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The future shape of design: fashion and longevity

Anja Claire Crabb
University of Brighton, UK
A.Crabb@brighton.ac.uk

Abstract

The aim of this ongoing research is to enable, empower and inspire designers to implement viable design strategies for longevity. Extending the average life of clothing can offer major savings regarding environmental impacts (WRAP, 2012). With an increasing body of scholarly work in this area, this knowledge is in need of disseminating in a format useful to practitioners.

The first stage of this project consists of case study research of three small UK-based fashion businesses. The findings form the foundations of the design toolkit. This will be followed by user studies and development of the toolkit through iterative processes.

The most prominent strategies found within the research were trans-seasonality, multi-functionality, alterability and mendability as well as physical and emotional durability. These strategies can offer benefits to the users' personal well-being of the users and designers. The toolkit, a largely academic concept, will be developed in close collaboration with designers. Initial feedback indicates that customisable elements will increase its practical application.

The findings are limited to UK-based, small-scale fashion businesses. Due to the multi-disciplinary nature of this research, however, it is anticipated to be relevant also to other design disciplines.

The practical toolkit is intended to inform and shape fashion practice. This has the potential to reduce the consumption of clothing, thus contributing to the sustainability of fashion. To date, there are no toolkits that specifically address design for longevity.

Key words: sustainability, design, fashion, durability, longevity, case study

Article classification: research paper

Introduction

This paper investigates design strategies for garment longevity. This study is the first phase of the applied doctoral research with the aim to develop a design toolkit iteratively at a later stage. A growing body of significant academic work in this area strongly indicates that it is in need of synthesising and disseminating in a format that is useful to practicing designers (Farrer, 2011). By amalgamating insights from literature and primary research, the toolkit aims to support designers in creating garments with extended lifetimes, i.e. garments that are used well beyond the current average time span of less than 2 years and 3 months in the UK (WRAP, 2012). The most prominent design strategies as found in the case studies are discussed here. While these strategies are not conclusive, they do represent a pattern emerging from the research. In this paper 'longevity' refers to 'making a garment last, rather than just making a long-lasting garment' (Fletcher, 2011).

While the use stage of the garment's lifecycle is associated with significant environmental impacts, it has mostly been overlooked in sustainable fashion discourse (Jack, 2013). This may be because extending the life of garments challenges the dominant mode of fashion at its core: fast fashion relies on high volumes of cheap, standardised clothing in order to maximise profits . There are, however, contemporary fashion brands that are promoting extended garment lifetimes. Case study research 'unpicks' how three of these brands are implementing viable longevity strategies, thus providing users with alternative ways of designing experiences of fashion. This is followed by an investigation into the participants' role as designers as well as how their professional choices affect their personal well-being. According to researchers such as Jackson (2005), personal well-being can offer a 'double dividend' of environmental and personal benefits.

The unsustainability of fast fashion

Our planet cannot support the current and increasing rate of consumption – in fashion and otherwise. The new Living Planet report by WWF (2014) found that the average global rate of consumption requires about 1.5 Earths to sustain it, as many as 4 Earths to sustain the US and 2.5 Earths to match UK consumption levels. The effects of overconsumption have contributed to halving the number of wild animals on Earth in the past 40 years (WWF, 2014). It is well documented that fashion is a major contributor to climate change and the pollution and destruction of natural habitats. Considering that the textile and clothing lifecycle consumes more energy and water than any other industry other than construction and agriculture, it is troubling that the number of garments bought per person in the UK increased by over one third between

2001 and 2005 (Black, 2012). A reduction in consumption is supported by policy: the end of the multi-fibre arrangement and trading quotas in 2005, for instance, led to clothing prices dropped by 14% and consumption measured in sales by volume increased by 37% (Allwood et al., 2006). Our planet is physically unable to sustain these high levels of fashion consumption and disposal over the long term.

