

DESIGN, SUSTAINABILITY, AND AUSTRALIAN MASS-MARKET FASHION: THREE CASE STUDIES

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Submitted in fulfilment of the requirements for the degree of
Doctor of Philosophy

School of Design
Creative Industries Faculty
Queensland University of Technology
August 2013

Keywords

Fashion, design, sustainability, mass-market, Australia, design process, fast fashion, fashion designers, product development, design for sustainability

Abstract

The production and consumption of fashion garments has negative environmental and social impacts that extend from the extraction processes of raw materials, through to the waste generated at end of life. The design process is a crucial point of intervention, in which decisions made by the designer can potentially mitigate these impacts. However, to what extent can mass-market fashion designers consider environmental sustainability within their design process? To explore this question, this study presents three case studies from different market levels in the Australian mass-market fashion industry. The case studies are assembled through interviews with designers, along with an analysis of the Australian mass-market fashion industry. The need to reduce risk, to respond to trends at speed, and to lower the cost of production are major constraints on the design process, regardless of the designer's personal commitment to environmental sustainability. Hence while Australian companies may make interventions for sustainability in other areas of their business, intervention in the design of the garment is a difficult proposition.

This research attempts two contributions to the knowledge surrounding fashion and sustainability. First, it maps the design processes within the Australian mass-market fashion industry, itself an under-examined aspect of Australian fashion studies. A corollary of this mapping is the presentation of the unheard voices of the 'invisible' designers working in the industry. This data guides the analysis into how designers in each market level may or may not be able to respond to environmental sustainability. Second, the study provides an analysis as to how design operates in the wider mass-market fashion industry. It identifies the intangible elements of fashion design – branding, style tropes and trends – and proposes these as unidentified 'actors' within the design process, shaping and delineating what can be designed. The study finds that designers in the mass-market are largely unable to consider environmental sustainability in product design due to the tyranny of immaterial fashion knowledge, the dependence on design imitation, the delocalisation of manufacture, and the quasi-monopolistic structure of the industry.

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List of Abbreviations

BGR	Branded Garment Retailer
BGW	Branded Garment Wholesaler
CAD	Computer aided design
CMT	Cut Make Trim
COC	Code of conduct
CSR	Corporate Social Responsibility
C2C	Cradle to cradle
DfS	Design for sustainability
ECA	Ethical Clothing Australia
EQM	Ethical Quality Mark
E P&L	Environmental Profit and Loss
EU	European Union
GOTS	Global Organic Textile Standard
H&M	Hennes and Mauritz
ICT	Information and communication technologies
ISO	International Organization for Standardization
JIT	Just in time
LCA	Life cycle analysis
LEED	Leadership in Energy and Environmental Design
LVMH	Moët Hennessy Louis Vuitton S.A.
MFA	Multi Fibre Arrangement
NBGW	Non Branded Garment Wholesaler
OBM	Original Brand Manufacturing
ODM	Original Design Manufacturing
OEM	Original Equipment Manufacturing
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
R & D	Research and Development
SAC	Sustainable Apparel Coalition
SKU	Stock Keeping Units

TBL	Triple Bottom Line
TCF	Textiles Clothing and Footwear
TCFUA	Textile, Clothing and Footwear Union of Australia
TFIA	Council of Fashion and Textile Industries of Australia
US	United States of America
WGSN	Worth Global Style Network

Statement of Original Authorship

The work contained in this thesis has not been previously submitted to meet requirements for an award at this or any other higher education institution. To the best of my knowledge and belief, the thesis contains no material previously published or written by another person except where due reference is made.

Signature:

A handwritten signature in black ink, appearing to be 'A. Lau', written over a horizontal line.

Date:

13 August 2013

Acknowledgments

This project has benefited from the advice, encouragement and support of many people. I wish to thank my principal supervisor Tiziana Ferrero-Regis, who throughout the process was a valued mentor, critic, encourager, and advocate. I am grateful to my associate supervisor Suzi Vaughan, and to the QUT fashion department, including Kathleen Horton, Kay McMahon, Jane Morley, Dean Brough, and Mark Neighbour. Each made me feel welcome in Brisbane and shared their experience and insights. I'm grateful for the collegiality of other QUT researchers including Alice Baroni, Paula Dunlop, Angela Finn, Carla Binotto, Nadia Buick, Deborah Fisher, Timothy Lindgren, and Oksana Zelenko.

I would like to thank my former teachers at UTS who first inspired me to explore fashion and sustainability research, including Alison Gwilt, Alana Clifton and Timo Rissanen.

This research was supported financially by an Australian Postgraduate Award, as well as research support funds from QUT, including a Grant-in-aid for travel. I wish to thank the Creative Industries Faculty and the postgraduate team for their assistance.

I gratefully acknowledge the contribution of the three companies that participated in the study, particularly the individuals in each company who first granted me access, and to the participants in the study who generously shared their time and knowledge with me. This research would not have been possible without them.

I am grateful to my father Stephen and my husband Daniel for their help in editing and proofreading the thesis drafts.

And a big thank you for all their ongoing encouragement and support goes to my family: my parents Stephen and Anne, my parents-in-law Kevin and Anne, and my sister Priscilla. Most of all I wish to thank Daniel, Willa, and Theo, for everything.

Chapter 1: Introduction

The *Limits to Growth* report of 1972 highlighted that the trajectory of human industrial development was unsustainable, and predicted planetary overshoot by the middle of the twenty-first century (Meadows, Randers, and Meadows 2005). Forty years later, the world remains on the unsustainable ‘standard run’ projection of the report (Turner 2008, 2012; Randers 2012). The growing concerns regarding environmental damage have led, among other concerns and initiatives, to the examination of the role of designers in designing less environmentally-damaging goods. Catherine McDermott (2007, 217) defines design for sustainability (DfS) as design concerned “with the use of resources, including land and energy, with maximum efficiency and at a rate that does not compromise the ability of future generations to meet their own needs”. In DfS, the designer is commonly acknowledged as a crucial actor, well-placed to plan for the impacts of products across the product life cycle (Lewis et al. 2001; Vezzoli and Manzini 2008; Fiksel 2011) yet also increasingly positioned as a change agent for more radical societal transformation (Fiksel 2003; Fuad-Luke 2009; Fry 2009; Walker 2006, 2011). However, it is unknown to what degree designers of mass-produced fashion apparel can consider sustainability within fashion design. Hence this study asks:

- To what extent can Australian mass-market fashion designers intervene for environmental sustainability?

Put simply, the notion of environmental sustainability refers to human activity that can be continued without putting at risk the complex ecological systems upon which humanity relies¹. Crucial to a discourse on sustainability is the product life cycle, which includes the raw materials used to create a product, its manufacturing, distribution and retailing processes, its use phase, and finally, its eventual disposal or

¹ Rockström et al (2009) identify nine planetary boundaries within which humanity must remain in order to avoid triggering non-linear or abrupt environmental changes. These include our impact on the nitrogen and phosphorus cycles, climate change, ocean acidification, chemical pollution, atmospheric aerosol loading, global freshwater use, and loss of biodiversity.

recycling at end-of-life (Lewis et al. 2001, 14). In fashion design, a number of strategies aligned with DfS have been adopted by both large companies and niche designers. These include, for example, design for disassembly (e.g. Refinity raincoats, Terra Plana shoes), design for recycling (e.g. Patagonia, see Loker 2008), and design for reduced chemical and water pollution (e.g. see Nike 2010; Nau 2010; Marks and Spencer 2012). Although many of these strategies have been known in fashion design for some time (e.g. Esprit's 1992 eco-collection), it is unknown if the notion of product life cycle, or indeed any consideration of environmental sustainability, has gained any traction within the design processes of the Australian mass-market fashion industry.

Complicating the research question is the uncertainty regarding what constitutes 'design' in the context of mass-market fashion apparel, in which designers (or, often, product developers) may imitate the materiality and aesthetics of existing garments. In addition to this, the complexity of sourcing practices in the Australian mass-market means that garments may be purchased from suppliers, designed in-house, or may be 'knocked-off' versions of other companies' garments (Weller 2007a; Rissanen 2008; Walsh 2009;).² Therefore, identifying who 'designs' the product is problematic. Although these practices have been explored in the Australian context to some extent, little research has been conducted that highlights the views and voices of the designers themselves. While niche designers' sustainable practices have received some attention (e.g. see English and Pomazan 2010), there has been little analysis on the implications of these varied sourcing practices for DfS within mass-market fashion design. Thus the investigation of the ability of Australian mass-market fashion designers to intervene for sustainability foregrounds further research questions:

- What is the Australian mass-market design process?
- Which actors play a role in the design of the garments?
- How have Australian companies responded to date to both social and environmental sustainability, and how can these responses be mapped?
- What are the views of Australian designers regarding fashion and sustainability?

² These practices are mentioned at length in Weller (2007a), however only touched upon in Rissanen (2008) and Walsh (2009).

This study privileges the voices of Australian designers working in the mass-market in order to plot current design processes and hence identify the opportunities and barriers for intervention in garment design for environmental sustainability. This chapter begins by positioning the background for the study: the nature of fashion and fashion design, before then outlining the scope and site of the study: the Australian fashion industry.

1.1 FRAMING THE RESEARCH QUESTION

This study is informed by three key areas of enquiry. The first is fashion and dress studies, itself an inherently interdisciplinary field drawing on sociology, anthropology, material culture, economic geography, and historical/cultural analyses of dress. The second is design studies, in particular the discussion regarding design and sustainability. The third area is environmental sustainability and the vital importance of conserving and preserving natural capital to ensure a viable future for humanity. The overlap between these three areas constitutes the theoretical framework within which I will analyse the workings of the Australian mass-market fashion industry. This section expands on the research questions posed above through discussing how DfS and the notion of fashion are conceptualised in this study.

At first glance, it is deceptively simple to apply DfS notions to fashion design. Superficially, designers can incrementally improve fashion products across the life cycle in order to limit the environmental impact of fashion products. Similarly, consumers can choose to purchase these responsibly-designed garments, and can also purchase less garments in order to reduce solid waste to landfill. Yet this instrumental approach is only one component of the work on DfS. In addition to analysing the impacts of discrete products, design theorists writing on DfS frequently examine the wider context of the economic and social milieu into which the designed product arrives. As the current structure of the world economic system relies on perpetual growth, and hence continual input of material goods, designers, no matter how ‘green’, are arguably complicit in simply designing ‘more stuff’ in the service of an unsustainable economic imperative. Thus writers on DfS such as Tony Fry (1999; 2009; 2011), Alastair Fuad-Luke (2009), and Carlo Vezzoli and Ezio Manzini (2009), posit ‘design for dematerialisation’, or ‘design for product service systems’ in which designers do not necessarily propose new, greener products, but rather

retrofit old products, or propose new models for living and consuming within environmental limits. Therefore, DfS can be viewed as a political position: one that not only criticises the current ways in which products are manufactured and consumed, but also, at times radically, one that critiques the capitalist system. Applying these more complex conceptions of DfS to fashion design becomes far more problematic than simply limiting environmental impacts across the garment life cycle: these notions of DfS challenge the basis on which the global fashion system rests.

In order to explain this statement, it is essential to discuss the barriers to environmental sustainability embedded in the structure of the globalised, fast-moving fashion system. The global fashion system is a highly complex, non-linear and self-organising system, and nested within it are many smaller, interlocked systems – companies, organisations and institutions. These systems are governed by the logic of ‘fashion’ – the complex movement of tastes and trends, driven by the desire for novelty and newness (Lipovetsky 1994). The *function* of the fashion system is arguably to monetise and capitalise upon the desire of individuals for novelty and personal expression. To do this, and to do it with greater profits and efficiency, fashion clothing has a planned obsolescence (Craik 1994, 5), underpinned by a gamut of symbolic production in the form of images, branding and ‘new’ trends, all of which respond to and beckon the individual’s desire for newness and for articles of apparel that will help build his or her own “story of self” (Giddens 1991, 54). This underlying function of the fashion system is fundamentally at odds with sustainability, as the riotous symbolic and cultural production of fashion requires a commensurate weight of physical garments. Producing these garments requires tangible inputs such as water and energy, and leads to polluting emissions and waste to air, water, and soil (Allwood et al 2006; Draper, Murray and Weissbrod 2007).

More widely, however, the quickening speed of the fashion system can be attributed to the larger system inside which fashion is nested: the current logic of the modern “world-system”, which world-system analyst Immanuel Wallerstein (1974, 2004) defines as the capitalist world economy. Simply put, this world system requires perpetual economic growth, underpinned by the depletion of both renewable and non-renewable natural resources, and this is arguably unsustainable long term. Therefore, this study identifies the views on sustainability as a spectrum, in which the weak side relates to changes made within the context of capitalism, while the

strong side relates to proposing radical revisions to capitalism. For this reason, the hypothesis in this thesis is that mass-market fashion's inextricable link to capitalism means that mass-market companies can only engage with weaker, incremental approaches to sustainability.

Yet this is not to say that the more radical positions of DfS cannot be applied or discussed in relation to the fashion system. In fact, some of the theoretical advances in recent design philosophy can serve to illuminate the workings of design within the fashion system, even if the strategies proposed for design redirection for sustainability are seemingly incompatible with fashion. A key contribution of this study to the field of sustainability and mass-market fashion is to apply the work of design theorist Tony Fry (1999; 2009; 2011) to the analysis of designers' practices in the Australian fashion industry. In Fry's definition of design, design is the totality of the human-made, both *material* and *immaterial* – whether chairs, toothbrushes, government policy, or a pop song. Design's omniscience in mediating our daily, lived reality serves to render invisible the bulk of the designed (Fry 1999, 2009). Fry claims that to design, and to be immersed in designed human environments, is for all humans, ontological. He positions design as “a directional practice that brings directional objects and objectified things into being” (Fry 2009, 30), ‘directional’ meaning that designed objects have agency, and ‘design’ other objects and processes. From this premise, Fry builds a theory relating to sustainability in design that questions many of the instrumental approaches to DfS, and instead poses the problem of unsustainable design as inherent to the nature of what it means to be human. Our designed world is effectively ‘designing’ us out of a future, as the unintended, deleterious consequences of our technologies and economic systems converge. Therefore, in Fry's notion, ‘sustainability’ is not an achievable end-point, but rather a continual process of ‘making time’ through reconceiving and re-examining the nature of design itself.

To understand what this view of design may mean in the context of the fashion system, it is necessary to first expand upon this study's definition of ‘fashion’. Crucially, fashion involves elements of production and consumption (Fine and

Leopold 1993³; Fine 2002), and this production and consumption is both *material* and *symbolic*. On the one hand, fashion production comprises globalised “buyer-driven commodity chains” extending from agriculture to retailing to disposal and re-sale (Gereffi 1999, 41), yet on the other, fashion involves the symbolic production and consumption of fashion brands, images, memes, and trends (Tungate 2003; Entwistle and Rocamora 2006). The fashion designer engages with both the symbolic and material aspects of fashion production, acting, as Skov and Aspers (2006) observe, as one of the mediators who link fashion’s creative sector with its physical manufacturing industry. When viewed under Fry’s analysis, these material and immaterial aspects of fashion are equally designed outcomes, both of which go on to ‘design’ other consequences.

Crucially, Fry (1999) conceives of design as three interrelated elements – design processes, design objects (both material and immaterial), and design agency. As described earlier, under this conception, all of the human-made is ‘design’. This means that there is no artificial divide between ‘designer objects’ with their higher symbolic, cultural value and the humble ‘non-designer’ artefacts of daily life. All are equally design. Hence to consider fashion design within this wider notion of the human-made is not to posit a hierarchy of haute couture design over the anonymous design of mass-market apparel based on their respective symbolic or cultural value, but rather to recognise that, fundamentally, all fashion design brings into being an object that did not exist before. This broader view of design is important to this study for two reasons. First, this view of design makes visible the practices of the anonymous producers of mass-market fashion and their potential role in DfS. Second, Fry’s philosophy becomes a way to conceive of both the immaterial and material elements of fashion as ‘design’. This aids in understanding the way in which design and designers fit into the apparatus of the fashion system, and the way in which design processes serve to delineate and ‘design’ the industry’s outcomes.

Fry’s work in DfS has rarely been applied to an analysis of fashion and sustainability. This is no doubt due to the uncompromising nature of his philosophy in which he explicitly calls for an aesthetic durability in design - “beauty divested of

³ The first edition of the influential book *The World of Consumption* was co-authored by Ben Fine and Ellen Leopold in 1993, however later editions are authored solely by Fine (2002), and the 1993 edition is no longer in print and difficult to access.

fashion” (Fry 2011, 65), and promotes the notion of ‘design for dematerialisation’ in which products are eliminated by design. From the perspective of an industry such as fashion, which depends on novelty and excess, this is an extreme position. Yet when examined in the broader context of resource depletion, climate change, species loss, groundwater pollution, overpopulation and the other converging crises of our era, Fry is one of the few DfS writers who bluntly acknowledge the inherent, systemic unsustainability of most industrial human activities. While his more radical political ideas or design-led solutions cannot be easily applied to fashion design, his design philosophy aids this study in illuminating the notion of design and designing, and what this may mean in the context of the fashion system.

1.1.1 THE SYMBOLIC VALUE OF FASHION DESIGN

The challenge of fashion and sustainability is compounded by fashion’s role in cultural production as well as industrial production. In part, the economic importance of fashion’s *symbolic* production serves to position it within the creative and cultural industries,⁴ first identified by Paul Hirsch (1972). Since the 1970s, as manufacturing increasingly re-located to developing nations, post-industrial nations have sought competitive advantage through “immaterial labour” (Hardt and Negri 2000; McRobbie 2011) that involves drawing on creativity, innovation, and knowledge to produce “commodified symbolic forms” (Scott 2002, 12, see also Santagata 2004; Hesmondhalgh 2008). Following Allen Scott’s (2002) analysis, fashion clothing is an example of a cultural product combining both symbolic and utilitarian elements, in that it holds significant aesthetic and/or semiotic content, yet also clearly has a utilitarian function in clothing the body. However, the chief market value of cultural consumer goods and services lies in their high aesthetic or symbolic content, rather than their utility. As Norma Rantisi observes (2004, 91), “[T]he competitive pressures of a global economy and a growing segmentation of mass markets have made aesthetic innovation the new mantra of late capitalism”. This is also Joanne

⁴ Although I acknowledge that there are key differences between the terms ‘creative industries’ and ‘cultural industries’ (e.g. as discussed in O’Connor 2007, Hesmondhalgh 2008), their definitions are not essential to this discussion.

Entwistle's (2009, 592⁵) contention: that fashion is an "aesthetic marketplace", in which the market value of the fashion garment depends on its mutable aesthetic values.

This new mantra of aesthetic innovation is most clearly evident in the rise of fast fashion. Fast fashion is now the paradigm of fashion in the twenty-first century, characterised by rapid response to fashion trends, closer connection to consumer desire, and agile trans-global supply chains (Barnes and Lea-Greenwood 2006; Tokatli 2007). The speed of both symbolic and material production of fashion has increased significantly since the 1990s, with retailers offering up to twenty seasons in a year (Christopher, Lowson, and Peck 2004). This has been driven in part by the marked advances in information and communication technologies (ICTs) allowing for rapid data sharing along the supply chain, as well as greater symbolic fashion production and consumption in the form of online access to catwalk shows (e.g. Firstview.com, Style.com), international trend forecasting services such as the Worth Global Style Network (WGSN), and the phenomenal rise of personal style blogs (Rocamora 2011; Rickman and Cosenza 2007). Additionally, the ending of the Multi Fibre Arrangement (MFA) in 2005 enabled Western markets to more effectively offshore garment production, enabling the growing speed of symbolic fashion production to be materialised in cheap, fashion-forward apparel, manufactured in developing countries (Gill 2008; Draper, Murray and Weissbrod 2007). The shift towards fast fashion has highlighted the need to address the related issues of both environmental sustainability and ethical manufacturing within the fashion industry.

Often overlooked in the discussion of aesthetic, symbolic goods such as fashion, is the *materiality* of the clothing itself.⁶ Here discussion of fashion and sustainability shifts the focus to fashion's tangible elements – the fibre it is made from, the workers who produced it, and the ways in which its social and environmental impacts may be lessened.⁷ These are not new areas of concern: worries regarding the often dangerous

⁵ This is an e-book edition, so this number refers to a location rather than a page number. The References section will specify the edition of the book where appropriate.

⁶ This is a debate that moves into the territory of material culture theorists such as Daniel Miller (2008), who argues that there is a long tradition in human society of privileging the symbolic, or the abstract notions of culture, religion etc. over the material artefact.

⁷ This is not to say that writers on fashion and sustainability are not concerned with the symbolic production of fashion – e.g. Winge (2008) discusses the aesthetics and branding of eco-fashion as a

and poorly paid working conditions of textile and apparel workers extend back to the Victorian reformers (O'Brien and Quinault 1993). Similarly, environmental concerns regarding industrialisation have a long history, stemming from Rachel Carson's seminal work *Silent Spring* (2002 [1962]), in which she exposed the dangers of insecticides such as DDT. Since the 1990s, though, the area of fashion and sustainability has grown in direct response to the negative social and environmental impacts exacerbated by the changed paradigm of fashion. A number of key reports from the UK directed attention to the social and environmental impacts of fashion (e.g. Allwood et al. 2006; Draper, Murray and Weissbrod 2007), while the work of UK researcher Kate Fletcher (Fletcher and Tham 2004; Fletcher 2007, 2008) has been instrumental in adapting life cycle analysis (LCA) from a quantitative sense (assessing the impacts of particular garments), to a qualitative approach that uses life cycle thinking as a lens to analyse the impacts of the fashion industry, and also to suggest points of intervention.

Increasingly, the fashion designer is positioned as crucial in combating the unsustainability of fashion's modes of production and consumption, whether through incrementally 'greening' existing processes (Lewis et al. 2001; Fiksel 2011), or being a leader in developing and promoting new practices (Gwilt 2011; Rissanen 2008), or acting as an activist undermining the hegemony of the fashion system (von Busch 2009; Fletcher and Grose 2012). Much of this thinking is based on DfS literature that originally comes from the disciplines of industrial design and architecture (see Section 2.2.2). However, while much attention is given to the niche, innovative designers who point to new ways to engage with fashion, less research examines the current and potential role of the mass-market fashion designer in considering sustainability.⁸ In respect to sustainability in the mass-market, the research focus is primarily on ethical and/or green supply chain management and corporate social responsibility (CSR) (Perry 2012; Kuik 2005). Therefore, through examining the role of the mass-market designer through the lens of DfS, this study extends the existing knowledge regarding the designer, fashion, and sustainability.

new kind of commodity fetish, while others observe (e.g. Black 2008; Fletcher 2008) that the aesthetics and design elements (meaning the symbolic design elements) of sustainable fashion are essential in attracting consumers to purchase them over conventional fashion garments.

⁸ An exception being a useful article by Armstrong and LeHew (2011) that examines potential industrial ecology strategies in apparel design and manufacture.

Yet part of the challenge lies in first defining what is meant by ‘fashion design’. Design at all three levels of the fashion system is often positioned chiefly as symbolic value-adding, in which fashion designers draw on creativity, innovation and the particularities of their locale to produce cultural goods (e.g. see Rantisi 2009; Aspers 2010b). The technical design aspects of garment manufacture are in service to this primary aim. In the mass-market, according to Gavin Waddell (2004, 56), “design has become the science of delivering the item the public is ‘just about to want’”, involving a process of imitating the aesthetic innovations of the higher market levels, as well as responding to the lifestyles of their target customer. The difference in pricepoints between ready-to-wear and mass-market garments therefore lies as much in the perceived symbolic and cultural value of the design as in the garment’s material elements, such as quality of its construction or textiles.

Thus in the context of the creative and cultural industries, design is the value-adding knowledge that imbues the material garment with its cultural and aesthetic significance, and hence its market value (Entwistle 2009; Aspers 2010b). Yet this notion of design is very limited when examined within the framework of DfS. In all conceptions of DfS, the materiality of the designed object is necessarily as important as its immaterial cultural and aesthetic attributes. However, as this thesis examines, in the context of the highly globalised apparel industry, identifying who makes the design decisions that contribute to the material garment is highly problematic.

1.2 CONTEXT

To turn now to the empirical site of the study, my focus is the design practices of mass-market fashion designers. To clarify this term, fashion brands can be loosely classified according to their market level. There are three main strata: haute couture, ready-to-wear, and mass-production (Waddell 2008). These market levels are summarised in Table 1.1. The mass-market can be further classified into sub-levels such as premium (Khameide 2010), mid-market, and discount.

Table 1.1 Fashion market levels

Fashion Market Levels		Example of brands
Haute couture		Chanel, Christian Dior, Givenchy, Jean-Paul Gaultier
Ready-to-wear (prêt-à-porter)		Lanvin, Armani Privé, Miu Miu, Proenza Schouler
Mass-market	Premium	Coach, Polo Ralph Lauren
	Mid-market	Banana Republic, Whistles, Jigsaw
	Fast fashion	Zara, Gap, H&M, Topshop
	Discount market	Primark, Walmart

All three levels of the fashion system have been impacted by the changed paradigm of fashion. Fashion is historically viewed as a signifier of class and taste (Veblen 1970 [1899]; Bourdieu 1993). Yet as Diana Crane (2000, 6) observes:

[I]n the twentieth century, clothes have gradually lost their economic but not their symbolic importance, with the enormous expansion of ready-made clothing at all price levels. The availability of inexpensive clothing means that those with limited resources can find or create personal styles that express their perceptions of their identities rather than imitate styles originally sold to the more affluent.

Thus fashion has become less about signalling one's economic standing, but increasingly about signalling one's niche lifestyle choices. In fact, the term 'mass-market' is now something of a misnomer as although the garments are mass-produced in high volumes, companies target less a 'mass' consumer, but more a niche lifestyle-focused consumer, with market differentiation attained by the careful pruning and tweaking of the company's intangible branding. This hyper-segmentation, Crane observes (2000, 6), "isolates each lifestyle in its own niche", and this logic influences the choices of consumers at every market level, whether at the high end, choosing between Prada or Versace, or at the low end, choosing between H&M and UNIQLO.⁹

This study explores these phenomena in the context of the Australian mass-market fashion industry. While the UK, US, and European fashion industries are the focus of research into sustainability (e.g. Allwood et al. 2006; Hethorn and

⁹ Also, as will be discussed in Chapter 5, frequently consumers shop at both ends of the market.

Ulasewicz 2008; Black 2008; Niessen et al. 2010; Brown 2010; Skov and Meier 2011; Black 2012), there is limited research exploring company responses to environmental sustainability in the Australian industry, and also little research on the mass-market design process.¹⁰ Two exceptions are Sally Weller's (2007a, 2007b) analysis of flows of fashion knowledge that explores elements of the Australian mass-market in depth, and the *Travelling Textiles* report (Diviney and Lillywhite 2010) that traces the origins and environmental impact of two Gorman garments. There is a strong body of research examining the Australian fashion culture, industry, and identity, extending from historical surveys (Maynard 1994) through to Australia's contribution to the contemporary global fashion system (for example, Maynard 2004; Craik 2009; Healey 2010; Schmidt and Tay 2009). This study will make a contribution to this area through examining Australian design processes and noting the entrenched practices of design imitation that emerged as a theme during the fieldwork.¹¹ Hence this research aims to fill several gaps in knowledge, foremost through examination of fashion and sustainability in the Australian context, but additionally through contributing to existing discussion of the symbolic production of fashion and the flows of fashion knowledge in the Australian industry.

Australia's fashion industry sits within the broader Textile Clothing and Footwear industries (TCF). While it may therefore seem correct to use the term 'clothing industry', this study focuses on the 'fashion industry' as being a subset of a wider clothing industry, with 'fashion industry' referring to the manufacturing, marketing, and retailing of apparel in which the intangible values of changing tastes and trends account for the garment's market value.¹² Thus while a study of the 'clothing industry' would include all apparel retailed in Australia (e.g. see Weller 2007c), this study focuses on the apparel with an added fashion aesthetic.¹³ Particularly, this

¹⁰ A notable exception being the *Travelling Textiles* report (Diviney and Lillywhite 2010) that traces the origins and environmental impacts of two Gorman garments.

¹¹ Although this was not the primary focus of the study, the subject emerged in the interviews with designers and since became a more significant component.

¹² While Scott (2002, 12) notes that there is rarely a clear distinction between symbolic and utilitarian functions as most contemporary commodities have both functions, 'fashion' commodities rely far more on their symbolic and aesthetic value to define their market value, as Entwistle (2009) argues.

¹³ The Council of Textiles and Fashion Industries of Australia (TFIA) also includes accessories and uniforms in their definition of fashion (Kellock 2010).

thesis is concerned with high-volume, mass-produced fashion apparel, hence the use of the term ‘mass-market fashion’ as distinct from luxury, avant-garde, bespoke, or high-end clothing.

While this study touches on menswear, childrenswear, and footwear, the focus is on womenswear. This is largely due to the fact that women’s fashion accounts for the bulk of fashion retailed in Australia, with women spending \$611 a year per household on clothing,¹⁴ compared to male spending of \$264 (Irvine 2011). It is important to acknowledge that fashion production and consumption is a highly gendered arena, historically associated with frivolous consumption by women, as discussed by Craik (1994) and Jones (2004a), and frequently relying on marginalised women workers in the manufacturing sector, with women comprising up to 85 per cent of textile workers in the Far East (Rosen 1994, 83). Yet although these gender issues are significant, this study’s analysis of mass-market fashion is not driven in gender terms. Indeed, following Lipovetsky (1994), it can be argued that the underlying logic of fashion extends beyond gender divisions and in fact influences the gamut of consumer goods, from men’s footwear to consumer electronics and furnishings.

Strategies to move the Australian mass-market onto a more socially and environmentally sustainable footing tend to focus on brand-wide policies to use renewable energy, to recycle and use biodegradable bags, and to develop codes of conduct for suppliers’ factories. Despite these policies, there has been little visible emphasis on product design as a point of intervention for environmental sustainability. The reasons for this may be both internal and external to the company. Internally, company management may be unwilling to support product interventions that could be costly and time-consuming, and may not lead to increased sales. Externally, the company may feel little pressure from the market or from government to adjust their processes. A more fundamental reason for inaction is the nature of the product itself – the mass-market fashion garment is a semi-disposable product, designed specifically to be replaced by a newer style, often within weeks. Hence the logic of the mass-market fashion system is structurally in opposition to the principles

¹⁴ This figure includes only the items of clothing women purchased for themselves. It was found that the money spent on girls’ clothing per household also exceeded that of boys’.

of creating longer-lasting products, and many interventions in product design may therefore seem quixotic and counter-intuitive.

Yet in contrast to Australian companies, many of the world's largest apparel companies have overcome some of these barriers in order to intervene in product design for the sake of environmental sustainability. Over twenty years ago, the Californian-based mass-market brand Esprit implemented an eco-collection that sought to minimise the impacts of their garments through addressing all aspects of the cradle-to-gate cycle (i.e. ending at retail) (Furst 2012). Similarly, since its conception, the outdoor wear label Patagonia has implemented the use of recycled polyester in fleece jackets, and conducted life cycle assessments on their garments (Brown and Wilmanns 1997; Hopkins, Allen and Brown 1994). Other prominent companies intervening in product design include Nike (DeLong 2009), PUMA (2012), and Marks and Spencer (Draper, Murray and Weissbrod 2007). Fast fashion companies such as Hennes and Mauritz (H&M) and Topshop have also explored design strategies such as upcycling and using lower-impact fibres (Siegle 2012).

The question emerges, then, why is the Australian industry in particular slower to respond to environmental sustainability? In part, this is due to Australia's relative protection from the global fashion giants, which has enabled local companies to form quasi-monopolies of brands operating only in the Australian and New Zealand markets (Aroche 2011; Miller 2011). Companies such as H&M, Zara, Gap and Topshop did not see the relatively small Australasian market as a priority for expansion. As such, the local Australian market has been dominated by large consortiums that control the bulk of the several hundred mass-market brands. These consortiums include Premier Investments, Gazal, Pretty Girl Fashion, Pacific Brands, Wesfarmers, Woolworths and the Sussan Group. Without the external pressure from international brands, Australian brands have dominated the internal market and thus have been able to afford a degree of complacency regarding their response to environmental sustainability. Recent changes, from the arrival in 2011 of Zara and Topshop to the growth in internet retail, have begun to place greater pressures on the local industry, seen in poor retail performance during 2011 – 12 (Hume 2012).

Little research has been conducted regarding the internal operations of Australian fashion companies, and thus it is unknown whether there is any push within management or any personal concern on the part of designers regarding environmental sustainability. Additionally, it is uncertain to what extent local brands

design their garments; for example, whether they source them directly from suppliers, or whether they design them locally, or ‘knock-off’ existing garments. According to Weller’s (2007a, 2007b) in depth exploration of the sourcing processes in operation in the Australian mass-market, most of the products in the Australian market are not ‘designed’, but are instead imitations of northern hemisphere garments, aided by Australia’s seasonal disparity. In regard to DfS, the difference between designing and sourcing is highly significant because it will impact on the extent to which Australian companies can intervene to reduce the garment’s environmental consequences. Furthermore, the issue of copying has implications for the symbolic production of fashion and Australian designers’ position within the larger fashion system. As designers straddle both the material and symbolic aspects of fashion production, they are well-placed to illuminate the complex process of product design in an aesthetic marketplace.

In order to meet the objectives of this study, the research approach is qualitative. I draw on empirical primary and secondary data in order to build case studies of three market sectors within the industry – fast fashion, discount, and mid-market. Each case study first examines the response to sustainability across that market sector before honing in on the design processes of a specific company within the sector. The advantage of this multiple case study approach is that it allows a focus on the specific (the operations of one company, or the views of one designer) as well as the general (the characteristics of the larger market sector).

The key to this methodological approach lay in gaining access to the inner workings of the traditionally impenetrable fashion industry. I was able to gain access to three companies, and during 2010-11, I conducted in-depth interviews with a total of nineteen designers. It was a condition of ethical clearance for the research that the participating companies remain anonymous, and as such they are referred to in the study as Company A, Company B, and Company C. The valuable insights obtained from the designers serve to illuminate not only the day-to-day operations of the industry, but also the ‘wicked problem’¹⁵ of fashion and sustainability.

Therefore, the study aims to make both practical and theoretical contributions to the field. In a practical sense, the interviews with designers reveal both barriers and opportunities towards intervention in product design for sustainability that have

¹⁵ Rittel and Webber’s (1974) notion of ‘wicked problems’ is discussed further in Section 2.1.

implications for company operations. In a theoretical sense, the study also aims to make a contribution to the understanding of design's operations in the context of fashion. This is achieved through applying Fry's design philosophy to the area of mass-market fashion in order to expand what is meant by 'design', and to assess the implications of this for the area of fashion and sustainability.

1.3 DISCUSSION OF THE CHAPTERS

The nine chapters in this thesis approach the problem of mass-market fashion design and sustainability through a contextualisation of the Australian industry, three case studies, a cross-case analysis, and a literature review. In Chapter 2, the literature review discusses the three central themes of sustainability, fashion, and design. It proposes that notions of sustainability exist along a spectrum ranging from weak sustainability to strong sustainability. This spectrum is used in the case study analyses to position the claims companies and designers make regarding sustainability. The discussion of design highlights the difference between design as encompassing all human-built environments and objects, and design as a discipline-specific activity, often wedded to market imperatives. These two conceptions of design in turn influence the discussion of fashion and fashion design for sustainability.

Following the literature review, Chapter 3 describes and positions the methodology of the study. As discussed earlier, the study is designed as a series of embedded case studies of market levels and individual company design processes. This allows for both a macroscopic and microscopic view of the Australian industry.

Chapter 4 contextualises the wider Australian mass-market fashion industry, discusses the forms of knowledge required to design fashion garments, and categorises the responses of Australian companies to sustainability. The chapter draws on the scholarly literature concerning the Australian fashion industry, particularly the cogent analysis of Weller (2007a, 2007c) regarding the structure of the mass-market and the flows of fashion knowledge in Australia. The categories of intervention for sustainability and the three forms of knowledge identified for fashion design provide a framework for the analysis in the following case studies.

Chapter 5, Fast Fashion, is the first market level case study, and examines the ad hoc response of the local industry to the rise of global fast fashion. Although the

world's largest fast fashion companies have only recently arrived in Australia, since the early 2000s, the local industry has responded to fast fashion principles through shortened lead times, closer connection to consumers, and more frequent product drops. This chapter compares and contrasts two embedded case studies of the fast fashion design process, assembled through interviews with the design team at two companies, Company A and Company C. From the interviews with the designers, it emerges that the speed of the design process and the disposable nature of the product are the main barriers towards considering environmental sustainability within the design process. Designers discussed the challenge of keeping pace with the speed of fashion change without directly copying overseas styles. This theme of imitation is explored in subsequent case studies.

Chapter 6 examines the lower-priced, less fashion-forward section of the market, the discount department store. It contains a case study of an Australian discount company, drawing on interviews with menswear, childrenswear, womenswear and footwear designers, as well as design room managers. The interviews with designers provide evidence that the culture of imitation that has plagued Australian fashion design is changing. This has important implications not only for the symbolic production of an Australian fashion aesthetic, but for the environmental sustainability of material garments. Through moving to a design model, Company B's designers have more opportunity to consider environmental sustainability than under the previous buyer model.

The final case study in Chapter 7, Mid-Market, explores the position of mid-market fashion apparel and sustainability, drawing on an embedded case study of the design process in an Australian mid-market label, Company C. Of all the market levels, the mid-market is well-placed to consider environmental sustainability due to its higher pricepoint and the expectations of its niche lifestyle focused customers. Mid-market labels are most likely to be impacted by the "moralised brandscape" of fashion (Salzer-Mörling and Strannegård 2007), in which the ethics of a label (its social and environmental impacts) are scrutinised. An embedded case study of the design process at Company C reveals that the culture of a company, namely its focus on cost-cutting, can inadvertently have positive implications for weakly sustainable product design. Therefore, while the mid-market designer is well-placed to consider sustainability, the brand position of the company will govern the kinds of interventions that the designer will make.

Chapter 8 is a cross-case analysis of the three case studies, in which their many similarities are explored in order to discuss the material and immaterial objects of fashion design, the design process, and hence the potential points of intervention for sustainability. Drawing on the analysis of Fry (1999, 2009) and Anne Marie Willis (2006), the chapter proposes three levels of intangible design objects – ‘brand story’ (Hancock 2009a; Tungate 2008), ‘trend story’, and ‘style trope’ – and analyses the role they play in determining the design of the material garment. The significance of this analysis in terms of DfS is that the prefabricated nature of much of fashion design makes intervention in product design very difficult. Hence, while the foreseen barriers of speed and low cost inhibit intervention for sustainability, there are additional factors that create less-visible barriers to design intervention. This analysis of the mass-market’s immaterial and material objects informs the comparative analysis of the design process across market levels.

Chapter 9 draws together the theme of the study, namely sustainability, design, and the current and potential role of the mass-market fashion designer. Unsurprisingly, the study’s chief conclusion is that the mass-market designer or product developer has little agency in terms of determining the environmental sustainability of the garments. However, this is not necessarily due to the company’s internal structure, but due as much to the logic of the fashion system that drives (or ‘designs’, to use Fry’s phrasing) design processes and hence delineates what can be designed. Despite this, each case study reveals elements within the design process that present opportunities for incremental improvement in product design for environmental sustainability. The study closes with recommendations for industry, education, and policy.

1.4 CONCLUSION

The critical question of this research project is: how can Australian mass-market fashion designers intervene in product design for environmental sustainability? Flowing out from this question is a subset of related questions that necessarily examine the nature of what is meant by sustainability, what is meant by design in the context of fashion, and what the implications may be for the wider fashion system, inside which the Australian mass-market fashion industry is nested. Critically, the

discussion encompasses fashion as a system of both production and consumption, involving both material and immaterial elements.

Although design in the context of fashion is more commonly understood as the intangible value-adding that aesthetically positions the fashion garment within a lifestyle or brand category, design can be viewed as the totality of planning activities that contribute to the material garment – and hence a definition of fashion design includes considerations regarding the garment’s material construction, as well as its symbolic construction. This focus on materiality is necessary in order to discuss the potential interventions possible in mass-market fashion design for DfS. The literature review in the following chapter examines these themes of design, sustainability and fashion in greater depth, in order to further develop the theoretical context for the study of the Australian mass-market.

Chapter 2: Literature Review

This research project hinges on three words that define three areas of scholarly research. The first is ‘sustainability’, the second is ‘design’, and the third is ‘fashion’. The interplay between these concepts and their definitions form the background to the research problem, which may be stated as a three-fold question: What is the current spectrum of thought on sustainability, How is this impacting the fashion industry, and What are the specific implications of sustainability for the designers and design processes within the high-volume, mass-produced sector of the industry? The chief aim of this chapter is to understand the complexities of these words contextualised within the current fashion industry organisation. Instead of three firm definitions, this chapter identifies the current thinking on these themes as a spectrum of thought. This spectrum will serve as a term of reference in the following case studies.

First, the chapter discusses the term ‘sustainability’ within the larger economic, ecological, and social context. Second, it discusses the definition of design, and design’s potential and current position within the spectrum of thinking on sustainability. Third, the chapter analyses the fashion system and the role of the designer within it. This chapter argues that in the mass-market, the traditional delineations of a designer’s role are inadequate, and draws on the work of Fry (1999, 2009) and Willis (2006) on ontological designing to unpack this further. To conclude, the chapter brings together all three notions – fashion, sustainability, and design - and discusses how they will intersect within this research project.

2.1 SUSTAINABILITY

This section interrogates the current scope of thinking around sustainability in order to position the use of this term in the context of the research project. ‘Sustainability’ is a term increasingly used in many contexts, particularly in

discussions of the ‘wicked problems’ (Rittel and Webber 1974)¹⁶ collectively faced by humanity from population growth, ecological degradation, and the future scarcity of fuel, food, fibre, and water (Kte’pi 2009). Therefore, it is necessary to take into account the various views as to what ‘sustainability’ might look like in the face of these global challenges, and the implications for our economic and social structures. Implicit in any thinking on sustainability is a questioning of the status quo of the capitalist economic system based on productivity and consumption. However, there remains considerable divergence between the varying philosophies of sustainability, as may be seen, for example, in comparing Fry’s (2009) definition of sustainability with that of Elkington (1998). Under debate is the question: How much change may be necessary to ensure a sustainable future? For this reason, debate surrounding the definition of sustainability and the multiple pathways towards it can be placed along a spectrum ranging from ‘weak’ to ‘strong’.

2.1.1 HISTORICAL BACKGROUND

The notion of sustainability is, in actuality, more about its inverse, unsustainability, and particularly the unsustainability of industrial and post-industrial societies. In essence, humanity is caught in a Faustian dilemma. On the one hand, the harnessing of fossil fuels as an energy source has enabled successive waves of technological innovation that have transformed human society (Landes 1969; Moody and Nogrady 2010). On the other hand, fossil-fuel-driven industrialisation gravely threatens the interconnected biological systems upon which humanity relies: a stable climate, fresh water supplies and the survival and diversity of other species – including the animal and plant life we depend on for food, clothing and clean air (Vitousek et al. 1997). The scale of the human-made ecological crisis currently underway is evidenced through the empirical data gathered across scientific disciplines including oceanographers, biologists, and earth and climate scientists (Rockström et al 2009). Human impact can be witnessed in the global decline in fish

¹⁶ ‘Wicked problems’, as described by Rittel and Webber (1974), are intractable social policy and planning challenges which resist solution, such as drug abuse or poverty. Characteristics include: they have no stopping rule; their solutions are not true or false, but good or bad; every shot is a one-shot operation; every wicked problem is essentially unique; every wicked problem can be considered a symptom of another problem.

stocks, ocean and air pollution, groundwater depletion (Gleeson et al. 2012), and deforestation (DeFries et al. 2010). With human population predicted to rise to 9.3 billion by 2050 (United Nations Development Programme and Office 2011), the earth's carrying capacity¹⁷ is in doubt, imperilling both present and future generations of humans.

The twentieth century saw efficiencies in production in almost all industries, from agriculture to product manufacture and energy generation. Indeed, the exponential growth of the human population follows a similar trajectory to the exponential growth in fossil fuel usage over the past one hundred years (Ness 2004). The goods and services that can be offered rely chiefly on fossil fuel energy. For example, over 99.9% of plastics come from petrochemical feedstock (Patel and Mutha 2004, 81), with plastics vital in food preservation and packaging, as well as in providing fibre in the form of polyester and other synthetic textiles for the fashion industry. Despite the existence of renewable energy sources, the scale of human reliance on fossil fuels means that they cannot be easily substituted. Continued economic growth under the current model relies on the constant input of raw materials, particularly oil, which is becoming more difficult and costly to extract (Tainter and Patzek 2012, 11).

Thus further questions arise: how long can this exponential growth in population and non-renewable resource use continue, and what are our responsibilities to succeeding generations? Predictions of limits to human population expansion were first voiced by Thomas Malthus in the eighteenth century; however it was not until the 1960s and 1970s that voices of concern became louder, with notable works being Paul Ehrlich's (1978) *The Population Bomb*, and the *Limits to Growth Report* of 1972 (Meadows, Randers, and Meadows 2005). The *Limits to Growth* report, developed by systems analysts, argued that humanity's path was unsustainable: the human population was growing too fast, and essential resources – both renewable and non-renewable – were being depleted beyond the earth's carrying capacity.

The notion of 'sustainability', then, is invoked as the desirable response to these problems. As a starting point, the most commonly cited definition of 'sustainability' comes from the 1987 report of the Brundtland Commission. Here sustainable development is defined as "development that meets the needs of the present without

¹⁷ Carrying capacity: the maximum population of a given species that can survive indefinitely in a given environment (Grafton, Nelson and Lambie 2012, 53).

compromising the ability of future generations to meet their own needs” (Brundtland and Khalid 1987, 54). This quote has often been used in isolation from its context, and hence misinterpreted and misused.¹⁸ The report stresses that economic growth is required to meet essential needs in places where these needs are not being met, and adds that sustainable development “can be consistent with economic growth, provided the content of growth reflects the broad principles of sustainability and non-exploitation of others” (Brundtland and Khalid 1987, 55). The report acknowledges the double bind in which humanity is snared: economic growth allows for human development and prosperity, but economic growth is also instrumental in the erosion of natural capital, upon which current and future generations rely.

With the discovery of global warming,¹⁹ the need for sustainable human development became far more pressing. In the late 1980s, scientist James Hansen testified to the US congress on the impacts of greenhouse gas emissions on the atmosphere. Since then, global warming and resulting climate change has become a key challenge for our era. The current aim of the global community is to keep global warming beneath two degrees Celsius above pre-industrial levels, which equates to about 450ppm (parts per million) of carbon dioxide in the atmosphere (Grafton, Nelson, and Lambie 2012). However, from paleoclimate evidence, Hansen et al (2008) argue that global greenhouse gas emissions will need to be reduced to below 350ppm in order to ensure a stable climate. In 2011, as the amount of carbon dioxide in the atmosphere reached 394ppm (Vidal 2011), the International Energy Association warned that two degrees of warming is now ‘locked-in’ due to the inertia of current energy systems – e.g. the decades-long lifespan of coal-fired power stations (Harvey 2011). An Intergovernmental Panel on Climate Change (IPCC) report (IPCC 2012) maintains that with climate change there is an increased

¹⁸ Shell, when taken to court for using the word ‘sustainable’ in its advertising, used the definition from the Brundtland Commission in its defence, arguing that ‘sustainable’ could be interpreted to mean “anything that helps to meet the world’s growing energy needs, including tar sands” (Hamilton 2010, 1283-89). Shell lost the case. Their argument demonstrates, though, how the vague phrasing of the Brundtland Commission’s words can be wilfully misconstrued.

¹⁹ Global warming caused by increased carbon dioxide emissions was first theorised by Swedish scientist Svante Arrhenius in 1896, building on the work of Joseph Fourier and John Tyndall, with widespread scientific consensus by 1979 (Hughes 2009, 257, 259). In the 1980s, NASA scientist James Hansen was instrumental in bringing the issue into public discourse (Hughes 2009, 259).

likelihood of droughts, wildfire, flooding, and other extreme weather events, which in turn will have a profound effect on vital industries such as agriculture. Our use of hydrocarbons, which has enabled unprecedented wealth, well-being, and human development, is eroding the natural capital upon which we rely. This has led Levin et al. (2009) to term climate change a ‘super wicked problem’, in that not only is it a ‘wicked problem’ but it has extra characteristics including: time is running out to address the problem, “the central authority needed to address it is weak or non-existent [and] those who cause the problem also seek to create a solution” (Levin et al. 2009, 1). Therefore, the problem of global warming brings an additional urgency and complexity into any discussion of sustainability. Additionally, it is important to acknowledge that sustainability has become a much-debated political issue in governments worldwide, and as such it has its detractors who deny anthropogenic global warming.

2.1.2 TRIPLE BOTTOM LINE SUSTAINABILITY

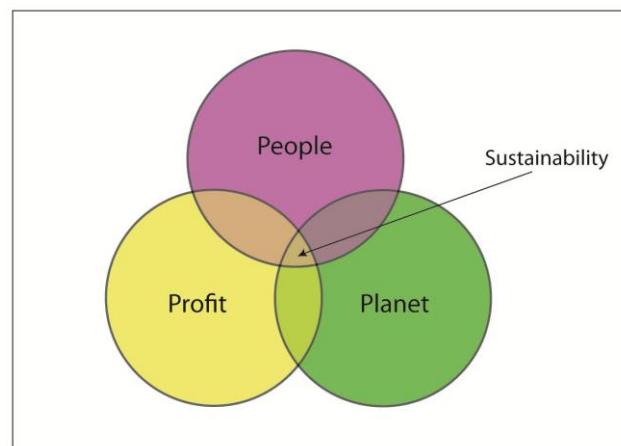


Figure 2.1 Triple Bottom Line sustainability (adapted from Elkington 1998)

The Brundtland Report, although arguably vague in its conception of sustainable development,²⁰ was the basis for the development of sustainability as the Triple Bottom Line (TBL) in which economic, social, and environmental responsibilities must be balanced (Elkington 1998). This is also known as ‘people, planet, profit’,

²⁰ Fry goes further than ‘vague’ and says the Brundtland definition is conceptually unsound, as “it fails to acknowledge that forms of exchange within capitalism and ecological systems are incommensurate” (2009, 44).

and is commonly visualised as a Venn diagram of three interlocking circles, in which all three areas have equal weight, with ‘sustainability’ defined as the point where the three circles overlap (see Figure 2.1). TBL sustainability has been embraced in both policy and industry circles, with business analysts Andrew Savitz and Karl Weber defining it as “a unified way of addressing a wide array of business concerns about the natural environment, worker’s rights, consumer protection, and corporate governance, as well as the impact of business behaviour on broader social issues, such as hunger, poverty, health care, and human rights – and the relationship of all these to profit” (Savitz and Weber 2006, xiii). As Savitz and Weber discuss, the movement within business for Corporate Social Responsibility (CSR) and for TBL assessments is of significant and growing importance within many large scale companies²¹ and is perceived not only as best practice towards sustainability but also as profitable for the business. Indeed Savitz and Weber use this argument as to why business should adopt the TBL model, namely as a way to find the “sweet spot”, where implementing sustainable initiatives within business adds value to the company and can increase market share (2006, 23-25). Currently, within government and industry, TBL remains the dominant way to engage with sustainability, as it places as equal importance on business growth as on environmental and social responsibility.

However, the ideals of TBL sustainability can easily retreat into greenwashing. Greenwashing occurs when a company makes false or misleading environmental claims, whether in their advertising text, or in the ‘green’ imagery embellishing the product and its marketing. Greenwashing is prohibited under Australian law (ACCC 2011). Corporation greenwash led Robert Howell (2011) to describe this dilution of TBL sustainability as “Mickey Mouse sustainability” (see below Figure 2.2) in which the economy becomes the biggest circle, and the two ears of ‘people’ and ‘planet’ are tacked on as an afterthought.

²¹ Companies include Nike, Pepsi, General Electric, Walmart and Toyota (Savitz and Weber 2006)

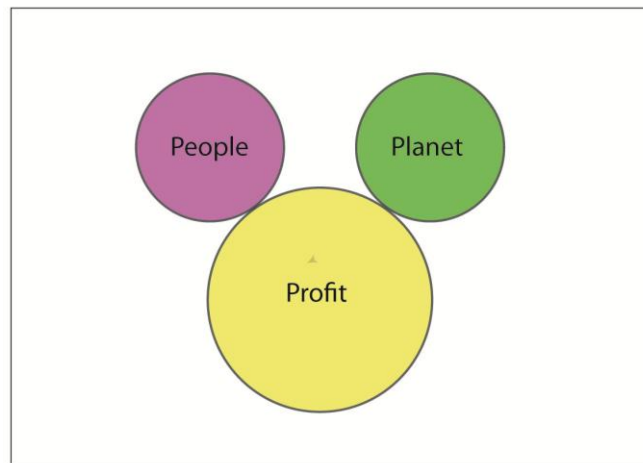


Figure 2.2 Mickey Mouse sustainability (adapted from Howell 2011)

2.1.3 QUESTIONING GROWTH

While TBL sustainability, in practice, proposes an incremental journey towards sustainability, a second stream of thought challenges the underpinning economic structures that have contributed to the current unsustainable trajectory.

Environmental economist Herman Daly states that the economy must be viewed “as an open subsystem of the larger, but finite, closed and non-growing ecosystem” (1992, 187). Hence using the language of TBL, the circle of ‘profit’ is not the same size as that of the ‘planet’ circle – rather, the scale of the economy depends on environmental sinks (i.e. capacity for environment to absorb pollution) and sources (i.e. finite and renewable natural resources). According to Daly, economic scale is frequently ignored, yet “its scale is significant relative to the fixed size of the ecosystem. A good scale is one that is at least sustainable, that does not erode environmental carrying capacity over time” (1992, 187). He proposes a restructuring of the global economy away from growth and instead proposes a steady state economy (SSE) which he defines as:

an economy with constant population and constant stock of capital, maintained by a low rate of throughput that is within the regenerative and assimilative capacities of the ecosystem. This means low birth equal to low death rates, and low production equal to low depreciation rates. Low throughput means high life expectancy for people and high durability for goods (Daly 2008, 3).

Daly's notion can be conceptualised as two circles of 'people' and 'profit' necessarily constrained by the finite limits of the larger circle, the earth. This view of sustainability is illustrated in Figure 2.3.

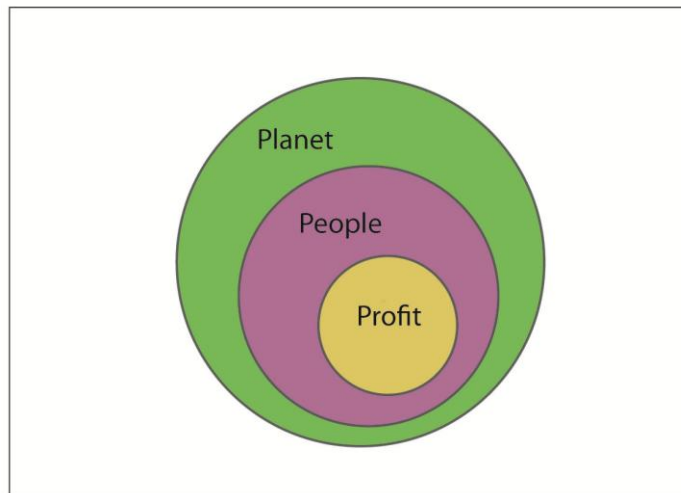


Figure 2.3 Daly's perspective of economic scale bounded by planetary restraints (adapted from Daly 1992)

Daly was a student of Nicholas Georgescu-Roegen, who first proposed the term 'de-growth' in the 1970s (Kerschner 2008). The French *decroissance*, or de-growth movement has emerged separately as a critique of growth economics. De-growth proposes contraction economics, yet unlike Daly's detailed proposal for a steady-state economics (SSE), proponent Serge Latouche says, "de-growth is not a concrete project but a keyword...The idea of a contraction-based society is just a way to provoke thought about alternatives" (2004). The de-growth movement is more radical than SSE in that it rejects all growth, in developed or developing countries alike, and criticises all notions of 'development' as inherently flawed and westernised (Latouche 2004). Despite this, both de-growth and SSE remain aligned in criticism of the dominant growth economics.²²

²² Ecological economics, like evolutionary economics, belong to what is termed heterodox economics, and are not accepted by mainstream, neoclassical economists (Lee 2008). Neoclassical economics stems from the work of Adam Smith in the eighteenth century, and is based on the premise that economic agents are essentially rational and seek to maximise utility, while every firm seeks to maximise profit, and that every good is substitutable to varying degrees.

Environmental economist Tim Jackson expands on Daly's work, examining economic growth in relationship to ecological limits, and offering a fresh way to think about prosperity (2009). He describes how gross domestic product (GDP) has been the policy goal of every nation for the past century, and growth in GDP has been the primary measure of prosperity. Yet, he says, "our technologies, our economy, and our social aspirations are all misaligned with any meaningful expression of prosperity" (Jackson 2009, 2). He argues that while economic growth can vastly improve quality of life in developing countries, above a certain level of growth, people are no happier.

Like Daly, Jackson identifies the need for a macro-economics that considers ecological limits, as well as a shift in the social logic of consumption. He analyses the two inter-related aspects of economic life, first that the desire for profit motivates "newer, better or cheaper products and services through a continual process of innovation and 'creative destruction'" (Jackson 2009, 88), while second, consumer desire for these products and services is driven by complex social needs. According to Jackson, in our social reality, "material artefacts constitute a powerful 'language of goods' that we use to communicate with each other, not just about status, but also about identity" (2009, 99). As such, the role of consumer goods in our lives is embedded in our psyche: "Only in modernity has this wealth of material artefacts been so deeply implicated in so many social and psychological processes" (Jackson 2009, 99). This is particularly the case for fashion clothing, with its intimate connection to the body and to personal identity. As Jackson acknowledges, it is a very difficult task to encourage people to draw back on material consumption. Jackson proposes policy interventions such as resource and emission caps, as well as fiscal reforms for a sustainable economy (2009, 172 - 4). He also proposes societal interventions in the form of both policy and grass roots action to enable people to find happiness and prosperity outside of "the iron cage"²³ of consumerism (Jackson 2009, 143).

Jackson's work has been frequently dismissed by mainstream economists, even though it is a less radical approach than de-growth. For example, Australian economist Andrew Charlton (2011) claims that while environmental sustainability is

²³ Jackson is making reference to Max Weber's notion of 'the iron cage', meaning that service to capitalist society and its worldly goods can imprison the individual (Swedburg 2005).

the major concern in the developed world, human development in the form of economic growth is necessarily the most important policy objective of developing nations²⁴ – this tension between the need for development (or economic growth) and the need to rapidly decarbonise the economy for the sake of the environment, means that developed and developing nations will continue to be at odds.²⁵ In his view, technological innovation in energy systems is the only solution that can enable sustainable development.

Charlton's argument, shared by eco-pragmatists such as Stewart Brand (2009), is one of 'decoupling', in which economic growth can be maintained through technological advances in resource efficiency and effectiveness, and in which our energy needs can be met by renewables. In this scenario, economic growth will be decoupled from material production and consumption, with intangible, or "weightless" (Coyle 1997), goods and services replacing tangible resource use. Charlton, like many neoclassical economists, views the TBL approach to sustainability as the only way forward. Like Brand, he sees technological advances as humanity's best chance.²⁶ However, a flaw in this argument is revealed by Jevon's Paradox, in which technological advances that improve efficiencies in the use of a resource paradoxically lead to greater consumption of this resource (Polimeni 2008). In a similar vein, the "weightless economy"²⁷ (Coyle 1997; 2011) on which decoupling depends, necessarily relies on a heavy industrial base. For example, the rise in weightless digital commodities (e.g. mp3 music rather than physical records or CDs) still needs an attendant physical IT infrastructure and technology to operate, and this physical infrastructure is built with finite inputs such as rare earth minerals, petroleum, metals and so on (Vezzoli and Manzini 2008).

²⁴ Jackson does not refute this, and also agrees that economic growth is necessary in developing countries. Rather his argument relates to developed economies.

²⁵ Charlton is writing particularly about climate change policy and emissions targets.

²⁶ The techno-fix is frequently posited by eco-pragmatists (also known as 'bright green environmentalists') such as Stewart Brand (2009) and Mark Lynas (2011). They advocate embracing divisive technologies such as nuclear energy, geoengineering of the atmosphere, and genetically modified crops.

²⁷ Diana Coyle (1997, 2011) discusses the weightless economy as lightness in materials (e.g. plastics instead of metal) as well as the knowledge economy of post-industrial societies, in which services replace tangible goods.

It is important to note that much of the discussion surrounding sustainability comes from heterodox economics, i.e. discourses outside the mainstream neoclassical model upon which neoliberal capitalism rests (Lee 2008). While SSE and de-growth economics amount to a radical departure from the norm, TBL sustainability and its diluted version, ‘Mickey Mouse’ sustainability’, are adjustments to existing practices of the capitalist system, and are the most common approach adopted by businesses and governments. However, in 2011, John Elkington, who first developed the notion of the corporate triple bottom line, appeared to distance himself from TBL sustainability. Elkington acknowledged that the triple bottom line cannot be conflated with sustainability:

Properly understood, sustainability is not the same as corporate social responsibility (CSR) – nor can it be reduced to achieving an acceptable balance across economic, social and environmental bottom lines. Instead, it is about the fundamental, intergenerational task of winding down the dysfunctional economic and business models of the nineteenth and twentieth centuries, and the evolution of new ones fit for a human population headed towards nine billion people, living on a small planet which is already in 'ecological overshoot' (Elkington 2011).

Thus the challenge of sustainability is an institutional challenge. In order to sustain a projected population of nine billion people in 2050, business-as-usual, consumption-driven capitalism will need to undergo a paradigmatic shift.

2.1.4 THE SPECTRUM OF SUSTAINABILITY

The three diagrams of sustainability (Figure 2.1, Figure 2.2, Figure 2.3), although simplistic, highlight the way in which the word ‘sustainability’ can be folded into varied narratives. A key difference lies in whether or not the underling *function* of the system is questioned. In a strong sustainability scenario, proponents grapple with the root causes of unsustainability: namely the need for continual economic growth (the function of the world-economic system) that is hence a driver of unsustainable resource use. However, in the TBL narrative, economic growth is decoupled from resource use. In Mickey Mouse sustainability, token gestures create the appearance of action. Thus while the word ‘sustainability’ has been overused almost to the point of banality, it remains succinct shorthand for a set of very complex problems, their

social, environmental and economic consequences, and a spectrum of possible responses. It has accrued the three elements of people, planet and profit, and although their ordering is subject to debate, the three elements enable a holistic approach to future challenges, rather than a narrower environmental approach.

Defining sustainability is clearly a challenge, as Milne, Kearins and Walton write, “in some instances, sustainability is considered to imply the need for the radical reorganization and restructuring of society along ecological principles, in other instances it is considered in terms of incremental reforms to the status quo” (2006, 802). Although conventional, TBL sustainability and the more radical SSE or de-growth notions hold in common a shared belief in the unsustainability of the current economic and social trajectory, the action necessary to achieve each conception of sustainability is quite different. Milne, Kearins and Walton (2006) divide these viewpoints into ‘weak’ and ‘strong’ sustainability, with TBL falling on the weaker side, and the work of Daly on the strong side. Weak sustainability is framed as an incremental approach, a journey towards more efficient use of resources and a greener energy future. Weak sustainability comes from the neoclassical economic position that natural resources are essentially substitutable (Neumayer 2003)²⁸. On the other hand, strong sustainability has its roots in Daly’s analysis of economic scale within the finite planetary boundaries. ‘Very strong’ sustainability – associated with environmental movements such as the Deep Ecology movement – would be more radical again, implying that every physical stock be preserved (Ayres, Bergh and Gowdy 1998). Therefore, thinking on sustainability falls along a spectrum, as illustrated in Figure 2.4.

²⁸ For example, fossil fuel energy can be substituted with renewables.

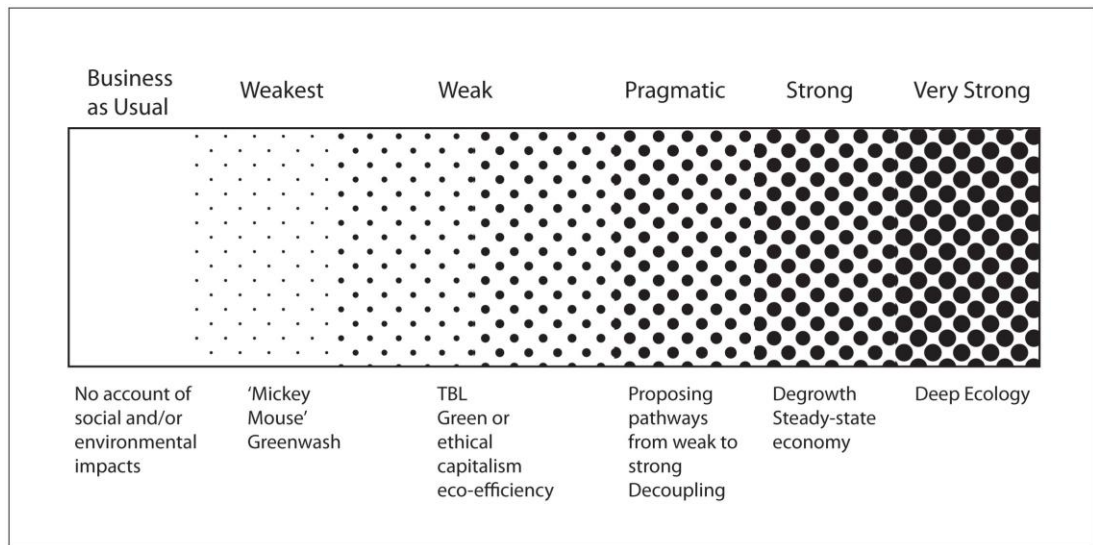


Figure 2.4 Spectrum of sustainability

Since the notion of sustainability gained traction in the 1980s, government and industry rhetoric has theoretically embraced TBL sustainability. In 2012, the United Nations Secretary-General's High-Level Panel on Global Sustainability (2012) released a twenty-five year follow-up to the Brundtland Report. The panel found that the original report's definition of sustainable development as "a new paradigm for economic growth, social equality and environmental sustainability...was right then, and it remains right today." But the report continues, "The problem is that, twenty-five years later, sustainable development remains a generally agreed concept, rather than a day-to-day, on-the-ground, practical reality". The panel members attribute this failure to a lack of political will and that the concept of sustainable development "has not yet been incorporated into the mainstream national and international economic policy debate" (United Nations Secretary-General's High-Level Panel on Global Sustainability 2012, 5). The implications for the sustainability spectrum proposed above is that if TBL, or weaker sustainability, has failed to be implemented, then current initiatives (at least at a government policy level) are most likely Mickey Mouse sustainability at best, greenwash at worst.

Although a simplified version of a complex set of ideologies, the spectrum of weak to strong sustainability provides a way to navigate the difficult terrain of 'sustainability'. While the fundamental meaning of the word is constant, the breadth of opinion on how sustainability can be achieved, or journeyed toward, varies considerably. In this analysis of the Australian fashion industry, proposing

sustainability as a spectrum serves to acknowledge that it is a word used to support many, often opposing, narratives. Therefore, rather than defining sustainability in absolute terms, a spectrum of sustainability from weak to strong instead suggests a scope of interventions in the fashion industry that may, at one end, incrementally adjust and improve existing processes, while at the other, propose new ways of engaging with fashion that exist within a changed economic paradigm (see Fletcher 2010). Hence in the discussion of the companies in forthcoming case studies, the term ‘weak sustainability’ is used to describe the corporate ‘greenwashing’, in which small or cosmetic changes (whether to social or environmental aspects of production) serve only to mask more fundamental problems, while TBL sustainability expresses the incremental changes necessary to improve social welfare, while also limit the company’s environmental impact, albeit still within the logic of the existing economic paradigm. In contrast, ‘strong sustainability’ references the work of Daly (1992) on economic scale, and of Meadows (2008), in the analysis of complex systems. Their work grapples with unsustainability as a structural problem, implying that capitalism must undergo a paradigmatic shift. ‘Very strong’ sustainability, in deep ecology terms, is not explored in this study. Following Fry (2009), we number in the billions, and live in non-‘natural’, constructed human environments, mediated by our tools and technologies, and hence returning to a pre-industrial state in harmony with nature is implausible.

2.2 DESIGN

Design for sustainability is one of the key theoretical areas informing this research project. Many of the wider issues within design and within DfS can be related to the fashion discipline. Since the work of Victor Papanek in the 1970s, design has been framed as instrumental in “sustaining the unsustainable” (Fry 2009, 190), and consequently, increasingly mobilised as a force for change in the opposite direction. The means and tools used by designers for design redirection can be assessed according to the spectrum of sustainability, as described above.

2.2.1 DEFINING DESIGN AND DESIGNING

Design, as both a verb and a noun, is a difficult term to define. It may refer to the aesthetic elements applied to a functional object, or more widely, to the full gamut of the human-made, as well as to the act of making. John Heskett (2005, 5) writes, “design, stripped to its essence, can be defined as the human capacity to shape and make our environment in ways without precedent in nature, to serve our needs and give meaning to our lives”. This shaping and making can be further defined. For example, Robert Clay (2009) proposes design as a spectrum, with ‘art’ at one end, and ‘technology’ at the other. He writes of the definitions along the spectrum,

one thing they all have in common is composition - the assembling of different elements in order to express thoughts and emotions (in the case of the artist) or to solve a particular technical problem (in the case of the engineer) (Clay 2009, 2).

In Clay’s theory, most design falls somewhere along the spectrum, and necessarily contains a mix of both artistic and technical elements. For example, as he describes it, fashion design must consider the sensual and artistic elements of the garment, as well as the technical aspects of its manufacture. Similarly, a civil engineer designing a bridge considers both technical and aesthetic elements. Clay (2009, 2) notes that despite this “most people would place fashion towards the 'art' end of the spectrum, however, with engineers placed more towards the technology end”.

‘Design’ is also used generically to describe the aesthetic wit that adds market value to a functional object. Thus we have ‘designer’ furniture, ‘designer’ buildings and ‘designer’ fashion, as distinct from lower priced, functional, or generic buildings and objects. This is design’s economic role; but fashion theorist Ingrid Loshek sees it also as a social function, writing,

An object is not a design object as such; it becomes one as a consequence of the pretension with which the object is used. This pretension is based on a social component. A functional object such as a car tyre may become design when adapted into a table, from which the question emerges: When is design? The car tyre is design when it is recognised and declared as such, and thus becomes socially relevant (2009, 173).

Loshek’s view of design sits well within the creative industries, in which design is the symbolic value-adding used to sell the product, as discussed in Chapter 1. Paul

Stoneman (2010) terms design within the creative industries as ‘soft innovation’, surface or aesthetic innovations, as opposed to hard innovation, comprising the industrially engineered objects. Within the creative industries, many forms of design sit within the intangible, value-adding sphere through their surface appearances.

Conversely, a far wider notion of design includes every built human environment and object (both material and immaterial). Design, as described by Fry, falls into the latter description, as an activity intrinsic to all humans, our inherent mode of being-in-the-world, in the sense of Heidegger’s metaphysics (Fry 2009; Willis 2006). So the car tyre from Loshek’s example was already design, however repurposing the tyre into a table may turn it into a ‘designer’ object in the eyes of some. As Fry points out, ‘designer buildings’ make visible the “anonymity of that which they are not – the vast mass of unattributed designed structures and things” (Fry 2011, 6). Fry’s description here resonates when considering the humble items of mass-produced clothing. Taking Fry’s view of design, a two-dollar T-shirt is no less a designed object than a Chanel bag. Thus the question of ‘when does something become design?’ is misleading. Instead, this thesis begins from the basis of ‘everything touched or constructed by humanity is design’. Clearly, mass-produced items of apparel sit within this notion of design, even though they do not have the aura of the designer object according to Loshek’s more limited definition of design. This notion will be examined in greater depth in Section 2.3.3: The fashion designer.

2.2.2 DESIGN FOR SUSTAINABILITY

Within the context of the ‘wicked problems’ described earlier in the chapter, design has emerged as both a villain and a potential saviour. In the 1970s, Victor Papanek was one of the first to make this link between design and unsustainability, writing,

There are professions more harmful than industrial design, but only a very few of them...Today industrial design has put murder on a mass-production basis. By designing criminally unsafe automobiles...by creating whole new species of permanent garbage to clutter up the landscape and by choosing materials and processes that pollute the air we breathe... designers have become a dangerous breed... (Papanek 1985 [1971]).

