial design through olfaction. I explore ways to understand the invisible materiality within the research practice and also ways of its representation when designing spaces. Through olfactive interactions in relation to body in space, this research is looking at the tactile sense as one way of representation and by creating an experiential environment where the dimension of smell in designing spaces can be perceived.

BIOGRAPHIES

Dr. SARA **KEITH**, *Heriot - Watt University*

Following a BA Hons degree in Embroidered and Woven Textile Design at Glasgow School of Art, Sara's career began as a Costume Designer for film and TV drama. Moving to London she designed for the Royal Opera House and Royal Ballet.

In 1995 Sara created her own business designing / making luxury natural dyed accessories, selling to Liberty's London, Barney's New York and department stores in Japan amongst many others. The development of these collections led to a process of applying fine silver to textiles, combining traditional dye techniques with new technology. This culminated in a PhD scholarship funded by the Arts and Humanities Research Council.

As the PhD was practice led, Sara chose to present her findings as a series of exhibitions focusing on design process, a series of Artists books and an archival box of test pieces which served as a narrative, encapsulating the diverse nature of materials and inspiration.

The focus of present research and teaching is the interdisciplinary nature of a practice utilising metal and textile methodologies. Design thinking and process are extrapolated from this practice to create research based teaching materials.

DR. JULIE **KING**, *University of Northampton*

Dr. King has worked in academia over 25 years, in 1994 she joined Nottingham Trent University establishing a pioneering online trend sourcing website, creating the first CD catalogue of designer catwalk collections for Drapers in 1998.

At the Hong Kong Polytechnic University she established the first MA in Fashion and Textiles in the Asia Pacific region, and was Head of Department of Fashion and Textiles at De Montfort University between 2003-2014, becoming Director of the Fashion and Design Institute in Mauritius on sabbatical from DMU. In 2014 she became Head of Fashion at the University of Northampton. Since 2003 she has been Events Director for the ASBCI, is the Textile Institute's Chair of the Design Special Interest Group, and a member of the FTC Steering Committee since 2012. She is an academic consultant the University of Hull, works with the Open University and has been a visiting professor, guest judge and academic consultant at numerous global institutions.

An expert in colour forecasting, she worked as a forecaster with Global Colour Research, has published in books, journals, delivered conference papers, guest lectures and keynote speeches. She is regularly invited to review conference abstracts and papers and participate in the organising committees of such events.

ANN MARIE **KIRKBRIDE OLD**, *Northumbria University*

Ann Marie Kirkbride Old is a Senior Lecturer in Fashion at Northumbria University, working mainly on design practice and portfolio based modules. Alongside a teaching career spanning 3 decades, Ann Marie is also an Early Career Researcher with a broad research interest in exploring diversity through the medium of fashion illustration. She is currently exploring ways to bring age and fashion closer together through her practice-based research with a septuagenarian muse. She has presented her research and illustration work at national conferences and exhibitions, and hopes to develop it further into a PhD in the near future.

BIOGRAPHIES

FIONA KITCHMAN, *Northumbria University*

Fiona Kitchman is a Senior Lecturer at the School of Design, Northumbria University. Her interest in the historical development of performance clothing and textiles developed during her 15 years' of industry practice through collaborating with mountaineers and climbers to solve garment design issues encountered in challenging environments. Her research aims to synthesise her experience as a designer, with the knowledge gained engaging with historical artefacts and sources, to document how and why these types of garments have evolved through the decades.

Focusing on the historical clothing and textiles worn by female mountaineers, her aim is to achieve a clearer understanding of how they overcame the physical challenges of the environment and the social challenges of a male-dominated society. Currently her practice involves experimenting with the use of the bias cut, aiming to discover if period garments were cut and constructed to facilitate movement in active use, and if, functionality and choice of textile was a consideration in the design of the garments.

NICOLA KNIGHT, *Leeds Arts University*

Nicola Knight is currently a Senior Lecturer on the BA (Hons) Fashion course at Leeds Arts University, she has held this position for x5 years and has taught across a range of both Fashion Design and Fashion Communication modules. Following studying Fashion Design, she worked in a number of Fashion Industry areas PR, Styling, Fashion Editorial and Buying. She would describe herself as an early career researcher whose main interests lie in Creative Processes and Pedagogy and investigating effective ways to inform and encourage students to use sustainable approaches in their work to become 'Conscious Creatives'.

THOMAS KNOWLES, *Birmingham City University*

Dr Thomas Knowles teaches English Literature and Collaborative Practice at Birmingham City University, specialising in Romantic legacies and post-war British fiction. He has published on twentieth-century and contemporary author s including J. G. Ballard, Will Self, Iain Sinclair, and Colson Whitehead, and he is currently editing a special issue of *Green Letters* entitled 'J. G. Ballard and the Natural World'. He is co-editing a further special issue of *Open Cultural Studies* called 'J. G. Ballard and Making'. His first monograph, *Lyrical Ballads: The Wounded Romanticism of J. G. Ballard* will be published by Bloomsbury in 2020.

