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Shah, Karen

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Dilemmas of Development and the Reconstruction of Fashion

by **Dr Karen Shah** , Senior Lecturer in Fashion, University of
Huddersfield, 01484 473743 , k.l.shah@hud.ac.uk

Abstract

Sustainable development by its nature appears elusive. It seems the more we try to capture and pin it down the more it moves away from us leading us into murkier waters and all manner of contradictions. No more is this felt than in the fashion industry where we are presented with a number of oppositions. The fashion cycle renders styles obsolete before they have worn out generating waste and over-consumptive practices. But it can also bring into the fore practices that have resonance to sustainable development in terms of their location, orientation and consideration for the environment. As studies emerge considering the detrimental environmental impacts of the manufacture and consumption of new clothes, second-hand clothes have become a focus for research endeavours considering how they can be reincorporated into the fashion system and have resonance to an ever 'fashion' hungry consumer. This chapter discusses methods for the processing of second-hand clothes into fashionable items and, by drawing on the wealth of 'waste' materials through reselling, restyling and remanufacturing, argues that ways of re-appropriating them into a more environmentally focused fashion industry is possible and necessary. It sets out as it hypothesis that the global fashion system has value in its transformative powers but that damaging and exploitative forces are still preventing it from being a force for good. This is due to the nature of the items being produced, the way they are manufactured and how they are ultimately consumed and disposed of.

Key words: Recycling, Fashion, Social Enterprise, Waste, Second-hand Clothes

1. Introduction

Development is a tricky area. Its attainment and use as a source of inspiration can misguide us and render some practices, which in one historical or environmental context seem logical and 'normal', as antiquated and bizarre. Within a personal sphere this dilemma is often played out on the body with choices being made between 'traditional' forms of dress with those that embody a more 'modern' aesthetic. Within the home and our day-to-day life manifest in lifestyle choices, occupation and social status. Thus fashion and development are linked since our appearance/lifestyle are frequently seen as signifiers for our place within society and where along the developmental line we may find ourselves. We use it to judge how 'fashionable' someone is and equally how 'developed' on a global scale various nations, lifestyles and communities are. That's not to say this is right but rather to highlight the similarities between fashion and development theory. But fashion and development are also quite different. Whilst development is very much seen to operate on a linear progression fashion moves in a cyclical progression. It frequently renders practices and styles obsolete and then brings them back into the fore as relevant and contemporary again.

Second hand clothes are interesting objects to look at under the lens of fashion and development since they exist as something of the past. In many cases they have been discarded since they no longer represent the original consumers sense of self, may no longer fit or may have worn to the point of not appearing new or fashionable. In a postmodern context this has been viewed as a good thing. Identity can be changed, can be challenged and old stereotypes can be discarded just by discarding the old and replacing it with the new. However, there is also a major downside to this in that much waste is generated and much energy lost as we discard one identity in favour of another. This chapter will consider methods for the conversion of waste materials into saleable garments and in the process analyse the extent to which these practices may impact on our clothing consumption, disposal and reuse. Using a practitioner-led approach it will consider design and manufacture responses by the author to local (UK context) and global development and methods for the conversion of goods borne from a 'grobal' scenario into fashion products understood in a 'glocal' context. This will entail the evaluation of a number of products made from second hand clothes and previous initiatives dedicated to the conversion of trash into treasure. It will draw on the author's knowledge and experience relating to clothes recycling and bring into the debate issues to do with sustainable development, globalisation and design activism. It will argue that not only do we need to look into our production systems on a global level but also need to consider what can be done on a local level. This can be achieved by considering our relationship to technology, development and fashion.

In particular this will involve the evaluation of a clothes recycling project established by the author, Ketchup Clothes (Figure 1), and the opportunities that exist in clothes recycling. In devising a methodology for the research it draws on methods of

grounded theory and design activism and proposes techniques that have proved successful in the re-appropriation of waste textiles. In the process it is hoped that values pertaining to the construction of fashion may path the way to more environmentally friendly systems of consumption, use and disposal and turn processes of horror into ones of joy.



Figure 1: Garments made from Recycled Clothes - Ketchup vs AntiForm: Alternative Fashion Show, London, 2008 (Image: Author's Own)

The chapter progresses through a discussion of fashion and the way in which it renders styles obsolete before they have naturally worn out. This sets the context for the discussion of techniques presented within the case study of Ketchup Clothes in which practical issues to do with the physical recycling process are presented. Taking a practitioner-led approach to research this deals with issues encountered in establishing a viable social enterprise and draws on data gathered from financial records and activities carried out from 2006. At the root of the discussion is the idea that clothes made from recycled materials don't necessarily need to symbolise a 'poor' aesthetic but can be celebrated and provide us with alternatives to mass produced clothing. Whilst production systems place many of the outputs from clothes recycling in a niche and even couture market this doesn't necessarily need to be the case. Changes are needed in our attitudes but with greater understanding of sourcing streams and the salient qualities of recycled clothes greater acceptance of the practice may become more mainstream and widespread. Thus consideration for the global as well as the local environment is needed.

The presentation of data and images, taken from practices of reusing second-hand clothes, provides for discussion and the recommendations for mainstream adoption. This includes material data on the types of second-hand clothing found to be successful in remanufacture, financial data pertaining to the sustainability of the business model and viable pattern cutting/manufacturing techniques suitable for mass production. Styling techniques and discussion of the aesthetic of recycled

clothing is also provided in order to reflect upon methods for making second-hand clothing 'fashionable' again. These practices are further contextualised within the realms of sustainable development, globalisation and design activism. These activities are seen as having resonance with advocates of clothes recycling and thus methods of drawing theory into practice are considered.

2. Fashionable Development



Figure 2: Second-hand clothes market, Zambia, 1998 (Image: Authors Own)

In his book 'Stuff', Miller put forward the proposition that *"the problem with viewing clothing as the surface that represents, or fails to represent, the inner core of true being is that we are then inclined to consider people who take clothes seriously as themselves superficial."* (Miller, 2010, p.13) These words reflect a view towards fashion and the study of clothing that was generally representative of the academic cannon for many years. Despite key studies by social analysts such as Veblen (1899), Barthes (1957), Simmel (1957), and Bourdieu (1984) fashion writer Wilson (2003) bemoaned how fashion studies were often viewed as frivolous and due to their gender status much maligned in academic contexts. However, studies into fashion, and its associated conduits 'clothing ', have now grown and provide a wealth of investigation and deep thought (Kamamura, 2005; Harvey, 2008; von Busch, 2008; Bruzzi & Gibson, 2013). In its abstract form fashion provides a link to forces of development and activism (Wallace, 2010; von Busch, 2013) and as a production process feeds into notions of social equity and empowerment (Fletcher, 2007; Curwen, Park & Sarkar, 2013).