The past forty years have seen DfS (also known as ‘eco design’, ‘design for environment’) emerge within many design disciplines. In McDermott’s (2007, 217) description, DfS began with green or eco design, and then the definition evolved into a more holistic notion which includes social justice as well as environmental responsibility. On a practical level, many design disciplines have developed new approaches to designing under the banner of sustainability, green design or eco-design (Bhamra and Lofthouse 2008). Design, as the starting point in the development of built environments and products, is where there is the most opportunity to plan for the environmental and social impacts across the life cycle (from inputs to outputs). In *Design + Environment*, Lewis and Gertsakis maintain,

It is ultimately the designer who creates the interface between the consumer and the technology underlying the shell or surface of a manufactured product. Thus the designer’s ability to play the role of environmental champion is unequalled by others (Lewis et al. 2001, 15).

Strategies proposed for DfS include life cycle thinking and related industrial ecology strategies (Fiksel 2011; McDonough and Braungart 2002), design for dematerialisation (Fiksel 2011; Fry 2009), design for detoxification, design for revalorisation and the related design for recycling and design for disassembly (Fiksel 2011), and design for product service systems (Vezzoli and Manzini 2008). Many of these strategies are ‘neutral’ in that they can potentially fold into a strongly sustainable pathway, however they can also be used within a weakly sustainable framework, or indeed a business as usual scenario. As an example, in a strong sustainability scenario, design for disassembly can be used to enable more efficient recycling of a stock of material goods which is fixed in relation to the size of the population. However in a weakly sustainable model, design for disassembly may increase the efficiency of a use of a resource yet still encourage greater consumption. Hence the designer’s underlying definition (or philosophy) of sustainability is crucial.

There are also degrees to which design can contribute to a larger project of sustainability. William McDonough and Michael Braungart (2002, 62) criticise the ‘green design’ of the 1990s (for example, see Mackenzie 1991) as being simply “less bad”, as its focus on reducing waste, improving the efficiency of processes, and selecting less-damaging materials is misguided “eco-efficiency” rather than “eco-

effectiveness”. Instead, they propose the Cradle-to-Cradle model, which theoretically eliminates waste altogether through closed-loop recycling within either technical or biological loops²⁹ (McDonough and Braungart 2002). Jonathan Chapman (2010, 66) also agrees that the industrial processes of manufacture require transformation.

Taking this further, he argues that,

The human behavioural root causes of the ecological situation we face are dangerously overlooked. As a result, sustainable design is predominantly characterised by strategic approaches such as recycling, the specification of biodegradable materials and design for disassembly, all of which merely attend to the symptoms of what is, in essence, a fundamentally flawed system.

Thus as Chapman maintains, DfS can arguably be instrumental in propagating the same model of unsustainable production and consumption, even if the goods are ‘greener’. For this reason, Carlo Vezzoli and Ezio Manzini (2008, 59) identify four levels of design for sustainability including:

1. Redesigning of existing systems with low impact materials and energy
2. Design of new products and services in place of the old
3. Designing new production-consumption systems
4. “Creating new scenarios for sustainable life style”

Therefore, DfS is not simply choosing ‘greener’ materials, but engaging with a higher order of problem-solving which relates to the wider society. Vezzoli and Manzini’s levels are a useful approach, as the levels recognise that the DfS project necessarily encompasses the greening of existing objects and processes, but taken further, must also engage with the unsustainability of the economic systems in which they sit.

In this conception of DfS as engaging with system-level change, the role of the designer is just as crucial, although the term ‘designer’ can be radically expanded from the more discipline-specific view of eco-design. Allastair Fuad-Luke’s (2009) conceives the designer as an actor who embraces multiple approaches to design,

²⁹ E.g. biological closed-loops would see products safely composted whereas technical loops would reclaim non-biodegradable materials for recycling into goods of the same quality (‘upcycling’).

including co-design, eco-efficiency³⁰ and slow design, placing them all under the umbrella of ‘design activism’. He defines design activism as “design thinking, imagination and practice applied knowingly or unknowingly to create a counter-narrative aimed at generating and balancing positive social, institutional, environmental and/or economic change” (Fuad-Luke 2009, 27). He expands on this saying, “aspiring design activists have to be prepared to take on multiple roles as non-aligned social brokers and catalysts, facilitators, authors, co-creators, co-designers and happeners (ie making things actually happen)” (Fuad-Luke 2009, 189). Hence in DfS, the designer’s role can be instrumental on a number of levels. First, the designer can select “less bad” processes and materials, and can consider end-of-life options such as design for disassembly or closed-loop recycling. Second, the designer can be an activist or change agent, seeking to dematerialise products through instead developing Product Service Systems (PSS), or through proposing slower models of consumption. Many of these notions of the designer as activist, or design as participatory, have been adopted by sustainable fashion writers such as Fletcher (2008) and Otto von Busch (2009), as will be examined further in Section 2.4.3.

2.2.3 DESIGN, SUSTAIN-ABILITY AND REDIRECTIVE PRACTICE

While the broad area of ‘design for sustainability’ covers a range of strategies for existing design practices, design theorist Tony Fry provides a philosophical framework for understanding design as pivotal to any conception of sustainability. A cogent analysis of design and the designed in the context of sustainability comes from the group of designers contributing to the *Design Philosophy Papers* – Fry and Willis, amongst others. Here the designed is in fact everything about us, and we live in and learn and exist through the nature of design. In this way, design is not mere value-adding in order to sell product, but rather all human buildings, objects (material and immaterial), built environments and systems. Fry’s challenge is to “broaden your gaze (beyond the design process, design objects and design’s current

³⁰ Fuad-Luke (2009) is clearly influenced by McDonough and Braungart’s C2C (2002), although he does not take up their criticism of ‘eco-efficiency’ in favour of ‘eco-effectiveness’, but rather only discusses the importance of ‘eco-efficiency’.

economic positioning), engage the complexity of design as a world-shaping force and help explain it as such” (2009, 3).

This conception of design is termed by Fry (1999, 2009) and Willis (2006) as ‘ontological design’. We design, and we are in turn designed by our designing.

Design then, is comprised of three interlinked components, namely:

1. — the design object – the material or immaterial outcome of designing
2. — the design process – the system, organisation, conduct and activity of designing
3. — the design agency – the designer, design instruction in any medium or mode of expression and the designed object itself as it acts on its world (Fry 1999 in Willis 2006, 8).

These elements act in a hermeneutic circle in which the designed designs back upon the designer, in essence designing him or her, and delineating ways in which future designed objects and environments in turn design (often unplanned) consequences. As Fry frames it, ‘design designs’ (2009, 30). In his view, it is this unacknowledged ability of design to go on designing that has led humankind to the current state of what he calls “defuturing” (2009, 6). Equally, it is only the recasting and redirecting of the very nature of design that can lead to futuring – making time, rather than destroying time.

Fry’s work follows the metaphysics of Martin Heidegger who examined the nature of being as it relates to the human-constructed world and to the objects that populate it. Heidegger ([1949] 2007, 263) refers to “the thinging of the thing”, effectively assigning the ‘thing’ agency.³¹ Some parallels with the notion of objects possessing agency can be seen in Bruno Latour’s sociology (1996) in which human objects and technologies are non-human actors within society, and by Daniel Miller (2008, 287) in the context of material culture: for instance, Miller sees material culture as a “concern as much with how things made people as with how people made things”.

³¹ Fry’s “design designs” is drawn from Heidegger’s “things thing”. There is not space to adequately summarise this notion as it is dependent on first understanding the complexities of Heidegger’s metaphysics, particularly the notion of *Dasein* and being-in-the-world, however see Clark (1992, 153).

The contribution Fry makes to this area is to weigh up the significance of design's agency in the context of sustainability. As such, he proposes a redirective design practice, which he defines as, "akin to a new kind of (design) leadership underpinned by a combination of creating new (and gathering old) knowledge directed at advancing means of sustainability while also politically contesting the unsustainable status quo" (2009, 57). According to Fry, redirective practice "takes design beyond a disciplinary model" and becomes a meta-practice that can enable conversations and engagement across design disciplines (2009, 56). For designers to redirect their practice they must:

place the current needs of the market in second place to the politico-ethical project of gaining sustain-ability. This is not to unrealistically suggest that all commercial considerations are abandoned but rather that they are strategically and economically repositioned under the imperative of working together under sustain-ability (2009, 46).

Fry offers a number of approaches to redirection, one of which is platforming. Platforming is a strategy whereby a smaller team within a larger organisation forms an internal change platform of redirected practice. Their aim is two-fold: first to design and develop products and services that contribute to the project of sustainability, second to promote an ongoing educational environment for the team members. The platform's activities would, over time, build processes and education to the degree that the redirected practice of the smaller team can be applied to that of the larger organisation (2009, 126). Platforming is an approach that has potential within the mass-market fashion industry; however the way in which it is implemented depends heavily on the underlying definition of sustainability held by the designer. In Fry's conception, current economic and political systems are structurally inadequate to cope with the scale of the design redirection necessary to ensure a mid to long term future for humanity. Hence, he dismisses TBL sustainability as rhetoric.

Design, therefore, refers to both the individual actions of the designer that lead to the final product, as well as to the fundamental way in which humans shape their environments and cultures. Design for sustainability also exists along a spectrum – design can be viewed as value-added styling that can fold into sustaining the unsustainable. Or design can be the means by which we actively combat our inherent

unsustainability. Fry's conception of DfS and sustain-ability³² theoretically underpins this thesis as they touch on the fundamental issues identified in Australian mass-market fashion: the central, yet invisible, role of design, and the inherent contradiction of fashion and sustainability. His analysis as to how design 'designs' processes, objects, and the designer has significance in understanding the apparatus of the fashion system. In other words, much of mass-market fashion design is already prefigured, or designed, by the logic of the systems in which it sits. Applying Fry's ideas suggest a view of design that extends beyond aesthetics (the symbolic aspects of fashion), and also beyond the individual artefact (the material concerns of sustainable fashion), towards an integrated analysis of these within the design of fashion's systems.

Along the spectrum of sustainability, Fry's position would be classified as strong sustainability, as he argues that the ongoing project of sustainability is undermined by the structural unsustainability of the present world politico-economic system. His philosophy of design agency is adopted in this thesis, however many of his ideas for change cannot be easily applied to an analysis of mass-market fashion more widely. His position on DfS is radical, as he dismisses many of the worthy incremental approaches to improving products and systems. Like Fry, other writers on DfS such as Fuad-Luke and Manzini acknowledge the structural unsustainability of the present world system, yet unlike him they also offer more inclusive, incremental approaches to change. The mass-market fashion industry is distinctly and unavoidably a product of the present economic structure. Therefore, arguably within the context of mass-market fashion, only incremental change is possible. The reasons for this statement are explored in the following section, in which the close ties between capitalism and fashion are explored.

³² Despite drawing heavily on aspects of Fry's design philosophy, his terminology ('sustainability', or 'the Sustainment') is not used in this thesis, as his definition of these terms do not allow for the weaker models of sustainability (as identified in Section 2.1.4). As will be discussed in Section 2.4.2, sustainability in mass-market fashion is constrained by the logic of capitalism. It is not that his conclusions are unfounded, but rather that there is little room for the excess and frivolity of fashion in the futures he describes.

2.3 FASHION

In order to understand the role of design and the designer within the context of the fashion industry, this section explores the literature related to the fashion system, and its changed paradigm in the twenty-first century. In a broad sense, fashion refers to the movements of tastes and trends, whether in the context of apparel, of lifestyle, of societal values, or of philosophical thought. In a specific sense, fashion refers to the system of novelty propelling the design, production, merchandising and consumption of clothing. As Kawamura puts it, “fashion as a belief is manifested through clothing” (2005, 1). As discussed in Chapter 1, fashion production is both *symbolic*, encompassing an information and image system of local and global proportions, as well as *material*, comprising a global supply chain straddling agriculture, manufacturing, distribution, retailing and disposal networks. In fact, Maynard (2004, 16) states that the apparel and textile industries are the biggest industrial employer in the world. At the same time, as Entwistle (2000, 2) writes, fashion is also the “actions of individuals acting on their bodies when ‘getting dressed’”. Therefore, any conception of fashion necessarily includes these dimensions of both production and consumption. The individual item of apparel becomes ‘fashion’ through its relationship to the abstract system of change. This system of change, while depending largely on the capitalist need for profit (hence more clothing sold each year) depends also on the shared social context and system of novelty agreed upon loosely by actors within the system. Following Entwistle (2009), the relationships between these actors³³, and the ways in which they share cultural and aesthetic knowledge, forms the trends and movements of fashion.

2.3.1 THE FASHION SYSTEM

These interactions and relationships between a complex global network of producers and consumers comprise the fashion system. The fashion system is what Ben Fine refers to as a system of provision, simply put, “the inclusive chain of activity that attaches consumption to the production that makes it possible” (2002,

³³ The use of the term ‘actors’ comes from Entwistle’s (2009) *The Aesthetic Economy of Fashion*, in which she analyses different spatial metaphors through which to understand markets (specifically, aesthetic markets): Pierre Bourdieu’s (1993) ‘field’ and Bruno Latour’s (2005) ‘network’ and ‘actor network theory’ (ANT).

78).³⁴ While Fine's system of provision suggests a linear progression from producers to consumers, Entwistle (2010) positions the fashion system as a network. The development of the fashion system is intimately connected to the development of capitalism and industrial society in the West. In Gilles Lipovetsky's analysis, fashion is unique to the West and a characteristic of modernity itself (1994, 101). He parallels the rise of fashion with the rise of democracy and individualism. For fashion to emerge, "the present had to be deemed more prestigious than the past...what was novel had to be invested with dignity" (Lipovetsky 1994, 740-44).

Fashion's inseparable relationship with modernity has been the subject of intense scholarly research (notably Wilson 2003; Lehmann 2000; Breward and Evans 2005), with key themes being the speed of change, the notion of progress and the "artificial time" in which fashion exists (Calefato 2004). Walter Benjamin (1999, 252), writing in the 1930s, said "fashion has the scent of the modern whenever it stirs in the thicket of what has been. It is the tiger's leap into the past".³⁵ At once, fashion can look to past styles and trends yet render them obsolete first and then new again. In his analysis of Benjamin's 'tiger's leap', Ulrich Lehmann (2000, xvii) writes:

fashion fuses the thesis (the eternal or classical ideal) with its antithesis (the openly contemporary). The apparent opposition between the eternal and the ephemeral is rendered obsolete by the leap that needs the past to continue the contemporary.

Yet while fashion is persistently and self-referentially looking to the past, the immediate past styles (or even present styles) are declared dead by the emergence of new fashions. These new styles present as if they are truly new, rather than what Roland Barthes (1990 [1967], 289) calls, "an amnesiac substitute of the past for the present". Barthes positions fashion's time as artificial, writing, "Fashion postulates an achrony, a time which does not exist; here the past is shameful and the present constantly "eaten up" by the Fashion being heralded" (1990 [1967], 289). Contemporary fashion continues in this artificial time, eating up the present and substituting it for the past, all the while under the guise of the new. Yet the way

³⁴ The term 'system of provision' is more accurately attributed to both Fine and Leopold, however as mentioned earlier, the 1993 edition of *The World of Consumption* is no longer in print.

³⁵ This passage by Benjamin was used as the basis for Lehmann's (2000) book *Tigersprung*.

fashion operates today has clearly evolved in response to global cultural and industrial shifts.

To understand the workings of the contemporary system, it is necessary to outline the changes wrought in the fashion system in the past 150 years. Prior to the nineteenth century, fashion was chiefly the domain of the wealthy, and as Lipovetsky (1994) describes, the modern fashion industry developed during the 100 years of fashion, spanning from the 1860s (beginning with the couturier Worth) through to the 1960s. This period was characterised by the release of two haute couture seasons per year, spring/summer and autumn/winter. The garment models shown in the haute couture collections would be disseminated in an orderly flow through the fashion system to reach the high street. The end of the 100 years of fashion was marked by the social and cultural upheavals of the 1960s. At the same time, apparel production developed into “an industrial production of clothing accessible to all that would nevertheless be “fashion”, inspired by the latest trends of the day” (Lipovetsky 1994, 4185). While mass-production had occurred since the nineteenth century, by the 1970s, as Valerie Steele (1997) argues, fashion trends were no longer governed by the haute couture system and instead fashion shifted in response to subcultural styles, the growth of casual wear and the increased freedom of individual choice. Barbara Vinken (2005) terms this era ‘postfashion’. Change and speed, two intangible elements of both mass-produced and high fashion, consequently propel greater amounts of material apparel through the system, with their associated environmental impacts. Evidently, finding solutions to sustainability in the fashion industry is in conflict with the premise on which the concept of fashion is based.

As mass-production accelerated from the 1960s, it enabled fashion to become more democratic and accessible, and hence fashion was less bound to one’s economic status (Crane 2000, 6). According to Volante (2012), the fashion system now bears little resemblance to Lipovetsky’s 100 years of fashion, but is rather a system of mass-production based on highly democratised and globalised consumption. As Polhemus (1994) observes, fashion styles and trends ‘bubble up’ from the street and from subcultures. Since the 1980s, mass-produced apparel enabled more frequent cycles of fashion, to the extent that by the early twenty-first century, it was common to have up to fourteen fashion ‘seasons’ in a year (Jackson and Shaw 2009), and twenty in the case of fast fashion (Christopher, Lawson and Peck 2004). Anne Hollander notes, “the new freedom of fashion in the last quarter-

century has been taken up as a chance not to create new forms, but to play more or less outrageously with all the tough and solid old ones, to unleash a swift stream of imagery bearing a pulsating tide of mixed references" (1994, 166). The result is a plurality of fashion styles and trends, coupled with a quickening cycle of surface-level, micro-innovation in the mix of colour, cut, detailing and fabrication within apparel.

The plurality of styles and the disintegration of the strict 'trickle-down' of fashion styles led to the super-growth of fashion branding. In order to distinguish their product offering, companies began to target smaller market niches. They built 'brand stories' (Hancock 2009a) that would communicate the values of their product to their audience. In turn, the identities of customers became increasingly connected to these brand stories (Agins 2000; Levy 1999). Despite the overwhelming volumes of styles and niche markets targeted by fashion brands, there are a defined number of key sectors. Branding writer Kaled Hameide (2011) classifies brands broadly as either 'luxury' (haute couture and ready-to-wear) or 'mass-market'. Hovering at the upper end of the mass-market are the premium brands, occupying a 'sweet spot' between luxury and accessibility (Hameide 2011, 162).

2.3.2 FASHION AS AN AESTHETIC MARKETPLACE

Fashion is a creative industry in which the design component is chiefly related to visual and surface innovations, as expressed and shared in the process of fashion trends and branding, as described above. As Crane and Bovone note (2006, 319), "fashion can be conceptualized as an example of a broader phenomenon, the creation and attribution of symbolic values to material culture". Entwistle (2009) explores the complex movement of symbolic values and aesthetics within the contemporary fashion system in her research into fashion buyers and fashion models. She defines the fashion system as an aesthetic marketplace: "in aesthetic markets aesthetic value is *the* value generated around the commodity and the business of selling it" (Entwistle 2009, 738). Here fashion is not so much the marketing of garments; rather it is the marketing of the aesthetic values that the garment embodies. The implication is that, in fashion, the design of the physical product is always primarily governed by aesthetics. These aesthetic values are not stable; they shift as dictated by the views of actors within the fashion system. Once trends move on, the aesthetic value of a

garment declines. Hence fashion depends on the generation of both material and immaterial design objects – physical garments and accessories, coupled with intangible images, memes, trends, and styles.

These aesthetic values, which are traded as commodities, are defined by the actors within the system. These actors are symbolic producers of fashion with inspiration that, according to Aspers (2010, 99), flows from the art world, design schools, trend analysts, catwalks, fairs, editorial fashion, advertisements, and designer brands. Entwistle describes the fashion system as a series of interrelated aesthetic markets comprised of many actors, saying, “instead of grand theories about what motivates fashionable dress, we need to look at the multiple and overlapping practices that constitute fashion, from the many actors who make it – designers, photographers, models, fashion buyers, journalists and the like – to the many people who wear it” (Entwistle 2009, 192-200). The actors she focuses on are the high fashion buyers and stylists whose buying decisions influence the worldwide flow of fashion trends. Their buying decisions stem from their own “tacit aesthetic knowledge” that is embodied, sensual and performative (2009, 4491). While on the one hand “high fashion depends upon global flows of aesthetic knowledge”, on the other hand it is firmly local, with centres of fashion where knowledge is shared face to face (Skov 2006; Entwistle 2010, 3). Similarly, Aspers (2006, 2010b) identifies the importance of contextual knowledge, in which both fashion knowledge and the ‘lifeworld’ of the designer’s customers combine. The operations of these flows of knowledge in the context of the Australian fashion industry will be discussed further in Chapter 4.

Through Entwistle’s analysis of fashion, the designer is only one actor in a complex aesthetic economy, in which the make-up of the material garment (designed by the designer, or product developer) depends largely on the flows of global fashion knowledge. Fashion design, then, is in one respect an activity that harnesses the aesthetic knowledge flows generated by the insiders of the fashion system and transforms this knowledge into the realisation of a physical garment. But when considered within the framework of sustainability, design within fashion is not only aesthetic value-adding. To connect this to Fry (1999, 2009) and Willis’ (2006) notion of ontological designing, design within fashion is found in the material and immaterial objects of fashion, in the design processes and production systems of the industry, and in the agency of the designed (whether material garment, intangible trend or design system) as it acts back upon the designer.

2.3.3 THE FASHION DESIGNER

According to Entwistle's analysis (2009), the mass-market fashion industry sits at the bottom of the aesthetic value chain, one of the last to adopt trends, and ready to adopt only the most commercial. The mass-market designer, then, is a facilitator of these trends, interpreting them and bringing the most commercial to the masses (Hameide 2011). Yet as Elizabeth Wilson suggests (2003), the mass-market designer now finds design inspiration from the same places as the higher end designer, blurring the traditional hierarchies in which aesthetic knowledge passed from the high end to the mass-market. As Wilson explains, now

styles develop from the fusion of diverse sources rather than from the 'creative genius', the designer at the top. Innovation, it is argued, is as likely to come from the 'street' as from Paris. The successful popular fashion chains, such as in Britain, Topshop, drink from the same source and at the same time as the top designers. All alike seek inspiration from the same fabric fairs, colour and fashion forecasters and of course see the same films, listen to the same music and travel to the same destinations (2003, 266).

While they may 'drink from the same source', a designer must develop a sense of what the right trend is for their target customer. Generally, the mass-market high-volume fashion designer will take less design risks than a designer in the higher end, as a mass-market label must appeal to a large audience.

No matter the market level, fashion design is inherently collaborative, as actors from across the company share knowledge and incrementally add to the final outcome. However, the term 'designer' within the fashion system refers as much to an image maker as to a person with the technical ability to engineer the design of a clothing item. As Yuniya Kawamura argues (2005, 2004, 86), since Chanel, technical ability is unnecessary for fashion designers in an image economy. Despite the collaborative nature of the fashion design process, Kawamura says, fashion remains tied to the notion of the single charismatic designer (2005).

Within fashion, the notion of the 'fashion designer' is historically determined, beginning with Charles Worth in the late nineteenth century. Tiziana Ferrero-Regis identifies three phases of 'fashion designer' – designer as artist, designer as celebrity and designer-name. In designer-name, the trope of designer as artist serves to bolster

the branding of a company, providing an authenticity by tapping into the historically-situated notion of the inspired designer (2009, 76). As clothing becomes fashion through the immaterial addition of aesthetic values, the designer's name (as celebrity, or as artist) becomes pivotal in the creation of immaterial brand value. Pierre Bourdieu (1984, 137), discussing haute couture designers, describes this as "transubstantiation", likening it to a sacred process in which the designer name is transmitted through to the final object, "in which the creator's signature is a mark that changes not the material nature but the social nature of the object".

Bourdieu's notion, although related to haute couture, explains the rise of fashion branding – the value of a fashion label is less related to the materiality of the garment, but rather to the immaterial 'brand story' that surrounds it (Hancock 2009a). Increasingly, the designer's role may be filled by the creative director (e.g. Christopher Bailey for Burberry) and the team of designers who are responsible for inserting and directing the intangible elements of the fashion brand into the material product. The fashion designer, then, is necessarily higher in the company's hierarchy, than, for example, the skilled patternmaker who may realise the designer's rough sketch into physical form. Hence analysis of design within fashion must take into account the material and immaterial components of the objects being designed. The immaterial elements of branding and aesthetics sit within the designer's remit, and these comprise the greatest market value of the company. For the buyer of branded fashion, the "consumption of these goods is a means for the consumer to communicate messages about the values she holds" (Crane and Bovone 2006, 319). The creative director holds the knowledge necessary not only to select the aesthetics, but to steer the brand values.

The mass-market designer bears less resemblance to the public perception of the heroic, inspired designer of the high end. In sharp contrast to the designers of the higher market levels, Hollander writes (1978, 358) in the mass-market, designers "were nameless to the general public". In the mass-market, it is common practice to imitate (or even 'knock-off') designs of other, usually higher-end, brands. This uneasy relationship between imitation, originality and outright creative theft has been discussed at length by US copyright law academics Raustiala and Sprigman (2006). In their analysis, "copying functions as an important element of – and perhaps even a necessary predicate to – the industry's swift cycle of innovation" (Raustiala and Sprigman 2006, 5). In the mass-market, copying becomes part of the role of the

designer, and as such the mass-market companies cannot lay claim to the notion of the creative designer that, although arguably mythical, is central to the status of 'designer fashion'. The trend for mass-market designer collaborations, such as Stella McCartney for Target, or Viktor and Rolf for H&M, is an attempt by mass-market companies to inject some of the charisma of the designer into product generally dismissed as derivative and lacking in 'designerly' authority.

Fry's (2011) description of designer buildings as "disguising the anonymity of that which they are not" (see Section 2.2.1, pg. 50) is true also within the fashion industry. The vast majority of apparel is designed by anonymous "invisible" designers (Griffiths 2000). Frequently there is no one author of the garment, but rather responsibility for the garment's aesthetic lies with a team of designers, or product developers, or garment technicians, or a combination of the three (this is arguably also the case with the high-end). Hence the garments, although clearly designed artefacts, cannot convey the 'sacred' authority of the designer-name.

2.3.4 THE FASHION DESIGN PROCESS

The fashion design process is a phrase that may simultaneously refer to the creativity and aesthetic 'soft innovation' (Stoneman 2010) of a designer to propose new styles, as well as the technical production process of apparel development (Kawamura 2004, 74), which brings these new styles to the public. The scholarly research on fashion design process captures both the technical and creative aspects (for example see Au, Tam and Taylor 2008; Sinha 2002; Eckert and Demaid 2001). Nigel Cross' (2000) work on design process has influenced these studies, even though Cross writes from an engineering perspective. Cross proposes three models of design process: descriptive models that view the design process as following a linear route, prescriptive models that aim to improve processes, and an integrative model that views design as to and fro iterations between problems and solutions (Cross 2000, 42). Each model positions the design process as a problem-solving exercise.

Within the context of fashion design, Pammi Sinha (2002, 3) notes that "creativity is a kind of problem solving, and fashion design is a problem". In her study of fashion design process across UK market levels, Sinha (2000, 2002) adopts Cross' descriptive model, conceptualising the design process as following a linear route of research and analysis, synthesis, selection, manufacturing, and distribution. Sinha's

(2002, 12) analysis of fashion design process identifies the necessary 'designerly thinking'³⁶, including: communication of vision in a visual manner, using intuition to guide decision-making, and visual and spatial imaging during sample making. While privileging the designer's creativity or artistic vision, Sinha's analysis also demonstrates that the fashion designer straddles the material and symbolic elements of fashion production through a close engagement with the technical process of making the garment.

Other key studies regarding fashion design process have focused more on the symbolic or cultural elements of fashion design, rather than the technical. An example is Veronica Manlow's (2009, 239-40) study of premium brand Tommy Hilfiger. At Tommy Hilfiger, the first phase is the concept phase, in which the design team decides on a common theme for the collection. Colour, fabrics, shapes and silhouettes are considered at this stage, as aligned to the theme, with Tommy Hilfiger giving the final approval. The design team generates sketches and design boards of garments to present to Hilfiger. From here, merchandisers work with the design team to develop a line plan, and then the proto-samples are ordered. Finally, marketers work with the designers and merchandisers ready to pitch the new collection to editors. Manlow (2009, 240) writes that, "designers are at the front lines of the creative process. Without their skilled and inspired work there would be little for others in the company to do." Manlow goes on to analyse the creative process in depth, observing the ways in which the Tommy Hilfiger culture, or branding, is imbued through the designers' work, spilling over into the management culture, and even into the ways that the designers dress.

Concerning the creative industries, McRobbie's (1998) study examines young British fashion designers and their role within the new creative economy. While not focused on design process per se, a significant point McRobbie (1998, 123) notes is that the designers in her study "disavowed" technical skills, and often claimed little knowledge of how to sew. Rather, the 'design' element is far more to do with

³⁶ The notion of 'designerly thinking' is a reference to the work of Nigel Cross (1982, 2000). Cross identifies that designers approach a design problem through synthesis, rather than analysis, and that designers construct patterns in order to solve the problem, where "the abstract patterns of user requirements are turned into the concrete patterns of an actual object" (Cross 1982, 224). Cross describes these approaches as 'designerly ways of knowing', observing that much of these 'ways of knowing' are tacit.

creative, artistic expression, rather than with the technical design of fabricating the garment. These creative elements also feature in Rantisi's (2004) study of high-end designers. Her study examines the interactions between the designers and fashion intermediaries in the New York garment district. Again, the focus is on the creative elements of the fashion design process, with Rantisi (2004, 98) noting that the interviewed designers "see themselves as engaged in a creative process that borrows elements from existing designs but then reinvents them with the development of new products". Importantly, this creative process does not occur in a vacuum, but is heavily assisted by forecasting service providers that undertook the required market research.

In contrast, the technical, material elements of designing, such as the selection of fabrics, the detailed specification of the garment, the choice of stitches, finishes, and trims, through to managing the sampling and fitting process, is explored in far greater detail in textbooks such as Carr and Pomeroy (1992), Burns and Bryant (2007) and Glock and Kunz (2000). Crucially, the design process they describe is collaborative and iterative, although frequently conceptualised as following a linear route from idea ('inspiration') through to first sample (prototype), with many actors involved, from the design/product development team, through to technicians, managers, marketers and buyers (Carr and Pomeroy 1992; Burns and Bryant 2007; Keiser and Garner 2008). This linear progression is illustrated in Figure 2.5. It flows through a number of stages, beginning with market research, development of the design concept, through to the development of the sample garments for fitting. Sales data regarding what sold well in previous seasons necessarily feeds into the process.

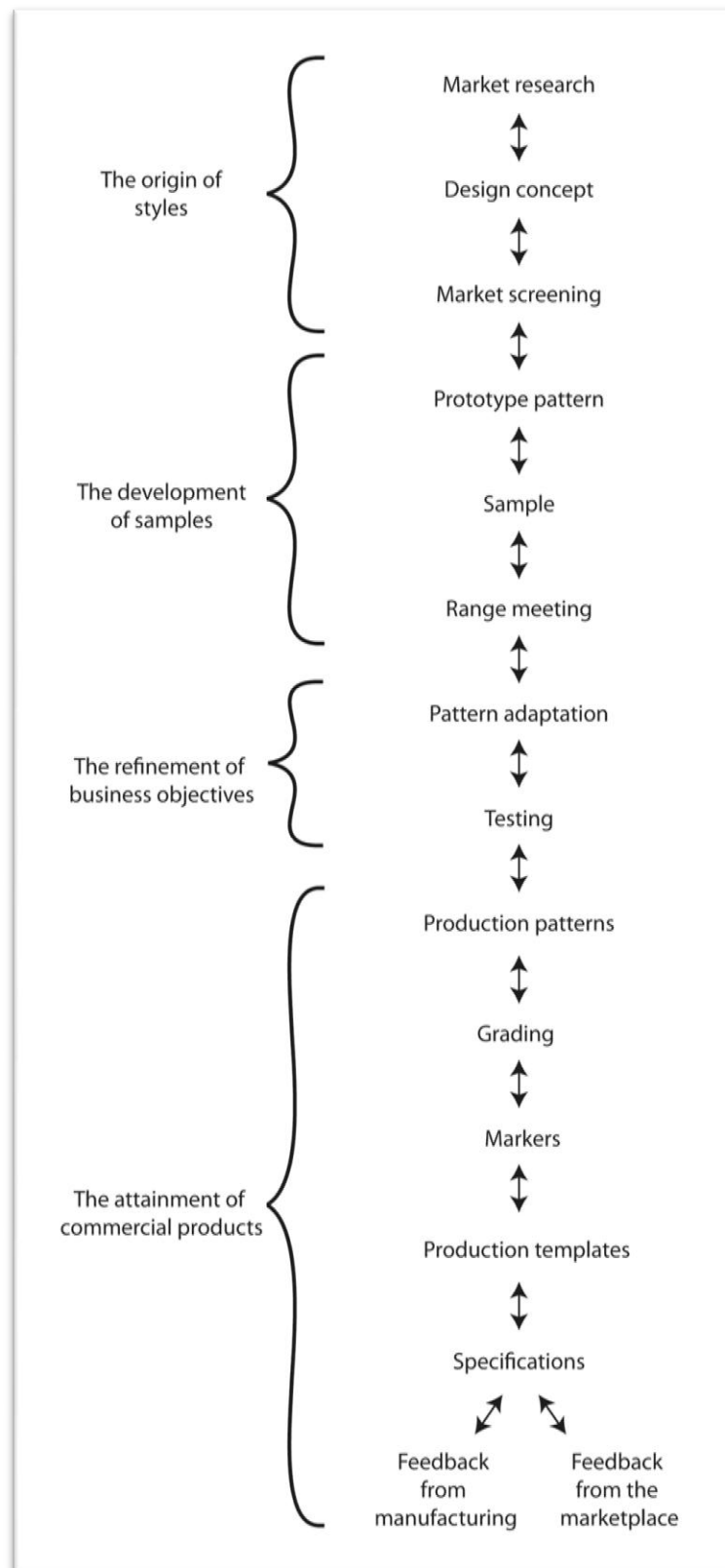


Figure 2.5 The process of design and product development, (adapted from Carr and Pomeroy 1992)

While the terms ‘design’ and ‘product development’ are at times used interchangeably in these textbooks, the term ‘product developer’ is generally associated with the more derivative, lower-end of the fashion market (for example, see Boon et al. 2011). The tasks of the product developer are not necessarily different to that of the designer. He or she also specifies the aesthetics and material construction of the garment, based on the market intelligence, past sales and trends (Johnson and Moore 2001; Keiser and Garner 2008). In the largest companies, the hierarchy may flow from creative directors, to designers, design assistants, product developers and garment technicians. The latter two roles more often involve specifying the technical details of the garments. However, in smaller companies, the designer will undertake all of these tasks.

Regardless of nomenclature or market level, both the fashion designer and the product developer engage with the immaterial aesthetic and brand value that gives the designed fashion garment its (temporal) value. Although the immaterial is valorised, these actors are, by default, also key players in determining the materiality of the garment. Returning to DfS, the fashion designer is an important actor in the key phase of specifying the product – and hence can theoretically select materials and processes in order to reduce the garment’s environmental impact. For this reason this thesis refers to both notions of ‘fashion’ or ‘creative’ designer and ‘product developer’ as designer. Both product developer and fashion designer are placed at the beginning of the technical production process, and both are strategically placed to make the key decisions that determine the look, handle, and fabrication of the material garment. Thus ‘design process’ is the list of activities that contribute to the development of the garment up until final sample, no matter which actors are involved. To what extent these designers can intervene for sustainability, particularly in the case of the mass-market designer, will be examined in the sector cases studies of Chapter 5, 6 and 7.

In contemporary fashion, the linear conception of the ‘design process’ is somewhat out-dated when considered beside new models of engagement between designer, manufacturers, and consumers. As Keiser and Garner describe:

The process that was once called design is now more inclusive. It is consumer-driven, it eliminates steps that do not add value to the end product, it defines the desired product through detailed standards and specifications, it

requires partners within a virtual supply chain to share the responsibility and risk for producing a quality product (2008, 18-19).

These partners may be, as Skov and Aspers (2006, 802) term them, fashion's mediators: buyers, middle managers, designers, and other professionals who act as a bridge between production and consumption. The symbolic components of fashion fundamentally drive the process, as the 'value-added' component in the end product is the fashion aesthetic imbued in the design. This notion of 'product development process' reflects the rise of fast fashion in which the closely researched desires of consumers shape the garment's aesthetic (see Chapter 5), as well as the growth in areas such as mass-customisation, in which the consumer has greater influence in the surface aesthetic and fit of the product (Ross 2010; Hameide 2011).

2.4 FASHION AND SUSTAINABILITY

As discussed earlier in Section 2.1.1, no industry is immune to humanity's 'wicked problems' and many industries have contributed to them. The global apparel industry's impact has been exacerbated by fashion's cycles of creative destruction, which can be partly attributed to capitalism's requirement for growing production and consumption, as well as the individual's desire for novelty. As discussed earlier in this chapter, in Lipovetsky's analysis (1994) capitalism and the individual pursuit of novelty cannot be separated. The required novelty of fashion led fashion researcher Sandy Black to propose 'the fashion paradox', which is "the economic importance of the fashion industry set against its inherent obsolescence and waste through constant change" (Black and Eckert 2010, 813).

Like the term 'sustainability', 'sustainable fashion' has many definitions, and remains defined chiefly by what it is not - 'business as usual'. Currently, the fashion system is a highly globalised, labour and resource intensive sector, characterised by built-in obsolescence in the form of rapidly changing aesthetic tastes and trends. The fashion sector is "locked into a cycle of unsustainability" (Draper, Murray and Weissbrod 2007, 13). The sector's unsustainability is, to simplify, two-fold. First, there are negative social and environmental impacts from the manufacture and finishing processes of apparel, and second, the constant change in intangible fashion styles escalates consumption and production, exacerbating these impacts (Gertsakis

and Neil 2011, 130). Thus the literature on fashion and sustainability necessarily addresses both the production and consumption of fashion. This section discusses the academic literature on fashion and sustainability in order to identify the gap between current practices in the mass-market and those of emerging designers.

2.4.1 ENVIRONMENTAL AND SOCIAL IMPACTS ACROSS THE LIFE CYCLE

A significant, and growing, body of research analyses the implications of fashion and sustainability – various terms used include ‘sustainable fashion’, ‘ethical fashion’³⁷, ‘green’ fashion, and ‘eco-fashion’. As Sue Thomas notes (2008), the definition of these terms is shaky. Hence the word ‘sustainability’, is used to sum up a broad swath of issues related to the social and environmental impacts of the production and consumption of fashion apparel. As examined in Section 2.1.4, the use of the word ‘sustainable’ in relation to fashion, also follows a spectrum from weak conceptions, to strong conceptions.

The chief issues include environmental aspects of fibre, textile and apparel production processes (Allwood et al. 2006; Armstrong and LeHew 2011), impacts of textile disposal to landfill (Caulfield 2009), social responsibility for workers (Dickson, Eckman and Loker 2009; Minney 2011), and the impacts of globalisation (Rivoli 2005). Regarding fashion consumption, researchers have explored the impacts of fast fashion, consumer choices and ethical consumption (Joergens 2006; Davies, Lee and Ahonkhai 2011), the impacts of laundering garments (Fletcher 2008; Laitala and Boks 2012), and the branding and marketing of ‘ethical’ or ‘sustainable’ fashion (Winge 2008; Beard 2008; Skov and Meier 2011; Tseëlon 2011). In the mass-market, ethics and fashion are often represented through CSR policies and supply chain transparency. For instance, Tseëlon (2011, 13) claims that “ethical fashion has morphed into a brand that is materialized in a set of concepts (‘organic’, ‘green’, ‘Fair Trade’, ‘recycled’, ‘certified’, ‘produced locally’, etc.), which become signifiers of ‘ethics as a commodity’”. This is also argued by Winge (2008), who

³⁷ The term ‘ethical’ is particularly problematic, as there is little agreement as to whose ethics and under which ethical framework (e.g. deontological, consequentialist) and ‘ethical’ is reduced to simply a buzzword. For this reason, the term ‘ethical fashion’ is avoided in this thesis and instead ‘sustainability’ is used (and a spectrum proposed by way of definition in Section 2.1.4). This difficulty of an ‘ethic’ for fashion was discussed in greater depth in Payne (2012a).

uses the Marxist notion of the commodity fetish to position ‘ethical goods’ as a new kind of commodity fetish, made visible through the branding - the ‘brand story’ behind the garments.

There is considerable scope for designers to consider these varied environmental and social issues within the fashion apparel design process. Key writers who have examined the fashion design process as a crucial point of intervention for sustainability include Kate Fletcher (2008), Alison Gwilt (2011) and Timo Rissanen (2008; 2011), often exploring similar methodologies to those of the broader DfS. Fletcher’s work has been instrumental in adapting the DfS notion of life cycle to a holistic approach to fashion design. As mentioned in Chapter 1, life cycle thinking enables the designer to plan for the impacts the product will have in both input (the impact of the extraction of raw materials in pre-production) and output (the emissions and waste generated by the product during production, use and disposal) (Vezzoli and Manzini 2008).

The life cycle of a fashion garment begins at fibre (cradle), moving through to textile production, garment design process, manufacture, distribution, retail (gate), use phase and eventual disposal (grave), illustrated in Figure 2.6.³⁸ This cradle to grave perspective is not common in the industry. Burns and Bryant (2007, 227) describe that in the fashion industry, the garment life cycle is typically managed electronically using software such as Product Data Management and Product Life cycle Management Systems (PDM/PLM). PDM/PLM is a way to store and easily retrieve all data about a garment from materials sourcing, garment specification sheets and patterns, through to production, and then to sales data. This view of life cycle is unrelated to any concerns regarding sustainability, but is simply a way to efficiently manage all the stages of the garment’s production. Crucially, the software only accounts for the phases from design room to retail floor. Although a company must provide care instructions for the use phase, the responsibility of the company for the garment ends at the retail phase.

³⁸ This discussion of the garment life cycle was adapted into Payne (2011b) and Payne (2011c).

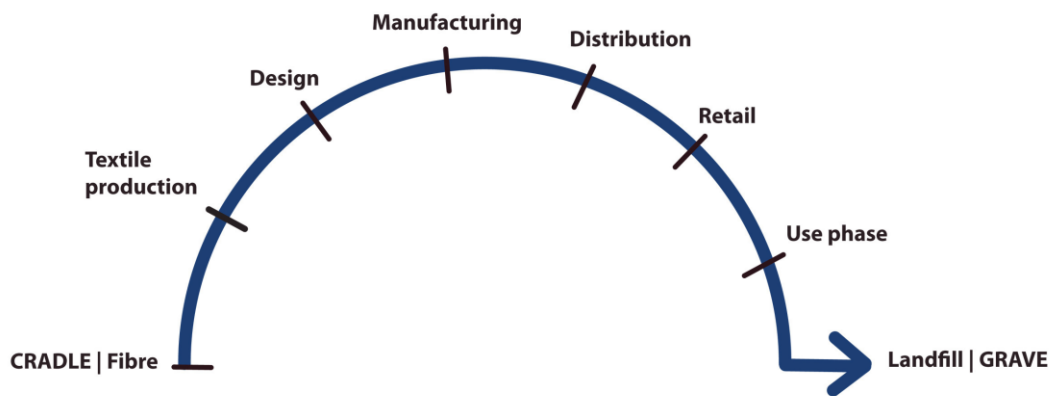


Figure 2.6 Garment life cycle: cradle to gate and cradle to grave

However, DfS strategies such as design for disassembly and design for recycling implicitly contain an element of product stewardship, meaning that companies consider the product’s downstream impacts well beyond the retail phase (Fiksel 2011, 1433). DfS strategies are more clearly evident in approaches to extending the garment’s life cycle, or in reclaiming the textiles used in its construction. These approaches are illustrated in Figure 2.7. At the end of the use phase, the user has the option of sending the garment to landfill, or alternatively, finding another use for it. First, as illustrated in the first diagram, the garment can be downcycled and made into lower quality goods. This is a common practice used to make ‘shoddy’, in which the fibres are shredded and then respun into lower-quality fibre, as explored by Lucy Norris (2005) in her analysis of textile recycling practices in India.

The second diagram in Figure 2.7 is reuse. Here garments are re-sold to a new consumer, and effectively enter a new life cycle beginning at the retail phase. This practice and its implications for sustainable consumption have been explored by Gregson and Crewe (2003, 200) as “cycles of de- and revalorisation” of second-hand goods. The third diagram in Figure 2.7 illustrates upcycling, in which post-consumer waste (or, alternatively, pre-consumer waste from the manufacturing process) is transformed into a higher quality fashion garment. Examples of designers working in this way include overseas labels Junky Styling and From Somewhere, and in Australia, MATERIALBYPRODUCT and Rachael Cassar. In the upcycling diagram, the new life cycle begins at the design phase.

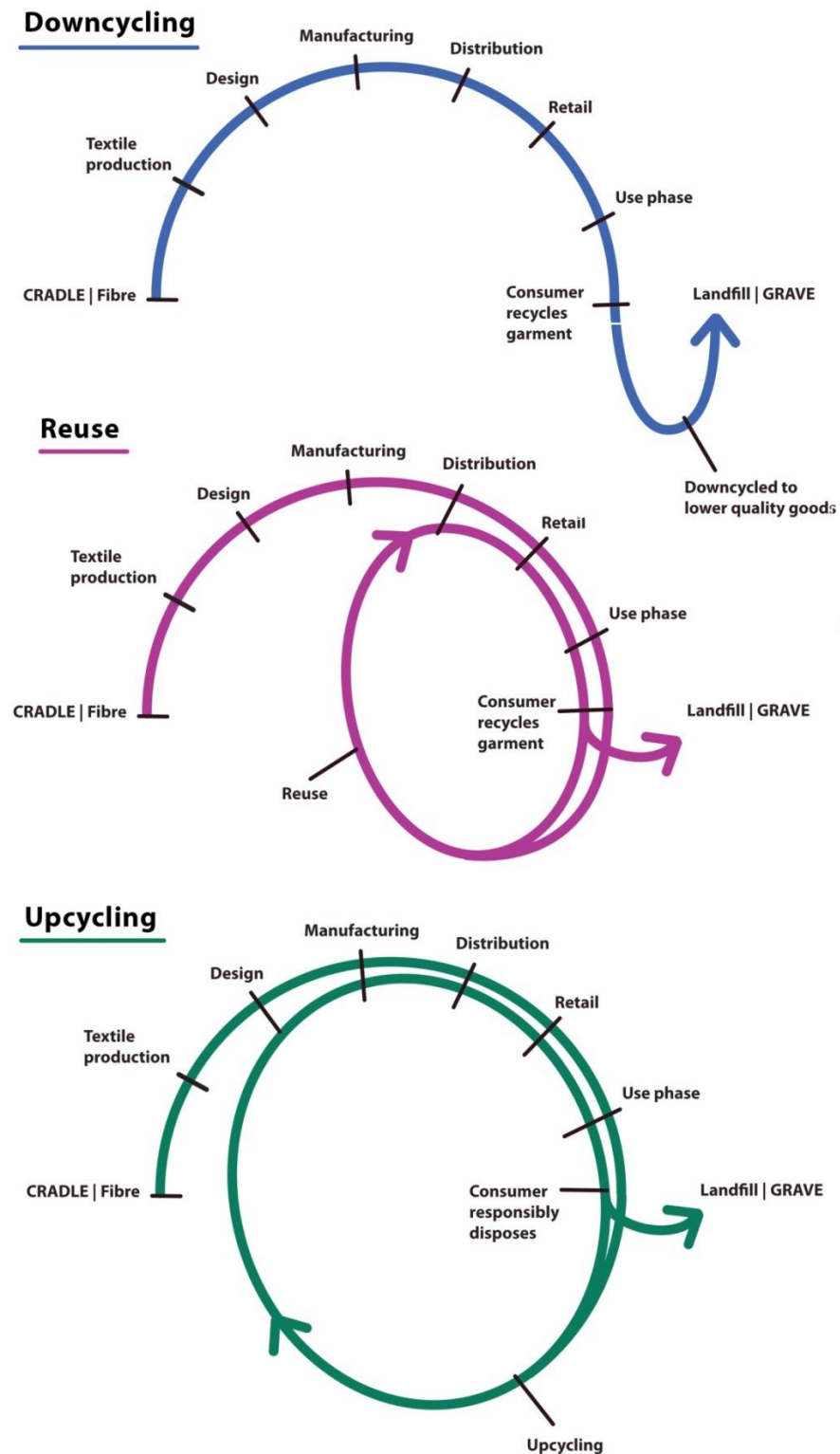


Figure 2.7 Extending the garment life cycle: downcycling, reuse and upcycling

A related design strategy is Cradle to Cradle (C2C). This is a design and manufacturing system that aims to bypass the grave to reuse valuable fibres via

closed loop manufacturing methods (McDonough and Braungart 2002). As mentioned in Section 2.2.2, in McDonough and Braungart's proposal, there are two streams of material goods: technical and biological. In the technical stream, synthetic textiles would be shredded, re-polymerised, extruded into fibre, and then re-spun into new textiles. Synthetic, non-biodegradable textiles can then be taken out of the waste stream. Examples include Patagonia's Common Threads program, in which polyester garments are closed loop recycled (Loker 2008; Patagonia 2010). In the biological stream, natural fibre garments could be safely composted, effectively closing the loop.³⁹ An example of this is the biodegradable Climatex fabric used by Looooloo homewares (Fletcher 2008, Looooloo 2010).

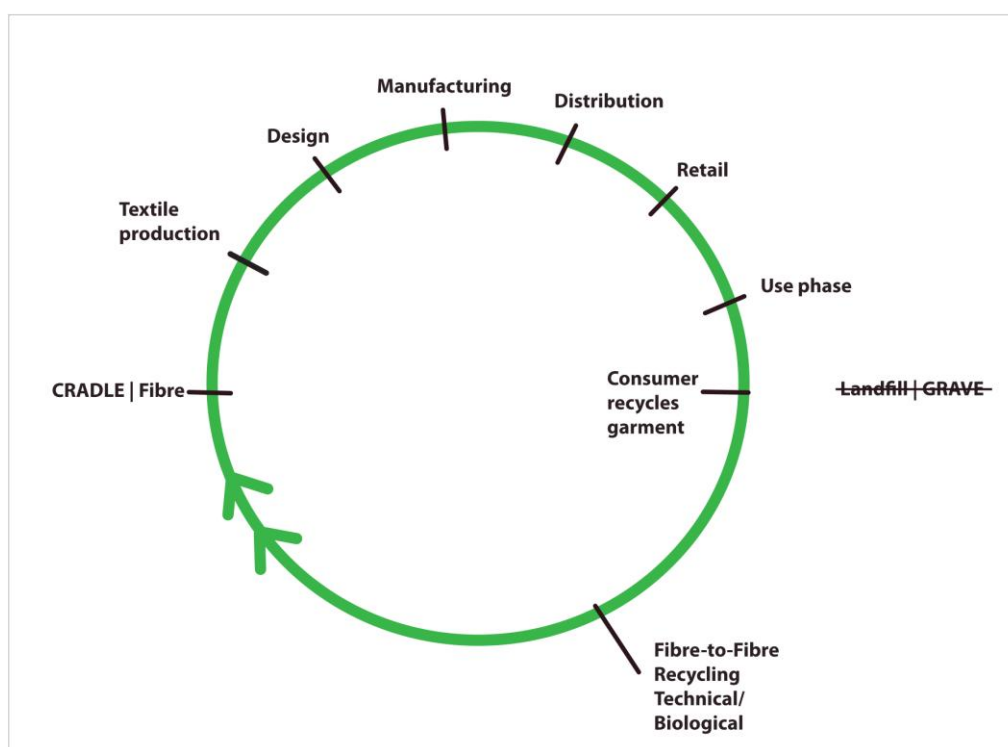


Figure 2.8 Garment life cycle, cradle to cradle (adapted from McDonough and Braungart 2002)

³⁹ Most natural fibres cannot be composted due to the risk of contaminating soil with the chemical inputs from the garment's fibre and textile phases such as dyeing and finishing (McDonough and Braungart 2002). For example, the biodegradable Climatex fabric could only safely use 16 of the 4500 chemicals in dye manufacturer Ciba's range, as the rest were harmful to human health (Fletcher 2008, 110).

Crucially, all these strategies to extend, reuse, or reduce waste all depend on the consumer to first responsibly dispose of the garments at end-of-life. Similarly, all these strategies can be more easily applied when first considered and planned for within the design process. As an example, to plan for C2C interventions, the garment cannot be comprised of a poly-cotton blended fabric, as this textile is hard to later separate into the technical and biological streams necessary for closed-loop recycling. McDonough and Braungart (2002) refer to products combining the two streams as ‘monstrous hybrids’. It is therefore a considerable challenge to apply these methods in the design process, yet additionally, the success of the strategy will depend on the action of the consumer post-sale. This example reveals why fashion and sustainability questions clearly lie in the realm of both production and consumption.

Despite this, in the mass-market there have been considerable advances in improving supply chain practices and in choosing lower-impact fibres and textile finishes. Much of the ‘sustainable fashion’ or ‘ecofashion’ available as mass-produced items has focused on the fibre phase of the life cycle through the selection of renewable, lower-impact fibres (e.g. organic cotton, organic wool, bamboo, Lyocell and hemp). The manufacturing phase of the life cycle has also received attention through supply chain scrutiny to preserve the rights of workers manufacturing the garments (also known as ‘social responsibility’ see Dickson, Eckman, and Loker 2009). For examples, see descriptions of the labour practices of American Apparel (Smestad 2010), Nike (DeLong 2009), Patagonia (McDonough and Braungart 2002; Hethorn and Ulasewicz 2008), Marks & Spencer (Black 2008) and Gorman (Diviney and Lillywhite 2009).

The globalisation of the fashion industry is of crucial importance in any discussion of sustainability in fashion, particularly the results of tariff reductions in developed nations, the resulting off-shoring of garment manufacturing (Gill 2008), and related ethical issues. Poor working conditions have been rife in the apparel industry since before industrialisation, however never has manufacturing been so geographically separate from designing, hiding from view the conditions of workers. In developed nations, a return to local manufacturing could go some way towards mitigating poor working conditions as well as reducing garment carbon miles, as argued by Farrer (2011). The concerns regarding ethical, local manufacturing, and

the concern regarding carbon miles, bring together the social and environmental elements of sustainable fashion.

However, life cycle thinking in itself does not address the underlying speed of the system, whether this speed can be sustained, and if so, at what social and environmental cost. Following Entwistle's analysis (2009) discussed in Section 2.3.2, in the fashion system, the material garment is inseparable from the immaterial trend, as without the addition of fashion's intangible aesthetic values, the garment is simply apparel. For this reason, apparel companies such as Nike and Patagonia offer products that rely less on the intangible components of *fashion*, but rather of *lifestyle*. Therefore, as their garments are more aesthetically stable than 'fashion' apparel, they have been successful in implementing changes within a life cycle framework (see DeLong 2009; Loker 2008). Strategies such as C2C require a degree of 'hard innovation' in textile engineering and in R&D, and an investment of this nature may not be as relevant to a fashion company whose profit depends on the symbolic value of its garment's aesthetics, rather than on the innovation or performance of its textiles.

For the fashion companies, speed is crucial. In the past fifteen years, the speed of the global fashion system has accelerated (Birtwistle and Moore 2007), with monthly or weekly product drops in store. The acceleration of trend cycles results in the faster production and consumption of clothing. Fashion has never been so cheap to purchase. For example, in 1960, clothing accounted for ten per cent of Australian household expenditure, whereas by 2012, it had dropped to three per cent (Wade 2012). This lower cost and faster speed has been made possible through agile supply chains and an increase in cheap offshore manufacturing (Bruce, Daly and Towers 2004). Fast fashion clothing is cheap to purchase and hence perceived by consumers as disposable. Hence fashion's speed of change and the resulting overconsumption and waste of still-wearable garments is a critical challenge towards redirecting the industry even towards a weaker, incremental notion of sustainability.

For sustainable fashion researchers with an underlying definition of strong sustainability such as Lewis (2008), or Fletcher (2010, 2011), the current fashion system cannot be easily reconciled with sustainability. Kate Fletcher terms cheap, mass-produced high street fashion "passive fashion" (2008, 192), with consumers increasingly disempowered and disconnected from the material processes of their garments. She claims that consumers feel unable to engage with the materiality of

their garments through customisation or alterations as the garments are so final in their design and finish:

instead a myth is created of a ‘genius’ designer, who synthesises trends, concepts and fabric into an inviolable piece. The result is deskilled and ever more inactive individuals, who feel both unrepresented by the fashion system and unable to do anything about it” (2008, 186).

Fletcher’s notion of the “inviolable” garment leading to disempowered consumers relates to Fry (1999, 2009) and Willis’ (2006) notion of the agency of designed objects. As discussed earlier in this chapter (see Section 2.2.2, p. 53), Fry and Willis propose that design processes, objects, and designers act upon each other in a hermeneutic circle. The system, design, and design processes of mass-produced garments have effectively designed a way of engaging with and wearing fashion, in both a material and an immaterial sense. For instance, in a material sense, as Rissanen (2011) observes, the garments are not easily interacted with; the seam allowance is often too narrow to let out for widening garments, and likewise the hems cannot be let down. In an immaterial sense, designers, retailers, fashion journalists and other ‘gatekeepers’ (Kawamura 2004) hold the fashion knowledge that directs the consumption choices of the individual, determining the colours and silhouettes that are currently fashionable.⁴⁰ A redirected design practice, in this context, would look to up-skilling and empowering individuals to break this cycle. This will be discussed in Section 2.4.3 (see Slow Design strategies Table 2.1, pg. 83).

A number of researchers into sustainable fashion, including Suzanne Loker (2008) and Marie O’Mahoney (2011), have explored the role of technological innovations in a sustainable fashion industry. These innovations may include nano-technologies to help in the use phase of the garment, biodegradable fabrics, closed-loop garment recycling. Many of these strategies are eminently suitable for apparel design, however their application to fashion garments will depend on the inherent speed of the fashion garments (see Fletcher and Tham’s 2004 Lifelines project). As with many design interventions for sustainability, these technologies can be employed in service of both a weak or strong sustainable economic imperative.

⁴⁰ Arguably this system of disseminating fashion knowledge is shifting due to the phenomena of fashion blogging. This will be discussed in Chapter 5 on fast fashion.

2.4.2 WHAT WOULD ‘SUSTAINABLE FASHION’ LOOK LIKE?

Proposing sustainable apparel is deceptively straightforward. Lewis et al. (2001, 144) propose an apparel design checklist, which includes developing durable, functional clothing with classic lines that do not go out of fashion - “for example pockets should actually be used and should not be for effect; there should be no ornamental components; garments should be sized for comfort not vanity.” Clearly, this kind of checklist is unsuitable when mutable fashion aesthetics are considered. A far more difficult proposition is to propose what sustainable *fashion* apparel could look like. Rather than simply posing the greening or improvements and adjustments to discrete garment styles, Fletcher argues that a broader system-wide approach is required, a life cycle approach that:

sees garments as a mosaic of interconnected flows of materials, labour and potential satisfiers of needs and not simply as isolated resources, processes or sources of one-off environmental, social and cultural impact in production (Fletcher 2011, 170).

To embrace this, the viewpoint of all actors in the fashion system would need to be expanded from narrow self-interest to frame “sustainability problems as interconnected issues extending beyond the boundaries of individual companies or even industries” (Fletcher 2011, 171). As such, the health and sustainability of the entire system takes priority over reducing the impact of individual life cycle phases of particular garments. Kate Fletcher proposes a slow fashion system, with faster moving parts, one not dependant on material throughput. Underlying her fashion system is the steady state economics that is rooted in the work of Herman Daly and Tim Jackson (Fletcher 2010, 2011; Fletcher and Grose 2012) (see Section 2.1.3).

Fletcher’s analysis acknowledges that the root causes of unsustainable fashion production and consumption lie in the function of the fashion system itself, and in turn, in the larger economic and social systems in which the fashion system is nested. Thus the sustainable fashion system proposed by Fletcher would need to be within a revised socio-economic system. As discussed in Section 2.3.1, in Lipovetsky’s (1994) analysis, fashion and capitalism are inextricably bound. This is echoed by Elizabeth Wilson, who writes,

Fashion *speaks* capitalism. Capitalism maims, kills, appropriates, lays waste. It also creates great wealth and beauty, together with a yearning for lives and opportunities that remain just out of reach. It manufactures dreams and images as well as things, and fashion is as much a part of the dream world of capitalism as of its economy (2003, 14).

This dream world of capitalism is under threat from forces within and without, as the external pressures of environmental issues and the need to cap carbon emissions places companies under greater restraints and greater public scrutiny. As such, the fashion system is also shifting, though not necessarily towards a strong conception of sustainability. Large fashion corporations may prove their ethics through CSR accreditation schemes, yet rarely do they tackle the underlying problems of overconsumption. This will be examined further in Chapter 4, Section 4.4.

The most radical critique of capitalism comes from Slavoj Žižek (2010) who describes global capitalism as facing a terminal crisis, besieged by intractable problems such as the impending ecological disaster and the growing instability of the economic system. These threats have also prompted new opportunities. For Žižek, the current version of late capitalism is ‘ethical capitalism’. Here advertising can promote products using “socio-ideological motifs (ecology, social solidarity)” as an added value (Žižek 2010, 356). This is also noted by Winge (2008), who positions ethics in fashion as a new commodity fetish. As Žižek put it, through buying an ‘ethical’ product, “you buy your redemption from being a consumer” (2010, 356). He goes further, calling this act of both consumption and charity “obscene” (2009). Here, the evils of capitalism (waste, over-consumption, labour abuses, global inequality) are in part alleviated by the ‘good works’ companies and consumers do. Hence late capitalism, with its ability, as Žižek says, to be “infinitely plastic” (2010, 349), has absorbed the ethical ideology of the time to turn it back upon itself.

Fashion trends operate in a similar way, as anti-fashion movements or critiques of the fashion system tend to be absorbed into the wider fashion system, and projected back to the masses as a marketable aesthetic. Jean Baudrillard (1993, 98) sees this as integral to the symbolic logic of fashion, noting, “fashion itself makes the refusal of fashion into a fashion feature,” and citing blue jeans as an example. He continues, “Even while rebelling against the content, one more and more closely obeys the logic

of the code” (Baudrillard 1993, 98).⁴¹ Although ideologically different to other anti-fashion movements such as punk, sustainable or eco fashion has been championed by concerned activists for some years (e.g. Katherine Hamnett, Lynda Grose), based on genuine concerns regarding fashion’s impact on the environment and on apparel workers. That ‘sustainable fashion’ should itself become a fashion trend is deeply ironic – at least when considered from a viewpoint of strong sustainability, to which the built-in obsolescence of the fashion garment is anathema.

An example of the double-speak of ethical capitalism is seen in Figure 2.9, a photograph from a Rubi store, an Australian fast fashion footwear company owned by Cotton On. Beside the counter are two signs. One says, “Shoes make me happy, I’m superficial, whatever.” Another says “You can make a difference”, and describes the Cotton On Foundation’s work with developing communities, enabled by donations from Cotton On and their customers. Simultaneously, the company is, tongue-in-cheek, acknowledging the ills of over-consumption (superficiality), while also giving the consumer the panacea – buy more, because when you buy more, you are helping people too. Within the logic of late capitalism, as discussed by Žižek, there is no contradiction between these two positions.

⁴¹ However it is important to note that Baudrillard viewed fashion as entirely in the realm of the intangible – “the code”.

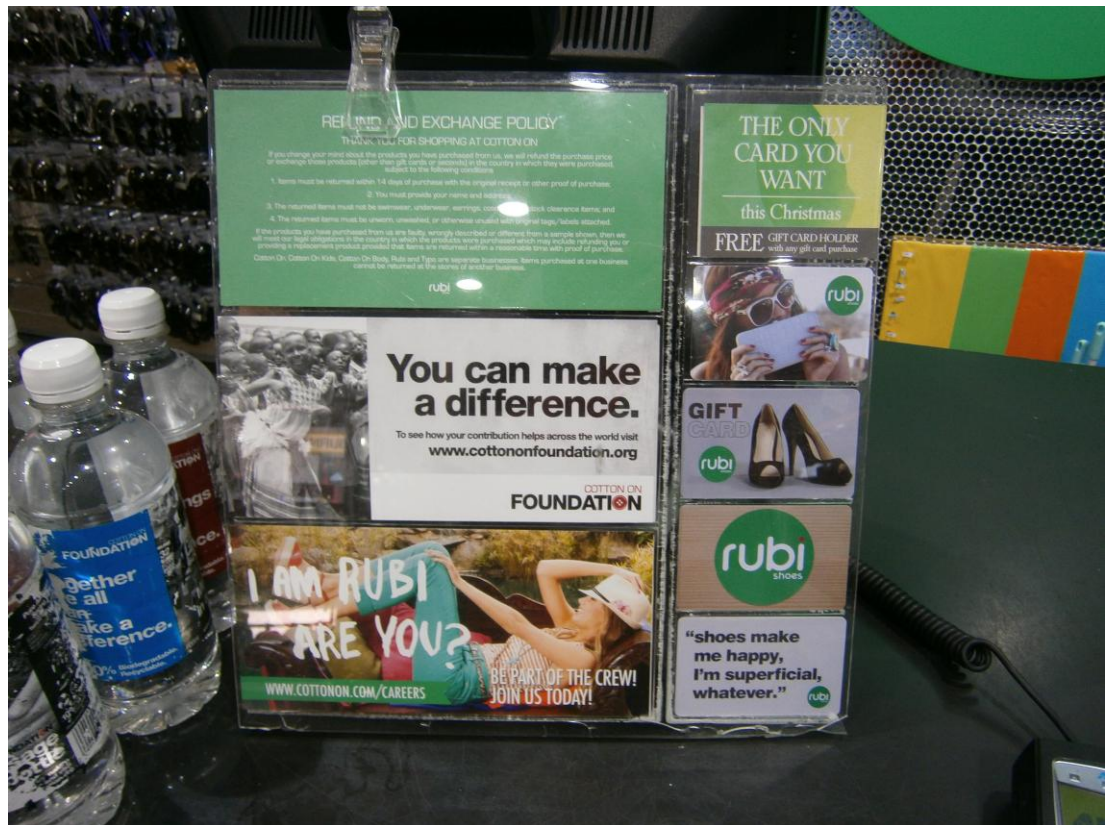


Figure 2.9 Rubi Shoes, Broadbeach, Queensland, February 2012

Small-scale designers and practices point to a potential for a sustainable fashion that could operate in another economic paradigm. Potentially, these strategies can provide a pathway towards engaging with a fashion (or with beauty, or adornment), that is less bound to an economic imperative that is, at best, weakly sustainable. However, there has been little research into whether these practices could be scaled-up for mass-market fashion companies - or even if it would be appropriate to do so. Arguably, mass-market fashion cannot be strongly sustainable – its speed of change, coupled with its large volumes of product, is predicated on inputs (fibre, energy) being inexhaustible. Hence current and potential approaches to fashion and sustainability can be positioned along the spectrum proposed in Section 2.1.4 (pg. 45). Designers and companies responses range from greenwashing, through to minor changes to processes, through to more radical responses, and finally to activist outlooks that propose fundamental shifts in modes of fashion production and consumption.

Due to fashion's close ties to capitalism, a *weakly sustainable* approach that focuses on incrementally 'greening' supply chains, processes and products, as well as

improving labour conditions, is arguably the only approach to sustainability that can be accommodated by mass-market fashion companies. A strong sustainability approach (implying reduced consumption) shakes the foundation upon which a mass-market company stands. However, despite the fundamental paradox of strong sustainability and mass-market fashion, incremental approaches are still worthy, and still important. This example comes from the *Limits to Growth Report: the Thirty Year Update*:

Tiny changes multiplied many times can make a big difference. The invention in 1976 of the pop-top opener tab on the aluminium soda can meant that the tab stayed with the can, therefore passing back through the recycling process, rather than being thrown away...That means that every year, the recycling of those tiny tabs save[s] 16,000 tons of aluminium and around 200 million kilowatt-hours of electricity” (Meadows, Randers and Meadows 2005, 1250)

In other words, as the volumes of product passing through the fashion system are so large,⁴² even a seemingly small change within existing processes can have a considerable impact. For this reason, mass-market design practices require rigorous examination, from both inside and outside of industry. While Black’s ‘fashion paradox’ cannot be resolved within the current system, companies can still make considerable improvements to products and processes to reduce the social and environmental impact of fashion.

2.4.3 RECONCEPTUALISING THE ROLE OF THE DESIGNER

In order to explore some of the options for mass-market companies to respond to sustainability issues, this section focuses on the fashion designer. The role of the fashion designer has been explored by a number of writers on fashion and sustainability; however few have examined the current or potential role of the mass-market designer in any depth. Gwilt (2011) analyses the design process of the couture designer, linking the traditional role of the couture designer to sustainable design strategies. For example, she demonstrates that ‘design for user participation’ and ‘design for slower consumption’ can be aligned to the couturier’s task of fitting

⁴² Journalist Lucy Siegle (2012) estimates that 80 billion garments are manufactured globally each year.

the client and after sales care. She suggests that fashion can be sustainable when it is tied to a close relationship between designer and wearer. As she points out, the vertical framework of the industrial production of fashion provides a separation between the designer and the means of production, commenting that this vertical nature of the mass-production apparel industry makes intervention for sustainability a challenge within the mass-market.

Rissanen (2008; 2011) and Holly McQuillan (2011) have analysed the role of the designer as patternmaker in working to eliminate all waste from the cut and sew garment processes. To implement their strategies at a mass-production level would require changes to the internal structuring of the fashion system, as often designers are the ones with the immaterial fashion knowledge more than the technical knowledge, and they pass the design onto patternmakers, machinists and garment technicians to develop it into a physical garment. The logistics of the industrialised system of garment production are such that design tasks are divided up between many people, and then tasks unfold in a linear progression. The kinds of experimental interaction back and forth between patternmaker and designer (or designer as patternmaker) that Rissanen suggests are largely closed off to mass-market designers by the nature of the system in which they operate. This relates to Fry's notion of 'design designs', as Willis writes, and includes, "the designing of design processes whereby outcomes are pre-figured by the processes deployed" (2006, 10). In this sense, the design processes and systems that govern the mass-market apparel industry are effectively locked in to designing a set of pre-determined outcomes.

Table 2.1 Typology of fashion design approaches for sustainability

Fashion and textile design for sustainability	Approach	Examples
Design to minimise environmental impact, Design to reduce chemical impacts*, Design to reduce energy and water use*	LCA of all components to give a quantitative assessment of the garment's environmental footprint in the inputs phase.	Nike Considered design index (2010) Sustainable Apparel Coalition tool (2012)
Design for zero or minimum waste, Design to minimise waste*	Develop patterns that reduce or eliminate waste in cutting process.	Timo Rissanen (2008) Mark Liu Holly McQuillan (2011) MATERIALBYPRODUCT

Design for social responsibility, Design for ethical production*	Fairtrade schemes, partnerships with producers, eliminating practices dangerous to workers (e.g. sandblasting)	People Tree (Minney 2011) Marks and Spencer's Fairtrade cotton (2012)
Slow design, Design to replace the need to consume*, Design for endurance	User interactions, user re-makes/repairs, garments designed for longevity and relationship with wearer	E.g. Local Wisdom project, Alabama Chanin (Fletcher and Grose 2012)
Design for recycling, Design for recycling / upcycling* Design for disassembly	Reusing existing textiles, remaking, adding value to discarded textiles through design Garments that can be disassembled at end of life for more efficient recycling.	From Somewhere (2012) Junky Styling (2011)
Design that explores clean/better technologies*	Use of technologies that can make clothing and textile production more efficient, less wasteful, or integrate with smart devices	e.g. using sonic welding instead of threads, Using new technologies like laser etching to 're-surface' pre-consumer polyester Digital Printing - 2D and 3D 3D warp knitting Coating and Finishing - nano, colour technologies, Teflon (Textiles Environment Design 2012)
Design activism*, Design hacktivism	Projects, partnerships, schemes to disrupt fashion system	Dale Sko, Otto von Busch (2009), Alastair Fuad-Luke (2009)
Design for product service systems (PSS), Design to dematerialise and develop systems and services*	Clothing Libraries Loan services Swap services	Bag, Borrow or Steal (2012)
Biomimetic design, Design that looks at models from nature and history*	Reflecting on past clothing and textiles systems or methods*; inspiration from natural world.	Teijin textiles fabric that eliminates dyeing, developed from scales of butterfly wing (Ask Nature 2012).
Design for local	Use only locally-sourced materials and manufacture	Australian label Bento (2012), Alabama Chanin
*From TED TEN (Textiles Environment Design 2012)		

Fashion designers and researchers have proposed a number of approaches to a fashion design that considers environmental or social sustainability, or both. These are summarised in Table 2.1. Notably, most strategies are in alignment with the varied DfS strategies discussed in Section 2.2.2. While some of them intervene in the design of the material product (e.g. design to minimise environmental impact), others

intervene more radically in targeting how fashion is consumed (e.g. PSS, slow fashion). Many fashion designers are using a combination of these approaches.