CLARE LANE, *Leeds Art University*

I am a Lecturer at Leeds Arts University and Maker, working in the area of textiles and materials.

My visual and critical interest in the built habitat is informed by my earlier career in Surveying and Architecture which underpins a structural, cultural and material interest in the built fabric, and its potential as a reflection on the making, un-making and re-making of form and identity as a creative process. The focus tends to be site specific with prolonged studies of sites which can be over years, and explore themes of entropy as a creative potential. This pre-occupation has informed my practice over the last twelve years.

My soft pictures are documentary in nature and I have exhibited in various galleries nationwide and undertaken a number of commissions for corporate, public and private clients. My most recent residency at Sunnybank Mills near Leeds has included two exhibitions, "Material Evidence" in 2015 and "Make.Unmake.Remake" in 2017 both based on my explorations and enquiries into the derelict spaces on the site. This has also formed the subject of a forum paper "Soft Pictures-remaking the Derelict" at the Textile and Place Conference in Manchester in April 2018.

BEV LAMEY, *University of Central Lancashire*

Bev Lamey is a surface pattern designer and textile artist. She has presented papers at international design research conferences including Futureground at Monash University, Australia and Include at the Royal College of Art, London.

BIOGRAPHIES

HARRIET LAWTON, *Manchester Metropolitan University*

Harriet Lawton is a contemporary craft artist and artist educator. She is currently studying an MA by Research at Manchester Metropolitan University, exploring the phenomena of ornamental art and adopting historical design methodologies to influence her own practice-based research in response to ceramic objects from the Manchester School of Art collection of the MMU Special Collections archive.

Since graduating from BA (Hons) Embroidery in 2013, Harriet has completed commissions for The Whitworth Manchester's 'TactileToo' archive, Wakefield Museum's 'Artists in the Atrium' commission and the 'Cataloguing Padiham' commission for Gawthorpe Textiles Collection. Her work as an artist educator includes multi-disciplinary teaching projects with the Yorkshire Sculpture Park, the Hepworth Wakefield and The Crafts Council; along with regular teaching at The Artworks, Halifax where she has a studio.

MARION LEAN, *Royal College of Art*

I am a Scottish design researcher, (and runner!) based in London. My research aims to identify a role for textile designers and 'textile thinking' within multidisciplinary collaboration, in particular health interventions. I have recently contributed to the development of wearable technologies for Alzheimer's research with Imperial College Dept of Neurotechnology, wearable digital presence devices with Little Riot, and Thames and Hudson publication 'Biomimicry for Designers' as well as public engagement projects with British Council, Scottish Cancer Prevention Network and Medical Research Council.

My current role of design researcher is to bring together and facilitate design thinking style exchanges and research exhibition environments incorporating a range of stakeholders (designers, community, industry). The PhD study focuses on textiles and emerging technologies for health and wellbeing to explore the potential to create meaningful interactions with bodily data collected using wearable technology. By appropriating embedded knowledge and affective nature of materials into a design process the aim is to reconsider the experience of ourselves as data. I am testing research methods to engage stakeholders in innovative ways leading multidisciplinary speculative design discussions and ethnographic investigation using probes such as materials and object.

DAVID LEATHLEAN, *Manchester Metropolitan University*

David Leathlean has spent over 15 years teaching and researching in fashion promotion, fashion history and cultural studies. Currently a Senior Lecturer at the Manchester Fashion Institute, David has led, and worked across, a variety of fashion programmes.

Creatively he has worked with various influential fashion brands and companies, including The Flannels Group and Selfridges, and has developed numerous collaborative partnerships including The Digital Garage (Google), The Royal Northern College of Music and Sir Paul Smith.

Research outputs include 'Momenting the memento' at the IFFTI Conference, Florence, Italy, (2015), an international conference focusing on the cultural value of fashion.

A founder member of the "MMU I Love Learning Group", he has worked collaboratively with colleagues across different disciplines within Manchester Metropolitan University to identify ways of making learning more creative.

BIOGRAPHIES

DEAN LIGGETT, *Ulster University*

Dean Liggett is a PhD researcher at Ulster University in Belfast, Northern Ireland. Textiles and Fashion have been a lifelong passion leading to his current doctoral research. Dean has focused this investigation into the complex supply systems supporting haute couture production, illustrating the continued relevance of hand skills in the contemporary global fashion structure. With the support of his supervisors, Professor Karen Fleming, the current Head of Belfast School of Art, and Ms. Patricia Belford, Senior Research Associate, it is anticipated that his PhD shall be submitted early in 2019.

A graduate from Ulster University in 2002 with a first-class honours degree in textile and fashion design, Dean embarked on a career as a designer within the fashion and textile industry working in Ireland, the UK and Italy, notably for the prestigious silk manufacturer Mantero Seta SpA in Como. Professional experience has provided a wide network of international fashion and textile expertise and contacts. This connectivity between academic research and industry expertise is something Dean believes strongly is necessary for the evolution and future success of textile and fashion higher education.