As clothing changes through the forces of fashion we see written on the cloth, etched into the seams and sculpted onto the body, the sum of our identities, our development endeavours and our hopes and dreams (Collin & Godfrey, 1998; Miller & Woodward, 2011). As stated by Goodrum (2001) the body becomes “... *a surface to be inscribed upon, transformed and manipulated by various hegemonic and institutional regimes.*” (Goodrum, 2001, p35). This link to hegemony is relevant to a reading of fashion due to the fact that choices over the design, production and consumption of fashion are primarily based around the proliferation of, mainly, capitalist fashion systems that dictate the materials we have at hand, the technology at our disposal and the opportunities for dissemination. Thus hegemony as a prevailing force, with the power to restrict and control, is prevalent in all areas of our lives. When applied to the body it is manifest in both our inner and outer selves, with the clothes that we shroud it in being representations of dominant modes of design, manufacture and consumption.

Hegemonic dress in this context is positioned within a set of ideals, legitimate or not; logical or not, that result in one dominant mode/style taking centre stage. Reaction and resistant to these dominant ideological and practical modes of production can be both subtle and explicit and it is the aim of this section is to discuss alternative and activist approaches to the production of clothes as a way of moving beyond hegemonic dress. Key to this is the extent to which methods of production and consumption can be more sustainable in their execution and feed into models of social equity. To become more sustainable and less hegemonic, it is argued, that we need to question existing modes of production and reclaim local design practices as a way of bringing about greater autonomy over what we are able to put on our bodies. To live in a global, predominantly capitalist, world, is to be constantly aware of how our lives and histories merge and this in turn impacts upon our identities as fashion designers, consumers and global citizens. Thus by analysing the relationship of objects to global processes, and those subsequently conceived in a local studio environment, we are able to comment on the value of social enterprise initiatives and approaches to design activism. To this aim reflection on the authors approach to design and the shaping of ‘fashion’ inspired objects is provided together with an investigation into how models of development have relevance to both our global and local selves. Analysing along the way the trajectory of materials borne of a global context and reshaped within a local context. Being able to read these items can give us insight into just where we are at with sustainability and the lessons that can be learnt from globalization (Lurie, 2000; Fry, 2009; Boradkar, 2010). A growing number of designers and consumers are moving away from what are seen as restrictive forces on their bodies to ones that are more liberating and meaningful to them as individuals. This involves them becoming active in their clothing choices.

2.1 Liquid Clothes

Bauman (2005) proposed that to live in the world today is to exist within a state of liquidity in which nothing is permanent and our identity, in particular, is subject to extreme ‘fluid’ forces. In viewing clothing within this context he argued that:

“ you must ‘lose the ponchos’ which were so much en vogue last year, since if you wear a poncho now, ‘you look like a camel.’ Donning pinstripe jackets and T-shirts is over, simply because ‘nobody’ wears them. And so it goes, if you don't wish to sink, keep surfing; and that means changing your wardrobe, your furnishings, your wallpapers, your look, your habits—in short, yourself—quickly, and as often as you can manage.”(Bauman, 2005, p 56)

This reflection on modern life proposed that we are now living in an age of liquid modernity. In this context identity has moved from a fixed to a fluid state and old stereotypes have become, if not obsolete, then challenged. Artists and designers, seeing the body as a canvas, have distorted old preconceptions of gender, race and class and proposed alternative visual spectacles of the self (for example, the work of artists such as Orlan, Sherman, Bowery, Wear, Shonibare etc.). These visions can provide us with inspiration as fashion designers as we consider the extent to which clothing can distort the body and add to the debate over western vs nonwestern, traditional vs modern, hegemonic vs non-hegemonic dress. These debates are relevant to the study of clothes made from recycled materials since the basis on which they are created would not exist if it weren't for the effect of fashion on the perception of a garments quality, value, relevance and usefulness. This discarding of the old for the new has come at a price though. The manufacture of fashionable items has generated mountains of waste, the export of which has displaced indigenous modes of manufacture and raised serious environmental concerns over the sustainability of such practices ((Sinha et al., 2010). As stated by Pickup (2007):

The detrimental effect of our lifestyles on our natural environment and the widening poverty gap across the globe is causing great consternation in mainstream society...we are beginning to assess with increasing concern the damage we are inflicting on our environment and the disastrous implications of our lifestyle choices for future generations. (Pickup, 2007, p. 2)

The purchase and use of second hand clothes has long been seen as a lifestyle choice in the western world and a signifier of beliefs centred upon thrift, make do and mend and a desire not to waste (Reily & de Long, 2011). The sense of projecting a retro look is also of importance. Thus second hand clothes have provided the focus for a number of research projects and analysis has been made concerning their environmental benefits (Farrant, Olsen & Wangel, 2010), their appropriation amongst younger consumers (Reiley, & De Long, M., 2011) and the impact of their export on economies such as Africa (Sinha, Beverley, Day & Tipi, 2012). As stated by Song and van Dyke (2013):

It was estimated that the purchase of 100 second-hand clothes would save between 60 and 85 new garments dependent of the place of reuse, The LCA showed that the collection, processing and transport of second hand clothing have significant impacts on the environment in comparison to the savings that are achieved by replacing virgin clothing. The reduction of impacts resulting from the collection of 100 used garments ranges from 14% decrease in global warming for the cotton T-shirt to 45% reduction of human toxicity for the polyester/cotton trousers. The results of the study thus show that clothes reuse can significantly contribute to reducing the environmental burden of clothing. (Song & van Dyke, 2013)



Figure 3: The Aesthetic of Second Hand Clothes, Brighton, 2004 (Image: Authors Own)

Studies similarly concerned with the environmental impact of using second hand clothes in turn have highlighted ways in which they have been used, in the process proposing models for the incorporation of second hand clothes into existing global fashion systems (Sinha et. al., 2012; Song & van Dyke, 2013). In the main these have led to the conclusion that current rates of overconsumption are unsustainable and to seriously reincorporate waste materials back into the fashion system requires a restructuring of present manufacture and consumption practices. A lacuna does exist within the literature, however, and this relates to knowledge concerning design processes and methods for making second hand clothes assessable within the mainstream and making them fashionable again. This involves investigation into pattern cutting techniques and methods of production and consumption. Examples for their use as couture items do exist (for example Guy Harvey, Junky Styling) and companies are emerging that investigate the viability of mass production (AntiForm; Goodone) but further analysis of these practices is needed to assess the extent to which the reuse of second hand clothes can contribute to environmental, social and economic sustainability.