To explore these approaches across the life cycle, Figure 2.10 proposes potential questions that can be asked in the design process. However, despite the large body of research discussing many aspects of the fashion industry and its sustainability or unsustainability, there is little research into existing mainstream design processes at an institutional level, and how (or if) the above strategies can fold into these existing practices, or whether designers can ask the proposed questions.

Interventions into the processes of the fashion system can help redirect the system towards sustainability, however whether that will be weak or strong sustainability depends on to what degree the intervention depends on reduced manufacture and consumption of material product. The spectrum of sustainability emerges when the motives behind the redirection are examined. At the most radical end of the spectrum, fashion design activists investigate system-level change, while at the other end of the spectrum, mass-market companies may employ greenwashing strategies to cultivate an appearance of sustainability. However, due to the high material throughput of the mass-market, even small changes can have a large impact, and even within the more limited aims of weak sustainability, much can be achieved.

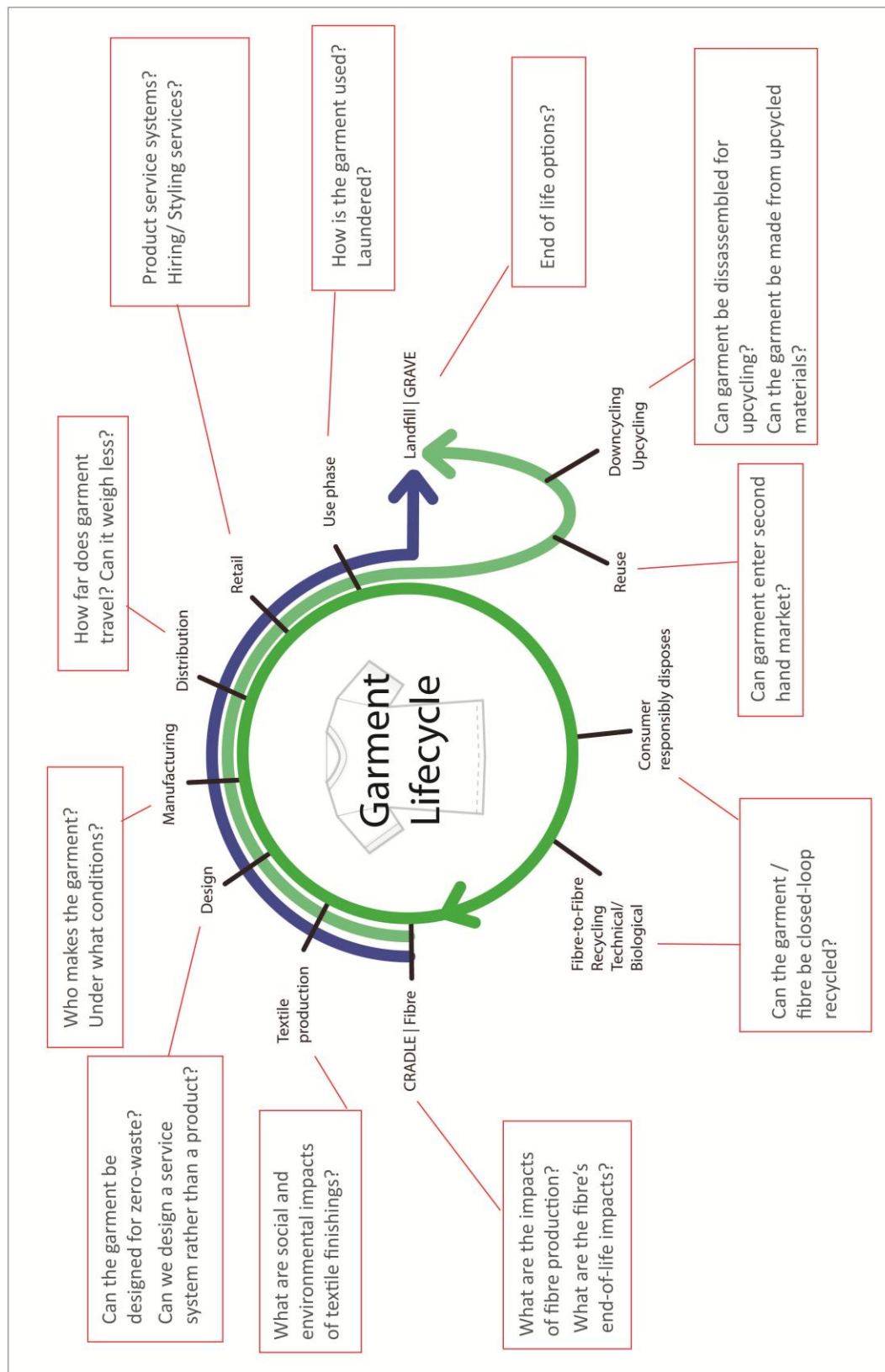


Figure 2.10 Questions to ask in the design process relating to the garment life cycle

2.5 CONCLUSION

Design within fashion is conventionally seen as the creative value-adding component, or what Stoneman (2010) refers to as ‘soft innovation’. However, the technical aspects of garment design are crucial when considering DfS. While mass-produced garments lack the prestige, aura and name of the designer, they are clearly designed by someone. Despite Kawamura’s (2005) insistence on fashion design being a collaborative process, when fashion theorists write about fashion designers, it is largely the named, high-end designers being studied (as an example, see Vinken 2005). The anonymous designers of the mass-market appear to have less right to claim the title of designer by virtue of their reduced input into the symbolic, aesthetic, and cultural aspects of fashion production. However, these actors (whether creative directors, product developers, designers, stylists, patternmakers, machinists, technicians) all help to bring into being a thing that wasn’t in the world before, making them designers, in the broadest sense of the word. Within fashion, design of the immaterial (the original design sketch, for example) is valorised and the design of the material garment (the work of the technician, or the knock-off by the product developer) is necessarily of lesser value. Degrees of value, or designer cache, are granted from this perspective of fashion design, in which the higher end designers hold the value and even the claim to the word ‘design’ in a fashion context. This notion of design needs to be challenged, as it makes much more opaque the ability of designers in the mass-market to make any changes in their design processes of their garments for sustainability (whether weak or strong). Hence this research aims to analyse the flow of design decisions in the mass-market as they contribute to both the immaterial, symbolic aspects of fashion, and to the material fashion objects. Whether designed by a celebrated designer, or by a team of product developers, or by a wholesaler who passes a picture torn from French *Vogue* to a patternmaker in China, all are designing, although the extent of the design’s originality and its market value differ.

Two key points emerge from this literature review. The first is that while the mass-market fashion system is structurally in opposition to the principles of strong sustainability, with incremental changes, it can be aligned with weaker notions of sustainability. Second, the breadth of enquiry into sustainable fashion exists along a spectrum, ranging from systems-level change and design activism, through to TBL

sustainability. The mass-market can arguably only be weakly sustainable, as long as its *modus operandi* depends on continued consumption of material goods. However, there is considerable opportunity for the designer / product developer to consider environmental sustainability within product design through widening their view of the life cycle to consider fibre choice and end-of-life. Although the literature review points to other design strategies that can fold into a strong sustainability scenario, for example, design for dematerialisation, it is difficult to see how the mass-market fashion industry can accommodate these.

Frequently, fashion design appears to be viewed through the lens of other design disciplines. This is the case for writers on sustainable fashion who draw on DfS, as well as for writers such as Sinha (2002) on fashion design process, drawing from the work of Cross (1986). Fashion design appears to be viewed either as the technical process (from textbooks), or as value-adding, or as creative, potent force of the inspired designers. In contrast, Fry's philosophy provides a lens to see design in fashion as encompassing both material and immaterial 'design objects', and to note that these objects have agency, allowing them to design the fashion system. Within this context, the designer in fashion becomes an instrument of the system, designer of objects, but also themselves designed by the logic of the fashion system in which they operate.

The following chapter will outline the methods used to explore these ideas in the context of the Australian mass-market fashion industry.

Chapter 3: Research Design

This chapter describes the methodology employed to achieve the study's aims and objectives as described in Chapter 1. The research approach is to examine the 'wicked problem' of fashion design and sustainability through both macroscopic and microscopic views of the Australian industry. In order to do this, the study is structured as a set of embedded case studies. These begin with a wider view of the Australian mass-market fashion industry before honing in on three market sectors. Within each market sector's case study is an embedded case study of design processes of companies operating in that sector. Crucial to the study are the voices of designers working in the industry. This chapter begins by discussing the research design and the rationale behind the methodological approach, before then detailing the research methods including: selection of participants, interview processes, data collection, and data analysis. Finally, Section 3.6 discusses the ethical considerations and limitations of the research.

3.1 METHODOLOGY AND RESEARCH DESIGN

3.1.1 METHODOLOGICAL CONTEXT

The central question of this thesis is: to what extent can the Australian mass-market fashion designer intervene for sustainability? To explore this, the literature review in Chapter 2 posed and discussed an underpinning set of questions: what is meant by sustainability, what is meant by design, and how does design operate in the context of the fashion system? The literature review revealed that the more radical notions of DfS are aligned with a strong sustainability that arguably calls for a revised economic system. These notions of DfS depend on reduced material consumption, or 'dematerialisation', posing the designer as an activist or change-maker. Yet the mass-market fashion industry is resolutely material: it is predicated on faster turnover of material goods, albeit enabled by immaterial aesthetic change. This highlights the 'wicked problem' of environmental sustainability and the fashion industry: an industry that depends on continual aesthetic change and rapid obsolescence of material product is ill-equipped not only to make longer-lasting

products, but is fundamentally ill-equipped to embrace any notion of sustainability that calls for reduced consumption of material goods.

Thus acceptance of the capitalist system in which the mass-market fashion industry operates is a key constraint when examining the role of the designer in this system. Arguably, only a weak or incremental approach to sustainability – slowly greening and improving the environmental impacts of the industry – is possible for the mass-market. Given this constraint, the methodological approach of the study is to observe and map the existing processes of the mass-market industry in relation to an incremental approach to sustainability. While the more radical notions of DfS such as design activism (Fuad-Luke 2009) or dematerialisation (Fry 2009) seem difficult to relate to mass-market fashion, they do serve to highlight the breadth of design-led intervention, and may point to potential mass-market interventions. Additionally, Fry's philosophy of design, when applied to fashion, can potentially extend the understanding of design in the context of fashion.

To provide a personal context for the research, as a researcher I am commencing the study from the stance that sustainability is a pressing global issue. Additionally, I take the informed position that global warming is a reality. When used within the research question (see pg. 16) the word 'sustainability' already implies that its inverse, unsustainability, is the chief characteristic of the field of enquiry. Therefore, it could imply that as a researcher I enter the field to not only observe and analyse phenomena, but with an agenda to affect change through the research. Hence I am implicitly approaching the field of enquiry with a judgement as to how design in the Australian fashion industry *should* operate, as much as with a view to examine the design phenomenon that *is*. When designing the study, I was conscious that this view had implications for the methodological approach.

With concerns regarding sustainability underpinning the study, the methodological approach could have been to seek to change company practices through applied research. For example, action researchers typically enter an organisation in order to participate directly in the process of change through a series of iterative projects (Levin and Greenwood 2011). Similarly, researchers in the field of social innovation may partner with a company or organisation in order to change practices from within (e.g. see Murray, Caulier-Grice, and Mulgan 2010). In contrast to these approaches, my approach to the research and the research question was

inspired in part by the philosophy of systems theorist Donella Meadows, one of the original authors of the 1972 *Limits to Growth* report.

Meadows' (2008) work is underpinned by social and environmental concerns. Her focus, however, lies in examining the characteristics of complex, non-linear, self-organising systems in order to locate points of intervention. Meadows suggests (2008, 170), "before you disturb the system in any way, watch how it behaves...Starting with the behaviour of the system forces you to focus on facts, not theories". The study of any system (whether one company or the Australian fashion industry as a whole), requires first close attention to be paid to its workings in order to unpack its internal logic, interconnections, and function. Hence my methodological approach is not to 'intervene' in the system in the manner of an action researcher, but to first observe, map, and analyse it. Through first observing and mapping the way in which the Australian mass-market fashion system operates, at both micro (the level of one company) and macro (industry) levels, it becomes possible to analyse the *potential* of intervention for sustainability. Moreover, this approach extends the discussion from the discrete role and practices of a single designer to a discussion as to how his or her processes relate to the wider structure and function of the system in which they exist. This is crucial in order to outline the complexity and nuances of what 'sustainability' may mean within the context of mass-market fashion.

3.1.2 RESEARCH DESIGN

Accordingly, the research has been designed as a series of embedded case studies of market levels and design processes within the Australian mass-market fashion industry, formed through analysis of interview and observation data. The case study, as defined by Robert Yin (2009, 18) is "an empirical enquiry that investigates a contemporary phenomenon in depth and within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident." Case study research converges multiple sources of evidence to build a holistic picture of one unit of analysis ('the case') (Yin 2009, 18). As Robert Stake discusses (2006, 33), this convergence of multiple data sources is known as 'triangulation', and can provide confirmation and assurances for the researcher's findings. Case study research may include the single case, multiple cases, or multiple embedded cases (Yin 2009, 46;

Eisenhardt 1989, 534). The advantage of the multiple case study approach lies in the possibility of direct or theoretical replication thus, as Yin describes, “vastly strengthening [the] findings compared to those from a single case alone” (2009, 61). In turn, the embedded case is a way to explore a smaller unit of analysis within the larger case, allowing for multiple levels of analysis (Eisenhardt 1989, 534).

For this study, the multiple, embedded case study approach was best suited to researching the ill-defined, heteronymous mass-market fashion industry, comprised of many companies competing in a wide variety of pricepoints and niche markets. In order to examine the workings of the industry, I built three case studies of different market levels – fast fashion, discount, and mid-market. Within the market level case studies are one to two embedded (or mini) case studies of design processes within Australian companies operating within that market level. The overall Australian mass-market industry is the ‘quintain’ of the study (Stake 2006, 6), the larger unit of analysis, upon which the sets of embedded case studies serve to illuminate. The research design is illustrated in Figure 3.1, demonstrating the way in which the smaller company case studies are nested within the three main sector case studies of Discount, Mid-market, and Fast fashion. This approach enables a narrowing of focus from the macroscopic (a view of the wider industry) to the microscopic (a view of the workings of a single company). The advantage of this approach is that the study can present a holistic view of the industry as well as presenting the rich detail gathered through the interviews with designers.

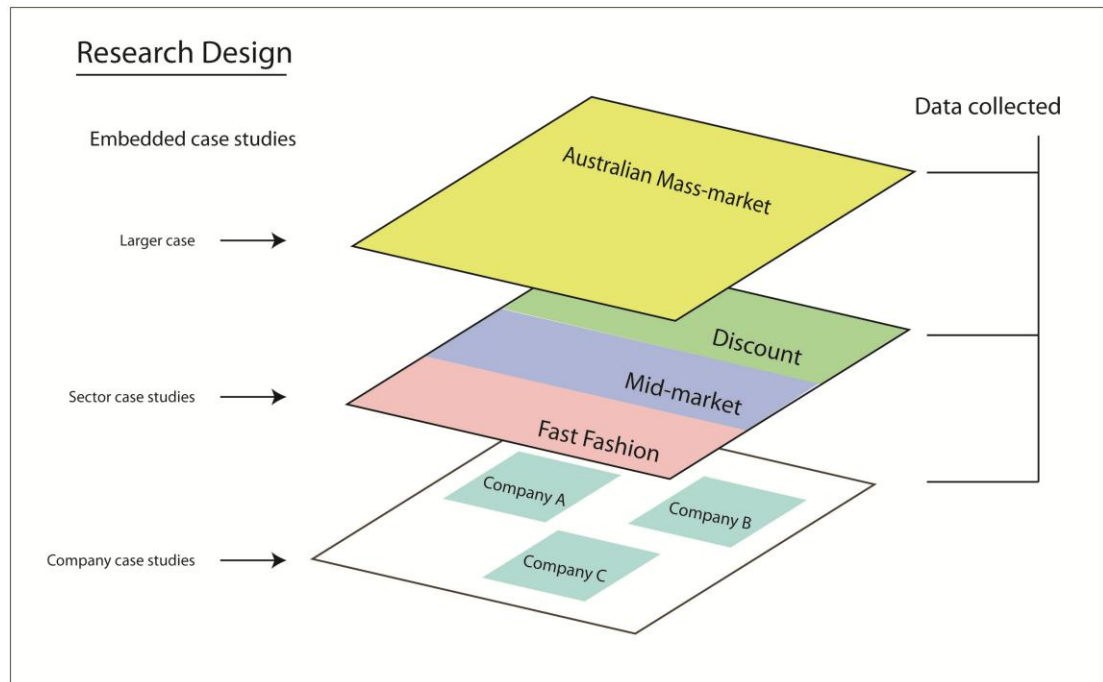


Figure 3.1 Research design: embedded case studies (adapted from Scholz 2002)

To build the case studies, I engaged in varied forms of data collection over 2010 – 2012. Yin (2009, 101) suggests the use of six sources of data in order to build a case study. These are: documentation, archival records, interviews, physical artefacts, direct observation, and participant / observation. Triangulation of these data sources serves to balance the weaknesses of each data source, as well as test the reliability of the findings (Yin 2009, 18; Stake 2006, 33). To varying degrees, all six forms of evidence were used in the project; however, the chief source of primary evidence is the interviews I conducted with mass-market designers. Due to its importance as empirical evidence, the process of selecting the study participants and gathering the interview data is covered in greater depth below.

3.2 PARTICIPANTS

In total, I conducted semi-structured interviews with nineteen designers at three large Australian companies over 2010 -11. The three companies were identified as suitable for data collection by their brand recognition within the Australian market, by their high volume of goods, and by their mid to low price range. The aim was to have a mix of both retailers and wholesalers, as well as both fashion-forward brands

and more conservative brands. Initially, I approached eleven companies via both telephone and email in order to seek their participation in the study. Two refused to participate, two indicated that they would be willing to participate in the future, four were non-committal, and four agreed for me to visit their workplace.

Table 3.1 is a typology of attributes of the four companies who agreed to participate: Companies A, B, C, and D. In selection of case studies Stake (2008, 130) suggests forming a matrix of characteristics of potential cases. This matrix will reveal the similarities and dissimilarities between the cases. Stake (2008, 123) observes that both redundancy and variety are important in selection of multiple cases. In this study of mass-market design processes, it was important to have cases that represented a cross-section of pricepoints, a combination of both retailers and wholesalers, and a variety of product volume (or retail presence). The resulting matrix in Table 3.1 demonstrates the overlap between companies. Some of the four companies offer product across sectors and divisions, some may be both a retailer and a wholesaler, and some may own a number of labels that vary in volume and retail presence. For example, Company C is both a wholesaler and retailer, and one of its labels is mid-to-high volume, while the other two are mid-volume. The typology also reveals the occasional overlap between companies. For instance, Company D overlaps with Company C as a mid-market retailer and wholesaler.

Due in part to this overlap, and to the time and resource constraints of doctoral research, I decided to limit the fieldwork to three companies: Company A, Company B, and Company C. These three companies were chosen due to being representative of a particular market level. The market level of the companies then determined the selection of the three main wider market level case studies.

Table 3.1 Typology of company attributes

Divisions / Sectors		Mid-volume		Mid-to-high vol.		Very high vol.	
	Fast fashion	A			C		B
	Mid-market	C		C / D	C / D		
	Discount						B
	Menswear			D			B
	Womenswear	A / C	C	D	C		B
	Childrenswear			D			B
		BGW	BGR	BGW	BGR	BGW	BGR

In terms of gaining access to the companies, it was important that I could guarantee the companies anonymity. This issue is explored in greater depth in

Section 3.5. It was also initially difficult to move past company gatekeepers who were unwilling or unable to help with my request to interview staff. Significantly, in all four companies, I was fortunate to gain access chiefly through serendipitously making contact with a company employee who was personally concerned or interested in questions of sustainability. In Company A, this was Design Room Manager Hannah. In Company B, it was the sustainability manager, in Company C the design assistant Jen, and in Company D, the personal assistant to the creative director. Of these individuals, Hannah in Company A and Jen in Company C were practicing designers, and expressed genuine concern regarding fashion and sustainability in early phone calls, emails, and then in interviews.

I conducted fieldwork with Company A in October 2010, with Company B in November 2010, and with Company C in January 2011. Before I commenced the interviews, I presented a brief PowerPoint presentation to the design team and other interested parties (included in Appendix C). This outlined the research context and the questions I planned to ask, which, as Jones (2004b, 259) observes, helps to avoid ambiguity in the interviews, as the participant understands the context in which the questions are asked.⁴³ It was a condition of ethical clearance from the QUT Human Research Ethics Committee (approval number 1000000677) that the companies and designers who participated in the study remain anonymous. In the data records and in the thesis, companies are referred to as ‘Company A’, ‘Company B’, and ‘Company C’. Interview participants are given code names. In the interview transcripts, these *noms de plume* are used instead of the actual company and participant names (see Appendix B for list of participants).

The interview protocol was developed after an extensive review of the scholarly literature on design process, sustainable fashion design, and mass-market product development. The interview questions were explorative in nature, designed to be open-ended and to encourage designers to speak frankly regarding their personal views on sustainability and the fashion industry, as well as to discuss and describe their design process (see Appendix A). Three of the interview questions, ‘What is your definition of fashion?’, ‘How do you evaluate your designs?’ and ‘What is good

⁴³ The benefit of first presenting the PowerPoint of research objectives to the design teams came through in the interview with Pete in Company C. He commented that when he saw he was scheduled to be interviewed regarding fashion and sustainability, he thought ‘sustainability’ referred to company sales figures, and imagined that the interview would be an assessment of his performance.

design to you?’ were adopted from the interview protocol of Au, Tam and Taylor’s (2008) study of Hong Kong fashion designers’ processes, as these questions were well-framed to provoke discussion as to how the fashion designers view their role and processes. Due to the mix of specific, fixed questions relating to design process, and open-ended questions relating to fashion design and the designer’s views on environmental sustainability, I designed a semi-structured interview protocol, allowing me to reorder the questions as appropriate, and to ask follow-up questions on particular issues raised by each participant. This semi-structured interview strategy is adopted by Kawamura (2004) in her study of fashion design processes. She recommends the semi-structured interview for its flexibility in allowing hitherto unplanned themes to emerge in the discussion (Kawamura 2011, 73).

The strength of the approach lies in the use of empirical interview data regarding the mass-market design process, an area largely unstudied within the Australian context. However a weakness of the approach is the possibility of interviewee bias, described by John Browne (2005, 125) as ‘courtesy bias’, in which participants tell the interviewer what they believe he or she wishes to hear. Sue Jones (2004b, 259) lists several factors that serve in part to overcome this possible weakness. First, the researcher should clearly outline the research objectives so that the interviewee understands what is being asked. Second, Jones notes that when the identity of the participants remains confidential, they have a greater opportunity to speak candidly. In addition to Jones’ advice, the use of supplementary data sources in the study ensured that designers’ statements were not the only evidence used in the analysis, but rather were triangulated against other data sources.

The use of the same interview protocol at all three companies enabled a degree of replication within the case studies (Yin 2009), as designers’ responses to particular questions could be compared and contrasted; however, the open-ended, semi-structured nature of the questions also meant that some interviews focused on one area over another. Also the interviews ran for uneven lengths of time due to the designer’s individual time commitments – some as brief as 15 minutes, some as long as 80 minutes. This was a possible limitation regarding the reliability of data replication both within and across case studies. However, this limitation was largely overcome through the analytic process of triangulating findings against other data sources and scholarly literature, so that whilst important, the findings from the interview data were always analysed against other sources of evidence.

Company A

Company A is a ‘fast fashion’ Branded Garment Wholesaler (BGW)⁴⁴, stocked in approximately 120 locations across Australia, including department store concessions. The company is a womenswear label, with a customer aged between 16 and 25. The design team I met with oversee three brands, as described in Table 1.2. I interviewed six people involved in the design process, including the design room manager, senior designers, and design assistants (see Appendix C).

Table 3.2 Company A – Fast fashion Branded Garment Wholesaler (BGW)

Company A	Description	Pricepoint	Stockists(approx.)	Similar brand
Label A1	Fast fashion - mainstream	\$35 - \$150	Approximately 300 across all labels	Sportsgirl, Forever New, Topshop, Zara, Company C
Label A2	Fast fashion - denim			
Label A3	Fast fashion – ‘edgier’			

Company B

Company B is a discount Branded Garment Retailer (BGR), with approximately 200 stores Australia wide. The company sells womenswear, menswear and childrenswear. I interviewed ten people involved in the design process, including the senior design room manager and designers in menswear, childrenwear, womenswear, intimates and footwear (see Appendix 1B). Table 1.2 outlines the garment pricepoints.

Table 3.3 Company B – Discount Branded Garment Retailer (BGR)

Company B	Description	Pricepoint	Stockists (approx.)	Similar retailers
Private labels	Womenswear basics, fast fashion, maternity, plus size Childrenswear Menswear Youth wear	All apparel \$5 - \$60 approx.	200 plus retail stores	Rivers, Kmart, Target, Big W, Lowes, Best and Less, Walmart (US), BHS (UK).

⁴⁴ The acronym ‘BGR’ for branded garment retailer was adopted from Aspers (2010a), from which I derived the additional descriptors BGW and NBGW.

Company C

Company C is a mid-market Branded Garment Retailer and Wholesaler (BGR and BGW). It is comprised of three labels: Label C1, C2, and C3, as described in Table 1.3. I interviewed the design team in Label C2, and the head designer at Label C3 (see Appendix 1B).

Table 3.4 Company C – Mid-market Branded Garment Retailer and Wholesaler (BGR and BGW)

Company C	Description	Pricepoint	Stockists (approx.)	Similar brands / retailers
Label C1	Main label – party wear	\$89 - 399	300 plus stockists, 15 stores	Jayson Brunsdon diffusion, Hi There by Karen Walker,
Label C2	Mid-market label	\$89 - 220	300 plus stockists	Country Road, Witchery, Banana Republic
Label C3	Lower mid-market fast fashion	\$59 - 180	300 plus stockists	Company A, Sportsgirl, Forever New, Topshop

3.3 OTHER DATA SOURCES

The case studies were built not only with interview data, but with supplementary data, as described in Figure 3.2 and recommended by Yin (2009) and Kawamura (2011). These included direct observations, archival records, participant / observation, direct observation, and examination of physical artefacts. However the interview data were the chief data source and the collection of other data were used to verify and build upon the interview data.

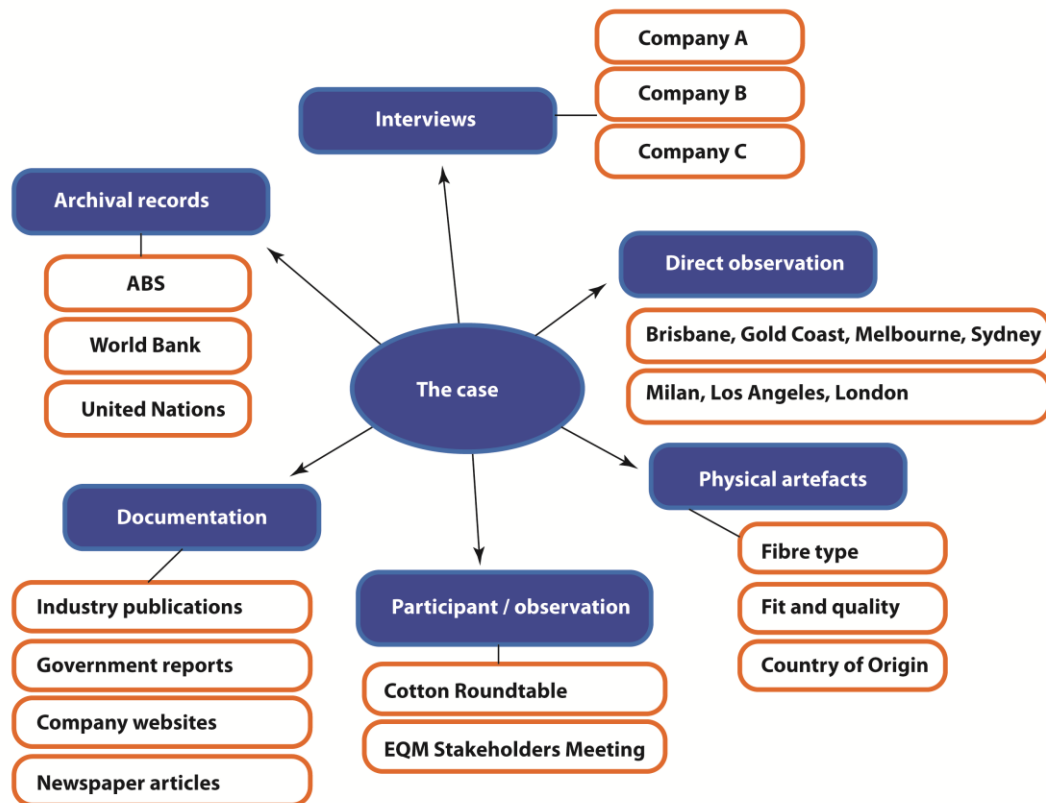


Figure 3.2 Data sources

1. Direct Observations

I conducted two forms of direct observation over the course of the study. The first was observation while in company workplaces. These data were recorded as impressions in the form of fieldnotes and sketches. Some of the observations stemmed directly from the interview experience, some from the visual appearance and impressions of the workplace environment. Once gathered into field notes and reflections, these experiences were a data source and also a crucial component within the analytical process.

The second form of direct observation was in the retail environment, and continued throughout the course of the study. This process involved photographing store fronts, mapping shopping centres relationally (i.e., which stores and which labels sit beside each other), and observing changing fashion trends. I conducted these observations in shopping precincts in Brisbane, the Gold Coast, Sydney and Melbourne. Additionally, I conducted supplementary observations in retail districts

of London, Bath, Los Angeles, and Milan. Although not directly related to the quintain, these observations served to track the movement of fashion trends in different hemispheres. Data were gathered via fieldnotes, tables (see Appendix D), sketches, and photographs.

2. Documentation

Documentation, in the form of both quantitative and qualitative data, was a vital source of evidence gathered over the course of the study. For the Australian industry, I gathered data from industry websites and publications, including the Council of Fashion and Textile Industries of Australia (TFIA), the Australian Fashion and Textile Source and the Australian Fashion Exposed industry websites, and the *Ragtrader* magazine and website. The text gathered as data included editorials, interviews with designers and company executives, press releases, blog postings and comments. The websites and social networking sites of Australian companies were also used as a data source in order to create a picture of the industry: the number of retail stores, company pricepoints, and target customers. Other forms of documentation gathered included designers' emails and sketches, visuals and text from overseas company websites, forecasting material from *Viewpoint* magazine and the Worth Global Style Network (WGSN), and news and articles related to innovations in sustainable fashion.

3. Archival records

For quantitative data on the Australian fashion industry, including retailing, wholesaling, and manufacturing figures, I relied upon statistical sources such as the Australian Bureau of Statistics and the Australian Retailer's Association. Additional sources of quantitative data related to the fashion industry, as well as to wider issues of social and environmental sustainability, were drawn from the National Bureau of Statistics of China, The World Bank, and the United Nations Statistics Division.

4. Physical artefacts

The materiality of fashion garments, as a crucial theme of the study, meant that mass-market garments were an important data source. Data were gleaned from observation, handling, and analysis of garments – an activity carried out in tandem with the direct observations in the retail environment. This involved examining the

garment's fit, construction, fibre content, and country of manufacture. Additionally, this form of analysis was used in conjunction with observation and documentation, in order to track the intangible influence of fashion trends on the material garment. The data were collected in the form of sketches, fieldnotes, and photographs of the garments, and data collection was ongoing throughout the study.

5. Participant / Observation

Attendance and participation at a number of industry events also aided the study, providing me with first-hand insights into the challenges facing the Australian industry. For example, I was an observer and participant in the Ethical Quality Mark Stakeholders meeting in Melbourne in May 2011. Other participants were manufacturers, wholesalers, retailers, designers, union representatives, and sustainable fashion advocates. I was also an observer and discussant at the Australian Cotton Researchers meeting roundtable, held in Sydney in March 2012. Other participants included cotton farmers and processors, agriculture researchers, supply chain experts, and cotton merchants. Data on these events were collected in the form of fieldnotes.

3.4 ANALYSIS

The first analytical activity involved mapping the wider Australian mass-market and identifying market sectors. This was achieved through the analysis of a combination of quantitative and qualitative data. Individual market sectors in Australia and overseas were mapped by comparing pricepoints with retail presence (see Appendix D). Quantitative data were gathered through retail observations in which I collected and averaged pricepoints (see Appendix D) and used company's figures of stockists to gauge retail presence. Qualitative data from industry reports and analysis helped to divide the Australian market into sectors such as 'mid-market' (Roberts 2008), 'discount' (Rajakumar 2009), 'Branded' and 'Non-branded' (The Hub 2010).

The chief analytic strategy was triangulation of the multiple data sources. Stake (2008, 133) defines triangulation as "a process of using multiple perceptions to clarify meaning, verifying the repeatability of an observation of interpretation." In essence, this meant that throughout data collection, I verified every data form against

other data forms. Through interviewing multiple designers in one company, I could compare and contrast the views of individual designers regarding both design processes and sustainability. I could also do this across companies. As all three companies had a fast fashion offering, the views of individual fast fashion designers could be compared with fast fashion designers from other companies.

Due to the large quantity of interview data gathered, I relied upon NVivo qualitative data software to store and sort the transcribed interviews. NVivo was chiefly used to code the questions asked of designers, rather than to develop theoretical codes. The long process of interview transcription was the beginning of the analysis, as while transcribing I reflected upon the designers' statements and concerns in journal entries within NVivo, a process recommended by Pat Bazeley (2007). As such, the analysis flowed chiefly from the empirical interview data. Initially within NVivo, I coded the data according to the interview protocol questions, and then used text searches to locate instances of discussion relating to themes such as 'brand', 'trends', and 'fashion'. From these broad themes I narrowed down to specific topics that occurred across the interviews, first within the interviews from each company, and second from across all three companies. I created codes including 'factories', 'speed', 'China', 'waste' and 'customer'.

From the interviews at each company, I identified particular themes that were company-specific, and yet suggested an approach for building the wider case study of that company's market level. These themes emerged through multiple drafts of each case, triangulating the interview data against the academic literature and against the supplementary data sources. For example, the less fashion-forward approach of mid-market level Company C, coupled with their higher pricepoints, drove the central theme of the mid-market case study, namely the influence of intangible brand identity and positioning in determining a company's potential approach to environmental sustainability. Identifying this theme was an iterative process: in the first drafts I took a descriptive approach to the embedded case study of Company C's design process, before turning then to other data sources to check the interview findings against other mid-market developments. The synthesis of the various data sources helped to shape the case study of the wider mid-market. From here I returned to the embedded case to re-examine the theme in light of the new evidence.

This triangulation process of multiple data sources and literature helped maintain the rigour of the research as through constantly testing the interview data against

other data sources, new insights emerged. An example is the fast fashion case study in Chapter 5. Here designers at Company A describe themselves as ‘fast fashion designers’, while the scholarly literature on fast fashion seemingly contradicts this, as Company A bears little resemblance to definitions of fast fashion in either speed or scale. From this apparent disparity in definitions of ‘fast fashion’, a synthesis emerged for the wider fast fashion case study: namely, an analysis as to how Australian companies adapt global fast fashion strategies to suit the needs and structure of the peripheral Australian market. This theory was tested against the supplementary data sourced from retail observations and documentation.

For the embedded case studies of design process, I triangulated the statements of designers within each company in order to build a map of the timing, activities, and actors within each company’s design process. The development of these maps involved a process of first writing a narrative of design activities, based on the transcribed interviews from participants, and then assembling a visual representation of these activities, illustrated in Figure 5.5, Figure 5.6, Figure 6.3, and Figure 7.4.

The final stage of the analysis involved a cross-case analysis of the sets of case studies, in which I developed a theory relating to intangible design objects, design process, and environmental sustainability in the mass-market fashion industry. According to Eisenhardt (1989), the process of building theory from case studies involves the continual testing of an emergent theory, or ‘construct’ against the data. Maintaining a close fit between theory and data “is important to building good theory as it takes advantage of the new insights available from the data and yields an empirically valid theory” (Eisenhardt 1989, 541). Again, the process was iterative, and involved writing and re-writing the case studies, re-examining these in relation to the literature, and then identifying the similarities and differences between each case. This process enabled a theory (or construct) to emerge: fashion’s intangible design objects and their role in the design process. Testing the emergent theory required returning to the literature, re-examining the interview data and other data forms, and refining the analysis as a result.

The research design of multiple embedded case studies enabled a focus on both the particular (the design process of one company) and the general (the structure of and processes within the larger market sector). The thesis structure follows the research design, with chapters structured according to the embedded case studies, as illustrated in Figure 3.3. Combined, the multiple case studies build a larger picture of

the Australian mass-market fashion industry, and allow for an emergent theory as to the limitations imposed on designers by pre-designed tangible and intangible objects, and the implications of these for potential responses to environmental sustainability.

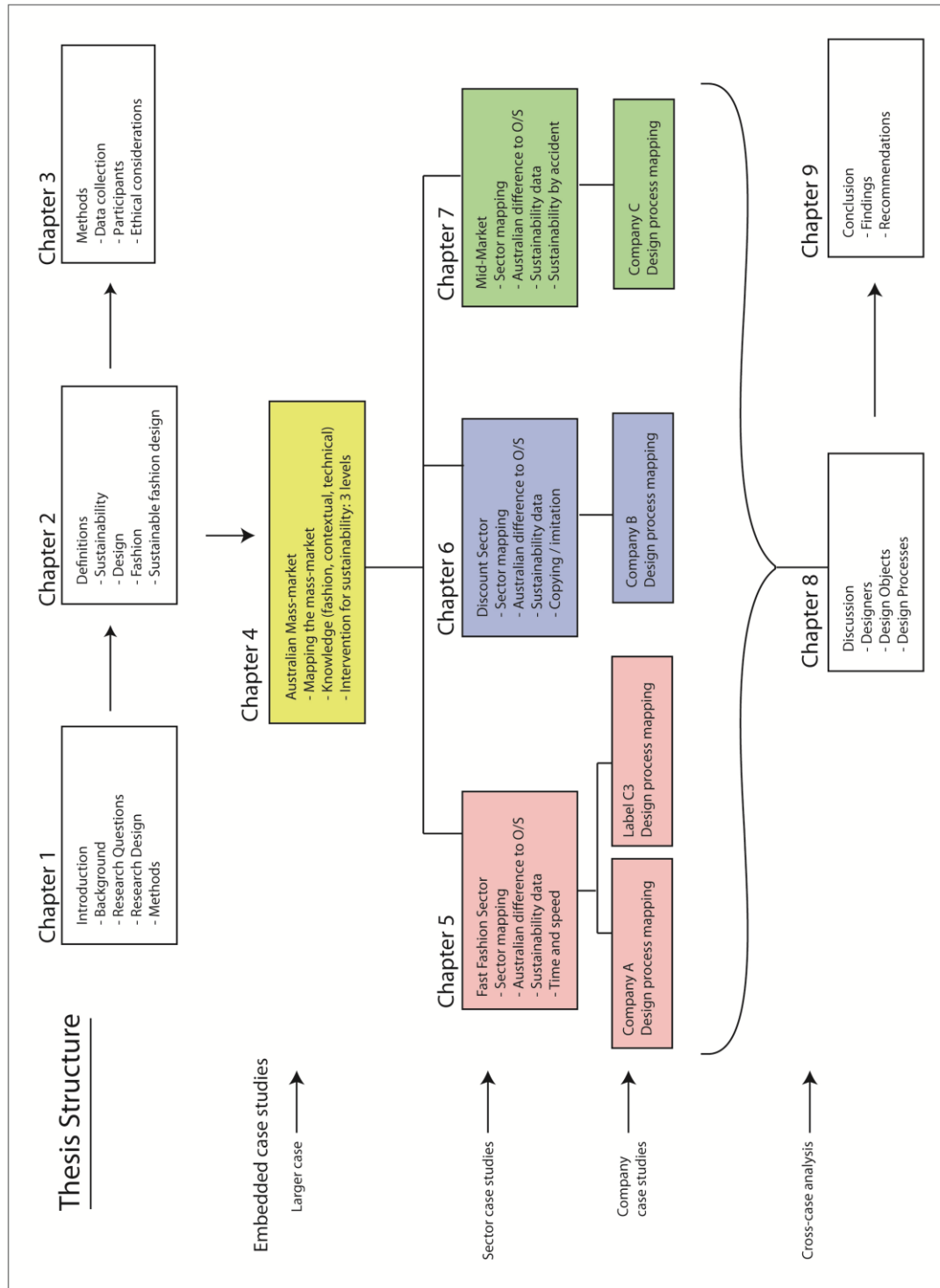


Figure 3.3 Thesis design

3.5 ETHICAL CONSIDERATIONS

As a researcher within QUT, I was required to abide by the university's code of conduct for researchers. I received ethical clearance in July 2010. During this process, I submitted drafts of my first contact emails, list of questions for semi-structured interviews and all the material I would give to prospective participants. Companies who participated will be kept anonymous, and all data associated with them has been monitored for specifics that could reveal the company's identity (e.g. logo or brand name descriptions). In the data records and in the thesis, companies are referred to as 'Company A', 'Company B', and 'Company C'. Interview participants were given code names. In the interview transcripts, these nom de plumes were used instead of the actual company and participant names. In order to develop the context of the Australian fashion industry, other data were also gathered from websites and publications relating to the industry. If this publicly-available data related to, for example, Company A, then it was discussed using the company's real name and not linked or coded to the Company A interview transcripts. This ensured that the publicly-available data which supports other parts of the research project cannot be linked to the data gathered from the fieldwork, thus ensuring the anonymity of the company.

The decision to protect the identity of the companies and participants was made in order to allow designers to speak candidly regarding their design processes, and their opinions on sustainability. Additionally, as will be seen in later chapters, the fraught issue of copying and imitation in the Australian fashion industry means that many companies would be unwilling to expose their internal processes to public scrutiny. Also, designers may have felt guarded or uncomfortable talking about their employer if the information were to be made public. Although this research project was deemed low risk, it is important that both companies and participants have their identity protected.

3.6 CONCLUSION

The multiple case study approach is an appropriate one when attempting to map a large and complex system such as the Australian fashion industry. The key to this

methodological approach is the primary data gathered through recorded and transcribed interviews with designers at three Australian companies, coupled with direct observation in the retail environment and analysis of material garments. Secondary sources included industry reports and a literature review. The case study approach allows for the convergence of these data sources in order to ensure the rigour of the research and the validity of findings. Particularly, the multiple case study approach enables three key market sectors of the industry to be examined, and within these, a company's design processes. The following chapter will now turn to the site of the study to examine literature and empirical data relating to the operations of the Australian industry.

Chapter 4: The Australian Mass-market Fashion Industry

The Australian fashion industry is this study's site for the exploration of design, fashion, and sustainability in the mass-market. This chapter will provide an overview of the mass-market fashion industry and its key characteristics and challenges. It is important to begin by noting that the local fashion industry has undergone radical structural shifts in the past thirty years. These were due in part to reductions in tariffs and quotas on imported clothing, allowing a greater amount of product to be manufactured offshore (see van Acker and Craik 1993; Webber and Weller 2001; Kellock 2010). Another shift in retail channels is currently underway, as local retailers struggle to adapt to the changes wrought by the growth in online retailing (King 2011). At the same time, regarding sustainability, the past thirty years have seen a heightened awareness from government and consumers in the need for accountability on the part of companies. The focus has been chiefly labour conditions for apparel workers (for example, see Diviney and Lillywhite 2007; Weller 2007b). This has led to Corporate Social Responsibility (CSR) reporting in many of the larger fashion companies. Concerns regarding both environmental and social sustainability are likely to intensify in the decades ahead, and the local fashion industry will necessarily evolve again in response. As an example, in 2012, the Australian Government (2011) imposed a carbon tax on the top five hundred biggest polluting Australian companies, the effects of which will likely flow throughout the economy and impact fashion companies and fashion consumers in higher prices.

The aim of this chapter is to examine the wider context of the Australian fashion industry before conducting the in-depth analysis of individual market sectors in the successive chapters. The first task of this chapter is to mark out and map the site of the study – the industry's scale and its particularities as a peripheral fashion industry within a globalised fashion system. Following from the industry mapping, the chapter will discuss the forms of knowledge required to design fashion – whether fashion's material or immaterial objects. These forms of knowledge include contextual knowledge (Aspers 2006), fashion knowledge (Weller 2007a; Entwistle

2010) and technical knowledge. The interrelationship between these three forms of knowledge, particularly when held by different actors dispersed throughout the value chain, impacts on how effectively companies may respond to questions of sustainability. Finally, the chapter will explore how mass-market companies in Australia have responded to environmental and social responsibility to date.

4.1 STRUCTURE OF THE AUSTRALIAN MASS-MARKET FASHION INDUSTRY

A conventional definition of Australia's TCF industries includes the early stage processing of leather and fibre, through to textile production and finishing and then to transformation of these into products, requiring tasks such as design, patternmaking, cutting and machining (Productivity Commission 2008). Under this definition, Australian TCF manufacturing employs approximately 48,000 workers (Green 2009) and accounts for \$6.93 billion, or 6.2 per cent of total manufacturing (ABS 2012a). However, Roy Green observed in the TCF review *Building Innovative Capability*¹ that this definition required expansion to include TCF wholesaling, retailing and some fashion business services (2008, 22). Under this expanded definition, the sector employs an additional 160,000 workers and adds an additional \$7.5 billion in value (Green 2009). Of this, according to ABS 2007 figures, TCF clothing and footwear wholesaling and retailing employs over 114,000 workers (Green 2008, 22), while clothing retail in 2011-12 was over 18 billion dollars (ABS 2012b), comprising the vast bulk of output in the expanded TCF industries.

According to the Green review (2008), 86 per cent of the TCF industry is comprised of small to medium enterprises (SME)², while the remaining 14 per cent of businesses are large entities controlling 50 per cent of the market share. Within clothing retail, market dominance by large entities is even higher, with department stores accounting for 40 per cent of all apparel sold, specialty stores accounting for a further 40 per cent, and the remaining 20 per cent sold by independent retailers (Green 2008). Currently, the overall Australian clothing industry is divided into

¹ Hereafter referred to as 'the Green review'.

² In Australia, a SME is now defined under the 2009 *Fair Work Act* as having less than 15 employees.

many specialised categories, with some 13,000 retail businesses targeting a growing number of niche markets (IBISWorld 2012). However it is difficult to gauge what proportion of this data accounts for fashion apparel as opposed to more basic forms of apparel, such as protective clothing or uniforms.³

Although many of these companies operate only in the Australasian markets (apart from notable exceptions such as Billabong and Rip Curl), they dominate in them. In fact, Australia is uniquely placed in the developed world in that a number of the world's largest apparel retailers such as Uniqlo and Hennes & Mauritz (H&M) have yet to open in Australia. While Zara, Gap, and Topshop entered the Australian market in 2011, their presence is still small (under six retail outlets each). In fact, as apparel analyst Zaena Miller (2011) states, Australia's nine top apparel retailers are all local companies. Miller adds that Australia is "one of the few countries to have this number of domestic players in leading positions" (2011). In contrast, Nike, the world's leading apparel company, sits in 10th place in the Australian market. This has allowed for quasi-monopolies of national companies in the local industry, which in turn has impacted on design processes. This will be discussed further in Sections 4.2 and 4.3.

4.1.1 MARKET MAPPING

A general guide to the market levels of the Australian fashion industry is displayed in Table 4.1, while a more in-depth look at the mass-market clothing industry can be seen in Figure 4.3. Here, the major players in the local industry have been mapped in relation to pricepoint and market presence. As this mapping does not include Australian high-end designer brands, the upper pricepoint for premium brands is approximately \$200 for a garment. In addition, this map reveals a strong womenswear focus, largely due to the higher number of fashion retail outlets aimed at women. This map is not representative of the entire 14 per cent of large companies; however it represents the major brands at issue, whether retailer brands or wholesaler brands.⁴ Based on this map, pricepoints range from an average of \$17 (SES) to \$204 (Veronika Maine) per garment. This is a considerable price range, and

³ Arguably uniforms have fashion content as well.

⁴ Private label brands (e.g. Piper or Regatta for Myer, or Max or Hot Options for Target) have been mapped under the name of the retailer, not the brand.

as such the market levels are divided further into upper mid-market, mid-market, lower-mid market and discount. Within these boundaries, categories such as ‘evening’, ‘sportswear’, ‘surfwear’ or ‘fast fashion’ may span a number of market levels.

Table 4.1 Fashion market levels - Australia

	Fashion Market Levels	Brands
Luxury, high-end, hand-made, designer	Haute couture	None in Australia
	Ready-to-wear	Akira Isogawa, Collette Dinnehan, Toni Maticevski
Mass-market	Premium	Gorman, Sass & Bide
	Mid-market (BGR & BGW)	Sportscraft, Witchery, RTW diffusion labels, Country Road
	Lower-mid market fast fashion (BGR & BGW)	Sportsgirl, Portmans, Forever New
	Discount market (BGR & BGW)	Cotton On, Supre, Target, Kmart
	Non-branded market* (NBGW)	Unbranded clothing, typically sold cheaply in small boutiques, market stalls, large clearance outlets
*not examined in this study		



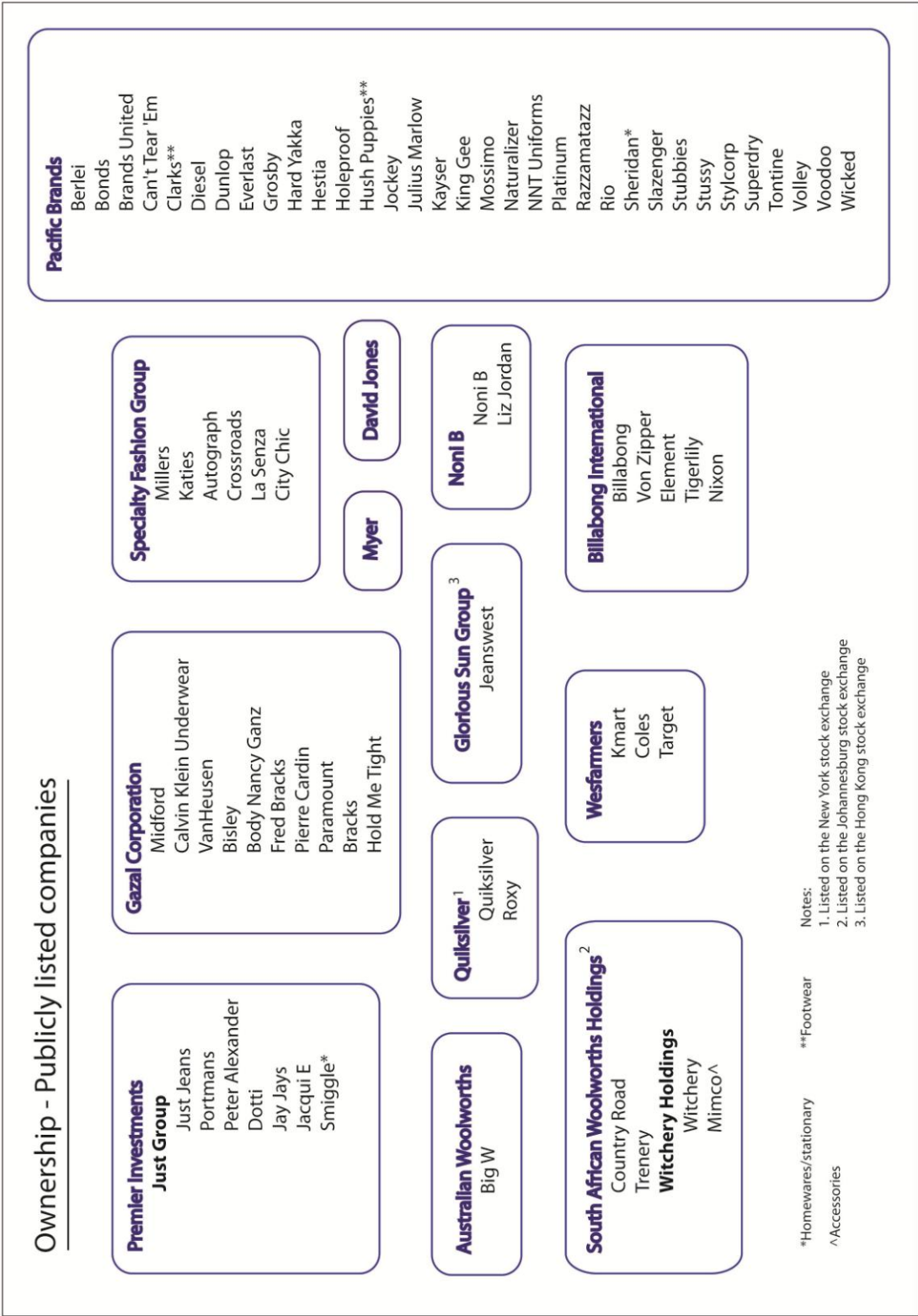
Figure 4.1 Australian mass-market map

4.1.2 OWNERSHIP

At most market levels, the Australian fashion industry is notable for its concentration of ownership, as illustrated in Figure 4.2 and Figure 4.3. Without the pressure from multinational retailers, Australian companies, or groups of companies, have enjoyed a more predictable retail environment, and could stake out oligarchies in particular market segments (for example the Just Group in youth wear, Wesfarmers in discount, or Sussan Group in womenswear). Although many brands remain privately owned (see Figure 4.3), they are owned by private equity groups who own a portfolio of fashion brands – for instance the PAS Group, or the Pretty Girl Fashion Group.

The mass-market fashion industry is therefore a quasi-monopoly, with many companies that were formerly manufacturers (pre 1980s and 1990s) evolving in the twenty-first century into brand managers that each control many local labels (Weller 2007c). A notable example is Pacific Brands that controls many iconic Australian brands such as Bonds (see Figure 4.2). Conglomerates such as Pacific Brands give their brands a competitive advantage as they have greater access to market intelligence, finance, and can share overheads. For Australians however, the dominance of conglomerates in the local market can also mean less choice. Within one conglomerate, they may appear to diversify aesthetics and market niches, but in reality the conglomerate controls taste, pricepoint, and, as will be discussed later, the kinds of innovations required to consider sustainability.

The Australian conglomerates are not so different from conglomerates overseas; for instance, Philip Green's Arcadia Group (Topshop, BHS, Dorothy Perkins etc.) dominates the UK high street, while Inditex's suite of brands dominate globally. Similarly, the global luxury sector is dominated by Louis Vuitton Moet Hennessey (LVMH) and Kering (formerly known as PPR or Pinault-Printemps-Redoute), each owning many luxury brands that are superficially in competition with each other. One key difference, though, is that Australian conglomerates only dominate in Australasia. Additionally, as the Australian market has effectively been isolated for so long, local companies could afford a degree of complacency as the world's biggest fashion conglomerates ignored this peripheral market. Importantly, this is now changing as overseas players such as Zara, Gap, and Topshop begin to enter the Australian market.



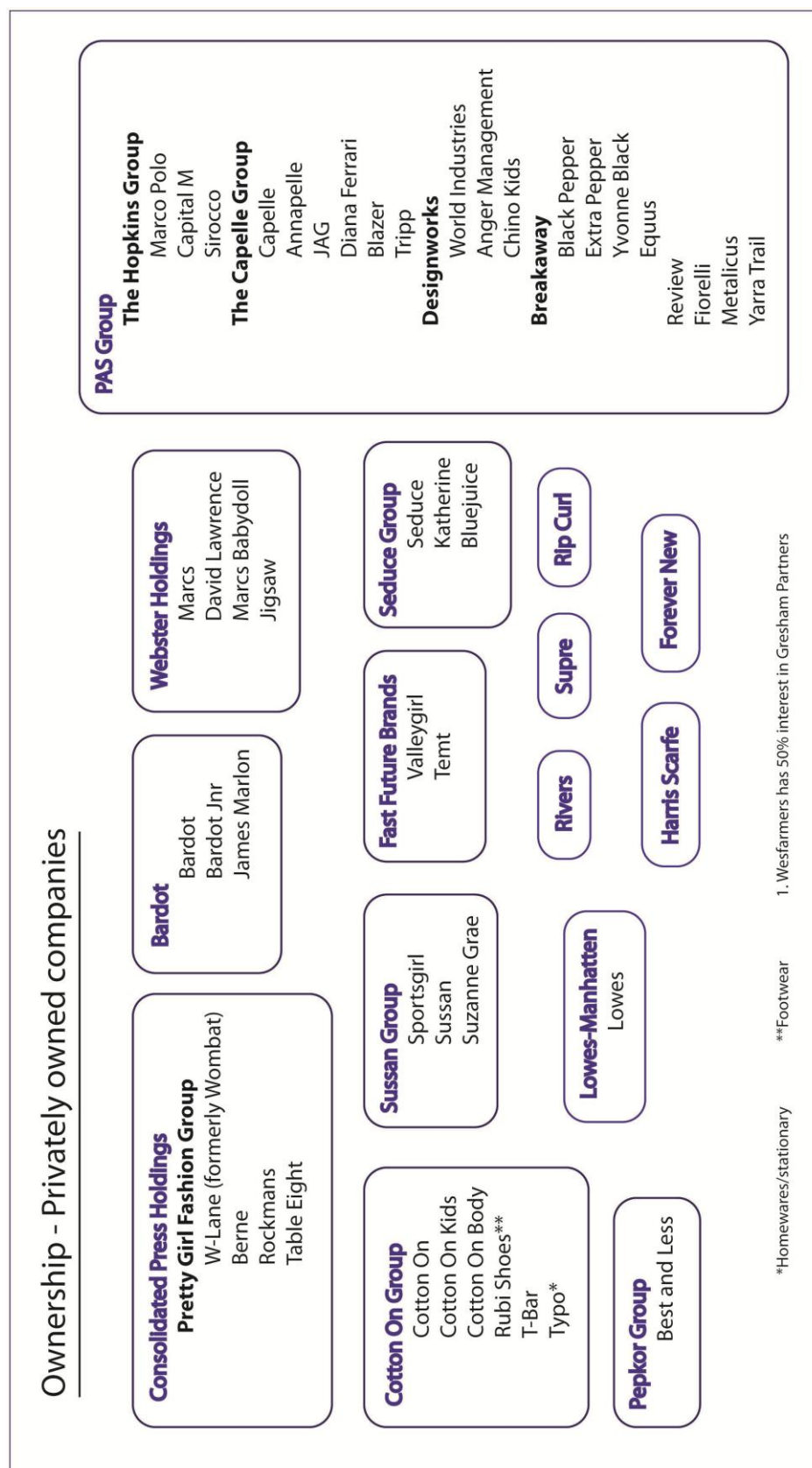


Figure 4.3 Ownership – Australian clothing industry – privately owned companies

4.1.3 INDUSTRY RESTRUCTURING

A crucial theme of the Australian TCF industries is the significant upheaval caused by the restructuring of the manufacturing sector from the 1980s onwards. Prior to the 1980s, the Australian Textiles, Clothing and Footwear (TCF) sector was protected by quotas on imports of overseas products (Kellock 2010). This quota system was dismantled under Free Trade Agreements of the 1980s and 1990s. As a result, tariffs on imports were reduced each year from 1993. In order to remain competitive, the 1980s, 1990s and 2000s saw growing numbers of Australian companies move their manufacturing offshore as prices became competitive. One factor that triggered offshore production was the opening of China's economy to the world by Deng Xiaoping in the late 1970s. Australian companies, because of their geographical proximity to China, were well-placed to take advantage of tariff reductions and establish relationships with Chinese suppliers (Lindgren, Sinclair and Miller 2010, 600). With the Chinese currency kept artificially-low, China has remained highly competitive, and since the 1980s has become the world's major supplier of textiles, clothing and footwear (Gereffi 2005, 24). The offshoring of TCF manufacturing, by de-facto, dismantled Australia's clothing and textile manufacturing industry. Australia was one of the first developed countries to reduce tariffs in the textiles, clothing and footwear sector (TCF) and enable overseas imports, well before the rest of the world opened their markets to globalisation (Weller 2007c). Hence for over two decades, Australians have increasingly depended on overseas manufacturing, particularly from China, to meet their clothing needs. A report from TCF industry analyst Cathy Hewish predicted that in the 2010-11 period 77.7 per cent of the womenswear market would be manufactured overseas. This has risen from 53 per cent ten years ago (O'Loughlin 2010a).

The aim behind the liberalisation policies of the past thirty years was to encourage Australian industries to compete where they had comparative advantage. As a high-wage economy, the Hawke government believed that Australia was best-placed to compete through harnessing natural resources (mining, agriculture) and value-adding, knowledge-based activities such as design and research and development (R & D) (Webber and Weller 2001). The TCF manufacturing sector no longer made economic sense. Under the Hawke, Keating, and Howard governments, the TCF sector received on-going government support to aid in the restructuring so that non-competitive companies could transform their operations (Productivity Commission

2008). As an example, the biggest Australian TCF manufacturer at the time, Pacific Dunlop, transformed into Pacific Brands, winding down on-shore manufacturing and, as described earlier, instead transforming into a brand manager with a portfolio of fashion labels (Weller 2007c). However, under the Rudd government, there was renewed focus on the current and future position of Australia's manufacturing sector. In 2008, the Rudd government commissioned the Green (2008) review of the TCF sector as part of a National Innovation Scheme, commended to examine the future of the wider Australian manufacturing industries.

A number of the Green Review's recommendations were adopted by the Australian Government, with a policy focus to invest in specialised manufacturing such as rapid prototyping, and to encourage innovation in design and in R & D (Australian Government Department for Innovation 2012). To this end, the Australian Government established a TCF Innovation Council in order to consult with industry and to promote the policy agenda. Companies deemed innovators in the Australian TCF reveal the emphasis on value-adding through R & D and niche manufacturing. Four exemplars of innovation within the TCF are featured on the TCF Innovation Council website. These include companies involved in defence force apparel manufacturing, carpeting, non-woven textiles and footwear (Australian Government Department for Innovation 2010). None of these featured innovators are involved in *fashion* apparel.

Strategies to renew the fashion sector of the wider TCF industry also focus on innovation with funding grants rolled out throughout 2010 - 11 (Australian Government Department of Innovation 2010). Recipients of major grants in the first two funding rounds were the Council of Fashion and Textile Industries of Australia (TFIA) and RMIT in partnership with Australian Defence Force Apparel. Grants to businesses were focused largely on the SMEs, with grant recipients including designer labels such as Ellery, Dion Lee and Romance Was Born (*Ragtrader* News 2012a). The designer labels of Australia are aligned to the broader policy aims of the TCF industry agenda in that local design and innovation is rewarded and nurtured in order to strengthen the areas in which Australian fashion can compete globally – in knowledge, design innovation and in R & D. This focus was also seen in the collaboration between the TFIA, the Australian Government and the Kangan Institute to establish the Hub, a space aimed at emerging designers in which they can access

digital and 3D printers and other rapid prototyping technology (*Ragtrader News* 2012b).

In this new conception of the revitalised TCF industries, Australia's mass-market retailers and wholesalers have little contribution to make. While fashion clothing, footwear and accessories retailing has sales of over \$19.2 billion per year, comprising 7.8 per cent of all retail (Ernst & Young 2012), mass-market fashion holds no comparative advantage for Australia long term. As the fashion sector becomes increasingly about intangible brand identity, the upcoming designers that the TFIA hopes to foster through the Hub will not be about selling garments so much as selling lifestyle and branding Australian design. The TFIA's strategy has clear parallels with the creative and cultural industry strategies identified by O'Connor (2007), in which post-industrial nations are best placed to compete on intangible, cultural value-adding, rather than in manufacturing material goods. While the niche designers may collaborate with the mass-market,⁵ the larger chain stores do not innovate in design. What they do, to varying degrees of success, is bring affordable, trendy clothing to the mass consumer. However, even this one aspect is under threat.

4.1.4 RETAIL PERFORMANCE

Fashion sector retailing has suffered for some time; between 2005 and 2012, the sector shrunk by 0.7 per cent (IBISWorld 2012). In 2011, bricks and mortar retail was at its lowest ebb in Australia since 1962 (Ryan and Gluyas 2011), and across the fashion market, clothing was reduced up to 70 per cent of the retail market. Local labels were affected by the rising fibre prices (not only cotton but polyester of cotton quality) as well as rising Chinese manufacturing costs (Stockdill 2010). In addition to this, a growing number of consumers⁶ are choosing to buy clothing online from overseas e-tailers, as clothing prices in Europe and the US are lower than in Australia especially so while the Australian dollar is strong (King 2011). This trend is likely to continue, suggesting that Australian retail may effectively be offshored just as

⁵ Examples of these collaborations go back to the mid-2000s, with Kit Willow collaborating in 2006 with Portmans.

⁶ The Australian Bureau of Statistics (ABS) does not currently collect data on online retail, however the Productivity Commission (2011, 73) estimates that in 2010, online sales accounted for six per cent of total retail transactions. The Commission anticipates this to grow ten to fifteen per cent per annum over the following three years.

manufacturing was twenty years ago (McCarthy 2011). Australian companies already impacted by this ‘perfect storm’ include the Colorado group, which went into receivership in 2011. Also, Premier Investments announced in 2011 that fifty Just Jeans stores would close Australia wide during 2011 – 12 (Speedy 2011).

The mid-market level was also hit by the difficult retail climate. In 2011, further fashion retailers went into administration, including Fletcher Jones, Ed Hardy, Barkins, Bettina Liano, Satch, Belinda International, Baubridge & Kay, Zambelli Retail and Brown Sugar (*Ragtrader* News 2011a). The two major department stores, Myer and David Jones, each posted recent losses, with profits in their second quarter of 2010-11 down up to twenty per cent on the previous year (AAP 2011). David Jones, in particular, is struggling, announcing major restructuring in 2012. These circumstances are predicted to continue into 2012 -13, with a report commissioned by the National Retail Association finding that some 30,000 jobs are threatened in the retail sector due solely to the pressures of online retailing (Ernst & Young 2012). These retail figures suggest that the industry is currently undergoing another wave of restructuring, as bricks and mortar retailers are replaced by online counterparts, whether onshore or offshore. Similarly, the entry of global brands such as Topshop and Zara is an additional challenge for the industry. Globalisation, which brought the advantage of cheap offshore labour to Australia’s big retailers, may have a sting in its tail, as the oligarchic national brands of the Australian fashion market are exposed to far greater competition. In order to explore globalisation and the Australian TCF sector further, the next section will outline the sourcing practices of local brands.

4.2 MASS-MARKET SOURCING PRACTICES

As discussed in Section 2.3.4 (pg. 64), the fashion design and production processes typically follow a progression from design inspiration, sketching, fabric sourcing, prototyping, fitting and final samples (Burns and Bryant 2007; Carr and Pomeroy 1992). In actuality, the multifarious ways in which a company may acquire product may bear only a passing resemblance to this process, as various design tasks are dispersed throughout the apparel value chain. Nonetheless, the product is clearly designed – the question is, by whom? This section discusses the various ways in which product is sourced within the global apparel market, before honing in on how this operates in the Australian context.

4.2.1 TYPES OF OFFSHORE MANUFACTURING

Before examining the Australian case in detail, it is first necessary to outline how the global apparel industry acts as a means to industrial upgrading within a developing nation. From a wider perspective, Australia and other developed economies' decision to offshore manufacture through market liberalisation had a profound impact on developing economies. Value chain expert Gary Gereffi observes that "apparel is the typical 'starter' industry for countries engaged in export-oriented industrialization" (Gereffi 1999, 37), the first rung on the ladder for a developing country to upgrade economically. According to Gereffi, this process begins with outsourced factory work, or Cut, Make, Trim (CMT) services, where an apparel company provides the design, fabric and pattern, while workers in a developing country fabricate the garment. In time, the developing country's workers and factories are able to upgrade to the next step, known as Original Equipment Manufacturing (OEM). Now the businesses in the developing country are able to offer a wider service that may include sourcing of fabrics, supply chain management, packaging, finishing and distribution. From here, as companies grow more expert, they can turn to product design as well as manufacturing, or Original Design Manufacturing (ODM). The final step in the upgrading process is to develop to Original Brand Manufacturing (OBM). There is a clear hierarchy at work, with the manufacturing of fashion apparel at the bottom, through to supply chain management and finally to the intangible knowledge and innovation required to build a successful fashion brand.

Upgrading positions design as the key to this value-adding. The design tasks are a higher order of innovation, in that they add the symbolic and aesthetic values that the garment requires. As discussed in Chapter 2, there is therefore a clear hierarchy between the skills necessary to develop a garment, compared to the skills necessary to transform this into a 'fashion' garment. However, Gereffi's model of upgrading as a path to economic development is predicated on scale, i.e. high volumes of material throughput. It also implies only one mode of economic development for a nation, a point contested by more radical movements such as de-growth, as explored in Section 2.1.3. Alternative models of economic development, within a framework of strong sustainability, are proposed by the Fair Trade movement, in which workers' rights are central, and the focus is on building sustainable and resilient enterprises, predicated on quality rather than quantity (Minney 2011).

Following Gereffi, in one sense, the globalisation of the garment industry has brought wealth and opportunities to developing countries that initially could only offer the world a large and cheap workforce. In the 1970s, consumer goods may have been made in low-wage economies such as Taiwan, Singapore and Hong Kong, but by the 1980s these countries had upgraded and progressed to value-adding activities. China is currently undergoing this process, with countries such as Bangladesh and Cambodia stepping up as CMT manufacturers while Chinese companies are established OEM providers, and now upgrading to ODM and OBM activities. These opportunities, at least in theory, represent two of the three pillars of sustainability – i.e. economic growth enabling development and (to varying and contested degrees) improving the social welfare of a country’s inhabitants (Mitchell and Coles 2011). However, the third pillar of sustainability, namely natural capital, was and continues to be eroded by the intensive growth in globalised industrial manufacturing⁷.

With China providing a full supply chain service, increasingly apparel companies may not design in-house and instead buyers and merchandisers may choose product from a number of suppliers, following an ODM model.⁸ ‘Network orchestrators’ such as Hong Kong based sourcing agents Li and Fung mediate these exchanges, connecting companies with CMT factories and offering services that cover the entire supply chain, ranging from textiles sourcing through to product design, development and manufacture (Mihm 2011; Kapner 2009). Figure 4.4 (adapted from Mihm 2011) illustrates the breadth of supply chain options, ranging from the fully vertically integrated model of Zara, through to the ‘house brand’ where product is designed in-house, then through to complete external sourcing in which all product is selected by buyers. Although Mihm proposes this diagram for the fast fashion model (see Chapter 5), the diagram also fits the model of other sectors in the Australian market (Weller 2007c). Generally, the cheaper ‘discount’ tier brands (whether wholesalers or retailers) are more likely to be towards the right side of the diagram, where they may not design or develop product in-house but instead rely on suppliers who may distribute the same or similar product elsewhere. In contrast, in the higher market

⁷ Much evidence supports this, for example, the Aral Sea’s decimation due to cotton production (Allwood et al. 2006), as well as the pollution of Chinese waterways by the textile industry (Friends of Nature et al. 2012).

⁸ This is particularly common in fashion footwear, in which a supplier may supply many brands with the same shoe design (‘blanks’) and the company will simply add their own logo on the inside.

levels product is more likely to be designed or developed in-house in order to establish a design point of difference and inject the brand ‘DNA’ into the product.