MARLENE LITTLE, *Birmingham City University*

Associate Professor, Deputy Head of School of Fashion & Textiles

Originally from a Fine Art Printmaking background, Marlene has an MA in Textiles and Fashion and an MA In Visual Communication. A practitioner, curator and academic she teaches on BA (Hons) Textile Design at BCU. Her research interests are in the triangulation of relationships between photography, textiles and zeitgeist social concerns. Co-curated exhibitions include *Beyond surface and material: the meeting point between photography and textiles* with Jessica Litherland at Rugby Art Gallery and Museum, and *Depth of Field: Conversations between Photography and Textiles* with Alex Boyd at Midlands Arts Centre (MAC). Conferences include *Tacit Encounter: Materiality and the Sensuous Object*, Medical Museion, Copenhagen University, Denmark (2011), *Intervention & Synthesis: new partnerships between Textiles & Photography in the Visual Arts*, Futurescan2, Sheffield Hallam University, UK (2013) and *Transformation: The conjunction of crafted process and the brain as memory repository* Shapeshifting Conference, Auckland University of Technology (2014).

JULIA MACLEAN, *The Glasgow School of Art*

Julia Maclean is a lecturer within the Department of Fashion & Textiles at the Glasgow School of Art. She has experience teaching undergraduate and postgraduate students. As Design Process Lecturer, Julia developed the design process curriculum for the postgraduate student elective programme. She is also Programme Coordinator for the Master of Design in Fashion and Textiles. Julia holds a Postgraduate Certificate in Learning and Teaching, and Master of Design from the Glasgow School of Art, and a BA Honours in Textiles and Surface Design from Robert Gordon University. With a background in knitwear design, her work has been recognised by the Campaign for Wool in association with Pringle of Scotland.

BIOGRAPHIES

ANNE MARR, *Central Saint Martins, University of the Arts London*

Anne Marr is currently the Programme Director for Jewellery, Textiles and Materials as well as designer/researcher at the Textile Futures Research Community at Central Saint Martins, University of the Arts London.

Anne's research is based around the socio-cultural context of textiles, particularly the area of *Urban Fabric* - exploring different textile-based approaches to respond to societal or urban needs and to create more empathetic communities.

Anne is currently leading '**Home and Belonging**' a textile programme with Crisis Brent, supported by Brent Council. This project investigates how textile making can enhance the mental health and well-being of homeless and vulnerably housed residents, encourage new employability skills as well as encouraging greater community exchange.

Co-creation is an integral part of her practice and she has recently been collaborating with Rebecca Hoyes developing new ceramic-textile hybrid materials pushing the boundaries of both textile as well as ceramic processes. Their '**Material Boundaries**' project explored new material developments fusing porcelain, paperclip with silica fabrics. In '**Glaze Grids**' they have extended their research into ceramic and textile processes in order to embed woven basalt mesh into glazed ceramic surfaces.

HANNAH MAUGHAN, *Falmouth University*

Hannah is Senior Lecturer on the BA (Hons) Textile Design course at Falmouth University, teaching across the 3 year groups and leading on the mixed media discipline, an area that she established in 2003. Hannah is a practitioner researcher and is currently involved in projects with Falmouth's Creative Industries Futures research group, investigating the interplay between hand and digital embroidery, co creating, communities and archives.

Hannah studied at Birmingham and the Royal College of Art. In 2016 Hannah received the Beryl Dean Teaching Excellence Award and is currently a member of the award's judging panel.

KATHRYN MCKELVEY, *Northumbria University*

I originally worked in New York as a fashion forecaster before teaching forecasting, design and illustration at Northumbria University, on the Fashion and Fashion Marketing courses.

I developed the Multimedia Design course in the mid 1990s, from which the Animation degree developed in 2007. Here I teach idea generation, storyboarding and character design plus skills using the Adobe suite – drawing is always the starting point. I am interested in design processes particularly in idea generation and how ideas are visually communicated. I authored and illustrated the Fashion Source Book, to support fashion students in understanding the taxonomy of fashion. I co-authored *Illustrating Fashion*, *Fashion Design: Process, Innovation and Practice* and *Fashion Forecasting* with colleague, Janine Munslow, for John Wiley & Sons, most of these publications are 2nd editions and have sold globally. In 2014, I contributed a chapter to *Textiles and Fashion: Materials, Design and Technology*, edited by Rose Sinclair, called – The Marketing of Fashion.

I have exhibited fashion illustration at Newcastle Fashion Week and Candid Arts Mixed Media show in London.

I am in the later stages of my PhD. and in a unique position to combine animation techniques and fashion to generate and communicate new ideas.

BIOGRAPHIES

ANGHARAD MCLAREN, *Nottingham Trent University*

Angharad McLaren is a Lecturer in Textile Design and former Research Fellow in Clothing Longevity at Nottingham Trent University. Research interests include sustainable fashion and textiles, craft theory and practice, textile for performance, health and well-being, and relationships between community, place and heritage. Angharad also has eight years prior industry and enterprise experience in international textile mills and as a self-employed design professional working on a variety of design, research and community engagement projects for clients such as: Zero Waste Scotland and the Rothesay Townscape Heritage Initiative.

