On the Dress She Wears a (Printed) Body

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Abstract

Blaise Cendrar's Poem for Madame Delaunay (1914) begins with the line 'On the dress she wears a body...' and celebrates the synergy that existed between Delaunay and the Simultaneous Dresses she designed and modelled on herself. Inspired by Cubism, the dresses were collaged together from coloured geometric swatches, forming a carapace that echoed the curves and proportions of the artist's individual shape. The prototypes informed her printed couture of the 1920s, which adhered to the streamlined garçonne style of the time, but expressed the female form as a new moving, sensual phenomenon through abstract, graphic prints. A simultaneous approach to the body can also be identified in the work of other textile-led designers such as Zandra Rhodes, Ossie Clark, Eley Kishimoto and Jonathan Saunders. Their desire to decorate the body is evident through design outcomes which harness textile imagery to not only embellish their garments, but to iterate the form of the wearer. Since the late 1920s Surrealism has influenced designers to explore conceptual styles of imagery. The further integration of computer, motion graphic software and digital printing technology has fostered post modern responses to trompe l'oeil that visually recontextualise the female form in fashion. This paper discusses how the creative use of traditional and new design technology can facilitate a more poetic approach to the body in fashion that resonates with Delaunay's simultaneous aesthetic.

Delaunay's Legacy

Since 1998 the main focus of my research has been the relationship between the female form and printed textile imagery. The simultaneous design approach advocated through my practice-led PhD was inspired by the work of the artist Sonia Delaunay. Her paintings from the early 20th Century of Simultaneous Contrasts, influenced by Orphism and Cubism, concentrated on colour and its relationship with form, space and movement. She developed these studies into textiles and by 1913 had designed her first Simultaneous Dress. The patch-worked garment was constructed from geometric fragments of coloured fabric, assimilated to echo the various proportions, curves and gestures of her body. Delaunay wore her Simultaneous Dress prototypes to the Bal Bullier in Paris, where she was observed

by Blaise Cendrars and other members of the Avante Garde. Cendrars' *Poem for Madame Delaunay* celebrates the sensuality of the female form through fabric:

On the dress she wears a body. The woman's body has as many bumps as my skull Glorious if you are incarnate With wit The tailors do a stupid job Just like the phrenology My eyes are kilos weighing down the sensuality of women. Everything that bumps progresses into depth The stars penetrate the sky The colours disrobe in contrast. 'On the dress she has a body'

Delaunay's innovative, form-focused designs led to her being commissioned by Diaghilev to design the erotic costumes for the Ballet Russes production of Cleopatra in 1917, which was followed by her successful launch into Paris fashion. Delaunay was fairly unique in designing both the textile and the garment; her design ethos stemming from the belief that '...the cut of the dress is conceived by its creator simultaneously with its decoration. Then the cut and the decoration suitable to the shape are both printed on the same fabric' (Delaunay in Damase 1991: 58).¹ Seeking greater control over the production of her 'fabric patterns', Delaunay opened her own printing workshop, Atelier Simultané in 1924, which guaranteed her autonomy over the translation of colour and the placement of the print within the geometric structure of the finished garment. As Morano (1986)² states:

The garçonne-style clothing of the mid-1920s was perfectly suited to Delaunay's fabrics as it had little structural detail or complicated seaming, no waistline and a straight neckline. The effect, aided by bust and hip flatteners, produced a two-dimensional dress and image.

Ironically, the garçonne style was based on the angular physique and image of the male body, and represented a shift from the belle époque and hourglass shaping for women. The new streamlined silhouette facilitated Delaunay's pre-CAD method of directly transposing printed dress shapes onto cloth using silk screens. Delaunay used the process to full effect, sketching her ideas as fashion drawings she pre-empted the effect of pattern on the body, then translated the textile designs directly within full-size garment templates. The absence of structural detail resulted in the graphic element taking on a new significance in terms of the iteration of the female form.

Delaunay's bold geometric textiles challenged the traditional relationship between women's fashion and traditional florals, by describing the female form through abstract patterns that suggested movement and the advent of new technology. The application and style of her imagery drew attention to the wearer and celebrated the body through the avant garde aesthetic of Modernism. Throughout the 1920s she gained recognition as 'the artist couturier',³ by promoting her work through collections and lectures such as *The Influence of Painting on the Art of Clothes*, at the Sorbonne in 1927, and predicted 'ready-to-wear' in *Artists and the Future of Fashion* published in Jacques Heim's house journal in 1932 (Damase 1991: 171).