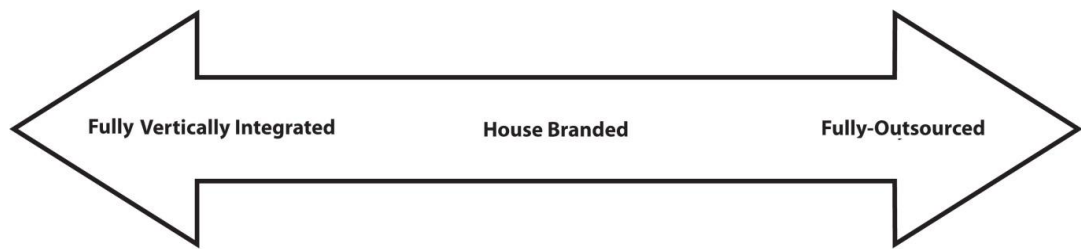


Figure 4.4 Degrees of outsourcing within fast fashion (adapted from Mihm 2011)

4.2.2 THE AUSTRALIAN CASE⁹

Weller has established that the sourcing practices of the Australian mass-market clothing industry operate somewhat differently from those apparel companies in the US or Europe. Weller identifies four types of clothing retailers (Table 3.1). Under Weller’s analysis, the majority of garment styles are designed by overseas chains before being adapted for the Australian market a season later, with the process mediated by Hong Kong agents.

Table 4.2 Four types of product in Australia, adapted from Weller (2007a)

Weller’s four types of clothing retailers	Examples (added by Payne 2012)
International retailers exporting to Australia, with garments made by their usual suppliers	Ralph Lauren, Max Mara, Nike
Locally designed garments that rework international trends to Australian tastes, with the garments often manufactured by outworkers	E.g. Scanlon and Theodore, Ginger and Smart, Zimmermann, Cue, Country Road, Sportsgirl etc (these companies are known to have an in-house design team).
Australian apparel companies that source garments from Hong Kong fashion traders that are versions of the previous season’s styles from Europe and the US	Unknown for certain who these retailers may be. Possible examples include Lowes, Rivers, and some product by companies such as ICE, Cotton On etc.
Garments made for the European market sent to Australia as liquidated stock	E.g. Clearance sales shops, unbranded clothing

⁹ This section was adapted for inclusion in ed. Pedroni, forthcoming 2013.

According to Weller, Australia's mass-market firms that manufacture overseas fit almost solely into the third category. Their garments are not 'designed' in Australia, but rather Australian designers or buyers source the garments from Hong Kong intermediaries and then adapt them to the Australian market. She points out that "given the complexity of fashion proliferations, however, Australian firms' purchases may be derivatives of European designer originals, derivatives or interpretations of derivatives, depending on their sourcing structures" (Weller 2007a, 54). While Mihm (2011) explains how an apparel company may sit along a spectrum between complete sourcing of product, through to house brands, through to vertical integration, following Weller's analysis, the bulk of Australian companies appear to sit towards the right of the scale in Figure 4.4. As can be seen in the second column of Table 4.2, it is difficult to say for certain which company fits into which bracket. While Weller claims many companies source product from Hong Kong suppliers, according to interviewees and conversations conducted as part of this research, it is just as common for local companies to purchase mass-market or designer clothing from the European markets and then give this to their Chinese factory as a guide on what to manufacture.

However the public rhetoric of Australian companies regarding their design practices may be somewhat contradictory. For example, a Cotton On profile states, "Our product team travels regularly to Europe, UK, USA, China and India, constantly sourcing items that reflect our customer" (Cotton On 2005). In the same statement, Cotton On also implies that their designers are in-house, saying:

Rather than designing what the market already has, the design team focus heavily on what they believe is the next big thing in graphics and styling and furthermore capitalises upon a keen fashion sense and highly regarded talent to style and place garments together (Cotton On 2005).

These two statements seem to suggest that Cotton On follows both a supplier model and an in-house design model, which they may. However, another interpretation is that Cotton On follows a buyer model of purchasing overseas samples and then adapting them for the local market. This theory is upheld by a 2008 court case, in which Cotton On was found to have copied the design of an Elwood T-shirt, and instructed to pay Elwood \$280,000 in damages (Blake Dawson 2009).

According to *Ragtrader*, an employee of Cotton On “gave evidence that they had been given the Elwood T-shirt and told to create something ‘the same but different’” (Hardingham and Feder 2011). The case of Cotton On demonstrates the convoluted ways in which companies may source product – some of their product may be designed in-house, some may be purchased from an external supplier and labelled with the company’s label, still more may be ‘knock-offs’ of overseas or local garments sourced by either buyers or designers. Figure 4.5 illustrates these different modes of product development. It is expanded from Mihm’s (2011) illustration of the various outsourcing models of fast fashion (Figure 4.4) and demonstrates that within the Australian mass-market, many practices of product development may be happening simultaneously, and overlap with one another. In the diagram, the left-hand side indicates garments purchased ready-designed by suppliers. These may be then labelled with the purchasing company’s label. Further to the right of the diagram, a team may purportedly design in-house while actually relying on buyers to purchase pieces that are *already on the market* for imitation or inspiration. Some of these strategies may occur simultaneously in the one company, as was formerly the case in Company B, to be discussed in Chapter 6.

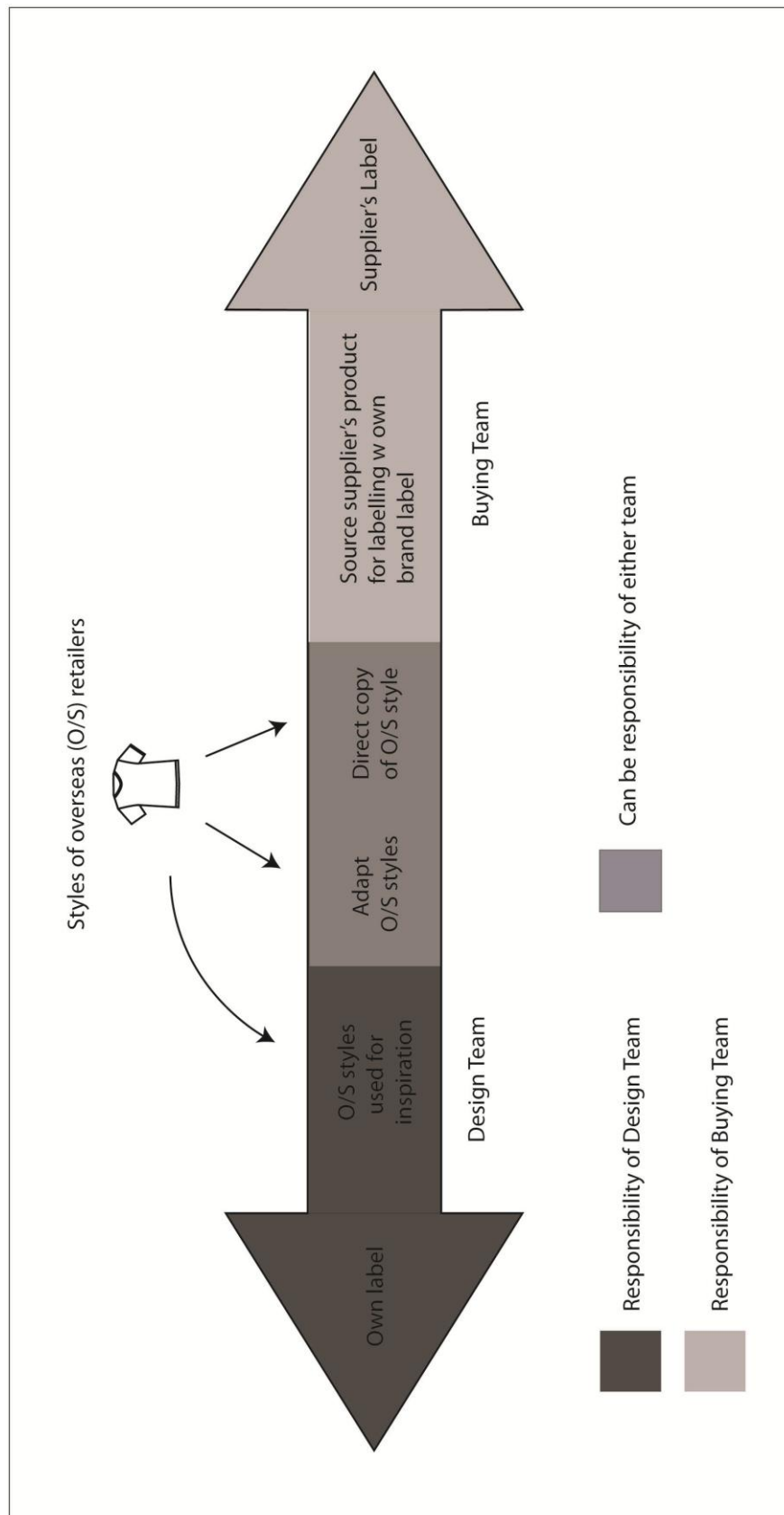


Figure 4.5 Map of product development models

ODM sourcing is not limited to discount retailers, as revealed in the relationship between mid-market label Country Road and Hong Kong OEM and ODM producers Lever Style. According to Lever Style's Stanley Szeto, Country Road

used to simply tell Lever Style to buy a particular fabric from an Italian mill, buy other garment components from a Japanese supplier, and then [say] "just stitch the garment for us." These days, Lever Style proposes both designs and fabrics to Country Road and sources the fabrics that Lever Style thinks will suit their customer. Lever Style is involved in ODM rather than just OEM and there is deep cooperation between the two companies (FHKI 2010, 8).¹⁰

This suggests that the design or sourcing practices vary company to company, depending on their individual relationships with suppliers, and as such are continually evolving.

It is clear that, within this system, locating the 'designer' is difficult. Also, the copy, or the knock-off of overseas styles, plays a significant role in Australia's mass-market fashion industry. It has been a long-standing practice, across market levels, for the design or buying teams to purchase overseas garments and knock them off for the forthcoming Australian season. Weller (2007a), Walsh (2009) and Rissanen (2008) agree on this fact. The common knowledge regarding copying is indicated by the facetious comments from *Ragtrader* commentator Fraser McEwing (2007), writing about Zara's anticipated arrival in Australia:

(I)t will save our almost-designers heaps of money when they want to knock off Zara styles because they'll only have to go to Bourke Street [Melbourne shopping precinct]. The more entrepreneurial will be able to buy in Zara and carry the samples across to Myer, change the labels in a quiet corner of the cosmetics department, and go upstairs to get an order.

Australian designers or buyers commonly travel overseas for design inspiration and return with US or European garments. These garments may be used as inspiration for silhouette, colour or print, however in some companies the garments may be copied line-for-line. The garment would be measured by technicians, a similar fabric sourced and then sent to the production teams in China. This is supported by designer interviews, namely Michelle from Company C (see page 98), who described how

¹⁰ Despite Lever Style's statements, Country Road is designed in Australia.

designers would bring suitcases of samples back into Australia to be knocked-off. She used Company B (see page 97) as an example of a company following this practice (2011).

The knock-off is clearly not limited to the Australian market, as many global mass-market retailers imitate, if not directly ‘knock-off’, the styles of higher end designers. In fact, the popularity of the knock-off within the fashion mass-market is demonstrated by its inclusion in patternmaking textbooks – for example, US textbook author Helen Armstrong defends the knock-off saying it “is a common practice and generally happens when hot items hit the retail market. Other manufacturers want a piece of the action before the season ends or the sales cool down” (2006, 532).

However, Australian retailers have not used the knock-off in quite the way described by Armstrong. Instead, being effectively six months behind the northern hemisphere, the majority of garments could be generated under a knock-off model. The seasonal lag between hemispheres is most convenient for Australian companies, as, Weller says, “Australia’s local mass-market firms are not forced to develop fashion predictions or mechanisms to second guess the market” (2007a, 53). Additionally, Australia’s mass-market companies are largely confined to selling in Australasia, so they are not competing overseas with the companies from which they have sourced product. Similarly, overseas retailers have not yet managed to establish a wide presence in Australia, and so are less likely to be aware of imitation within the Australian market. Weller observes, “the seasonal time difference also creates spaces that can be filled with expert intermediaries and a range of businesses that trade in fashion knowledge” (Weller, 2007, pg 54). This has become an opportunity for actors within the Australian – Chinese supply chain who can mediate these interactions.

In the current, rapidly changing retail environment, the knock-off is now far less viable. As described above, Australia’s clothing retail climate is undergoing a period of turmoil in which poor sales figures (*Ragtrader* News 2011b), together with the entrance of overseas players and a growth in online shopping is putting pressure on traditional bricks and mortar retailers (King 2011; Ernst & Young 2012). These factors are impacting on the viability of imitating other companies’ styles. First, consumers are able to purchase the northern hemisphere garment online during the season it is manufactured, rather than waiting for the styles to appear locally months

later. Second, the seasonal lag is of less importance, as some trends occur simultaneously in both hemispheres.

This growing trend for in-house design teams, rather than buyers, is significant when considering redirected practice for sustainability. Under a sourcing or supplier model, the company has far less control over the provenance of its product. Its supply chain becomes necessarily more convoluted and difficult to track. Similarly, even when there is a design team in-house, if it operates under a ‘knock-off’ model, again there is less capacity for design redirection for DfS as the construction, fabrics and detailing of the style come pre-determined and pre-designed by someone else. However, when the product is designed in-house, there is arguably more control on the part of the company and the individual designer to consider sustainability at a product level, and to intervene in the material construction of the garment. Again, this issue will be explored in greater depth in Section 6.3.

4.3 RELATIONSHIP BETWEEN DESIGN AND KNOWLEDGE

This section explores three overlapping forms of knowledge – fashion as an aesthetic knowledge (Weller 2007a), contextual (Aspers 2009) and technical. Similarly to Entwistle (2009), Weller defines fashion knowledge as, “an aesthetic knowledge, and as an unstable and constantly changing form of knowledge that promotes incessant change without progress” (2007a, 42). Designing fashion apparel requires fashion knowledge and technical knowledge. The former deals largely with intangible ideas, the latter deals with the material garment. Both are essential in developing a garment. This section draws on Weller’s (2007a) analysis of how fashion knowledge operates within the design and sourcing processes of the Australian mass-market, and discusses the implications for redirective design for sustainability.

4.3.1 FASHION KNOWLEDGE AND CONTEXTUAL KNOWLEDGE

It is useful to recall Entwistle’s analysis (2009) of fashion as an aesthetic marketplace in which many actors mediate the value placed upon individual items within it – these values shift constantly according to taste and trend. The key actors within the system, then, are those who are able to expertly and often tacitly connect disparate aesthetic trends into a cohesive narrative, and then disseminate this

knowledge. These actors include but are not limited to: buyers, designers, merchandisers, bloggers, fashion journalists and fashion trend forecasters (Entwistle 2009). Fashion knowledge means being able to spot the position of a style in the trend cycle, what items will sell well, what items won't and being able to spot emerging trends well ahead of their time. Aspers (2010b, 190) describes this as a “‘mysterious’ knowledge that people have to possess, often described in terms of ‘creativity’, ‘talent’, ‘gut-feeling’ or ‘genius’”, and held within the individual. Fashion knowledge is shared via global trend forecasting communication systems such as the Worth Global Style Network (WGSN), as well as by face to face contact at fashion festivals and trade fairs (Entwistle 2010; Skov 2006).

Within the global fashion system there is what Aspers (2010b, 190) terms an “uneven geography of knowledge”, as developing countries possess production skills, yet do not have the requisite fashion knowledge to upgrade to ODM or OBM activities, as noted in Section 4.2.1. Aspers (2006) extends the notion of fashion knowledge, in that he terms the knowledge necessary to design as “contextual knowledge”, in which the designer or buyer knows her market, inhabits the ‘lifeworld’ inhabited by her customer and hence knows which of the many fashion trends will work for her company – Aspers sees it as a combination of ‘gut-feeling’ of fashion knowledge combined with the market knowledge specific to the sector in which the designer or buyer operates, as well as the contexts of art worlds and consumer markets. Crucially, following Asper’s definition, the very nature of this contextual knowledge means that it cannot be easily acquired by producers in developing countries, as it is held by actors who operate in the same cultural and social milieu as their customers. What emerges from Asper’s analysis is that fashion design is chiefly dependant on the actors who can interpret and process the flow of aesthetic trends and coalesce them into a marketable product. In this conception of fashion design, presumably the actors in question may as easily be buyers as designers. Implicit within the notion of upgrading from CMT to ODM and OBM activities is that the design component of a garment – its aesthetic elements refined through market and trend analysis (i.e. the fashion knowledge) – is of greater worth than the technical knowledge. While in some cases, the technical knowledge is more valuable, for example in high tech textiles, where the R & D from developed countries raises the market value of the final garment, within the fashion apparel

market, fashion knowledge is valorised, and fashion knowledge determines *what* will be designed and manufactured.

While Aspers' (2006) conception of 'contextual knowledge' includes within it the notion of 'fashion knowledge', there is value in keeping the two forms of knowledge separate when discussing the particular situation of the Australian fashion industry. As the Australian fashion industry has traditionally been on the periphery of global fashion centres¹¹, fashion knowledge comes to Australia from the other side of the world, one season ahead, and there is evidence that local designers and companies instead copy what has already been done. In fact, under Weller's analysis, the Australian mass-market relies heavily on the sourcing networks of the Hong Kong agents, who are able to share what northern Hemisphere companies produced the previous season. However, mass-market companies must have strong contextual knowledge of the Australian market in order to know if a trend will work in their market.

Copying in Australia has wider implications for a local design aesthetic, or a localised fashion knowledge, in relation to the global fashion system. This idea was explored in Payne (2011). Also, Australian dress historian Margaret Maynard (2000) has argued that Australian fashion (including high end fashion) has always been derivative of European styles. Certainly the seasonal quirk of being six months 'behind' the fashions of the northern hemisphere has not hindered other southern hemisphere countries from developing a local aesthetic – an example being Brazil, who has developed a successful market niche in swimwear and resort wear, as well as a thriving local industry (Brandini 2009). A crucial component to the development of a local aesthetic may well be the connection to technical knowledge – and here Brazil and Australia differ. Brazil, as a country in development, retains a local manufacturing base, while Australia's is largely offshore.

As discussed elsewhere (Payne 2011), there is evidence that entrenched copying practices in Australia are being forced to change as fashion trends occur simultaneously with the northern hemisphere, as the fashion cycle speeds up and as the source of the knock-off such as Zara or Topshop now have entered the Australian

¹¹ The word 'periphery' is used somewhat hesitantly: Reinach (2010) argues that the notion of centre and periphery is dated. Similarly Skov (2011) proposes that a polycentric view of the fashion system is more accurate in a globalised world of local difference. This idea was explored in Payne (2013) forthcoming, adapted from Payne (2012b).

market. The rise in designer collaborations, a global trend in the mass-market, has allowed for a greater number of small Australian designers to collaborate with the big retailers (for example Romance Was Born or Ellery collaborating with Sportsgirl, or Gail Sorronda collaborating with Target). This question of changing copying practices will be discussed in greater depth in the forthcoming case studies in Chapters 5, 6, and 7.

4.3.2 TECHNICAL KNOWLEDGE

Currently the manufacturing section of the Australian TCF is largely constituted of outworkers and contractors, a difficult group to monitor, with some 25,000 outworkers estimated by the TFIA (2012, 23), but the real figure is unknown. Many garment factories and mills have closed down as manufacturing increasingly takes place offshore. The multi-decadal decline of manufacturing within Australia has implications for design intervention for sustainability. There are now less opportunities for collaboration between mass-market designers and skilled sample machinists, so designers work primarily from flat drawings and are less engaged with the materiality of the garment in its early stages of development. Kellock (2010) has described this as a ‘hollowing-out’ in which the key skills in the supply chain of patternmaking, sampling and manufacturing are being lost. As Australia has offshored the manufacturing of garments for some twenty years, there are severe skill shortages. Offshoring production means that the technical knowledge (initially shared with the developing countries) has been transferred. Now the technical knowledge lies with the Chinese manufacturers. While in the 1970s, company owners would train up factory workers in the developing countries to meet their needs, Chinese manufacturing has upgraded to a wider array of supply chain responsibilities, including patternmaking and sampling.

However, in the context of wider discussions on design for sustainability, the materiality of what is being designed is crucial. This is where the technical knowledge comes into the equation. If the fashion knowledge is chiefly about aesthetics, then technical knowledge is about materiality. The difficulty lies in knowing where and when design decisions about a garment’s materiality are made. As one example, in an examined pair of Country Road trousers (retailing for \$129), there was no centre back belt loop, so when worn with a belt, the trousers would sag

at the centre back while the belt rose above the waistband. These kinds of errors are often (although not necessarily) unrelated to the fashion knowledge that dictates the width of the trouser leg, the colour or the detailing, however they remain an important element of its design. In itself, a forgotten belt loop is a minor inconvenience, however it will continue to impact on the garment's comfort and wearability over its lifetime. Similarly, with facings that are too narrow, or waistbands with rolling elastic, narrow belts, or poorly placed pockets, the garment is ill-fitting and uncomfortable for the wearer. Under a CMT model, it would be the task of the Australian design room to specify the garment down to the last bar tack and belt loop. In this case, when the technical knowledge is lacking within the design team, the final product necessarily is of poor quality. Under OEM and ODM models, this design decision would potentially fall within the remit of the supplier.

In mass-market fashion, obviously design is yoked to the market imperative. Fashion knowledge and contextual knowledge are valued because this is the knowledge required to create garments that will sell, in that particular location, at that time. These two forms of knowledge are the garment's value-added, as the material garment of mass-market fashion derives its value from this intangible fashion content, rather than from the quality of its textiles or manufacture. The technical knowledge required to create the garments is in service to this aim. Hence fashion products – with their chief market value being an intangible aesthetic – do not lend themselves easily to design for sustainability strategies. Much of the work in other design disciplines around sustainability is necessarily concerned with materiality – the inputs and outputs, the object's environmental footprint over its life cycle (see Section 2.4.1, pg. 70). In contrast, the materiality of mass-market fashion is almost incidental – what matters is how precisely the fashion and contextual knowledge is transmitted into the product, in time to meet consumer desire.

4.4 AUSTRALIAN INDUSTRY'S RESPONSE TO SUSTAINABILITY

Design for environmental sustainability would mean that individual garment styles are managed to assess their inputs and outputs, possibly via an LCA (see Section 2.4.3, pg. 83). If the garment has been sourced from ODM or OBM suppliers, then the responsibility for this task would lie with their product development team. Conversely, when Australian designers travel overseas to literally

shop for designs to copy for the local market, the responsibility would theoretically lie with their design team to consider appropriate materials to construct the garment in. In both cases, the designed garments arrive pre-fabricated with the bulk of the design decisions already determined by the unknown designers of the ‘original’ product. Who designs, then, is very difficult to determine – is it the Australian buyers who shop for the overseas styles, or is it the Chinese product developers who may have imitated a European label, or is it the high end designer who may have developed the copied aesthetic in the first place? Which of these ‘designers’ can be responsible for conducting an LCA,¹² or proposing any other intervention for sustainability within each discrete product style? The convoluted ways in which apparel may be sourced for the Australian market reveals how challenging even a modest intervention in product design can be. To fully understand the complexity of the system, this final section will discuss how Australian companies have explored social and environmental responsibility to date, as well as discuss advances occurring in overseas companies.

Globally speaking, some of the highest profile mass-market apparel companies, such as Nike, Walmart, and Marks and Spencer, have supported sustainable fashion, albeit to varying degrees. The reasons for this are best expressed in the case of Nike. In the late 1990s, Nike received negative publicity for its environmental record and its poor treatment of factory workers. Since this consumer outcry, Nike has transformed itself into a world leader in social and environmental responsibility with clear evidence of a life cycle perspective embedded in both sourcing and product development (DeLong 2009). For example, Nike (2010) developed the ‘Considered Index’ tool for their designers to quantitatively assess the environmental sustainability of the design throughout its design process, enabling designers to reduce the ecological footprint of the garment through textile and trims choices.

Yet it is important to note that while many overseas companies demonstrate some intervention for environmental or ethical reasons, companies do so to wildly varying degrees, and often depending on how well-suited the initiatives are to their brand identity. This is noted by Skov and Meier (2011, 280-281) who observe three

¹² It is important to note that LCAs in a quantitative sense are expensive to conduct, and are hence clearly cost-prohibitive for conducting on individual, highly varied fashion products, which may number in the hundreds per season (Hopkins, Allen, and Brown, 1994).

categories of companies intervening for environmental sustainability: 'soft green', 'hard core green' and 'green luxury'. Of these categories, soft green and hardcore green are most relevant to mass-market fashion. Skov and Meier (2011) define soft green brands as those using conventional materials and suppliers, but also having a small component of their offering set aside for environmental or ethical initiatives. In contrast, 'hardcore green' brands have environmental or ethical issues as a core brand value, an example being Patagonia. This kind of categorisation can be likened to weak (incremental) or strong (fundamental) approaches to sustainability.

However, in contrast to Skov and Meier's (2011) findings in the European marketplace, a large number of Australian companies could not even be termed 'soft green', as many display no measurable interventions for sustainability. Australian TCF industry researcher Walsh claims that Australian retailers are still firmly in the realm of "greenwash" (2009, 28). Most clearly, the reasons for this have to do with the dominance of Australian-owned companies in the market, and the lack of competition from large overseas retailers, who may have brought the macro trend of sustainability to the public's attention sooner. In his analysis of company responses to environmental concerns, Philip Mirvis (1994) notes that as one company begins to lead, the other companies may follow, forming a "virtuous circle". Under the quasi-monopolistic structure of the Australian industry, this competition may not be felt to the extent that it would if other global companies competed in the market. Arguably, the Australian companies that dominate the local market feel less scrutiny than their overseas counterparts who are competing on a global level and need to differentiate themselves in the eyes of consumers through proving their business ethics. This may change as the global retailers begin to enter the Australian market more aggressively.

The Australian regulatory environment is another crucial hindrance to greater sustainability initiatives from retailers. When compared with the European Union (EU), Australia has less rigorous government regulations regarding social and, particularly, environmental responsibility in the TCF sector (Gertsakis and Neil 2011). According to the TFIA's Paula Rogers (2011a), Australia's imported textiles are among the most unregulated for chemicals in the developed world, often containing levels of formaldehyde that would be unacceptable in European

countries.¹³ This is echoed by the TFIA's Andreas Schimkus, who, quoted in a Choice report (Browne 2012) commented, "products that are made in China for the Australian market could not even be sent back to China, as many of them would not meet the Chinese product safety standards but are acceptable here". This suggests that the Australian market can be a dumping ground for TCF products that would not be accepted in other countries.

The problem of dangerous chemicals in clothing is significant across the garment life cycle. Earlier in the life cycle, these chemicals pollute waterways and soil. In both manufacturing and use phases of the life cycle dangerous chemicals pose grave health risks to workers and consumers alike. These are also an environmental problem at the garment's end-of-life. The majority of textile waste in Australia currently goes to landfill where these harmful chemicals can then leach into the environment (Caulfield 2009). This issue of textile waste to landfill has been compounded by the shift to offshore manufacturing: some TCF companies may order more stock than required from their Chinese manufacturers in order to obtain a lower price, and then send the remainder to landfill. In the Choice report on chemicals in clothing (Browne 2012), Andrew Mills, the director of textile suppliers Charles Parsons, commented, "We regularly see examples where local traders buy 500 T-shirts in China [sell 350 shirts] and dump the remaining 150 pieces, simply because it's cheaper." This highlights the systemic problem within Australia of textile waste and a poorly-regulated TCF sector.

In contrast, the US and the EU have had a number of initiatives in place for some years to regulate chemicals in textiles. Examples include the EU REACH guidelines that regulate 300,000 chemicals (Browne 2012), the Global Organic Textile Standard (GOTS), the Oeko-Tex index and ISO certification systems¹⁴ (Gertsakis and Neil 2011).¹⁵ While some Australian companies have voluntarily adopted these schemes,

¹³ Other environmentally toxic chemicals that cause human health concerns and are unregulated in Australia include allergens provoking rashes or dermatitis (Chrome VI, dimethyl fumarate), carcinogens (Phthalates, AZO colourants), and human endocrine disruptors (Alkphenols) (Browne 2012).

¹⁴ Company B designer William (2010) stated that in his view the larger Australian companies would use ISO certified factories, but smaller companies may not.

¹⁵ See Gertsakis and Lee's (2011, 44) Ethical Quality Mark report for a thorough table summarising the schemes used both in Australia and overseas. They identify forty-seven schemes in

often because they wish to export to countries with stricter guidelines, they are under no obligation to do so. Again, this relates to the dominance of Australian companies who only operate in the local market: if they do not export their products, why adopt the standards of other countries that are not enforced locally? The lack of consistency in regulation of the environmental impact of chemicals in clothing means that many Australian companies can simply ignore the question.

With support from the Department of Innovation, there have however been recent developments regarding environmental and social sustainability in the Australian industry. In the Green report (2008), one of the key recommendations was the introduction of an Ethical Quality Mark (EQM) to accredit the social and environmental responsibility of Australian companies. Ethical Clothing Australia (ECA), the body protecting labour rights in local TCF manufacturing, was commissioned to explore the feasibility of a voluntary EQM in the Australian industry. Their report recommended that the ECA be expanded to include environmental/sustainability parameters as an optional addition to its existing labour rights accreditation (Gertsakis and Neil 2011). In addition to the activity around the EQM, since 2010, large Australian companies such as Woolworths, Target, Myer and Country Road have participated in two industry roundtables on environmental sustainability, organised by the St James Ethics Centre in partnership with Ethical Clothing Australia (The Hub 2010). While it is difficult to assess how these discussions may have trickled down to an operational level within a company, it is feasible to say that management in Australia's big discount retailers are aware that regulatory changes are afoot in the Australian market.

There are a number of smaller scale designers and businesses operating in Australia whose practices have implications for a sustainable fashion industry.¹⁶ The most widely-recognised of these is upper mid-market label Gorman, who utilises organic fabrics and in the past employed an environmental consultant to assess the business' carbon footprint. Regarding Gorman's design process, Bonnie English and Liliana Pomazan (2010, 236) write, "the core garments' designs are not trend-driven;

use globally related to assessment of environmental and/or ethical practices in the apparel and textiles sectors.

¹⁶ Varied examples include niche 'eco-fashion' or bespoke fashion labels such as Bird, MATERIALBYPRODUCT, Rachael Cassar, Tiffany Treloar, Pure Pod, Etiko, Bamboo Body, Tierra Ecologia, Little Green Dress and many more.

the design impetus is to produce long-lasting, high-quality classic garments that may be worn until they wear out”. Designer Lisa Gorman considered several phases of the garment life cycle within the product design, including low-impact fibres, water-based textile printing, ethical manufacture and reduced packaging in the retail phase (English and Pomazan 2010). Gorman was also used as a case study in Diviney and Lillywhite’s report *Travelling Textiles* (2009), which demonstrated how a ‘product roadmap’ can be built for a fashion garment. Similar to a life cycle assessment, this product roadmap traced and assessed the supply chain of two Gorman garments. The report highlighted the challenge of designing sustainable fashion when faced with opaque and fragmented global supply chains. However, Gorman has since been sold and under its new ownership there is a much lesser emphasis on sustainability as a core brand message.¹⁷

4.4.1 CATEGORY 1: INTERVENTION IN PRODUCT DESIGN

In the Australian mass-market, investigations into sustainable practices typically have a company-wide focus rather than a product-level focus. This section groups company initiatives into three main types of intervention: intervention in product design, in systems around the product, or in the wider company operations. These categories are illustrated in Figure 4.6.¹⁸ Category 1 concerns intervention in product design, which may involve an assessment (whether qualitative or quantitative) of the garment life cycle that examines the impacts of the product at input (fibre and textiles) through to outputs (end-of-life disposal and recycling options) (Vezzoli and Manzini 2008). This category may also include innovations such as products that are able to be disassembled and close-loop recycled at end of life. For example, see Patagonia in Loker (2008), as well as some of the more radical design propositions outlined in Table 2.1 (pg. 83).

In the Australian mass-market, intervention in product has mostly appeared in the choice of ecologically-considered fabrics: organic cotton (e.g Target, Country Road),

¹⁷ The website no longer contains any reference to any sustainability initiatives; however there is still an organic collection offered alongside the main label (Gorman 2011). Lisa Gorman is still heavily involved as designer, according to information from a retail staff member in the Brisbane store (personal communication, 12 June 2012).

¹⁸ The following three sections were adapted from Payne (2012b) and Payne (2011a).

Lyocell (e.g. Cue, Witchery), or recycled yarns (e.g. Billabong). These interventions in product design are aligned with the eco-design strategies of DfS, namely reducing water usage, selecting more ecologically-sound fibres and textiles. The companies that have visibly intervened in product design typically do so more often in staple, basic lines and less often in their fashion-forward collections. For example, the underwear company Mitch Dowd utilises soy, bamboo, and organic cotton in their Oeko-tex and GOTS-certified 'Green by Mitch Dowd' range (*Ragtrader* 2007), while the underwear and hosiery company Ambra has an EcoStyle range utilising bamboo, organic cotton, and natural dyes (*Ragtrader* 2008). Similarly, Target's organic cotton, organic merino wool, and bamboo ranges comprise either underwear, or basic T-shirts and leggings. This is also the case with Drizabone's Activ range of base layers in organic, biodegradable merino wool (Smart 2008). These examples would fall into the 'soft green' brand category identified by Skov and Meier (2011). In all these cases, these fibres are used for the aesthetically stable product lines, and only for a portion of the overall range. One small exception to this is a fashion range by Sportsgirl. Industry magazine *Ragtrader* reported in 2010 that Sportsgirl presented a niche vintage collection made from recycled materials, indicating that there is some potential for the mass-market to explore upcycling within the fashion design process (Bryant, Kellock and Zimmerman 2010).

It is important to note that intervention in product is often related primarily to managing the environmental impacts of the garment, rather than to the ethical issues of the treatment of workers. However, changes in product design can have a positive impact on worker health, with an example being the elimination of sandblasting finishes on denim (O'Loughlin 2010c). Similarly, selection of responsibly-produced cotton ensures a healthier working environment for cotton workers, reducing the grave risk of worker poisoning from pesticide use in the industry (Mancini et al. 2005). Related interventions in product design would include eliminating toxic dyes that have deleterious impacts on worker health, consumer health, and the environment. Thus, although the chief focus of this thesis is on product design and environmental sustainability, social and environmental sustainability issues are frequently interrelated, and both may be considered within product design.

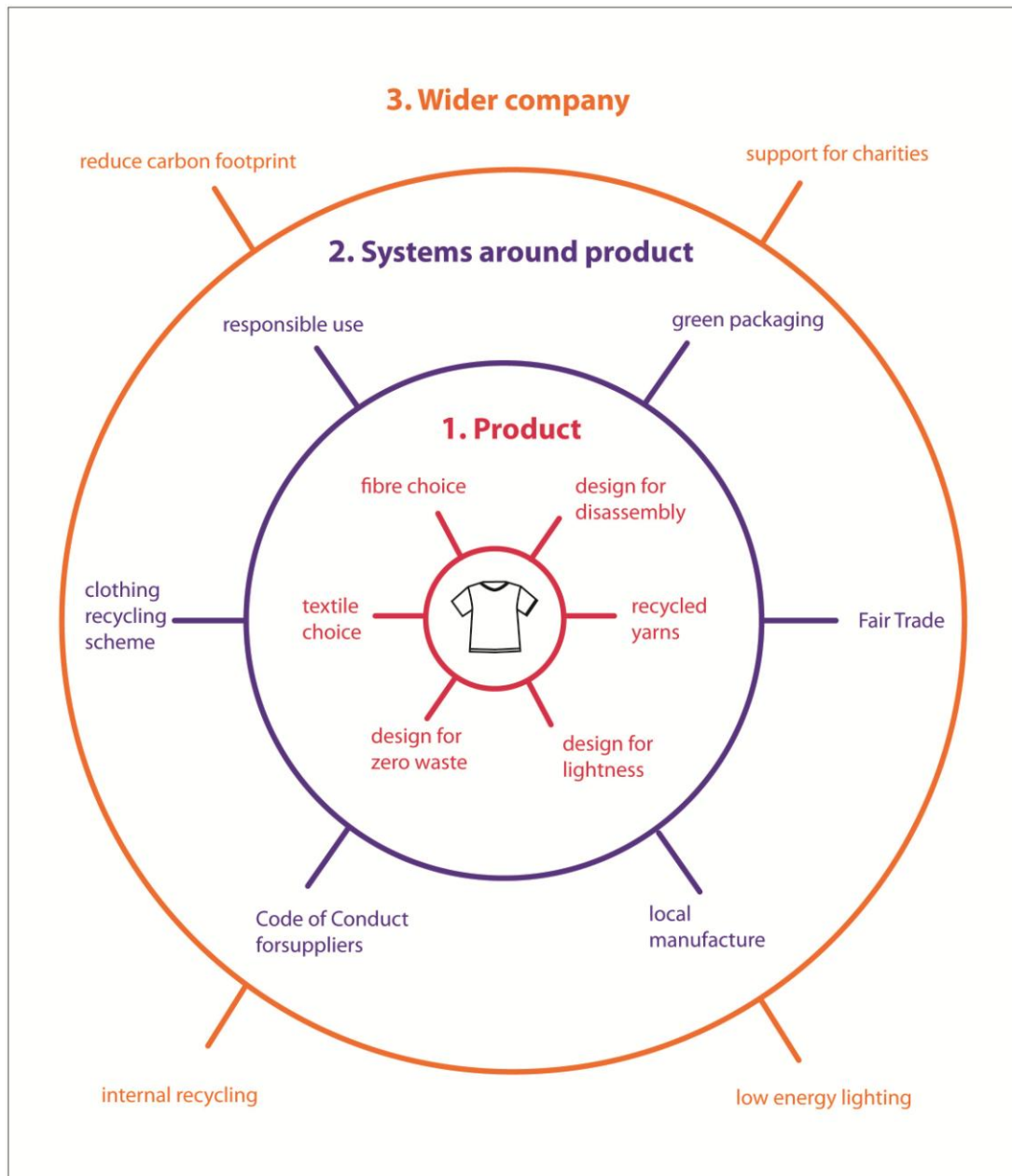


Figure 4.6 Categories of intervention for environmental sustainability

4.4.2 CATEGORY 2: INTERVENTION IN SYSTEMS AROUND THE PRODUCT

The second category of interventions explores the systems around the product. This category involves intervening in the consumption and use systems around the product – namely, how the impact in the use phase of the garment can be minimised, whether the garment can be manufactured locally or more efficiently, and how users can be encouraged to dispose of the garment responsibly. This will not involve changes in product design per se. Examples include developing supplier codes of

conduct to ensure the ethical treatment of workers (e.g. Cue and Bardot accredited by Ethical Clothing Australia). Although many mass-market Australian labels publish their Codes of Conduct on the website, many others do not. The market level case studies give examples of these in more detail. Other examples of interventions in the systems around the product include the use of biodegradable or reusable shopping bags and packaging.

Another example of an intervention in the systems around the product is mid-market retailer Country Road's partnership with the Red Cross charity organisation. The Fashion Trade program encourages consumers to recycle their old garments in order to divert textile waste from landfill. Customers are encouraged to return their unwanted Country Road garments to in-store collection bins.¹⁹ This is an important acknowledgment of their products' impact in the disposal phase; however this scheme is unlikely to have an impact on the nature of the product designed.

4.4.3 CATEGORY 3: INTERVENTION IN THE WIDER COMPANY

The third approach is unconnected to product, and instead looks at the wider systems of company management and community engagement. This is a broad category, and includes varied initiatives from installing eco-efficient lighting in retail stores and internal recycling of office paper and packaging, to commitments to reduce greenhouse gas emissions. It may also involve partnering with or donating to charities and NGOs. The Australian fashion industry has responded to sustainability by mainly adopting practices that pertain to the third category. This typically includes shifting to shopping bags that are biodegradable or reusable (e.g. Cotton On, Target), or recycling office paper (Target, Country Road). While some initiatives in this third category can be dismissed as greenwash, they are arguably important first steps within the culture of a company.

The Sussan Group has toyed with a number of initiatives across all three categories of intervention. The Sussan Group is one of the biggest retailers of womens' clothing in Australia, and includes Sportsgirl, Sussan and Suzanne Grae. Liliana Pomazan (2010, 238) reports that Sussan Group had been preparing for the possible introduction of an Emissions Trading Scheme since 2007, with the aim to be

¹⁹ This strategy is also an important part of UK chain Marks & Spencer's Plan A program and their 'schwapping' initiative (2012).

carbon neutral by 2012 through reduced emissions and the use of renewable energy and recycled materials. While this may have been on the agenda in 2007, there is no update from Sussan Group as to whether the target was achieved. There have also been some interventions at a product level. Crucially, the work being done overseas by large mass-market companies is likely to become the industry benchmark against which Australian companies will in future measure their own performance. There are several key initiatives occurring overseas that all intervene for sustainability at a product level as well as a company and supply chain level. These include the Outdoor Industry Association's Eco Index, Nike's Environmental Apparel Design Tool and Nike Materials Sustainability Index. A fourth, which in part grew from the first two initiatives, is the Sustainable Apparel Coalition. This has forty members comprising some of the world's largest apparel companies and suppliers, including Adidas, PUMA, Nike, Marks and Spencers, Walmart, Gap, H & M and Li & Fung. The purpose of the Coalition is to explore product and process innovation in order to create "credible, practical, and universal standards and tools for defining and measuring environmental and social performance". The Coalition aims to "lead the industry toward a shared vision of sustainability built upon a common approach for measuring and evaluating apparel and footwear product sustainability performance" (Sustainable Apparel Coalition 2012).

The overseas initiatives confirm Mirvis' (1994) theory regarding the virtuous circle. However, in the Australian case, its hitherto relative protection from global apparel companies means that the virtuous circle is less likely to take hold. Without a company leading the way, there is no need for other companies to compete on ethics. This points to a complacent industry in which multiple brands, superficially in competition with each other, are in fact owned by the same handful of conglomerates, as outlined in Figure 4.2 and Figure 4.3.

Although still nascent, it is likely that overseas initiatives will become the baseline for sustainable business practices, as within a broader economic and social context, it will not be viable for publicly-listed companies to ignore these strategies. The movement for sustainable fashion within a mass-market level has grown from the outdoor / sportswear apparel side of the market – generally the slower moving, less fashion forward collections such as those of outdoor brands Patagonia, Mammut or Nau. While these garments are a high pricepoint (mapped as upper mid-market), the garments are still mass-produced. Innovations from these brands have examined

the design of the individual garment as well as the larger supply chain dynamics. In contrast, innovations for sustainability in fashion-forward apparel are happening at the niche and luxury end of the market (diverse examples include Junky Styling, From Somewhere, Bruno Pieter's Honest By, or in Australia, MATERIALBYPRODUCT). In both kinds of companies, the need to stay close to shifting fashion trends is less important. On the one hand, the outdoor companies are lifestyle brands, not fashion brands. This means that they must cater to their market: people interested in an outdoors lifestyle, who may also be more environmentally-conscious as a result. This branding then becomes a crucial component of Patagonia or Mammut's strategy, rather than following fashion trends. While on the other hand, the niche labels are arguably fashion leaders, rather than followers. This suggests that design intervention in mass-produced product is more easily achieved in a less fashion-influenced company, or conversely, design intervention can be achieved in niche / handmade product from a company that distinguishes itself through its own distinctive aesthetic that is less connected to *current* fashion trends.

4.4.4 SYSTEM INTERVENTIONS

The three categories described above are, inherently, weak approaches to sustainability in that while they may grapple with the products, systems around the product, and the culture of an individual company, they remain within the wider culture and logic of the fashion system in which the company is nested. To return to the notions of sustainability discussed in Chapter 2 in Section 2.1.4, the interventions a mass-market company can make are bounded by the logic of the wider system in which they operate. Arguably, wider interventions are required for a more strongly sustainable fashion system that are well beyond the scope of a single designer or company. Crucially, the more radical strategies proposed in Table 2.1 (p. 83) include design for dematerialisation and the related design of PSS, in which reduced volumes of material garments are sold and instead services are offered.²⁰ Yet in order to begin

²⁰ Although not positioned as being a strategy for sustainability, Australian fashion industry analyst Hanrahan predicts PSS to become part of Australian fashion retailing into the future. Examples include in-store garment alteration / tailoring services, already installed by London's Suitsupply, or styling advice and new-season workshops (Hanrahan 2010).

to move towards even weak sustainability, Australian companies would need to make interventions in all three categories.

The interventions described above can potentially reduce negative social and environmental impacts of the company. In large companies, interventions in each of these categories are more likely to come about through management decisions, rather than the actions of individuals. In this study, the first category of intervention in product design is the focus. If design and product development teams are directed by management to consider sustainability then intervention in product design may occur. Yet the design processes of most large companies are opaque, and hence it is only through market observation of garments (usually looking at the fibre content) that it can be ascertained whether designers are considering environmental sustainability. The following sector case studies will seek to redress this through examining design processes in three Australian companies in order to see first, if designers currently consider sustainability, and second, what potential there may be for them to do so in future.

4.5 CONCLUSION

This chapter has proposed a framework for exploring how fashion design and production in the Australian mass-market may operate in the interplay between fashion knowledge, contextual knowledge and technical knowledge. Additionally, this chapter provides a framework for the organisation of various levels of interventions Australian companies can make concerning environmental and social sustainability – whether as interventions in the product, interventions in the systems around the product, or interventions in the wider company. However, the scope of the current interventions is difficult to quantify, and it is also difficult to determine whether they could be simply greenwashing or branding exercises.

The challenges faced by the Australian fashion industry, such as the loss of manufacturing, are similar to those faced by the local fashion industries throughout the developed world. Regarding sustainability, Australia lags behind in implementing the initiatives of Europe and the US in terms of ethical labelling for environmental and social sustainability (in the weak sense of the word). The geographical-temporal quirk of being six months behind the fashion centres of the world has in the past enabled a culture of imitation and emulation within the design aesthetics of

Australian fashion. Largely, innovations in fashion aesthetics were rare, particularly in the Australian mass-market, as overseas brands took the design risks while local labels adjusted them (or knocked them off) for the local market a season later. As Chapter 6 will explore further, this approach is becoming unviable, as Australian companies cope with a faster trend cycle, more fashion forward consumers, and crucially, market pressure from the entry of global players as well as online retailers. Unfortunately, the severe skills shortage in technical knowledge, brought about through the hollowing out of the manufacturing sector, means that the *frisson* of connections and skills-exchanges between maker and designer is now even less likely to occur, hindering not only innovation in aesthetic design, but innovation in design processes.

However, less certain are answers to the questions of *who* designs the mass-market fashion apparel, and hence where interventions can potentially be made in the design processes. This is not adequately answered in the literature, and there are two main reasons for this. First, it is hard to tell which companies design in-house and which source readymade garments from suppliers. Although Weller (2007a) claims that most fashion in Australia is an overseas derivation, as the following chapters will show, there is evidence that this is changing. Second, as the common conception of fashion design in the mass-market is one of value-adding and surface styling, the other tasks involved in the design of the garment, from specification to patternmaking are seen as technical processes, rather than being integral to the ‘design’ in the wider sense of the word (as discussed in Section 2.2.1). Hence intangible fashion knowledge is valorised as the design component, while the contribution of technical knowledge to the design is of lesser value. To compound this, these technical tasks are now largely conducted offshore, fragmenting the design process further and limiting the potential scope of design interventions for sustainability. In order to explore these notions further within the context of DfS, the following chapters will explore three sectors of the Australian mass-market. The case studies will draw on the interviews with designers in order to analyse how the three forms of knowledge intersect, and explore whether or not designers do or can consider sustainability in their design processes.

Chapter 5: Fast Fashion

“It’s pretty crazy. I don’t sleep a lot, to tell you the truth,”

Sophie, Head Designer, Label C3, January 2011

Chapter 4 has provided a snapshot of the Australian mass-market industry and will provide the context for the following three case studies. This chapter analyses the problem of fast fashion and sustainability through a case study of the Australian fast fashion sector. Fast fashion is defined by Barnes and Lea-Greenwood (2006, 259) as “a business strategy that aims to reduce the processes involved in the buying cycle and lead times for getting new fashion product into stores, in order to satisfy consumer demand at its peak”. Fast fashion is typified by global companies such as Zara and Hennes and Mauritz (H&M), who operate on lead-times of as little as two to three weeks (Hayes and Jones 2006, 283). Although the global phenomenon of fast fashion is barely fifteen years old, it has changed the face of fashion production, retailing, and consumption, and is arguably the new paradigm of fashion in the twenty-first century, as discussed in Section 1.2. Fast fashion exemplifies Sandy Black’s (2008) notion of ‘the fashion paradox’: in fast fashion, clothing has never been more accessible, and the rapid turnover of product has provided significant employment and economic growth in developed and developing countries alike. However, fast fashion’s disposability and cheap materials have a significant environmental impact. Arguably, fast fashion’s mode of production and consumption is inherently unsustainable (socially, environmentally, and even economically), as, to give one example, cotton production is already struggling to meet rapidly rising global demand (Ravasio 2012).

Academic literature on fast fashion is also divided along the lines of this paradox; on the one hand, fast fashion’s innovations and successes in supply chain management and retail strategies are lauded (Bruce and Daly 2006; Ferdows, Lewis and Machuca 2004), but on the other hand, its impacts from the point of view of sustainable consumption and responsible resource use are questioned (Hawley 2011; Fletcher 2008; Joergens 2006; Birtwistle and Moore 2007). This paradox was also evident in discussions with fast fashion designers, presented in this chapter, in which

they are clearly conflicted about their role as fast fashion designers in the context of global environmental challenges.

This chapter is structured as follows. First, it discusses the emergence of fast fashion and the global companies that have led the expansion. Second, it explores how fast fashion principles have manifested in a small peripheral market such as Australia. It also analyses the response to sustainability thus far in the fast fashion sector both internationally and locally. Following from this, it discusses the design processes of Company A and Label C3 with the aim of exploring how the fast fashion design process operates in Australia, and whether designers can or do consider sustainability. The paradox of fast fashion and sustainability is then discussed through the lens of life cycle thinking.

5.1 EMERGENCE AND GROWTH OF FAST FASHION

Fast fashion refers to the rapid response of clothing companies to fashion trends by frequently replenishing their stores weekly or even daily with new styles. Spanish chain Zara has been the innovator in fast fashion,¹ though closely followed by other European and US global fast fashion giants such as Hennes and Mauritz (H& M), Topshop, Gap and Forever 21. Figure 5.1 demonstrates the relative pricepoint and retail presence of these companies. Although there have been technological advances that have sped up garment production, for example in cutting, the key to fast fashion is in its heightened speed of communication and distribution. Table 5.1 summarise the characteristics of a fast fashion retailer (Tokatli 2007), with crucial points being their increasing numbers of stores globally, and their super-responsiveness to consumer demand. The fast fashion sector worldwide is increasingly dominated by the global mega-brands, as illustrated in Figure 5.1, who have developed complex supply chains able to respond at speed to consumer desire, with the economies of scale necessary to keep their prices low.

¹ Bennetton in the 1980s developed strategies which were a forerunner to fast fashion by developing just in time and quick response strategies (e.g. manufacturing greige T-shirts and then dyeing them later to respond to seasonal colour shifts more rapidly) (Glock and Kunz 2000).

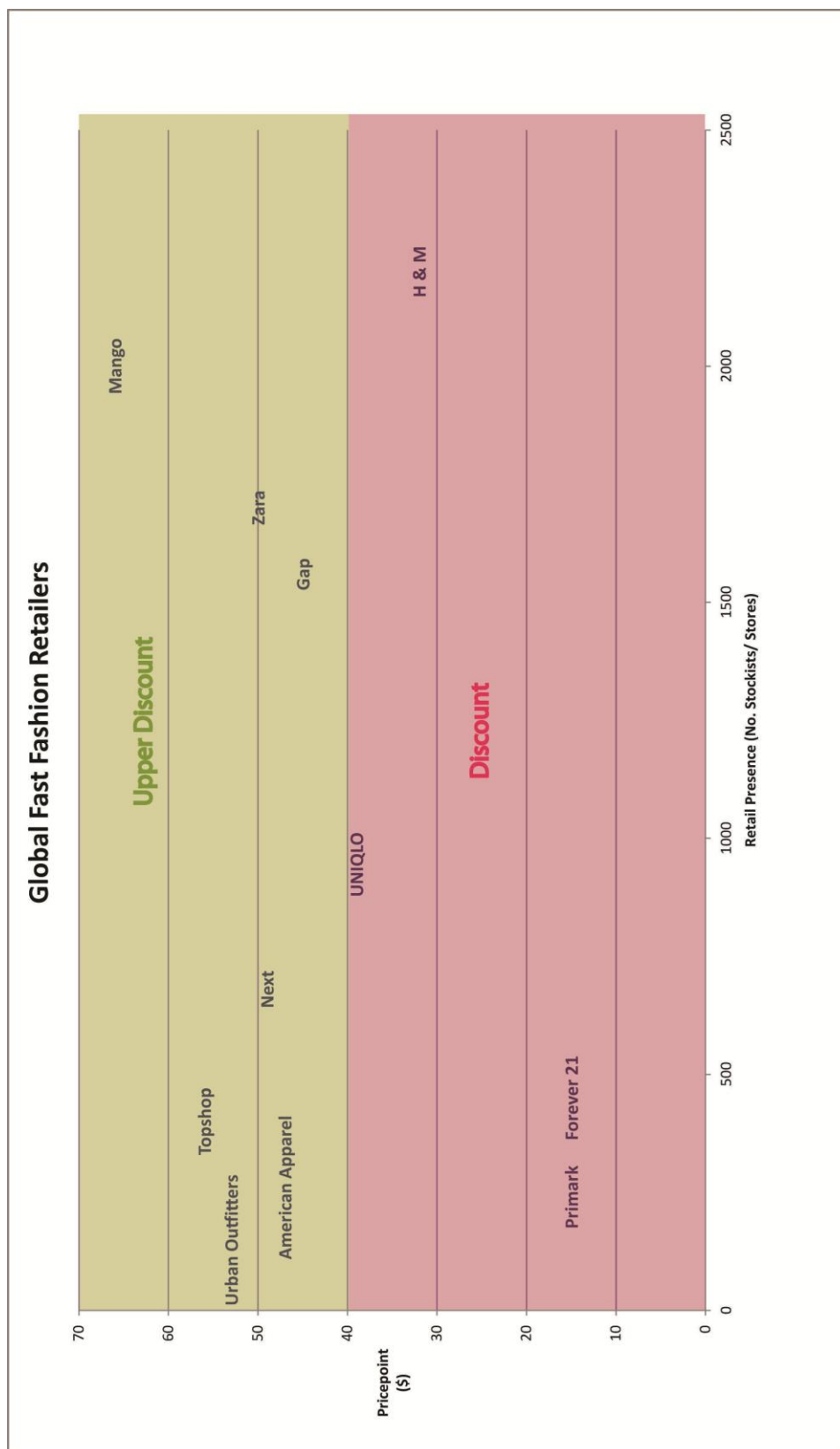


Figure 5.1 Global fast fashion retailer map

Table 5.1 Characteristics of a fast fashion company

Characteristics of Fast Fashion Company*	Overseas example: Zara**	Overseas example: H&M***
Increasing numbers of stores globally.	Zara has 1700 stores in 78 countries.	2600 stores in 44 countries
Very responsive to customer demand with data rapidly fed to design, buying and production.	200-strong design team with daily trend updates from trendspotters, all sales data fed directly to design and production	100 plus design team plus patternmakers and buyers, based in central design room in Stockholm
Short lead times, rapid sampling, sense of scarcity created by rapidly changing product in shorter runs.	Fifteen day leadtime, approximately 40,000 styles per year.	New product daily
"Super-responsive or rapid-fire" supply chain.	Vertically-integrated, with entire supply chain owned.	700 suppliers, coordinated depending on position of local stores
Most fast fashion companies are listed on the stock exchange so under pressure for stock to perform.	Parent company Inditex is publicly-owned.	Publicly owned
* These characteristics were adapted from Tokatli (2007)	** This information was sourced from Ferdows et al (2004) and Zara (2012).	***This information sourced from H&M (2012) and Siegle (2012).

Fast fashion's evolution since the 1980s has a direct correlation with the growth of information and communication technologies (ICTs), which enabled data drawn from both customers and trend forecasters to be rapidly fed to designers, buyers, and manufacturers. Indeed, as the speed of global communication has grown exponentially, so has the speed of fast fashion into stores. Companies have developed both lean and agile supply chains (leagile) in which small batches of product can be produced more frequently and efficiently (Bruce, Daly and Towers 2004). However, as discussed in Chapter 1, the rise of fast fashion is symptomatic of the shift in post-industrial nations towards constant aesthetic change in 'cultural' products, to promote consumption (Scott 2002; Rantisi 2004).

The small runs enable quick injections of fashion-forward product into stores, and also create a sense of scarcity and exclusivity for customers. This is heightened through the trend of limited edition designer collaborations with fast fashion chains (e.g. Karl Lagerfeld for H&M). In the context of sustainability, fast fashion's 'just-

in-time' (JIT) small runs are more efficient, and hence there is less likelihood of unsold garments being incinerated or drastically marked down. However, the advantage in producing only what customers desire is dissipated by the underlying fast fashion logic in which perceived scarcity propels customers to buy more product, and to return more often to store in order not to 'miss out' on limited edition items. This is evident in Zara's strategy, in which the sense of scarcity sees customers visit Zara on average seventeen times per year, as opposed to an average of four times a year for other chain stores (Ferdows, Lewis and Machuca 2004).

Prior to the 1980s, mass-market apparel companies followed a Fordist manufacturing model, in which designs were standardised, slower to change (for example Levis 501 jeans) and manufactured in an assembly-line. There were only two fashion seasons per year (Jackson 2009), and thus apparel was more stable aesthetically, and the delivery schedule for suppliers more regular. In contrast, fast fashion's supply chains are characterised as 'post-Fordist', in that companies draw on global networks of suppliers of varying volumes and specialisations² (Bhardwaj and Fairhurst 2009). Li and Fung, the network orchestrators described in Chapter 4, typify the post-Fordist supply chain. They provide access to a network of over 8500 suppliers covering homewares, apparel and footwear; however they do not own a single factory themselves, rather:

A specific supply chain is called forth in response to the demand of the customer. Henry Ford told his customers, "they can have any colour they want as long as it's black." The modern network orchestrator can make a much simpler claim: "You can have almost anything you want. Just say the word and the supply chain will be created. We will build you a virtual factory from a network of suppliers to meet your need (Fung, Fung and Wind 2008, 15).

The case of UK fast fashion chains exemplifies this process, as basics with a longer lead time may be manufactured in China, while smaller runs of more trend focused product will be manufactured closer to home in Turkey or Eastern Europe (Bruce and Daly 2006, 330). Rather than working with a single factory in a fixed location, fast

² Although Zara is often cited as the exception to the trend for globalisation as the bulk of its product comes from its La Coruna factory, Tokatli (2007) claims that in recent years Zara's supply chains have evolved to become more globalised, with manufacturing also conducted in Turkey and Romania.

fashion supply chains source products from the suppliers that will best fit their contingent needs.

5.1.1 SHIFT TO CONSUMER-CENTRED, POST-BRAND

Fast fashion has heralded a greater shift within the fashion system towards the needs and desires of consumers (Barnes and Lea-Greenwood 2006). Zara owner Amancio Ortega has commented that “to be successful, ‘you must have five fingers touching the store and five fingers touching the customer’” (Ferdows, Lewis and Machuca 2004, 106). As Ferdows et al (2004) describe, companies such as Zara respond directly to real-time sales data fed from stores to ensure that the product is tailored to each store. This notion of continual engagement with the consumer is the hallmark of fast fashion. Fashion marketer Bill Webb (2007) describes how prior to the 2000s, the role of retail marketing was to educate the consumer in order to convince him or her that they needed the product. Now, as consumers have grown savvier and more focused on lifestyle, Webb claims that the role of retail marketing as a stand-alone job description or department is almost obsolete. It has been replaced by super-responsive supply chains and product development in which all energy is put into first determining what the consumer desires, and then attempting to meet that desire as quickly as possible. In this way, retail marketing is embedded within the design process, and rather than merely being a way to communicate the new styles to consumers after they have been developed, it becomes essential in determining what should be developed in the first place. While fashion companies have long utilised street trendspotters and data from consumers to develop product, in fast fashion this data fundamentally drives the enterprise. Webb frames this shift as a response to a broader societal shift in which consumers are saturated with consumption choices and have become increasingly cynical regarding the claims of brands. An outcome of this is the rise of the ‘hi-lo’ consumer, or as termed in the UK, the Primark-Prada consumer, in which consumers now have little brand loyalty and will shop at all ends of the market (Webb 2007).

Fast fashion’s super-responsiveness to the perceived needs of the individual consumer is, arguably, the logical endpoint of Lipovetsky’s (1994) democratisation of fashion. Webb (2007) claims that we are moving into the era of the ‘individual as brand’. Webb writes, “eventually, we should expect brands to become redundant as

individuals become their own brands, each and every one of us with our needs and desires individually addressed” (2007, 127). In this reality, it matters less where the product came from, what matters is how the individual consumer mixes and remixes into their own sense of style. Pop culture writer Rob Horning describes fast fashion companies such as Zara and Forever 21 as “post-brand”, in that they make no attempt to foster a brand or lifestyle identity, instead,

They flatter consumers in a different way, immersing them in potential trends on a near weekly basis and trusting them to assemble styles in their own images. Clothes reach stores with practically unspoiled semiotic potential, and consumers are invited to be expressive rather than imitative with the goods, to participate more directly in fashion (2011, 2).

Horning (2011, 2) claims that fast fashion companies allow consumers to be bricoleurs, “work[ing] in lieu of advertisers to reconfigure trends and remix signifiers, generating new and valuable meanings for goods”. The data gathered from this consumer activity is then fed back to the design rooms and production facilities to generate more designs. The cheapness and rapid change of fast fashion makes this kind of identity play far easier and enables a kind of continual self-improvement and reworking of the self as brand. The fast fashion companies in turn follow the blogs of consumers and respond to the ceaseless, restless identity formation of individuals (for example, see Rocamora 2011). Hence fast fashion is an endpoint for fashion in more ways than one – the shorter trend cycles paradoxically hold both less and more sway than they used, as at any one time there are many different trends to which a fast fashion company may respond³. By virtue of the sheer number of these changing trends, any coherent message for a season is soon replaced within weeks by another, effectively creating an aesthetic ‘white noise’.

³ It is impossible to give a number of fashion trends present in the market at any one time, although Jackson (2009, 170) notes that each of a garment’s elements will be impacted by fashion trends: its colour, fabric, styling details, trims, silhouette and print. The longevity of trends also varies, as a look (whether a colour, a fabric style or other element) will potentially cross into other seasons (Jackson 2009, 171).

5.2 FAST FASHION IN AUSTRALIA

Australia's retail version of fast fashion is a much diluted version of its overseas counterparts, in both volume and speed to market. As Weller (2007c) describes, this is due in part to its geographic location and its large land mass, with a small population dispersed around coastal areas, which means that the market cannot support the economies of scale achievable in Europe and the US. As described in Chapter 3, for over two decades Australians have increasingly depended on overseas manufacturing, particularly from China, to meet their clothing needs. This is a barrier to the development of agile fast fashion supply chains, as local, or close to local, manufacturing is beneficial to a fast fashion model (Bruce and Daly 2006). Although several Australian fast fashion companies still manufacture in Australia,⁴ for the most part local manufacturing cannot compete on price with China. Hence speed to market is somewhat hindered by the distances between China and Australia, which are considerably longer than, for instance, Mexico to the US, or Romania or Turkey to the UK.⁵ While some Australian companies may manufacture in neighbouring countries such as Fiji, this has proved problematic due to issues such as political instability and inconsistency of product (McDonald 2009).

In 2005, Australian fashion industry magazine *Ragtrader* suggested that Australian labels develop fast fashion supply chains by looking closer to home in Indonesia and the Philippines (*Ragtrader* 2005). However, this advice clearly had little impact, as in 2010, 75 to 85 per cent of all clothing sold in Australia was imported from China (O'Loughlin 2010a). Overall, the result of Australia's geographic distance from its manufacturing suppliers does not hinder the number of new styles arriving in store, but slows the responsiveness and the flexibility of the supply chain, both key prerequisites of the fast fashion model. However, although the high minimum orders of Chinese factories have been a barrier, since 2009 Chinese factories have reportedly become more flexible and willing to accept smaller orders by Australian companies (McDonald 2009).

⁴ Supre, Bardot and Cue are still manufacturing some product in Australia and enjoy rapid response times as a result. Bardot and Cue are also accredited by Ethical Clothing Australia.

⁵ Distance between Sydney and Beijing: 8662 km, distance between LA and Mexico City: 2000 km; distance between London and Istanbul: 2496 km, London and Bucharest: 2088 km.

Fast fashion does have a considerable, and rapidly growing Australian presence, albeit one that has evolved *ad hoc* in response to the larger overseas trend. The global giants of fast fashion only began to arrive in 2010-11, and have yet to establish a wide presence in the Australian market.⁶ For this reason, defining fast fashion in this Australian context is difficult as there are so many different players in the market who are participating in various fast fashion strategies. Few companies in Australia actually fit the fast fashion model established in the scholarly research (see Table 5.1), with the retailer Cotton On perhaps the closest equivalent.⁷ Despite the considerable differences between Australian companies and the fast fashion giants of the northern hemisphere, the designers at Company A, a mid-volume wholesaler, identified their label as being fast fashion. As a comparison, Company A releases only 70 – 80 new styles per month, a relatively small and slow offering when compared to Topshop's 300 styles per week (Topshop 2012) or even when compared to Australian retailer Valleygirl's 65 per week (Valleygirl 2011).

In Australia, key fast fashion retailers with a lower-mid to mid-level pricepoint are Sportsgirl, Forever New, and Portmans. These are mapped in Figure 5.2. A comparison of the retail axis in Figure 5.2 with that of the global fast fashion companies in Figure 5.1 reveals how tiny the Australian retail presence is when compared to the global fast fashion companies. For instance, the stand-alone fast fashion retailers have on average 100 stores in Australasia, compared to the thousands of stores of Zara or H&M. In addition to the retail chains, there is a wide selection of fast fashion wholesaler brands at a mid-level pricepoint stocked in boutiques and department stores, two of which are Company A and Label C3. Lower-priced fast fashion retailers include Tightrope, SES, and ICE (see Figure 5.3). Also, many cheap, semi-anonymous wholesalers supply smaller retailers in the non-branded fashion space (see Table 4.1, pg. 110). Discount retailers Target, Kmart,

⁶ Zara arrived in 2011 and by the end of 2012 will have six Australian stores, Mango and Gap have a small recent presence and Topshop arrived in 2012. Uniqlo is predicted to open by August 2014 (Ragtrader News 2012e). H&M has not opened in Australia.

⁷ Cotton On Group, comprising Cotton On and six other brands has over 1000 stores in eight countries, and is described by Ragtrader (2012c) as a "fast fashion giant". In contrast, the Inditex (2012) group, comprising Zara and eight other brands, has 5693 stores in 85 countries.

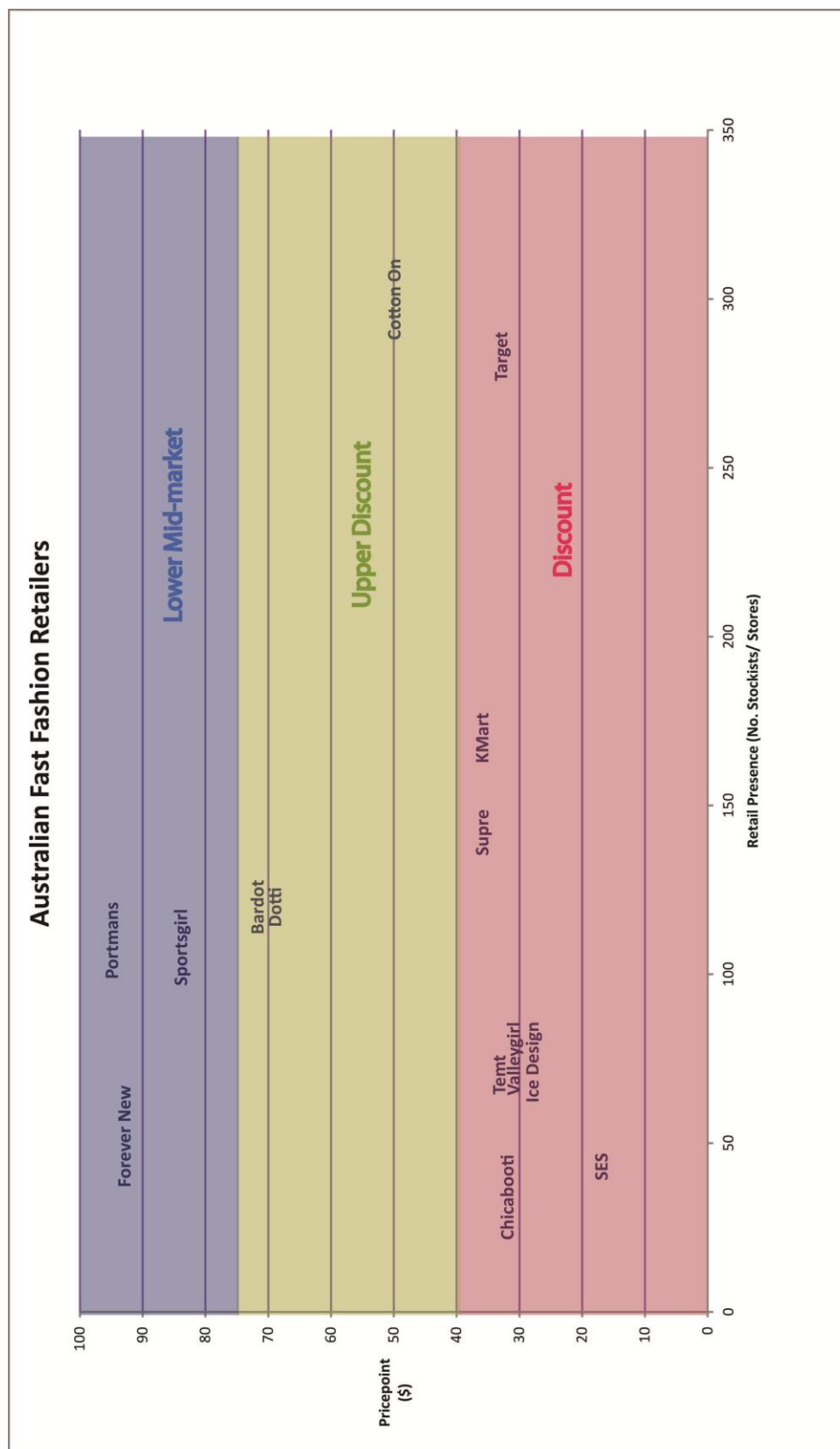


Figure 5.2 Australian fast fashion retailers map

Coles and Big W also have fast fashion offerings, with Company C representing this cohort.

As discussed in Section 4.2.2, like other Australian fashion companies, fast fashion companies all have considerable variance in supply chain strategies – some may design in-house, some will source directly from suppliers, some will product develop (or knock-off) overseas styles. Hence, Australian fast fashion can be divided into three main categories: branded, discount branded, and non-branded (see Table 4.1, pg.110). Branded and discount branded are represented by retailers (BGR) and wholesalers (BGW), while wholesaler garments appear to be either branded or non-branded. Therefore, the Australian response to fast fashion has varied from traditional retailers simply introducing more new stock more often, through to the high numbers of non-branded⁸ wholesaler imports that are stocked in the smaller, discount boutiques.

It is possible to map the retail fast fashion market (see Figure 5.2) according to discount branded or branded, however the fast fashion wholesale market is more difficult. A partial description of some of the wholesalers, as either ‘non-branded’ (no web presence), or ‘branded’ (with a web presence and hence a desired brand image to maintain) exemplifies this divide, which is clearly evident in pricepoint (see Table 5.2 below).