Garment life extension

There have been many efforts in recent decades to reduce the environmental footprint of products, with a focus on technology-based solutions (Thackara, 2005). While the reduction of a product's impact is important, this alone will not suffice to alleviate high levels of consumption and disposal in developed nations (Cooper, 2013). In fact, a report by WRAP (2012) (Waste and Resources Action Programme, a non-for-profit organisation supported by UK governments) concludes that extending the active life of garments offers the greatest savings overall in carbon, water and waste footprints when compared with best practices in production and fibre choice, laundry and re-use and recycling. Proposing a fashion model based on fewer but longer-lasting products challenges the dominant mode of fashion; it is therefore no surprise that designing for longevity remains a rather underdeveloped area. In addition, fashion is often described as being inherently ephemeral (Breward, 2003, Rocamora, 2013). Hence, tackling sustainability issues in fashion, as in any other field, is complex; there is no 'one size fits all' solution or 'silver bullet' (Orr, 2002). Therefore, the proposition is not to convert all fashion models but instead to promote diversity through a variety of rhythms and speeds. This research focuses on just one of the many facets within the field of design for sustainability, one that is in need of developing.

Diversifying fashion

The British retail system is unique in that it is driven by a few large fashion retailers, creating a 'mono-logical' system (Farrer, 2011). It is therefore necessary to support smaller sectors to balance out the industry. 'Diversity assures life' is one of the five fundamental facts of life as devised by Fritjof Capra, founder of the Centre for Ecoliteracy (2014). According to a paper co-authored by 27 researchers, the aforementioned large-scale loss of biodiversity in recent years may lead to 'massive permanent changes in the biotic composition and functioning of Earth's ecosystems' and 'suggests non-linear and largely irreversible consequences' (Rockström et al., 2009, p. 14). The research concludes that ecosystems 'with low levels of response diversity within functional groups are particularly vulnerable to disturbances (such as disease)' (p. 14). Hence, by focusing on the field of design for longevity, the project aims to bring new insights

into this area, contributing to a more sustainable, balanced and diverse fashion landscape.

Practical Solutions and Toolkits

Toolkits are essentially 'ways of doing things' and a format becoming increasingly common in design (Lockton, 2013, p. 61). It is hereby necessary to examine whether a toolkit is an appropriate concept or term. One case study participant states that 'toolkit' is 'a difficult word, it needs to be rebranded'. It will also be necessary to consider developing the guide in a way that allows for individual customisation as the participant also explained that her brand has methodologies and processes in place that are unique to it. This was supported by another participant who felt that '… our framework was specific to us. And I think it's very hard to establish a generalised framework …'.

While there are a number of design tools in the field of sustainable fashion design, to date none of these address the creation of longer-lasting designs specifically. The Considerate Design Tool by Eskandarypur et al (2009), for instance, compares the environmental impacts of producing 2 or more similar products, but the use phase of the product is not considered. TED's TEN (2014) at University of the Arts London, on the other hand, feature sustainable design principles for textile and fashion designers. The toolkit comes in the form of cards for use in practical workshops and is also presented online and is supplemented with explanatory video clips and other resources. A toolkit in the form of cards was also developed as part of Lockton's doctoral work (2013), which is concerned with designing for behavioural change aimed at reducing social or environmental impact. Whether cards, graphs or some other format is indeed most useful for practitioners, the toolkit will be based on the insights gained from case study research, a critical analysis of existing toolkits, and finally the iterative development through a series of tests.

Life-extension strategies

Following the publication of the report on clothing impacts by WRAP (2012), the group launched the Love Your Clothes campaign as part of their Sustainable Clothing Action Plan (2014). The website features tips on how to make clothes last longer, e.g. how to repair, alter, clean, recycle as well as how to effectively spring clean your wardrobe. The interest in longer-lasting clothing is also evident in academic circles. Alison Gwilt (2014b) from Sheffield Hallam University, for instance, is examining barriers to repairing clothing and the potential of community-based service systems for clothing repair. Similarly, Kate Fletcher from the London College of Fashion ran an international project titled 'Local Wisdom' (2014) which amplifies stories of resourceful garment

use. Despite the growing body of significant work in this area, there is a lack of change within the fashion industry itself; the knowledge requires dissemination in a format and language that is useful, accessible and inspiring to designers (Farrer, 2011) as designers have the potential to influence how fashion is perceived and used. Which strategies for longevity exist and how they have been found in fashion practice within the case studies form the foundations of the design toolkit.