Delaunay's simultaneous design ethos pre-empted the objectives of integrated technology such as computer graphic software and digital printing, over seventy years before CAD/CAM providers like Lectra Systemes launched their 'total clothing solutions' in 2000. While digital technology has opened up the possibilities for integrating body, cloth and print more expediently, Delaunay's practice illustrates that it is the aesthetic sensibility of the designer that is paramount. The symbiosis of print and cut in Delaunay's dresses can be detected in the work of other artist/designers whose approaches blur the disciplines of the Fine and Applied Arts.

Correlating Pattern with the Female Form

It is primarily the fashionable silhouette that determines how the female form is conveyed, but research shows printed textiles can play a highly influential role in the process of iteration. In 2001 my research considered garment shapes as spatial forms that conducted print around the body in different ways.⁴ In 2008 this concept is explored strategically by designers using integrated design platforms. The theory stems from the work of the Constructivist artist Luibov Popova, who like Sonia Delaunay, approached textile and garment design and with an innate sense of its 3D application. Through analysis of Popova's practice, I identified three archetypal shapes: 'sculptural' and 'architectural',⁵ and 'crossover', a category where both forms intersected.

To reinforce these spatial archetypes, I highlighted four different approaches to printed garment design; 'textile-led', 'garment-led', 'simultaneous' and 'the garment as (a) canvas'. Each approach places a contrasting emphasis on the role that the printed textile plays within the design equation. For example a textile-led design may be configured around the style or

decorative detail of a print, a garment-led piece places greater emphasis on structural detail, a simultaneous garment illustrates a more equal consideration of print and cut, and when treated as a canvas a garment provides a surface for graphic or conceptual dialogue. The following section focuses on key practitioners who have explored printed garment design from a strong textile-led and/or simultaneous perspective.

During the 1970s Zandra Rhodes' method of building up her garment shapes using textile printing screens resonated with Delaunay's studio practice. 'A pioneer of contemporary fabric design for fashion, Rhodes passion for the relationship between hand-screen print and the three-dimensional garment has influenced countless designers, from Jonathan Saunders to John Galliano (Black 2006: 137).¹⁶ Heavily influenced by Asian and Native American textiles, and traditional craft techniques, Rhodes interpreted her drawings as well as the language of knit and stitch, as print vocabulary that worked in harmony with the shapes of her dresses and the bodies that wore them. Her *Kaftan with Indian Feather Sunspray* (1970) gives the impression that the feathers are sewn or embroidered onto the fabric with crossstitch and the structure of the print cleverly echoes the proportions of the form through layers of horizontally placed feathers. Rhodes recent couture and collections for Top Shop also reflect a dedication to enhancing the form through the strategic placement of imagery.

Pieces by the partnership of Ossie Clark and Celia Birtwell demonstrate an aesthetic sensitivity when aligning pattern with garment and body. A contemporary of Rhodes, Clark's bias cut dresses of the 1970s provide perfect examples of printed sculptural dresses. Strongly influenced by Vionnet and 1930s fashion, Clark integrated Birtwell's feminine, floral prints in a manner that always flattered the underlying form, often cutting on the straight of grain and bias to align the print with the contours most effectively. Birtwell's prints were the motivation for many of Clark's designs. He gave her the freedom to create whatever imagery she liked and then discussed the feasibility of combining both their ideas. Like Delaunay, Birtwell's designs were conceived on the form. 'Celia didn't draw her fabric designs flat because they were on little figures. So it was a combination of both their talents; not only was he inspired by her work, but also the way in which she put it on a body (Buckley in Watt, 2003: 54).'⁷

Birtwell had developed 'fantasy girl' drawings since she was a child, which were clearly autobiographical. Inspired by Birtwell as muse and Mae West as a favorite icon, Clark created his new vision of femininity through flattering shapes that emphasized the bust and reduced the waist and hips with bias-cut, flared skirts; 'what made him totally unique was his absolute understanding of the female anatomy: how it worked, moved and responded.