SHIRLEY MCCLAUCHLAN, *Edinburgh University*

Shirley Mclauchlan studied Textiles at The Glasgow School of Art and St Martins London. She was a partner in the successful print studio Kim Clark Design in London designing collections and selling prints internationally for over twelve years.

On return to Scotland in 1997 she set up her own practice designing 'Modern Family Heirlooms' working with a range of clients from Nicole Kidman to David Walliams.

Her design philosophy is embedded in sustainability. She strives to work as a commercial, sustainable designer making pieces that are valued and 'tell a story'.

She was an ambassador for ZWS (Zero Waste Scotland) working to engage education and design within the circular economy from craft to designer.

Her research at ECA has resulted in presenting academic papers at <http://www.plateconference.org> 2015/17 and facilitating workshops/exhibitions questioning the role of design and the environment. She is the published author of 'Girls Get Stitching' 2013.

SARAH MOREHEAD, *Northumbria University*

Sarah is Lecturer on Performance Product Design MA and Fashion Design and Marketing BA: Sarah Lectures in Design Concepts, Product Realisation from 2D to 3D specifically exploring materials and processes around the body. Her research interests include somaesthetics and how the body informs the mind through materials and artefacts. Her practice based research and artefacts have been exhibited and published in UK and Europe.

Sarah joined Northumbria University in 2004 as a Senior lecturer on Fashion Marketing and in 2007 became programme leader of the newly developed Fashion Communication programme in which she researched, wrote and developed.

The Fashion Communication Programme fills a rising need in the fashion industry for professionals who can understand and curate design and fashion product in both 2 dimensions (Magazines, Web, Film, Literature etc.) and 3Dimensional space (Installations, Visual Merchandising, Fashion Catwalk, Museum and Public Space Interpretations).

Over Sarah's design career she has designed for over 12 different UK and Italian labels including Parigi, Alibi Diffusion, Liola and Entente.

Her work has retailed Internationally and been selected for actors and celebrities to wear on various BBC TV programs including the Nine O'clock News, Gloria Hunniford Show.

BIOGRAPHIES

JOANNA NEIL, University of Glasgow / Blackburn College

Joanna is currently working on her PhD at the University of Glasgow. She is based in the school of Education and part of the Interdisciplinary Learning, Education, Technologies and Society research group where she is bringing together her research interests: Arts practice, Education and Digital Technologies. She is a Hunterian Associate with The Hunterian museum, University of Glasgow where as part of an artist residency her digital auto-ethnographic research was conducted: <https://drawnconversation.wordpress.com/>.

She currently teaches across several undergraduate degree programmes at University Centre Blackburn College on modules including: drawing, research methodologies, reflective practice, fine art and textiles. Drawing is central to her practice, happily moving from pen to sewing machine to digital voice recorder and more recently to performance to explore this.

SUSAN NOBLE, *University of Portsmouth*

Susan Noble, Senior Lecturer. A University of Brighton alumna, printmaker and creative entrepreneur, Susan's subject expertise spans experimental drawing and image-making, printmaking, digital and traditional textile design, and textile craft techniques, particularly stitch. Synthesising her knowledge as a creative business owner and educator, Susan pioneered the embedded approach to teaching and learning entrepreneurial and business skills within a design curriculum. Her personal research investigates the employment of traditional domestic craft techniques within academia and the wider design community and methods of collaboration with which to address this power inequality. It explores whether the use of traditional domestic craft techniques, outside of their vernacular context, subjugates and relegates the craft to a lower position within a visual hierarchy, redefined by the (higher) artist/designer, thus alienating the community within which the skills and traditions are held and practiced. Susan leads on championing diverse representation with the design process and fashion and textile outcomes. She has run previous projects in India and with the local community in Portsmouth.

'What We Wear Is Who We Are', was run in collaboration between University of Portsmouth's School of Art and Design and the College of Fashion at Wuhan Textile University, co-ordinated by the British Council.

AMANDA ODLIN-BATES, *University of Central Lancashire*

Amanda Odlin-Bates ran a successful fashion business based in Manchester's Northern Quarter before taking up teaching. She has a keen interest in modest fashion design in particular the shifting patterns within modest dress and concepts of 'fusion'.

The team have collaborated with museums and archives, including, "Stories of the World" and "The Bowerbird project" at the Harris Museum, Preston. Odlin forged links between UCLan and the Prince's School of Traditional Arts, spawning the Hand-Made in Burnley Project, worked on the National Festival of Making in Blackburn in 2017 and 2018, collaborated with 'superslowway', bidding for a prestigious concept 'Fabrications'- the first textile biennial celebrating and exploring the local textile industry through key artist engagement. Odlin developed key concepts and themes for the event, took part in Creative Lancashire symposium and established relevant cross-cultural workshops.