Trans-seasonality

While fashion seasons traditionally corresponded to the change of weather, today's fashion calendar appears to have lost touch with this logic. Spring/Summer collections shown on catwalks in autumn are in shops between January and March; yet in reality, it is still the weather that will determine what people buy and wear. Garments are typically marked down after 12 weeks, apparently due to looking out of date, and are then replaced by a new collection (Parry, 2014)– a phenomenon that can be described as 'aesthetic obsolescence' (Burns, 2010). Within fast fashion, there can be up to 50 trend-driven seasons annually (Siegle, 2011) fuelling the high turnaround of purchase and disposal. From sketch to garment, a design can be sold in the shops within just two or three weeks (Fletcher and Grose, 2011). High street retailer Zara, for instance, rely on a team of quick response trend-spotters on ground for real-time updates on what next to send to the shops; this is a system of short lead times, reduced delivery times and high stock turnaround, meaning 'once it's gone, it's gone', thus encouraging impulse buys (Siegle, 2011).

Undeniably, there has certainly always been a drive for the new. 'The new' is determined by the history of what came before and the practicalities of the present (Molotch, 2011). This is also the case with the highly profitable business model of fast fashion. Here a sense of immediacy is fuelled by technological advances, most notably the internet, and enabled by just-in-time manufacturing (McQuillan, 2011). Modern Western culture is built on the assumption that more and faster is also always better, a belief which underpins the growth-based economy. In 1972, The Club of Rome published 'The Limits to Growth', a research project that concludes that infinite growth on a finite planet cannot be supported (Meadows et al., 1972). It can be said that the current fashion industry which is also built on the principle of limitless growth is outdated (Grose, 2013) and we must seek alternative, more resourceful models.

Within the realm of sustainable fashion, there are contemporary designers who are creating trans-seasonal garments, reconnecting with the more natural rhythms of change. Paris-based Rad

Hourani (2014), for instance, offers trans-seasonal and unisex garments. He also numbers his collections, 'freeing them from trends and seasons to ensure that they are timeless'. Trans-seasonality, however, is not new. Long before the advent of fast fashion, in the 1880s, concern was expressed about the pace of fashion (Newton, 1974) and designers such as Mario Fortuny in the early 1900s rebelled against the traditional fashion calendar and dictating style conventions (de la Haye, 2000). For some contemporary designers, such as Issey Miyake and Maison Martin Margiela, however, presenting a new collection twice a year does not render the previous one obsolete (Rissanen, 2011). Rissanen (2011) also questions whether perhaps a link exists between originality in fashion and a lesser degree of built-in obsolescence. Or as De la Haye puts it: 'with designs that are never "in" fashion, they never fall outside it either' (2000, p. 65).

Multi-functionality and modularity

Removable parts of an object can allow for easy repair, cleaning and replacement. This strategy can potentially reduce material turnaround and provide the user with flexibility and transparency of control, which in turn can strengthen the bond between brand and customer (van Hinte, 1997). By addressing our desire for change and newness, it may also create a more enduring relationship between wearer and garment, thus reducing consumption. A 'failed relationship' can occur when the user changes and evolves over time while the object remains static and unchanged (Chapman, 2005). Multi-functional objects, however, can also achieve the opposite when additional features entice the user to purchase more or when more natural resources are used for these additions (Fletcher and Grose, 2011). On the other hand, when designed with careful consideration of the users and their habits, this strategy can provide a more interactive, flexible and satisfying fashion experience.

