Generating sustainable fashion: Opportunities, innovation and the creative fashion designer.

Key words: sustainability, fashion, designer, strategies, innovation

Introduction

This paper aims to explore the tensions and possibilities between innovation and sustainable fashion through an analysis of the design process employed by the creative fashion designer in haute couture. By drawing on seven sustainable themes that I have identified, the paper posits the notion that the couture methodology offers a system from within which the centrally located designer can apply sustainable solutions conjointly with fashion innovation.

The merit of the couture collection has typically been attributed to the phenomenon of 'the genius', the creative fashion designer whose artistry is an expression of innovation and vision (Breward, 2003: 50). Within the couture house structure the principal designer, or *couturier*, has traditionally held the position of creative director over the house and its collections. From here the designer can steer the haute couture collections through the various stages of design and production that may encapsulate a combination of traditional techniques and new applications. For the couturier the haute couture collections provide the creative freedom from within which to experiment with materials, form and ornamentation. Industry commentators frequently question the financial viability of the collections, however innovation is still

acknowledged in some quarters as the collections become a '…laboratory to explore new design ideas……(Steele 2000: 2).

The initial ideas for the new season's collection evolve within the designer's source book, which acts as a repository of inspirational references, fabrics and details. The sourcebook documents the thoughts and insights behind the designer's vision and it becomes the working tool for the ateliers to refer to. At the house of Dior the atelier staff would refer to Christian Dior's system of charts that served as a synopsis of the collection. The large sheets summarised each garment type within all thirteen categories of the collection, and specified the individual garment names, fabric samples, notes and pattern making instructions for the workroom (McDowell 1998, de Rethy 2001). This account depicts the couturier as a centralised figure in the design and production of the collection and it is from this position that the actions of the designer could provide positive intervention that enriches the process of creative authorship in conjunction with sustainable objectives. If we were to examine the creative methodology utilised by the couturier and the couture house, could we reveal a method of design practice that allows for a greater use of sustainable strategies and creative originality in the design and production of fashion garments?

Selecting fashion fabrics: designing for disassembly

For many fashion designers the starting point for the creation of the collection begins with the fabric. As the haute couture collections have become an

exponent of lavish fabrications it is imperative that the designer select the right fabrication for the preferred silhouette. Appreciating the technical properties of the cloth can offer the designer an assortment of possibilities therefore the fabric must be of the correct weight, texture, drape and handle to meet the intentions of the designer. Although natural materials are preferred the pioneering developments in new textile materials has seen numerous alternative fabrications emerge within the collections often appearing conjointly within the same garment. However, this disparity in use of materials complicates the possibility for textile recycling at the end of a garment's useful life. It is through the strategy of 'design for disassembly' that the designer has the opportunity to positively intervene and include an end-of-life solution. The strategy for 'design for disassembly' enables the designer, during the fabric and material selection stage of a garment's creation, to select fibre types that match and thereby increases the prospect of an improved recycling possibility.

Figure 1: Gwilt (2008) *pink hemp, hemp sequin*

photography: Paul Pavlou

In the example shown, figure 1, the textiles sample has been constructed from a hemp fabric and organic cotton thread. The hemp and silk blend fabric has been dyed in various gradations of pink exhausting a single natural dye bath. The dyed fabric has then been laser cut into ‘fabric sequins’ that have been adjoined to a hemp foundation whilst exploiting the differing reflective and matt surfaces of the fabric. The ornamentation has then been embellished further with hand embroidery. Once the garment has come to the end of its useful life the textiles can be recycled alongside other complementary fibres. The choice of fabrication and textile design has been specifically considered to embody the typologies of haute couture ornamentation. Applying these ideas through a reflection of the materials and techniques used within the Parisian couture collections a fashion designer can still exemplify luxurious fabrics and resplendent ornamentation in fashion whilst utilising environmentally friendly solutions.