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Sexuality was always part of the package.⁸ Clark's bias-cut crepe-de-Chine dress of 1970, illustrates how Clark translated Birtwell's drawings and designs strategically; the bust, upper arms and curve of the hips are covered in diagonal swathes of red and yellow flowers discharged out of a black background. In the similar *Tulip Dress in bias cut silk chiffon (1971)*, the models body appears to be painted in tulips that sweep across her contours.

Mark Eley has described Eley Kishimoto's practice as 'textile-led' and that the close working relationship with his wife and partner Wakiko Kishimoto, has led them to create outcomes that consider print and cut in equal measure (Eley 2000).⁹ As graduates in textile and fashion design, the pair developed an affinity for body conscious print through commissions for fashion luminaries such as Alexander McQueen, Jil Sander, Givenchy, Yves Saint Laurent and Luis Vuitton. Their pixelated floral print for Hussein Chalayan (1995) placed their work in the spotlight, through its revolutionary use of digital print vocabulary.

Eley Kishimoto launched their own label in 1995 preferring to work directly with cloth, they developed print imagery and garment styles in response to the particular characteristics of the material. Within the design process they are at ease with hand printing and painting alongside computer manipulation. Their style is instantly recognizable for its idiosyncratic interpretation of florals, bold geometrics and graphic effects in daring palettes. *Turbulence (Spring/Summer 2004)* is a two-colour, screen print on pre-dyed cotton, 'the linear patterning of the design works with the curvilinear cutting of the garment silhouette enhanced by the use of a stretch fabric. The garment looks as if it is swirling around the wearer (Braddock Clarke 2004: 120).'¹⁰ In Cosmic Dolls on Earth (Spring/Summer 2006) their 1970s inspired screen prints featured flowers, clouds, rainbows and starbursts which arced around the form, enhancing the sense of the wearer's body in movement.

Jonathan Saunders graduation collection from Central Saint Martins was inspired by the artist/designer Oskar Schlemmer's series of sketches entitled *'Means of Transforming the Human Body by Use of Costume'* created for the *Triadic Ballet (1922)*. References to the Bauhaus style of 20th century minimalism are clear from his detailed printed garments.

While his work is clearly influenced by 'the pixilated, intricate markings of advanced computerized printing' he frequently translates his designs using hand screening techniques and is committed to traditional drawing and crafting techniques for originating his designs at full-scale. CAD in the form of A1 scanning into Photoshop is used as a means of translation, not an end in itself. His bold use of colour and graphic compositions possess an inherent Cubist quality suggesting a range of perspectives of the body through graduated colour and

grainy monochromatic texture. Saunders dedication to iterating the female form in a post modern context is clear:

I'm not interested in 'conversational' prints, or symbolism of any kind. My work is deliberately divorced from any kind of representation. I'm concerned with balance and line. Print for me is not just about decoration – it is much more than that. My clothes aren't about titillated decoration added on as an extra. I have an innate desire to decorate the body, very much in the way of tattooing or body painting. I like to frame the body (Quoted in Fogg 2006:81).^{'11}

Saunders framing of the body through print is central to my own design ethos and I was instinctively drawn to his work through his collaboration with Alexander McQueen on his S/S 2003 collection. His 'bird of paradise' feather print incorporated kinetic visual qualities, which emphasised the sculptural cut and flowing style of McQueen's shapes. Saunders confident use of colour and pattern also made him the ideal consultant for the Italian fashion house, Pucci. The link between Saunders and Pucci is interesting because the label had established itself on its revolutionary iteration of the female form through psychedelic, exuberant pattern.

In the 1960s Emilio Pucci created a new dialogue between print, cut and the body. Pucci's prints were multi-directional alluding to pattern itself, as opposed to the body (sculptural) or the garment (architectural), their construction in stretch jersey resulting in a 'crossing over' of both approaches and a new silhouette. As Gombrich (1979: 65) ¹² observes: In adorning the body an order is superimposed on an existing order, respecting or sometimes contradicting the symmetries of the organic form.' Saunders respect for the 'existing order' can be detected in Pucci's more recent collections, where the prints relate more harmoniously to the form.