Modular garments have existed for centuries. The sleeves of mid-seventeenth century corseted bodices were easily removed by untying the decorative bows, and in the 18th century contrasting men's coat cuffs to match waistcoats were also made to be detachable. Furthermore, until domestic washing machines became widespread in the 1950s, thus reducing the time and effort it took to wash clothing, men's shirts were typically sold with detachable cuffs and collars (Gwilt, 2014a). This allowed for the removable parts, which soil more easily, to be washed separately to the rest of the shirt. Today, one can find detachable hoods, trouser legs and jacket linings in functional outerwear. There are also designers who have taken modularity to an entirely new level by designing garments made from small interlocking felt pieces, allowing for full reconfiguration into almost any shape or form, even morphing into other products in the hands of

the user (e.g. Berber Soepber, Eunsuk Hur and Galya Rosenfeld). Fletcher and Grose (2011) suggest that the modularity can be developed even further by offering different levels of adaptability within various product categories that reflect the individual's needs for the respective product; this in turn would be based on research on use patterns.

Alterability

Fast fashion relies on high volumes of standardised clothing. Most of us, however, do not have standard bodies. Furthermore, it is likely our body shape will change over time. The reason: about a third of the clothing in our wardrobe remains there for at least a year is because it does not fit or no longer fits (WRAP, 2012) . And while the physical nature of textiles means that every garment is in theory alterable, the low price of clothing means it is easier for us to simply replace the item, encouraging us to buy more and more. As Farrer states, this is 'a physical problem rather than a philosophical one' (2011, p. 21). When resources and money were scarce in post-war Britain, a 'make do and mend' mindset prevailed. A pamphlet contemporary to the post war era by the Ministry of Information suggests there are 'almost endless possibilities' when remodelling clothes (1943, p. 20). It provides instructions on how to alter a blouse that is too short or too tight and even includes a suggestion on reusing a blouse front that ties under the arms and waist. There is also a reference to widely available 'renovation patterns' for more complicated alterations.

As economic incentives to engage in garment alteration have declined, so too have skill-levels and garment know-how. Nonetheless, earlier this year an article was published in the British newspaper The Guardian entitled 'The rise of mending: how Britain learned to repair clothes again' (Lewis-Hammond, 2014). While the aforementioned figures show that in reality, life-extension practices such as mending are still very niche activities, they are taking place and are on the rise. With this in mind, how can designers encourage alterations to amend the fit and style of garments?

Within mass-produced garments, most seam allowances today are a standardised 1 cm wide. Rissanen (2011) calls for the reintroduction of appropriately sized seam allowances in contemporary garments, modelled on the inbuilt alterability through the construction of 1950s haute couture garments. Williams (1945) also advises making or selecting clothing with generous 'turnings' that not only prevent seam slippage but also allow for 'letting out' to enlarge a garment. A garment can also be fully refashioned into a completely different piece, such as advocated in 'fashion hacktivist' Otto von Busch's open-source online 'cookbooks' and 'recyclopedias' (von Busch, 2009) or Twigger-Holryd, who is investigating amateur re-knitting

(2013). A further example is ‘Seam Decoder’, a project featuring garments with colour-coded seam finishings and guidelines to signal where the wearer can unpick and remake. This was my commissioned design response to Fletcher’s Local Wisdom project, based on historical research from the London College of Fashion dress archive. With the demise of sewing and garment maintenance skills, I was seeking new ways to inspire and nourish ‘clothing competencies’ (Tranberg Hansen, 2003, p. 306).

Physical / emotional durability

How long a garment physically lasts depends on factors such as the construction methods, seam strength or the quality of the materials. Rissanen (2011) suggests using waste fabric to reinforce seams while simultaneously reducing or even eliminating waste. A further factor influencing how long a garment remains wearable is the way users wear, care for and launder their garments. In days gone by, people would wear various layers to protect their valuable clothing: aprons over dresses, for instance, or slips under dresses as well as t-shirts (which were once strictly classed as underwear) beneath shirts. Dress shields, placed inside the sleeves, offered clothing protection from perspiration damage (Shaeffer, 2007). Niinimäki (2011) suggests that manufacturers include information the number of washes a textile will take and still look good, allowing brands to offer durability guarantees.

Although low quality clothing can be a source of frustration (Niinimäki, 2010) and physical failure may result in discarding, 90 percent of clothing is in fact thrown away before the end of its useful life (Fletcher and Grose, 2011). As Chapman states: ‘There is little point designing physical durability into goods if consumers lack the desire to keep them’ or else we would merely be designing ‘highly durable waste’ (2010, pp. 61-62). Chapman, who coined the term ‘emotionally durable design’, has shaped ideas around the psychology and motivations around consumption. He developed a 6-point experiential framework that includes the following points for product designers to engage with: narrative, detachment, surface, attachment, enhancement and consciousness (Chapman, 2009, p. 33).