2.2. Design Activism and Recycling

Part of the issue in clothes recycling is to get a sustainable loop working where waste is increasingly able to be incorporated into manufacturing and consumption systems. This can be problematic however, especially when distances between production and disposal are often so far apart and stopping clothes falling out of the loop can be so hard. Recycling is one way of entering this loop and for many is viewed as an activist activity (von Busch, 2008; Fuad-Luke, 2009; Julier, 2013;). It is often undertaken as an alternative to conventional modes of consuming new clothes and also a way of producing pieces that can be brought to the market place in new forms thus prolonging the natural life of the original piece (Ketchupclothes, AntiForm, Good One, Junky Styling, von Busch, Redmuttha etc.) In Ritzer's terms turning a 'nothing' into a 'something' by a process of glocalisation (Ritzer, 2004). At the root of this activism is often the desire to investigate anti-consumption approaches to clothing design, social enterprise and ways in which people are able to have without buying, make rather without consuming. This approach to design and production is often chosen over more conventional forms of make due to a concern with

overconsumption and a desire to tackle sustainability at a local level but for a global necessity. As such a conscious effort is often made to source only found or discarded materials and to practice local production by the establishment of design studios equipped with appropriate machinery. In many ways this form of production conforms to Ritzer's notion of glocalisation by being distinct in nature and similarly subject to pressures of globalisation in the form of mass acceptance, availability and price (Ritzer, 2004).

This form of redirective practice also appears consistent with notions of design activism and social enterprise, advocated by writers such as Julier (2013), Fry (2009), von Busch (2009) and Fuad-Luke (2008), who saw value in a reorientation of design practice and the embedding of design thinking as a way of solving wicked problems in this case landfill, air miles and unethical practices in global clothing production. For many it is done out of love for the industry and for the creative potential (and relatively low costs) that such design and production entails. Von Busch(2008), terming his approach to clothing production as 'hacktivism,' put this succinctly when he stated that:

"Hacking is a matter of dedicated and systematic curiosity of understanding a system, reverse engineering it, finding a suitable place for intervention, plugging in and keeping the power on. Hacking is to modify and advance a system because you love it, not because you hate it."(von Busch, 2008, p20)

Initiating change thus appears at the root of many activist definitions. Fuad-Luke, for example, defined activism as *"...taking actions to catalyse, encourage or bring about change, in order to elicit social, cultural and/or political transformations."* (Fuad-Luke, 2009, p6). The change here being the way in which we consume, produce and design. As a designer this has always been part of the game. As we adapt to innovations in textiles and modes of manufacture we change the shape and form of things. We mix up references to give a 'new' take on things and present these to an ever-hungry public. This, of course, in itself is not strictly activism since whilst the catalyst may be to encourage people to wear shorter skirts, for example, in many cases it is not going to be significant to bring about deeper social, cultural and political change. This is because we are changing the outputs of our endeavours but not altering the underlying implicit system of production and consumption. To do this means to radically change our opinions and structures of design to turn them from things of horror into things of beauty.

3. Sustainable Development and Design

Sustainability as a concern for development has seeped steadily into the human consciousness over the past few decades due to concerns over resource use, environmental degradation and the fact that for millions on the planet even their most basic needs are not being met despite years of concerted developmental efforts. As such a wealth of literature now exists concerning the application of sustainability to a range of disciplines from design, geography, engineering, sociology

and politics (Burrall; 1996; Charter & Fisher, 2001; Christie & Warburton; 2001; Dresner, 2002; Kutting, 2004). At the root of many of these studies is a reflection on the words of the Bruntland Report (1987) which defined sustainable development as 'development that meets the needs of the present without compromising the ability of future generations to meet their own needs' (World Commission on Environment and Development, 1987). Inherent within this quote was the notion that addressing present day needs should not negatively impact on our ability to address needs in the future. From a design point of view this implied that we needed to look closer at the effects of our present production and consumption patterns and where they have a negative impact seek to address this in terms of design, resource use and production (Datsweksi, Braungart, Papanek, Fletcher).

Sustainable development also embraces the notion that development goals should not be solely focused on economic gain but that less measurable indices such as quality of life, global equity and empowerment need to be paramount to discussions (Burrall, 1996; Datschefski, 2001). Much of this work implied a necessity to consider the identification and satisfaction of the needs of development – with the poor at the root of these discussions (Chambers, 1997). Papanek, (1983) for example, in critiquing the role of advertising and the hard sell of '*absolute necessities*' replacing luxuries, a result of economic development and globalization, reflected how '*most things are not designed for the needs of the people but for the needs of manufacturers to sell to people*' (Papanek, 1983, p46). He went on further to imply that the pursuit of capitalist and industry-based policies had not impacted upon the poor. In his seminal works, *Design for the Real World* and *The Green Imperative* Papanek put forward the idea that designers needed to re-orientate their efforts around meeting the needs of the masses rather than the elites. The reorientation or rethinking of design practices was later taken up by Fry in his work into Design Rethinking and the addressing of 'wicked problems'. Logically much of this work focused on a developing world context and a reorientation of design practices around notions of appropriate technology and an involvement of the poor within design decisions.

