
Editorial

Design is undergoing fundamental changes and the role of the designer across disciplines from product design and graphics to textiles engineering and architecture is evolving. Fashion design and practice is no exception, although fashion is not often aligned with the classic design professions. Instead of being responsive only to a narrowly defined brief and bringing the traditional problem solving skills to presentation of a new product, many designers are working in a much wider context and proving pivotal to interdisciplinary research collaborations and early-stage development of processes and products. They are now communicating, mediating, negotiating, and often interpreting between different discipline perspectives and moving from the design of *things* to encompass the design of *systems* and *services*. So-called “design thinking” is taking a more central role in business. In an article in the June 2008 issue of *Harvard Business Review* Tim Brown (CEO of California design consultancy IDEO) identified the characteristic profile of design thinkers as empathy, integrative thinking, optimism, experimentalism, and collaboration. With increasing problems facing the world (including population growth, climate change, and security), design can function as a catalyst to address issues and bridge disciplines for innovation in research. Interdisciplinary research teams in many countries including

the USA, Canada, and Europe are investigating new solutions to major challenges, such as the implications for healthcare of an aging population, or the reduction in energy consumption in laundry, in which textile and clothing design plays a key role. Projects are increasingly employing innovative technologies and collaborative user-led research methods. At the same time new business models are being developed which bring the user closer into the design and production process as a co-creator, and require new micro production services to respond to specific demand. For example, two multi-stakeholder European-funded projects, Open Garment (www.open-garments.eu) and SERVIVE (www.servive.eu) are currently researching solutions for new made-to-order and made-to-measure fashion manufacturing systems. In the UK, the publicly funded five-year research initiative *Designing for the 21st Century* has just come to a close, which encouraged art and design disciplines to work with external perspectives and methods. Three of the forty projects generated were concerned with the fashion area, my own projects *Interrogating Fashion* and *Considerate Design for Personalised Fashion*, plus *The Emotional Wardrobe*.¹ Although design disciplines are evolving, there is need for a greater level of activity and recognition of design-led research in the fashion and clothing sector, to which *Fashion Practice* seeks to make a contribution.

The global fashion industry faces many challenges with regard to its environmental impact and working practices. Recent initiatives by non-government organizations (NGOs), individuals and companies, industry bodies, trade unions and governments, plus a growth in publications addressing these major issues (see reviews in *Fashion Practice* 1(1) and 1(2)) have helped to raise awareness in both education and industry. The issues within and around fashion, such as faster cycles and cheaper clothing spawning greater consumption and production, are now more widely understood by consumers, retail organizations, and major manufacturers, and the agenda has moved from information towards action. Technology, particularly enabled by digital convergence, has impacted many key areas of our lives with the noted exception of clothing. At the same time there is a greater expectation from consumers, fueled by the ubiquity of promotional information, speed of communications, and by faster turnover of goods. Integrated approaches to sustainability in the fashion industry which merge design methods and solutions with innovative technology can play a significant part. This overarching theme is illustrated in the content of the current and previous issues of *Fashion Practice*.

I view fashion design and construction as a form of soft engineering, shifting as it does between two-dimensional and three-dimensional (3D) practices, with a precision in development of patterns and designs that compares with aspects of engineering design, albeit on a much smaller scale. The shift towards 3D design for fashion and clothing is still very much in development, unlike architecture or footwear, for example, due to complexities when dealing with the behavior of a vast array of

fabrics and wide variations in styling and shape. Although some aspects of the fashion industry are highly automated, using sophisticated digital design and processing, many others are based on hand work, from embroidery and garment construction to component assembly in footwear, dependent on the geographical location of the process in question, and its place in the highly convoluted supply chains of the industry. Fashion manufacturing is one of the few remaining craft-based major industries where the manual skills and dexterity of millions of workers worldwide contribute to an enormous range of final products. Adoption of computer-based design and manufacture has been slower to impact the fashion industry than others, due to the complexity of the manufacturing agenda, with its many variations in fabrics, sizes, styles, and colorways across every product range, and the increasing pace of change endemic to the sector. As discussed in *Fashion Practice* 1(1) by Park and DeLong, even when new technology is developed, full implementation within a company depends not only on investment and training but on company culture; consequently innovations can be slow to be adopted.