Couture garments habitually utilise rare and expensive fabrics that can be complicated to manufacture or require specialist care, however whether couturier or ready-to-wear fashion designer the material components of fashion can be selected to avoid environmental and social harm. While aesthetic evaluations are considered in the design of the fashion garment, sustainable decisions can be applied in the selection of textile fabrications. Materials can be derived from organic, renewable or biodegradable fibres whilst new textile creations can be fashioned using recycled fabrics, manufacturing off-cuts or discarded garments. Moreover, the choice of fabrication can be manipulated and enhanced through surface decoration and

embellishment, offering limitless creative potentials. According to Kate Fletcher we need to change our patterns of producing and begin "…to link a fibre with its lifecycle, a material with a user." (Fletcher 2007: 4) Indeed the lifecycle of the fashion garment itself can be reconsidered if we begin to accept that the function of a fashion garment means different things to different users.

Creating on the mannequin: designing for waste minimisation

While the couturier often creates the new collection mainly on paper, working from thematically sourced research, a great number of couturiers including Madeline Vionnet, Cristobel Balenciaga, and Alix Gres all worked directly with the cloth on a mannequin to produce draped masterpieces in varying degrees of complexity (Shaeffer 2001, Healy 1992). Through this practice of draping on the mannequin new silhouettes and styles can be accomplished efficiently as the designer's vision comes to life in an immediate three-dimensional form.

As the designer's sketch can only impart a vision of what the couturier is trying to achieve, it would then be the manipulation of the fabric on the mannequin that captures the right look for the collection. At the helm of the Dior haute couture collections today, John Galliano brings a fresh and often controversial point of view that has helped reignite interest in the haute couture collections. "With John, the working tool is the toile. He used to give me the drawings to work from but, in the end, the toiles would bear no relation

to them, so we don't bother now." explains Galliano's assistant, Bill Gaytten (McDowell 1998: 62).

Whilst fabric waste is created at various stages of the design and production process of a garment, in couture it is during the phase of draping on the stand that fashion innovation can be explored alongside the management of fabric waste. Timo Rissanen advocates the exploration of what he names the "jigsaw puzzle" methodology (Rissanen 2007: 2). This method applied in the production of garments, for instance from the ancient Greeks to the Japanese kimono, capitalises on the simplification of panel lines so that garment pattern pieces can be economically laid (like an interlocking jigsaw) during the cutting phase (Rissanen 2007). For couture the opportunity for innovation provided whilst draping on the stand also presents the possibility to control, reduce or eliminate fabric within a garment. As the designer works in conjunction with specialist staff with expertise in draping so the reality of a labour hierarchy - with the designer at the pinnacle of the hierarchy - is challenged (Rissanen 2007). Here, in couture we see the centralised position of the designer become evident.

Constructing the fashion garment: designing for slower consumption

To challenge the drive for increasing models of production and consumption thinkers such as Alastair Fuad-Luke have been advocating the use of 'slow design' strategies. Slow design supports meeting the real needs of the

individual, the community and the environment in a manner that amongst other factors, counteracts the quick response time enjoyed by most manufacturing sectors (Fuad-Luke 2005). From this position it could be argued that the designer has continued to believe that a consumer's well-being is determined by the ease of accessibility to and the ownership of, fashion garments. Another perspective would suggest that the rates of production and consumption of fashion garments should be slowed if we were to prioritise human and environmental well-being.

To provide an historical context, while the production of contemporary couture garments can be described as exemplary this has not always been the case. Early examples of couture garments from the 1860s reveal a much rougher standard of finish on linings and seams. It was only due to increased competition and complexity of garments produced after the 1870s that attention to details improved. During the inter war years, when fashion garments embraced simplistic forms utilising draping, a higher level of skill and ingenuity was required. Hems became rolled and weighted whilst supporting petticoats and integral under-bodices were introduced to anchor fluid necklines and shoulders; "…the final garment, in terms of its intrinsic value and sheer display of technique, well-merited the association with art and sculpture that have often been highlighted in critiques of couture." (Breward 2003: 52). The operations within the workrooms are reflective of an early 20th century industry that placed a great emphasis on the quality of design, materials and fit, and the superior hand made finish. While new technology has had an impact on the ancillary manufacturing industries, the process of

design and make in a couture house has remained somewhat unchanged since production began.