MARK PARKER, *Heriot - Watt University*

Mark Parker is Director of Studies for the Design for Textiles Programme at Heriot-Watt University and a member of the Drawing Research Group there. He has over 30 years of teaching experience and has led workshops at both UK and Chinese Higher Education Institutions. He is currently the external examiner for the Textile Design and Retail pathways at Birmingham City University and has served on validation panels for textile degree programmes at Manchester Metropolitan University, the University of Huddersfield and Bradford School of Art. He has presented at international conferences including TRIP (Loughborough 2011) and IJADE (Chester 2011) Recently had joint paper accepted with Dr. Pam Schenk titled Constructive Copying: Exploring the Vocabulary (IJADE). As a practitioner, he has produced artwork and gallery pieces for leading interior and fashion textile companies and gallery spaces across Europe, America and Australia. His designs have been taken up by companies such as Liberty (London), Sheridan Textiles (Australia) and Scalamandre (USA).

BIOGRAPHIES

BUDDY PENFOLD, *De Montfort University*

Buddy Penfold, Associate Professor International for Arts, Design and Humanities has worked at De Montfort University for eighteen years.

Buddy studied Textiles BA Hons at Liverpool Art College and won a Royal Society of Arts award to be placed into Industry. Buddy worked in the textile industry for many years before joining academia. She was senior executive designer for Coats Viyella Knitwear Design responsible for Ladies Knitwear selling into Marks and Spencer, before joining Burnleys Spinners as Design Director to set up the design department and sell designer yarn into the American market. She has also worked as a buyer for 'Next' Ladies High Street Fashion chain and freelance knit designer. She has an MA Ed in diverse teaching methods. Before taking on the international role, she was MA Programme Leader for Fashion and Textiles.

Buddy's specialism is knitwear, taught within the Fashion and Fashion Textiles courses. Several students' knitwear collections have won major bursary awards, featured on the Graduate Fashion Week Awards ceremony catwalk as well as gaining post graduate entry to St Martins and the Royal College of Art Masters course.

GINA PIERCE, *University for the Creative Arts Farnham*

Gina Pierce combines her textile research and practice with the position of senior lecturer at The Sir John Cass School of Art, Architecture and Design, London Metropolitan University.

My research is focussed on engaging with the archive using practice to bring new insights and understanding of the artefacts. For my PhD at UCA Farnham, 'Re-activating the Textile Archive through the Interpretative Object', I am using the fabrics of the furnishing company Parker Knoll Ltd, held in the Parker Collection, as a case study, to demonstrate how the interpretative object can help to connect to new audiences.

As part of my practice I organise community projects and curate exhibitions based on textile archive. In 2015 I was awarded an Arts Council Grant for the organisation and curation of the 'Fabric of the City' Exhibition and Symposium, inspired by the Spitalfields Silks at the Museum of London, and featuring the work of contemporary designers. In the 'Big Blanket Project', held in 2017, my 10 x 7.5m floral design composed of 50 blankets was created by volunteers. These were given to the Crisis at Christmas Centres, providing for the homeless in London. www.thefabricofthecity.org

JO PIERCE, *Central Saint Martins, University of the Arts London*

Studio Houndstooth Biography

Studio Houndstooth is an experimental, multidisciplinary textile & materials design research studio, run by Philippa Brock and Jo Pierce. Brock and Pierce are also both fractional Pathway Leaders (Weave and Print) and researchers in The Textile Futures Research Centre, at Central Saint Martins, UAL.

Studio Houndstooth investigate, interrogate and instigate innovative textile and material design processes, making methods leading to final design/future crafts outcomes. They facilitate community engagement activities and have designed a ludic making workshop method. Their methods employ co-design, collaboration, design thinking, process development, digital and future approaches to textile & materials design and research and can be applied to space, architecture or body outcomes. They instigate their own projects, curate and work to commission.

Commissioned projects have included designing a façade for a new office building in Barceleona, designing a green wall for the A12 London, exhibiting - most recently in 'Home and Belonging', and speaking at conferences. They are currently working on The Wallpaper Wall: Inside|Outside Project, documenting wallpapers from two adjoining social housing blocks during regeneration, building a database and using images within a local community engagement and visibility project for hoardings and an exhibition in Canary Wharf.

BIOGRAPHIES

Prof. KAY **POLITOWICZ**, *Centre for Circular Design, University of the Arts London*

Kay is Professor Emeritus UAL and Senior Research Fellow, Mistra Future Fashion. She explores the connection between philosophical and practical enquiry inherent in design. Her concern is to question the meaning behind the language of sustainability and the interplay of materials to products, which can identify potential design transformations. She develops physical material prototypes as a way to test and communicate concepts through making.

While she demonstrates a belief in design as speculative and critical, Kay sees it as bigger than problem solving. She employs a combination of humour, ambiguity and fiction to reflect real life conditions as a provocation for material and social change, which results in a well-designed product with an intentionally short lifespan. As complementary to durable products it reflects the ecology of short and long lifespans in nature.

