

“Sculptural Colourscape”

This article discusses the use of ‘novel’ nonwoven fabrics in apparel and details a collaborative project undertaken by staff from the School of Design Fashion Area at the University of Leeds, in the UK, using nonwoven fabric sponsored by Lenzing Fibers.

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Cooperative connections. Using ‘novel materials’ and reinventing the basic building blocks of design, this article discusses how ‘materiologists’ change the way we define clothing through material choice.

Fashion design has often embraced new technologies to help sculpt the human form, Lee (2005). The research and experimentation at the University of Leeds (UoL) is built around an appreciation, real awareness and understanding of traditional fabrics and materials whilst embracing the latest technical synthetics. Staff and students have been researching the use of nonwoven fabrics in apparel since 2005, and witnessed the beginning of an evolution of a new generation of fabrics with enhanced capacities which drove the creative engagement of fashion designers around the world. This drive for creative engagement with technology is not new but it proves that designers are primarily concerned with aesthetics, using these fabrics in new and surprising ways.

FASHION DESIGNERS CHOOSE THE NEW TEXTILES LARGELY FOR THEIR PROGRESSIVE APPEARANCE and sometimes regardless of their supreme performance properties instead enjoying the distinctive appeal of technical textiles which are rarely designed for beauty, finding them intriguing to work with and seeing that they offer something a bit different, Braddock Clarke (2005). This can be evidenced as early as the 1960s when many fashion designers experimented with a space age aesthetic and looked to the future with their use of high-tech materials, for example Paco Rabanne’s use of new contemporary materials which challenged traditional forms of construction and led to the creation of new shapes, and Pierre Cardin’s use of materials such as metal, paper and plastic, Braddock Clarke (2005).

TODAY FASHION READILY EMBRACES NOVEL MATERIALS AND TECHNIQUES, new technologies drive creativity and permit designers to innovate in previously unimagined ways, Lee (2005). For example Shelley Fox’s innovative cutting and use of non-conventional fabrics, Issey Miyake’s Pleats Please collection and A-POC (‘a piece of cloth’), Manel Torres ‘spray on fashion’ FabriCan spray and Victor & Rolf’s ‘chameleon camouflage’ or ‘blue screen’ collection, Hussein Chalayan’s dresses with memory wires that elevate the skirts to his tailored jackets, Chalayan’s clothes combine a stark beauty with a fascination for the mechanics of form, Wilcox (2001). Their work is optimistic and ultimately liberating, they challenge every preconception and at the same time present solutions.

As discussed, the motivation most designers cite for harnessing technology in fashion is purely to further the creative process, to achieve something in a new way, Lee (2005). Technological developments in nonwoven fabrics over the past few decades have extended their end uses further, as evidenced in the first collection of garments from UoL created using nonwoven fabrics.

‘Fashion Synergy’ was disseminated at the EDANA Nonwovens Research Academy UoL in 2007 and at the University of Leeds International Textiles Archive (ULITA) the same year. This early research, in collaboration with members of the Nonwoven Network, represented a bold step on behalf of the participants and sponsors.

TRIALING THROUGH HANDLING MATERIALS is an important part of the design process; this research discovered that these nonwoven materials offered a range of unique properties which other more traditional fabrics did not.

Experiments using these ‘novel’ fabrics generated unique and creative answers to a range of technical problems which had previously been seen as barriers to the potential use of nonwovens in fashion garments.

More collections and collaborations followed; ‘FASHION: Function in Action’ where technological advances in nonwo-

ven fibres resulted in creative design solutions. Supported by EDANA and its members, this collection was exhibited at INDEX 08 in Palexpo, Geneva in 2008. Next came 'FASHION: Transparency' sponsored by Colbond. Combining new technology and traditional techniques, fabrics were given ingrained imperfections, adding a sense of story kept up to date in an elegant and contemporary way. Sonic bonding, laser cutting and beading created a mood with many facets, from soft dressing and feminine ruffles through to tailored-inspired looks inviting us to view materials in a challenging way. Finally 'FASHION: Décoratif' created in collaboration with Colbond, Fybagrate and Anglo Recycling where exploratory research into nuno felting, beading, embellishment and print and colour techniques generated a collection of innovative and stylish garments. Nonwovens could be seen as being on the threshold of offering a genuine challenge in garment (and fashion) end uses.