For example: a sense of meaningfulness and attachment to a garment can be created through a narrative that connects the wearer with the maker, such as Alabama Chanin's hand-made heirloom pieces, created by local artisans using traditional craft techniques (Gwilt, 2011). *Here Today Here Tomorrow* offers practical creative workshops that reconnect customers with how clothing is made (Fletcher, 2012). While Rachel Clowes’ MA collection instils a sense of magic by

dissolving the decorative bio-sequins; the dress for special occasions is transformed into a more everyday garment in new colours (Clowes, 2013). Modularity, as mentioned above, is another means of increasing variety and satisfying the need for change without consuming.

Case Studies

In order to asses which strategies for longevity are already being applied by practitioners and how they were implemented, three case studies were conducted. Case study as a method of inquiry allows us to answer in-depth the 'how' and 'why' of contemporary real life phenomena (Woodside, 2010) – in this case the 'hows' and 'whys' of contemporary sustainable fashion design practice with a focus on life-extension strategies

Methodology

A comparative case method with multiple cases illustrates the similarities and differences between the participants. A pilot study was conducted in order to refine the interview questions and improve the structure of the observations. The participants for the case studies, which took place over six months in 2014, consisted of three UK womenswear SMEs (micro and small to medium-sized enterprises). The participants were selected based on their size (SME), location (UK) and commitment to sustainability; they also all manufacture their garments locally in the UK. One reason for selecting smaller businesses is that within a typical SME designers are key members of the team and/or also the business-owners. This places them in a position with much larger decision-making powers than in larger companies (Renfrew and Renfrew, 2009). Another reason is that this research is also intended to benefit the participants. It became clear through initial correspondence with potential participants that those from smaller businesses were not only more willing to partake but also expressed more interest in the outcomes of the study. The in-depth interviews coupled with multiple observations provided the researcher with both verbalised and experiential knowledge, contributing to a comprehensive understanding of the phenomena as well as improved validity of the qualitative data (Dewalt and DeWalt, 2002).

According to the Ethical Fashion Forum database, there are 35 UK-based womenswear companies that also produce in the UK and comply with the ethical credentials of the not-for-profit organisation with over 6000 members worldwide (EFF, 2014). With only one of the case study participants being a member of this organisation, this figure acts only as an indication that the three chosen participants are part of a larger group and not the only representatives of this type of business within the UK.

Findings

Case 1

Fig. 1

The first case study participant is the owner and founder of her designer label, which was founded in 2008 and is based in East London. The predominantly one-off garments are made locally from second-hand fabrics using traditional craft techniques. Her designs are not based on trends but rather inspired by vintage books, photographs and artefacts. Not adhering to the fashion calendar, her mini-collections or individual pieces are released throughout the year. There are also 'staple garments' which are offered season after season. One such piece depicts a bear's face on the front and is therefore quite the opposite of what may generally be perceived as a 'classic' garment. To increase the lifetime of her garments, the designer also offers a repair service: 'I want people to be able to say 'there's a hole in it but let's fix it and I can keep wearing it and love it even more'. The patchwork-style garments (see Fig. 1) have the potential to become almost eternally mendable, the patches themselves becoming the garment, not dissimilar to the traditional Japanese 'Boro' textiles.

The business is very personal to the owner: 'I would still like to remain the face of the brand so people know that they can come and see me and talk to me and not to be scared of it.' This relates to the first point in Chapman's (2005) experiential six point framework for emotional durability,

namely that empathy with the object is strengthened through being able to relate the object to its maker. While the designer typically selects the vintage print fabrics for her one-off pieces herself, customers can also suggest fabric choices. With a more active role in the design process, the personalisation of a product can also deepen attachment (Mugge et al., 2005).