Conceptual Responses to Printed Garment Design

The graphic characteristics of printed textiles have resulted in some notable conceptual responses by artists/designers. Just as Delaunay took her canvases and wrapped them around the form, so other designers have explored 'the garment as a three-dimensional canvas for the body' (Townsend, 2004: 3:26).¹³ Such an approach involves the use of images or ideas configured specifically within or around the contour of the garment shape and parameters of the body resulting in pieces that 'intersect the disciplines of art and fashion' (Wollen 1999: 7).¹⁴

Many artists, including Robert Rauschenberg and Andy Warhol have explored the potential of clothing as a vehicle for photographic imagery, as exhibited in the *Biennale di Firenze 1996: Looking at Fashion.*¹⁵ Fashion designers have transformed garment shapes with the application of graphic, *trompe l'oeil* and ironic commentary, as illustrated by Paul Gaultier's *Cyberbaba (1996)* collection, where he transposed photographic prints of male torsos onto women's garments. Hussein Chalayan's ethereal *Buried Dress 1995* touched on issues of mortality, the patina of age and erosion of the fabric providing a metaphor for the ageing body. In 1999, Alexander McQueen's used a garment literally as a canvas, by spraying it through 360 degrees on the model using robots.

Throughout the last century, couture endured a complex two-way relationship with painting'; the commissioning of artists to design 'visual tableaux' for dress beginning with Poiret and Dufy, whose partnership (1909-1929), imbued garment design with some of the prestige associated with fine art (Wollen 1998: 8). While Cubism can be said to have influenced the re-structuring of fashion, the effect of Surrealism led to the some of the last century's most intriguing garments. Elsa Schiaparelli was one of the first couturiers to incorporate the Surrealist imagery into fashion, by introducing *trompe l'oiel* knitwear in 1927 with sailors tattoos and the 'skeletal jersey', which made women look as if they were being seen through an X-ray (Muller 2000: 9).'¹⁶ Schiaparelli commissioned the artists Jean Cocteau, Christian Bérard and Salvadore Dali to design textiles for her collections, using the dress to frame an illustrated narrative.

Schiaparelli's *Tear Illusion Dress* was inspired by a figure in Dali's painting *Three Young Surrealist Women Holding in Their Arms the Skins of an Orchestra* (1936), in which one of the figures wears a skin-like dress covered with tears, which reveal the body. The dress features a repeating *trompe l'oeil* design of screen printed torn shapes in pink, purple and black. The notion of a print design based on torn flesh was highly controversial, and provides an important example of the effectiveness of employing photographic imagery as a textile construct, as is now accepted practice. Fashion historians have associated various meanings to the piece:

The imagery of the violence is counter posed by the elegance of the dress, its existence as sophisticated fashion, and the fact that it is *not* rags, *not* torn. The way in which the dress acts to displace sexual meanings from the body is brilliantly exploited. It is a piece suggestive of fantasy that is both acknowledged and denied. Violence and eroticism are simultaneously displayed and made to

disappear; beauty is brought to bear on rupture (Evans and Thornton 1989: 139).¹⁷

The printed tee shirts of the 1960s were a natural development of what artists like Schiaparelli started, marking the introduction of fashion's most enduring canvas; the synthesising of image with text often transforming the body into a walking advertisement. The 'paper poster dresses' of the same decade provided a broader canvas, particularly Harry Borden's *Eye Dress*, where the simple dress shape allows the oversized photographic-style eye to dominate the composition and is at odds with the proportions of the wearer. Jean Charles de Castelbajac and Ben Vautier's *Je suis toute nue en dessus (I am completely naked underneath) dress 1984*, fashioned like a teeshirt, provides suggestive commentary on the body's state of undress beneath dress. In 1996 Issey Miyake's *Guest Artist Series No. 2* was explored by the photographer Nobuyoshi Araki to communicate the theme of memory. Pieces included a self-portrait of the photographer on a tunic and the image of a woman on a long figure-hugging dress, who disappeared when worn, leaving her image in the memory of the voyeur (Braddock Clarke 2005: 172).

Martin Margiela's conceptual interpretations of the fashioned body include the exhibition 9/4/1615 in 1997, where he collaborated with the microbiologist Van Egeraat to demonstrate how clothing and the body can be transformed thorough the patterns of bacterial decomposition. In *Gotscho. Dressed Photograph 5, 1996*, Margiela flirted with gender by repeating photo of dress onto an elongated shift dress, attached to a photograph of a man, by Nan Goldin. In his 157% collection for S/S 2001, he constructed oversized garments based on a custom built mannequin, challenging standardized notions of body size, garment fit and questions whose bodies we are interpreting ourselves through.