Assisted by the application of The TEN strategies for design, Kay's work for the last ten years has been in developing a 'wearable paper'. The use of non-woven material based on cellulose wood pulp proposes a pre-emptive approach to intractable problems in the fashion industry. Kay believes that working within a community of practice, physical and psychological barriers to change can be overcome, to achieve sustainable design solutions.

SUSAN **POSTLETHWAITE**, *Royal College of Art*

Susan Postlethwaite is Senior Research Tutor in the Fashion Programme, School of Design, Royal College of Art.

Trained as a womenswear designer and having worked in design studios in New York, London and Milan she has been teaching fashion design, theoretical, philosophical and critical perspective for fashion in parallel for over 20 years. Her research interests are in fashion thinking, critical fashion practice, post industrial and post digital design and fashion pedagogies that include a more collaborative, articulate, ethically and technically expert approach to the discipline of fashion design.

Postlethwaite is currently developing new kinds of research collaborations with RCA Fashion Programme and industry partners that are more intellectually rigorous, more experimental and speculative, for both practice led and practice based research. Focusing on technical innovation, closed loop systems, fashion cartographies, networked robotics and infrastructures, and theorising putative futures for fashion, she sees innovation in production and manufacture as key to the development of the discipline.

Postlethwaite is Co I on the AHRC funded Creative Clusters research 'Future Fashion Factory' led by University of Leeds, investigating circular economic solutions for the fashion / textiles industries. She is a founder member of the Burberry funded Material Futures Research Group, RCA.

CAROLINE **PRATT**, *Leeds Art University*

Caroline Pratt is a Print Designer and part time Senior Lecturer on the BA (Hons) Printed Textiles & Surface Pattern Design course at Leeds Arts University. An MA graduate of Manchester Metropolitan University, her practice and research interests explore ideas relating to the connections between nature, tacit knowledge, experience and wellbeing and the role this plays within the field of textiles, commercial print design and pedagogical practice.

Caroline has a varied client base and design portfolio and has worked on design projects across fashion, interiors and illustration for clients such as Hallmark, Walmart, Creative Tops Ceramics and Shanghai Rallex.

BIOGRAPHIES

EMILY QUINN, *Heriot-Watt University*

Emily Quinn is Assistant Professor in Textiles, Heriot-Watt University. Emily set up her first design studio specialising in screen printed fully fashioned cashmere after graduating from Edinburgh College of Art in 1999. In 2005 Emily joined the School of Textiles as Subject Leader of Visual Studies bringing her closer to the textile mills, an industry that has sustained her practice and research. The focus of her work is the re-invigoration and re-appropriation of heritage textiles and associated artifacts, particularly of Scottish provenance. Funding for specific projects has been awarded from the Scottish Arts Council, Cultural Enterprise Office, The Scottish Seed Fund and UK Trade and Investment. Her work is internationally renowned; featured in publications/press including British and Italian Vogue, ID, WWD Japan, Elle Decoration and television/radio broadcasts. Design work has been disseminated within new ranges for national and international companies and exhibited in London, Berlin, Milan, New York and Asia. In 2016 Emily and her partner Jason Lee bought and refurbished the decommissioned Lyle and Scott hosiery mill based in Hawick to house the design studios and print room for their luxury clothing brands Jaggy Nettle Ltd and Made in Grey Britain.

FIONA RAESIDE, *Northumbria University*

Fiona Raeside-Elliott is Head of Fashion at the School of Design, Northumbria University. Her research into banners started when she was commissioned to design the contemporary Saint Cuthbert's banner (the original was destroyed during the Reformation in the mid 1500's) which now hangs at the entrance to Saint Cuthbert's shrine in Durham Cathedral. In reflecting on her practice-based research, she was consumed with the question around the 'worth' and 'value' of a contemporary banner. As a result, she started to explore the rich culture of banner-bearing in the North East of England. Her research investigates the significance of these objects which have been described as having gone through an anthropomorphic process in the community they represent. Fiona's PhD is entitled *Social fabric: A study of community representation through contemporary banner-making*, and considers textile banners in terms of artistic expression, representation and conduit for emotional wellbeing.

LINDY RICHARDSON, *University of Edinburgh*

Programme director Textiles, University of Edinburgh 2000-present.

Research interests

Outreach, community, equality, education for all, education in prison, collaboration, craft and politics. Embroidery, archives, stitch, history, conservation, practice-based learning, skill, slow stitching.

Recent Research activities

Processions, one of 100 Artists commissioned by Artichoke. National initiative celebrating 100 years of womens' votes., culminating in marches in our 4 national capitals. Working with groups of Edinburgh University students and staff plus Scottish women prisoners, our collaborative banner was honoured to lead the Scottish march of 10,000 women on June 10th 2018.