Table 5.2 Examples of Australian fast fashion BGW

Non-branded (retail equivalent: Tightrope, SES) Approx. pricepoint: \$2 - \$49	Branded (retail equivalent: Sportsgirl, Portmans) Approx. \$35 - \$150
Lussh	Bluejuice
Redberry	All About Eve
Sunny Girl	Milk and Honey
He doesn't know why	MINKPINK
Luka	Anise
Grab industries	Miss Shop
Dazzle	One Teaspoon
Avocado	Sass
	Kenji
	Tokito

⁸ Although the non-branded garments have labels in them (e.g. Avocado, He Doesn't Know Why), they are non-branded by virtue of having no website or marketing material contributing to an intangible brand identity.



Figure 5.3 SES discount fast fashion, offering \$3.95 dresses, February 2012, Broadbeach, Queensland

The discount tier of the market (whether retailer or wholesaler) need not even be branded, as the main aim is to get the fashion content correct, or at least correct enough to make a profit. Kmart is moving to a model where they will eliminate all branding from their fast fashion clothing (labels Now and Girl Express). As Kmart's general manager of apparel Andre Reich commented, "The more anonymous a style is ... the better it sells... So if she kicks her shoes off at a party, nobody will know where she bought them from" (O'Loughlin 2011). While this may not be a strategy for other Australian fast fashion companies that still invest heavily in brand strategy (for instance, Sportsgirl), for the lower end fast fashion retailers, it is far more important to have the fashion content right; the branding verges on immaterial, and may indeed be detrimental. This supports the view of Horning (2011), in that discount fast fashion strategies of companies such as Forever 21 can be termed 'post-brand', their chief purpose being to present as many different styles as possible for the consumer to make her or his own style and meaning from the trends. Similarly, Entwistle's (2009) description of fashion as being an aesthetic market is doubly true for discount fast fashion, in which the on-trend aesthetic of the garment is its chief monetary value, rather than its materiality or brand identity.

Therefore, unlike the global brands that dominate fast fashion overseas, Australians access fast fashion through many channels – from established branded retailers, or from non-branded wholesalers of indeterminate scale and ownership.

However, common to all types of Australian fast fashion is their garments aesthetic similarity to overseas fast fashion.⁹ Regardless of the means by which they designed, sourced, developed or knocked off the product – or even the price they charge for it – fast fashion companies in Australia can best be identified by their close adherence to rapidly changing fashion trends. To give an example, forecaster Sue Evans described the aviator-style jacket with shearling collar as a trend for Winter 2011 (Benmedjdoub 2010). In May 2011, Witchery offered a \$990 shearling jacket and Jigsaw a \$1200 jacket in response to the trend (Davies 2011). At the same time, similar garments at descending pricepoints appeared in Myer's Miss Shop, Sportsgirl, SES and Tightrope. Fast fashion boutique Dissh had a Company A 'shearling' jacket for \$129, and two Noughts and Crosses 'shearling' jackets beside it for \$79 and \$59. No longer are higher pricepointed brands such as Witchery or Jigsaw the first to respond to the catwalk trends, as all the designers, across market levels, as Elizabeth Wilson has commented, "drink from the same source, at the same time, as the top designers" (2003, 266). By late June 2011, not even mid-way through the actual Australian winter, the trend appeared to be exhausted. Dissh boutique's three versions of the aviator jacket were all significantly reduced to make way for the first summer collections (the colour-blocking trend, also appearing simultaneously in the UK as a high summer trend in Topshop). Visually, the various incarnations of the shearling jacket are very alike. The chief distinguishing factor is in the quality of fabric and manufacture, and for a short-lived trend, this may be less of a concern to price-focused consumers. Jigsaw and Witchery's jackets were both genuine shearling (sheep's pelt), while Noughts and Crosses and Company A both used PVC to imitate the leather, and used a polyester fleece for the sheep's wool. Although the price and quality may superficially place Witchery's jacket more within the domain of classic 'slow fashion', Witchery's product design is as bound to the trends as its cheaper counterpart. As Witchery's chief executive Ian Nairn

⁹ There are a number of contested perspectives on mass-market and local / global aesthetic. Skov (2011) sees local high-end designers as filling the need for a local aesthetic, while mass-market can be global. In contrast, Hameide (2011) believes that the luxury niche brands (e.g. Chanel) can offer the same product everywhere, but mass-market retailers must be locally specific. He says this is the reason why American chain Gap did not succeed in the European market. Additionally, in the context of the positioning of local creative industries, a local aesthetic is a strategic advantage to be marketed to other nations.

commented, Witchery releases 400 new styles per month (Ooi 2011). Arguably this rapid, trend- focused turnover places Witchery within the realm of fast fashion, although its prices may be up to fifty times higher than that of Primark in the UK, or SES in Australia.

Overseas fast fashion, typified by H&M and Zara, is designed internally by large teams who are rapidly fed data on consumer trends and adjust catwalk styles. In contrast, in Australia, fast fashion may or may not be designed in-house. Rather, buyers and merchandisers may choose product from a number of suppliers.¹⁰ Hong Kong based Li and Fung are a key supplier to the Australian market, offering services that cover the entire supply chain, ranging from textiles sourcing through to product design, development and manufacture (Mihm 2011). Australian fast fashion companies may rely on sourcing of this nature in addition to designing in-house. As illustrated in Figure 4.4 (pg. 121) there is a wide breadth of supply chain options, ranging from the fully vertically integrated model of Zara, through to the ‘house brand’ where product is designed in-house, then through to complete external sourcing in which all product is selected by buyers. In fast fashion, the cheaper ‘discount’ tier brands (whether wholesalers or retailers) are more likely to be towards the left side of the diagram, where they may not design or develop product in-house but instead rely on suppliers who may distribute the same or similar product elsewhere. In fact, it is possible for almost anyone to import fast fashion in comparatively small quantities from websites such as www.buyfashiondirect.com, or Alibaba.com, which cater for smaller boutiques and market stalls. In contrast, in the higher fast fashion market levels (e.g. upper discount and lower mid-market), product is more likely to be designed or developed in-house in order to establish a design point of difference and inject the brand ‘DNA’ into the product. All three companies studied in this project had at least one fast fashion label designed or product developed in-house, although all designers agreed that they were directly competing against many other companies that knocked-off garments from northern hemisphere fast fashion companies.

¹⁰ This is particularly common in fashion footwear, in which a supplier may supply many brands with the same shoe design (‘blanks’) and the company will simply add their own logo on the inside.

5.3 FAST FASHION AND SUSTAINABILITY

Fast fashion is the area most critiqued in discussion of fashion and sustainability. The logic of fast fashion has led to additional and often extreme pressures placed on suppliers.¹¹ Labour abuses have been rife in the fashion industry since industrialisation, however fast fashion garments are increasingly temporal in nature, and thus suppliers are under great pressure to deliver orders even more rapidly. The codes of conduct that major fast fashion retailers expect their suppliers to abide by may not be followed, as reported labour abuses continue. Recent examples include Bangladeshi slave labour used in Coles discount fast fashion offering Mix (Horin 2012), as well as a number of fatal clothing factory fires in Bangladesh brought about by poor safety standards (ABC 2010, 2012).

From a perspective of environmental sustainability, fast fashion embodies the extremes of fashion's profligacy and pollution. The rise in solid textile waste to landfill is largely attributed to fast fashion (Draper, Murray and Weissbrod 2007; Allwood et al. 2006; Farrer 2011). Similarly, the growth in demand for cotton, and in cotton-quality substitutes such as viscose and polyester, is attributed to the heightened demand of fast fashion (Ravasio 2012). This increased speed of material production and consumption is at odds with environmental sustainability. From a perspective of higher fuel prices and fibre shortages, fast fashion will likely prove unviable long term. Journalist Lucy Siegle (2008) notes the beginnings of this, with the cost of shipping rising due to fuel prices. She writes,

If fashion stays fast it will need to become more localised, which will increase cost. So it can be slow and cheap, or fast and expensive. It is the combination of cheap and fast that is unsustainable (Siegle 2008).

Global fast fashion companies have been under great pressure to demonstrate their corporate social and environmental sustainability, and in fact H&M is one of the most pro-active fast fashion companies in this regard, as demonstrated by their high ranking on environmental and social issues from the non-profit site Rankabrand

¹¹ For example, a Sri Lankan factory worker interviewed by Oxfam revealed the toll that agile supply chains can take on workers: "Last year the deadlines were about 90 days... [This year] the deadlines for delivery are about 60 days. Sometimes even 45... They have drastically come down" (EFF 2009).

(2011), with ten out of sixteen points.¹² Table 5.3 summarises the response of the global fast fashion retailers to sustainability. This demonstrates the ways in which fast fashion companies have intervened in product, systems around the product, and in the wider company. From here it is evident that H&M has been the most able to intervene in product design, through their use of recycled or lower-impact fibres in their garments. The overseas brands additionally are members of coalitions such as the Sustainable Apparel Coalition, or report to the Global Reporting Initiative, with unannounced audits conducted of their suppliers' factories.

¹² Patagonia is ranked nine out of sixteen in Rankabrand, which is significant as Patagonia would be conventionally viewed as the more sustainable of the two brands. For instance, Patagonia is a high pricepoint, not as bound to changing fashion trends, and with higher production quality. In comparison, in observations in Milan, I noted several H&M garments on display that were torn in places due to poor construction.

Table 5.3 Overseas fast fashion response to sustainability

Fast Fashion Retailer	Categories of intervention for sustainability		
	1.Product	2.Systems around product	3.Wider Company
Zara	Developing tools to assess product-related CO ₂ and environmental impact (SCOPE 3). Action plan for developing textile products with eco-friendly fabrics Organic cotton in portion of range Some hemp, Lyocell in ranges PVC-free footwear	Code of Conduct for External Manufacturers and Workshops Inditex Group has permanent CSR offices in India, Bangladesh, Turkey, China, Morocco, Brazil, Portugal and Spain (Inditex 2012b, 2012c)	Eco-refurbishment of existing stores Target for reduction in GHG emissions New stores to LEED-certified Eco-efficient transport Staff training on environmental issues (Inditex 2012a)
Topshop	Organic cotton, bamboo, hemp, Lyocell lines Upcycled collaboration with From Somewhere (Chua 2012)	Code of Conduct for Topshop / Topman based on International Labour Organisation guidelines Fairtrade ranges (Topshop 2012)	Eco-friendly store lighting Target for reduction in GHG emissions Recycling schemes within business Support of charities across the Arcadia Group e.g. Topshop mobile soup kitchen campaign
Gap	Some organic cotton collections, some Lyocell	Code of Vendor Conduct, Human Rights Policy Conducts internal audits of “nearly 100 per cent” of factories (Gap Inc. 2012) 2004 conducted assessment of environmental impact across life cycle	Target for reduction in GHG emissions Partner in Project Red campaign, with portion of sales of Gap Red collection to charity. Eco-friendly lighting in stores
<i>Continued next page</i>			

Fast Fashion Retailer	Current interventions for sustainability		
	1.Product	2.Systems around product	3.Wider Company
H&M	Upcycled collections World's no.1 user of organic cotton (7.6 per cent of collections) (Siegle 2012) Use of Better Cotton, recycled cotton Organic hemp in Conscious Collection Water-based adhesives in footwear Closed-loop recycled polyester chiffon (Chua 2011)	Code of Conduct Unannounced audits conducted of suppliers' factories. Buyer and designer training on sustainability.	Buyer and designer training on sustainability Target for reduction in GHG emissions 80 per cent of shipping by sea or rail to reduce carbon emissions Group-wide waste reduction strategy Water campaigns Training for workers on their rights Social campaigns to improve living conditions in developing countries (Hennes and Mauritz 2012)
Forever 21	Small amount of organic cotton in lines, some bamboo, Lyocell	CSR program includes the Forever 21 Vendor Audit Program, follows ILO and California Transparency in Supply Chains Act of 2010 (SB 657) ¹³ Eco shopping bags	Transport products by sea to reduce GHG emissions. Recycled packaging Eco-friendly lighting in stores Charity support through 'Give to Love Love to Give' collection.

In Australia, the fast fashion phenomenon has led to rises in fashion consumption and disposal. For example, the TFIA found in 2008 that Australian women under thirty purchased an average of 112 garments per year. In 2010 - 2011, 1,234,764,547 units of apparel were imported into Australia, with a landed price of \$4.06 per unit (TFIA 2012). This equates to approximately fifty-six units of apparel per Australian, per year. This high consumption has led to a rise in donations to charity, and declining quality of the goods donated, as observed by charity workers (Tilley 2008).

¹³ California Transparency in Supply Chains Act of 2010 (SB 657) came into effect 1 January 2012 and requires all Californian-based companies above a certain size to audit and publicly-report on their supply chain to ensure no human rights abuses.

One charity, The Smith Family, sends 120 million tonnes of donated textiles to landfill each year¹⁴ (Department of Environment and Climate Change NSW 2008). The 2010 National Garment Industry Sustainability report (The Hub 2010, 15) found that in Australia “a key barrier to sustainability is the trend towards ‘fast fashion’ and consumer reticence to pay a premium for an ethical product”. A related challenge is the growing amounts of unsold stock, with Jo Kellock commenting that it is common practice in Australia for companies to over-order clothing to attain the lowest price per unit, and then to incinerate or destroy unsold clothing rather than recycle it or donate it to charity (Simmons 2012). In fact, like many other Western nations, Australian unwanted fast fashion is shipped to African nations such as Uganda, where it is resold. Journalist Amy Fallon found fast fashion discount brands such as Cotton On and Jay Jays for sale in Ugandan markets (Fallon 2012a, 2012b).

Table 5.4 Australian fast fashion retailers’ response to sustainability examines the interventions for sustainability by Australian fast fashion retailers. Comparison of this table with Table 5.3 demonstrates that little intervention for sustainability has been conducted within Australian fast fashion companies when compared to overseas fast fashion. For example, most of the overseas fast fashion companies offer some fabrics that are more ecologically-sound than conventional cotton or polyester. In contrast, no Australian fast fashion companies offer Lyocell, bamboo, or organic cotton.¹⁵ In terms of the systems around the product, only Cotton On and Portmans have a visible Code of Conduct for their suppliers, or a CSR policy. Portmans is owned by the Just Group, and as such follows their guidelines. While Bardot is accredited by ECA,¹⁶ there is no mention of this on the website, or in store. The lack of intervention from Australian fast fashion companies contrasts starkly with the detailed reporting of H&M, Topshop (via the Arcadia Group) and Zara (via Inditex). These companies are publicly-owned and hence are accountable to their shareholders. This is a significant difference from Australian fast fashion, in which of the above retailers, only Portmans (as part of the Just Group, of Premier

¹⁴ This figure includes both pre- and post-consumer waste.

¹⁵ This statement is based on in-store observations and comprehensive searches of online stores.

¹⁶ Although ECA monitors the ethical treatment of workers – social sustainability rather than environmental sustainability – when Australian companies don’t declare their CSR policies, it is significant as it may point to a nonchalance towards all forms of CSR, or possibly to their view that their consumers are not interested in reading about it.

Investments) is listed on the Australian Stock Exchange. The rest remain privately owned.

Table 5.4 Australian fast fashion retailers' response to sustainability

Fast Fashion Retailer	Current interventions for sustainability		
	1.Product	2.Systems around product	3.Wider Company
Sportsgirl	Report in 2010 of small range using second-hand fabrics (Bryant, Kellock and Zimmerman 2010)	No CSR policy advertised (none visible for Sussan Group either)	Supports the Butterfly Foundation (Sportsgirl 2011)
Forever New	None visible	No CSR policy / COC advertised	None visible
Cotton On	None visible	Code of Conduct for manufacturer / CSR policy Eco shopping bags	Cotton On Foundation
Portmans	Commitment to use no sandblasted denim (Just Group policy)	Australian suppliers on TCFUA agreement Overseas suppliers comply with "The Just Group Ethical Overseas Sourcing Code of Conduct, which is largely based on The Ethical Trading Initiative Base Code"(Just Group 2012) Use of oxo-biodegradable shopping bags	Just Group signed 5 year action plan for Australian Packaging Convention regarding packaging: includes targets for product stewardship of all packaging e.g. hangers, boxes, bags etc. Supports charities Red Cross, Salvation Army, The Smith Family, RSPCA among others (Just Group 2012)
Supre	None visible	No CSR policy / COC advertised Eco shopping bags	None visible
Bardot	None visible	Accredited with Ethical Clothing Australia for locally-made product No CSR policy /COC advertised	None visible

Valleygirl	None visible	No CSR policy / COC advertised	None visible
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5.4 FAST FASHION DESIGN PROCESS

The fast fashion design process depends on the rapid imitation of catwalk and celebrity styles as well as a rapid response to how these imitations are playing out on the street. Therefore most design decisions are governed foremost by trend and cost. The role of the designer within this process varies considerably, depending most obviously on whether the product is designed in-house. As discussed in Chapter 2, there are contested definitions of design in a number of contexts: design for sustainability in Fry's terms, compared to design as surface styling or value adding, or design in the mass-market compared to Bourdieu's (1984, 137) "sacred" design of the high end, and design as imitation, knock-off, or emulation. Within fast fashion, the product may not be 'designed' in the way that higher-end fashion is designed, as it is unknown how many design decisions have been offshored along with the manufacturing. With design decisions diffused throughout the supply chain, the ability of the individual designer to intervene in the design of the product for sustainability is similarly diffused. This section presents two case studies of fast fashion design processes in Australian companies in order to explore these varied definitions of design and the implications for design intervention for sustainability. The first is a case study of Company A, a fast fashion wholesaler based in Sydney (see Table 3.2, pg. 97). The second case study looks at the design process of Label C3, a fast fashion label within Company C (see Table 3.4, pg. 98). These two case studies will then be discussed together to explore the themes of speed, design and change in Australian fast fashion.

5.4.1 DESIGN PROCESS: COMPANY A

Company A is a womenswear wholesaler brand, established approximately twenty years ago in Sydney, initially selling in market stalls before expanding into wholesaling.¹⁷ When fieldwork was conducted in 2010, Company A had three labels designed in-house by a design team of seven people, six of whom were interviewed

¹⁷ It is a requirement of the ethical clearance for this research that Company A not be identifiable, hence this thesis will give only general details on its background and ownership.

for this research. Figure 5.4 outlines the structure of the design department, with three levels of seniority in the design team. The company's customer is aged between 16 and 25. The design team oversees three brands (see Table 5.5). The designers identified all three labels of the company as 'fast fashion', even though in scale, speed and supply chain structure, Company A is far smaller, considerably slower and less agile than fast fashion overseas (see Table 5.1, pg.148). Company A's labels are stocked in several hundred locations across Australia, including a major department store. The brand is above the 'discount' level of the market; however several of its direct competitors sit within the discount tier. These market divisions are summed up in the fast fashion wholesalers table (Table 5.2), and in the overall fast fashion maps (Figure 5.1, Figure 5.2). Company A's products are at a higher pricepoint than global fashion retailers such as H & M or Zara (although based on retail observations, Zara in Australia is priced higher than in Europe).

The company is privately owned, and the majority of garments are manufactured in China at a factory owned by the brother of Company A's owner. This family connection is an advantage for the company in that manufacturing prices stay low and can be negotiated. However, as Design Room Manager Hannah explained, there are some garments types or finishes that the factory does not specialise in, and as such designers are constrained by what the factory can and can't do. Also, if the factory makes a mistake, Hannah (2010) said that Company A "just has to wear it," due to the close family ties. With a single supplier, Company A's supply chain is clearly radically different to the fast fashion supply chain described in Section 5.1, in which a different supplier would be sought to make up for perceived shortcomings of another. Some patternmaking and sampling is conducted in the Australian headquarters, some in the Chinese factory. The strong family ties to the factory suggest that Company A sits slightly closer to the 'vertically integrated' side of the diagram in Figure 4.4 (p.121) as even though they do not retail their own garments, the family connection allows for greater transparency and communication with their upstream supplier.

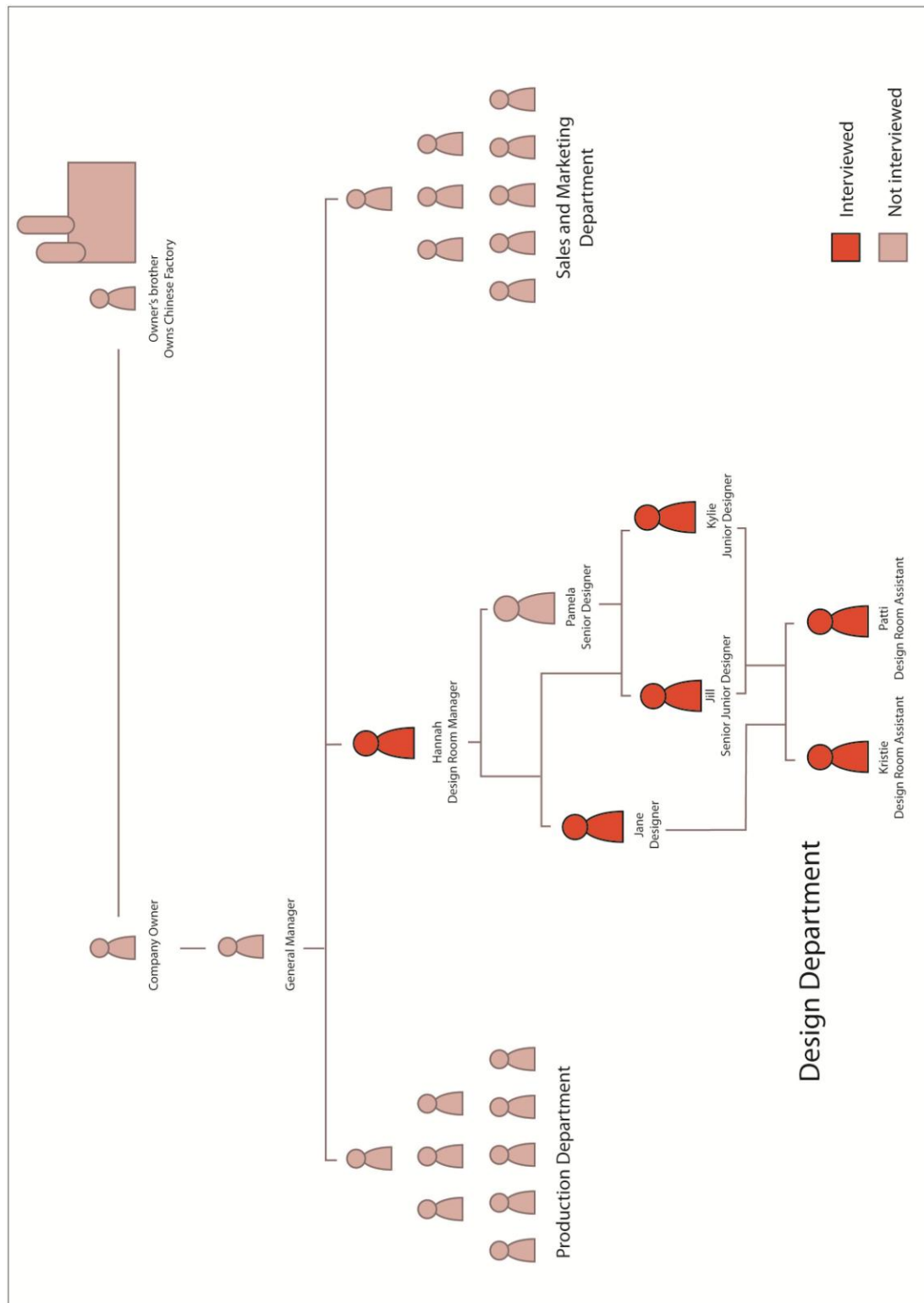


Figure 5.4 Company structure and design department members, Company A

Table 5.5 Company A's brands

Company A Labels	Company description	Target customer	Styles per collection	Collection frequency	Price range
Label A1	Safe, commercial	Aged 16 - 25	50 - 60	monthly	\$40 - 150
Label A2	fashion forward	Aged 16 - 25+	6 - 10	bi-monthly	\$59 - 180
Label A3	denim	Aged 16 - 25	30	bi-monthly	\$54 - 90

Company A's design process begins three months out from delivery of product into store. While this is shorter than the traditional lead time of six to nine months, it is still a longer and slower development cycle than the two weeks to one month in overseas fast fashion. These lead times are visualised in the diagram of design process in Figure 5.5. As Company A has monthly collections, at any one time several collections will be in various stages of development. Following Sinha, the following sections classify the design process into the stages of research and analysis, synthesis, selection, manufacturing and distribution (Sinha 2001; Burns and Bryant 2007) (See also Section 2.3.4, pg. 64).

Research and analysis

The research and analysis phase differentiates fast fashion from slower fashion, higher end fashion and avant-garde fashion, and it is in this phase that the similarities between Company A and the methodology of global fast fashion are more evident. Fast trend data drives the research and analysis phase, sourced from both street level and the catwalks. According to Siegle (2011), Zara's design room employs 200 designers who have this trend data emailed and phoned in daily by a worldwide network of trendspotters. Whereas in other fashion design practices (see Company C, in Chapter 7), trends are researched and used more loosely for colour, mood and silhouette, in fast fashion, the trends are sovereign. In Australian fast fashion, this is more likely to involve direct imitations of garment styles from catwalks and overseas chain stores.¹⁸ In Company A, although the design room is hierarchically structured (see Figure 5.4), every member of the design team contributes to the design process and researches the trends through blogs, WGSN, magazines and styles of local and

¹⁸ Imitation and Australian fashion design will be explored in the next chapter with the case study of Company B.

overseas competitors as well as higher end, independent labels. This is illustrated in as Design Stage 1 in Figure 5.5, the diagram of Company A's design process.

However, Company A places greater importance on presenting a 'twist' on the trends, and where overseas fashions are sourced as design inspiration, then the garment is analysed and used for inspiration rather than directly copied.

Responsiveness to emerging catwalk fashion trends is paramount in fast fashion, and discussion of how to best respond to them was central to the descriptions all the designers gave of their design process. In October 2010 during the first phase of fieldwork, trend information was displayed in the design room, grouped into trend forecasting themes such as 'Baroque 'n' Roll', 'Good versus Evil' or 'Fifties Poetic Romance', with magazine pictures and internet printouts acting as concept boards. Magazine titles used ranged from the mainstream (*New Weekly*, *Shop til you Drop*) to the more fashion forward (overseas editions of *Vogue*, *Oyster*, *Frankie*). This range is important, as Company A, like other fast fashion design teams, needs to respond to celebrity styles highlighted in mainstream publications, as well as emerging designer and subcultural trends that may gain commercial acceptance in the coming months. Initial design and trend research was conducted individually by all designers and then each designer presented her concepts for the month in the planning meeting.

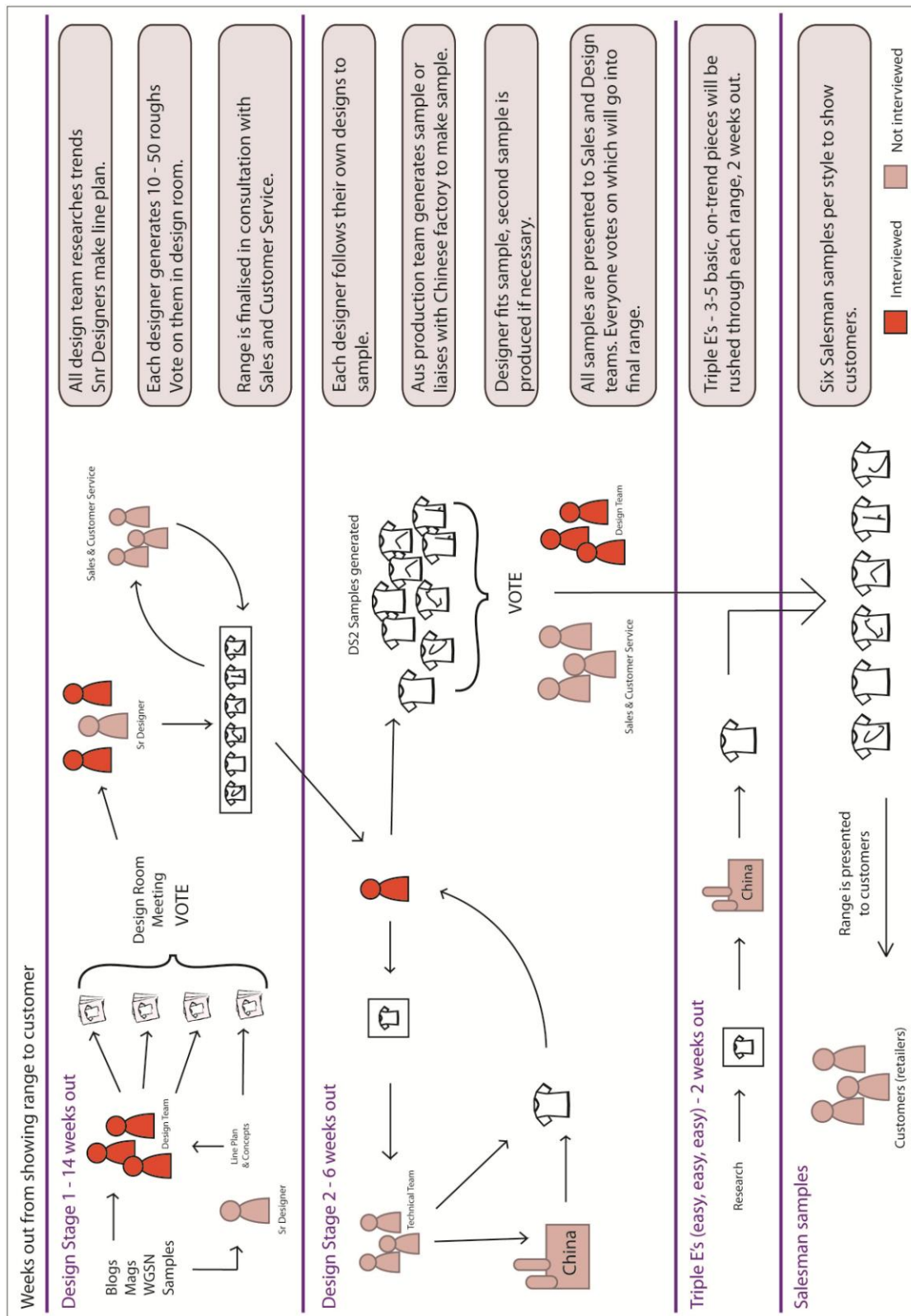


Figure 5.5 Company A design process to final salesman samples

At the planning meeting, the research is analysed as a group in terms of which trends are right for the target customer of each of the three labels. This stage is

illustrated in Design Stage 1 in Figure 5.5. To help structure this analysis, designers begin the research process with several categories in mind, such as ‘girls’ night out’, ‘urban’, ‘beach’ and ‘classic’. In this way, they are picking trends that can be adapted to the lifestyle of their target customer. Jill described ‘girls’ night out’ as “clubby PM”, on-trend party tops and dresses for young women in their late teens and early twenties. Their customer is fashion conscious without being particularly fashion forward, so it is important to pick the trends that already have a degree of acceptance. As junior designer Kylie (2010) said, it is about “what the market will understand.” While Label A3 is more fashion forward, Label A1 is safer and more commercial. Jane (2010) added,

we have to be careful that we don’t introduce things too soon because our girl is at the bottom of the cycle and won’t be quite ready for that yet. Then having said that, if one of our competitors picks up on a trend and it does really well, well then we will be instantly at it too.

As discussed earlier, crucial to the fast fashion strategy is not only the rapid response to the trends trickling down from the catwalk, but the rapid response to the desires of consumers. Zara famously utilises quick communication from trendspotters and store managers to design room and factory floor in order to achieve this. As a wholesaler, Company A is less well-placed for real-time floor sales and responses, although their sales team do provide detailed updates on how designs were received, which is fed into subsequent seasons. Nevertheless, Company A designers research from the beginning the interests and trends adopted by the end user as much as the fashion trends. This is largely achieved through following personal style blogs, which designers Jane, Kristie and Kylie find useful. Junior designer Kylie (2010) said,

I tend to look at a lot of blogs because I think that’s the key to being in touch with how the end user is actually wearing the product. It’s great to see it on the catwalk but if no one can wear it during the day, or is actually wearing it out, there’s not much point. So just seeing how people are wearing it and what cool people are picking up on and just how it’s sort of filtering down from that catwalk level to that street style is important.

This use of personal style blogs in the design process is significant in light of the wider trend of symbolic production of fashion that involves not only the traditional

gatekeepers of fashion knowledge, but increasingly fashion consumers acting as “producers”. Although trends have ‘bubbled up’ from the street for decades, significantly, the personal style bloggers can be regarded as publishers and disseminators of fashion knowledge similarly to traditional fashion journalists, although with greatly fragmented and varied audiences. The gains for fast fashion companies are two-fold. Personal style blogs can be a source of inspiration, and can also verify the accuracy of trend research from traditional sources (e.g. trend forecasting services) (Rickman and Cosenza 2007). Additionally, personal style blogs allow smaller companies such as Company A access to the views and trends emerging amongst their target market, a way to keep their “five fingers” on the customer, in the words of Zara’s Amancio Ortega (pg. 150). Thus, while Company A differs considerably from the conventional understanding of fast fashion, the necessary connection to customer desires is pursued through the close following of both local and international personal style blogs.

In addition to the use of blogs for research, the designers’ own position as consumers of fashion feeds into the design process. Kylie (2010) described how everyone brings in magazine images to show the group:

we do this thing called ‘retail winners’ and we all bring in some and if we all sign them they go up on that board and it’s good like that - if twenty girls say ‘I would wear that’ then we must put it in.

Through the ‘retail winners’ board, the designers build a consensus as to what their end user would wish to wear by using their own opinions as to what they themselves want to wear. Crucially, their knowledge as participants in, and consumers of, fashion is therefore as important as their knowledge and experience as designers. This relates to Webb’s (2007) point regarding the demise of retail marketing as a stand-alone department of a company. As opposed to being a tool to communicate the finished product to consumers, retail marketing data and considerations are now used to determine the actual design of the garment – meaning that marketing is deeply embedded within the design process. This comes into Kylie’s design process explicitly, as she discusses how her design decisions depend on her own likes as a consumer of fashion. Being close to the age of her target customer, she believes herself well-placed to make decisions in this way. Kylie considered herself to be more fashion-forward than the Company A customer,

however she saw this as an advantage: if she liked a trend, by the time they were able to put it into production, their customer would be ready for it. All the team members with the exception of Jane and Hannah were in their twenties. As such, they were effectively acting as stylists for a target market that included themselves as consumers, choosing what they would like to wear as it is likely to also be what their target customer would want to wear.

Synthesis

After agreement is reached on the appropriate trends to target, the designers begin to individually develop their own designs. Every designer is expected to present a number of designs to the group, ranging from ten for the assistants, through to fifty for the more senior designers. Designers will design according to the line plan that is determined by the senior designer Pamela. They will consider the category for the garment (e.g. girls' night out, urban etc.) and must necessarily keep cost in mind throughout the designing process. From here, the design team meets again and presents their designs to the group. They are voted on, and the most popular designs go through to the next stage. According to Hannah, this collaborative system of designing and then voting was inspired by how Zara's design room operates. It helps to build a consensus, from a perspective of the designers as designers but also as consumers. In this sense, Company A's strategy is firmly aligned with the fast fashion *modus operandi*, even though the company operates at a far smaller scale.

To circumvent issues of volume, many trends must be tackled within a relatively small collection; hence Jane described how Company A designers design individual, trend-focused pieces rather than designing within trend stories (e.g. where a number of styles may combine in response to a trend such as 'Good versus Evil'). Designing in this way, in individual pieces, means that the monthly collection may appear disjointed, without a theme or common aesthetic. However, Company A has to operate this way as they must respond to the greatest number of trends within their relatively few styles. As Jane (2010) said, Company A "couldn't touch basics," as large competitors such as Supre and Cotton On could offer them much cheaper.¹⁹ Without offering basics, Company A must therefore offer a design point of

¹⁹ As Tokatli (2007) describes, in many vertically integrated fast fashion companies, basics may account for 80 per cent of the stores offering, with the fast fashion content only 20 per cent.

difference to set their product above their competitors who are responding to the same trends. As the collaborative design process ensures that many more designs are generated than will ever be used – several hundred first designs will be reduced to approximately fifty pieces – the designers are able to edit the collection to target each trend with great care. Arguably, this collaborative design strategy encourages a greater degree of innovation, as each designer needs to present a ‘twist’ on the selected trends, rather than directly imitating overseas examples, in order to move her design into the final collection. According to Jane, this design process is unusual in the Australian fast fashion sector. For example, as discussed in Section 4.2.1, a documented approach of fast fashion retailer Cotton On has been to give their designers another company’s T-shirt and tell them to make one “the same but different” (Hardingham and Feder 2011). However, in Company A, the small size of their collection means that every style has to count, and has to be closely targeted to the trend while maintaining a design point of difference.

Selection

Once the votes have been collated, approximately fifty designs are chosen to progress to through to the next stage (Design Stage 2 in Figure 5.5). From here, the individual designers are responsible for following their designs through the stages of costing, patternmaking, sampling, and fitting. They digitise the hand-drawn roughs using Adobe Illustrator and fill in the specifications sheets for each design. Company A has a team of in-house patternmakers, cutters and sample machinists, and hence the designers are able to liaise with the production team face-to-face. This situation is reportedly becoming rarer in Australian design rooms, as like production, the pattern and sample making are increasingly conducted offshore (Boon et al. 2011). Sample fittings are also conducted in-house, with twenty-year old design assistant Kristie acting as fit model, thus embodying the target customer both literally and figuratively.

Another round of voting will determine which samples make the final collection that will be presented to the buyers (i.e. the retailers). With all the short-listed designs now manufactured as first samples, the designers present their samples to each other and to the Sales and Customer Services teams. This vote is very important, as it enables the team to see how the collection is responding to each of the anticipated trends, as well as whether they have met their requirements of styles

responding to each category – e.g. ‘beach’, ‘girls’ night out’. Styles may progress to first or second samples, and then be cut from the collection.

Concurrently, the designers are also designing new roughs for the following month’s collection. Therefore, the trends research needs to be an ongoing task throughout all phases of the design process, as there is no guarantee that one’s design at sample phase will go through to the next phase of selection, as trends may have changed. To overcome this challenge in a time-constrained aesthetic market, the ‘Triple E’ designs (standing for ‘easy, easy, easy’) are simple on-trend designs that may proceed directly from sketch to salesman sample. Hannah gave the example of a tiered peasant skirt, responding to a Bohemian trend, as being appropriate for a Triple E design. The Triple Es are added to the collection two weeks before the presentation to the buyers as a way to rapidly respond to trends (see Design Stage 3 in Figure 5.5).

5.4.2 DESIGN PROCESS: LABEL C3

Label C3 and Company A are direct competitors in the branded fast fashion wholesaler market. Despite this, Label C3’s design process differs significantly from that of Company A. The discussion of this difference demonstrates the range of design processes that may co-exist within different companies in the fast fashion sector, although the companies may share similar objectives and outcomes. Label C3 sits within the larger Company C, a mid-market womenswear wholesaler and retailer, to be discussed in depth in Chapter 7. Label C3 is a lower pricepoint compared to the other two labels in Company C. Label C3 is also a direct competitor of Company A’s three brands, and they share retail floor space in many boutiques and in a major department store. However, in terms of design process, they operate very differently (see Figures 5.5 and 5.6). A key difference is that in Label C3, there is one designer, Sophie, who has an assistant to help her.²⁰ In contrast, in Company A, design tasks were shared throughout the seven-member team in order to build consensus on the fashion trends. Sophie said that she felt under pressure with her workload, saying, “So it’s pretty crazy. I don’t sleep a lot, to tell you the truth. As you can see we don’t have many people helping. There’s only me” (2011). Like Company A, Label C3 puts out a new collection monthly, with the number of styles in the collection varying

²⁰ At the time of the interview in January 2011, the assistant was on maternity leave.

from 40 to 80. In between, Label C3 may also provide ‘injection ranges’ for their major department store customer.

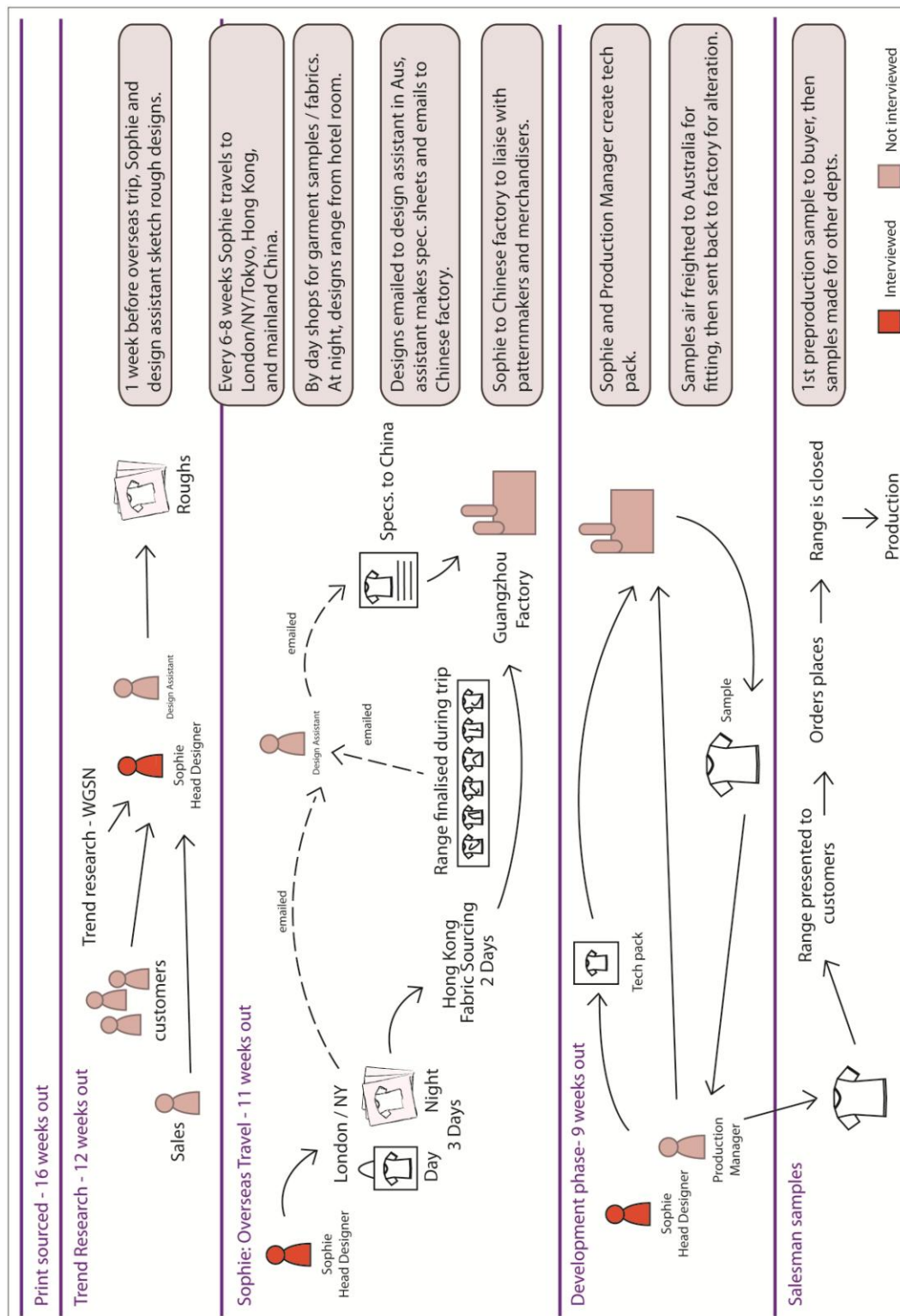


Figure 5.6 Label C3 (fast fashion) design process

Research, analysis, synthesis and selection

Figure 5.6 details Sophie's design process. Every six to eight weeks Sophie travels to either London or New York to look around the shops (high street and luxury) and vintage markets to gather inspiration. Before she leaves for her trip, she prepares her range break that details the number of tops, dresses, skirts, pants and jackets that she is required to design by her sales team and customers (retailers), who require certain combinations of tops and bottoms. She also looks on WGSN for trend analysis and reports in order to focus her shopping. Overseas, she goes to the main shopping precincts, saying:

I go vintage shopping as well, sometimes I find nice scarves which we will use for prints, some shapes which we could use as well. And also to check out all the other stores, like H & M and Zara which kind of fit in with the Label C3, sort of a similar style and customer. And I will buy anything that I think would help with details, embroideries and things like that (Sophie 2011).

She shops for three days, and in the evenings examines her shopping finds and hand draws her designs. She needs to make sure her shopping finds meet all the trends that she flagged in Australia. She says:

I get given a range break, it will say things like: for April I will need ten pants, twenty dresses, five skirts. Everything needs to be in stories, that's just a guide, the range break, I have to design in outfits. So if I design a top it has to have a bottom. [They] have to be in stories, so if there's a bohemian story, I need to make sure there's enough pieces in there (Sophie 2011)

She emails her designs to Australia, where the production manager will add them to specification sheets and translate any notes into Chinese, then emailed back to her. Sophie then travels to the Chinese factory (sometimes stopping off in Hong Kong for further shopping). At the factory, she goes through all the styles with the production team, and then shops in the fabric markets to source the garments' fabrics.

Back in Australia, she will conduct fittings of the samples, posted from the Chinese factory. These are adjusted, and then posted back for further changes. Six weeks later, Sophie goes through the process once more and leaves for her overseas trip. She said:

Sometimes I get a bit delirious, because of the hours we have to work and stuff... when I am on my trip I just have to know what I'm designing, (taps head) it's just has to be up here because there is really no time. I normally have three days, so I'm still drawing throughout that time (Sophie 2011).

Sophie's design process is undertaken at a frenetic pace, in which approximately 80 styles are determined alone over three evenings, in a hotel room. Also, the higher pricepoint of Label C3 means that unlike the discount fast fashion labels, Sophie cannot engage in direct copying of styles. She said:

I've worked for a lot of companies that do [knock-off] but you get in trouble um I mean I'm a designer - I studied design - so I like to design it and not just copy because any one can do that... if you just copy it straight up, most of the time other labels do the same thing, the cheaper labels, like your SES's, your Valleygirls, your Red Berry, and then you will have the same product as them, and then our customers [retailers] will come in and they will say 'oh you know, I've seen that in Surry Hills, all the little wholesalers in Surry Hills'²¹. And you don't want that because they would be able to get it from them much cheaper than what they can get it from us, so we have to change it all (Sophie 2011).

Like the designers at Company A, Sophie is already disadvantaged through not being able to directly copy – she needs to add value through her design by presenting a variation on the aesthetics dictated by the larger trend stories.

The interview with Sophie revealed how fundamentally different the process for fashion design for sustainability (as described in Table 2.1, pg. 83) and the fast fashion design process are. Sophie barely has time to get through her existing workload, let alone consider new approaches to design. Regarding sustainability, she said:

Sustainable... I honestly don't know... I don't even think about that really, honestly, because I don't have much time to design and get it all in to work. It's pretty much just about what's in fashion. For Label C3 it has to be on trend so I actually have to look at what's showing overseas and it HAS to follow those trends (Sophie 2011).

²¹ The problem of competition from the faster, directly copying, lower pricepointed Chinese wholesaler labels in Surry Hills, was also identified by Jane at Company A.

While Sophie's design process was solitary rather than collaborative, like Company A, of paramount importance was the need to stay close to trends. Her process revealed her implicit fashion knowledge and contextual knowledge that lies in knowing what the retailers need from Label C3, as well as how Label C3's customers will respond. Sophie gains this knowledge partly through the retailers' feedback, and partly in the more nebulous sense of sharing the 'lifeworld' of her consumer. Like many of the designers in Company A, Sophie is the same age and lifestyle demographic as the customer for whom she is designing. Following Aspers' (2006) analysis, discussed in Section 4.3.1, this knowledge grants her an implicit insight into what her customer will want to wear.

Sophie's fashion knowledge is gleaned chiefly from her travels and from WGSN. The travels reveal the importance of place; in particular, the continued importance of the fashion cities in the northern hemisphere. In her studies of the aesthetic economy, Entwistle (2009, 2010) notes the vital importance of place in the transmission of fashion knowledge among high fashion buyers. Also, while designers can gather fashion knowledge through reading WGSN, this research is related only to intangible styles and aesthetics in the form of images. Hence Sophie must travel to see and buy the material garments that she will use for inspiration – she needs to handle the garments, see their finishes and their fit in order to translate these into her designs. As her trips are only six weeks apart, this fact alone demonstrates the speed of change in the fashion system.

5.4.3 FIBRE/ TEXTILE CHOICES IN COMPANY A AND LABEL C3

Fabric choices in fast fashion are dictated chiefly by cost. Although Company A and Label C3 sit at the lower-mid market tier, well above the discount market level of SES or Tightrope (see Figure 5.2), their main fabrics are still polyester, as are Tightrope and SES's. While Tightrope is able to sell T-shirts for as little as \$5 AUD, Company A or Label C3 T-shirts will sell for \$79. The quality of Tightrope's manufacturing and textiles are certainly lower than that of Company A's garments, however, not necessarily ten times lower in quality.²² Designing in-house adds

²² The difference could be in a number of material factors, chief being the price of manufacturing. Countries such as Bangladesh (US 22 cents per hour) offer rates up to five times below those of

considerably to Company A's overheads, and Jane suggested that to compensate, cuts are being made in the quality of fabrics. Designers at Company A can spend no more than 15 – 20 RMB²³ (\$2 – 3 AUD) per metre, which is considerably less than the previous fast fashion company Jane worked at, in which the upper limit was 30 RMB (\$5 AUD) per metre. Label C3 was also limited to no more than 30 RMB. Other designers echoed this view. Jill thought that fabric choice was difficult, saying, “we have been struggling recently trying to find fabrics that are quality but then trying to get them for the pricepoints ...for our target.” She added, “we have had a bit of feedback lately that our fabrics really aren't standing up to our competitors at the same pricepoints.” As fast fashion depends on rapid turnover of inexpensive garments, cheaper fabrics are essential.

Sophie in Label C3 said regarding her fabrics:

[Label C3] is a cheaper label so we are restricted by costs and everything has to be cheap, it *has* to be cheap. It means we are not allowed to use silks, we are not allowed to use some cottons because the prices have gone up so we are usually stuck using polyesters (2011).

The two most popular fibres used in fast fashion, polyester and cotton, each have considerable environmental impacts.²⁴ To Company A's design room manager Hannah, quick growing crops such as bamboo would be a better alternative to water-intensive cotton.²⁵ However, when looking at more eco-friendly fabrics, April (2010), the fast fashion designer at Company B commented that it is always a challenge as it comes down to cost:

We don't do anything that's – bamboo – conscious... things like that, because it would increase the prices, and because it is fast fashion you want

Chinese suppliers, with examples being US 55 cents per hour inland, US 1.08 per hour in coastal regions (EmergingTextiles.com 2008).

²³ The Chinese currency Renminbi, also known as yuan.

²⁴ For example, cotton is a water-intensive plant, also requiring high quantities of pesticides and insecticides, while polyester is energy intensive to produce and manufactured from a non-renewable resource (Smith and Barker 1995). Fletcher (2008) argues that more important is the fitness – the right fibre for the right garment. Hence if fast fashion garments could be close-loop recycled, then polyester is an appropriate choice.

²⁵ Observing Company A's product in store six months later, I noticed that they had utilised some bamboo blends in certain garments.

the cheapest one for the best price to be able to turn the trends over. So it's trends [or] sustainability ... it's kind of scary, yeah it is scary, it's kind of sad.

There has been more progress in fibre choices in overseas fast fashion companies than in Australian fast fashion companies. For example, H & M and Gap both offer an organic cotton collection. H & M recently began to use chiffon made from recycled PET bottles (Chua 2010). However, these responses represent only a small portion of each company's fibre consumption. If recent fibre price rises are a gauge, then fast fashion's demand for fibre will soon outstrip supply. Cotton prices have fluctuated considerably during 2010 -12, prompted by floods in 2011 in both Pakistan and Australia (the world's third largest cotton producer). In January 2011, *Ragtrader* reported that the high cost of fibre is likely to raise garment prices by as much as 30 per cent, in addition to which H & M attributed a recent 10 per cent loss in profit largely to rising cotton prices (*Ragtrader* 2011). Although this price rise may only be temporary,²⁶ when placed in a wider context of climate change, food security and global population pressures, high fibre prices may become more permanent. In 2011, Primark in the UK was absorbing the price rise of cotton rather than passing it onto consumers, although this strategy is hardly viable in the long term (Zientek 2011). Therefore, the need to find alternative fibres is not necessarily an issue of appearing 'green' and 'eco-friendly' for one's customers, but crucially a longer-term need to adjust to a range of global pressures that may force different fibre choices in future.

The interviews revealed that it was very difficult for the designers to consider DfS in terms of choosing lower-impact textiles. With the exception of Hannah in Company A, few of the designers had any knowledge of more sustainable fibre options, or of the environmental impacts of various fibres. This is therefore a crucial barrier in applying DfS strategies within the design process. Large companies such as H&M and Nike can devote sourcing departments to pre-determining the fabrics based on their developed criteria for lower-impact fibres (for instance, Nike's Considered Index, or the SAC's Higg Index). However, both Label C3 and Company A are small operations in comparison to H&M and Nike, and even compared to

²⁶ Cotton prices reached an all-time high of US\$2.39 per pound in March 2011, but have since stabilised at US\$1 in early 2012.

Company B. Neither Label C3 nor Company A had sourcing agents who could potentially handle this research for them according to standards (e.g. such as Oeko-Tex, or GOTS). Rather, the designers in Company A and C select the fabrics, and as was demonstrated in the interviews, their chief concern is balancing the price per metre while ensuring acceptable quality in handle.

While the designers do not have the knowledge necessary to determine which fibres to source as substitutes, they also have no time to conduct the kind of research required, or indeed the time to source new fabrics and develop new relationships with suppliers. For example, Sophie, the head designer in Label C3, purchases her fabrics in the markets en route to the factory. Therefore she already knows what she needs to purchase based on the fashion trends, and has to find fabrics on that foremost criteria. Similarly, Company A relies on a series of base fabrics, as Jill described, already sourced by the head designers based on price. More problematically, even if the designers did have the time to conduct this research, all of the designers interviewed believed that their customer had no interest in lower-impact textiles, and so there was no external need to shift their sourcing practices.

However, despite these factors, the mid-volume fast fashion designers also have an opportunity. The designers do have greater degree of control over their fabric choices as they are directly responsible for choosing them, rather than relying on the choices of an intermediary or separate sourcing office (for example, as opposed to the designers in Company B, as will be discussed in Chapter 6). Therefore, this opportunity for designers to consider lower-impact fibres is significant, and points to the need for re-education and new strategies to share information regarding fibre choice with mid-volume designers, and to connect them with suppliers.²⁷ Mid-volume companies such as Company A and Company C make an interesting case, as while the designers potentially have more control to change their fibre choices than designers in a bigger company, they paradoxically have a reduced capacity to do so, due to barriers such as knowledge and time pressures.

²⁷ This issue of knowledge building will be discussed in greater depth in Chapter 8, and was a key driver behind the ThinkLifecycle (Payne 2011) proposal, described in Appendix E.

5.4.4 SUPPLY CHAIN

Both Label C3 and Company A share supply chain similarities, even though their design and development processes differ, as, for example, Company A has a collaborative design process and samples on-shore, while in contrast Label C3 has samples manufactured overseas, and most design decisions rest with one person. Critically, both Label C3 and Company A each deal with a single factory, rather than the post-Fordist model of multiple suppliers. Company A and Company C are, in Australian terms, mid-volume, although in comparison to a fast fashion giant such as H&M, both companies appear tiny. For instance, H&M manufactures an estimated 550 million garments per year (Siegle 2012), which equates to half of the over one billion garments imported by all Australian companies put together (Wells 2010, TFIA 2011). As mid-volume (at least in Australian terms) wholesaler brands, both Company A and Label C3 are relatively small players in the Australian fast fashion sector. Their monthly collections are also slower, and their lead-times longer than that of Sportsgirl or Supre. Supply chain flexibility is less possible for Company A and Label C3 due to their dependence on a single supplier. Company A makes up for the lack of flexibility in other ways. As Company A's owner has a family connection with the factory owner, who only manufactures Company A clothing, there is close communication between brand and supplier. The Triple Es are a compromise to achieve speed-to-market through rushing on-trend designs through in two weeks, and is aided by the close relationship with the factory.

The geographical separation of manufacturing from design means Australia's fast fashion designers are far less likely to physically handle the garments during the toile phase. Although Company A samples some garments in Australia, the 'Triple E' designs are produced as final salesman samples at the Chinese factory. In Label C3, Sophie does work with the factory for a short time, and the samples are freighted to Australia for fitting. Distance from sampling and manufacturing has wider implications for intervention in product design for sustainability. Being distanced from the manufacturing of the samples, designers are less able to be involved in solving or redirecting the myriad of small design problems that may arise in the patternmaking and prototyping process. Arguably, designers are less engaged with the materiality of the garments they design, whereas a designer whose samples are manufactured in Australia has the opportunity to work more closely with patternmakers, cutters and sample machinists. When viewed from the perspective of

design for sustainability, questions such as which fusing to use, which sewing thread, how wide to make the facings or seam allowances and how to lay the pattern pieces on the marker all fall within the remit of the design process. However, in fast fashion, these are not necessarily ‘design’ decisions, and as such may be unwittingly offshored along with the sampling and manufacturing processes.

Regarding the issue of manufacturing offshore, designers in Company A were very aware of the recent price rises in Chinese manufacturing, which have seen costs of garment manufacture rise twenty per cent (*Ragtrader* 2011). In Jane’s view, Australian labels would simply find suppliers in other countries, saying, “so now it’s like ‘well we’ll have to go and exploit some other country’”(2010). *Ragtrader* confirms that Australian companies are actively exploring other markets, even as far afield as Peru, which can offer smaller volumes and greater flexibility than China (Benmedjdoub 2011). Clearly, this relates to a wider issue regarding the rise of China as it goes through the economic upgrading process outlined in Section 4.2.1. Chinese manufacturing is moving more prolifically into manufacture and R&D of ICTs, and hence the lower-value apparel factories are moving from the coastal regions further west (McDonald 2009). Also, many Chinese factory workers are arguing for higher wages, and this is another reason for price rises in apparel (Stockdill 2010). The significance of this regarding sustainability ties closely back to Black’s (2008) fundamental ‘fashion paradox’. Apparel production is, as Gereffi (1999) observes, a pathway to economic development for a nation; however individual garment workers frequently suffer from unsafe working conditions and are paid below what is considered a living wage in their country (Minney 2012).

5.4.5 CONNECTION TO CUSTOMERS

Within the fast fashion model, the design and production rhythms of a fast fashion company fundamentally depend on the constant flow of information from stores, as most clearly evidenced in the case of Zara, as outlined in Table 5.1. For this reason, the retail stage effectively becomes a research stage of the design process. As wholesalers, Company A and Label C3 are not able to follow Zara in this respect, and as such rely on quantitative information (sales figures) and qualitative (comments and feedback from retailers) to feed this information back into the design process. This demonstrates that neither Company A nor Label C3 are ‘fast fashion’,

as commonly understood in comparison to Zara's responsiveness to consumers – Company A and Label C3 do not have the supply chain agility for this, or the communication strategies between retail floor and design room in place. The situation at a larger fast fashion retailer such as Supre or Sportsgirl may well be different. Yet despite Company A and Label C3 demonstrating much-diluted fast fashion strategies, designers identified with the wider concerns regarding the speed of change and disposability of their product.

When considering environmental sustainability within the design process, the retail phase of the garment life cycle can be important. In this phase, services could potentially replace products. When discussing the environmental challenges of fast fashion, all designers at Company A felt that the consumer was complicit, with several believing that the chief responsibility for fashion's sustainability rested with consumers. Jane noted that in 2003 their market began move towards a fast fashion model by moving to monthly drops of clothing. She felt that this was "ultimately a response from the customer". She said of Company A's target customer that:

They're thinking, 'I've just seen this look on the latest celebrity, I want it now, I'm going to be sick of it in two months and then I'm going to throw it out but it's so cheap who cares, I'll just go and buy another one' (Jane 2010).

Design assistant Patti agreed, saying Company A's target customer was not concerned about environmental sustainability: "I think we are targeting... a younger group that, you know, is really just interested in buying on trend pieces ... our clothing is relatively cheap so people can afford to buy it...and buy more." She did make the point that this may be changing adding:

But it might be different also because we are targeting a younger age group... that it might be that kind of concern for the future and sometimes ... university students, there's a lot of sustainability being taught and talked about so it could be both ways I think ...It could be an interesting group because you have that kind of dynamic.

Significantly, a number of designers rejected this disposable outlook on fashion in their personal engagement with fashion as consumers. Kristie, in Company A, liked to shop second-hand for more individual items. Sophie, in Label C3, said:

For me myself, I don't chuck out any of my clothes. I will either donate it to St Vinnies, or I will just keep it until it comes back into trend, into fashion,

because usually it does. I've got so much 80s sort of clothes that I have bought second-hand and now they are fashionable.

This philosophy did filter through, where possible, to her design decisions. Sophie said:

I try not to design that way, so if something is really trendy I still think about can the girls really wear that after two months. I know how sequins and things like that, they come in and they go out, but if we do we only offer maybe one style, we don't do many styles in that, say, trend, like say feathers and things because usually they go out like that (snaps finger) it's like that.

Many of the designers were quick to distance their own fashion conception from trends. Jill (2010) in Company A said, "it's a way of expressing yourself," while her manager Hannah (2010) said, "it's all about the individual and how they express themselves... it's not only apparel and footwear and jewellery, it's cars and houses and holidays". Jane in Company A saw fashion "more like an art kind of thing... that constant, creative... new concepts ... that conceptual stage ...for me fashion is about that stage and not so much about the hype that follows it".

The designers' notion of fashion as a creative, personal expression seemingly contradicted the later descriptions of their design processes, in which the designers revealed how closely their designs need to respond to, or directly imitate, current trends. However some designers were aware of this, as Jane (2010) said of her interest in niche, unique fashion, "I'm not able to fulfil that so much in a commercial sense". This reveals a tension between the notion of creative fashion design and the commercial reality in which the designers operated.

5.4.6 USE, DISPOSAL AND BEYOND DISPOSAL

In a life cycle view of fashion, the stages of use, disposal and beyond disposal to resale or recycling require consideration. The cheapest of fast fashion may well fall apart after several washes; however Company A and Label C3 have higher quality manufacturing that may last longer. Design assistant Kristie (2010) defined good design and sustainability as "having a good quality, things that won't fall apart." She added that:

I always think about it in these vintage shops if the quality is still the same [today]. I usually wear out my clothing whereas most of the vintage stuff is so well made that it can... we might not even have vintage shops anymore because they [current garments] are all falling apart (2010).

The ability of fast fashion garments to enter the second-hand market may be compromised by their poor manufacture and low quality fibre. However, when Company A designer Jill (2010) was asked how long she believed her garments would last, she said, “maybe probably one to two seasons... I mean some of the more classic things definitely last”. Her phrasing of “one or two seasons” with “classic” was significant as it indicated that by ‘last’ Jill likely meant how long the garment would be fashionable, rather than how long it could survive as a physical garment. This is significant in light of Entwistle’s (2009) analysis of aesthetic value. The market value of the garment degrades as the trend wanes, and in this sense the material garment will not ‘last’ either. The immaterial trends dictate the design of the garment, its fleeting market value and finally its longevity within the wearer’s wardrobe.

Design room manager Hannah identified recycling as key to a fast fashion strategy for sustainability. She had recently suggested to the company’s owner that he implement a take-back scheme via the website for old Company A clothing to be sent back to the Company for distribution to charity. This is a strategy already adopted by Country Road and Marks and Spencer in the UK. The suitability of recycling in fast fashion was also explored in Fletcher and Tham’s Lifetimes project (2004), in which they identified fast and slow rhythms of clothing use. The higher the fashion content, the quicker the garment loses market and symbolic value. For this reason, a fast item can be manufactured from recycled polyester (for example) and then recycled again at end of life. In effect, this is a design solution that targets the system of fast fashion as much as the design of the individual garment.

Within thinking on sustainable design, exchanging products for product service systems (PSS) has emerged as a way to reduce the ecological impact of the physical garment (see Table 2.1, pg. 83). This was another suggestion of Hannah’s (2010), a garment loan service where:

you pay a certain amount, like a monthly subscription to a brand maybe and then you pull out your wardrobe for that week and then maybe you return

that and pick up something else and then they are responsible for dry cleaning it.

This suggestion operates in a similar way to the recycling scheme, in that it is a design intervention within the system of fast fashion, rather than an intervention in the design of the product. A degree of recycling and upcycling is already occurring in fast fashion, with H & M, in 2010, releasing an accessory collection comprised of cut-up remnants of their unsold stock (Chua 2011). Similarly, Supre and Sportsgirl have followed the lead of Topshop (who has used upcycled collections since 2003, reinvigorating unsold stock with new prints, and partnering with independent designers to upcycle) and American Apparel continues to offer a small selection of vintage clothing alongside their new stock. In light of the categories of intervention proposed in Chapter 4, this is an intervention in the systems around the product and arguably also an intervention in product. In many ways, there is no contradiction in fast fashion retailers selling second-hand clothing, as the speed of trends mean that styles come in and out of fashion so frequently that some version of ‘vintage’ style is always in style. Within the context of fast fashion as ‘post-brand’, second-hand styles simply become additional grist for the mill, as consumers will mix and remix the product (of whatever provenance) in their personal, restless search for novelty and individuality. Supre (2011) celebrates this with their ‘Be your own brand’ blog. In one sense, fast fashion principles also drive the success of online marketplaces such as Ebay, in which second-hand clothing can be circulated multiple times, revalorised by individual consumers. Similarly, the Salvos (2012) charity stores, run by the Salvation Army in Australia, now sell second-hand fashion online, grouped into ‘lookbooks’, complete with fashion shoots and fashion styling advice.

5.4.7 TIME PRESSURES

Unsurprisingly, a critical design restraint facing the team at Company A was the speed of the design process and of the overall fast fashion sector. Speed translated into a pressured work environment, in which the smallest delay could have a flow on effect elsewhere in the design process. Several members of the team commented on the difficulty of implementing new ideas. Jill (2010) said, “everything is so fast-paced here and we’ve got so much work to push out.” Regarding the technical team, Jill said, “I think they struggle at the moment to get what we are trying to do through

as quickly as can be done.” As Kristie (2010) described the workload, “we always struggle, even if there is one person away in the design room it just ruins your whole [day]... all that work is just added onto everyone.” Time pressures were most clearly in evidence in the interviews held with Label C3’s head designer, Sophie, who commented, “we don’t have a lot of time to do each process, it is really fast” (2011).

Time pressures are significant for a number of reasons, the most obvious being that with little time to adequately consider the design of individual styles, there is even less time to reflect upon the design outcomes of the previous season, to implement recycling / take-back systems, or to research and source less ecologically-damaging textiles. The designers interviewed lack the time to get through their existing workload, and are therefore less able to find time for education, reflection, or collaboration. In this sense, an approach for sustainability from a fast fashion perspective is primarily constrained by time, not only the limited time that can be spent on each style, but also fast fashion’s artificial time of monthly (or weekly) ‘seasons’. Hence, for a fast fashion designer to spend time designing life cycle solutions for one particular garment style (e.g. designing it to disassemble, or to be repairable, or designing it for zero-waste) is not only impractical, but seemingly counter-intuitive in the face of its ephemerality. Significantly, however, this ephemerality is precisely why strategies such as design for disassembly and design for recycling are needed in the fast fashion sector, in order to more effectively manage its high volumes of material waste.

5.5 CONCLUSION

This chapter argued that Australian fast fashion is unlike fast fashion in the US and the EU. In some ways, Australian fast fashion companies have adopted the more environmentally damaging aspects of fast fashion, such as more frequent product drops and close adherence to changing trends, without taking the more efficient aspects, such as local or close to local production, or utilising JIT responses to create a sense of scarcity so as to reduce the amount of unsold stock. In addition to this, Australian fast fashion labels have lagged behind companies such as H & M, Topshop and Gap in responding to (or even appearing to respond to) environmental and social sustainability questions. These differences between Australian fast fashion and overseas fast fashion owe much to Australia’s geographic size, position, and

smaller population. However, in terms of product design and development, Australian fast fashion companies are as on-trend as overseas companies, with the seasonal lag less relevant in the face of global online communication of trend data.

Within this fast fashion system, the design content lies chiefly in value-added styling, rather than in an engagement with the upstream and downstream impacts of the material garment. Hence design decisions relating to the material garment are diffused throughout the supply chain, while the main remit of the designer is to develop the visual aesthetic, or the fashion content of the garment. The garment's silhouette, trims fabric, colour, and purpose will be largely pre-determined by the trends. Styles pass through design rooms as flat sketches or CAD illustrations before being emailed to China to be manufactured as samples. With the majority of sampling conducted offshore, decisions such as how to lay the garment on the marker or how wide to make its facings may be made by production assistants in China. These are not generally considered to be design decisions; however within a framework of life cycle thinking, when the past, present and future of the garment is considered, the definition of design necessarily widens to accommodate decisions made throughout the supply chain. The potential role of the designer similarly expands. However, the designers interviewed were chiefly stylists, using their fashion and contextual knowledge and instinct to second-guess the market and to develop the products that their customers will want. Significantly, their knowledge as consumers and taste makers is as valuable as their knowledge as designers.

Due to the speed of change and the sovereignty of trends, the agency of fast fashion designers to effect change lies less in the design process of the physical garment, and far more in the design of the systems that support fast fashion. Currently, the chief role of the fast fashion designer is to determine the aesthetic characteristics of the garment, while decisions on fabrics, trims, manufacture are dependent largely on cost constraints. Design room manager Hannah identified this, suggesting that a sustainable fast fashion system would involve greater recycling, involving collection of garments at end of life, as well as including recycled fabrics in new styles. These schemes then become the chief point of intervention in the fast fashion system. Implementing these schemes would require collaboration at different points in the supply chain, as well as greater collaboration with consumers.

Chapter 6: Discount Retailers

“In this country it has always been a habit of the buyer or the product developer to go offshore, buy samples and copy or make very small changes and copy them”

Chloe, Design Room Manager, Discount retailer Company B

While the previous chapter examined fast fashion, this chapter examines the design processes of an Australian discount retailer, an example of a lower pricepoint in the Australian market (see Figure 4.1). The discount tier of the Australian market presents a challenge in regard to environmental sustainability. In this tier, fashion’s ‘race to the bottom’ in terms of lowest price and, often, lowest quality, is most evident. Frequently, discount retailers in Australia will source their fashion product from suppliers and strategic partners, rather than generating product in-house. In this scenario, the company’s buyers hold control over which product will be offered. In particular, the role of a buyer is not to closely consider the design of the product, but rather to assess its potential for generating sales. Additionally, as discussed in Section 4.2, Australian companies that do design in-house have generally been known to simply copy or ‘knock-off’ overseas designs, taking advantage of Australia’s seasonal six month lag behind the northern hemisphere (Weller 2007a; Golder and Lloyd Jones 2009). Without this close connection to product from its inception, buyers are less able to engage in design redirection for sustainability, as their role is to simply select styles already designed by others. This is also the case when the design team ‘knocks-off’ existing product, rather than generating new designs.

To explore these issues of buyer versus designer and originality versus knock-off from within the context of sustainability, this chapter presents a case study of discount retailer Company B. Company B has approximately 200 stores across Australia, turning over some two - three billion dollars in yearly retail sales for its Australian publicly-listed parent company. Fashion garments are only one part of what the store offers, albeit an important one. In early 2010, Company B took the major step of introducing an in-house design team. Previously, all in-house branded

product had been sourced by buyers from overseas retailers and then adapted for the local market. However, with the growth of online retail and increased consumer savvy, Company B's management determined that the sourcing/buyer approach to product was no longer economically sustainable. This is a significant change in company practice, as revealed in the interviews with designers. The analysis in this chapter demonstrates that the new model of design in-house holds greater potential for integration of DfS strategies than that of the previous buyer model. However, despite an increased designer presence within the company, while sampling is conducted offshore and supervised remotely via video link, designers are more likely to be disengaged with the materiality of the product that they are designing. Therefore, perhaps not surprisingly, the designers who felt most able to intervene for sustainability were those who worked closely with the physical product in the design development stages.