Like Jonathan Saunders, Giles Deacon has a strong graphic aesthetic where the body and imagery are concerned. Originally an illustrator, Deacon's first job after graduating in fashion was for Jean Charles-de Castelbajac, where he was introduced to conceptual fashion and new technologies such as digital jacquard weaving. Today Deacon often uses such disparate methods as painting abstracts with acrylic paints to using a digital camera to record images he sees in his day to day life. He works closely with the printed textile designer Rory Crichton who manipulates their co-designed ideas into surreal photographic compositions.

Deacon also uses the internet for photo research, particularly Google, where he found all the images he needed when researching his 'Who Killed Bambi?' print, which featured the

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Disney deer with blood gushing from its slit throat (Rushton 2007: 07). Giles 2008 S/S collection includes partially abstracted prints that appear to reference the female body. One dress features a print that correlates with the models body suggesting what lies beneath the garment, an interesting reference to his early mentor, Castelbajac. Deacon's surreal edge has led to rumours that will soon be joining the house of Elsa Schiaparelli.

Sculpting the Body with Print

In 1998, when I began my PhD investigation into 'the integration of print design and garment shape', I was provided access to integrated CAD/CAM technology including graphic, pattern cutting and grading software, digital printing and cutting equipment. After initial research, I believed this technology could offer textile and fashion designers new possibilities for deviating from a 2D design approach to fabric and form by working directly within the garment contour and visualising the outcome in 3D. Coming from a traditional textile background, I was familiar with drawing, painting, drafting and screen printing by hand. Through creative experimentation I established a unique way of working between manual and digital platforms, referred to as the Simultaneous Design Method, inspired by Delaunay's aesthetic approach and the potential of integrated CAD/CAM technology.¹⁸

As discussed, my research identified a range of new theoretical approaches to printed garment design consolidated by practical investigations into 'architectural' and 'sculptural' dress shapes with associated styles of aesthetic surface embellishment. Using hand and virtual modelling methods for print origination and integration, 'repeating and non-repeating patterns'¹⁹ were synthesized with 2D and 3D shapes in the computer, resulting in an engineered approach to print influenced by the presence of the female form.

The imagery I created was inspired by the principles of Greek drapery, which fulfilled the dual purpose of surface embellishment and structural detail, and by the sculptural approach of Madeleine Vionnet, whose methodology referenced the garments of antiquity. I explored the idea of how printed textiles could be created in three dimensional space, instead of being originated in a two dimensional plane, by crafting a series of blueprinted toiles. To achieve this, I adapted the cyanotype process for use with simple garment shapes which I modeled on my own body, a dress stand and a half-scale mannequin. The resulting cyanoforms were a recording of the effect of light on draped and manipulated cloth sculptures; the transient relationship of cloth with form, made permanent. The deconstructed pieces were scanned and rendered using graphic software and engineered within pattern contours to annotate the image to suggest movement emanating through the fabric and the underlying form of the wearer. This conceptual yet functional approach was achieved through the creation and

strategic manipulation of *trompe l'oeil* pleats and fluid styles of imagery that streamlined the form, as shown in figure 1.

The innovative 3D starting point, central to my research hypothesis became the catalyst for *Transforming Shape (2001)*, a collaborative research project and exhibition that explored:

The design opportunities created by new technologies, specifically the relationship between innovative imagery and three-dimensional forms. The central inspiration being the premise that textile designs can be mediated through pattern shapes and that pattern shapes transform the body.²⁰

Up until this point the use of CAD in association with digital fabric printing had generally been utilized for sampling and niche production in a replication of existing methods, with few digital connections being made between print, cloth and the human form.



Figure 1. Tide Dress positive/negative (Townsend 2003)

My research has continued to focus on the generation and creative integration of engineered prints and their creative integration with garments, particularly dress shapes, without disrupting the flow of the image. Engineered prints have considerable potential for enhancing with the underlying contours of the form, a phenomenon that has only recently been explored by designers like Jonathan Saunders and Giles Deacon. Prada's Autumn/Winter

2004/05 collection featured an organza shift digitally printed to create the illusion of the human body through folds and creases, which resonates with the aims of my own practice in 2001. This body-centered approach is still largely confined to haute couture, but further developments in linking body scanning to computer graphics and digital printing, could enable designers to apply such signifiers of exclusivity to designs for the mass market.