Print and Politics. co-author Dr Sara Worden, National Museum Scotland. Contemporary Voices in Printed Textiles, Using traditional African commemorative cloths to inspire political engagement and social comment from Scottish students. Paper presented at Museum Ethnographers Group conference 2017.

Colour in Cloth conference. April 2017. Co-organiser, international 2-day conference, one day of papers in Glasgow, one day of complimentary practical workshops and associated visits in Edinburgh.

Heritage Lottery Funded project, Embroidered Stories, 2017. Re-housing of Needlework Development Scheme archive at ECA. 70 pieces of historic embroidery re-mounted, analysed and safely stored for posterity. Website established and associated research gathered in ECA NDS hub.

BIOGRAPHIES

DR. CLARE **ROSE**, *The Royal School of Needlework*

Dr Clare Rose is the Senior Lecturer in contextual studies for the BA(Hons) Hand Embroidery for Fashion, Interiors and Textile Art at the Royal School of Needlework. She has taught contextual studies for textiles and fashion in British universities for over twenty years. She has curated exhibitions at the Royal School of Needlework, the Women's Library and other institutions, and lectures on the history of dress and textiles at the V&A. Widely published, her most recent book is *Art Nouveau Textiles* (V&A Publications, 2014).

REBECCA **RYDER-CADDY**, *Coventry University*

Rebecca Ryder-Caddy is a Senior Lecturer at Coventry University and a Senior Fellow of the HEA. Rebecca is part of the award-winning team behind social enterprise projects ReFreshed and ReFreshed UnLtd.; and was integral to the brand launch for SOWN, a luxury women's lifestyle brand. Rebecca is also a Digital Champion at Coventry University. Rebecca's academic role has seen her support and build relationships with institutions Internationally, including her role in the Institutional Approval process, and Internal Moderation at Raffles, Singapore and her ongoing role delivering staff support and Flying Faculty teaching with partner, CUZ (Zhejiang, China). Prior to joining Coventry University in 2012, Rebecca worked for the University of Derby delivering specialist CAD teaching to both Fashion and Textiles undergraduate students. Rebecca has also worked as the sole designer for an activewear and performance skiwear label, as a Creative Consultant for both a luxury leisurewear label and a heritage menswear brand and has worked in costume and wardrobe roles for both TV and feature film productions, including the critically acclaimed "A Reckoning" (2009). In addition, Rebecca has a growing research profile and is currently undertaking a part time PHD in the subject of Fashion and children's identity.

DONNA **SGRO**, *University of Technology Sydney*

Donna Sgro is a fashion and textiles practitioner, and academic. She has taught in both the Fashion & Textiles and Interdisciplinary Design programs at the School of Design, University of Technology Sydney, since 2010. She has recently completed her PhD at RMIT University [Architecture and Urban Design], focused on tacit knowledge in the practice of fashion design through experimental pattern cutting. Donna is currently undertaking research with the Australian Museum and entomology collections, to expand applications involving the study of insects for design. She is also researching the use of Dynamic Cutting for choreographic outcomes. Donna has a background as a fashion designer based on Sydney. She is most well recognised for the Morphotex Dress, which has been exhibited in Australia, USA, Japan, France, UK and South-east Asia. Donna has presented her research in various creative practice research forums, including the RMIT Practice Research Symposium, ADAPTr Creative Practice Symposium, CUMULUS, and Creative Cut: International Conference on Creative Pattern Cutting. Most recently her work was acquired by the Taiwan National Science Education Centre for touring exhibition until 2023.

DR. SIMRITA **SINGH**, *Northern India Institute of Fashion Technology, Mohali, Punjab*

Qualification

- Ph.D.(Design & Fine Arts)
- M.A, (History of Art)
- B.F.A (Applied Art)
- 20 plus years of experience as Art , Design & Fashion educator.

Professional Experience

Dr. Simrita Singh is presently teaching at and heading the Fashion Design department at NIIFT, Mohali (Department of Industries & Commerce , Govt. of Punjab). She is also the coordinator of the State Initiative Design Centre granted by the Ministry of Textiles to NIIFT for the promotion of handicrafts of Punjab. She has worked and researched on the regional art and craft of India and written papers and made presentations on the same too. She has held the position of the chairperson of the Board of Studies for Punjab Technical University, Jalandhar. Presently she is a member of the same. She has visited the Walsall College U.K representing NIIFT under the UKIERI research initiative. She also is the coordinator for the NIIFT Fashion Show "ANUKAMA". As a trained artist she also participates and organizes exhibition on art and craft regularly. She has undertaken many projects such as uniform design for prestigious organizations, handicraft clusters, design and skill development projects for artisans.

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LAURA SLATER, *Leeds Arts University*

Laura Slater is part time lecturer on BA (Hons) Printed Textiles & Surface Pattern Design. Working in industry since graduating from the Royal College of Art in 2007, Laura's experience includes the development and creative direction of her own design brand along side a variety of educational roles within range of settings from universities and colleges to national galleries.

Laura's design practice and academic research is occupied with the importance of, and engagement we have with pattern and its ability to connect us with the environments and objects we surround ourselves with. Process is integral to her design practice, along-with experimental approaches to drawing, print and mark making.