Much of the debate over sustainability in recent years has also centred on a critique of globalisation that is seen to place power in the hands of the few and has created unsustainable working practices (McLaren, 1998; Bell & Morse, 1999; Fischer & Ponniah, 2003; Ritzer, 2008). It is argued that as companies skip around the globe in search of cheaper and cheaper resources (including labour and materials) they leave in their wake fragmented communities and environmental degradation. These globalised practices also undermine local production which it is argued would lead to higher gains in the fight against poverty and would lead to a more indigenous development path. Attention has also been drawn to the problems associated with labour flight as more and more people quit the rural areas, seeking employment in ever more populated towns and cities. Much of this labour is absorbed in the informal sector, which campaigners argued offered little in the way of working rights, conditions or security (ILO). Advocates of globalization built their assumptions of poverty alleviation on the basis that countries needed foreign investment and

intervention to increase economic growth and should therefore embrace free trade. However, opposition to this approach pointed to the inequalities produced through this system and the fact that the gap between the rich and poor both in and between countries is growing. Studies showed how the richest 10 per cent (US households) had a combined income greater than the poorest 43 per cent of the world's people (approx. 2 billion people) (Bell & Morse, 1999).

This implied that whilst development was occurring for a select few there were still billions around the globe for whom these benefits were not being felt. Worryingly much of the power of development lay not in the hands of countries but in the organization structures of corporations. For example The World Social Forum (2005) emphasising the power of transnational highlighted how :

In terms of sheer scale of economic activity, the giant corporations now rival all but the largest countries. Comparing corporate turnover to national GNP, 51 of the world's top 100 economies are corporations...Using this measurement Walmart is bigger than Indonesia, General Motors is roughly the same size as Ireland, New Zealand and Hungary combined. (Fisher & Ponniah, 2003, p.55)

Campaigning groups, non governmental organisations (NGOs) and forums such as the World Social Forum sought to quell the growing tide but much of the strength of these organizations knew no boundaries. Anti-global activists (*examples*) felt instead that there was a need to restrict some of this corporate power at all levels of local, national and international interaction and increase the power of the majority classes i.e. the workers, family farmers and small business sector. At many levels this was the result of damning critiques of neoliberal policies. Fisher and Ponniah (2003) continued stating that:

In a world of rapid globalization, where large corporations grow more powerful in their pursuit of economic expansion and profits, there are growing networks of concerned activists who are not dazzled by the promised land of globalization. They are alert instead to the dangers globalization presents to justice, cultural autonomy and the environment ...they work to make visible the damage and danger wrought by rampant and unexamined economic expansion. (Fisher & Ponniah, 2003, p.2)

The transfer of inappropriate technology, which has displaced vast swathes of labour, the promotion of westernized modes of production and the embracing of a consumer culture were also oft cited reasons as to how inequalities, conflict and environment damage arose. The phenomenon of this drive to mass production and to consumption beyond our basic needs it was argued led to the extraction of resources beyond the planets capacity and studies uncovered some disturbing facts about the future if production and consumption were to continue at their present rates. For example, predicted figures for 2050 highlighted how in order to satisfy Britain's energy (CO₂), we would need just over 8 planets to sustain global

consumption (McLaren et al., 1998). These thoughts are mirrored Wagernagel and Rees's study(1996) *Our Ecological Footprint* which stated how:

The accelerating resource consumption that has supported the rapid economic growth and the rising material standards of industrialized countries in recent decades has, at the same time, degraded the forests, soil, water, air and biodiversity of the planet. As the world becomes ecologically overloaded, conventional economic development actually becomes self destructive and impoverishing. Many scholars believe that continuing on this historical path might even put our very survival at risk. (Wagernagel & Rees, 1996, p3).

3.1 Design Debates

Readings of sustainable development theory thus led to a conclusion that more needed to be done to incorporate key issues into design practice, particularly where they related to resource use, orientation of design and production processes and product design. As argued by Datschefski (2001) '*Most environmental problems are caused by unintentional side-effects of the manufacture, use and disposal of products*' (2001, p16). Thankfully steps are being taken to fully assess the product design loop and as a result interesting research and sources of inspiration have emerged that consider an analysis of all stages of the design process from concept through to finished piece and the environmental impact of these processes. Of key importance and relevance to designers is the Life Cycle Analysis model (LCA) which looks into resource selection, production, use and disposal of a product. It also seeks to draw into the design equation impacts on environmental, social and economic damage (Brezet & van Hemel, 1997)). This approach, however, entails a closer look at our design practices and the incorporation of other disciplines and interest groups. For example, Fletcher et al. (2001) in their study of sustainable consumption in design reflected on how;

Lifecycle thinking necessitates a high level of design competence, intelligence and communication, supported by the involvement of new design partners such as community groups, the coming together of formal disciplines as diverse as anthropology and environmental science and bonded by the traditional, creative, organizing skills embodied within design. (Fletcher et. Al., 2001:214)

It is generally recognised that the largest impact on sustainability occurs in the use phase of a product (Laffan, T., 2003), for example in clothing it is estimated that almost one hundred per cent of pollution and water consumption occurs in the use of an item due to washing (Fletcher et al., 2001). Organisations and companies have thus sought to develop of tool kit approach from which to make and inform design decisions. This includes a closer look at environmental management systems (i.e. ISO 14001), life cycle assessment, design for environment, remanufacture, environmental reporting, closed loop manufacturing process and the supply chain (Shaw, 2003). Datschefski (2001), for example, argued that products being

developed should adhere to following specifications in manufacture:

'Cyclic - The product is made from compostable organic materials or from minerals that are continuously recycled in a closed loop. Solar - The product in manufacture and use consumes only renewable energy that is cyclic and safe. Safe - All releases to air, water, land or space get taken up as inputs for other systems; Efficient - "Tomorrow will be Less" - Philippe Starck The product in manufacture and use requires 90% less materials, energy and water than products providing equivalent utility did in 1990; Social - Product manufacture and use supports basic human rights and natural justice' (Datschefski, 2001, p5)

Addressing the issue of waste McDonough W. & Braungart, M., (2002) argued that:

'To eliminate the concept of waste means to design things - products, packaging and systems - from the very beginning on the understanding that waste does not exist ' (p104)

A very laudable caveat but one that is harder to put into practice after years of relatively wasteful design solutions based on inbuilt obsolescence and fast fashion trends in manufacturing and design. Increasing environmental issues are being aligned to ethical concerns and thus sustainable design can only really be spoken about in terms of its contribution to sustainable development – be this social, economic, cultural or political.