Designers now engineer the print onto the body in a way that can only be achieved through modern technology and fabrics, and with greater sensitivity and awareness of the human form. We have now become attuned to seeing the outlines of a figure – uncorseted, athletic – in a way unheard of when Sonia Delaunay cut her Cubist-inspired, brightly coloured canvases into the unstructured clothes of the 1920s (Fogg 2006: 65).

Creative Responses to Existing Technologies

Some of the most innovative digital textile designs inspired by the female body are the result of creative uses and/or the subversion of existing technology. The following artists use unique combinations of software and motion graphics to project illusions that reference the form in fabric.

Dr Jane Harris's research is focused on the fabrication and animation of digital textiles and garments. Originally trained as a designer of hand woven textiles, her work simulates finely crafted, hand-dyed qualities in choreographed sequences of the movements of a dancer, captured through motion graphic software. Harris's search for 'beauty in the computer graphic beast²¹ has resulted in installations such as *Potential Beauty 2002-03* which presents a fashion or body-related idea as an art statement. Her interest in textiles both digitally and physically, particularly her prior knowledge of how fabric drapes and moves on a body, has informed her realistic simulations of an abstracted garment, turning in space (Braddock-Clark 2005: 188). Although the animation of Harris's virtual dresses is based on the physical movements of her dancer, Ruth Gibson, the absence of a body in the installation presents the viewer with an imaginative space to imagine their own, or another's body.

Hamish Morrow's Digital Echoes Spring/Summer 2004 collection explored the concept of virtual print, through a combination of digital fabric printing, fine art practices and digital media. Working in collaboration with the textile designer/researcher, Philip Delamore, photographers/image-makers Warren du Preeze and Nick Thornton-Jones and United Visual

Artists (UVA), Morrow extended the boundaries of digital print, by exploring it in three dimensions and real time (Black, 2006: 130). The collection was inspired by yachting, and featured an abstract print inspired by overlapping spinnaker sails print by Delamore in watery hues: 'the dresses are belted and held by haute couture yachting ropes, which act like a skeletal structure following the line of the shoulder blades, from which the pale sails of fabric hang (Black, 2006: 130).'

Morrow's catwalk show, based on 'digital reflection', was the first UVA had worked on. Models walking down the catwalk were preceded and followed by their digital "shadows". Following the show actual prints of the virtual projections were made onto several of Hamish's pieces. This was achieved by combining three disciplines: art direction, production design and software engineering, closely integrated to deliver real-time, immersive and responsive experiences. UVA work equally with LED, traditional lighting and projection technologies as sculptural elements; 'our bespoke software approach allows us to use existing technologies in new and unusual ways.'²²

Screen Dress is a collaborative and interdisciplinary design and performance piece developed by Michèle Danjoux (Fashion) and Jon Hamilton (Motion Graphics) based at Nottingham Trent University. Their work was presented at IFFTI 2007 and explores the relationship between motion graphics and dress. The concept combines a garment form constructed from Chromatte, a technical light-reflecting cloth produced for chroma key production in TV and film with motion graphics. Chromatte, designed to work dynamically with a LiteRing (a camera mounted device featuring LED's) utilizes the retro-reflective properties of its fabrication for live effects/image replacement, fusing motion graphics with onscreen performance. The fusion of motion graphics and video with garment creates two forms of the garment; the real/physical *technological* garment and the virtual *iconic* screen garment:

The *iconic garment* exists on screen. The filming and "camera eye" remove us from one reality into another, one where dancers organic tissues and animation become fused into expressive visual statement: an in-dissociable mixture of body, garment and graphics. The garment, according to Barthes' analysis of the body-garment relation, is extended as a body. The body can no longer be separated from its adornment and decoration (Danjoux 2007).²³

While none of these final examples are traditionally printed garments, each presents a different idea for iterating the female form through a conceptual graphic/dress. Technology is

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moving so quickly that we already have clothes that speak to us, monitor our temperature, help us disappear or attract a partner for our avatar in Second Life. For now, the iconic 'dress' endures, but the body that is worn on it has become more temporal, transient, abstract, an armature for the technology focused upon it. As Delaunay states