Case 2

Fig. 2

Participant 2 is a sustainable Leeds-based womenswear label founded in 2010. The brand focuses on hyper-local sourcing and production using pre-consumer waste materials; the organisation also engages in a variety of community projects. Similar to the first participant, the design concepts are not inspired by seasonal trends but rather the ideas stem from the designer's personal aesthetic: 'people, places, subcultures, the way people wear things on the street, DIY, use what you've got around you'. The development of silhouettes and colour palette is also unusual and likened to 'doing a jigsaw puzzle' as the designs are determined by locally available waste fabrics. The trans-seasonal 'core' pieces are offered season after season in new fabrics alongside varying seasonal styles (see Fig. 2). These reoccurring styles evolve slowly, promoting a notion that clothing, unlike food, does not 'go off' over time. In addition, Case 2 has recently introduced a numbering system for their annual collections rather than naming them by season (e.g. Autumn/Winter 14 is now collection 8). The intention is to further disconnect garments with this sense of time, rendering previous seasons' pieces outdated.

The brand's items are sold mainly in one or two sizes, made possible by low fit points and high stretch fabrics to accommodate the changing female body. Some of the less fitted garments are also offered as unisex styles. When the brand was operating from within a more outward-facing shop-studio, it ran a repair and alteration service for several years. While generally successful, the service experienced difficulties in altering low-quality high-street garments. The simple task of shortening a skirt, for instance, becomes difficult when the hem is not straight in the first place.

The brand founder and designer acknowledges: 'There are durability issues within garments, but that's not *really* the massive issue, I mean you can make a seam stronger. The massive issue is to make something so that someone actually wants to wear an item of clothing for longer.' The brand tries to tackle this by publishing photographs of customers wearing previous seasons' items alongside current ones. The local sourcing of materials and labour as well as engaging in community projects, such as their successful clothes swap, can result in the demystification of design and production, adding an additional layer of meaning and, potentially, attachment to the garments.

Case 3

Fig. 3

The third case study is a womenswear label co-owned by a creative director and a managing director, established in September 2012. They offer multi-functional and trans-seasonal products from fabrics sourced within Europe. Their garments are manufactured in London and while they would prefer to use eco-friendly materials, durability is a priority to them in their fabric and trim selection. All garments by Case 3 are designed to be trans-seasonal, a key feature of the label. Their signature style, The Little Navy Dress for instance, is sold season after season and designed as a blank 'canvas' base onto which one can zip decorative attachments (see Fig. 3). In contrast to the other two participants, this brand's base pieces are described by the creative director as

‘classic and timeless’ and offered in neutral colours. Their seasonal modular and more directional attachments, however, are trend-led.

This brand embeds one of three approaches of multi-functionality into their designs: modular, reversible or transformable. Transformable pieces are typically based on geometric shapes that can be worn in different ways (e.g. as a skirt, top or dress), whereas ‘modular’ means detachable parts (like sleeves, collars or decorative elements), and reversible styles offer two-colour and fabric options within one garment, increasing its versatility. Initially, the founders conducted research on the key items of a women’s wardrobe to inform their first collection. Feedback on their products was then obtained through follow-up questionnaires. A recent collection consisted predominantly of made-to-order modular attachments created from left-over fabrics and trims.
While the label does not currently offer post-purchase alterations, pre-purchase adaptations to sizing can be accommodated. Some pieces are more fitted than others, their key ‘base’ item being a tailored shift dress. The creative director is sceptical of enlarging garments by ‘letting out’ seams to enlarge a garment, concerned that the fabric would be damaged and weakened from the stitching, particularly with delicate fabrics. The brand’s website describes its garments as ‘physically and emotionally durable’. The durability of their fabrics is judged by their price, origin, fibre, construction of weave or knit and resistance to creasing and pilling, which is tested by crushing and rubbing the fabrics by hand. The creative director expects their garments to last around 5 years. The multi-functionality of the clothing extends the enjoyable use of the products and can postpone the psychological obsolescence users may otherwise experience (Niinimäki, 2011).