3. 2 Designing for Sustainable Development

Designing for sustainable development entails investigation into the identification of development needs with an emphasis on participatory design methods – to ensure that the products being produced are appropriate to both local and global needs. It is also aligned to ethical design in that it forces designers to reflect on production and trading issues. As such ethical design is closely related to the power relationship within the process of design, manufacture and consumption and is most commonly expressed within terms of working conditions, wages, expectations and job satisfaction. It has been closely linked to fair trade and mainly came to the attention of the public through campaigns into coffee and bananas. This has more recently been applied to other products namely clothing and handicrafts. Ethical design also aims to redress imbalances between and within trading structures and in particular in the addressing of poverty. Ethical design also seeks to engage the consumer in the production of a given design and ultimately make them question the mechanisms through which the product came to be on the market place. Within this context issues relating to the distribution of profits, intellectual property rights and working conditions become paramount. These issues, as it can be imagined are very complex but are mainly concerned about ways of helping the poor to move out of poverty through trade and not aid and of making a stance against countries and companies that exploit cheap labour and bad working conditions for the sake of profit (Labour behind the Label, 2007).

Ethical design, however, makes a few assumptions which can present difficulties in our understanding of what makes something truly ethical. Firstly it assumes that trade and not aid is a laudable goal and secondly that the products produced as a result of this intervention contribute to sustainable development. This causes a problem in our understanding i.e. can we have an ethical china cat arguably embodying western ideals and what significance does this production have on long held traditions and communication of ideology. Should it not also be about relationship of the producers to the product, markets and aspirations? How can we design when we have little comprehension of what the product does¹? Would argue this is where fair trade lobby could do more, and especially reorientation towards home markets and developing tools for development that has greater meaning and relevance.

Eco design follows on from ethical design although an environmental angle is added to the point where it is often defined as a product having limited impact to the environment in terms of emission of toxins, generation of waste and that the manufacture of any component shouldn't have detrimental impact on our carrying capacity and sustainability. This implies that the production, consumption and disposal of the product shouldn't contribute to further environmental degradation. In many cases this would entail a major reorganization of production and consumption practices, which in most cases have been set up to maximize profit and gain rather than to contribute to sustainable development. It also implies a closer look at materials and technology employed.

Further design debates that have a resonance for sustainable design and development include issues relating to disposal, remanufacture and performance. Designing for disposal is greatly influenced by the debates surrounding waste and the need for biodegradability. It entails asking the designer to consider issues relating the life cycle of a product and how it and its manufacturing components may be disposed of. This thus entails a closer look at materials used and how it may be disposed of in innovative ways and sustainable ways. This could be aided by product exchange, modification and modularization. The use of biodegradable materials, eg corn starch and the questioning of the nature of inbuilt obsolescence can also go a long way to ensuring that the products we make and consume today are either treasured and used for their natural life or able to be disposed of safely and without threat to current and future capacity. This area draws on the work by Chapman (2005) and the challenge of developing products that are emotionally as well as technically durable. It makes us question the nature of inbuilt obsolescence and helps us critique the logic of fast fashion. Following on from a need to ensure the safe disposal of products is perhaps the need for products to be remade as certain mechanical and aesthetic elements of a product break down or become obsolete. Interesting outcomes can be achieved through taking this approach.

¹ Fieldwork uncovered a woman weaving a table cloth from nettles. She owned no table little less have an idea of why anyone would want such a thing [Dennis, 1999]

4. Globalisation and Recycling

Many economists, writers, artists, and philosophers have explored globalisation as a process and critical framework for discussion over the years (Rostow; 1960; Shonibare, 2004; Bauman, 2011). However, the manner and means through which it has been promoted has been strongly criticized and it seems that definitive proof that it has been a success still very much lies in the balance (Papanek, 1971; Chambers, 1997; Monbiot; 2000;). It has been argued that globalization has been akin to Americanisation and that rather than solving the problems it set out to achieve, such as poverty alleviation, employment and income generation, it has actually exacerbated them (Ritzer, 2000, Lee, 2005). This has been attributed to the fact that the logic of globalization has, in many cases, been aligned to the logic of development, which in turn has been aligned to the logic of modernization and economic growth (Schumacher, 1978; Sachs, 1992). Tracing its roots back to Rostow's infamous stages of growth, where he charted out the path to mass consumption and leisure, the mantra emerged that you couldn't have development without economic growth and the easiest way to do this was through mass production where economies of scale gave greater profits (Rostow, 1960). Bringing down labour bills and penetrating global markets became a priority as companies outsourced to countries where labour was cheap and employed rigorous marketing campaigns on 'undeveloped' nations. Consume our product and you too will become a global, modern citizen they seemed to be saying and consume we did. Nowhere has this been more prevalent than within the fashion industry. Globalisation has brought its advantages and allowed for all manner of amazing communications and connections. It has opened up the world and at the same time made it smaller and more accessible. Sharing and engaging with global products has fostered a homogeneity that has given an impression of harmony, that we are all the same, that old differences and conflicts are dyfunct, we can be like the 1980's Benetton adverts if only we bow down to the god of globalisation.

Ritzer (2003) provided a compelling discussion into ways of viewing items made under the guise of globalization citing two dependent but very distinct processes namely 'glocalisation' and 'grobalisation'. These he argued gave way to the production of 'something' and 'nothing' respectively. The 'something' borne out of 'glocalisation' being '*generally indigenously conceived, controlled and comparatively rich in distinctive, substantive content*' whereas the 'nothing' from 'grobalisation' was '*generally centrally conceived, controlled and comparatively devoid of distinctive substantive content*' (Ritzer, 2005). This provides an interesting context within which to analyse garments derived from a traditional, local setting with those borne out of a global, mass production system churning out millions of the same shade, cut and finish - dilemmas between the two modes of production having been a source of much discussion by sustainable fashion experts and designers alike (Fletcher, 2007; Curwen et.al., 2013; von Busch, 2013). In seeking to become more sustainable the questioning arising over which methods holds the most promise for a more sustainable future.