Imagine the future of fashion in these terms: there will be design centres, research laboratotories that will deal with practical applications, constantly adapting to the changing conditions of life. Research into the materials used and a simplification of aesthetic notions will become increasingly important. On such carefully considered and up-to-date foundations, vision and sensuality will find a wide field opening up before them (Quoted in Lee 2005: 198).²⁴

Conclusion

Since the late 1990s computer graphic software has provided shared platforms for designers to integrate graphic images at photographic resolution and manipulate them in accordance with garment contours, visualise in 2D and 3D, and adjust, prior to production. Digital input and output devices such as large format scanners and inkjet fabric printing have facilitated single or one-off garment production, for sampling or bespoke market contexts. While designers have always assessed aesthetic design issues throughout the designing and making process, the ability to pre-empt final outcomes has resulted in more body conscious and conceptual imaging strategies in particularly in the area of printed couture. However, motion graphics and projection technologies are now furthering the notion of integrated design and the way the moving body can be conceptualized, recorded and iterated through printed imagery.

In spite of technical advances, some design practitioners still prefer to generate outcomes using analogue drawing and painting media, which they develop, translate and transpose onto garments using both digital and traditional screen printing methods. We have more sophisticated technology, the patterns can be more complex, but the visual metaphor on the dress is still governed by the artists desire to decorate the human body.

References

¹ Sonia Delaunay quoted in Damase, J, 1991, Sonia Delaunay: Fashions and Fabrics, London: Thames and Hudson

² Morano, E, 1986 Sonia Delaunay: Art Into Fashion, New York: George Braziller Inc.

³ Buckburrough, S, 1980 Sonia Delaunay: A Retrospective, Buffalo: Albright-Knox Gallery

⁴ Townsend, K. Integrated design: from Delaunay to digital *Exchange Online Journal*, Issue 2, May 2001, ISSN 1472 9571, www.media.uwe.ac.uk/exchange_online/exch2_article6.php3

⁵ See p. 303 in Adaskina, N, and Sarabianov, D. (1990) *Liubov Popova*, London: Thames & Hudson

⁶ Black, S, (ed) 2006, Fashioning Fabrics: Contemporary textiles in fashion, London: Black Dog Publishing

⁷ Watt, J, 2003, Ossie Clark 1965/74, London: V & A Publications

⁸ Watson, L, 1999 Ossie Clark Fashion Designer 1942-1996: A Retrospective, Catalogue essay, Warrington Museum and Art Gallery

⁹ Private interview with Mark Eley co-director of Eley Kishimoto, 16th January 2000

¹⁰ Sarah E Braddock Clarke, Part 2: Applications in Braddock Clarke and O'Mahony, 2004, Techno Textiles 2, London: Thames and Hudson

¹¹ Jonathan Saunders quoted in Fogg, M, 2006, Print in Fashion: Design and Development in Textile Fashion, London: B T Batsford

¹² Gombrich, EH, 1979, The Sense of Order: A study in the Psychology of Decorative Art (The Wrightsman Lectures), Oxford: Phaidon, and Ithaca, New York: Cornell University Press

¹³ Townsend, K, 2003, Transforming Shape: A simultaneous approach to the body, cloth and print for textile and garment design (synthesising CAD and manual methods), PhD, Nottingham Trent University

¹⁴ Wollen, P, 1998, Addressing the Century, essay in exhibition catalogue for Addressing the Century: 100 Years of Art and Fashion, London: Hayward Gallery

¹⁵ Biennale di Firenze, 1996, Looking at Fashion, Florence: Biennale di Firenze

¹⁶ Muller, F, 2000, Art and Fashion, London: Thames and Hudson

¹⁷ Evans, C. and Thornton, M, 1989, Women and Fashion: A New Look, London: Quartet Books

¹⁸ Townsend, K.: *Integrated design: from Delaunay to digital* Exchange Online Journal, Issue 2 - May 2001, ISSN 1472-9571, *Available from* http://www.media.uwe.ac.uk/exchange online2/exch2 article6.php3 Accessed 2006-03-23

¹⁹ Bunce, G.: *To Repeat or not to repeat* Creativity: Designer meets Technology Europe Conference, Copenhagen, September 26-27, 2005, *Available from* http://kridt.dk/conference/Speakers/Gill_Bunce.pdf Accessed 2006-03-23