Rethinking the Role of the Designer

When designing for longevity, designers are not merely creators of the objects themselves. Consideration of the garment’s use phase means also creating systems around products to promote and support life-extending actions. While these actions broaden the user’s experience of fashion beyond that of shopping, the designer's role can extend to include the activities of communicator-educator, facilitator, activist or entrepreneur (Fletcher and Grose, 2011). Considering that fashion is currently ‘defined by acceleration and immediacy’ (Rocamora, 2013, p. 61), designing for longevity requires the radical rethinking of this paradigm. As Fletcher explains: ‘This is a challenge that requires us to transform not only fashion products and manufacturing processes but also fashion’s context, its rules and goals, business models and methods of promotion’ (2011 p. 165).

The Slow Philosophy

In the late 1980s, the Slow Food movement emerged and with it a 'slow' philosophy that has also been adopted in many other fields, such as design and fashion. The term 'slow fashion' was coined by Kate Fletcher (2007) and does not merely apply to speed: it also signifies a mindset that considers individual garment lifetimes and their respective impacts. A party top that is bought for novelty, and therefore only worn once or twice, can be designed for short life by being biodegradable, highly recyclable, or rentable (Fletcher and Grose, 2011). A plain coat, on the other hand, a carefully selected investment piece and bought to last, can be made from durable fabric, can come with meticulous care instructions and include the history of the design, rendering the item both emotionally and physically more durable (Fletcher and Grose, 2011). These examples demonstrate that there is no single solution for creating sustainability in fashion and we return to the notion of diversity, which is in fact named as one of the seven cornerstones of the 'slow mindset' (Fletcher and Grose, 2011, p. 129).

Well-being

Psychologist Helga Dittmar explains that in Western cultures, material wealth and an attractive image are portrayed as markers of success and status; however, there is a growing body of evidence which indicates that adults who value materialism and appearance suffer from lower levels of well-being (2008). Women in particular often experience anxiety when it comes to expressing their identities through fashion (Woodward, 2007). This in turn may be connected to the transient super-imposed meaning of products leading to women feeling under pressure to constantly reinvent themselves. The negative effects of fashion, however, are driven by the current model which relies on ever increasing consumption created by disappointment and unfulfilled desire (Svendsen, 2006). This is not an unintended side-effect but a consequence that capitalism relies on: desiring the infinite, where the imagined can never be achieved. Thus, dissatisfaction is what a growth-based fashion system relies on to flourish. However, 'materialism and appearance ideas conflicts with strivings that aim to satisfy more fundamental psychological needs that must be fulfilled in order for humans to flourish' (Easterbrook et al., 2014, p. 350). How can we experience fashion in ways that indeed contribute to our well-being?

New types of fashion practices based more on transformative acts and less on consumptive ones are required and will arise out of the desire for uniqueness (Reiley and DeLong, 2011). These alternative modes can contribute to a sense of wellbeing by improving 'people's experience

qualitatively without necessarily growing the industry in qualitative scale' (Fletcher, 2011 p. 165). If these alternative and more participatory means of engaging with fashion are potentially more satisfying for the wearers of fashion, what does this mean for the creators of fashion and their well-being?

Integrity

Grose describes the emotional 'burden' or lingering sense of 'dis-ease' that a designer can feel in today's fashion industry that focuses on speed efficiency and volume, pushing against their 'creative and often ethical threshold' (2013, p.54). The joy and satisfaction practitioners can experience from seeing a design though the conceptual stages, through to the sketching and draping, pattern-making and sampling is stripped away in commercial contexts when the designer becomes a mere facilitator between taking in daily trend feeds and putting out spec packages. Success is here measured by the units sold.