Globalisation, Ritzer argued, originated from an entity wishing to grow but from a centralized position and usually for economic growth and profit, citing examples such as Starbucks and Macdonalds as companies who had adopted this approach. The 'nothing' they produced being defined by its sameness to other products and perpetuated by the establishments of non-places, such as shopping centres, non-people, such as telesales operators and non services, such as credit cards. Companies such as Primark and H & M, and the clothing they produce seeming at home within this context. Glocalisation, attached initially to Japan's appropriation of global products in the 1980's, on the other-hand was defined as a local interpretation of the global resulting in unique outcomes in different geographic areas. It was found more likely to be undertaken under social enterprise structures that placed emphasis on the integrity of the product and its links to social, political and cultural values of the producer². The resultant 'something' being seen as intrinsically more valuable and distinctive but potentially of much less appeal to a wider audience, usually due to cost, distribution and availability (Ritzer, 2003). There are obviously value judgements embedded in these thoughts, and critics have highlighted how in many instances the poor, whom globalization was meant to help, do not perceive the products from globalisation as 'nothing' and don't have the resources to engage with the glocal products (Rumford, 2008). For them eating in MacDonalds, shopping in Primark is preferable, by nature of being accessible and more democratic, to elitist delicatessens and exclusive designer-wear. Also could it not be argued that this is the dream of design for all proposed by Papanek all those years ago (Papanek, 1971) - positioning people, objects and places as 'somethings' and 'nothings' merely showing elements of snobbery and elitism (Rumford, 2008). Especially when there is such an economic argument to people's access to certain products and services – if you don't have the money you are not in the game. However, of course the potential for a democratic outer has been seen to hide a darker, undemocratic inner when we consider the policies and production environment under which they have come about (Ritzer, 2000; Monbiot, 2008).

We all encounter the 'nothings' from globalization. They are the drinks container bought to hold our morning coffee only to be discarded 15 minutes later. They are the high street bought dress discarded after a few wears due to changes in body, identity or just to keep 'on trend'. They are the many products designed with inbuilt obsolescence in mind shorting their life and condemning them on some distant scrap heap (BAN, 2002). They are the things that those concerned with sustainability bemoan and despair against and they are becoming globally more freely available. Writers such as Braungart (2009) were right in their contention that waste needs to be eliminated from the design process and that more needs to be done to tackle issues to do with waste, particularly as they apply to clothing and its production and disposal (Fletcher, 2007). Many interested in sustainability within the clothing industry advocated a 'closed loop approach' as the only way to address the vast environmental problems associated with inbuilt obsolescence (Reiley, K., & DeLong, M., 2011). Raising the question of how to get this loop working, especially when distances between production and disposal can be so far apart and stopping clothes

² Fair trade products could potentially be viewed under this context where emphasis is placed on the locality of production and the unique qualities that arise from this.

falling out of the loop can be so hard. For many this debate extends into the role and use of technology and its impact on our ideology proposes more activist approaches to the incorporation of both aspects into our production systems

4. 1 Technology & Ideology .

The impact of technology on our production systems and their overall appropriateness to social, political and economic goals has been a hotly debated topic over the years. From the class struggles outlined by Marx (1873), to the scale of manufacture discussed by Schumacher (1973), to the horrifying yet at the same time beautiful images by Edward Burtynsky (2006) of our manufactured landscapes, it seems that technology, be this hardware (equipment) or software (knowledge bases), has shaped the way we work and play. No more can we ignore the fact that, through the use of technology, mass production now reigns supreme and we have created systems that are so much more than their component parts. The fashion industry has been both a victim and champion of this approach and as our hunger for consumable goods gets bigger and fashion cycles get smaller styles and products are duplicated and disseminated by means of technology to an ever-consuming 'client' base. It seems that we cannot escape from the fact that fashion is now an essentially 'mass' production system like any other industry with drivers coming from technical, social and political imperatives. Under the definitions of ideology the following have relevance to our understanding of how technology works in society namely:

- *A medium through which a culture shapes its world*
- *A process whereby a culture produces meaning and roles for its subjects*
- *False values used to keep people under control*
- *The presentation of cultural constructs as natural facts* (Cavallaro, 2001, p76)

Heidigger (1977) in his quest for the essence of technology provides definition in terms of technology being both *a means to an end* and *a human activity – an instrumentum*. Citing causality in relation to technology he proposes four causes namely *materialis, formalis, finalis and efficiens*. This links to the material or matter of the technology, the form and shape it takes, its end use and the realised final piece. When these are realised the technology is brought forth into the market place and by doing so enters into a process of revelation "*Technology is a way of revealing.*" (Heidigger, 1977, p.5)

Research into the adoption and diffusion of, what were seen as more appropriate or intermediate, technologies highlighted the importance of indigenous development, manufacture and dissemination to the fulfillment of more social and political concerns. Economic gain also tended to follow but where it related to notions of quality, 'tradition', sustainability and empowerment it had the most success. Thus we need a rethinking of how we make, consume, dispose of and engage with 'things'. Recognition that in a fluid ever changing state of how 'things' can become embedded in a narrative and used as a benefit to society, there are many different

modes of making, an investigation into which can point the way to new perspectives on their roles.

4. 2 The Global Denim Project : A Detailed Exploration in Recycling

Involvement with the Global Denim Project was centered upon the creation of new denim garments that would allow for a further exploration of how the material of denim could be transformed and the life cycle of the material extended (Miller & Woodward, 2011). Jeans discarded by participants of the research project were cut in half with one leg being used to test the physical materiality of the items (i.e. in terms of strength and length of time before the material would naturally degrade) and the other being used to test the psychological materiality in terms of participant's attachment to the objects. Since all of the participants were discarding the objects a key aim was to convert all of the legs into something 'new' but drawing upon narratives from interviewees as inspiration for the design process. To begin the design process research and development was carried out to establish inspiration for form and shape and the type of garment to produce. An interview was conducted with a customer who was looking for someone to convert jeans that no longer fitted



him, into a garment he could wear on stage and would fit into his lifestyle as a drummer in a band. A waistcoat with a large sheepskin collar³ was developed and reactions gained (see left). When questioned the client expressed his joy at the use of details that to him had been very important on the original pair of jeans. He recounted stories of when he first bought the jeans and details such as pockets and frayed edges become interesting revelations as he tried on the garment and noticed them in unexpected places. He also expressed pleasure at the fact that the jeans were back on his body having been discarded in his wardrobe due to the fact that the fit was now wrong, out-of-date and they were a little tight

The design of this initial waistcoat led to the design of garments for the Global Denim Project in that importance was placed on the utilization of details and also consideration for the narratives that had been gleaned from the interviews carried out by Woodward. Within these narratives were tales of 'outdated' fits, a scruffy aesthetic no longer appropriate to their current lifestyle and in many cases a movement from a casual state into one that focused on their roles within a professional workplace. Within this context their own tired and outdated jeans became part of an old identity and thus destined for the skip or charity shop. Inspiration also came from an old 1980s Leigh Bowery jacket whose work was firmly embedded in the notion of transformation and helped to inform shape and style (Greer, 2005). To reinvigorate the material, and in the process the jean legs, a pattern based on a smart fitted jacket was developed to represent this transition from casual to professional. In an attempt to highlight the femininity of the cloth and

³ The sheepskin was found discarded in a bin and fitted perfectly with the 1970s theme and the customer's style and musical tastes.

to move away from the 'unisex' nature of some of the garments that the interviewees had expressed a desire to get away from, bust cups were inserted and a nipped in waist accentuated by pocket details and pin tucks running across the back of the garment (see right). Working from a flat pattern the jeans legs were cut to lay flat and the process of actually working with the fabric began. It presented several challenges not least because the jean legs were all from different weights and types of denim and also had many design features that needed to be cut around or incorporated into the final piece. However, generally the piece came together well and had merit in its construction and aesthetic appeal.