6.1 THE DISCOUNT RETAILER MARKET

6.1.1 DEFINING THE DISCOUNT MARKET

The characteristics of the discount market, as explored in this chapter, are low pricepoint, high level of stock, and a combination of menswear, womenswear and childrenswear. Discount retailers must necessarily attempt a compromise between quality and price. The discount retailer, although offering a cheaper product, still has brand values to maintain as a BGR. In Australia, the discount retailer market includes department stores, such as Big W, Target and Kmart, as well as apparel and footwear retailers such as Rivers and Best and Less. These retailers may sell only their own branded clothing (e.g. Rivers), or may offer their own lines as well as lines from other national brands, such as Pacific Brands' Bonds, or Rio. Table 6.1 lists Australian discount retailers, and presents their strategies for acquiring apparel, whether designed in-house, or sourced through strategic partnerships. Without interviewing designers or buyers at each company, it is impossible to state categorically whether a retailer operates under a supplier model, or under a buyer/knock-off model, or under a designer/knock-off model, or under an in-house design model. Therefore, Table 6.1 summarises what is known about each company, drawing purely on publicly-available media sources, whether from company websites or from media reports.

Table 6.1 Australian discount retailers and product development strategies

Discount Retailer	Own Brands	Carries brands of partners	Design or Buyer model
Rivers	Solely own brand	No	Own brands designed in-house
Big W	Proportion exclusive brands (e.g. Gomez, Woman by Peter Morrissey)	Yes – eg. Bonds, Triumph, AntzPantz, Stubbies	Exclusive brands are strategic partners rather than designed in-house
Target	Proportion own brands e.g. Max, Free Fusion,	Yes – eg. Pacific Brands including Bonds, Piping Hot	Own brands designed in-house
Kmart	Proportion own brands e.g. Now, Solutions, Girl Express, Contempo, Bub2Bub	Yes – eg. Bonds,	Own brands designed in-house
Coles	Recently established own brand – ‘Mix’	Yes – national brands e.g. Pacific Brands (Bonds, Rio, etc.) Also offers some Kmart brands e.g. Solutions	Unknown if Mix designed in-house or sourced and developed in-house, or sourced from external suppliers
Best and Less	34 brands exclusively, e.g. Mango, Bad Boy, Love 2 Dance, Best & Less Essentials	Yes – 26 national brands, eg. Pacific Brands (Bonds, Antzpantz, Rio, Tontine)	Exclusive brands are strategic partners rather than designed in-house
Cotton On	Own brands, branded by store - Cotton On, Cotton On Kids, Cotton On Body, Rubi shoes, Typo stationary and homewares	No	Own brands designed in-house
Harris Scarfe	Some exclusive brands e.g. Luca and Marc, Savannah, Tania Kay	Yes, some national brands, e.g. Bonds, Slazenger, Triumph	Likely that exclusive brands are strategic partners rather than designed in-house

The discount fashion sector of the market, both in Australia and overseas, often overlaps with the fast fashion sector, as many large discount retailers also offer a fast fashion product alongside basic and less fashion-forward lines in menswear, womenswear, and childrenswear. In fact, both Kmart and Target carry lines of

fashion-forward womenswear and youthwear. Similarly, Primark¹ in the UK and Walmart in the US offer fast fashion product in addition to many other product lines. Kmart has recently shifted to an in-house design team specifically in order to offer fast fashion clothing in line with overseas catwalk trends, with Kmart apparel manager Andre Reich commenting, “we’ll be able to start to mimic what we’ve seen overseas with stores like H&M and Walmart and release new trend pieces in line with the middle market retailers that normally lead the way” (Stennett 2011).

As discussed in Chapter 4, the overall Australian fashion industry is dominated by Australian-origin companies, and the global retail giants have yet to make a significant impact. Figure 4.1 maps the position of these companies in the Australian market by pricepoint and retail presence. Although this appears to suggest that Cotton On has the widest market share, in fact Kmart and Target, both being owned by Wesfarmers, are the biggest players in the discount market in terms of market share. In the overall Australian retail sector, Wesfarmers and Woolworths control about 25 per cent of the market (Rajakumar 2009). In fact, in the discount sector, all of the major discount retailers are Australian-origin and almost all continue to be Australian owned. Similarly, as demonstrated in Table 6.1, Pacific Brands-owned labels such as Bonds are widely offered in the majority of discount retailers. This dominance of Australian-owned brands has arguably allowed the local retailers to be slower to respond to overseas macro trends such as sustainability, designer-retailer collaborations or apparel lines in supermarkets.² As described in Chapter 4, without the competitive pressure from big overseas retailers, Australian companies could afford to be more complacent and watch the macro-trends unfold overseas before responding.

¹ Primark is best known for its fast fashion offering, however it also offers homewares, childrenswear and menswear.

² E.g. Asda in UK (subsidiary of US Walmart) with George brand of clothing; Coles Australia has followed with Mix clothing range in 60 of its 700 stores (Horin 2012).

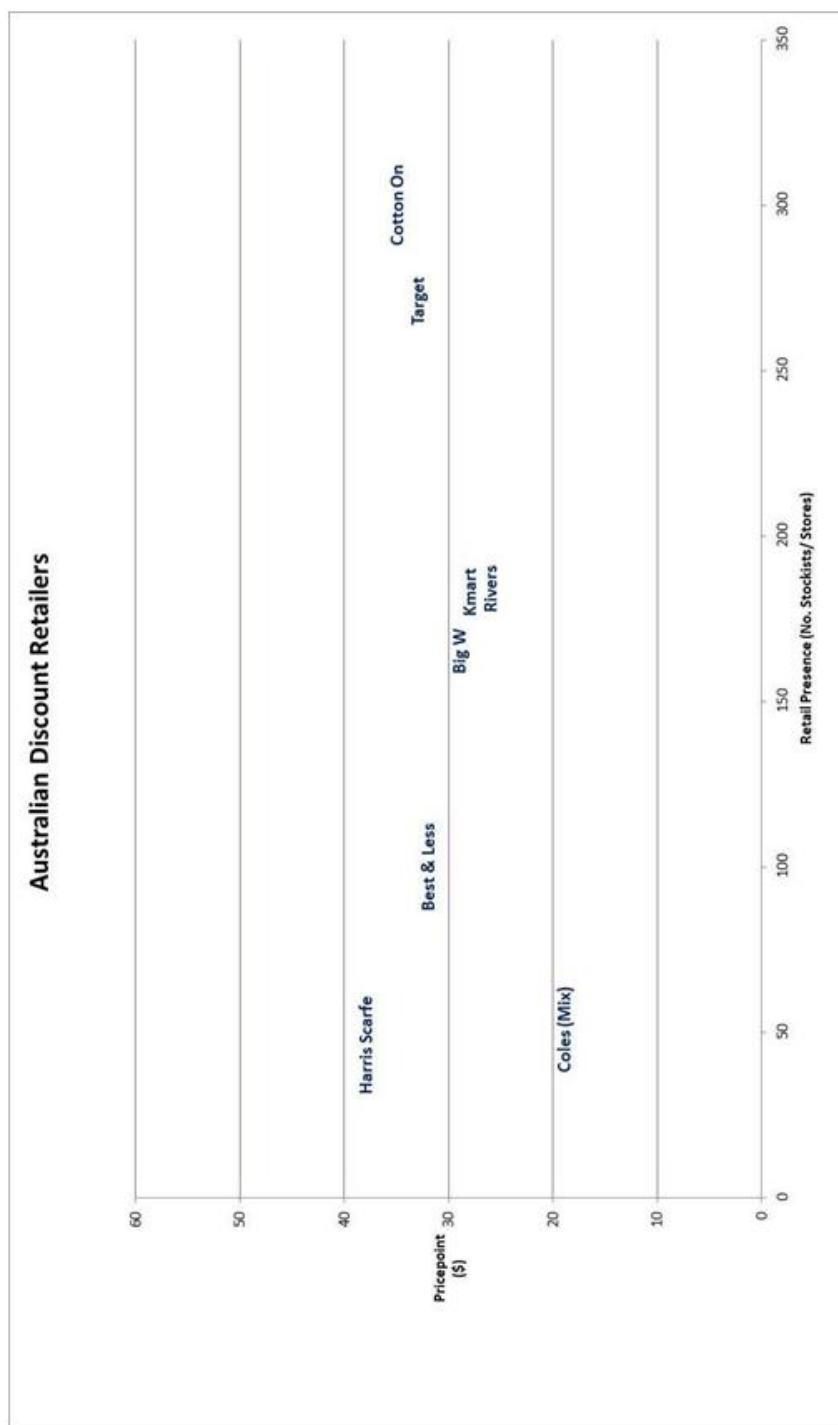


Figure 6.1 Australian discount retailers market map

Table 6.2 Discount retailers: ownership

Company	No. of stores	Ownership
Kmart	186	Wesfarmers, Australian publicly listed company
Target	171 Target stores, 119 Target Country stores	Wesfarmers
Coles – Mix brand	741 stores (including Bi-Lo), 60 Mix outlets	Wesfarmers
Big W	165	Woolworths, Australian publicly listed company
Rivers	184	Privately-owned, Australian origin
Best and Less	188	Pepkor Group, South Africa
Cotton On	600 (approx.)	Privately-owned, Australian origin
Harris Scarfe	46	Privately-owned, Australian origin

6.1.2 DISCOUNT RETAILERS AND SUSTAINABILITY

Before discussing Company B's design process and sustainability, it is first important to outline the response to sustainability in the wider discount retail market, both in Australia and overseas. A number of apparel companies, some in Australia, but the majority in the US and the UK, have made concerted efforts to 'green' their supply chain and business practices. Table 6.3 sums up the actions taken by discount retailers in Australia and overseas. It is significant that US giant Walmart has made some of the deepest cuts and changes to business strategies. In fact, there is evidence that the bigger a company, the more transparent it needs to be. Major discount retailers are under pressure from shareholders to respond to questions of corporate social responsibility, of which environmental sustainability is a major part.

In Australia, it is also the case that the biggest retailers, such as Cotton On, Kmart, and Target, are the ones who have made public statements regarding 'greening' their businesses. In contrast, slightly smaller players such as Best & Less, Rivers or Harris Scarfe have made no discernible public commitment to either social or environmental responsibility. This may be because smaller players are subject to less public scrutiny than the larger companies, and hence feel less pressure to respond to sustainability concerns. This is supported by interviews with management at Company B. For instance, William, the Soft Lines manager, said that in his view it was not the big companies that were the biggest environmental offenders, it was the

smaller companies that could go under the radar, as they had less public and shareholder scrutiny and were therefore less accountable (2010).

This is evident in Table 6.3, which examines the approach of local and overseas discount companies across the three categories of intervention proposed in Section 4.4. For instance, the privately-owned retailer Rivers displays markedly less intervention for social or environmental sustainability when compared to Target, or to a lesser extent, Kmart. As illustrated in Figure 4.6 (pg. 138), categories for intervention include the product, the systems around the product, and the wider company. Several Australian discount retailers have intervened in product through their choice of alternative fibres (e.g. bamboo, organic cotton and merino wool). However most other interventions are in varied ‘systems around the product’, such as in codes of conduct for the supply chain and in reducing plastic bag or eco-bag use. Yet despite some advances in the Australian discount retail sector, based on in-store and online observations, Table 6.3 suggests that Australian discount retailers have not responded to environmental and social sustainability to the extent of overseas companies.

Table 6.3 Discount retailers’ approach to sustainability

Australian Discount Retailer	Categories of intervention for sustainability		
	1.Product	2.Systems around product	3.Wider Company
Kmart	Organic cotton lines	CSR policy advertised	Recycling schemes within business Reducing energy usage Community programs
Target	Organic cotton lines Bamboo Organic merino wool	CSR policy advertised Eco shopping bags Recycling schemes within business Customer education	Eco-friendly store lighting
Rivers	<i>None in evidence</i>	Eco shopping bags	<i>None in evidence</i>
Best & Less	<i>None in evidence</i>	Eco shopping bags Code of Conduct	<i>None in evidence</i>

Cotton On	<i>None in evidence</i>	CSR policy advertised Eco shopping bags	Cotton On Foundation for ethical supply chains and green initiatives
Big W	<i>None in evidence</i>	Eco shopping bags	<i>None in evidence</i>
Harris Scarfe	<i>None in evidence</i>	<i>None in evidence</i>	<i>None in evidence</i>
Overseas Discount Retailer	Categories of intervention for sustainability		
	1.Product	2.Systems around product	3.Wider Company
Walmart (US) (ASDA in UK)	Developed energy saving technologies for products (e.g. LED freezer lights) Creation of a Sustainable Product Index for suppliers Goal to eliminate 20 million metric tons of greenhouse gases from the life cycle of their products by 2015	CSR policy Company goal of zero waste resulting in packaging and recycling innovations	Since 2005 working towards entire business being powered by renewable energy
British Home Stores (UK)	Unknown	CSR policy Take-back scheme for old electronics Participates in larger Arcadia group's Fashion Footprint project, to reduce overall impact Follow a supplier code of conduct	Arcadia Group support for charities
Marks and Spencers (UK) (Arguably not discount, however pricepoints are only marginally higher than Australian Target's)	Fairtrade and organic cotton in large portions of product range. 'Sustainable suit' using recycling	CSR policy 'Shwopping' partnership with Oxfam for second-hand clothing scheme.	Plan A – 180 commitments to 2015 in key areas of climate change, waste, health, sustainable raw materials and fair partners.

Target (US)	Reducing PVC in products Stocks over 700 organic/cruelty free/recycled product lines	CSR policy Recycling programs for store fittings and packaging	Following LEED advice to filter wastewater in stores Some stores with roof gardens and/or powered by wind-generated electricity
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6.2 DISCOUNT DESIGN PROCESS

Like the majority of Australia's other discount retailers, Company B is an Australian-origin company operating exclusively in Australia, with approximately 200 stores across the country. Company B sells womenswear, menswear and childrenswear, as well as footwear, toys, electrical items and homewares. Several hundred brands are represented on the retail floor, and of these some are sourced externally from 'strategic partners', while others are designed and developed in-house. Approximately 800 people work in the Victorian headquarters of the company, across over a dozen departments.

In the eight months prior to the fieldwork for this research, Company B had dramatically reordered its design process, moving from a model where buyers sourced product for adaption, to the establishment of a dedicated in-house design team. The new Design and Innovation Studio is divided into three divisions: Hard Lines, Soft Lines, and Art and Colour. Hard Lines includes homewares and toys. Soft Lines includes apparel and footwear. Within Soft Lines, approximately 20 brands are developed in-house and an estimated 4000 product styles per quarter move through the retailer, including the styles of the strategic partners. Some of these styles are classics stocked year round, others are 'fast fashion' styles that may only be on the retail floor for a relatively short time.

Company B's garments are designed in Australia, but patternmaking, sampling and manufacturing is conducted in Hong Kong. Designers, buyers, and technicians oversee the design development process via online video conferencing. Ten people involved in the design process were interviewed, including the senior design room manager and designers in menswear, childrenswear, womenswear, intimates, footwear and homewares. Figure 6.2 details the structure of Company B's design team, and where the design team sits within the larger company.

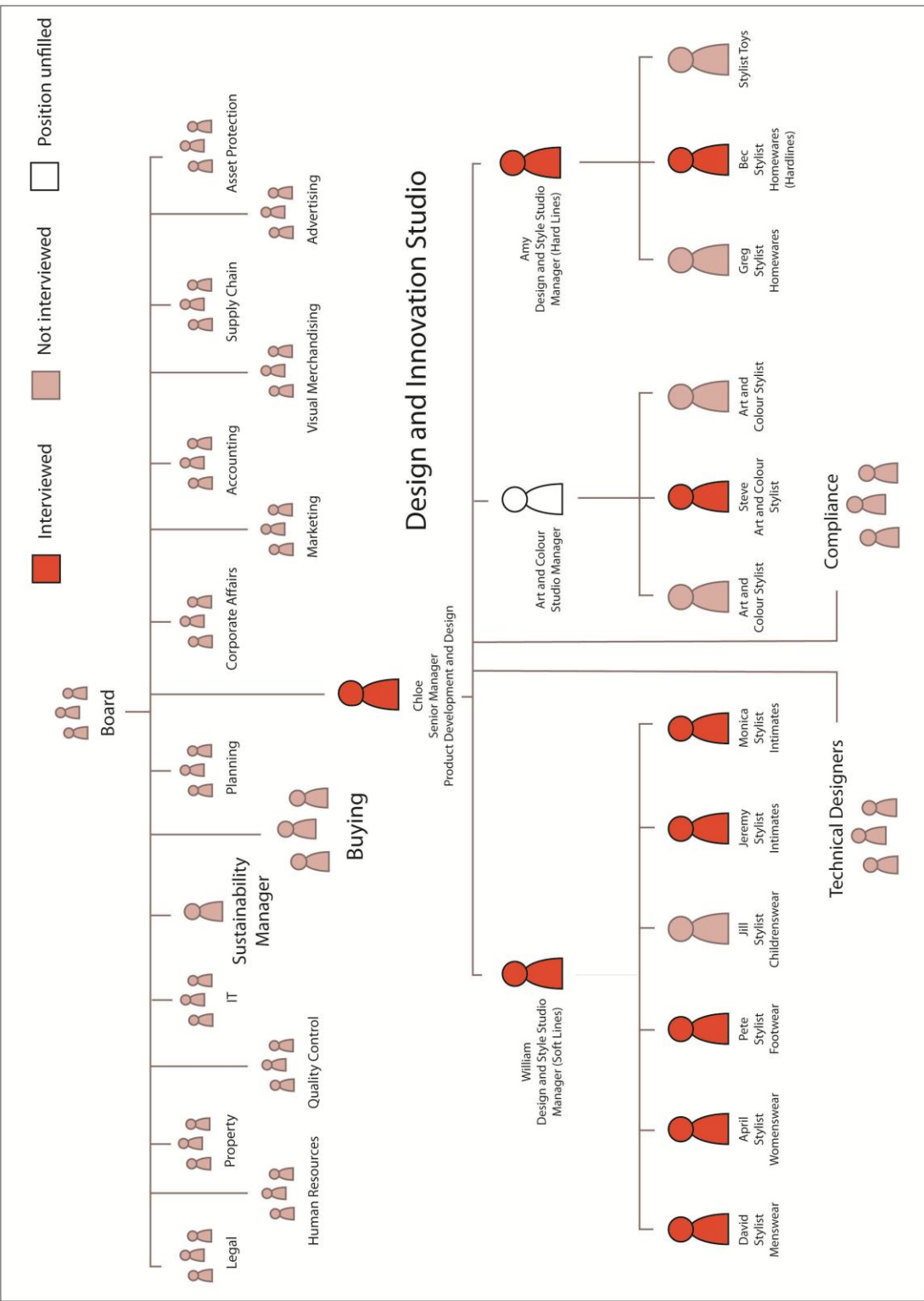


Figure 6.2 Company B design department structure

Currently, Company B is one of the more proactive Australian retailers regarding sustainability, intervening in all three categories defined in Chapter 4 – in product, in

systems around the product, and in the wider company. Company B has a prominent commitment to sustainability on its website, as well as a dedicated Sustainability Manager. It releases Corporate Social Responsibility reports that detail the energy consumption of the company, its waste management practices and its commitment to workers' rights. In 2009, Company B introduced biodegradable shopping bags in store, and has, since 2006, sold some organic cotton lines. In reference to the garment life cycle (see Figure 2.6 and Figure 2.7), the organic cotton initiative tackles the fibre phase of the life cycle. Also, Company B has introduced in-store signage encouraging customers to launder their clothing at lower temperatures. This effort sits within the important 'use' phase of the garment life cycle.

Two of the managers at Company B, Chloe and William, framed their discussion of Company B's efforts for sustainability around the subject of compliance. Senior Design Room Manager Chloe commented:

We are most certainly aware that if we are to become involved in this then it has to be compliance all the way through and at this stage we have embarked on an exercise, although slowly, to establish product which can be, is fully compliant, [though] with an international manufacturing base, there are countries where that is not quite so easy (2010).

Chloe acknowledged that, "as far as the actual product that goes into apparel, at this stage that would only certainly be in its infancy". She added, "it is certainly our intent to move into it gradually but it is also something in order to follow through real sustainability one has to check it all the way ... right from the cotton boll, right from the plant" (Chloe 2010).

Softlines manager William had a positive outlook on sustainability in the broader discount retailer sector. In his previous role with Jeanswest, and also in Company B, he has only dealt with ISO certified companies. He also said that in his experience, the larger Chinese factories are highly advanced in issues such as recycling all waste water from indigo dyeing in denim factories. As mentioned earlier, in William's view, the size and accountability of large discount retailers made it necessary for them to be proactive regarding corporate social responsibility.

6.2.1 PRODUCT SOURCING AND DEVELOPMENT

Company B sources product in a number of ways – from strategic partners and suppliers, and through design development in-house. The introduction of the new design team sees the company shift from a model in which the buyers sourced styles from overseas and then adapted them for the Australian market, to what Chloe called the “northern hemisphere way of working”, where design ideas are generated through trend analysis and other sources of inspiration, rather than direct sourcing or copying. At the time of first contact with Chloe in July 2010, the first product drops from this “new way of working” would come into store in January 2011. As such, Company B had gone through a time of tremendous upheaval with an entirely new design team and process being put in place in the months prior to the commencement of this fieldwork. The Design and Innovation Studio is a newly-created department, within a custom-built area of the company’s Victorian headquarters. It includes design stylists, art and colour specialists and technical designers as well as compliance specialists. Nine of the ten staff interviewed had been there for less than eight months. Of these nine, four had been recruited from the US and Europe especially for the new roles. Within the interviews, discussion of the design process inevitably led to a discussion of the old way of working in contrast to the new, “simpler way of working” as Chloe now termed it³ (2010).

The new design process begins six to nine months out, with research and colour palette development (see Figure 6.3). For example, the designers begin the design process for the June-July-August collections in November of the previous year. Stylists, buyers and the art and colour team each research trends via WGSN, overseas travel, and blogs. A four day concept meeting is held six monthly, with a directional update three monthly. At the concept meeting, stylists, buyers and art and colour specialists present their concepts to the design room managers, the buying department and the merchandising department.

³ This is the formal name for the new process. When we first spoke it was officially called “the new way of working”.

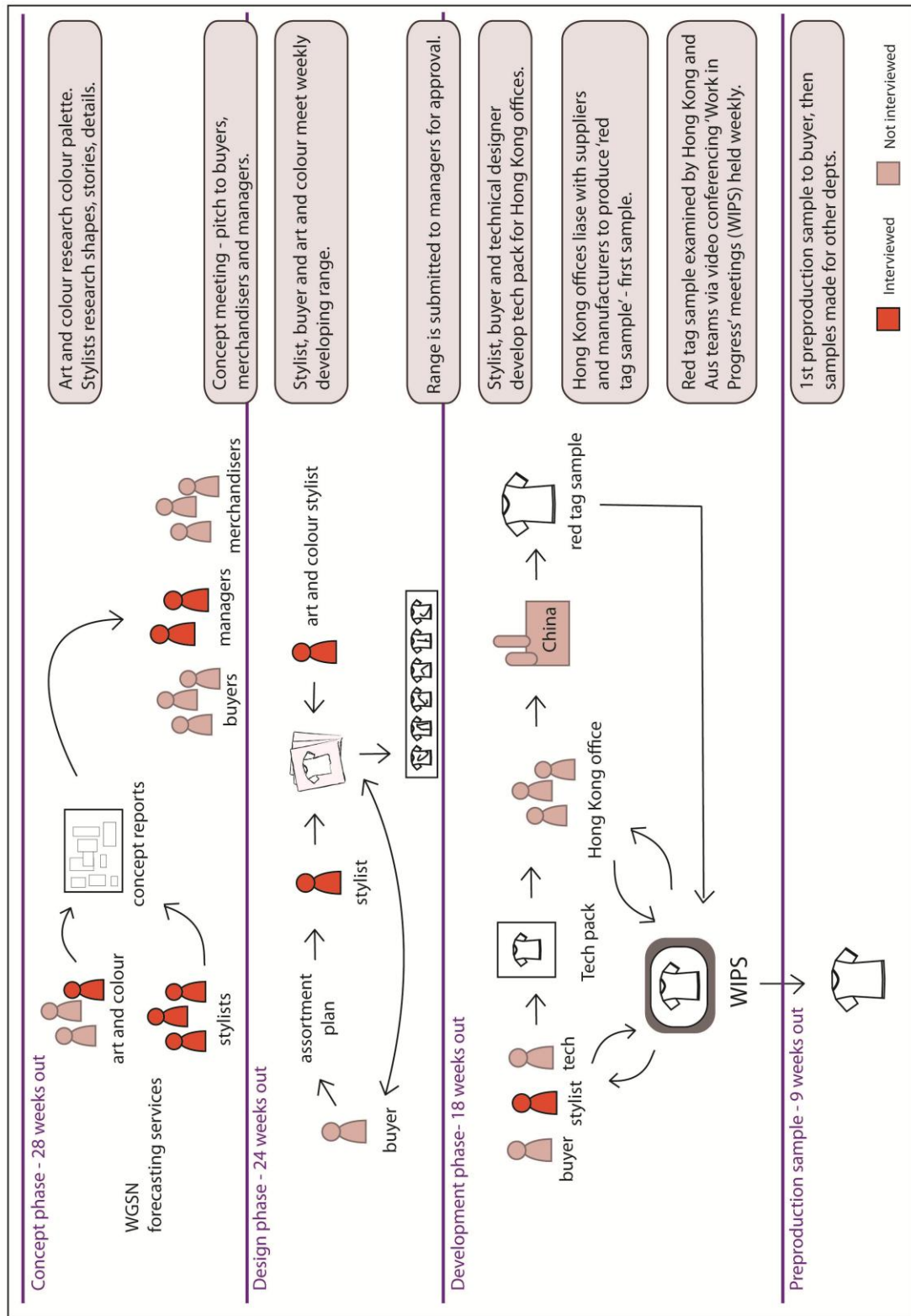


Figure 6.3 Company B design process

Once the concepts are approved, the design development phase begins. Stylists, buyers and art and colour meet weekly to discuss the progress. The buyer's role is to

provide the assortment plan – the number and type of styles the range should contain. The stylist designs to the assortment plan. Their role is also to source fabrication and trims, in consultation with the buyer. Company B’s parent company has a sourcing office in Hong Kong that sources the fabrics and trims from which the stylist can then source. The art and colour specialist handles the graphics – for instance T-shirt prints – and the colour palettes. At the end of the design phase, the range is assembled as flat CAD drawings and presented to managers for review.

Once approved, the development phase begins about 14 weeks out from when the product is due in store. The stylist works with the technical designer to develop a “tech pack” for each style. This is illustrated in the Development Phase in Figure 6.3. The tech pack is not a pattern but a set of technical drawings, measurements and fabrication samples that will be sent to the Hong Kong offices. The Hong Kong office liaises with the Chinese factories to develop a “red tag sample” of the garment. The red tag sample represents the correct fit, even if the trims, fabric and colour are not correct. While still in China, the sample is reviewed via a video conference between the Hong Kong office and Company B’s Victorian headquarters – these are known as work in progress meetings, or ‘WIPS’. At the Australian end, WIPS are attended by the stylist, technical designer, buyer, and the art and colour specialist. In Hong Kong, they are attended by the vendor, the sourcing agent, and the Chinese art and colour specialist. Using a special projector, the garment can be viewed in close-up by the Australian team (see Development stage, illustrated in Figure 6.3). If it is approved, it will go to final sample. If it requires changes, the sample is returned to the Chinese factory to be altered and re-made. The sample is reviewed again at another WIPS meeting, and this process continues until the garment is approved. Some specialty products are physically freighted to Australia to be fitted in situ. These include footwear, intimates and some childrenswear. In this situation, a ‘reverse WIPs’ is held, where the Australian office runs the meeting and the Hong Kong offices view the fitted garment via the video link. The preproduction samples need to be approved nine weeks out from delivery into stores.

6.3 THE ROLE OF THE BUYER VERSUS THE ROLE OF DESIGNER

Due to the dramatic reordering of the design process in Company B, and the introduction of an entirely new team and methodology, a major theme of the

interviews was the relationship between the buyer and the designer and their different approach towards product. As discussed earlier in the chapter, copying has been a common design strategy in the Australian market. This is supported by Senior Design Room Manager Chloe who said, “in this country it has always been a habit of the buyer or the product developer to go offshore, buy samples and copy or make very small changes and copy them” (2010). However, under the new model of generating product from design inspiration and trends, designers have far more creative control and responsibility than previously. The data from interviews reveals that with a greater designer presence and control within a company, a company has more capacity to consider sustainability at a product level than under a sourcing/buyer model.

Steve, an art and colour stylist, was the only interviewee who had worked at Company B under the old model. He described the old model as follows:

what they used to do was just work in a six month cycle... so pretty much just fly to the UK, see what's in Topshop and stuff now for winter, come back, or go straight to China, give it to the Chinese factories and say 'we're going to do stuff like this for next winter' and by then they've got enough time to ship it over by ship (2010).

Under the new model, the design team members are developing designs from inspiration, for instance trend forecasting, catwalk shows and so on, *at the same time* as the design teams of retailers in the northern hemisphere, even though the northern hemisphere continues to be six months ahead seasonally. This means that Company B's design team works up to nine months ahead of time. Steve explained this strategy, saying that most Australian retailers follow a sourcing/buying model of design process, so Company B will be advantaged by developing original product well in advance:

that's what everyone does, they just go to the UK or the US and see what's in fashion there cos [sic] they are ... six months in front of us, so we can see what is in the future I suppose, but now ... we're trying to predict our own things at the same time those companies are, so ... we'll have already done what everyone has gone overseas [for], to pinch the ideas, because we are that far in advance (2010).

However, many designers described that there had been initial problems in implementing the new design system. A key difficulty is the challenge for buyers and finance teams to cede control to design teams. They need to have considerable faith in the design team that they will be able to guess the trends for the Australian market so far in advance. As Steve said:

the financial people want to see certain things overseas working... which is hard for them because... I'm not saying they just went over there and ripped stuff off – they did do that – but they could see that the nautical look was working, so when they made their bookings and orders they could buy into that because they're like 'well it's worked over there, it's definitely going to work over here' (2010).

This amounts to a seismic shift in Company B's attitude to product. Buyers who could once literally 'see the future' by visiting the UK and US and choosing physical garments already tested in the market, must now trust the Australian design team by selecting their flat, unsold, untested sketches months ahead of even the northern hemisphere season. While the designers that were interviewed claimed that they themselves worked well with the buyers, many of them revealed that other, unnamed designers had had difficulties interacting with the buyers. Menswear designer David said of the buyers, "they are used to doing it themselves, it's like, 'who are these... these designers, why do I have to listen to them?'" (2010). Additionally, buyers continue to have the final say on which products will go ahead. This becomes a design constraint as so many differing opinions then weigh in on the form that the final product will take. William, the Soft Lines manager described this as a major constraint as so many people then have a say on the 'fashionability' of a garment. William said, "we [the design team] design the product ... but the ultimate ownership of the style ... is the buying team" (2010).

Buyers have a fundamentally different approach to product. David said that buyers were "very driven by numbers and by history," whereas designers had a better eye for colour and detail and were "passionate about product" (2010). This was supported by William, who said that buyers have always had excellent skills in assessing the potential of the garments they were buying for adaptation for the Australian market, however, in his view, in the next five to ten years, product selection buyers will disappear, and the new buyers "will need to have more of a design and a product focus and understand the creative side to design" (William

2010). To link this to the forms of knowledge discussed in Section 4.3, the buyers had exceptional contextual knowledge of what would work for their brand, while the designers bring a greater degree of fashion knowledge and technical knowledge to the role.

However, as William described, the new design process with buyer and stylist is very much collaborative:

It's not like we design a whole bunch of stuff, show the buyer and then they pick. We are actually designing what the buyers have in mind as well as we do, and you are working together throughout the design periods (2010).

Arguably, as well as being able to develop product from research and concept, as opposed to sourcing existing product, the designer is able to look more holistically at the entire product range and how it fits together. At Company B, designers were now actively streamlining product aesthetics. Two of the designers, Amy and Steve, saw this role as being aligned with principles of environmental sustainability. Company B's Hard Lines manager Amy demonstrated that thinking about sustainability was already part of her design methodology. Amy is an industrial designer by training, and has a personal interest in sustainability and design. She said,

It was one of my favourite subjects because it is an absolute headbender to kind of be in an industry where you just produce more stuff. Well we don't need more stuff, so I love creating, but I do have a responsibility to make sure that what I put out is actually, you know, something that is needed (2010).

She added, "but I am in the mass-market ... so that becomes really tricky" (2010). Instead, Amy was using her role in the newly established design team to streamline the product ranges and to change colours more gradually. In the past, the buyers would purchase or source a very wide range of styles for the collections with the strategy to have lots of choice and 'something for everyone'. However, this approach resulted in considerable waste, product double-ups and a confusing experience for customers. In Amy's view, a designer can create fewer ranges and products, but instead have all the products – for instance in homewares – carefully aligned to work together in evolving stories, rather than simply changing everything every season. Amy described this, saying:

So what we are trying to talk to the buyers about now is ...how to reduce your SKU⁴ count ... we can reduce the amount of things we are doing just for the sake of bombarding people with more things, and trying to keep it more tight and concise so that people can have some clarity. Because there is so much stuff on the shelves and there doesn't really need to be (2010).

Amy believed that now with a design team in place, she and her team could educate the buyers to be less focused on having many different lines of product and instead have fewer lines that were more considered. She believed that homewares designs should not change quite as rapidly but instead evolve slowly, so that future designs could work in with the old. She saw this as a strategy for the entire design department, to create considered designs that worked together in stories, rather than many unrelated designs. When I asked her if reducing SKU count and considering designs in this more holistic way was also possible in apparel, she said:

In apparel it depends more on the trends, especially in [Company B Fast Fashion brand], the trend is in and out, a softer version in ladieswear... (Amy 2010).

However, in Amy's view, even in apparel this strategy was possible, saying "but still as the colour evolves new prints can still talk to each other" (Amy 2010). She added that consistent colour was important in apparel, so that, in her example, the navy pants you bought in one season were the same colour and shade, or close to, the navy jacket you bought in a future season. This colour strategy was also discussed in the interview with Steve, the art and colour stylist. Steve believed that Company B could do a lot more with streamlining the business and reducing waste. He saw his new role as an opportunity, "not to have one hundred and twenty thousand colours on the floor" (Steve 2010). In the past, Steve said, colours across Company B would change suddenly from season to season. Both Steve and Amy were of the view that colour should be "an evolution, not a revolution".

Significantly, Amy and Steve demonstrate that an increased designer presence within a company can be beneficial regarding sustainability, in a way less possible under a buyer model. While their strategy was not to necessarily intervene in the product itself, instead the role of a designer can be to mediate the way colour and design stories evolve throughout the company, in order for a more intelligent product

⁴ SKU stands for stock keeping units

offering, and to offer less styles. This has the overall effect of reducing waste and streamlining the company's activities. However, it is important to note that reducing stock keeping units (SKUs) does not equate to selling less product – it simply means that fewer product styles can be manufactured in greater volume. Nevertheless, this strategy has the potential for being an important response to sustainability in the mass-market, as the underlying premise of streamlining styles and keeping colours consistent across departments can also be applied in other ways. For instance, as Steve described, if a grey marle fabric is being used by womenswear and kidswear, it makes sense to select the same fabric from the same supplier, buy in bulk and reduce freight costs (environmental and economic) by freighting the fabric together. Under the buyer model, the buyers from different departments worked independently of each other, so there was more wastage and doubling-up. The new system, with designers from across Hard Lines and Soft Lines working in the same team, allows for greater collaboration and communication between departments. This is already in evidence in the new colour strategy.

6.4 DEGREES OF ENGAGEMENT WITH MATERIAL PRODUCT

In the more fashion-forward departments of the company, streamlining product in this way is more of a challenge as customers expect frequent change of styles. Although much of the product offering at the discount level is more basic or classic in design and therefore less bound by speeds of fashion trends, in the interviews with designers at Company B, fashion influenced even the product lines less likely to be as fast such as menswear, footwear and homewares. As discussed in Chapter 2, within apparel design and development, there are degrees to which fashion plays a role in the design process. Companies whose brand value rests more on signalling a niche lifestyle choice, for example, outdoors brands such as Patagonia or Kathmandu, do not demonstrate the same rapid pace of aesthetic change. Data emerging from the interviews with Company B designers demonstrates a clear link between the capacity to consider sustainability and the fashion speed of the product. Designers that designed a slower, less-fashion forward product were more open to discussing environmental sustainability than the designers who designed fast fashion. Similarly, the designers who handled the physical product during the design process and who liaised in person with factory staff were more likely to see the potential for

changes for sustainability. Examination of the interview data revealed that the designers who did not handle the material product were, for the most, far more cynical regarding the potential for change at a product level. Hence this section demonstrates that a greater emphasis on the materiality of the designed product, as opposed to the focus on its intangible fashion content, is crucial in considering sustainability within product design.⁵

6.4.1 FASTER FASHION CONTENT – MENSWEAR AND WOMENSWEAR

Two of the fashion designers most involved in a faster fashion product were April, in womenswear, and David, in menswear. David's discussion of his design process largely concerned fashion trends, and he commented that in all his areas, from youth to contemporary to older men, and even in men's socks, fashion trends had to be closely considered. When the discussion turned to environmental sustainability, David spoke about the issue in terms of macro-economic questions:

it's completely throwaway now, hey you ask me how to change that, (laughs)
I don't reckon you can in a hurry, because you've got businesses that are sustained on that high turnover of product, and making their money from it...
Economies are run on that... and that goes deep into how our society is run, what's our model of economic growth...(2010).

David's comment relates to fashion theorist Sandy Black's notion of the fashion paradox (Black and Eckert 2010, 813). Set against the broader context of design, fashion's logic of perpetual change has infiltrated the majority of product design, with planned obsolescence a necessary strategy to encourage greater consumption and hence continued economic growth (see Lipovetsky 1994; Jackson 2009). David described how his design decisions ultimately fed into this wider goal of the company, hence his emphasis was on rapidly developing cost-effective products that would sell in order to maximise profits. He added,

I mean they are really big, deep questions ... because you know businesses are driven by the dollar. Full stop. It's not going to change. High turnover of product in fashion. It's not going to change. So what do you do? Well, I think there is growing concern. I think you have to look at the customer (2010).

⁵ Portions of the discussion in this section was adapted into Payne (2011d).

However, he added that while environmental strategies may make the customer feel better about the retailer, “How much effect it actually has, I don't know. Because I think a lot of people actually shop because they want to shop and they want the latest, or they want something new” (David 2010). While David felt concern regarding the environmental impacts of the fashion industry, he framed the problem within a broad socio-political context in order to demonstrate that the system itself was structured around unsustainability. This suggests an underlying assumption that the actions and decisions of the individual designer can carry little weight within the context of the larger system.

Similarly, womenswear designer April did not believe she was able to consider sustainability at a product level due to the speed of changing fashion trends. When asked what is ‘sustainable fashion’ to her, she said:

sustainable fashion...ugh...in my areas? I don't know if they really exist within my areas because it is youth orientated ...the way you define youth is that it really is fast fashion turnover products, not sustainable product (Amy 2010).

The speed of the fast fashion cycle, coupled with the necessary low price of a discount retailer, meant that April did not feel able to choose more ecologically-conscious fabrics, as frequently it would increase the cost of the garment. Additionally, both David and April agreed that for customers shopping in the discount market, the issue was not a pressing concern – the biggest concern of the consumer was low price.

There is a correlation between the views of fashion designers regarding their capacity to consider sustainability and their distance from product development. Although April did not make this connection explicitly, it is significant that she rarely handles the physical garment and instead oversees fitting remotely via video link to Hong Kong. As the designer responsible for five different labels, two of which are fast fashion labels, she is under constant time pressures. There is simply not enough time to consider product in depth on a piece by piece basis, and video link is the easiest route to check progress on each style. Her chief role is to embed the fashion content within the styles she designs, as that is what will ultimately sell the garment. Hence an unknown number of operational decisions regarding the design of the garment are made by the team in China, while April's role is to view

the garment via video link to ensure that its fit and aesthetic are correct. Many seemingly minor material decisions are therefore not chiefly in the hands of April or David (who follows the same work processes), but largely in the hands of actors a great distance away in China. This disconnection from the material garment makes any DfS strategy requiring intervention in product (e.g. in designing garments to disassemble for ease of recycling, or for any kind of product stewardship after use) exceedingly unlikely.

6.4.2 ENGAGEMENT WITH PRODUCT - FOOTWEAR

However, some of the designers at Company B were necessarily more involved with the physical product. The interview with Pete, Company B's footwear designer, and intimates designer Kara, were the two best examples of a designer who worked hands-on with the prototypes during development stage. Both fitted their samples physically in Australia, rather than via video link. Also, both Kara and Pete discussed practical steps they have taken, or could potentially take, to improve their designs for sustainability at a product level. Pete had worked in Europe and the US as a footwear designer, in companies ranging in market level from haute couture to the discount mass-market. He was gravely concerned about pollution from synthetic materials in footwear. His experience working with factories in Taiwan affected him viscerally – he described how he would be “gagging” due to the extent of the air pollution. He said,

One of my biggest concerns ... we are developing synthetic materials to make a cheaper product but we are polluting the air, developing these materials... when I go to Taiwan to see the factories, there are days ... I can't even believe... it's disgusting (Pete 2010).

He added, “I felt bad ... what are we producing? The end result is, like, a cheap pair of shoes” (Pete 2010).

Pete's response to his experiences of factory conditions was to actively research alternative materials for Company B's footwear, although with mixed results. He cited Stella McCartney's record of sourcing synthetics that were environmentally friendly. However, he acknowledged that using these materials in his market level was a challenge, saying:

But where technology is right now we can't afford it. You know the price is just astronomical. Then you sit back and you look at that and you go, well that's not really fair is it because basically what I'm doing is I'm sort of contradicting myself, I'm trying to produce a fabric, a material that's inexpensive, but I can't afford to produce it to save the air? (2010).

Although the search for alternative materials was proving to be a challenge for his market level, Pete was still continuing his research. As such, he described how he was in the process of sourcing recycled tyre rubber for use as outer soles for a portion of the summer sandals. Also, he had shared his concerns with some of his former colleagues in a US company (also footwear designers) and they were also concerned about the pollution from synthetic materials, but had a different approach. As Pete described:

they decided you know because of what I have just been saying they were doing the opposite, they are going to start using animals again, but using the animals that are overpopulated that can use tanning process that can deal with the skins of those animals that we do have to, sort of like, curb the population ... certain buffalo, certain bison things like that (2010).

He added, “as it turns out that process of tanning with skins like that is apparently less detrimental to the environment than developing all these polyurathanes so it's interesting... that's something I would really like to look into in the future, that's one of the goals”(2010).

The interview with Pete was significant because, unlike David, for example, he did not focus on the larger macro-problems of fashion and sustainability; instead he focused on the challenge that he could directly influence – the material of the footwear he designed. His physical closeness to the actual product he is designing enabled a greater connection with, and appreciation of, its materiality. For Pete, this has flowed through into a concern regarding the impact of the synthetic materials and an active attempt to reconsider his material choice. To conceptualise this notion, Figure 6.4 plots on one axis the potential for designers to consider sustainability based on the closeness of designer to product. The second axis plots whether responsibility for product falls on the buyer or designer. The argument is that for the best opportunity for a company to consider sustainability at a product level, the company's design process strategy should ideally fit within the top left quadrant. However, this diagram is proposed based on the limited data sourced from Company

B, and in order to be better proved, it needs to be tested and analysed against a far larger sample of companies.

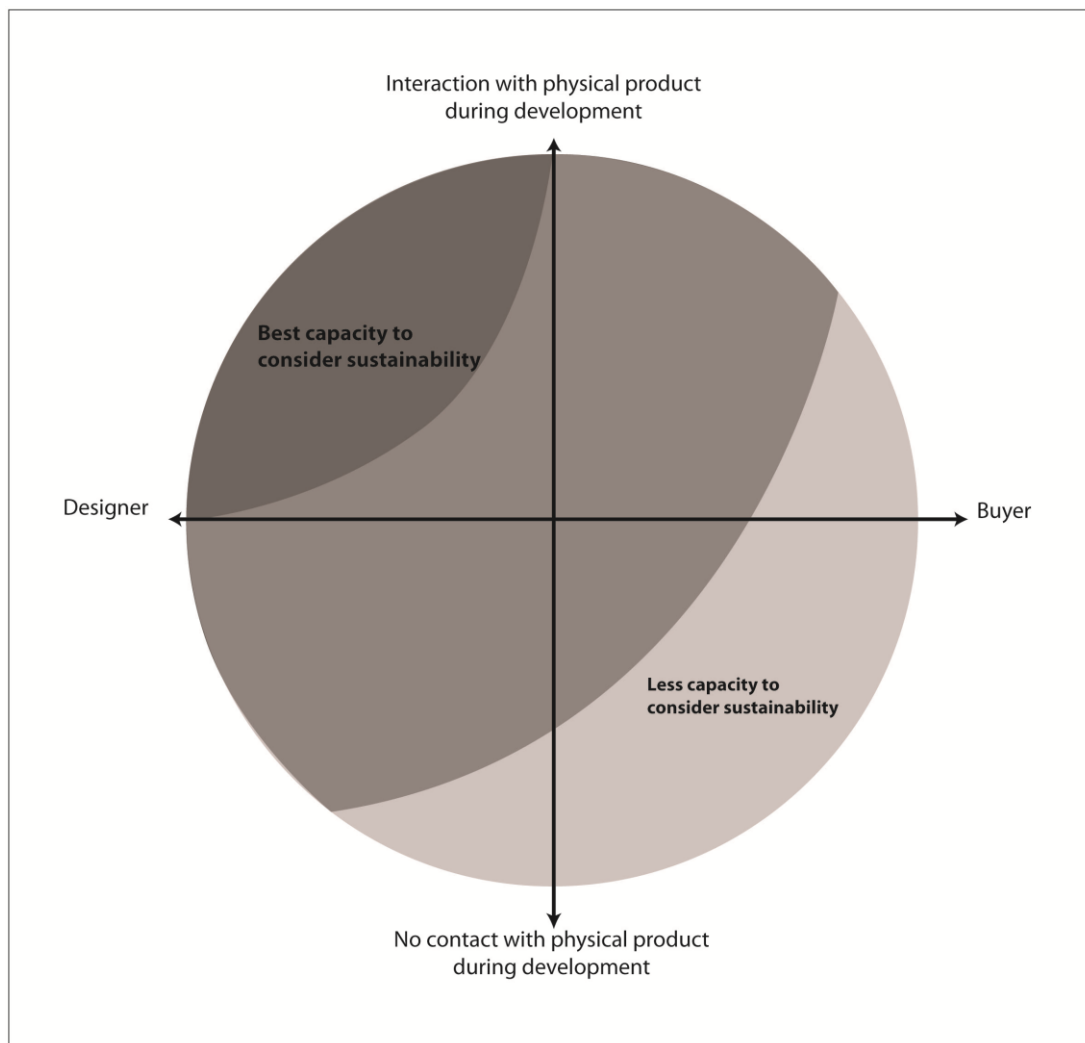


Figure 6.4 Capacity for a company to consider sustainability at a product level

6.5 CONCLUSION

The discount retailer market in Australia, as in overseas, faces challenges for sustainability due to both its high volume and low-priced product. However, large companies have the financial capacity to invest in sustainability initiatives, and also feel an external pressure from shareholders to improve their record in corporate social responsibility. In Company B, the company was moving towards sustainability in a number of ways. The most important of these was through the introduction of the new design team. Although this strategy was put in place to ensure the

company's economic sustainability, from the interviews with designers, there is evidence that a designer presence in a team can allow a greater capacity to consider sustainability at a product level. As David said, the buyer is more concerned with numbers and selling, whereas designers are passionate about product. In itself, this is an important distinction that has relevance for design for sustainability. Arguably, the shifts in design process at Company B could auger well for designers engaging at a product design level with sustainability – and this was already in evidence even though the “simpler way of working” is still very recent. This was demonstrated in material choice and also in the streamlining of product offering in order to reduce wastage across the company.

It is significant that two of the designers who were most engaged with sustainability and actively considering it within their design process were not apparel designers. These two designers were Amy, the Hard Lines Manager and Pete, the Footwear stylist. In both interviews, the participants discussed their concerns regarding global challenges such as environmental pollution and inequality, and both had taken (and could suggest) more ways to consider sustainability within their processes. Amy believed it was her role to educate the buyers as to the value of considering product more closely, to cut down on the amount of “stuff” in the world, while Pete's biggest concern was the synthetic materials his footwear was made from. This suggests that the fashionability of a product continues to impact upon how much a designer can contemplate changes for sustainability. Chapter 5 discussed how designers of a faster, more fashion-forward product were less able to consider sustainability at a product level as the trends governed almost every aspect of the designed garment. The data gathered at Company B supports this view, as when the fashion content of the product is not so subject to rapid change, designers are more able to engage with the materiality of the product, rather than focus mostly on its intangible fashion content.

This physical distance between designer and product is an important consideration within design for sustainability. In the mapping of the design process, it became clear that as designers are far removed physically from the products that they are designing, they have a diminished capacity to closely redirect product for sustainability. Crucially, most apparel designers have never physically handled their styles in the design room prior to the delivery of the pre-production sample. Hence Pete's concern with the material of the footwear he is designing stems from first

hand engagement with the factory environment and a closer physical connection to product than his counterparts in apparel. Taking this a step further, the diagram in Figure 6.4 conceptualises the capacity for sustainability in design based on the closeness of the designer to the product.

Finally, the fact that only designers were interviewed at Company B tells only half the story. The argument regarding the role of the buyer and the role of the designer is presented from a one-sided, designer's perspective, clearly because it was designers who were telling their stories. The buying team continues to play a significant role in the design process, and they arguably contribute fashion knowledge and considerable contextual knowledge to the design of the final product. Similarly, the technical support teams both in Australia and in China are the actors who may make the daily, operational decisions regarding the actual materiality of the product, even though they are guided by the specifications provided by designers. The designers interviewed for this research project are only one group of actors, albeit an important one, in a complex decision-making chain that can determine the environmental sustainability or otherwise of a product.

This complex interplay between designers, buyers and manufacturers describes a nexus between fashion knowledge, contextual and technical knowledge. Design for (weak) sustainability necessarily requires all three components. Design in this context can be conceived as a 'meta-practice' in which both intangible and tangible elements come together to form the material product. 'Design' is the collective decision making that results in the final garment, and it is this *collective* decision-making that arguably requires redirection for sustainability. The designers in Company B were brought into the company because they particularly held the immaterial fashion knowledge to develop garments that were not imitated from elsewhere. However, in the interviews, it became clear that as designers they were still more connected to the material product than the buyers. While fashion designers are chiefly concerned with the immaterial components of fashion design, their role at the beginning of the product development process still places them in a unique position to consider interventions in the material garment.

Chapter 7: The Mid-market

“I don’t think people would be in too big a hurry to ditch it because it is not such a fashion item...unless it was broken or damaged, it is expensive enough to hang on to it”

Michelle, Head Designer, Mid-market Label C2

Between the cheaper discount fashion market and the high-end luxury market sits a broad band of fashion and apparel retailers that can be loosely grouped as the ‘mid-market’. The mid-market, also known as ‘premium brands’ (Hameide 2011), has a higher pricepointed product, coupled with greater brand prestige. While certainly not at the level of luxury, mid-market brands can still command a higher price for their garments by virtue of their intangible branding, as much as (if not more than) the quality of their garments. The mid-market in Australia is represented by a wide selection of retailers and wholesalers, each catering to a sharply defined market niche. While the discount sector has a broad mass-appeal in both price and product offering, the mid-market sector contains innumerable brands that are each closely tailored to specific lifestyles and customers. For this reason, it is difficult to map the sector as two mid-market brands may only have a similar pricepoint in common. For example, Billabong (mid-market surfwear) and Country Road (mid-market fashion apparel) share a similar price range but have a radically different brand story and lifestyle image. Despite the great differences between individual mid-market brands, this case study will map the mid-market sector in Australia by using pricepoint as a guide, rather than ‘fashion’ content or market niche.

The mid-market is seemingly well-placed to consider social and environmental sustainability within their design processes and wider systems. For instance, the higher pricepoint of the products, in theory, would allow for fair wages to be paid to workers, as well as higher quality fabrics (which may last longer), and R & D into new textiles and processes. In addition to this, the importance of brand story to the mid-market company is such that they cannot be seen to be engaged in unethical practices. Therefore, the aim of this chapter is to assess to what extent mid-market

companies in Australia are responding to sustainability, and whether they are better placed than other market sectors. In order to explore this question, this chapter draws on industry reports and observations in the Australian mid-market, in comparison to overseas. Embedded within the wider case of the mid-market is a case study of the design processes at Company C's Label C2, a mid-market womenswear label. This case study reveals the ways in which Company C's designers develop their products, and their views on managing the emerging challenges of higher fibre costs, freight and manufacturing costs. While Company C has made no public commitment to environmental or social responsibility, its management is determined to reduce waste and cut costs, and as such the designers at Company C have developed strategies that, almost by accident, can be viewed as initiatives for weak sustainability. This chapter, then, analyses the complex interaction between development and manufacturing of the tangible product, while maintaining the intangible 'brand story' of a mid-market company. The chapter concludes with an analysis of the degrees to which a mid-market company may respond to sustainability.

7.1 DEFINING THE MID-MARKET

7.1.1 MID-MARKET BRAND POSITIONING

Mid-market brands exist in a number of strata, mapped in this study as upper mid-market to mid-market (see Figure 4.1, pg. 111). Just below luxury are the premium brands (referred to as 'upper mid-market' in this study). As branding writer Hameide (2011) notes, premium brands include aspirational new luxury brands such as the diffusion labels of designer labels as well as brands such as Coach and Victoria's Secret in the US. Hameide says, "by definition, this segment stands at the highest spectrum of mass-market brands; placed just below luxury brands, it shares a few characteristics with them" (2011, 162). These shared characteristics include being based on emotion (yet still accessible), having a higher level of creativity, and being product-centred (Hameide 2011, 162). As such, the varied cohort of mid-market brands are well-placed to consider intervention in product for sustainability, as they command a higher pricepoint and depend on the emotional connection with their customers. Key to this is the brand story that they build – this must be authentic and aspirational, yet still accessible.

As Dominic Power and Atle Hauge (2008, 124) define it, “branding is an attempt to strategically ‘personify’ products, to give them a history and a personality”. The ‘brand story’ is an unfolding narrative that a company tells about itself, supported by its marketing, its retail, and the aesthetics and materiality of its garments (Hancock 2009a, 2009b). Increasingly tied in with the brand story is the desire to humanise the brand, to demonstrate that the brand serves a social good. Fashion marketer Bill Webb (2007, 84) refers to this as “differentiation by standing for something”, which may involve support for charities as well as varied environmental claims. Fashion companies are operating in an increasingly “moralised brandscape”, where any unethical behaviour will rapidly be noticed by savvy and connected consumers (Salzer-Mörling and Strannegård 2007).¹ Mid-market brands are particularly susceptible to this, as they carefully tread a fine line between value for money and “mass-stige”. An example is Nike, who, as discussed earlier (pg. 132), suffered brand damage in the 1990s from the use of child labour in its supply chains.

7.1.2 MAPPING THE AUSTRALIAN MID-MARKET

The mid-market is a term used loosely in Australian fashion industry publications, and has been applied to diffusion labels of designer brands (for example Armani Exchange, from Giorgio Armani), to casual high quality lifestyle brands, as well as to some smaller independent labels with only a niche following. For the purposes of this chapter, pricepoint is the key indicator of market level, even though the volumes, retail presence, and market niche of the labels may vary considerably. Figure 7.1 maps mid-market labels in Australia. From this it is clear that the lines between mid-market and upper mid-market, and then between upper-mid market and the designer or luxury markets are blurred, with markets overlapping in some areas. The trend for diffusion labels also blur these boundaries – for instance, Karen Walker’s Hi There and Leona Edmiston’s Leona are firmly mid-market, while Easton Pearson’s EP range sits closer to the upper mid-market.

¹ This section is developed in Payne (2012b).

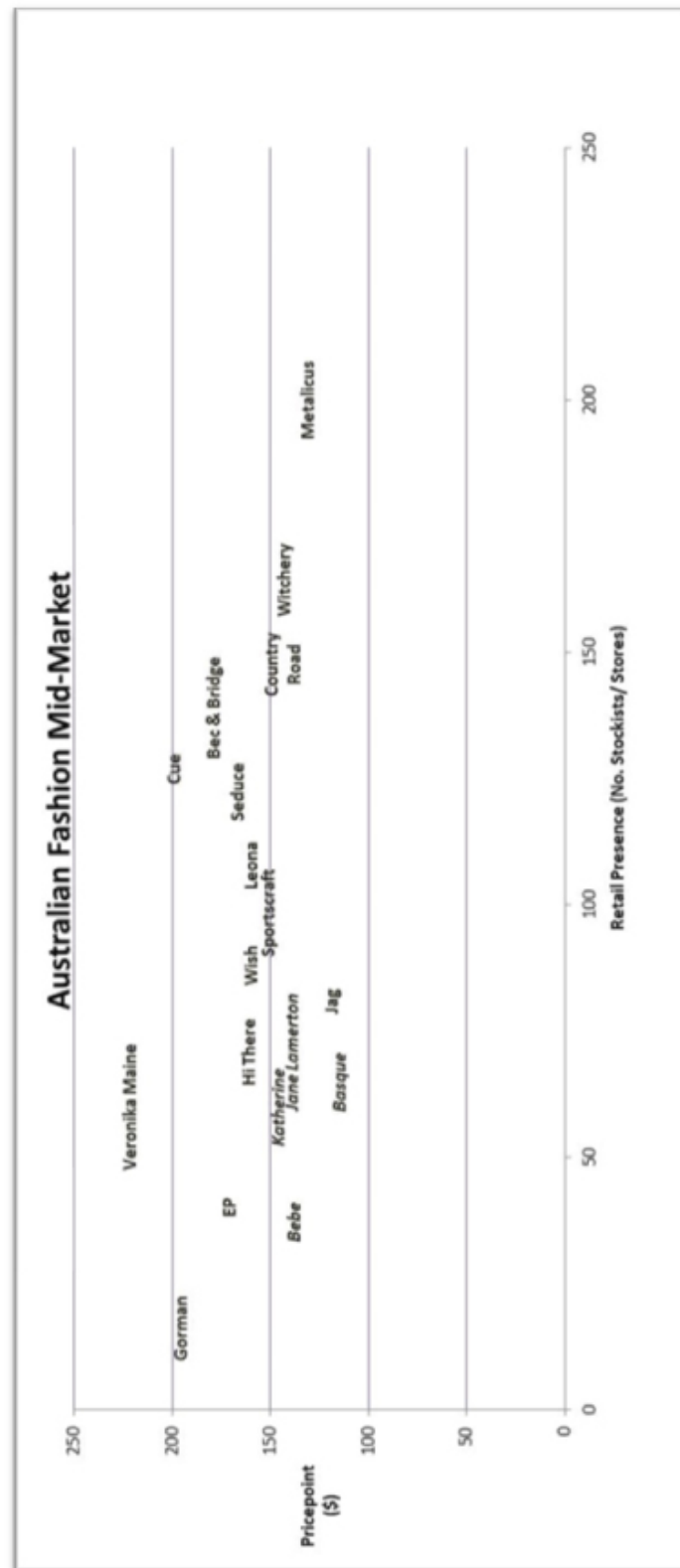


Figure 7.1 Market map of the Australian mid-market

The Australian mid-market is dominated by large established retailers such as Country Road, Cue, Witchery, and department stores David Jones and Myer that offer wholesaler labels and concession stands. Many small independent boutiques offer mid-market fashion brands alongside more expensive designer labels. Australian designers such as Fleur Wood, Wayne Cooper, Sass and Bide and Leona Edmiston share floor space in department stores alongside Country Road and other mid-market labels such as Cue and Review, with international labels such as Paul Smith and Ben Sherman often close by. In this way, the mid-market labels can compete with the higher end labels, as some of their brand cache rubs off by association (see Figure 7.2).² This appears most clearly in the smaller Myer department stores, where labels from mid-market through to designer or luxury sit side by side, ultimately with a wide range of pricepoints represented from Sass and Bide (average \$382) to Levi Strauss (average \$99).

The Australian mid-market sector has been struggling in recent years, due in part to poor retail growth figures (Ryan and Gluyas 2011). During 2010 – 11, a high number of fashion retailers in Australia have gone into administration, including Fletcher Jones, Ed Hardy, Barkins, Colorado Group, Bettina Liano, Satch, Belinda International, Baubridge & Kay, Zambelli Retail and Brown Sugar (*Ragtrader News* 2011a). Of these, almost all are in the mid – upper market level³. The two major department stores, Myer and David Jones, have posted recent losses, with profits in their second quarter of 2010-11 down up to twenty per cent on the previous year (AAP 2011), and losses continuing for Myer over 2012 (*Ragtrader* 2012d). This has created a degree of uncertainty in the industry, which was also witnessed in the interviews conducted with mid-market Company C, as described below.

² This map was developed in one Myer, at a particular point in time. Although Myer stores differ across the country, and shift their stock around, the map still serves to demonstrate how companies have been positioned beside each other.

³ E.g. Colorado sat above the discount tier, but was below the average of \$100 per garment. Jag (brand of the Colorado group) is a mid-market brand (and has since been salvaged). Belinda is a high-end boutique.

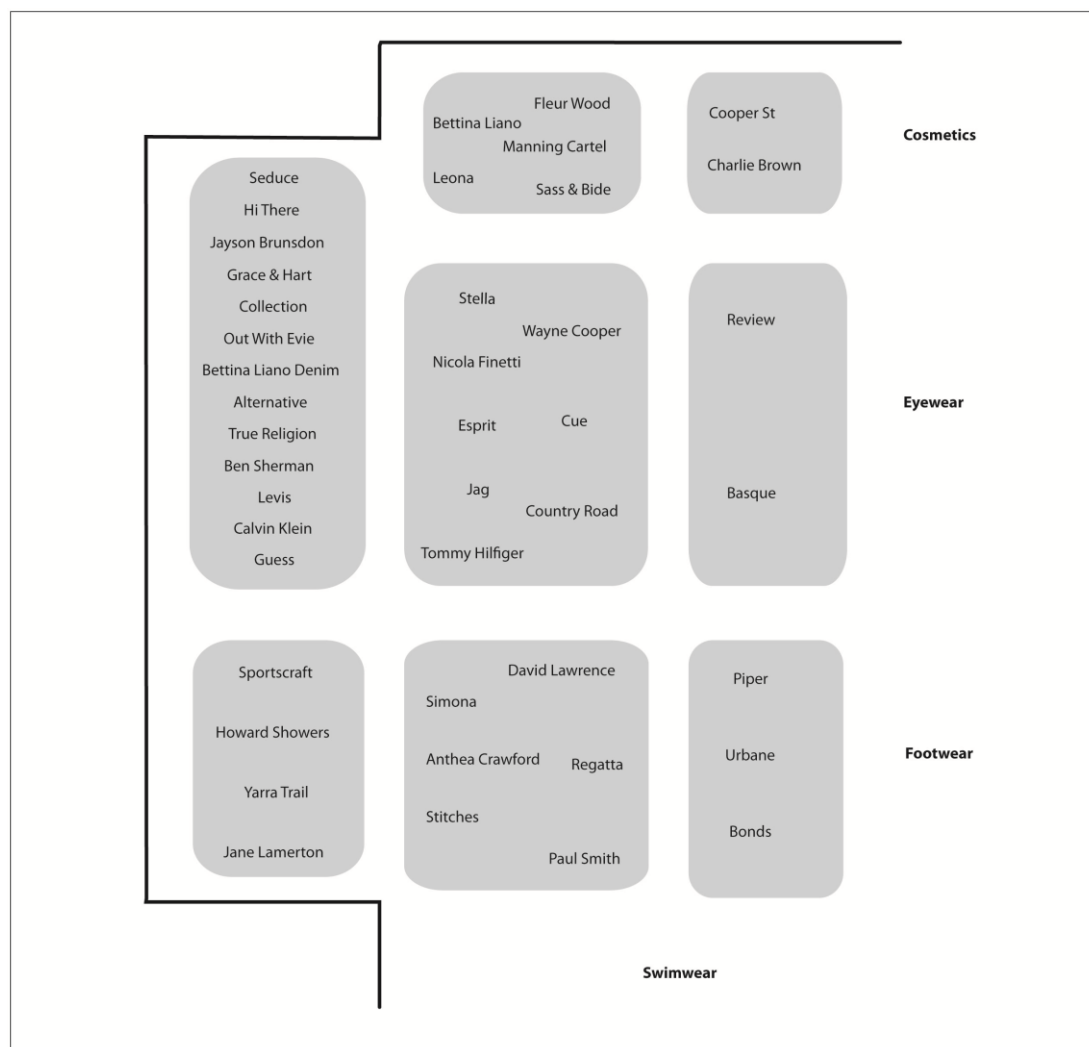


Figure 7.2 Myer (Broadbeach, QLD) womenswear floor layout

7.2 MID-MARKET AND SUSTAINABILITY

As previously discussed in Section 4.4, companies that are not as fashion focused are better positioned to address environmental sustainability within product design. Mid-market brands may target niche markets, meaning that close contextual knowledge of the lifestyle of their targeted consumers is key to the brand's success, more so than close adherence to fashion trends. Like fashion brands at both higher and lower pricepoints, mid-market labels have aimed to differentiate themselves through their commitment to either social or environmental responsibility, or both. Internationally, the majority of large fashion companies that have championed sustainability in their systems and materials have garments sitting in the mid-market

price range. These companies include Nau and casual wear brand Howies. These companies sit at a broadly upper-mid to mid-market pricepoint, with Nau at an average of \$194 per garment and Howies at approximately \$86 per garment.

Table 7.1 International mid-market companies and sustainability

Brand	Market level/ pricepoint ⁴	Interventions for sustainability		
		Product	Systems around product	Wider company
Nau	Upper mid-market active mens' and womens' wear AUD\$194	Closed-loop recycled and recyclable product Organic cotton / organic merino Collection at end-of-life	No physical storefronts	Percentage of profits to environmental groups
Patagonia	Upper mid-market mens' and womens' active wear AUD\$107	Closed-loop recycled and recyclable product Footprint Chronicles to track waste and energy use Organic cotton/ organic merino Fibre and fabric innovations Formal Life Cycle Assessments (LCA) of garment styles		Percentage of profits to environmental groups
Nike	Mid-market mens' and womens' sportswear AUD\$86	Considered Design strategy (reduce waste, innovative textiles, recycled materials) Tool for environmental design publicly available Joint roadmap with other industry partners to eliminate discharge of all toxic chemicals by 2020.	Incentives for farmers to convert to organic cotton Reuse-a-Shoe program Nike Grind – collecting old sports shoes and converting into sports surfaces for playgrounds	Partnerships with education and NGOs.

⁴ Prices averaged and converted to AUD in November 2011.

Brand	Market level/	Interventions for sustainability		
Levi Strauss	Mid-market menswear and womenswear denim AUD\$99	Formal LCA of Levis 501s and Dockers styles Organic cotton range	Banned sandblasting of denim Working with Better Cotton Initiative Waste water treatment at suppliers' textile mills Use of intermodal freight (truck and rail) rather than air Reducing packaging at retail Recycling at end of life Encouraging responsible care and longer use of the garment	Partnered with Forum for the Future to develop <i>Fashion Futures 2025</i> report (Bennie, Gazibara and Murray 2010)
G Star Raw	AUD\$193/ high end menswear and womenswear denim	RAW program: nettle / organic cotton / recycled cotton used in some denim ranges Has used vegetable dyes for denim	Incentives for farmers to convert to organic cotton	Audited to minimise carbon emissions Social innovation in United Nations Millennium Campaign.

The companies in Table 7.1 represent current best practice in the global mass-market, with sustainable design writers paying particular attention to innovations by Nike (DeLong 2009; Fiksel 2009), Patagonia (Loker 2008; McDonough and Braungart 2002; Fiksel 2009) and Howies (Fletcher 2008). This suggests that the mid-market may be the triple bottom line 'sweet spot' as companies at this tier have the interest in investing in sustainability initiatives (brand values to maintain) with an existing higher pricepoint (customers already prepared to pay a premium), while also being of a scale to conduct external LCA's of product styles and to make innovations in fabric and fibre feasible. Significantly, the above brands operate mostly in the active and casual wear markets, as opposed to more fashion-forward markets. Although G-Star and Levis are fashion denim brands, their core product is classic denim styles that are aesthetically stable enough to allow for design innovations elsewhere, such as in dyeing and fibre. As mentioned in Chapter 4, with Patagonia, Nau, and Howies, their target customer is someone involved in outdoor activities and

sports and hence more likely to have an affinity with environmental concerns. Indeed, Patagonia was founded by environmentalist and mountain climber Yvon Chouinard, and has environmental concerns and duties built into its corporate charter (Fiksel 2009). In essence, for Patagonia, Nau, and Howies, sustainability is a large part of how the branding of the company is constructed – following Skov and Meier’s (2011) proposed categories, these are ‘hardcore green’ brands.

Aside from other sustainability strategies, mid-market brands are likely to perform better later in the garment life cycle, as they are expensive enough to be held onto for longer by their customers, and also to retain resale value. This is demonstrated on eBay Australia’s website, where second-hand womenswear from mid-market brands is more commonly sold than that of discount brands. For example, in December 2011, mid-market brand Country Road had 2890 items of womenswear advertised on eBay (2011a) compared to only 224 items from discount retailer Rivers (2011b). Both retailers have a similarly wide presence across Australia with River having 184 stores and Country Road 150. That there is over ten times more Country Road clothing for sale on eBay than Rivers clothing is no doubt due largely to the higher brand-cache of Country Road, which is in itself a combination of higher pricepoint, perceived (and actual) higher quality, and perceived fashionability.⁵ In this sense, Country Road clothing can be relied upon to retain value for longer, and to enter new fashion cycles in the second-hand market.

To expand further on the mid-market and sustainability, Country Road presents an interesting exemplar in regard to CSR and branding. In 2010, Country Road partnered with the Australian Red Cross charity in the Fashion Trade scheme. Customers donate a bag of used clothing to a Red Cross store, containing at least one Country Road branded garment, and they then receive a \$10 voucher to be spent on their next purchase of fifty dollars or more at Country Road. The brand, as a mid-market label, has an average pricepoint of over AUD \$100, and as such is targeted at upper middle class families. The Red Cross initiative is pitched primarily as a

⁵ Arguably, Country Road clothing may ‘last’ longer than the cheaper Rivers clothing. While this may be true for some garments, such as T-shirts or knitwear, I am not convinced of this without empirical tests, e.g. examination of a Country Road button-through cotton shirt reveals it to be very similar to a Rivers’ version in both fabric weight and seam finishes. However, Rivers clothing is manufactured in the lower-wage Bangladesh, while Country Road manufactures in China (see footnote 22, pg.168).

charitable concern, with the aim being “to encourage good quality clothing donations, divert textile waste from landfill and raise revenue for the Red Cross” (Country Road, 2012). In store signage at Point of Sale (POS) tells customers “Country Road and Red Cross have joined forces to reward you for your social conscience”. The project is framed as a social good – the clothes that the wealthier customer can afford can be given to the less fortunate to enjoy. The customer is rewarded with a gift card to purchase even more clothing from Country Road, and the cycle begins again.

Country Road’s initiative is in the second category of interventions for environmental sustainability (see Figure 4.6, pg. 138): intervening in the systems of use and consumption around the garment. This initiative tackles the end-of-life stage of the garment life cycle, when garments are sent to landfill. As mentioned in Chapter 4, garment disposal to landfill creates a toxic leachate when the groundwater becomes infected with the chemicals in textile waste (Caulfield 2009). As well as diverting textiles from landfill, the Country Road partnership ensures a flow of good quality garments for resale for the Red Cross. In Australia, charities are swamped by high volumes of donated goods, more than can be processed: for example, a single sorting centre in NSW alone processes 10,000 tonnes of donated clothing per year (Gwilt & Rissanen 2011, 157). Poor quality clothing cannot be resold, and may not be worth the trouble of sorting. As Country Road has a brand cache of good quality, the pieces are more likely to survive the sorting process and hold resale value for the Red Cross.