Examples of haute couture garments from the 1950s held within the Royal Ontario Museum collection show that whilst alterations were made to garments, often fabrics were not cut or removed. In the construction of an haute couture garment the *petite mains* would employ techniques such as deep hems and generous seam allowances. This ensured that the garment could be reconfigured, updated or upsized in a number of ways over a period of many years. Within its lifetime one haute couture garment could have had two owners (Palmer 2001). Since the advent of mass-produced clothing the need for quality fabrics and workmanship has deteriorated perhaps as a reflection of society's cost-conscious attitude and apathy for a product with an extended lifecycle. These points reiterate the shift in some circles of contemporary design practice towards the concept of slow design as a strategy for influencing patterns of consumption.

Collaborating with specialist artisans: designing for social well-being

In Paris the couture houses are situated within a community that encompasses a network of artisans who have become invisible multi-stakeholders in the production of the seasonal collections. Collaborating with local embroiderers, textile designers and manufacturers the couture house will frequently commission exclusive textile work that is generated from a given

theme. Ornamenting the couture garment can be achieved through an amalgamation of techniques including screen-printing, hand painting, embellishment and finish (Seeling 1999). Typically these techniques are applied by hand and their application method is characteristically traditional. However, new technology has inexorably disturbed the traditions of couture through the use of techniques such as digital printing and laser cutting all of which will be produced outside of the couture house *ateliers.* In assigning the embroidery work the couture house will carefully detail the application of every thread, bead, and sequin or the couturier may select from the new season's samples, as prepared by specialists such as the house of Lesage.

Radical innovations in our society can come from a change in local systems and the concept of creative communities. Ezio Manzini recognises that these creative communities emerge in very specific conditions having "…invented different ways of behaving and thinking." (Manzini 2005: 7). These communities are often situated in one place, they utilise local resources and directly or indirectly promote new methods of social engagement. Furthermore whilst operating at a local level these communities are engaged in a global system through the sharing of information and experiences with other international communities. Manzini acknowledges that these communities already occur and can be found in most cities and societies however they are very much in the minority. While the Paris couture industry seems to practice within a creative community there are consistently problems with financial viability. In recent times the house of Chanel has acquired a number of small businesses including Lesage, feather maker Lemarie,

shoemaker Massaro, milliner Michel and, Desrues. The reality, it seems, is that in Paris these small operatives need a large infrastructure to help keep the businesses viable (Huntington 2004). Yet the work of the artisans is clearly intrinsic to the success of the couture collection therefore it is in the interest of the couture house that the social fabric of the Paris couture creative community be supported.

For the emergence and growth of creative communities in other locations the option of returning the fashion industry to small-scale enterprises, run by designers themselves is worthy of debate. Angela Robbie's vision for such scenarios suggests that small apparel firms locate themselves in small neighbourhoods and operate almost like "…corner stores" (Schor 2002: 57). These operatives would cater to local clientele and would present the opportunity to build relationships with seamstresses, local artisans and suppliers. Such a system would save in the areas of transport, branding, advertising and marketing as well as assisting in the reduction in overproduction. In turn these savings could be used to pay fair wages, install environmentally sustainable production techniques, fund better quality materials and support designers.

Fitting the client: designing for user participation

If we seek to extend the life cycle of a fashion garment whilst increasing resource productivity and reducing waste then we need to question why it is

that consumers choose to dispose of garments when they still function. Jonathan Chapman argues that by increasing the relationship between user and product the impact of consumption can be reduced as products are created "…for deeper, more profound and poetic human needs, taking users beyond the ephemeral world of techno centric design towards a rich, interactive domain of emotionally durable objects and experiences." (Chapman 2005: 24). Like a work of art, the haute couture garment has a unique existence that offers a single user an authentic product - unlike a ready-to-wear technical reproduction – and the customer's experience is one in which empathy and engagement is encouraged.