The waistcoat was developed in a more organic way and really did represent the waste from the research project (see right) The production of the jacket had utilized larger pieces of denim taken from the lower legs and had left more fixed, functional and secured design details such as zip and fly and waistbands behind. These were presented to the dress stand and manipulated in such as way as to construct a sleeveless jacket. In this state pockets got twisted and a jean waistband became a cowl neck. Working with material and old garments in this way can present challenges for the pattern cutter and maker since there is so much that is unknown about how the pattern will fit onto the fabric available and how details may be incorporated onto the body in places where they wouldn't have originally been - the waist as a cuff feature and pockets on the back of the garment, being examples of this. Of course this is also the beauty of this style of making since there is always an element of the unexpected, of the garment evolving before your eyes. There are times when a strict pattern is just what is needed and at other times a necessity to get onto a dress stand and mould the material around the body. Making it fit and altering finishing details so that the garment looks authentic, as something that has not just been patched together but has its own identity and style. We are never able to really leave the original garment behind but in its transformation we are able to learn something about its trajectory and how it may have been conceived and constructed in the first place. The meditative act of sewing also provides us with time to spend with the garment and the material from which it is made, as it was and as it will be. It allows for reflection into just how the items have come our way and what our role as designers may be for the present and future.



5. Putting Theory into Practice

As a designer it was never really expected that my practice would to be considered as particularly political but in becoming increasingly aware that the way in which I want to make things and the way in which I want my things to be consumed does have a deeper political and social edge. This was highlighted early on at the Leeds Festival of Design Activism (2009) Practitioner Conference that was “...*devised to give voice to designers, artists, architects, students, performers, activists, observers and users of socially and/or environmentally committed creative practices.*” (<http://www.designactivism.org/node/5>). In presenting a range of clothes made from recycled materials, and highlighting the issues involved in turning this into a viable enterprise, brought up many sticky problems to do with perceptions of value and quality, democratic design systems and the all important question of consumption. It was generally agreed through that within the set up and ethos of the enterprise there existed great potential particularly in relation to the way in which as practitioners we can deal with waste, social issues of exclusion and harnessing creativity for the many not just the few. Clothing became an important communicator in engagement with the public and a means through which wider social and environmental issues could be discussed and contextualized. Collaborations also helped in the establishment and continuation of similar enterprises that reaped interesting research outputs and conclusions.

So from a simple desire to just be able to make things and with a preferred tool of a sewing machine the salient features of the design process for me have always been tied up with re:use and re:cycling. It harks back to the days when my mum, an outworker, would spend hours making up grey school uniforms for a local factory, I would collect the off cuts, make them into something and the habit sort of stuck. The sewing machine became an exciting new friend. One that enabled me to craft out my own individuality and have something ‘new’ to wear that hadn’t cost a fortune but still looked good at the local nightclub. It liberated me and over the years has been a great comfort, a space to retreat to when the going gets tough and has fostered a familiarity and continuity rivaled only by my desire to get the practice more widely recognized as something that can aid in the fulfillment of development goals, be these individual goals of self actualization or more tangible ones of income generation and employment.

My first experience of the connection between clothing production and development came about through my involvement with Oxfam in the early nineties and in particular a project I helped to set up - NoLoGo. Through this initiative I helped out in the workroom and shop in SoHo, London, later set up a store in Leeds, worked with various different tailoring groups in India as part of Oxfam Trading and conducted a PhD into the role of textile and clothing production within development projects, conducting field visits in India, Nepal and Zambia. It fostered in me a belief that whilst engaged in activities such as sewing and making, other things can come into being. It may be that through an initiative, participants become more social, empowered and quite often it is so much what is doing made but rather the way in which it is being made. It makes us realise that what we have lost in this mass-

produced and consumed world is ability and even confidence to make things and that the space to make has in way become a political space. The following case study presents efforts to make clothes from recycled materials and the various techniques explored.

5. 1 Ketchup Clothes: A Case Study in Recycling

Clothes on the surface share similar attributes and do very much what they have always done. They cover our body, they keep us warm, they make us feel stylish, they make us feel out of date, they allow us to belong and they set us apart from the crowd. However, there is growing dissent from various quarters that all is not as it should be in relation to manufacture and consumption in the industry and thus this section examines the phenomenon of fashion and what happens to the waste, the leftovers that get discarded. Drawing on localised design practices, artistic tendencies and consumption preferences a collection of garments developed from the discarded materials is presented together with data collected between 2006/2007 from activities related to the establishment of a clothes recycling project. This period of time represents a point in the enterprise's history that was solely focused on its business viability and a period when most of the recycling activity took place. Whilst set back in time it has subsequently formed the basis for the contextualisation of the practice and a setting of it within an academic context. Plans for future development will draw upon findings from this period of manufacture and sales as a method for development of the model.

Ketchup Clothes was set up as an experiment in clothes recycling and social enterprise. The general hypothesis for the research was that current production methods for the manufacture and consumption of clothing is detrimental to the environment and this has resulted in a large amount of waste being produced. Recycling exists as a viable method for the conversion of these unwanted textiles and clothing into viable fashion pieces but the lack of information pertaining to methods of manufacture impact on its viability and sustainability. Opportunities do exist for clothes recycling to become more wide spread but more information is needed on how materials can be sourced, manipulated and ultimately consumed.