This strategy is also aligned with Patagonia’s partnership with eBay, in which second-hand Patagonia clothing can be posted for sale on eBay Green, with the tagline “because the greenest product is the one that already exists” (eBay 2012). In this way, while not intervening in the product design, Country Road’s clothing is arguably already ‘greener’ through being of (at least perceived) higher quality in make and fibre, and, just as importantly, having a brand story of Australian quality that will ensure the garment can go onto have a second and third life cycle with new users. The perception of quality does not necessarily hold up under examination of actual garments – a comparison between a basic Country Road T-shirt and a Rivers T-shirt reveals both are manufactured to a similar quality (e.g. in seam finishing and cut), and both utilise cotton jersey of the same weight. Crucially, this suggests that

the intangible branding of the company alone can serve to lengthen the life of the garment.

The scheme has had a small impact in wider waste management terms. Red Cross and Country Road reported that in the first year, across the Australasian market, “4,700 garments were donated amounting to a potential Red Cross re-sale value of \$23,000” (Country Road, 2012). This is a modest figure in light of the enormous flows of clothing moving through the Australian market – over one billion items of clothing yearly (Wells 2011). However, as important as the actual number is the tacit implication of product stewardship – that Country Road’s garments do have an environmental impact at end-of-life and that the company may need to consider this in some way, even if the scheme defers final responsibility to the consumer. In terms of branding, the initiative also demonstrates that mid-market brands are well placed to leverage their reputation (whether real or perceived) for having higher quality garments that then have a higher resale value in the second-hand market. Implicit in the scheme is the notion that Country Road’s middle class customers ‘deserve’ to be rewarded for responsible disposal of the product, and for their charitable concern. The above analysis of Country Road’s strategy is an exemplar as to how mid-market brands are well-placed to intervene for sustainability (whether environmental or social) for complex reasons relating as much to the symbolic construction of their brand identity as to the higher quality of the material garments.

In interviews with designers in both Company A and Label C2, upper mid-market label Gorman was cited as an example of best practice regarding fashion and sustainability (e.g. Michelle 2011; Kylie 2010). With 16 stores across Australia, and an average pricepoint of \$196, Gorman sits in the upper end of the mid-market, close to Cue and Veronika Maine, but just below the designer bracket. Gorman has built up a certain designer cache through its design aesthetic and philosophy, and it maintains the image of being one of Australia’s most sustainable fashion labels (English and Pomazan 2010). A list of Gorman’s strategies is given in Table 6.2, however only the organic range is described on its current website (Gorman 2011). While in 2007 – 8, Gorman had a number of public campaigns relating to the life cycle of the garment (*Ragtrader* News 2007), since 2011 these are not advertised in store or on the website. This suggests either that after the sale of the business, Gorman retreated somewhat from its environmental aims, or possibly that it is

choosing not to share its environmental practices as an ‘eco-fashion’ image may not be the core appeal for its target customer.

Table 7.2 Australian fashion mid-market labels response to sustainability

Brand	Market level	Categories of intervention for sustainability		
		1. Product	2. Systems around product	3. Wider Company
Billabong	Mid-market surfwear	Recycled/able board shorts material	Commitment to reduced packaging Codes of conduct for suppliers	Reduced packaging waste Support for charities
Kathmandu	Mid-market active wear	None in evidence	Signatory to the Australian Packaging Convention Reusable or recycled shopping bags Terms of trade for suppliers Conduct audits of suppliers	Support of charities both overseas and in Australia
Country Road	Mid-market womenswear	None in evidence	Fashion Trade (with Red Cross) Reducing packaging Code of Conduct for suppliers	Carbon emissions independently audited CSR report accessible on website Sponsor of Australian children's charity Red Kite Staff encouraged to volunteer time to a charity/cause of their choice
Cue / Veronika Maine	Mid-market womenswear	Use of lower-impact fabric Lyocell	Reduced packaging in store Code of Conduct for suppliers	Accredited by Ethical Clothing Australia
Gorman	Mid-market womenswear	Gorman organic range	Reduced packaging in store Code of Conduct for suppliers	Prior initiatives included discounts for customers who travelled to Gorman by bus or bike, ship shop store, carbon auditing / aim to be carbon neutral by 2008

From Table 7.2 above, Australian mid-market labels still lag behind in comparison to overseas companies in implementing sustainability strategies. It would not be appropriate to compare the strategies of brands such as Patagonia and Australia's Cue (one active wear, one fashion apparel); however even when comparing brands in a similar market niche (e.g. Patagonia and Kathmandu), the Australian brands display less intervention for sustainability. Despite this, as the Country Road example indicates, mid-market brands are already arguably more sustainable by virtue of their pricepoint and brand prestige that makes them less disposable than fast fashion or discount apparel. But being mid-market itself is not enough for weak sustainability – it would also require a more stable aesthetic that is more bound to the brand story and lifestyle of the target customer than to fashion trends.

7.3 MID-MARKET DESIGN PROCESS

7.3.1 COMPANY C BACKGROUND AND STRUCTURE

In order to understand the design process in a mid-market fashion company, this section presents a case study of design processes in Company C. Company C is both a wholesaler and a vertically integrated retailer. It is comprised of three⁶ womenswear labels. Across Australia and New Zealand the three labels combined have over 400 stockists, including both major Australian department stores. In addition to this, the main label is stocked in the US, Dubai, and has recently expanded into China. While working in the same building and sharing a technical team, the three labels operate independently of each other with separate design rooms and sales teams (see Figure 7.3). The biggest of the three labels, Label C1, is a mid-market retailer with a market presence of approximately fifteen stand-alone stores Australia wide, as well as concessions in a major department store and wholesaler customers. The brand specialises in party wear and special occasion dresses. With a mid-market pricepoint, the target customer is aged 25 – 40. It is designed and sampled in Australia, with garments manufactured in China and freighted by sea to Australia.

⁶ In 2012, the company started a fourth label.

Label C2 is a mid-market wholesaler selling to approximately 200 stockists in Australia, their main customer being a major department store. They have a slightly older target customer than Labels C1 and C3, targeting women aged 25 – 55, with women in their thirties and forties being the main customers. The brand is priced in the mid-market range and aims to present classic, timeless pieces. The garments are sampled and manufactured in China. A collection comprises approximately 60 to 120 garments, and there are five collections per year, released in stages over several months. As described in Chapter 5, Label C3 is a fast fashion lower mid-market wholesaler with department store concessions. Like Label C2, it is also sampled and manufactured in China, however it has a younger, more trend focused customer base, aged 16 - 25. The pricepoint is lower than the other two brands, and is identified by the designers as 'fast fashion'. The label develops approximately 60 to 80 garment styles per month. Label C3 is a direct competitor of Company A's Label A1 and Label A3.

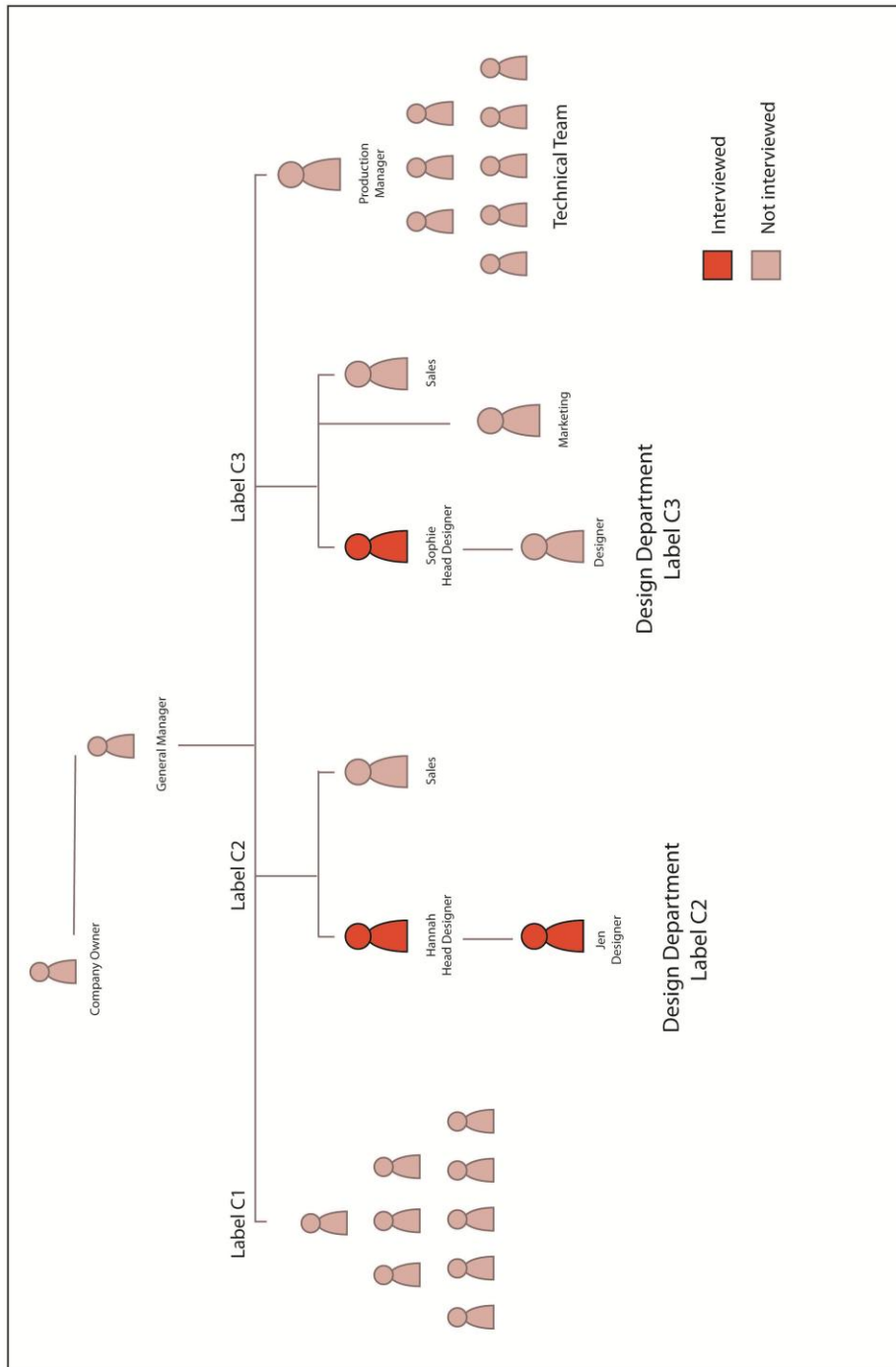


Figure 7.3 Structure Company C

7.3.2 LABEL C2 DESIGN PROCESS

Label C2's design process begins up to nine months ahead of the delivery in store – the longest lead time of any of the brands interviewed for this research. Assistant designer Jen says, “the reason we do things so early on is because we can save money by freighting the garments by ship instead of by air,” (2011). Yet this cannot

be the only reason, as Label C3 also freights by sea and has a much briefer lead time (see Figure 6.5). Jen also indicated that the Chinese factory was inefficient, so it was “just as well” that Label C2’s lead times were so long. Label C2, as a label for an older market, does not need to be as on trend as Label C3, so possibly their production can take second place to the faster production needs of Label C3. Jen said, “we are not really a fashion forward brand ... we're more of a classic-looking brand so having that much leeway time is good for us” (2011). However, designing so far ahead of the season also brings challenges for Label C2. Jen said, “It’s proving to be a bit hard to find fabrics in season because the suppliers are not ready to show ... summer”. Also, Jen went on, “we had not really a lot of inspiration because ...the catwalks weren’t out yet” (2011).

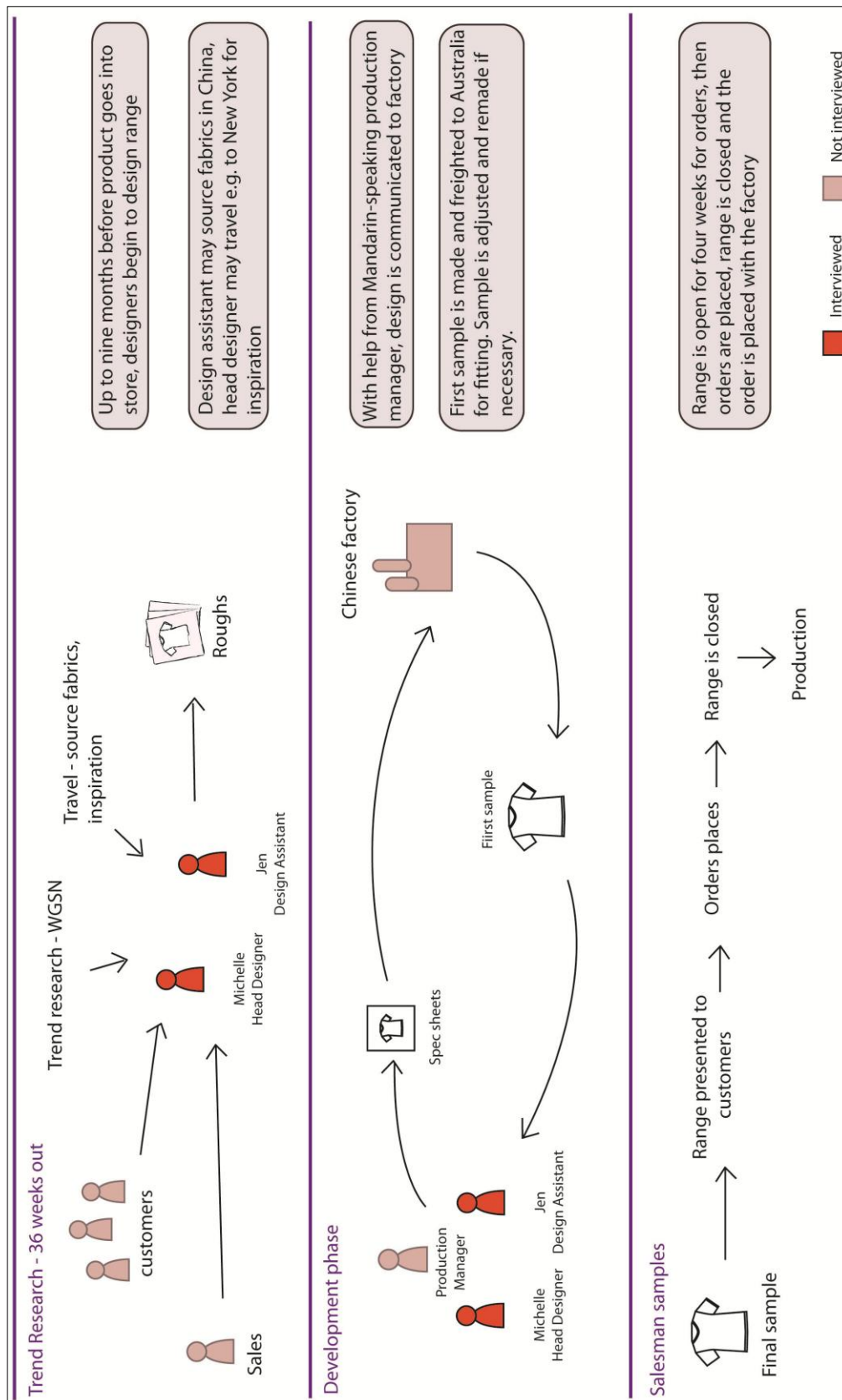


Figure 7.4 Design process Label C2

While the fast fashion designers in Company A and Label C3 depended heavily on trend forecasts, garnered from WGSN, blogs, and travel, this form of knowledge was less important in Label C2. As opposed to the monthly ranges of Company A and Label C3, Label C2 put out only five ranges per year, three summer and two winter. Each collection ranges from one hundred and twenty pieces (First Summer) to less than sixty pieces (Second Winter). Head designer Michelle and assistant designer Jen design the collection collaboratively and work largely autonomously from the rest of the company. The process is outlined in Figure 6.4. Design inspiration is sourced loosely, taking from catwalk shows, WGSN, and magazines, with less attention paid to meeting specific fashion trends than at Label C3. Rather, contextual knowledge was important for Label C2 – both designers had to know their customer (the customer being the retailer as well as the end-user). Label C2's sales manager also has input into the collection by discussing the sales successes and failures of previous seasons' styles, and, by extension, the retailers that buy the collection also have an input in design development. For instance, Jen described that for First Summer onwards, any lined garment will be lined in cotton to please the Queensland buyers, whose customers find polyester or acetate linings too uncomfortable for the hot weather (2011).

Jen demonstrated her design process for three styles. She began with her fabric choice, a silk cotton in their season's colour palette of pink and charcoal, a fabric that she and Michelle had decided was versatile enough for three styles. She then took a magazine cutting of a Jil Sander advertisement, and indicated one of the garments, saying,

I found this picture ages ago, and I like this little detail [indicating gradating pleats across the front of the dress] and it's also nice because it suits the fabric, and we are designing for September delivery and so we need something... well we've got a lot of race wear, that's covered already with what we have done, so we are going to do something in between (2011).

The element she liked from the Jil Sander garment, a series of gradating pintucks, was drawn onto her bodice shape, using the detail in a different way to the original inspiration in both scale and placement on the body. In this way, her new drawing did not resemble the Jil Sander advertisement; instead the original photograph had provided a trigger. Jen then adapted her design into two more versions, a mid-length

dress and a long sleeved top. She needed a detail to make the top a bit less plain, and decided to use a recent discovery, saying:

normally I'd source a button, but I've discovered that with a covered button – flat, sew through – you can put something on top, so it is kind of cute, and not a lot of people do it, like a bow or something, tack it on top through the covered button, and covered buttons they're four cents each and the little rouleau on top costs nothing, so instead of finding a button for a dollar, you can do three buttons for twelve cents, so it's good...(2011).

In the design of the three styles, the needs of boutique retailers as well as the major department store buyers were considered. For instance, Jen said, “[Major department store] always want button-down blouses at the front – always want it – it's like one of their major categories that they sell, so we pretty much did that top just for them” (2011). The final customer was also considered, with the garments proposed as tops for office work, and designed to be tucked into tailored work pants, which, in Jen's view, their customer would probably purchase from Country Road or a similar mid-market retailer.

From this demonstration, the initial design phase is revealed to be a case of juggling sets of differing needs and considerations. The designers consider the needs of consumers, buyers and managers. A good solution is found that manages to balance all these needs. For instance, Jen's solution for the buttons was both an aesthetic decision (making the top less plain for the department stores) and a cost decision (cheaper buttons reduce the garment costing and hence benefit the company), and it was this combination that made it so attractive to her. This 'design to reduce cost' approach is discussed further in Section 6.3. Trends did not play a major role in the design process, other than in the initial fabric choice, and possibly the bodice silhouette. This is evidenced in the inspiration used for the pintucking detail, which came from a previous season's fashion magazine.

In contrast, when head designer Sophie at fast fashion label Label C3 discussed her design process, being on trend was vital to all parties – from buyers, to management, to final consumer. Hence her design decisions involved making sure that she had the key trends represented in the final collection. From here, the imperative was to make sure that representing the trends was balanced with cost. For example, Sophie indicated a fur-covered vest, and said there “was meant to be fur at the back, but it still had the same effect, so we don't need to waste all this fur, just

put it at the front and save us money as well and it's less time and it's easier to make" (2011). In this way, the brand met the trend for fur while carefully balancing the cost of manufacturing and fabric. This is very much a fast fashion outlook, also witnessed in Company A. Label C2, as a mid-market label, has the comparative luxury of moving further away from a rigid adherence to trends and instead the styles can reflect other needs of the buyers and consumers, as well as management's needs to reduce costs.

7.3.3 'SUSTAINABILITY BY ACCIDENT'

Sustainable fashion writers Fletcher (2008, 2010), Rissanen (2008, 2011) and Hethorn (2008) have shown concern regarding issues of waste, speed and fibre choice in the design process. In Company C, these three issues are also fore-fronted in the minds of designers, however not due to an interest in sustainability, but due to the necessity of cost-cutting. This section explores how designers at Company C have engaged with the issues of waste, speed, and fibre choice in ways that are arguably aligned to DfS principles. The reasons for their engagement stem from a company imperative to reduce costs, and any gains for sustainability are purely accidental. However, as demonstrated in the discussion earlier of other mid-market companies, Label C2 is well-placed to incorporate these initiatives for sustainability as well as cost-cutting.

Waste

A key tenant of DfS is to manage the polluting waste generated throughout the life cycle, whether generated at input (i.e. in fibre growing, or in manufacture) or at output (i.e. at end of life) (Vezzoli and Manzini 2008; Aspelund 2010, 59). In both Label C2 and Label C3, although having very different markets and design processes, there was a big emphasis on cost-cutting through reducing fabric waste. This was demonstrated through data queries in NVivo, with the word 'waste' and its synonyms appearing up to three times more in Company C interviews than in interviews at Company B and Company A. All three designers at Company C stated that reducing fabric wastage was important to the company's management. While this concern is predicated on the need to reduce company costs, the question of waste is also a concern to environmentalists. Zero-waste fashion researcher Rissanen

(2008, 187) has found that up to 15 per cent of the fabric yield required for a garment will be wasted as offcuts onto the factory floor, estimating that this results in some 100,000 tonnes of cloth wasted annually in the UK alone. Wasted cloth goes to landfill, where it will pollute the soil and groundwater with leachate and ammonia (Caulfield 2009). However, whether or not this is a concern of Company C (and Michelle believes it is not), their commitment to reducing fabric waste for cost reasons may have a beneficial impact environmentally, through reducing the amount of off-cuts sent to landfill.

In an email conversation, Jen described how she and Michelle engineered a print design specifically to save yield. She described the print development process, saying:

[Michelle] (my boss) and (I) design prints that are interesting (say a border prints- as the attached⁷), we can cut the pattern across grain (i.e. on the wrong grain) first to look interesting and pretty like it's gradating, second to save yield and therefore raw material (as the total yield is only going to be double the hem width- so in a fabric of 112cm width, we only use about 1.4m fabric (as that's what (yo)u need for a maxi dress for the hem that's big enough to walk in). (T)hird (which is the most important for a big business)- is the less yield, the more interesting it looks, the more money ur (sic) gonna make as you'll sell stackloads, AND it doesn't even cost that much fabric to make (Jen 2010).

She added, “of course an environmentalist will try their best to do this, but if (yo)u look at it logistically, it also works for the bosses.” She attached a sketch to the email (Figure 7.5) illustrating how the pattern pieces of a maxi dress fit the printed fabric to minimise fabric waste.

⁷ ‘Attached’ refers to the drawing in Figure 7.5.

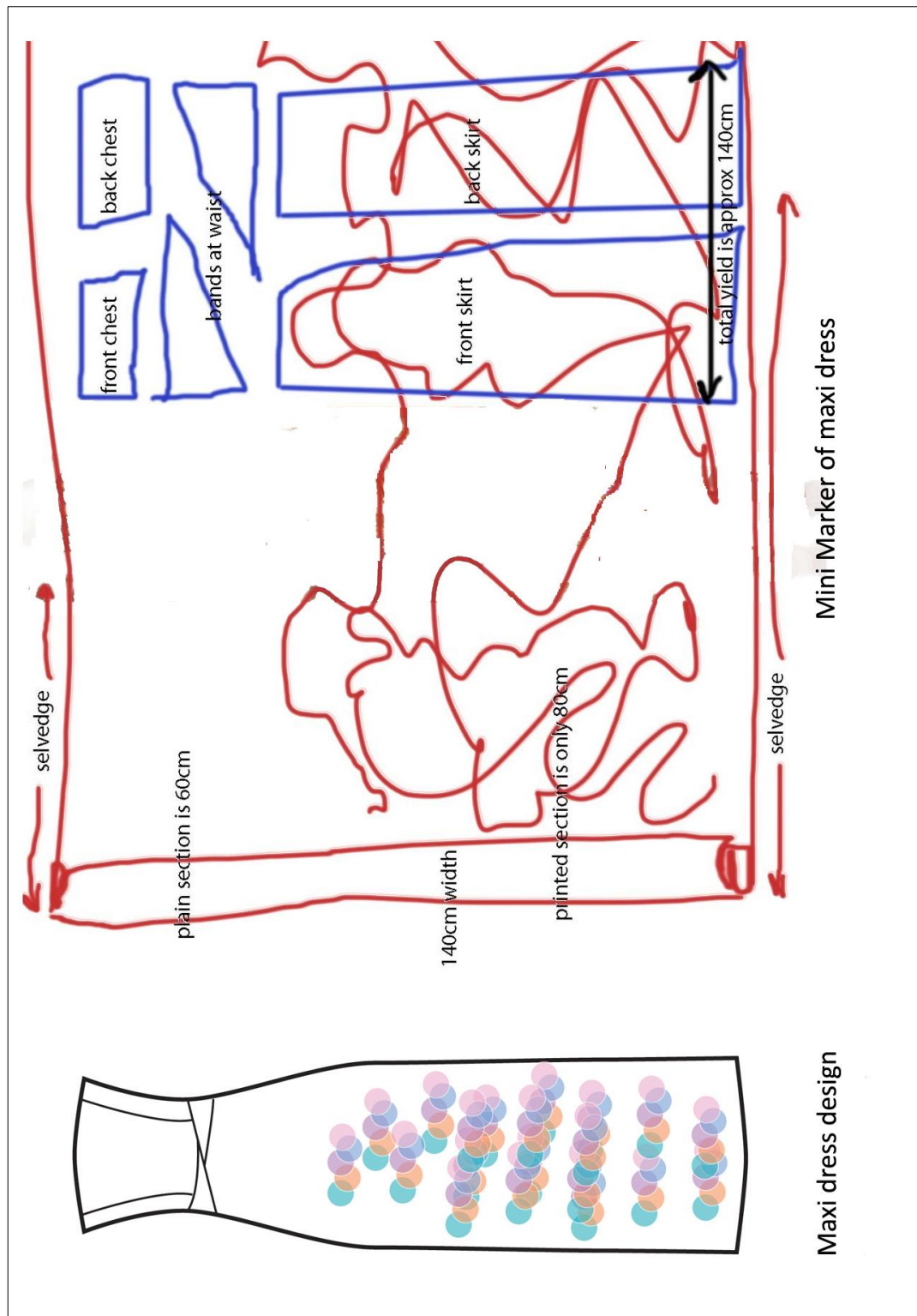


Figure 7.5 Design of dress to reduce waste (adapted from Jen 2011)⁸

⁸ Jen emailed this illustration with a photograph of a Label C2 garment. I removed the photograph to preserve Label C2's identity and inserted a generic, simplified illustration of the garment so that the marker can still be understood.

In Companies A and B, engineering the design to reduce yield was not part of a designer's role. This task would be managed by the Chinese production teams. However, the designers in both Label C2 and Label C3 said that examining the marker in order to reduce waste was part of their job, which demonstrates how focused their company management is on minimising fabric waste. Michelle was clear that,

it's not for sustainability, we do it all the time but it is not for sustainability and not to compromise the design of something ... I'll go back and look at the marker, I'm doing it to save the company money and make the garment cheaper... (Michelle 2011).

This was also a concern for the head designer at Label C3, Sophie, who described the concern regarding using extra fabric meant:

We try not to do too many things on the bias cos [sic] that wastes a lot of fabric. Usually the bind is cut on the bias so that it stretches, [but] that's just cut on the straight grain [points to cape storm flap] ... that's just a straight edge, it's just if it's going round a curve, it starts to gather a little bit, it doesn't sit flat (2011).

Even though using a straight bind may be more troublesome for the machinists to stitch and impair the garment's finish, it will still be chosen over a bias bind that uses more fabric. Overall, it was clear that the designers at both Label C2 and Label C3 worked quite closely with the manufacturers to reduce wasted fabric. This required a degree of technical knowledge that designers in Company A and Company B arguably had less need of, as the Chinese factories and agents resolved these issues for them. While Company C's Label C2 and Label C3 still developed samples offshore, the Company maintained a sample room with machinists, patternmakers and cutters. Although her label did not have samples made locally, she still regularly went into the sample room to ask for advice from the technical team.⁹

In fact, in Company C, the concern is not only to minimise fabric waste, but to minimise the amount of fabric used in general. As Sophie said, "every single garment

⁹ The technical team members were all Chinese and did not speak English fluently. However Jen is a first generation Chinese-Australian, and is able to communicate enough in Mandarin to be understood. Sophie is also Chinese-Australian.

in the end - it uses too much fabric, so we have to cut it down” (2011). After the first sample came back from China, Sophie would examine it and determine with the production manager how they can use less yield in the design. This is not only for the company’s profits, but frequently to sell the style to the retailers they will need to reduce the garment’s cost by reducing the volume of fabric in the design. In one design this meant:

I just shortened it and put in extra seams – it’s got a lot of fabric and really we don’t need it to have that much fabric – so it saves a bit of money and then the customer is happy. So they can shift it around on the marker to save fabric (Sophie 2011).

In the same way, the finish of the garment, whether hems or seam widths, is impacted by the need to reduce yield. Sophie said,

Like a double hem, a rolled hem would cost more than just an overlocked turned back hem ... or a hem where you’d have to fold up 2cm to do an invisible hem – that would be more too. Because that might not seem like much, but it does when you are making 400 garments. We do think about it because they don’t want to waste fabric, so we do have to keep costs down (Sophie 2011).

It is important to note that while Company C stresses the need to reduce fabric in this way, as a higher quality label, the mid-market Label C2 does have better quality finishes, for example, using a double-folded hem rather than an overlocked turned back hem. Label C3 feels the pressure to reduce fabric particularly because their pricepoint is lower and their customers are less willing to spend money.

Yet across the company, the decision to reduce fabric waste is important, as it can diminish the overall environmental impact of the garment. However, it is not as simple as reducing the amount of fabric per garment or making sure the pieces fit as closely as possible on the marker. A further consideration is how appropriate scanty seam and hem widths are for a garment that is ideally to last a number of years and multiple wearers. Rissanen (2011, 128) argues that assessing the endurance of the garment is as an important consideration as eliminating waste, and that ‘wasted’ fabric from the marker may be reincorporated into the garment in order to “reinforce parts of a garment that would be prone to stress”. Meagre seam allowances mean that the garment is harder to alter or repair, and hence less durable. This is clearly not a

consideration in the majority of fashion companies. When asked if she has ever wondered if her clothes enter the second-hand market, Michelle said, “(I) never give it a second thought – I don’t think they’d last that long” (2011).

In and of itself it is beneficial to a company to reduce fabric waste, as it ultimately reduces their costs and makes it more likely that they will sell more garments. Superficially, this seems to align with sustainable principles, as less pre-consumer waste fabric is discarded to landfill. However, when minimising waste with the sole purpose of reducing cost, the resilience and convertibility of the garment may be compromised. Thus the gains made in one part of the garment’s life cycle may be lost in another part.

Fibres

The question of fibre choice is an area of the design process in which design for sustainability and design for cost can overlap as well as dramatically diverge. As discussed in earlier chapters, the rising prices of fibre, particularly cotton, has been a concern across the fashion industry worldwide, and may prompt greater exploration of alternative fibre choices. As Fletcher (2008) discusses, a greater variety of fibre choices would make the industry more resilient to the impacts of natural disasters, and also promote the use of crops such as hemp or eucalyptus (Lyocell) that can be more sustainably farmed. Company C’s close monitoring of fabric waste has become particularly pertinent in the face of dramatic price rises in the cost of raw cotton and silk over 2010 -11. As mentioned in Chapter 5, in 2010 cotton prices doubled, reaching the highest prices ever recorded in the New York Cotton Exchange’s 141 year history (*Ragtrader* 2011). The cost of cotton-quality polyester and viscose rose by association (Bryant, Kellock and Zimmerman 2010). This fluctuation in cotton prices was due in part to severe flooding in Pakistan and later Australia, as well as heavier than usual monsoonal rains in India (Holmes and Dodes 2011). Meanwhile in April 2010, the price of raw silk rose to a fifteen year high, partly due to drought conditions in Western China that reduced the spring cocoon hatchings (Peng 2010). Scientists are hesitant to link individual weather events to climate change; however, according to Hansen (2009), there is credible evidence that as the earth warms the likelihood of more frequent extreme weather events will increase. Hence regardless of whether recent flooding or drought events are directly attributable to climate

change, it is likely that with rising global temperatures, climate change will mean more and possibly greater impacts on fibre producers into the future.

More so than in Company A or B, Label C2, as a mid-market label, were feeling the effects of rising silk prices. From her travels in China, Jen reported that she had heard that the silk worms were “stressed and not producing” (2011). Michelle added that she had heard that the Chinese Mafia had been stockpiling raw fibre in order to artificially inflate the price. Both agreed that regardless of the cause, it was making their work very uncertain. Previously, the designers were able to obtain quotes on fibre and the price would be held for several weeks. In contrast, in January 2011, the suppliers were only able to hold silk prices for two days. Earlier that month, a style had had to be cancelled as their supplier was unable to procure the fabric.

Although Michelle acknowledged that the fluctuating fibre prices had made their design process and costings uncertain and more stressful, she believed it to be only a short term glitch:

The supply being cut off, it doesn't seem imminent, it seems like it's going to be decades away to me. There's going to be a lot of people, but I see people making adjustments as you go along (2011).

In her view:

If you don't have enough cotton, you'll move to something else, they'll use bamboo, we've clearly got enough supply of water¹⁰... to me the supply is endless, by the time it gets to 2050, we'll be finding a way ... (Michelle 2011).

In economics, this is known as the substitution effect, where the use of a good declines due to its price rising higher in relation to income, and hence alternative good(s) are substituted (Brian 2009, 168). Neoclassical economists argue that as a resource grows scarce, the market will essentially intervene, and prompt innovation and research into new resources (Daly and Farley 2011). However, when the goods in question rely on natural resources, i.e. land for growing cotton, water for irrigation, or element weather, then the notion of substitution becomes more problematic, as natural capital such as the atmosphere and the groundwater often has no market price. As economists Herman Daly and Joshua Farley point out, there is

¹⁰ Michelle was referring to the 2011 Queensland floods, which were happening at the time of the interview.

“no guarantee that there will be adequate substitutes for every vital resource” (Daly and Farley 2011, 183). Neoclassical economics is based on the notion that the market regulates itself. However, scarcity of resources requires intervention from government, which then becomes a vexed political issue.

The growth in innovative textiles, whether in recycled/able polyester, nano-technology or 3D sintering technology (O'Mahoney 2011), may prove to be viable substitutes for natural fibres in the future; however the sheer scale of cotton use in the global fashion industry makes substitution a great challenge. Currently, in Australia the use of alternative fibres such as soy, hemp and milk is modestly on the rise (O'Loughlin 2010b). This is another example of ‘sustainability by accident’, in that new fibre choices and innovation in fabric technology are driven by the larger challenges of unsustainable conventional fibre production. Arguably, the higher pricepointed mid-market is well-positioned to experiment with alternative fabrics. While actual scarcity of fibre may be still a long-term outlook, rather than imminent, what is certain is that the higher fibre prices were impacting Australian fashion companies, as revealed in the interviews.

Speed

While reducing waste is a concern at both Label C2 and Label C3, as Label C2 is on a slower timetable, it can be aligned with sustainable design in terms of speed. The trend for slow fashion is aligned to the slow food movement, and encourages slower consumption of material goods. Being on a slower timetable means that Label C2's garments are more classic, and less trend-focused. This is one factor that allows the company to freight product by sea, which has some environmental benefits – for instance, freighting one tonne of goods 100 kilometres by ship emits 0.7 kg of carbon dioxide, as opposed 158kg of carbon dioxide if freighted by air (Draper, Murray and Weissbrod 2007, 9).

Being a mid-market label, Label C2 is at a higher pricepoint, meaning it is more likely that the consumers will retain the garment for longer and that it will have a higher reuse value. Also, having an older target market implies, in Michelle's view, a less disposable mindset regarding the clothing. She describes how women who shop at Label C2 simply want “pretty dresses to wear to barbeques and christenings”,

which could be worn to a number of events over several years, as the styles are classically pretty. For this reason, she said,

I don't think people would be in too big a hurry to ditch it because it is not such a fashion item...unless it was broken or damaged, it is expensive enough to hang on to it (Michelle 2011).

Yet even though the pricepoint was high for Label C2's garments (averaging approximately \$150 a garment), Michelle believed that the garment's longevity was impacted negatively by its delicate fabrics and occasional poor manufacturing quality. She said,

I think the care instructions are pretty important, ours are quite delicate, a lot of silks and things like that but if it lasted a season in its original form, for some of the natural fibres that would be good going... Some of our stuff the buttons fall off... I've had jacket buttons that have been sewn on with a couple of threads (2011).

Still, both Michelle and assistant designer Jen agreed that Label C2 was more sustainable by virtue of being more classic and less trend driven. Michelle said, "The best that we can do is to be smart about our design and not do things too flippantly" (2011). In her view, responsibility for fashion's unsustainability lies more with the fast fashion brands such as Label C3 "who do things flippantly, that's the whole point." She added,

What about those guys? Their idea is to make it not last – get rid of it so they [consumers] wear it twice and they'll look stupid if they wear it next year so that they go and buy another one. That's the absolute purpose. I can't do anything about that (2011).

Label C2's slower and less trend focused product offering is only incidentally more sustainable, in that the reason they offer a slower product is due to the more stable desires of their target customer, coupled with her willingness to pay a higher price. Kate Fletcher (2010) has argued that equating classic clothing with the slow fashion movement¹¹ is inaccurate. In her view,

¹¹ In Fletcher's conception, slow fashion is aligned to the slow food movement. It is based on local production and consumption, and hence a closer connection between consumers and producers. A related example in the Australia mass-market could be ECA's 'Meet Your Maker' campaign, in which

we seem to think, for example, providing long-term supply chain relationships are promoted or garments are designed to be trans-seasonal, volumes can keep increasing and current economic preferences can be maintained (2010, 263).

Hence from a strong sustainability perspective (see Section 2.1.4) slow or classic fashion, if still in the form of globalised manufacture in the service of growing profit margins, is only a surface solution to fashion's unsustainability.

Accidental sustainability?

The discussion of accidental sustainability in the three examples above of waste, speed, and fibre demonstrate that a company's overall strategy can overlap with sustainable design principles. However, when these strategies are in place for cost-cutting alone, the gains for sustainability may be only superficial. Clearly, it is possible for a directive from management – such as to reduce costs wherever possible – to trickle through the culture of a company, to the extent that it becomes embedded in every day processes and can prompt creative thinking. A small example of this is Jen's design decision to develop an idea for a covered button with a rouleau bow, as opposed to sourcing a more expensive button. Company C's design for cost-cutting is almost an 'accidental sustainability', and can be aligned to weak or incremental notions of sustainability.

TBL sustainability is required to keep the financial future of a company intact when faced with the grave challenges of climate change and food and energy security (see Section 2.1.2, pg. 39). A pragmatic company may employ long terms strategies to future-proof itself for the sake of its employees and shareholders, whether these strategies be reducing waste, being less 'on trend' and hence less disposable, or securing a supply of alternative fibre. Paula Rogers, supply chain expert from the TFIA, stated that Marks and Spencer's strategy to convert to organic cotton has proved shrewd, given the fluctuating prices of conventional cotton. Through partnering with organic farmers, Marks and Spencer was able to lock in their price ahead of time and ensure their supply during uncertain times (Rogers 2011b). Hence TBL sustainability is not so different from design for cost-cutting, as both require a

consumers can scan the QR code on the garment's swing tag to read the story of the machinist who stitched the garment.

measured approach to risk and uncertainty – whether ensuring efficient and hence cheaper energy consumption (through freighting by sea) or by reducing waste (whether for reasons of ‘the environment’ or for cost-cutting, the outcome remains the same).

Yet when Michelle discussed sustainability, she was not referring to ‘triple bottom line sustainability’ when she said,

I can't ever see, in my lifetime, a head of a company wanting to make particularly sustainable garments because it is undermining their reason for being in the industry. The reason why we are here is to sell garments to people. So if you make garments that don't destruct, or that last a lifetime... you'll do yourself out of an industry, it doesn't make sense (Michelle 2011).

Michelle is referring, obliquely, to a system similar to the SSE of Daly (see Section 2.1.3) which implies far slower material consumption and products that last far longer. Michelle's view here is not substantially different from the point made by the environmental activist Keith Farnish (2011), in a satire of a Marks and Spencer's Plan A advertisements (Figure 7.6).



Figure 7.6 Re-working of a Marks and Spencer advertisement from author and environmental activist Keith Farnish (CC-BY-NY, 2011)

Both Farnish and Michelle (albeit from very different standpoints) are referring to the notion of sustainability as system-level change, which, when taken to its logical conclusion, means that being sustainable means considerable reduction in consumption of material goods and resources. This parallels the thinking behind the DfS strategy of dematerialisation, in which material consumption is curbed through

services, as well as strategies such as reuse and repair. Despite holding implicitly similar definitions of sustainability, Michelle's view is opposed to Farnish's activist perspective. She said,

It's the true capitalist way - is that such a bad thing, if a company employs a hundred people, and they've all got jobs and all the rest of it, is that a bad way to go about things? If we don't do it, someone else is going to be doing it. I don't find the waste of all this stuff, the way we go about it so morally reprehensible that we shouldn't do it. People have to wear clothes, people have to live and people are going to consume it and if they don't consume it from us they will get it from someone else (2011).

Again, this statement typifies Sandy Black's paradox of fashion, in which the industry is inherently unsustainable and polluting, yet contributes significantly to economic growth (see pg. 69). As discussed in Chapter 2, while DfS dematerialisation strategies have potential within the fashion system, the mass-market remains wholly-focused on continued material throughput of garments. Thus Black's paradox of fashion, at least at present, cannot be resolved within the logic of the mass-market fashion system.

Design assistant Jen had a somewhat different perspective to Michelle, although Jen also acknowledged the difficulty of sustainability in the present fashion system. Through an email conversation, Jen indicated that sustainability was a challenge and a source of frustration to her within the fashion industry more widely. She said, "everybody knows that fashion is one of the most polluting/ethically shady business around, from wasting fabric, dumping dye into rivers, to the treatment of workers." She added, "it's not that mega volume companies seek deliberately to be unethical, it's just that to make money (in the year 2010), it usually leads you down the less ethical path" (Jen 2010). As quoted earlier, Jen said "of course an environmentalist will try their best to do this, but if (yo)u look at it logistically, it also works for the bosses" (2010). Necessarily, Jen's approach reflects the TBL view of sustainability, as this view is the only one that can make sense within the context of Label C2.

The role of the designer is less clear. Design for cost-cutting in the Company C meant that the designers did consider waste where they were able, and similarly, the slower nature of the product allowed for more time to be spent on details. However, when she discussed her process, she pointed out that she tried to reduce waste where she could, to the extent that she was able. This may mean making sure to use both

sides of the paper and recycling it after use, or it may mean reducing fabric waste. In fact, a number of designers in all three companies mentioned paper recycling as an area in which they felt they could make a difference. In itself, this points to a wider challenge of designers being ‘locked in’ to an existing way of working, and hence they can only look at interventions in the wider company (e.g. recycling paper, composting tea-bags¹²), rather than intervening in product design. Therefore, the wider philosophy of the company – its brand, its institutional processes, its combination of people, its target customer – all these ‘design’ the potential responses of the designer to sustainability. Thus when sustainability dovetails in with a company’s brand story (e.g. Billabong, Patagonia), this in essence ‘designs’ the processes that a designer may follow, and can then allow for intervention in product for sustainability. Similarly, when design for cost-cutting is part of Company C’s methodology, then designers Jen and Michelle were able to respond to it. Only by accident did design for cost-cutting happen to align with weak sustainability.

¹² April and Chloe at Company C both made a point of commenting that the food waste from the company’s in-house café is composted.

7.4 CONCLUSION

Within the mass-market, mid-market companies are best-placed to respond to weak sustainability by virtue of their higher pricepoint and need to retain brand prestige. Examples of intervention for environmental sustainability within mass-market product design come from international brands such as Patagonia, Nike and PUMA. Similarly, mid-market brands can respond to social sustainability through close monitoring of supply chains and paying more for manufacturing – an example is Australian mid-market label Cue, which manufactures in Australia and is accredited by Ethical Clothing Australia. However, despite this potential, if the target customer of a mid-market company is not concerned about sustainability, then the company is far less likely to integrate this into its practices. The case study of Label C3 revealed this. The other variable is how great of an influence changing fashions have on the brand.

The interviews at Company C demonstrated that, at times, the imperative of a company to reduce costs can be superficially aligned with DfS strategies. Company C's designers' decisions frequently flowed from, or ran in tandem to, the need to reduce waste and to reduce cost, whether in reducing fabric yield, engineering prints to better fit the marker, or developing cheaper solutions for garment trims. While design for low cost may accidentally support sustainability, ultimately for a sustainable product, a certain 'fitness' is required – the right solution for the right problem. Thus, while reducing the fabric used in a garment may be a saving earlier in the garment's life cycle, it may result in a garment less repairable and with less longevity. As this case study demonstrates, incidental decisions made by a company can often work in the same direction as sustainable design initiatives, at least in a weakly sustainable sense.

Chapter 8: Discussion

The three case studies in this project have teased out the specificities of design process in each company, and in three market levels of the mass-market. These show that there are more similarities than differences between each level. All three market levels rely heavily on overseas trend forecasting services to determine the aesthetics of their designs, although this is of less relevance in Label C3. In each company visited, designers revealed that it was difficult to integrate consideration of environmental sustainability into their product design processes. Largely, this was due to time and cost restraints. However, these two restraints of time and cost are far from the only barriers toward sustainable fashion design within the mass-market.

This chapter engages in a cross-case analysis (Eisenhardt 1989) of the three case studies in order to assemble a wider theory of design practices in the Australian mass-market fashion industry. It compares and contrasts participants' statements on the central themes of fashion, design and sustainability. Adopting Fry (1999, 2009) and Willis's (2006) notion of ontological designing discussed in the literature review, this chapter analyses the design objects (material and immaterial), the design processes and design agency of mass-market fashion. These design objects and processes prefigure, or effectively 'design' what can consequently be designed. The relationship between these three areas of design is circular – the processes determine the objects, and the objects and processes prefigure what can be designed in the future (Fry 1999; Willis 2006). Hence any engagement with environmental sustainability is delineated by the restraints of the wider fashion system, its processes, and its existing objects. This chapter will explore how this dynamic operates, through further discussion of the interview data as well as through analysis of secondary data on other mass-market companies.

First, the chapter will begin with a discussion of the participant's relationship with fashion, and by extension, their notion of 'designer'. Second, the chapter will discuss fashion's material and immaterial objects, proposing that fashion's immaterial design objects are the brand story, the trend story, and style tropes. Last, this chapter discusses design processes, and analyses how fashion's immaterial and material design objects shape the design process.

8.1 THE DESIGNER

The case studies demonstrate that within the mass-market fashion industry, the term ‘designer’ is ambiguous and problematic. This is in part due to sourcing practices within the Australian market that made the ‘knock-off’ commonplace. Terms such as ‘designer’, ‘stylist’, ‘product developer’ and ‘buyer’ were used by interview participants to describe roles that were superficially similar, i.e. a role that involved selecting trends and styles to develop into a range of garments that would be manufactured off shore. The chief market value of the garment lies in its temporal connection to trends, and as such the designer’s contextual and fashion knowledge shapes the garment that will be right for the company’s market. While a buyer can hold this knowledge, and buy product accordingly for imitation, the wider changes in the Australian industry mean that the knock-off will become unfeasible due to increasing litigation and scrutiny by international companies. In Company B, the decision to shift to the northern hemisphere way of working was made by the company in light of the spate of lawsuits happening in the Australian market, as well as overseas entrants such as Zara into the marketplace (Chloe 2010).

None of the three companies interviewed followed a knock-off model. While Label C3’s designer Sophie did source garments as inspiration, she was insistent that she always adapted the designs. Company B’s design team, as discussed in Chapter 6, was newly set-up for the express purpose of moving to a northern hemisphere way of working. Similarly, in Company A, the designers all generated ideas through research rather than direct copying. The copying described as common in other Australian companies was frequently referred to by Kylie in Company A, Sophie and Michelle in Company C, and Pete, William, and Chloe in Company B as not being ‘design’. William saw the strength of a designer as being engaged with product – designers had a passion for it, they understood it. Sophie, head designer at Label C3, took pride in not knocking-off other products. She said, “I’ve worked for a lot of companies that do [knock-off] but you get in trouble ... I mean I’m a designer - I studied design - so I like to design it and not just copy because any one can do that...” According to William, designers knew the mechanics of how a garment was assembled as well as knowing how to implement their creativity towards adapting existing styles into new styles.

Mass-market fashion is necessarily about imitation rather than innovation, however there are nuances to copying: ‘rub-off’ being a line for line copy (Glock and Kunz 2000), knock-off being the same but different fabric, whether one is referencing higher market levels or knocking-off one’s own market level – all these factors help distinguish between whether the process is ‘design’ or ‘product development’ or ‘buying’. For the interviewed designers, design requires walking a careful line between similarity and differentiation (Raustiala and Sprigman 2006). The designer’s decisions in all three companies, albeit to varying degrees, were augmented by those of the buyers and the technicians. This served to diffuse the designers’ responsibility somewhat as the buyer can bring another level of contextual knowledge to the table, while the technical designer advises on the material outcomes.

Design in this context refers to Rantisi’s (2004, 91) ‘aesthetic innovation’, or the production of cultural goods that is dependent on the symbolic elements of branding and trends for their market value. To recall Clay’s (2009, 2) notion of the design spectrum, with art at one end, and technology at the other, fashion design clearly requires both these technical and aesthetic components. Yet in the mass-market, the technical elements of clothing manufacture arrive largely pre-determined. They are dictated by the logic of mass-production and standardisation, the limitations of the factory, and the need to keep costs low. The technical knowledge, necessary in garment design, is more the domain of offshore specialists rather than the designers interviewed, and as such key decisions concerning the material object may be made outside the design room by patternmakers and technicians in China. Instead, the designers’ role lies chiefly in the sourcing and sorting of the symbolic elements of fashion production – discussed in the following section as immaterial design objects.

8.2 DESIGN OBJECTS

Fry and Willis describe design as encompassing three elements: design objects, design processes, and design agency. The three have no beginning, but rather design each other (see Figure 8.1) – design objects determine processes, and in turn the objects and processes design the designer (agency). This section discusses two forms of design objects, namely material design objects and immaterial design objects, a

distinction noted by Fry (1999) and expanded upon by Willis (2006) in ontological designing (see Chapter 2).

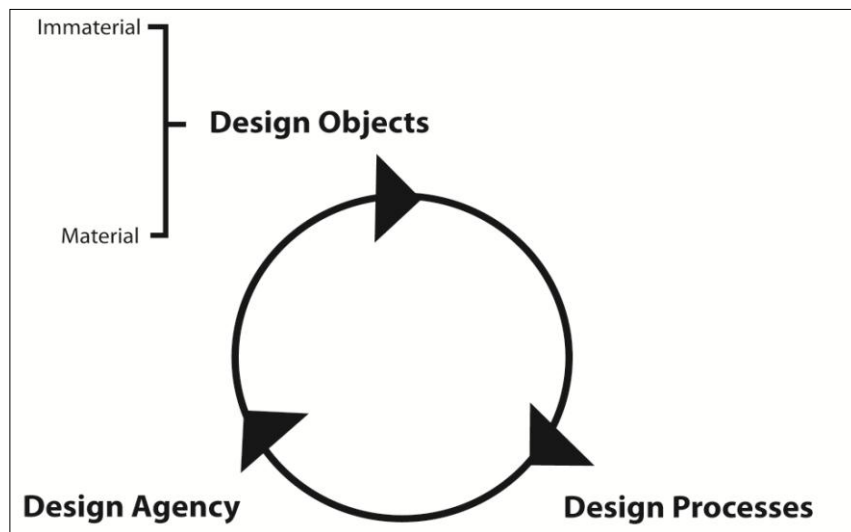


Figure 8.1 Design (adapted from Willis (2006), after Fry (2009))

Clearly ‘material design objects’ refers to the physical garments, footwear and accessories generated as outcomes of the design processes. The second category is somewhat more contentious. This thesis proposes that the ‘immaterial design objects’ of fashion are the intangible style elements and narratives that determine the form the material garment will take. This idea expands on the notion of fashion’s waste being both tangible (physical garments) and intangible (styles, trends and images), discussed in Payne (2012a). Hence this section takes this idea further through categorising these immaterial design objects into ‘brand story’, ‘trend story’, and ‘style trope’, using data from the interviews to support this. ‘Design object’, then, is any object that is the outcome of a design process, and brand, trend, and style fit this description. The significance of these immaterial design objects lies in the way that they shape the material object and thus effectively close off potential interventions for sustainability.

8.2.1 IMMATERIAL OBJECTS

Brand story

While it may seem strange to categorise trends, inspiration or ideas, as design outcomes (objects), the evidence from the interviews and from market observations suggest that these can be conceptualised as ‘designed’. The most obvious case is that of the ‘brand story’ (Hancock 2009; Fog et al. 2010). A ‘fashion brand’ can be viewed as any apparel company that seeks to differentiate its product offering from those offering similar goods and “are further intended as a means of expressions of personal preferences, tastes, or acknowledgement of prevailing style trends” (Kendall 2009, 10). The brand story holds implicitly all information about why the brand differs from its competitors – this may include its particular customer (and their socio-economic status), its design differences, narratives about its origins, its associations with subcultural groups, and by extension, the way it will respond to trends. In fashion, the differences between different apparel companies are largely aesthetic – their materiality and construction is rarely so unique as to be the chief selling point. As Richard Sennett (2006, 144) observes,

To sell a basically standardized thing, the seller will magnify the value of minor differences quickly and easily engineered, so that the surface is what counts. The brand must seem to the consumer more than the thing itself.

While to a degree the brand develops its story through an accrument of both history and chance, the brand story of a company is often purposefully and strategically developed (designed) by the company manager, owner, or creative director. In this way a company describes the type of shopper to whom they are catering, as well as the intangible signals of identity that their customer will aspire to. As the apparel marketplace has shifted to targeting smaller niche groups of consumers (McKelvey and Munslow 2008), the brand story is essential in pinpointing the company’s audience.

The most successful brand stories are associated with market leaders such as Nike and Ralph Lauren, who have encased themselves in a kind of mythology, in which the quality of the product may be of lesser value than the branding attached to it (see Agins 1999; Hancock 2009). However ‘brand story’ need not only refer to the narratives of iconic global brands. All three Australian mass-market companies interviewed for this study, although operating at a far more modest scale than Nike

and Ralph Lauren, have a particular brand story, designed by company management, though also being continually tested and re-examined as their market and its tastes shift.

As a discount brand, Company B has built a brand story that hinges on affordable quality. As well as its main brand, it offers a subset of other brands intended to be cheaper alternatives to more expensive high street retailers. For example, the menswear designer David (2010) described how the youth brand Label B5 was carefully developed to be close to the aesthetics of popular surf wear labels, such as Billabong and Quiksilver that are aspirational to the Label's target customer. Label B5 needed a brand name that could be used as a logo and in print designs, however the name chosen had to be generic enough that it would not be associated with Company B and hence be a source of embarrassment to the style-conscious target customer (youths aged 15 – 19). The word they settled on – a three letter adjective – was prominently displayed all over the product in the manner of Rip Curl or Billabong's branding. In addition to this, David said that he had to take care that the aesthetics of Label B5 were 'cool' enough to appeal to the youth market, yet tasteful enough to appeal to the garment's actual purchaser – the customer's mother. There is a complex dynamic at play – Label B5 essentially has two very different target customers, and must satisfy both. The brand story of the label is at once leveraging on the reputation for affordable quality of the parent label (Company B), while at the same time seeking to disguise this fact. Brand story, then, is the nuanced and brand-specific methodology that sits behind what David needs to do to create sellable product for Label B5, and why he needs to do it the way he does.

Designers participating in interviews frequently referred to their brand story obliquely. Much of what they knew about their brand and its customers appeared to be tacitly understood amongst the team. This relates to Asper's (2006) notion of contextual knowledge, or the 'lifeworld' of the designer (see Section 4.3.1, p. 128). For example, in Company C, the brand story was about mid-market party wear, and the two supplementary labels, Label C2 and Label C3 had come about as extensions of this original brand. Label C2 targeted a slightly older market with more classic styles, while Label C3 was for the younger sister of Label C1. Michelle, designer at Label C2, saw the brand as covering the gaps left by Witchery and Country Road – while they could do work wear well, Label C2 was for women who wanted "pretty dresses, pretty tops, pretty things to wear to barbeques and christenings". As a

wholesaler label, Label C2 needed to meet the retailers' needs as well as the final customers'. Hence designer Jen described how their department store buyers always needed a button-down blouse, and their final customer probably didn't need dress pants – she'd go to Country Road or Witchery instead. Thus while Label C2 shares a market level with Country Road, the brand story in terms of who the company is targeting and subsequently how they design for their market will be different.

Trend story

The brand story determines which trends are appropriate for the company. Every fashion company will respond to the trends with slight differences that depend on their brand story – their signature style, their point of difference, as well as their pricepoint. The trend story is the second category of immaterial design objects, in that the trend analyses are an outcome of a design process. Trends are usually conceptualised as meme-like, a movement of tastes and novelty that 'bubble up' from the street, or 'trickle down' from the catwalk, with 'cool hunters' able to spot trends ahead of time (Polhemus 1994).

However, trend forecasting services such as WGSN are providing a designed product (McKelvey and Munslow 2008) – a set of research and analysis that is disseminated globally for a significant fee. Their work is couched in stories, which may descend from the macro to the micro, and covers all categories of apparel and accessory design. For example, for WGSN's Design and Product Development womenswear knitwear trends in Spring Summer 2011, WGSN proposed the trend story of 'Pastoral Romance', where "girlish pastoral details combine 1970s crochet and lace knits with casual gingham and hickory-stripe jerseys for a retro bohemian vibe" (WGSN Knitwear Team 2010). The trend report contains mood boards that included images scanned from 1970s craft books as well as contemporary catwalk pictures, images of garment details, a Pantone colour palette and detailed specification drawings of the key pieces. While fashion trends may be viewed as loose themes emerging from the zeitgeist,¹ WGSN's reports are a further layer of sophistication in that the forecasters move beyond the simple '1970s' influence to a nuanced and detailed analysis that describes to the last detail how one aspect of the

¹ This idea of 'trend story' as a design object is proposed not to contradict the accepted notion of fashion trends, but rather to augment it.

trend can be expressed in a collection. Similarly, fashion magazines and websites such as style.com round up the catwalk and street trends, coalescing the cloud of trends (colours, mood, inspirations, cultural events) into a themed story. An example is Style.com's 'Deco echo', a round-up of the fashion show displaying a 1920s influence from the forthcoming remake of *The Great Gatsby*, or 'Ocean's 12', sea-themed "futuristic waterworlds" on the Paris runway (Style.com 2012). The designers interviewed take these varied trend stories and select which is right for their company, based on their brand story. How closely they follow the precise trend story presented by the forecasters is difficult to say, however as an example, Company A's 'Baroque 'n' roll' trend described by Jane, was likely taken from a style.com report with the same name, reviewing the Balmain Fall 2010 show (Mower 2010).

In the interviews, all companies utilised WGSN and fashion magazines as well as utilising blogs (many of which are also offering their own 'trend stories'). All are offering an intangible product in the form of trend analysis, shaping diffuse ideas regarding societal mood and preferences into something that can be summed up in a few words. In sifting through the trend research to develop the right trend stories, the designer's contextual knowledge of the wider company's brand story is crucial. Company A's designer Kylie (2010) said, "there are some things that won't work for our market [I think] 'it's beautiful but I'd like my mum to wear it' or 'that's fantastic but it's too grungey for our client' ... it's a gut feeling". Determining the right trend story for the customer is crucial.² In all the case studies, designers needed to present their trend stories to the wider team for approval before moving to the next stage of the process.

Style tropes

This chapter proposes the style trope as the pre-existing category of garment into which the brand and trend story will be materialised. In the product development textbook *Beyond Design*, Keiser and Garner (2008) initially categorise the basic styles of garments into 'tops' and 'bottoms', and then into jackets, blouses, sweaters,

² Jane also spoke about the timing of this saying that sometimes they presented things too early, and as their girl is at the bottom of the trend cycle she wasn't ready for it yet. This shows the dynamic between trend story and brand story.

pants, skirts, and dresses. From here, they can be categorised again into style variables: elements such as fit, hang, length, armscye, and neckline. They term these as “basic classifications of garments”, and within these categories, “there are certain elements that vary from season to season according to fashion trends” (Keiser and Garner 2008, 219). These basic garment classifications are ‘style tropes’, styles of key garments, types of fit, types of detail or classifications of textile print that have already been designed, at some point, yet are owned by nobody. Examples of these style tropes in the case of jackets are illustrated in Figure 8.2.

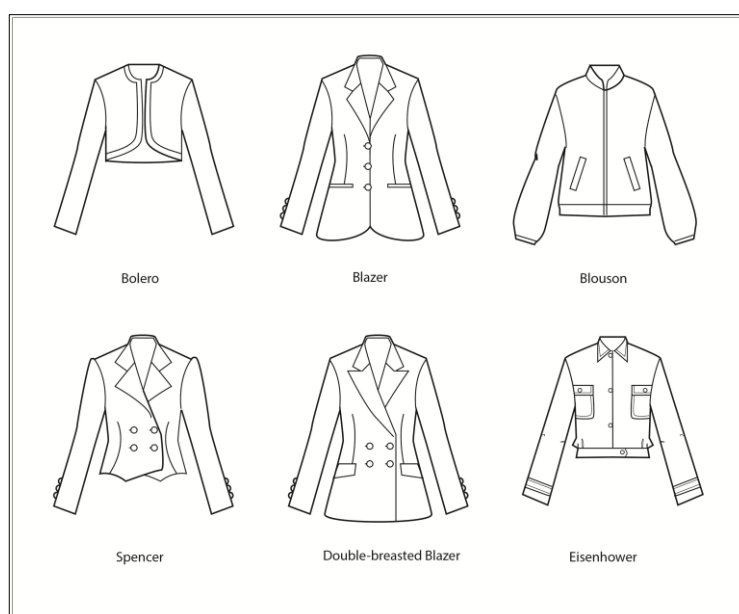


Figure 8.2 Style tropes, adapted from Keiser and Garner (2008)

The use of the style trope is also evident when using the WGSN search facility. Garment images are sorted by these key garment components e.g. dress (sheath, wrap, shirtwaister) or textile print (animal, floral, check). A screenshot of a WGSN search to demonstrate this can be viewed in Figure 8.3.

Although they exist as physical objects in the real world, style tropes are immaterial, existing as ideas cycling through the fashion system. Examples include prints (animal print, tropical, gingham, polka dots), hem lengths (mini, midi, maxi), bodice cuts (fitted, draping, empire-line). All can be categorised as intangible, as in essence they sit, already-designed, in an imaginary style archive, waiting to be blended together to respond to whatever trend story is currently popular. As argued in Payne (2012a), this abundance of style tropes is a creative excess that will

circulate again and again through the fashion system. In one sense, the style tropes are archetypes, ready to be formed into material objects.

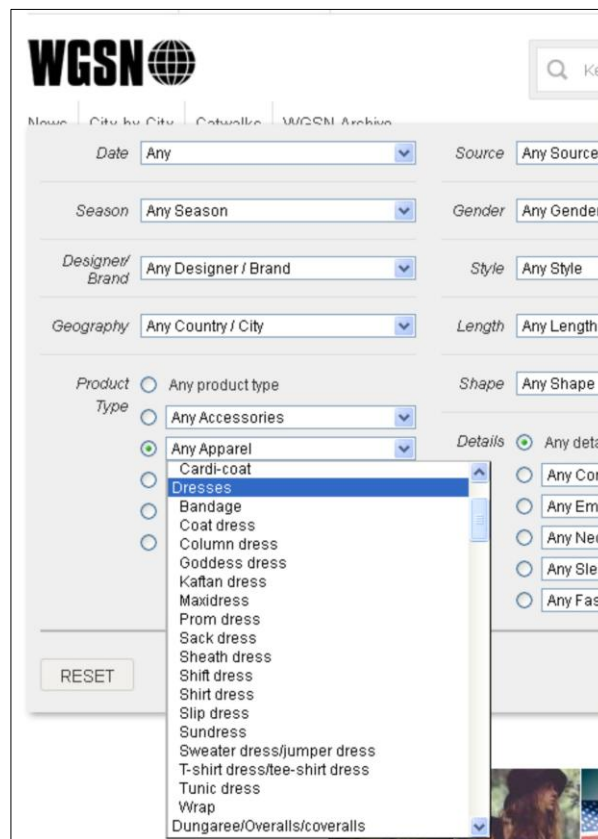


Figure 8.3 Screenshot of WGSN's search function, 26th October 2012

This notion of the style trope has some parallels with Roland Barthes' (1990 [1967]) work on object, variable and style (OVS) in *The Fashion System*. In his semiotic analysis of the words and objects in fashion magazines, Barthes proposed matrices to explain how fashion garments are constructed through language – he used the categories of OVS. The style trope is a kind of 'species' of clothing. While Barthes is referring more to how fashion meaning is constructed, the style trope can be used to demonstrate that the garments come in pre-determined shapes and forms. In part, this relates to common sense: how the human body is physically formed and the best way to clothe it, with, for example, bifurcated pants or shirts with two sleeves. Yet part of the reason for the style trope is that mass-production requires standardised blocks and methods.

A number of fashion theorists have noted the paradox of rapidly changing surface aesthetics, without innovation in styles. As quoted earlier (see p. 59), Hollander (1994, 166) notes that in fashion's post-1970s freedom has seen fashion not invent new forms, "but ... play more or less outrageously with all the tough and solid old ones". The forms that Hollander describes are style tropes; for instance, the shift dress, jeans, or the trench. The trope remains largely unchanged; however its surface aesthetic and detailing are reinvented season to season (or week to week) in service to the logic of a fashion system requiring constant inputs of 'new' product. Similarly, Maynard (206, 104) argues that "everyday dress is as much constituted by sameness and global branding, as an incoherent montage of mass-produced clothing, disparate retro styles and the aestheticisation of 'alternative' clothes".

The various designs formed from this assemblage of style tropes form the basis for telling the trend story: examples may be a "Mad Men pencil skirt" (Cartner-Morley 2011), a 'punk' denim jacket or a 'mod' collarless zippered jacket. These descriptors (e.g. 'Mad Men') change according to the trend story, but the style trope (e.g. the pencil skirt) will appear again. Similarly, Harold Koda (2001, 165) gives the example of how in the 1970s, platform shoes (the style trope) referenced the 1940s (trend story), but in the 1990s, platform shoes (the same style trope) were an ironic nod to the disco era of the 1970s (different trend story). The style trope can be seen as simply a descriptor of the material garment: for example, 'cerise mohair cardigan' describes a garment's colour, fibre and cut. Yet as immaterial objects, the 'cerise', the 'mohair' and the 'cardigan' can be positioned as discrete ideas about how a garment can appear, and these are assembled together in a particular way in direct response to a larger trend story. In this way, the designer is an assembler of immaterial design objects that will then be actualised into a material design object.

Implications for design for sustainability

The question remains as to why it is necessary to categorise fashion's immaterial design objects in this way. There are two reasons. First, the immaterial design objects frame the appearance and hence the construction of the material garment, through delineating its aesthetic and material possibilities. Brand story determines cost, fit, fabric choice and the appropriate trend story. Trend story determines which style tropes will be selected. This is illustrated in Figure 8.4, with examples given from

Company A. To begin with, their brand story of a trend-focused, quirky party girl dictates the trend story that the designers will select, based on their research. They may design this trend story, or they may adopt the pre-designed trend story assembled by forecasting services. Depending on the choice of trend story, designers then select the style trope that will fit the trend.

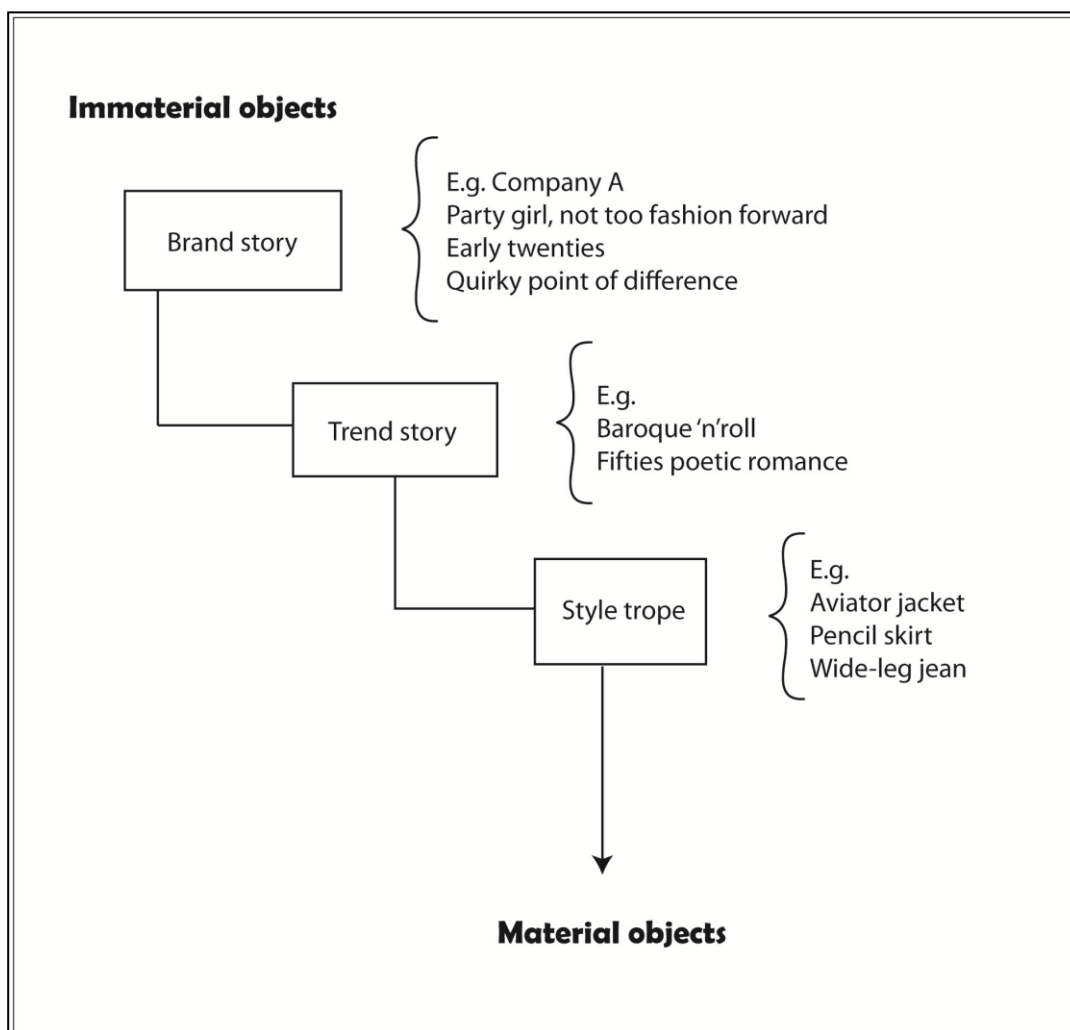


Figure 8.4 Immaterial design objects in mass-market fashion

Hence, any potential intervention in product design for sustainability (whether recycled fibres, design for ‘lightness’,³ or design for zero waste) is mediated by these already-designed elements of brand story, trend story, and style trope. This chapter proposes that due to the hegemony of these immaterial design objects, designers and

³ Design strategy to produce goods that weigh less and thus require less energy to build and transport (Fletcher 2008).

design processes are locked into a particular way of working. To take Fry and Willis' notion of design's agency, what can be designed in the future is always prefigured by what has already been designed.

Second, the categorisation of these design objects exposes another group of actors who contribute markedly to the final designed garment – namely the 'designers' of the brand stories and trend stories. The significance of brand identity and sustainability has been noted in Skov and Meier's (2011) analysis, as described earlier in Chapter 4, in which brands may be categorised as 'soft green', 'hardcore green', or 'green luxury', depending on how fundamental ethical and environmental issues are to their brand construction. Clearly, the level of intervention that a company will commit to is dependent on their brand positioning, and how important they feel the issue is to the target customer.

Trend story will also shape a company's response to sustainability, with aspects of sustainability itself long identified by WGSN as a macro-trend.⁴ As an example, trend forecasters have noted the rise in consumers displaying more sustainable approaches to engaging with fashion – an explosion of the user that has seen people buying second-hand, using, reusing and customising (see the DIY issue of *Viewpoint* 2011). These attempts by users have been positioned by fashion writers such as Kate Fletcher (2008) and Sarah Scatturo (2008) as a genuine attempt to engage with fashion differently. However, the fashion industry is adept at absorbing antifashion back into itself (as discussed in Section 2.4.2, pp. 78). While the handmade, DIY, remade or customised is a macro trend (*Viewpoint* 2011), in the shorter term it can enter the mass-market by way of trend story, in that the 'look' and mood of DIY is carried through into the garments, yet not the underlying ethos, and critically, not the actual material intervention.⁵ This look may influence the design of the garment, or the marketing around the garment.