Looking to the future, one of the themes of this issue of *Fashion Practice* is how smart textiles and clothing are evolving, especially regarding the implementation of electronic functionality, frequently heralded by pundits as the future of fashion “just around the corner.” For over thirty years, researchers from Steve Mann at MIT in the USA, to Philips Design Lab in the Netherlands, amongst many others, have been attempting to link the functionality of the computer to the human body. Clothing is the obvious universal interface, stimulating the field known as wearable computing. Research and experiments have continued in particular in the USA (for example by Natick Soldier Center, Georgia Institute of Technology, Textronics), in Europe (by Philips Research, MyHeart project) and elsewhere into greater integration of what is now called wearable technology, aiming to enhance the functionality of clothing so it might respond to a range of external stimuli to enhance human experience, monitor vital signs, or create new aesthetic sensations. Although the first fruits of this research have resulted in niche applications for mobile entertainment embedded in ski jackets and other protective wear, a so-called “killer application” has not yet been produced from research in electronics embedded into clothing. Lucy Dunne points out in her survey article “Smart Clothing in Practice: Key Design Barriers to Commercialization,” there are a number of reasons why this is the case. She divides her analysis into the areas of functionality, manufacture, developmental practice, and consumer acceptance, all of which are required to perform in synergy for successful products in the marketplace. The article discusses in detail the requirements and reasons for the lack of success so far, from the point of view of design factors and consumer use, rather than from the viewpoint of technical push—often short-lived or niche products are designed just because the technology is there, rather than with useful functions in mind. A key

barrier pointed out by Dunne is the underestimation of time required for integration of electronics in clothing. The article stimulates the debate around this topic and provides a very useful overview and analysis of the current state of research, by a practitioner in the field, which others will find an informed point of reference. Dunne's analysis is borne out in a practical case study interview with a British-based company Cute Circuit, one of the innovative design companies cited by Dunne. In the article "Reconciling Electronics and Fashion," I discuss with partners Ryan Genz and Francesca Rosella the significance of their background training in interaction design and their current practice as hybrid designers, engineers, and programmers. Their resourcefulness is evident as they address some of the inherent difficulties they faced in attempting to work across disciplinary boundaries in electronic engineering, computing, and fashion. Their five-year journey towards products which can move from the prototype to the commercial is about to come to fruition (the "gestation period" as Rosella puts it), and serves as a key exemplar of innovation in this emerging field.

Contemporary design now takes place in the context of sustainability, whether environmental, social or economic, and preferably all three together. Addressing this triple bottom line has become an imperative for current and future fashion practice, a cross-cutting theme which underpins the majority of articles in the journal. There are multiple ways to address sustainability in fashion through the design and development process. A number of leading fashion industry players such as Nike are seeking competitive advantage in a saturated market through the medium of technology innovation. John Maeda, professor at MIT (see "Reconciling Electronics and Fashion"), proposes the concept that in addition to science, technology, engineering, and math, innovation requires a combination of intuition, design, emotion, and art.² Although adding electronic technology as just discussed may appear cumbersome and more complex, Cute Circuit have built sustainability into their thinking by designing for disassembly and subsequent reuse. The potential usefulness of functional clothing may also lead to greater retention of clothing and reduced consumption, as Dunne acknowledges. As e-commerce gains in market share for fashion sales, one approach gaining currency involves meeting the needs of individual consumers through satisfying more personalized clothing choices, usually via an online platform. To date one of the products most successful in this arena is the T-shirt. Juanjuan Wu's article "Co-Design Communities Online: Turning Public Creativity into Wearable and Sellable Fashions" discusses the trend towards mass customization of certain clothing items via consumer co-design of T-shirt motifs, a blending of online social networking and customization. Here, a comparison is made between two leading companies in this field, Zazzle and Threadless, and an analysis is proposed of business models evolving from offering merchandise to offering a service and finally a community co-design platform.

In the context of a highly competitive globalized fashion industry, fashion design practice and building a national fashion identity is examined in close detail by Marie Riegels Melchior's article "Doing' Danish Fashion: On National Identity and Design Practices of a Small Danish Fashion Company, in which she describes internal mechanisms of design and range development based on her observational fieldwork inside the small design-led company Mads Nørgaard. Riegels Melchior identifies four main approaches to the study of fashion: the object-based, the cultural-based, the production-based, and finally the practice-based analysis, and is unusual in employing a research method based on actor-network theory (ANT), not as a static theoretical framework but as a means of exposing and acknowledging the "messiness" and complexity involved in creating and performing fashion. This realistic and pragmatic approach proposes ANT as "one way forward for future fashion studies" and as such chimes fully with the aims of the *Fashion Practice* journal.