²⁰ Townsend, K, 2004 *Transforming Shape: Hybrid practice as group activity* The Design Journal, Vol. 7, issue 2, pp.18-31 ISSN 140-6925

²¹ Harris, J, 2002, Beauty in the Computer Graphic Beast, Pixel Raiders: Applied artists and digital technologies, The Victoria and Albert Museum, 19th March

²² United Visual Artists <u>http://www.uva.co.uk/about</u>

²³ Danjoux, M. 2007, The Emergent Dress: Fashion, Performance and Materiality, IFFTI, Canada

²⁴ Lee, S, 2005, fashioning the Future: Tomorrow's Wardrobe, London: Thames and Hudson

Bibliography

Adaskina, N, and Sarabianov, D. (1990) Liubov Popova, London: Thames & Hudson

Biennale di Firenze, 1996, Looking at Fashion, Florence: Biennale di Firenze

Benaim, L. (1997) Issey Miyake, London: Thames and Hudson

Black, S, (ed) 2006, *Fashioning Fabrics: Contemporary textiles in fashion*, London: Black Dog Publishing

Braddock Clarke and O'Mahony, 2004, Techno Textiles 2, London: Thames and Hudson

Buckburrough, S, 1980 Sonia Delaunay: A Retrospective, Buffalo: Albright-Knox Gallery

Bunce, G.: To Repeat or not to repeat Creativity: *Designer meets Technology Europe* Conference, Copenhagen, September 26-27, 2005, *Available from* Damase, J, 1991, *Sonia Delaunay: Fashion and Fabrics*, London: Thames and Hudson

Danjoux, M. 2007, The Emergent Dress: Fashion, Performance and Materiality, Conference Proceedings 2007, *Extreme Fashion*, 9th Annual International Foundation of Fashion Textiles Institutes (IFFTI) Conference, Ryerson University, Toronto, Canada, April 12 – 15th p214-233

Eley, M, 2000, Private interview, London, 16th January 2000

Evans, C. and Thornton, M, 1989, Women and Fashion: A New Look, London: Quartet Books

Fogg, M, 2006, Print in Fashion: Design and Development in Textile Fashion, London: B T Batsford

Gombrich, EH, 1979, *The Sense of Order: A study in the Psychology of Decorative Art* (The Wrightsman Lectures), Oxford: Phaidon, and Ithaca, New York: Cornell University Press

Hamilton, J, 2007, Screen Dress: A canvas for the moving image, *Extreme Fashion, International Foundation of Fashion Technology Institutes (IFFTI)* Ryerson University, Toronto, Canada, April

Harris, J, 2002, Beauty in the Computer Graphic Beast, Pixel Raiders: Applied artists and digital technologies, The Victoria and Albert Museum, 19th March

Haywood Gallery, 1998, *Addressing the Century: 100 Years of Art and Fashion*, London: Hayward Gallery

Kennedy, S, 1991, Pucci: A Renaissance in Fashion, New York: Abbeyville Press

Lee, S, 2005, Fashioning the Future: Tomorrow's Wardrobe, London: Thames and Hudson

Morano, E, 1986, Sonia Delaunay: Art Into Fashion, New York: George Braziller Inc.

Muller, F, 2000, Art and Fashion, London: Thames and Hudson

Steele, V, 1997, *Fifty Years of Fashion: New Look to Now*, New Haven and London: Yale University Press

Townsend, K.: Integrated design: from Delaunay to digital *Exchange Online Journal*, Issue 2, May 2001, ISSN 1472 9571, www.media.uwe.ac.uk/exchange_online/exch2_article6.php3

Townsend, K, 2003, Transforming Shape: A simultaneous approach to the body, cloth and print for textile and garment design (synthesising CAD and manual methods), PhD, Nottingham Trent University

Townsend, K, 2004 Transforming Shape: Hybrid practice as group activity *The Design Journal,* Vol. 7, issue 2, pp.18-31 ISSN 140-6925

United Visual Artists http://www.uva.co.uk/about

Watson, L, 1999, Ossie Clark Fashion Designer 1942-1996: A Retrospective, Catalogue essay, Warrington Museum and Art Gallery

White, P, (1986) Elsa Schiaparelli: Empress of Paris Fashion, London: Aurum Press, 1986

Watt, J, 2003, Ossie Clark 1965/74, London: V & A Publications