An example can be seen in a Sportsgirl shop window from a Queensland shopping centre (Figure 7.4). The Sportsgirl display has a quirky young girl at home, taking a photo at the viewer using an old film camera – the retro camera a classic example of a nostalgic 'hipster' accessory. On her bookshelf are works by leftist writers Kurt

⁴ Sustainability themes can be tracked back to 2002 in WGSN, comprising over 900 trend reports related to sustainability, with related variations such as 'eco-pop' or 'hyper-localism' (WGSN 2012).

⁵ I.e. actually making your own item rather than buying a mass-produced one.

Vonnegut and John Pilger. On the wall behind her are artworks assembled from old road signs and photographs of found objects. The phrase on the shop window reads, “colour, customisation and loads of DIY – life is all about creativity.” Another phrase reads, “I love mixing and matching the latest styles with one of my quirky finds.” The girl wears brown corduroy pants, an orange trilby with a feather in it, a purple sweater and a royal blue collared shirt with a pattern of animals. The implication is that this girl will happily wear vintage clothes, home-sewn, or Sportsgirl in her quest for her own authentic individuality. Clearly Sportsgirl felt that the DIY macro-trend was something that would resonate with their target customer, and as such designed a campaign to suggest that vintage clothing and creative customisation can co-exist with mass-produced commercial fashion. In other words, the brand story of Sportsgirl is of a trend focused girl who is not only attracted to the fashionable clothing, but increasingly concerned or interested in culture and style (hence the ‘hipster’ camera and choice of literature on the bookshelf). The trend story (quirky creative girl shops vintage) is a designed object, assembled by the Sportsgirl team, likely from a number of sources such as trend forecasting services and blogs. The trend story runs through the marketing (the window display) but is also evident in the style tropes selected by the designers to express the story. The style tropes expressing the trend are the particularly ‘vintage’ elements, such as the brown cords and the orange trilby. The original observed phenomenon, a rise in DIY and user-maker activities, has been turned into designed trend story and from there into a marketable aesthetic.



Figure 8.5 Sportsgirl window display, Broadbeach, Queensland, May 25 2012

8.2.2 MATERIAL OBJECTS

Most of the conversations with designers centred on the immaterial aspects of designing: trend research, and aligning the trends and garment to the needs of the target customer (the brand story). In contrast, materiality is at the centre of discussions on sustainable fashion. Much of the concern necessarily centres on mitigating the social and environmental impacts of the material garment – particularly its modes of production (see Fletcher 2008; Siegle 2011). This relates to how many units are purchased, how often they are laundered, the physical impacts of the production processes and the impacts of the garment at end-of-life. The material garment is made up of several components, namely piece goods (fabrics), trims and closures, support materials (interlinings, fusings) and threads (Glock and Kunz 2000).

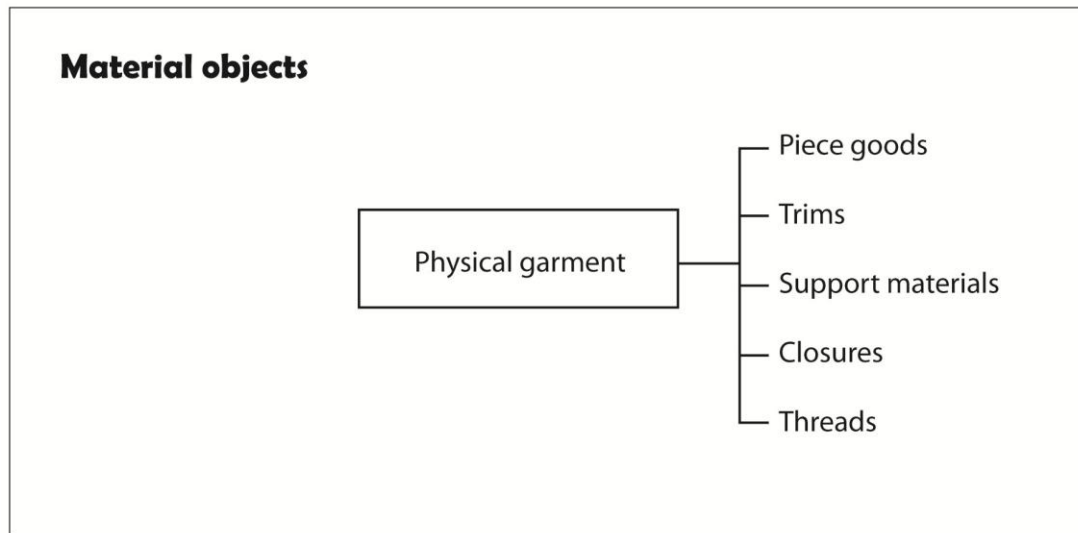


Figure 8.6 Material objects (adapted from Glock and Kunz 2000)

Of these material elements, some may be sourced and selected by the design team, others by agents, and others by the factory. There is no specific interview data on who has responsibility for each element. Yet although none of the companies were at the very bottom of the market, all the designers commented on the cost of fabrics being a major restraint within their design process. The lack of detailed interview data on the material garments is unsurprising. As described in the case studies, designers are geographically remote from the site of garment sampling and manufacture. For example, the majority of designers at Company B did not fit the garment in person, but via video link, so that the first time they physically handled the garment was when the final sample was sent to head office for merchandising purposes (Chloe 2010).

Nevertheless, when considering materiality, a number of interviewees did discuss the manufacturing process in the offshore factories. The views of designers as to how their factories manufactured the material garment and how they managed social and environmental responsibility differed widely. While Jen in Company C expressed doubt as to the reliability of factories' claims, William in Company B noted that Chinese denim manufacturers have global best practice in management of dyes and waste water. In his view, the problem was not the bigger companies, but the smaller and mid-sized companies that could go under the radar. A recent study on Chinese apparel factories found that the factories surveyed were largely unable to lessen the environmental impact of their manufacturing processes for three key reasons: lack of

knowledge, lack of market interest and “lack of awareness and the need to pursue greater short-term economic profits” (Zhu 2011, 427). This is an ongoing challenge even for the global companies who aim for best practice; as an example, in 2012, Marks and Spencers were found to be using suppliers who polluted Chinese waterways with industrial discharge (Greer 2012; Friends of Nature et al 2012).

These reasons largely tally with the reasons why Australian designers could not consider environmental sustainability within their processes – they felt that their customers were not concerned by the issue (e.g. April, pg. 180), they didn’t know how they could personally respond (Sophie, pg. 178), and they felt it was not in the overall economic interests of their company (e.g. Michelle pg. 97, David pg. 210). More likely, intervention in the design of material garments, whether by designers or manufacturers will depend on larger circumstances, such as future legislation.

Currently, there is no globally recognised fee or charge for degrading natural capital, and hence the real environmental cost of a company’s impacts cannot be assessed with any certainty. As mass-market companies frequently source offshore, the greatest environmental and social impacts are felt in these developing countries, for example in Chinese waterways polluted from intensive textile dyeing (Friends of Nature et al. 2012). However, there are some signs that this will change through necessity. In 2011, the apparel company PUMA commissioned an Environmental Profit and Loss report (E P&L), which found the ecological cost of PUMA’s operations in 2010 to be 94 million euros (2012). Similarly, a KPMG report (2012) found that if companies paid for the environmental cost of their production, it would cost them forty-one cents for every one dollar earned on average. These reports highlight the true cost of economic activity from a perspective of inter-generational equity. It also suggests a degree of foresight from PUMA’s owners, luxury conglomerate Kering, who may be preparing for greater environmental regulation in the future.

For now, as environmental externalities are not monetised, environmental sustainability schemes may not be cost-effective for the company, and hence their economic worth lies more in the ineffable brand value they bring. However, if there is little perceived brand value in social or environmental responsibility (or if this value is out-weighted by the need to offer cheap product), then companies will not intervene. This was most in evidence in the two mid-volume fast fashion companies, Company A and Label C3.

Problematically, when customers become cynical or confused about the actual impact of the schemes in real terms, this can then reflect poorly on the brand, negating the worth of the scheme in both material and immaterial terms. An example of this is US footwear brand Skechers, who in 2010 released ‘Bobs’, a collection of shoes utilising recycled materials. Although a genuine intervention in product, their marketing and branding strategy so closely mimicked that of ethical brand Toms that Skechers were subjected to ridicule and the initiative dismissed by consumers as a cynical marketing ploy (Mainwaring 2010).

However, PUMA’s report, and others like it, suggest that the global apparel industry is in a state of transition, from the current time where brand stories influence environmental decisions, to a future when environmental reporting will become standard, and intervention in product, carbon emission reductions, and an E P&L statement will be the minimum requirements for the company to operate in the market (Darlington 2012). In this environment, the materiality of the garment will come to the fore, and be subject to greater scrutiny. Although the movement towards this is slow, there have been significant advances. Chief among these is the founding of the Sustainable Apparel Coalition (SAC) (2012), which, as described in Chapter 4, is a consortium of major global brands and NGOs working to embed environmental sustainability within the apparel industry. The SAC, although in its early stages, is described by EcoTextile News editor John Mowbray (2012) as “paradigm shifting”, observing that already the SAC is influencing supplier decisions to change production processes, such as shifting to recycled polyester yarn, or to cotton produced under the Better Cotton initiative. Significantly, the SAC is a business to business (B2B) arrangement, rather than being targeted towards consumers.

8.3 DESIGN PROCESSES

The three companies visited had four broadly similar design processes, each punctuated by points of intervention in which decisions could, in theory, be made to ensure lower impact garments. Carr and Pomeroy (1992, 13) group the steps in the apparel design process into categories of ‘origin of styles’, ‘development of samples’, ‘refinement of business objectives’, and the ‘attainment of commercial products’. The design process as described by the participants followed a loosely similar version to Carr and Pomeroy’s analysis. While the steps may be reordered, or the tasks of actors differ, all the steps described by Carr and Pomeroy are undertaken

in some way. Based on the interviews with the designers, this section proposes three broad categories to group the design process activities in the Australian mass-market. These are the sourcing phase, specification phase and sampling phase. In each of these phases are particular opportunities for designers to consider environmental sustainability.

8.3.1 SOURCING PHASE

The sourcing phase relates to the literature's use of 'inspiration' (Burns and Bryant 2007), or 'market research' and 'design concept' (Carr and Pomeroy 1992). The term 'sourcing' was used as it became clear in the interviews that this part of the process often depends heavily on an existing garment that will be sourced – whether in digital form or in physical form – to provide guidance for the designer. As discussed in Section 7.2, the designers at the three companies did not directly 'knock-off', all still relied on sourced garments to some degree. Sophie in Company C purchased garments on her trips overseas, while the designers at Company A sourced garments from magazines, shopping trips and blogs. The sourcing phase is governed by the immaterial design objects discussed in Section 7.3: brand story dictates garment pricepoint and also the appropriate trend story, trend story dictates which style tropes will be adopted, and hence which physical garment will be sourced as a guide. The physical garment provides necessary tangible aspects such as specific fabric type, detailing, silhouette, length and fit. The designers (or buyers, or product developers) draw on their fashion knowledge and contextual knowledge in order to accurately 'source' this information. They then share it with the team members for approval. Other actors holding more specialised contextual knowledge (the buyers) are also informed.

As the source phase revolves around immaterial design objects, the material elements of the garment are decided subsequent to these. Hence, opportunities for design redirection for sustainability in the sourcing phase depend on the immaterial object foremost. The two biggest points of intervention are clearly brand story and trend story. When the wider brand story is redirected toward environmental sustainability, this may flow through to the product design. An example is Billabong, who has consciously directed their brand towards environmental sustainability, with a specific focus on tackling ocean pollution. They communicate this brand story to the consumer through their support of charity Beyond Blue. This led to the

development of their ‘eco-suede’ fabric for board shorts, made from recycled PET bottles (Billabong 2012). Billabong’s core customer – a surfer, or an individual with aspirations to be a surfer – is likely to value Billabong’s attempts to reduce waste and plastic pollution in the oceans (Payne 2012b). However, in the three companies examined in this study, none of their designers believed that their customer was concerned about environmental sustainability – and this knowledge of the customer is intrinsic to the ‘brand story’. Label C3 and Company A targeted young women who wanted a quick fix of fashion-forward clothing, while Company B’s customer wanted reasonable quality at a low price. Until environmental sustainability is folded into the brand story through being of concern to the target customer, or until it is dictated by external regulation, it is unlikely that designers will recognise a need to respond.

Researching or designing the trend story is a crucial component of the sourcing section of the design process. Like brand story, if the trend story is directed at social equality, or environmental sustainability, then this may flow through to the decisions made later in the design process. As an example, in a likely response to a vintage macro trend, fast fashion brand Supre included a small range of second-hand clothing in one store. However, as described in Section 8.2.1 in the discussion of the Sportsgirl window, often the trend story can as easily adapt the aesthetic without the measurable physical intervention in the product.

Style tropes are selected in the sourcing phase of the design process. However the style tropes remain fixed by the logic of the wider trend story and by the limitations of time and cost from the perspective of manufacture. The pattern blocks are already developed, and most designs in the mass-market will be predetermined by the basic forms of garments: e.g. circle skirt, pencil skirt, sheath dress, shirt dress, and so on. As designer Jane (2010) in Company A noted, the further one moves from these basic blocks, the more price of the patternmaking and manufacture of the garment goes up. While a designer in the higher end of the market has the freedom to work with drape and experiment with the forms of garments, this is not the role of the mass-market designer. Rather, their role is to ensure that the design can be rapidly patternmade and replicated in the factory – hence the design must be reasonably close to the basic garment style tropes. However, the style trope can also be potentially disrupted. As an example, zero-waste patterns of style tropes such as the anorak and the five pocket jean were developed by design students from Parsons

New School, New York in partnership with denim brand Loomstate, demonstrating that style tropes need not be locked into a set mode of construction (Lucas 2011; Rosenbloom 2010).

8.3.2 SPECIFICATION PHASE

The specification phase of the process differs slightly from Carr and Pomeroy's description of design process, as the designers interviewed did not move straight to prototype pattern but instead drew up detailed specifications to communicate all information to the Chinese factories. Only Company A still sampled some items locally, and as such the other designers needed to provide very detailed and precise specifications that contained all information required to produce a pattern and sample. The decisions made in the source phase are fleshed out to determine the garment's fabrication, its trims and fastenings, stitch detail and fit. In this phase, the designer can theoretically make many decisions relating to environmental sustainability most obviously through fabric selection – selecting lower impact fibre, whether Lyocell, hemp, organic cotton, or wool. Areas such as the quality of the finishes (e.g. stitching quality), width of facings and hems (allowing for the garment to be altered), the number of trims, type of prints and appropriate garment finishes can also be chosen with environmental and social sustainability in mind. As an example, the sandblasting of denim, a garment finishing process highly dangerous for textile workers, was consciously excluded from the design process of Esprit and Levi Strauss, amongst others, due to social responsibility concerns.⁶ In theory, all these decisions need to be made on a case by case basis, with the use, longevity and purpose of the garment weighed up. In all three companies, few designers had intervened in this phase largely due to the restraints of time and cost in sourcing and testing new fabrics.

As described earlier (see pg. 140), the work of the Sustainable Apparel Coalition (SAC) is an example of intervention in the specification phase of the design process of the mass-market design process. Their approach is quantitative, which assesses the impacts of all materials used in the garment, based on Nike's Considered Design

⁶ This kind of decision was unlikely to come about through the actions of an individual designer, but rather was made with the companies' 'brand story' at the fore – an example of the immaterial brand story 'designing' design processes.

Index (2010) to assess which fabrics and finishes are most suitable. This demonstrates that this kind of DfS product intervention is eminently achievable in the mass-market apparel industry, but it will depend on Australian companies and designers to research and apply these models to their own processes. However, whether other approaches to sustainable fashion design (see Table 2.1, pg. 83) are achievable in the mass-market is still uncertain.

8.3.3 SAMPLE PHASE

The sample phase sees the garment go back and forth to the technical team of patternmaker, cutter and sample machinist (in Company A sampling was conducted in-house, in the other two companies, sampling was offshore). Even though the design process is governed by aesthetic considerations, the interaction between technicians and designers is an important point in the potential for greater consideration into sustainability. This was demonstrated in the experiences of designers at Company C, where they found at this point in the process they could reduce fabric waste, or make processes more efficient (e.g. Sophie in Label C3 reducing the curve on a cape to ensure that straight binding rather than bias binding could be used). However, their interventions were with the primary aim of reducing costs for the company, rather than environmental considerations. Similarly, Company B's strategy to communicate via video link with the Hong Kong agents and the factory ensured reduced freight in the sampling process. This is clearly a decision designed to reduce cost and make the business more efficient, yet it has the incidental benefit of lower greenhouse gas emissions.

Leading from the above analysis of design processes, it is clear that the designers are closely constrained not only by the obvious restraints – time and cost – but by the brand story, trend story, and style tropes that prefabricate all possible design outcomes. The designers, particularly in the fast fashion sector, clearly struggled to consider interventions that will affect the visual appearance of the physical garment. This likely eliminates DfS strategies such as design for disassembly or design for zero waste from the beginning. The constraints of time and cost (themselves an impact of the 'brand story') mean that sourcing lower impact fabrics and methods also appears out of reach. Hence in the Australian mass-market, intervention in the

design of the brand story is likely to be the primary driver for change within a company, rather than intervention in design of the product.

8.4 FURTHER INTERVENTIONS FOR SUSTAINABILITY

From the interviews, it is clear that the Australian mass-market designer is locked-in to existing processes. He or she designs within a pre-conceived framework dictated by the already-designed immaterial objects of brand story, trend story and style trope. These pre-design the material objects. Although the design phase is seemingly where the environmental impacts of the product may be considered and designed for, the innate structure of mass-market design processes means that material intervention on the part of the actual designers is unlikely. ‘Design’ in the mass-market generally refers to the immaterial branding and value-adding that tailors a garment’s aesthetic to a market level and a trend.

A wider view of design also means the engineering of the material garment – its patternmaking, its construction and its physical inputs of textiles and trims constitutes design. However these elements are also already-designed, and as such predetermine the form any new material object can take. The various ‘species’ of style tropes are already patternmade, the work flow and the stitches they will use are pre-determined (for example, see Glock and Kunz 2000), and as such they are designed to be assembled by an individual worker, on machinery which is substantively unchanged since the sewing machine was invented.⁷ The design innovation that can occur in mass-market fashion cannot easily be innovation in how clothing is engineered. This kind of innovation typically comes from the *apparel* sector, in which companies such as Speedos or Rip-Curl have invested in R&D to engineer new textiles and processes for technical garments, for example see Craik’s (2011) analysis of Speedos’ technical innovations. Rarely does this occur in mass-market *fashion* apparel, as styles change so rapidly that it would be uneconomic to

⁷ Although there have been substantial innovations in cutting technology and other technologies of garment manufacture, the basic processes of the sewing machine have remained much the same. Even though computerised sewing machines speed up some processes, machinists still have to hand feed the cut pieces through the sewing machine and hand-manipulate them to assemble the garment. As an extreme example, a recent report on Cambodian apparel workers has a photograph with a worker using a Singer 15K-90 sewing machine, a model from the 1940s (Zimmer 2012).

invest in new processes. Rather, the ‘leagile’ supply chain responsiveness has been the chief recent innovation of the fashion sector (as discussed in Chapter 5). In other words, alone, the mass-market fashion sector arguably does not have the internal capacity to change its processes – its designed processes have already pre-designed and locked in potential design outcomes.

Chapter Two discussed Fry’s notion of ‘redirective practice’, in which the designer is committed to working towards the Sustainment – a continual process of ‘making time’. The use of the term ‘redirective practice’ may not be appropriate for mass-market fashion. A redirective practice for the mass-market, in Fry’s terms, would mean developing *apparel* rather than *fashion* products. The planned obsolescence of fashion is counter to a notion of strong sustainability. Rather, a redirected practice for fashion would more likely redirect waste flows of existing garments into product service systems for sharing and swapping. The role of a redirective practitioner would be in the design of the systems to support this practice.

While this could occur in the mass-market (and is already happening to a limited extent), it would not be necessarily within the remit of the mass-market designer per se. Alternatively, a redirective practice could mean designers acting as curators of existing fashion product rather than designing more items. If anything, under a strong conception of sustainability, mass-market *fashion* is a sector that would be “eliminated by design” (Fry 2009, 190). Hence proposing Fry’s redirective design practice in the case of the mass-market amounts to a cognitive dissonance, in which designers would necessarily design themselves out of a job, or alternatively, design garments that are utilitarian foremost. Similarly, it may not be appropriate to pose Fry’s notion of platforming (see Section 2.2.3, p. 53) in the context of mass-market fashion, as the concept of ‘fashion’ is anathema to the redirective practice he proposes.⁸ Yet despite this philosophical clash, Fry’s platforming, on a surface level, provides a useful approach for adoption in the mass-market.

The interviews with designers highlight that Australian mass-market companies require a means to build the internal capacity to respond to environmental and social sustainability. The platform allows for strategies for sustainability to operate in tandem with conventional strategies. This is already partly in evidence in companies with an organic cotton range sitting beside their existing range, for example. Also,

⁸ For example, in *Design as Politics*, Fry (2011) calls for a beauty divorced from fashion.

some strategies adopted by mass-market companies point to a nascent engagement with design for dematerialisation. An example of this is Levis recent partnership with upcycling designers Reformation to re-fit customers' old jeans (Pasquinelli 2012); another is the varied projects of the TED research group in London, such as Worn Again, which collects and utilises pre and post-consumer waste (Textiles Environment Design 2012).

However, it is not straightforward for a company to develop these partnerships, or to propose new materials, or to develop new sourcing practices. The ThinkLifecycle project (Payne 2011c) was developed as one approach to help actors across a company begin to start thinking about new partnerships, possibilities, and practices (see Appendix E). It is a content management system that can be used to begin a company-wide conversation on sustainable practices, as well as begin to build a knowledgebase of ideas and research into new approaches suited to that company. In ThinkLifecycle, questions may include: How can we reduce waste? Can we offer services such as hiring or collecting the garment at end-of-life? What other fibre options can we explore? Staff can communicate across departments and across stores to develop new collaborations, which can in turn lead to changes in design practices. Life cycle thinking, considering the inputs and outputs at all stages of the garment's life, can be a starting point for considering sustainable design approaches in the Australian mass-market.

8.5 CONCLUSION

This chapter has demonstrated that design is more than the surface aesthetic generally associated with fashion design. Rather than proposing designer-led interventions for sustainability, this chapter has instead mapped the reasons why designers are largely unable to intervene. To do this, the analysis drew on the design philosophy of Tony Fry (1999; 2009) and its further extension by Anne-Marie Willis (2006). Although their notions of DfS position the fashion industry as intrinsically unsustainable, their definition of design and design processes has served to illuminate design's role within the mass-market fashion industry, revealing the additional, less-visible barriers to applying DfS strategies to fashion design. The identified three levels of immaterial design objects prefigure the materiality of fashion garments: the brand story, trend story, and style trope. The brand story is the

over-arching decider of sustainability initiatives, as companies (at least at present) are more likely to respond to sustainability if they see it as important to their target customer.

Like the brand story, the trend story will also dictate elements of the material garment: its colour, its silhouette, its fabric. In each of the companies explored, the trend story had varying degrees of strength. For instance, in fast fashion companies, the trend story dominated, while in mid-market Label C2, it was interpreted more loosely. The style tropes are also intangible, ready to be employed to represent the trend story in the material garment. When conceiving of these three elements as ‘designed’, this opens up potential for other forms of design intervention, and with other actors. But it also reveals mass-market designers as actors constrained by and designed by the system in which they work, instruments of the system, rather than agents that may affect change. Yet, while Fry’s notion of the platform is not ideologically suited for the mass-market, a diluted version of his proposal has the potential for redirecting brand story and design processes incrementally within a company.

Chapter 9: Conclusion

This thesis was set up to explore to what extent mass-market fashion designers could intervene in product design for sustainability. This aim was based on a central tenet of sustainable product design: the notion that the designer is instrumental in determining the environmental impacts of the product throughout its life cycle. Within the Australian context, there has been little research that examines the mass-market fashion design process, and therefore little is known as to what extent Australian companies have intervened in product design for sustainability. As such, this research provides significant insight into the hitherto unknown processes and perspectives of Australia's invisible designers. The design processes described in the preceding chapters demonstrate that the three companies studied are far from implementing DfS strategies in product design. Additionally, while one of the three companies considers environmental and social sustainability in other areas – for example, in the systems around the product, or in the wider company – the other two companies display no such interventions. Although the findings in these three companies cannot be extrapolated to all design processes in the Australian mass-market fashion industry, based on industry observations and analysis, it is clear that these companies are representative of the limited or non-existent response to sustainability within Australian mass-market fashion.

The reasons for the lack of response to environmental issues are complex. In part, they relate to the particularities of the Australian industry, hitherto protected from pressures of competition from outside companies, and with a wide geographical separation between design and manufacturing. Additional barriers to considering sustainability include the speed of the work environment, the limited time possible for each task, the need to keep costs low, and the position of designers themselves within the mass market organisational system. Yet, as discussed in Chapter 8, there are other less visible barriers towards implementing DfS in mass-market fashion design. Drawing on the theoretical framework of Tony Fry (1999; 2009; 2011), this study identified the material and immaterial elements of mass-market fashion design. This led to the emergent theory that fashion's immaterial objects serve to 'design' the processes and material outcomes possible within the mass-market, and thus become a

series of barriers for intervention for environmental sustainability. Despite these barriers, in each market division, the interviews with designers revealed potential points of further intervention for sustainability. To conclude the study, this chapter draws together the empirical findings, with particular attention given to the points of intervention for sustainability that may be possible within the Australian mass-market fashion industry, and also comments on their implications for further research.

9.1 CHALLENGE OF APPLYING DFS TO MASS-MARKET FASHION DESIGN

It is important to reiterate that many of this study's findings rest on the definition of sustainability as a spectrum of thought, ranging from weak to strong. A weak conception of sustainability is one that remains embedded within existing socio-economic systems, while a strong conception of sustainability requires an alternative economic framework. Although on the weaker side, TBL sustainability implies continued economic growth that is decoupled from resource use, and may potentially be a pathway towards strong sustainability. However, as Fry claims (2009), TBL sustainability can often fold into 'sustaining the unsustainable' as it remains embedded in the logic of neoliberal capitalism. In contrast, strong sustainability, requiring a revised socio-economic paradigm, for example, Daly's (1992) SSE, is politically impossible for world leaders. The reasons for this statement stem from the varied analyses of Hamilton (2010), Fry (2011), Giddens (2009), and Manne (2011) in regard to the politics of climate change in the Australian, US, and UK political systems.¹

¹ There is not space to analyse these positions in detail, but briefly, Hamilton (2010) and Manne (2011) argue that the political right in both Australia and the US are ideologically opposed to curtailing market freedoms, as would be required in order to decarbonise the economy and strengthen environmental regulations. Following this point, these means even TBL sustainability is questioned by the right, and hence the radical heterodox economics of SSE is anathema. Additionally, Fry (1999, 2011) and Giddens (2009) each argue (to simplify) that a political system driven by 24 hour news cycles, opinion polls, and the need for re-election, profoundly hinders the ability of governments to make the necessary long-term decisions required to tackle a problem such as climate change.

This research has argued that mass-market fashion can only engage with weak sustainability. Fashion's current unsustainability relates to its key role within the existing, unsustainable economic paradigm, in which as Steele (2012, 13) phrases it, fashion is "capitalism's favourite child". Rantisi (2004) notes that in the creative and cultural industries, continual aesthetic innovation and change in cultural goods is crucial to the economic strategy of post-industrial nations. In other words, fashion's planned obsolescence serves capitalism's consumption-driven economic growth. As was noted in Chapter 1, and explored further in Chapter 5, fast fashion is the paradigm of fashion in the twenty-first century, characterised by greater speed of material (and symbolic) production and consumption.

From the analysis of Kate Fletcher (2011), a strongly sustainable fashion system would involve a cycling of resources similar to the DfS C2C model of McDonough and Braungart (2002), yet it would also sit within Daly's (1992) SSE. The potential for these practices is seen in existing product service systems such as swapping, hiring and repairing schemes, in which companies offer services to users, rather than product to consumers. In contrast, a weakly sustainable model means incrementally improving and 'greening' existing processes and products, yet still within the current economic logic of the fashion industry. Both approaches employ DfS strategies. DfS strategies can be positioned along a spectrum that, at one end, proposes a design activism that critiques the capitalist system within which design activities occur (Fuad-Luke 2009; Fry 2009; 2011), while at the other, proposes the incremental greening of manufacturing processes.

Although the work of Tony Fry relates to a conception of strong sustainability that is at odds with the *modus operandi* of mass-market fashion, Fry's design philosophy has been instrumental in this thesis in elucidating *why* change is so difficult in mass-market fashion. Clearly, designers are constrained by market imperatives and company directives, but additionally, they are constrained by the nature of design in the wider fashion system, in which fashion's existing design processes and material and immaterial elements delineate all possible outcomes. Applying Fry's analysis to fashion design thus provides an additional dimension to the problem of mass-market fashion and sustainability, even if many of Fry's DfS strategies, such as dematerialisation, are difficult to apply in the fashion arena.

Based on the observations and interviews with designers in the Australian mass-market fashion industry, the weaker, incremental approach to sustainability is still

largely out of reach. In the Australian industry, scant consideration is given to environmental issues. For example, the majority of interviewed designers had never considered lower impact fibres, and nor did they see any possibility for doing so.² End-of-life strategies were similarly unconsidered, although Hannah in Company A saw the potential for a collection scheme for their garments. Even relatively small changes in product design for environmental sustainability were largely impossible for the designers, and thus the more radical notions of strong DfS, such as dematerialisation through PSS, are highly improbable. In fact, even DfS strategies that were arguably less radical than dematerialisation, such as minimal or zero waste, appeared absurd or comical to a number of the designers interviewed (specifically, Michelle in Company C and Jill in Company A). This demonstrates again the considerable gulf between many DfS strategies and actual design practices, at least in the context of the Australian mass-market fashion industry. Additionally, it demonstrates the way in which mass-production processes delineate the range of intervention a designer can make.

In contrast, the evidence from mass-market fashion companies in North America, the UK, and Europe is somewhat different. Here change is occurring in the incremental framework of weak sustainability – for instance through the gradual greening of products and the on-going auditing of supply chains. Although many of these strategies are driven by company CSR policies, implementing these product design changes would be undertaken by the design teams. Chapter 4 proposed categories for these strategies to be implemented along the supply chain– whether they are interventions in the product, in the systems around the product, or in the wider company. In all three categories, overseas mass-market fashion companies have made considerably more advances than Australian companies, as demonstrated in Chapters 5, 6, and 7. Nonetheless, DfS dematerialisation strategies are of another order of intervention again – they would amount to a paradigm shift away from product-centred sales of fashion. Or, alternatively, towards producing *apparel* that holds symbolic values other than the currency of change and novelty of fashion

² The one exception was the footwear designer Pete, who had attempted to source recycled tyre rubber for footwear.

trends.³ Therefore, despite the advances of mass-market fashion companies overseas, their engagement with DfS necessarily remains more in the realm of incrementally greening the existing system, rather than in challenging the paradigm under which the system operates.

9.2 BARRIERS TO IMPLEMENTING DfS

While a strong conception of DfS is difficult to apply to mass-market fashion generally, the study also located barriers to DfS that are particular to the Australian industry. A key barrier is the nature of the Australian marketplace. Australian companies traditionally sit on the periphery of the global fashion system. For this reason, Australian designers were prone to copy designs from overseas rather than develop ‘new’ ones. This claim touches on the notions of an uncertain, imitative Australian fashion identity, far more comprehensively explored by Maynard (2000). It can also be argued that copying is not necessarily part of the Australian psyche, but rather a pragmatic approach to reducing risk in a notoriously risky industry. As Weller (2007a) describes, southern hemisphere designers could copy overseas designs with impunity, partly because the overseas companies were not in the Australian market to protest, and partly because Australia was a season ‘behind’ the northern hemisphere.

Despite this, the designers interviewed were adamant that direct copying was not part of their design process. However, a number of designers frankly admitted that while working for other companies, they had directly copied. Combined with evidence from industry commentators, this suggests that copying practices still remain widespread in the Australian mass-market. As discussed in Chapter 4, copying impacts on whether or not designers can intervene for sustainability. Technical knowledge is essential in order to consider sustainability within the design of garments. As discussed in Chapters 1 and 2, sustainable fashion design places greater emphasis on the material construction of the garment, whereas conventional fashion design privileges the symbolic, aesthetic elements of the garment. In

³ Examples of companies operating in this way are arguably sustainable lifestyle companies such as Patagonia who produce apparel rather than fashion, or ‘ethical’ fashion companies such as People Tree, whose chief focus is on sustainable employment for their workers and ecological principles.

Australia, technical knowledge has become disconnected from fashion and contextual knowledge, as manufacturing occurs far from the site of design and consumption. As Weller and Webber (2001) discuss, in Australia's mass-market, this shift occurred more rapidly than in other developed economies due to Australia's proximity to China, and to the neoliberal policies of the Hawke and Keating governments. The 'hollowing out' of manufacturing sees raw fibre such as cotton and wool grown in Australia, and the finished article of apparel imported from China. The middle elements, namely portions of fibre finishing processes, textile production, and CMT all occur offshore. Increasingly, as seen in Company B and Company C, patternmaking and sampling also occur offshore.

This disconnection between designers and garment technicians is therefore a key barrier towards implementing DfS strategies. The designers interviewed in this study frequently had little direct contact with the makers of the garment. Instead, the designers' role is to deal with the intangible elements of design, while the technical knowledge required to manufacture garments was held by the offshore suppliers. This relates to the high value placed on cultural or symbolic knowledge in the creative industries. In contrast, the methods of fashion designers who engage with sustainability depend on the close consideration of materiality, over (or as well as) that of symbolic, cultural knowledge. Hence innovation in this field is in the realm of technical knowledge, whether improving design of textiles, or in developing new manufacturing strategies to reduce or minimise waste, or in creating transformable, or modular garments, or garments that may be disassembled for later recycling or repair. Therefore, unless a closer connection is reformed between on-shore designers and off-shore technical production, there is reduced opportunity for intervention in product design for sustainability.

As discussed in Chapter 8, a crucial barrier to design intervention in mass-market fashion lies with the identified immaterial design objects: the brand story, trend story, and style trope. Due to the tyranny of these immaterial design objects, the fashion garment and the fashion designer are locked into a particular mode of production, all outcomes effectively 'pre-designed' by wider forces. The overarching brand story dictates whether or not a company feels the need to respond to sustainability. Then, any intervention in product design must still be aligned with the trend story (although this is less the case in the mid-market). The style trope is as much about the logic of mass-production. All our clothing 'forms' are designed

already: the fashion designer in the mass-market tweaks their styling and details. This then creates a series of barriers for implementing many of the DfS strategies in the Australian context. Knowledge of sustainability issues is a key barrier; while the second barrier is communicating the knowledge and then finding a way for it to fit within the wider brand story. Rarely are these immaterial design objects actually conceived of as ‘design’; yet by classifying and naming them as ‘design objects’ this study has illuminated their role as invisibly designing (Fry 2009) the outcomes of the fashion industry. This reveals a hard limit to the potential role of the mass-market fashion designer in instigating changed practices for sustainability: the designer’s own role and tasks are pre-determined by the goals and brand story of the company in which they are working, but also, by the apparatus of the wider fashion system. Yet some intervention is possible: the Recommendations section will make some considerations around the role of designers within the organisational system of mass market companies, identifying potential action spaces for industry.

9.3 POINTS OF INTERVENTION

Despite the misalignment between fashion and sustainability, this study has located specific points of intervention in both the design process and the wider company. Different market levels point to different approaches for intervening for environmental sustainability. In fast fashion, interventions for sustainability are more likely to come from the systems around the product than from interventions in product design, for example through schemes in which the product is collected at end-of-life. Although design for disassembly strategies (including, for instance, recyclable polyester) would be appropriate for such a semi-disposable product, the interviews revealed that the considerable barriers of time and cost make such interventions very unlikely. Ironically, existing fashion products that are designed to be disassembled are those that have a higher brand value and are more likely to be kept, for instance Refinity raincoats and Terra Plana shoes. From the interviews, the fast fashion sector, which would benefit from end-of-life strategies to be considered in the design process, is largely unable to utilise these strategies due to time and cost restraints. However, a collection scheme or a PSS such as curating second-hand clothing for re-sale are potential strategies that may work with fast fashion.

Another point of intervention may potentially lie in the nature of fast fashion. Although the sheer speed and disposability of fast fashion is clearly unsustainable, the larger project of fast fashion points to fashion trends dissolving into individualism, in which users become their own stylists and mix and match garments of many provenances. Fast fashion's week to week riot of colours, styles, materials, and looks may be an end-point for fashion, as any coherence in trends becomes lost in a visual cacophony. In regard to environmental sustainability, the area of consumption is a crucial site of intervention, in which users can potentially engage with the cacophony of fashion through buying second-hand garments, swapping, or borrowing clothes through PSS such as clothing libraries and swap events. However, as a point of intervention, this relates chiefly to the realm of consumption rather than production.

From a company perspective, a crucial point of intervention lies in employing designers rather than buyers. The shift towards an in-house design team in Company B pointed to a closer engagement with material product arguably lacking under a buyer model. Fashion knowledge is important here, as with a nine month lead time, the designers must follow the northern hemisphere timeframes yet sell to a southern hemisphere market. Unlike many Australian companies, Company B is taking on significantly more risk in that the designers cannot look to sales in Europe or the US to guide them, but instead they rely heavily on the trend-forecasting services of WGSN. This greater faith placed in these designers allowed them more scope to consider sustainability in their design process. While the processes they chose were necessarily first related to improving efficiency in the company, such as the strategy of reducing SKUs and streamlining the product offering, this nonetheless was an improvement on the buyer model. This has an important implication for Australian companies, as they can harness the 'designerly' thinking (Sinha 2002) of their team in order to improve efficiency, streamline processes, and reduce waste. This clearly benefits the company, yet also can potentially be part of a strategy to consider sustainability. It also reveals a subtle distinction in the adoption of DfS strategies, as a designer's actions will be governed by his or her responsibility to the company's success. This reveals that designers *are* able to intervene in the product design, providing their actions are aligned with and benefit the interests of the company.

From the analysis of fashion's immaterial design objects, brand story, trend story, and style trope also emerge as potential points of intervention for environmental

sustainability. Chief among these is clearly the brand story. In the examination of the mid-market, this research found that the success of mid-market companies depends on tight contextual knowledge of their particular market niche. They can also command a higher pricepoint. Here, the intangible brand story can shape the degree to which a company will intervene in the material product for sustainability, as when the brand story is aligned with sustainability, or ethics, the company must not be seen to be engaging in greenwashing. Therefore, mid-market companies, chiefly ‘lifestyle’ brands, are more likely to intervene in the design of the garment for sustainability. However, this works the opposite way as well. If the company can see no brand value in intervening for sustainability, their energies will be spent elsewhere. As the study of Label C2 demonstrated, although the company is superficially well-placed to intervene in product design for sustainability due to its higher pricepoint, it is not a concern of management or of the brand’s customers. Rather, management is focused on the need to reduce waste in all areas of the business, and this becomes a task of the designers. This in itself had an ‘accidental’ benefit for environmental sustainability.

From a company perspective, the many initiatives for sustainability occurring overseas, or in niche markets, point to the potential for collaborations with smaller companies (a kind of design activism), with education institutions, or engaging with customers in new ways (e.g. mass-customisation or product service systems such as collection schemes). Examples of this include Orsola de Castro of From Somewhere partnering with Tesco and Speedo, Levis partnering with the Rhode Island School of Design, or in the luxury market, Edun partnering with Louis Vuitton.⁴ There is scope to propose some of these interventions to Australian mass-market companies. Examples could include collaborations with mass-market companies and local niche eco-designers, or with Australian design education institutions. A further proposal for mass-market companies may be introducing curated second-hand clothing in their stores as other mass-market companies have done overseas (see Section 5.4.6).

Another potential point of intervention is the designers’ choice of fabrics and textile finishes. There is a real need for designer education in relatively straightforward DfS strategies such as sourcing alternative fibres and eliminating

⁴ Although Bono’s ethical fashion label Edun is owned by luxury conglomerate LVMH, also owner of Louis Vuitton.

textiles manufactured with damaging or polluting processes. Hence Chapter 8 proposed ThinkLifecycle as the very beginning of a way for designers to research alternatives, propose ideas, and share knowledge (see Appendix F). In part, the aim of ThinkLifecycle is to begin a company-wide conversation in which cost-cutting exercises and research into new fabrics, suppliers, and processes can all be considered part of the broader project of reducing the company's environmental impact. Although the designers in Company B were required to use the sourcing offices of the parent company, the designers in mid-volume Companies A and C had considerable freedom to select fabrics, albeit within cost restraints.

On a related note, as observed in Chapter 3, in each company there was at least one individual who was personally concerned by issues of environmental and social sustainability. In Company A, this person was Hannah, in Company B, the sustainability manager, and in Company C, the design assistant Jen. In each case, my access to the company was facilitated by these individuals. In Fry's (2009) platforming proposal, concerned individuals within a company can form the beginnings of a change platform, trialling strategies for environmental sustainability that can later potentially be applied across the company. Again, ThinkLifecycle is an approach for concerned designers such as these to make their voices heard, and potentially change company processes from within.

9.4 RECOMMENDATIONS

This section recommends a number of approaches that could potentially be adopted by industry. These recommendations begin with a caveat: it is important to recognise that the designer is only one actor within a large organisation, and, as discussed in Chapter 8, their design decisions are largely 'designed' for them by the apparatus of the fashion system, and by the structure and culture of their own company. Despite this, these seminal findings point to potential action spaces for DfS for a range of actors within the company's organisational structure, from designers and product developers, to company management and owners. This section makes five recommendations for industry, posing them as incremental steps towards consideration of environmental sustainability within fashion product design.

Recommendation One

- Large Australian companies shift their CSR focus to ensure greater attention to intervention in product design.

A contribution of this study was to conceive of the scope of company interventions for sustainability as falling into three categories: product, systems around the product, and the wider company. Product intervention is critical in limiting the impacts of the garment throughout the life cycle; however evidence from this study reveals that large Australian companies such as Company B appear to have minimal intervention in product. Most of their CSR initiatives for environmental sustainability lie chiefly in Category 2: systems around the product, or in Category 3: the wider company. These are top-down initiatives directed by company management that may include reducing packaging waste, or installing energy-efficient light bulbs. While important, they ignore the importance of intervention in product design.

The structure of large companies such as Company B means that design teams alone have limited capacity to tangibly intervene in product design; the potential action space lies with management's approach to CSR. In large companies, in Australia and overseas, design decisions are effectively spread across multiple organisational units with the design team only responsible for a component of these. For example, to select new lower-impact fibres or textile processes would require coordinated activity across the overseas sourcing offices in partnership with management, buyers, stylists, and technicians. While the footwear stylist had looked at recycled materials for shoes on his own initiative, this was not the case with the fashion stylists, whose range of possible textile choices were sourced by the Hong Kong sourcing office. Change, therefore, would need to come via a directive from company management, and as such requires a repositioning of the existing CSR strategy towards product intervention.

By repositioning the scope of company interventions as spanning outwards from intervention in product, company CSR strategies can draw on the existing skills of their design teams. Although Company B had a complex organisational structure, with design decisions diffused through a number of organisational units, the shift from a buyer model to a design model already evidenced somewhat greater capacity to consider sustainability. The designers interviewed spoke about the capacity of a design team to streamline processes and reduce waste within a company through

having fewer, more tightly-focused product lines. In their view, the relationship between designers and product was very different from that between buyers and product. Company B management could harness the ‘designerly thinking’ and consult with its design team to expand their CSR approaches towards greater consideration of product design.

Recommendation Two

- Australian mid-volume companies require greater support and education regarding approaches to sustainability within product design.

The research highlights the need for support for Australia’s mid-volume fashion companies (typified by Company A and Company C) to consider sustainability within product design. Already work by the TFIA on sustainability helps train and support emerging designers, while large companies such as Company B have their own dedicated sustainability officer who may be able to spearhead intervention in product as a company directive. However, the mid-volume companies, typified by Company A and Company C, contain designers who do the work of many departments in Company B. Their design teams are small and have little time to conduct additional research into materials and processes that may have a positive impact for environmental sustainability. Yet there is evidence that mid-volume companies with small design teams such as Company A and Company C do have the internal capacity to consider incremental initiatives for sustainability, provided these fit within the brand strategy and price constraints determined by company management. This is because designers in both companies have considerable informal and personal decision-making power, in that they select fabrics and trims and make crucial aesthetic decisions that determine the garment’s desirability, wearability and longevity. These designers do the work that is spread across multiple departments in Company B.

Potential action may be as simple as sourcing alternate washes for denim, or alternate bleaching or dyeing processes. It may involve implementing take-back schemes at end-of-life. A large body of research exists in educating designers to consider these aspects, yet critically, the designers interviewed lack the time to seek these resources out. Therefore, as discussed above, the ThinkLifecycle project was developed as an important approach to begin slowly building this knowledgebase within the design team and starting a company-wide conversation about

sustainability. This is a potential action space that would require the support of company owners and managers, yet its chief actors would be members of the design teams who do, in fact, have considerable decision-making capability.

Recommendation Three

- Greater attention given to widespread use of trend-forecasting services as a barrier to considering sustainability within product design.

This research highlighted the unexamined and uncritical use of trend forecasting services in the Australian fashion industry. As discussed in Chapter 8, close adherence to trends will determine the garment's aesthetic appearance, which in turn determines its material construction: the dyes used, the textiles used, whether the garment is a short-term trend or a classic piece. Thus there needs to be greater attention to how WGSN and trend-forecasting services effectively 'design' the outcomes. Additionally, this use of WGSN has implications not only for DfS within the Australian industry but also for the problem of the knock-off within Australian fashion. In particular, in regard to immaterial values of trends, the widespread use of WGSN and other similar forecasting websites has fostered, in time, greater homogenisation of styles and looks, fuelling endless and faster search for newer fashions. Reconceptualising design in both industry and academic settings as an interplay between technical and aesthetic considerations can help in this regard.

Recommendation Four

- Companies consider voluntarily adopting international guidelines on harmful chemicals in textiles.

An intervention that lies chiefly with company management is the banning of harmful materials and practices in their clothing manufacture. Due to the limited regulation of imported textiles in the Australian industry, currently there is little pressure on industry to select alternatives methods and materials. There is evidence that this is changing from a government and consumer perspective, and as such a recommendation of this research is that Australian companies align themselves with internationally recognised standards. As discussed in Section 4.4, there is an urgent need for regulation of the textiles imported into Australia, and change may be afoot in this regard. This need was a recommendation of the Green review (2008) and although no action has yet been taken, this also fell within the terms of reference of

the 2011 EQM report. Through taking a pro-active stance and adopting guidelines similar to Europe's REACH, or the Oeko-Tex standard, Australian companies could take a positive step in limiting the use of environmentally damaging dyes and textile finishes. This would have a benefit not only for environmental sustainability, but also for social sustainability in regard to worker health and well-being. Additionally, it would enable Australian products to be exported more readily to countries that have stricter guidelines.

Recommendation Five

- Companies consider their customers' concerns regarding sustainability within their market research.

The final recommendation concerns the interaction of companies with consumers. Although this study has been concerned chiefly with the production of fashion (whether material, symbolic, or both), as a life cycle analysis reveals, how consumers purchase, launder, wear and dispose of the garment is just as crucial in determining its environmental footprint (Smith and Barker 1995; Dombek-Keith and Loker 2011). As such, it is significant that the interviews with designers, across market levels, commonly held a belief that consumers did not care about environmental or social issues: they just wanted the cheapest price. Clearly, while this view remains held by designers and management, there will be little impetus to change practices for the perceived small customer cohort who may wish for a more ethically or responsibly produced product. But this also points to the way in which companies 'construct' their hypothetical customer. For instance, a number of the designers interviewed in Company A professed concern regarding sustainability in their own consumption habits, yet although they shared the same generation as their customer, did not perceive their customer to also have these concerns. This finding suggests that there is scope for greater research to further examine consumer concerns regarding both social and environmental sustainability, and to find a way to disseminate these responses to fashion companies.

9.5 LIMITATIONS OF THE STUDY

Fashion is a fast-moving, mutable industry, and this factor alone ensures that elements of this study will date quickly. Since 2010, there have already been

significant changes regarding fashion and sustainability both overseas and in Australia. Overseas, these include the rapid progress of the Sustainable Apparel Coalition, which by the end of 2012 had a membership comprising one third of the world's apparel manufacturers (Helmersson 2012). The United Nations Global Compact has joined with Nordic Initiative Clean and Ethical (NICE) to create the world's first sector specific initiative of the Global Compact, targeting fashion and sustainability (United Nations Global Compact 2012). Additionally, many independent labels have emerged that offer radically transparent products, such as Bruno Pieter's Honest By or Rapanui, or offer new models for design processes. In 2012, Lynda Grose's claim that sustainability is becoming a "baseline" for companies (cited in Furst 2012) is far more in evidence than it was a decade ago.

In the Australian industry, a number of recent shifts are putting considerable pressure on mass-market companies, and these were not addressed in the interviews. For example, concerning the external political situation in Australia, it is significant that in 2011 the Australian government introduced a carbon tax (which came into force in 2012). At the time of the interviews the carbon tax had not yet come into effect, so its impact from the designers' perspective is unknown. More widely, as yet there is little indication as to how the carbon tax may have impacted consumers or fashion companies as its effects gradually trickle through the economy. However, it has been a deeply divisive political issue that will continue to shape consumers' views on the many issues surrounding sustainability.

An additional temporal limitation of the study is the rapidly changing retail environment in Australia. When interviews were conducted in 2010 -11, Zara and Topshop had not yet opened in Australia. Designers did express their concern regarding Zara's imminent arrival and the probable increased competition; however it would be useful to hear the designers' perspectives post-arrival. More significantly, a number of designers wondered how local retailers would adjust their design strategies, given that in the past, Australian companies routinely 'knocked-off' Zara garments. This would also be interesting to examine, particularly as the often-imitated Topshop has since opened in Australia as well. Although in 2013 Zara is still a small presence in Australia,⁵ it will undoubtedly continue to take sales from the

⁵ As of March 2013, there are six Zara stores across Victoria, New South Wales, and South Australia.

Australian retailers. This will be compounded by the retail rollout of other fast fashion giants, including Topshop (currently with three stores in Australia), Gap (also with three stores), and H&M (not yet arrived).⁶ These brands, albeit fast fashion, have made greater commitments to social and environmental responsibility than many of the local retailers, and therefore it will be important to track whether their entry prompts more visible changes in the practices of Australian companies regarding sustainability.

A second shift in retail underway in Australia is the rapid growth of online retailing. At the time of the interviews, the growth in online shopping was a significant issue. However, by the end of 2011, the global online fast fashion service Asos opened in Australia, and within months became the number one online retailer in Australia (*Ragtrader News* 2011c). Other retailers such as The Iconic opened, offering three hour delivery. In the interviews, the potential for online retailing to radically disrupt traditional bricks-and-mortar retailing was not discussed.

In addition to the temporally-based limitations to the study, inevitable when studying such a fast-moving industry, an additional limitation of the study lies in the small number of companies studied. In part, this limitation was unavoidable due to the scope of the study. Three case studies is a relatively small number to then extrapolate findings from, however to compensate for this, the strategy of embedded case studies allowed the study to extend the analysis.

9.6 IMPLICATIONS OF THE STUDY FOR FURTHER RESEARCH

Despite the limitations of the study, other findings suggest avenues for further research. These relate to expanding upon this study's analysis of the nature of the mass-market fashion design process, the role of the designer, and the theorising of fashion's immaterial objects to include other areas within the fashion system. Potentially the research questions could be explored in other market levels (for example niche 'eco-fashion', bespoke, or luxury sectors), or in other fashion markets. Also the study's findings hold practical implications for assessing the ways in which

⁶ Over the next five years, predicted store numbers include: Topshop/Topman (15), Gap (15), Zara (20), H&M (10), Agent Provocateur (10), Uniqlo (25) and Lululemon Athletica (30) (*Ragtrader News* 2013).

companies respond to sustainability. As described above, the temporal-based limitations of the study mean that a number of factors that could potentially impact on sustainability in the mass-market fashion industry are still emerging, suggesting an opportunity for further research to expand upon these findings. Additionally, the data gathered over the course of the study can be utilised in other analyses in relation to fashion's place in the creative industries.

Aside from the questions of sustainability, the empirical data gathered in the study holds potential for further analysis in the areas of fast fashion, design process, and the supply chain. In particular, the analysis regarding the Australian industry's ad hoc response to fast fashion holds potential for further research, as while there is a growing body of research related to the strategies of the fast fashion giants such as Zara and H&M, there is less research as to how mid-sized companies in smaller markets have adjusted to the new paradigm brought about by fast fashion.

There are theoretical implications for advancing the study of fashion design process through further considering the role of the intangible elements of design, namely the brand story, the trend story, and the style trope. Although these proposed immaterial objects, developed from the work of Fry (1999; 2009) and Willis (2006), are discussed in light of sustainability, the analysis has potential to be applied more widely to understanding the operations of fashion design in the creative industries. For instance, the notions of brand story and trend story as designed immaterial objects opens up an arena for DfS to be explored further in the contexts of trend forecasting, branding, and company culture. Additionally, and unrelated to sustainability issues, the mapping of Australian design processes conducted in Chapters 5, 6 and 7 holds potential for further analysis through comparing these design processes to other studies of fashion design process overseas.

9.7 CONCLUDING REMARKS

Through analysing the design processes of the Australian mass-market fashion designer in relation to DfS, this study has addressed an under-researched aspect of Australian fashion studies, and of research into sustainable fashion and the role of the designer. Australian mass-market companies lag behind those of Europe and North America in considering weak sustainability. It is clear that many initiatives proposed for fashion and strong sustainability are difficult to apply in the mass-market as

mass-market companies are ‘locked-in’ to particular ways of working. Following the analysis of Fry and Willis, the design processes, objects, and designers are themselves ‘designed’ by the prerogatives of the company, or by the trend forecasters, or by the nature of the fashion system. Although the incremental ‘greening’ of the Australian mass-market industry can occur, change will be slow.

While the interviews conducted with designers revealed many barriers towards implementing DfS strategies, they also revealed potential points of intervention. A number of the designers exhibited a personal identification with sustainability that holds potential to incrementally change the company processes from within.

Australian mass-market fashion companies have an opportunity to harness the design thinking of their team in order to adapt their business in light of the imperative of sustainability. This may include ideas to reduce the environmental impacts of the products, through to examination of the systems around their products, through to potentially transforming their business model in order to prepare for an uncertain future.

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Appendices

APPENDIX A: INTERVIEW PROTOCOL

This is a list of indicative questions for the semi-structured interviews. The questions may change depending on the interviewees' responses.

- What is your role here?
- What are your tasks?
- What is your definition of fashion?*
- What are the major design constraints you have to face?
- What are the methods you use to gather new design ideas?
- How do you analyse the collected information for developing new design ideas?
- What is your definition of good design?*
- How do you evaluate your designs?*
- Can you describe your design process, from initial idea to first sample?
- Who is involved in the process, and what is their contribution?
- Describe how you decide what your customers would like to buy.
- Where do you find inspiration?
- How important is the trend forecasting to your design work? Which type of trends are important
e.g. colour, fabric, detail, catwalk, celebrity fashion, consumer lifestyle
- How important to you is the way clothing makes people feel?
- What is the most enjoyable part of your job, and why?
- What is the most complex or challenging part of your job, and why?
- How would you describe the life cycle of your garments?
- What role does costing play in the design process?
- How long should a [a particular] garment last, ideally?
- How do you feel about your designed garments entering the second-hand market?
- What is 'sustainable' fashion for you?
- Do you believe your customers are concerned or interested in the issue?
- What is your view on the trend for 'eco-fashion'?
- There are new methods trialled such as design for disassembly, closed-loop manufacturing, vertical integration, design-for-zero waste.
- How do you feel about each method?
- Are these methods suitable or unsuitable for your label, and why?
- What issues do you feel are most important in developing a sustainable industry?
- Where, in your view, does the chief responsibility for sustainability lie; in consumer behaviour, fabric production, manufacturing supply chain, or design?

* These questions were drawn from Au, Tam and Taylor (2008)

APPENDIX B: LIST OF PARTICIPANTS

Company A: Fast fashion (BGW)

Participant	Job Title	Age range
Hannah	Design room manager	35 - 45
Jane	Designer	35 - 45
Kristie	Design Room Assistant	< 25
Kylie	Jnr Designer	25 - 35
Jill	Snr / Jnr Designer	< 25
Patti	Design Room Assistant	< 25

Company B: Discount (BGR)

Participant	Job Title	Age range
Chloe	Senior Manager Product Development and Design	55 +
William	Design and Style Studio Manager (Softlines)	35 - 45
Amy	Design and Style Studio Manager (Hardlines)	35 - 45
David	Stylist Menswear	35 - 45
April	Stylist Ladieswear	25 - 35
Monica	Stylist Intimates	25 - 35
Jeremy	Stylist Intimates	35 - 45
Pete	Stylist Footwear	45 - 55
Bec	Stylist Homewares (Hardlines)	25 - 35
Steve	Art and Colour Stylist	25 - 35

Company C: Mid-market (BGR and BGW)


Participant	Job Title	Age range
Michelle	Head Designer, label C2	35 - 45
Jen	Designer, label C2	25 - 35
Sophie	Head Designer, Label C3	25 - 35

APPENDIX C: INTERVIEW SLIDESHOW



Design is power: the design process and sustainability

Alice Payne, PhD candidate
Queensland University of Technology



what is the purpose of the research?

- To understand and map the various design processes used in the Australian fashion industry
- To hear designers' voices and views on their design process
- To hear designers' views on the future challenges of the industry



the challenges

- Climate change
- Future price on carbon
- Fair labour – rights for all workers
- Future scarcity of water, fuel, food
- Global population growth
- Pollution, habitat destruction

the fashion industry

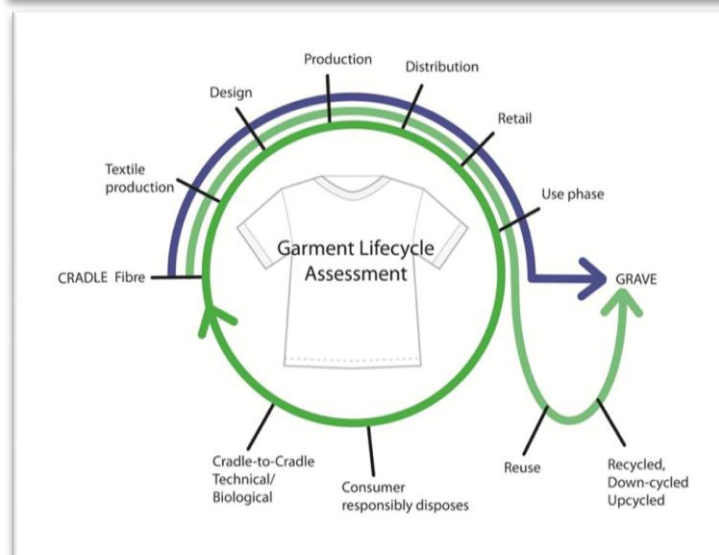
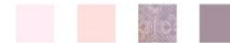
- People buy US\$1 trillion+ of clothes each year
- Continual change, faster speeds
- Poor labour practices
- High environmental impact in production, use and disposal

'Sustainability' often defined as "the ability to meet the needs of the present without compromising the needs of the future" or 'people, planet, profit' (Brundtland 1987)



how will these affect us?

- Price on carbon
- Rising fuel = rising freight charges
- Higher price on cotton and other raw materials
- Consumer demand



design



- Should the garment be designed in the first place?
- Who makes the garment and where?
- What are the environmental impacts of the chosen fibres?
- Can the garment be disassembled for later closed-loop recycling?
- Can it be repaired?
- How will it be cleaned, and what is the environmental impact in the use phase?
- How long will the garment last?
- Is it 'classic' in design or based on short-term trends?
- Indeed, can it still be 'on trend' while being sustainable?
- Can the garment be created with zero-waste in the cutting process?
- Can the garment be designed 'light'?
- Can the garment be a service rather than a product?

(Fletcher 2008; Rissanen 2008; Hethorn 2008; Black 2008)

what will you ask me to do?

- Audio-recorded, semi-structured interviews
- What is your definition of fashion?
- What are the major design constraints you have to face?
- What are the methods you use to gather new design ideas?
- What is your definition of good design?
- Can you describe the steps in your design process?

questions...

- Who is funding the research?
- Are there any risks for me or my company in taking part?
- Are there any benefits for me in taking part?
- Will I be compensated for my time?

APPENDIX D: MAPPING PROCEDURES

Sample calculator used to average retail pricepoints

Witchery					
Skirt	Dress	Basic T	Pant	Jacket	Detail top
89	169.95	34.95	129	199	129.95
129	289	59.95	129	189	139.95
149	229	29.95	119	199	119.95
249	149	35	149	189	149
154	209.2375	39.9625	131.5	194	134.7125
				Average	\$143.9021

Sample table used to map average retail pricepoints against retail presence

Brand	Retail presence	Pricepoint (\$)
Dotti	120	69
Cotton On	300	50
Sportsgirl	108	84
Supre	142	36
SES	43	17
Forever New	52	93
Bardot	120	70
Ice	74	28
Temt	70	32
Chicabooti	34	32
Kmart	170	36
Valleygirl	75	31
Portmans	110	95
Target	283	33
Cue	230	185
Witchery	143	132
JayJays	212	29

APPENDIX F: THINKLIFECYCLE

Fashioning the Future Awards 2011: Winner 'Unique Enterprise' Award

Alice Payne

Technical Submission: 2500 words Explanation

www.thinklifecycle.com

Website and Content Management System



Introduction

Conversation, collaboration, innovation – promoting life cycle thinking in fashion design process

This technical submission of a website and content management system proposes a way in which the existing design processes of mass-market designers can be extended and redirected for sustainability. The aim is to build the capacity within the company to consider life cycle thinking. ThinkLifecycle is an internal knowledge base and conversation platform that can be customised to a company and their unique mix of people, skills and experiences. Inspired by social networking, ThinkLifecycle is a Content Management System (CMS) that can be installed on the same server as a company's existing website. From here, registered users (i.e. company staff) can log in to post images, links, comments and articles or to flag concerns. Questions include: how can we reduce waste? Can we offer services such as hiring or collecting the garment at end-of-life? What other fibre options can we explore? This conversation can evolve into a knowledge base, one that is unique to the needs of the company and unique to the group of individuals who built it. The content is structured according to the garment life cycle, from cradle (fibre) through to end of life (grave) and beyond to upcycling or closed-loop recycling systems. Through tagging content according to elements of the garment life cycle, users are encouraged to think more holistically about where responsibility for garment design can begin and end. Staff can communicate across departments and across stores to develop new collaborations, which can in turn lead to innovation in practices.

The Mass-Market

The ThinkLifecycle CMS grew from the need for sustainability to be a central concern within the mass-market design process, rather than a tacked-on extra. Mass-market fashion is affordable, accessible and democratic. However, it is based on a linear model of production where resources are extracted *en masse*, manufactured into garments and then sold to consumers, who rapidly dispose of them to purchase new product. This mode of production does not acknowledge that the resources used to manufacture garments – land, fibre, water and fuel – have physical limits. In 2050, the global population is predicted to reach 9.3 billion people, all of whom have the right to be clothed and fed (United Nations Development Programme and Office. 2011). A fashion system predicated on wasteful throughput of material goods is not only irresponsible, it is unviable long term. The Fashion Futures 2025 report (Bennie, Gazibara and Murray 2010) predicts how the fashion system may change in response to a world of rising population, changing climate, and of food, fibre and fuel scarcity. In this reality, external environmental and social pressures will push mass-market companies to explore sustainable strategies through necessity. Currently, companies are already feeling the impacts of higher cotton prices and the higher cost of Chinese manufacturing (Bryant, Kellock and Zimmerman 2010). The days of cheap fashion are numbered – so what can steps can a mass-market company take now to adjust to the new paradigm? For this time of transition, this submission proposes a way to educate, communicate and build capacity within an existing fashion company to implement sustainable strategies.

Life cycle Thinking

Life cycle thinking is the starting point. To think in terms of life cycle means to consider the inputs and outputs of a garment. What are the impacts of the fibre and textiles used to make the garment? What are the outputs of the garments – what are its environmental impacts during its use phase, how can it be reused, or eventually disposed of? Speed is also a consideration; for example, faster items can

they be designed to disassemble at end of life or designed to be closed-loop recycled, while slower, classic pieces can be repairable, alterable and designed to last (McDonough and Braungart 2002; Fletcher 2010).

Gwilt (2011) explores three areas that need attention in order to engage fashion designers with sustainability. First, designers need to be able to identify sustainable strategies, and to understand them as being integral to the design process, and not just an add-on. Second, sustainable strategies need to work in tandem with fashion and production processes. Thirdly, she suggests for designers to apply life cycle thinking to their design brief. Gwilt writes, “ultimately, the designer needs to accept that the design brief must extend beyond the economically driven conventional criteria to include criteria that will meet the needs of the environment and society” (2011, 72). At the simplest level, thinking in terms of life cycle encourages designers within the fashion system to consider the environmental and social impacts of the garments they design.

However, in a more profound sense, life cycle thinking can expand notions of what a sustainable fashion system as a whole could look like. Fletcher writes that life cycle thinking “sees garments as a mosaic of interconnected flows of materials, labour and potential satisfiers of needs and not simply as isolated resources, processes or sources of one-off environmental, social and cultural impact in production”(2011, 170). To embrace this, the viewpoint of all actors in the fashion system would need to be expanded from narrow self-interest to frame “sustainability problems as interconnected issues extending beyond the boundaries of individual companies or even industries” (Fletcher 2011, 171). As such, the health and sustainability of the entire system takes priority over reducing the impact of individual life cycle phases of particular garments. However, to get to this point will take time, particularly in the high-volume, high-turnover mass-market. Life cycle thinking remains the starting point. As Gwilt writes, “while a perfect model for creating sustainable products does not exist as yet, the *current* objective must be to minimise negative and maximise positive impacts” [italics added] (2011, 69).

ThinkLifecycle CMS

First it is necessary to introduce the notion of life cycle thinking to a company, and this is the primary aim of the ThinkLifecycle project. While a number of mass-market companies already implement life cycle thinking to some degree (for example, Patagonia, Marks and Spencer, Levi Strauss and Nike), many do not. Once the ThinkLifecycle CMS software is installed, it encourages each company to develop internally their own unique sustainable strategies framed by the notion of life cycle thinking. The idea comes from the social networking culture of wikis, Facebook, blogs and Twitter, which have opened up new channels of communication globally. In essence, ThinkLifecycle CMS is like a company's personal social network devoted to discussing sustainability. An example of the CMS interface can be viewed at www.thinklifecycle.com by clicking on the 'Online Demo' link. Also, the website www.thinklifecycle.com and the online demo CMS contain resources and links to kick-start a company's own investigation into sustainable strategies.

Steps to using ThinkLifecycle

1. The ThinkLifecycle CMS is downloaded from www.thinklifecycle.com and installed upon the company's web server. If desired, a log in link can be added to the company's existing home page to allow users to log in to the CMS remotely.
2. It can be customised according to the company's needs, e.g. company logo added, additional threads added to direct the forums and starter knowledge base pages added.
3. Users go to the log in page to register. They are emailed a password and can then add their own content or post comments on Knowledge base pages, Blog posts or in the Forums.
4. Phase 1 – Conversation: users begin a conversation related to sustainability, fashion and the garment life cycle within the Forum and Knowledge base.
5. Phase 2 – Collaboration: ideas that emerge in Phase 1 may have the potential for application. The people involved in the initial conversation

collaborate to develop the idea. They can do this in their own Forum thread or via a dedicated Blog.

6. Phase 3 – Innovation: The idea is pitched to management. Some ideas may be simple to implement, others may be far more complex and involve discussions across departments.

Forum

The forum is where the conversation can begin. Starter threads in the Forum may include:

- Where can we reduce waste?
- What alternative fibres should we look at?
- What are we doing well?
- Where would our biggest environmental impact be?
- What excites you about fashion?
- What is sustainable fashion to you?
- What other people doing in this area?

How the conversation evolves will depend on the unique mix of individuals within the company. It may at first be very general before developing into specifics. Tags related to life cycle can be added to the posts.

Examples:

- A user writes on the forum that fashion can't be sustainable because it is always changing. They tag this under 'speed'. Someone else may respond that 'you have to start somewhere', and in their view recycling has a lot of potential. When asked to give some examples, they add links to designers that have used upcycling or donated collected garments to charity. These links may be flagged by another user as a potential addition to the Knowledge base.
- A knitwear technician comments on 'how can we reduce waste?' by mentioning the large volume of unused yarn from discontinued styles that is currently sitting in the warehouse. The design room manager suggests creating a page for the list of available yarn in the Knowledge base for a quick reference for design teams. This evolves into a discussion in a new forum thread as to the reasons why this wastage occurs in the first place.

Knowledge base

The Knowledge base can be built by the users for the users. Here links, text and images can be posted to provide ideas and inspiration for sustainable strategies. As it is built collaboratively, the research can be added to in stages and the load shared amongst many users. This is built on a wiki structure, allowing a user to upload content such as text or images in a 'what you see is what you get environment' with no HTML knowledge required. Pages can be added with a single click. Content is tagged according to phases of the life cycle.

Examples:

- A member of the technical team adds a page with a link to the supplier of new yarns she has sourced from alternative fibres such as milk, bamboo or soya. She tags this under 'fibre'. Someone else edits the page to add a link to an article on low-impact fibres. A retail store member adds a comment beneath that a customer came in that week and asking whether any of their garments were made from Lyocell. A designer may open this up as a forum thread, asking other retail staff for additional feedback on customers and fibre choices.
- A merchandiser in the company adds a link to an article from WGSN about new retail trends related to product service systems, such as hire services or styling services. She tags this under 'retail' and 'use'. A womenswear designer comments that her garments are too on-trend to be hired out as they have such a short use-by date. Another designer adds a comment suggesting an in-store recycling program for the faster pieces. A menswear designer comments that they could have an in-store tailoring service to help alter suits more easily to the customer. This can be flagged as an idea to take to Phase 2, and a small team of designers and merchandisers can collaborate on expanding on the idea before pitching it to management.

Blogs

An optional feature of the CMS software is the ability to host any number of blogs.

Examples:

- The administrator of the CMS has a blog where they give periodic summaries of ideas and comments that have come out of the forum conversations. Ideas can be flagged as potential strategies to move into Phase 2 collaborations.
- A collaborative project between members of several different departments may have a dedicated blog to keep each other updated and also to show the wider company how the project is progressing.
- A blog can be made available to the wider public for greater engagement between designers and end-users. Already many companies blog as part of their marketing strategy – a blog within the structure of ThinkLifecycle would demonstrate the company’s public commitment to developing sustainable strategies and describe their progress so far. In this way, successful Phase 3 Innovations can be promoted and celebrated. It also would allow customers to add comments and feedback.

Security, Support and Administration

As the CMS is held on the company’s existing web server, the content remains protected and cannot be publicly viewed without permission. Registered users have their own user name and password. The CMS administrator is able to assign levels of ‘permissions’ for users – e.g. some users can post in the forums or add comments, while others can also write blog posts and add to the Knowledge base. For additional security, a company may choose to run the CMS software only from their intranet.

Conclusion

This submission for Unique Enterprise is based upon the idea that there is no ‘one size fits all’ approach to implementing sustainable strategies within the mass-market design process. Rather, ideas and innovations can arise organically from within the company and its unique mix of individuals. ThinkLifecycle CMS intervenes at the site of the mass-market’s existing processes, aiming to encourage conversation about sustainability from within a company and to promote life cycle

thinking as a way to engage with sustainability. Through enabling conversations to criss-cross the company in new ways, unexpected collaborations and solutions can be nurtured. In turn, this can lead to unique innovations emerging from within a company. Visit www.thinklifecycle.com.

Click 'Online Demo' to view a demo of the ThinkLifecycle CMS.

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