This sense of discontentment can, however, also motivate a sense of agency for change. Such was the case with case study participant 3 who embarked on a graduate job in a fast fashion company prior to her enrolment in an MA in Fashion and the Environment, followed by co-founding her own multi-functional label. She explains that the experience was valuable for her business start-up know-how and also provided her with 'a good example of what not to do'. While the second participant has always worked independently, she was previously working within traditional designer parameters, such as presenting her collection at international fashion weeks twice a year with the aim of expanding her brand. The increase in orders inevitably led to larger production runs, rendering her garments 'less and less hand-made and more manufactured'. This was at odds with the designer's ethos of creating one-off crafted garments from carefully sourced and selected second-hand fabrics. Consequently, she made the conscious decision to halt growth for the sake of the integrity of her products as well as her personal well-being as she 'was just loosing pleasure from it'. With the intension of keeping the brand highly personal, the designer is aiming to open a studio-shop where she can interact with her customers in person and discuss bespoke orders. The situation is similar with the Leeds-based brand: the owner describes having turned down large commercial offers as her ambitions for the brand 'is for it to remain quite a lightweight and experimental brand rather than commercialise one aspect of it. Because for me the real value is in that … it can be used almost as a research tool, you can try things out because of its size'.

Limits

While most companies may consider sustainability to be part of their businesses and an add-on that can be dropped if interest wanes, it is when sustainability is taken as a fundamental cornerstone that its true potential is unleashed; the limits and restrictions on colours or fabrics imposed through environmental criteria can in fact shape the overall look of the brand, mimicking parameters set by creative briefs (Grose, 2013). This is certainly true with Case Study 2, the brand working with locally sourced waste fabrics. The founder likens designing within tight confines as 'more of a problem solving approach than a design approach', shaping their signature style and brand identity. The designer explains how one of their 'classic' styles was created: 'The box jumper is exactly the width of half a roll width of the knitwear that was coming off the JT knit looms, so that there's no waste. And the sleeves are a quarter of the width.' The colour palette then emerges from the available fabrics and through collaborative design development within the studio.

Case 1 on the other hand had previously wished to streamline her pieces, making them as consistent as possible to follow mainstream fashion norms. However, she soon realised that this also makes the garments easier to replicate. By making each piece different, it is not only impossible to copy them but it also takes advantage of what a small-scale production approach can offer. The designer's passion for collecting artefacts from days gone by is deeply rooted and is not only expressed in a collection that fulfils the designer's own ethos, despite going against the grain from a financial growth-based perspective, but can also provide meaningful fashion experiences to her customers. She explains that her decision for her business to remain small 'is quite mad' and that businessmen like her father and partner 'understand why' but 'if it was their decision, they would have gone the other direction'.

Conclusion

The final toolkit aims to guide, support and inspire designers interested in the potential of designing for longevity. The case studies have demonstrated that not only are these strategies viable but they also appear to lend themselves to smaller organisations. Not being in a position to churn out large quantities of clothing at rock-bottom prices, independent labels are finding their 'own walk', as one participant described it. Smaller businesses can offer a more personal, local and differentiated fashion experience that is in stark contrast to frenetic, homogenous and anonymous big box high street retail encounters. Customers are being offered clothing that does not ignore the fact that we all have varying body shapes. There is direct communication between

customer and designer, advice on the care, repair and alteration of their products. Bespoke services are also offered. All of this can provide the wearer with a more fulfilling experience, potentially strengthening the bond between wearer and garment as well as between customer and brand.

Increased satisfaction is also possible for the designers and/or owners who are able to work, at least to a certain extent, in line with their own values and ethics, challenging prevailing norms in fashion and 'business as usual'. The case studies have shown that supporting slower rates of consumption does not stand at odds with running a successful business. In order to assess whether the findings are particular to small businesses, it would be necessary to examine longevity strategies within medium-size or large companies, a topic for future study.

There are, however, many tensions within the approaches themselves. Does, for instance, modularity actually lead to reduced consumption or are we enticed to buy more? Should a seam be constructed to be as sturdy and durable as possible, or will one that is easily unpicked invite alterations and lead to a garment that remains relevant to its user for longer? Does dating a garment make it date or does it add a layer of narrative and meaning? There are no simple answers in the complex world of sustainability and the messy realities of practice. The suitability of the strategies must be viewed in the context of the designer's values, available resources, and social and cultural factors. With these factors being in flux, the toolkit itself can be viewed as a constant work-in-progress, one that is refined over time through use. Finally, the discussed approaches are by no means conclusive or decisive but rather reflect emerging patterns in sustainable fashion design as found within the case studies, hinting at more holistic future design practices for sustainability.

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