JOSEPHINE STEED, *The Robert Gordon University*

Josie Steed is Course Leader for BA (Hons) Fashion & Textile Design at Gray's School of Art, Robert Gordon University. She has written a number of research publications on textile craft and technology and collaborated on research projects exploring new smart textile applications. Josie has a keen interest in Knowledge Exchange collaborations and has experience as Principal Investigator on Knowledge Transfer Partnerships.

JANIE TWEDDLE, *Leeds Arts University*

Janie Tweddle is a senior lecturer in fashion design. She teaches on BA (Hons) Fashion at Leeds Arts University, working predominantly with level 4 and level 5 cohorts. She initially trained as a tailor on Savile Row, and gained valuable experience in the Gold label cutting room at Vivienne Westwood, and the atelier studio at Alexander McQueen. Janie has a BA (Hons) in Set & Costume design, and an MA in Fashion design. She is an early career researcher, currently interested in developing innovative pattern cutting teaching methods.

GARETH WADKIN, *Leeds Art University*

Gareth Wadkin is a textile designer and early career academic; teaching and supporting learning at Leeds Arts University on BA (Hons) Printed Textiles and Surface Pattern Design. A Textile Design and and PGCertHE graduate of the University of Leeds he is currently completing an MA in Textile Practice at Manchester Metropolitan University.

Highly skilled in traditional printed textiles and printmaking techniques his pedagogic research and scholarly activity includes investigating historical and contemporary craft practice within printed textiles and collaborative approaches to undergraduate teaching and learning. Examples of his collaborative research have included external and public engaged projects with schools, galleries, museums, The Crafts Council, Nike, The Sorrell Foundation's National Art and Design Saturday Club, The Yorkshire Sculpture Park and Thought Bubble Festival.

YUTING WANG, *The University of Manchester*

Yuting Wang is a visiting student, studying at the University of Manchester. Current research project involvement includes working as part of a team to study garments, in particular the skirt, alongside 3D body scanning to explore possibilities to use advanced technologies to create garment patterns.

BETH WHITE, *Birmingham City University*

Beth White is a lecture in Fashion Business and Promotion and is the Collaborative Practice co-ordinator at Birmingham City University specialising in the evolution of the retail sector. She has recently published on 'Selfridges and the Evolution of Bricks and Mortar Retail' for Bloomsbury Fashion Business Cases, and she is currently co-editing a special issue of Open Cultural Studies called 'J. G. Ballard and Making'.

BIOGRAPHIES

HANNA DÍŚ **WHITEHEAD**, *Studio Hanna Whitehead*

Studio Hanna Whitehead is a design studio whose practice involves working with space and products. Based in the southeast of Iceland, the studio focuses on a hands-on approach, working in a very personal way, interweaving story, shape, culture, materials and color.

The products designed by the studio range in scale from small to big, from object to space.

Designer Hanna Dis Whitehead graduated Cum Laude from the Design Academy Eindhoven in 2011.

STEPHANIE **WOOSTER**, *University of the West of England, Bristol*

Stephanie is a senior lecturer on the Fashion Textile degree in Bristol. Specialising in knit and stitch she has a background working within textile studios and as a freelance designer. Her research interests are in the use of the haptic and tacit within design and how it can be communicated through new technologies. She exhibits regularly with the Brunel Broderers and is the lead member of the Make and Think research group.

LILIA **YIP**, *University of Brighton*

Lilia Yip is an academic / fashion designer and musician, threading the different strands into a creative practice that makes meaning with material. She graduated from the Royal College of Art MA Fashion Womenswear in 2008 and set up her studio in Brighton, UK.

The principles of ethical and sustainable practice underpin her design process where conceptual pattern cutting, imagery, text and a thorough understanding of material and drape are combined to build a subtle form of communication.

Lilia has collaborated with the British Council as their guest designer, showcasing work in the Philippines and running workshops in Saudi Arabia and Morocco. She has exhibited internationally in solo exhibitions and major group shows at Museum Boijmans van Beuningen and the Victoria & Albert museum.

Lilia is a Senior Lecturer in Fashion at the University of Brighton.

Website: www.liliayip.com

DR. MARGARETA **ZETTERBLOM**, *University of Borås, Sweden*

Researcher (PhD), Senior Lecturer and Textile Designer
at the Swedish School of Textiles, University of Borås, Sweden

Margareta Zetterblom is the program director for the Bachelor education in Textile design at the Swedish School of Textiles. As program director, she is working with the development of the education and the courses, and she teaches in design methodology and weaving on both BA and MA level. The specific field of research is textile sound design. Within her research capacities, she has developed a Sound Lab at the department, where she runs workshops with the students in her subject textile sound design. Zetterblom's professional career has been focused on working with sound affecting textiles as product developer and textile interior designer as well as designer/artist in artistic projects including design of textile art installations with sound dampening fabrics in public spaces.