For a client, the first part of the process of ordering an haute couture garment would require an introduction to the house and if agreeable a meeting would then be scheduled with the *vendeuse*. The vendeuse would greet the client and become the personal hostess and administrator who would ensure that the order is handled according to the client's needs. After this first meeting the client would then meet with the vendeuse, fitter and possibly the couturier. The client would next select a garment model; suggest minor alterations if required and then measurements would be taken. The client would be expected to attend up to three fittings however to save on fitting time the couture house may use a personalised mannequin that is kept onsite for each of the regular clients. This mannequin would require a dress form to be covered in a layer of horsehair or lambswool to duplicate the client's figure, which is then covered in a muslin body suit that zips up at the centre back (Shaeffer 2001). Using the original garment toile as a guide the premiere main

will make a toile to the client's own measurements and accommodate any required changes whilst ensuring that the design should not be visibly altered. After each fitting the garment is returned to the workroom, disassembled and reconfigured with the necessary alterations. The completed garment would then be labelled with the house details and stamped with a unique number ensuring exclusivity (Healy 1992). Although a garment may be reproduced for many couture clients it would be expected that each might have minor differences for instance, differing colours or style variations. Garments requiring heavy ornamentation may take several months to complete however the majority of garments may be produced in a matter of weeks although this is dependant on many factors.

While the haute couture methodology provides the client with a flawless fit it is the subtle ways in which the garment is proportioned for the client that makes this process so engaging. For example, if the client has a sloping shoulder the collar, pockets and shoulder seam of a jacket may be realigned to offer the illusion that the body is symmetrical. If the client has a fuller figure then vertical seamlines are redistributed to flatter the figure. Most substantially, when garments are inclusive of embroidery the embellishment will be scaled and situated according to the dimensions of the client (Shaeffer 2001). Chapman believes that most products are capable of creating some empathy at the point of purchase however empathy also has a lifespan, which is governed by the relationship between the product and the consumer (Chapman 2005). The argument here is that waste is a symptom of expired empathy.

After sales care: designing for product – service systems

In exploring product-service systems *Strategies towards the sustainable household* or *The Sus-House project* coordinated by the DELFT University in the Netherlands, was created to develop and evaluate strategies for sustainable households that could be achieved by 2050. The project investigated clothing through four different 'design orientating scenarios', or DOS (Bras-Klapwijk & Knot 2000: 2). The project concluded that limited wardrobes of high quality unique made-to-measure clothes, that could be repaired and involved less washing achieved a decrease in consumption, offered a longer use life and through sharing and leasing schemes led to a higher use-intensity. Furthermore the project declared that new product/service combinations are expected to play an important role in establishing resource-intensive consumption modes, which includes leasing, service, and sharing products.

In the years preceding the 1950s it was common for the couture houses to undertake garment maintenance for free or for a nominal charge although this service received no direct promotion (Palmer 2001). Presently, the maintenance of garments still remains as a service for the couture clients, with companies such as Dior providing the arrangement under what is considered as a typical guarantee agreement. Often it is not practical for the clients to return to the house of purchase for maintenance work and particularly during the 1950s clients would turn to local parties for alterations and repairs. Many of the couture clients of the 1950s had extensive wardrobe

systems in place for care of garments. Maids were often employed, notably those who were skilled seamstresses were preferred. Storage space was often large and in some instances thermostatically-controlled. During the lifetime of the wearer the haute couture garments "…were handled as beautiful objects – a collection of very socially significant commodities…" (Palmer 2001: 234).

Figure 2: Gwilt (2008) *grey wool, blue stain*

photography: Paul Pavlou

What if a much-loved but damaged fashion garment could be placed perfectly back into the wardrobe again: how could you repair the garment, yet add further value? The product-service strategy hypothetically applied in this sample, figure 2, engaged the notion of 'upcycling' in an attempt to upgrade and add value to a damaged product. In this instance, the grey wool / cashmere blend fabric had been accidentally stained with blue ink. The

design of the hand embroidery was influenced directly by the shape, texture and intensity of the stain itself, and in this case it has become the central component of the whimsical flowers. In particular the rather classical embroidery design has been considered to transcend fashion cycles thereby offering a timeless design in an effort to extend the garment lifecycle further.