ARCHITECTURAL COLOUR CLASH. In 2010 the Lenzing Group, world leader in marketing and manufacturing man-made cellulose fibres, approached the School of Design, UoL, UK with a challenge impossible to resist; create a range of garments using their distinctive brightly coloured fibres. To date, apparel collections using nonwoven fabrics had been created in either neutral or soft colours such as white, creams, soft greys, blues and pinks. The fabrics sent from the manufacturer were bold; chartreuse yellow and green, lilac, cyclamen pink and tangerine. They were also complex; delivered in rolls 50cm wide. Traditionally fabrics used for apparel are 100-150cm wide to allow for shaping around the body and to create the fluid lines customary to apparel. This narrow width presented the designers with a range of new questions; would full size garment pieces fit? Which pattern shapes would best address the restrictions? How could full and pleated skirts (Fig 3) be evolved using this width of cloth? The design process made use of the latest trend and style inspiration from a range of global sources. The resulting collection made an impacting statement. Whether it came in colliding (Fig 6) or matching blocks (Fig 2), colour was at the heart of this collection of garments; combining bright flashes of jewel colours with shades of grey (Fig 4), colour dictated the mood and attitude throughout. Strong, sharp and clean design lines gave a contemporary feel. Technical fibres engaged with curvy and rounded organic shapes evolving into relaxed tailoring and statement pieces in sensational hues of bold brights. These 'on-trend' colours directly linked to consumer aspiration, inspiring and supporting both product development and the creative process, comfort and practical aspects are key. Bright statements, directional and cutting-edge elements push the boundaries making an impact into what is perceived as fashion fabrics. Focussing on clashing colours, architectural and sculptured or rounded shapes (Fig 5) and simple methods of construction, these garments wrap the body in a swathe of 'cool cocooning'. Their clean simplicity adding a touch of modern wearability. Eunsuk Hur's work (Fig 1), described as interchangeable modular systems of textile pieces, pushes the boundaries of fashion by exploring different materials and approaches leading to the new textiles featured here. Her designs adapt and change depending on how they are worn. She expressly designs each textile piece to engage the customer and expand his or her opportunity for personal expression. These malleable, soft to the touch, multi-coloured fibres proved an ideal avenue for her imaginative work.

WRAPPING UP. The choice of textile can significantly influence the eventual silhouette and the entire message of a collection. Designers are fascinated with the aesthetics which can be achieved through the use of a variety of innovative techniques. Soft to the touch, colourful nonwovens with their unique properties of bounce & drape were pleated, laser cut, washed and blended in this unique experimentation to develop and evolve into a collection of distinctive fashion apparel. These garments were exhibited at INDEX 11 Palexpo, Geneva April 2011. • Research into the use of nonwoven in apparel is an ongoing project undertaken by staff and undergraduate students in the Fashion Design programme, School of Design, University of Leeds, UK, under the supervision of David Backhouse, MDes RCA Subject Leader and Lynne Webster, Senior Teaching Fellow. Garment design and pattern drafting by: David Backhouse (Programme Leader, Fashion) & Lynne Webster (Senior Teaching Fellow). Garment construction by Catherine Malkin (Instructor) & Lynda Howarth (Technician). Scarves designed and constructed by Eunsuk Hur (PhD Research Student). Photography by Mike Anderson.

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A CULTURE IN PAPER

David's role involves the design, delivery and assessment of undergraduate modules in fashion design and theory. David worked for Roland Klein for over 15 years designing ranges for clients and stores around the globe. He has been working in Higher Education for the past 18 years.