As a counterpoint to this article, "Making Sustainability Fashionable: Profile of the Danish Fashion Company Noir" is featured in this issue, giving the perspective of a larger Danish design-led business. Founder Peter Ingwersen's aim to reconcile fashion and sustainability through a focus on ethics and transparency in both textiles and clothing production contributes further complexity to the practice of fashion as described by Dunne. The process of developing textiles from scratch is a major step for a fashion design company, fraught with problems, but is irrelevant to the success of the business unless combined with a strong design aesthetic for the target customer. Taken together, both articles evidence the ambition of the Danish fashion industry to carve a niche position for itself on the global fashion stage, and the intricacies of achieving its goal of recognition as the fifth fashion capital, after Paris, New York, Milan, and London (Copping 2007).

Globalization within fashion has many facets: clothes are now much-traveled commodities with life cycles that circumnavigate the world. Garments appear in the marketplace via complex journeys, from the growing of fibers, or the production of synthetics, to textile design and garment manufacture in diverse countries, distribution to outlets worldwide, and finally disposal into waste streams and landfill or as second-hand clothing. Since the liberalization of markets following the abolition of trade agreements and quotas, especially after the Multi Fibre Arrangement was dismantled in 2005, the resulting globalization of trade has impacted on local trading across continents. As a result, new countries such as Vietnam and Bangladesh have entered the fashion manufacturing arena, and export markets have been opened up especially for aggressive producer countries, which have affected existing manufacturing businesses in other regions. Beatrice Imo and colleagues' case study of clothing businesses in Nairobi, "Challenges Facing

Apparel Traders in Nairobi, Kenya, and Strategies for Flourishing in a Liberalized Market” serves as a commentary from an insider’s perspective on the transformation of a local industry to a multiple marketplace, to which local businesses evidently need to be more astute. This is a voice little heard in the clamor of activity vying for our attention over many channels of noisy communication, and contributes to a wider understanding of cross-cultural fashion practice and clothing life cycles.

After a faltering start, in recent years, Internet communication channels have witnessed the rapid growth of fashion online, disseminating ideas with increasing speed worldwide. Amongst the style portals, online magazines, and fashion blogs, one pioneering experimental fashion website, SHOWstudio, founded by fashion photographer Nick Knight, has been lauded by industry professionals since its inception in the year 2000. In this issue Alison Bancroft reviews an exhibition in London which made physical the philosophy and curatorial practices of the portal’s editorial team, led by Nick Knight as creative director. Penny Martin, former editor-in-chief (featured as a contributor in *Fashion Practice* 1(1)), was one of the exhibition’s curators.

Finally, Joe Hancock reviews and compares two recent books, both readers on aspects of men’s fashion and, somewhat confusingly, both entitled the *The Men’s Fashion Reader*. The first by Reilly and Cosbey was published by Fairchild in 2008, the second from McNeil and Karaminas was published by Berg in 2009. These publications demonstrate the growth of fashion writing and practice around the experience and performance of menswear, and Hancock’s review helps the potential reader navigate the territory each carves out, by teasing out their differences.

The diversity of the fashion industry is once again amply illustrated by the range of articles included in this issue covering aspects of technology applied to both the business and the practice of fashion, approaches to sustainable design and the diffusion of fashion in the global marketplace. Through insightful perspectives, new connections and themes develop that serve to illuminate the debates surrounding the fashion industry, offering the prospect of new solutions through emerging hybrid practice.

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Notes

1. For a full account see Inns (2007, 2009). Information on *Designing for the 21st Century* initiative can be found at www.ahrc.ac.uk and www.design21.dundee.ac.uk.

2. As cited in the lecture notes for Maeda's presentation on February 2, 2010 at the Victoria and Albert Museum, London.

References

- Brown, Tim. 2008. "Design Thinking." *Harvard Business Review* June: 84–92.
- Copping, Nicola. 2007. "Great Dane: The Rise of Copenhagen Fashion Week." *Times Online* August 14. http://women.timesonline.co.uk/tol/life_and_style/women/fashion/article2256872.ece (accessed December 30, 2009).
- Inns, Tom (ed.). 2007. *Designing for the 21st Century, Vol. 1: Interdisciplinary Questions and Insights*. Abingdon: Gower Publishing.
- Inns, Tom (ed.). 2009. *Designing for the 21st Century, Vol. 2: Interdisciplinary Methods and Findings*. Abingdon: Gower Publishing.