Garment disposal: designing with end-of-life strategies

According to Alexander Palmer couture clients would repeatedly wear and rotate their garments for many years. That a client would never wear a garment beyond the season for which it was created was a common misconception. This myth was clearly ill informed yet was continually perpetuated by the fashion press of the day (Palmer 2001). Having interviewed over one hundred couture clients Palmer found that many viewed their purchases as long-term investments, and this fact was clearly understood by the couture houses.

Until the advent of mass manufacturing Western fashion history has provided numerous examples of fashion garment recycling schemes. During the late nineteenth century aristocratic women were required to adopt a change of clothing for five or six different occasions during a typical day. While it is difficult to estimate for how long garments were retained the eventual disposal of these items followed an established tradition. In the courts it was customary and expected that these garments would be awarded to the ladies-in-waiting and servants. Frequently servants would sell these luxurious garments to the

numerous second hand shops that provided the larger population with the opportunity to buy ready-to-wear items rather than order expensive made-to-measure clothing (de Marly 1980).

However not all garments should rely on longevity. Stuart Walker believes that whatever we design in fashion today should not be appropriate to the future (Walker 2006). While the product should still meet sustainability criteria, within this framework the designer is released from the responsibility of producing fashion with an extended lifecycle and can attempt to create fashion of an ephemeral quality. As new textile developments continue, then the possibility of quick, disposable, and one-off garments becomes a closer reality.

Figure 3: Gwilt (2008) *white tyvek, print stitch*

photography: Paul Pavlou

In the example presented here, figure 3, the scenario sought to ask; what if fast fashion was just that. Could we make fast fashion even faster? What

would we need to consider if we emphasised the disposability of fast fashion? And, could it be fashionable?

In exploring 'disposable fashion' the textiles sample has been constructed using *Tyvek*, a non-woven material produced by DuPont. Available in differing weights and textures a number of products can be sewn like cloth and can be mechanically recycled alongside other paper-based products. In the textiles sample shown the Tyvek paper has been colour printed using inkjet technology and water-based inks. The patterned paper has then been stitched (by hand and machine), cut, and appliquéd (using Tyvek) to create a three dimensional fabrication. The only other material used is cotton thread. In this example the design is resolutely extreme in its ornate decoration, as the sample has been created to reflect the frivolous and excessive fashions 'of the moment'. The concept for disposable fashion could be applied in the design of garments especially created for special / singular occasions, that may result in almost instantaneous disposal after just one wearing.

Conclusion: opportunities for innovation

In 2007 the Paris Ethical Fashion Show exhibited fashion & textiles ranges from designers across 40 countries and numerous press articles covering the event made a reference to haute couture. The ethical collections were considered chic and luxurious "…as one might hope for, in the birthplace of haute couture", stated Guardian journalist Kate Carter (Carter 2007).

Simultaneously the fashion press reporting on the Spring/Summer 2008 ranges during Paris Fashion Week that same month, noted that many of the fashion designers found their influences from nature. Fashion writer, Suzy Menkes reported that Nina Ricci, Alexander McQueen, John Galliano, Hermes, were all to have been "…Al Gore followers or the eco-aware generation" (Menkes 2007). On closer inspection not one of the collections highlight appeared to address any ethical or environmental problems.

In this paper I have attempted to show how the creative fashion designer can incorporate effective sustainable strategies successfully within the fashion design process. I have identified seven sustainable themes that, I believe, offer the opportunity for creativity at various stages of the fashion design and production process. Innovation does not have to be compromised in pursuit of better sustainable practices if we begin to accept that these new parameters are an integral part of the fashion designer's brief. Furthermore if we place the designer within a centralised role in the design and production process then the opportunity for a consistent pattern of positive interventions, across the entire production process, can begin to occur.

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