The overall aims of the project were to:

- Propose innovative methods for recycling clothes with a view to developing models of good environmental practice and determine factors that influence the disposal of clothing and identify viable sources for materials.
- Appropriate waste clothes and textiles into a viable fashion design collection and in the process investigate the nature of the fashion industry.
- Explore existing consumption and disposal models for clothing and highlight push and pull factors that impact on the generation of clothing waste.
- Establish a viable social enterprise and test the enterprise's sustainability in terms of income generation, poverty alleviation and empowerment. Use this as contextualisation for the extent to which theory relating to sustainable development can be applied to fashion practice.
- Disseminate information relating to clothes recycling within both academic and non-academic contexts.

5.2 Methods Of Enquiry.

Set up as a reaction to environmental concerns, and what is seen as an ever-increasing wasteful approach to clothing, methods of enquiry centred upon how items of clothing become discarded and seen as waste. As such it sought to explore approaches to sustainable design through the remanufacture of existing products – products that were recut to eliminate signs of wear and tear and that, for what ever reason, have been discarded by their previous owners. Set up as a social enterprise Ketchup Clothes also sought to explore alternative business models, particularly where they related to participatory design, ethical production and community/social involvement. Key methods employed included:

- Defining and sourcing waste clothes and textiles in order to reflect upon how they had come to be disposed of and to source materials for use within recycled items.
- Engagement in all stages of design, manufacture, marketing and consumption of recycling clothes.
- Exploration of design and pattern cutting processes in order to propose modes of production for various scales of manufacture.
- Engagement in outreach work in order to collate and disseminate information pertaining to the practice of clothes recycling and the fulfillment of development aims such as poverty alleviation, income generation and empowerment.

5.3. Definition and Sourcing of Waste Clothes.

In the context of the project waste in relation to textiles and clothes was defined as items either discarded as rubbish, items that were seen as second-hand, i.e. they had had a previous owner or were not longer wanted by someone for what ever reason. Thus methods for sourcing appropriate materials centred upon the following contexts:

- Discarded – this included items left out with the rubbish bins and on the streets.
- Charity shops/Second hand markets/Car Boot sales – main distributors of second hand clothes to the general public.
- Donated – old stock, remnants, unwanted items
- Consumers own items
- My own wardrobe.
- Sourced – where a specialist fabric was required such as fair trade cotton, organic cloth for a specific commission

Thus an important source of materials was from waste bins, second hand shops and consumers own waste. The following figure illustrates the contribution these different sources made to garments made and sold during the space of a year.

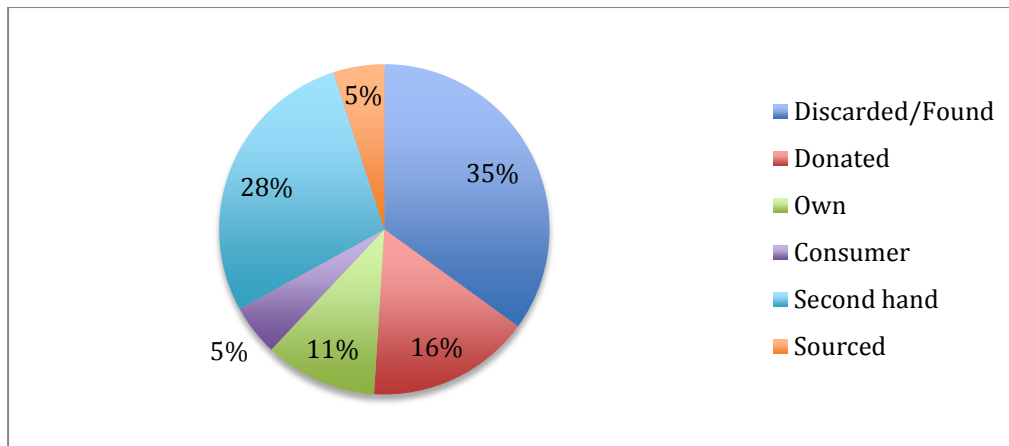


Figure 4: Breakdown of Material Composition of Garments

This demonstrates the predominance of discarded and second-hand materials and the variety of waste materials that can be incorporated into a fashion collection.

5.4. The Design and Manufacture of Recycled Clothes.

A key component for the research was to fully embed myself in the full range of activities relating to the design, manufacture, sale and consumption of items made from recycled clothes. Thus once sourcing of material had taken place the task of developing styles and producing them began. It soon became apparent that when dealing with recycled materials, and attempting to develop styles that can be replicated in a variety of manufacture scenarios, several problems present themselves. These include the following:

- There is often a lack of consistency in the materials sourced from waste streams and fabric will often vary in quality, surface design, weight, size and availability
- Garments are already made up and to get at the fabric that needs recycling necessitates the deconstruction of pieces. This is a skilled job that takes time and expertise.



Rips and Stains

Typical problems with using old T-shirts. These need to be eliminated by cutting out/embellishing over.

Figure 5 : Common defects in second-hand clothing (left)

Of course the trick with recycling is to embrace these inherent 'problems' and turn them into a positive. Thus lack of consistency can translate in design terms as uniqueness and originality. Similarly the mix of different materials can provide a strong aesthetic and also allow elements of what the garment may have been to come through. With recycled fabrics and clothes much of the knowledge about what to make comes from the material itself and thus the design process undertaken can vary from conventional processes. Methods of manufacturing process often directly define and influence the final design and can be used as a source of inspiration within the design process. Examples of responses to recycled materials are presented below.

Remodelled T-shirts

Cotton jersey has a strong affinity to the fashion conscious consumer. A comfortable, easy to wear fabric it moves with the body and can be printed, dyed and manipulated to give a modern aesthetic. It is a fabric that is recognised globally and understood by the consumer. As a choice for recycling it also has great potential and as such was used extensively within the collection. Mainly the jersey came from old t-shirts which were deconstructed, cut to lay flat and then remodelled into alternative styles such as dresses, trousers etc. T-shirts were sorted according to quality, colour and weight/handle of material. Stains and rips were then cut out and the resultant material was incorporated into a variety of styles. It utilised both flat pattern cutting and moulage (modelling onto a mannequin).



Figure 6: Examples of styles made from recut t-shirts (Image: Authors Own, 2007/8)

Other techniques included the deconstruction and reconstruction of existing garments into 'new' garments. Often this entailed a rethinking of how and where the garment could be placed onto the body and thus engendered an alternative aesthetic (Figure 9). The design intent for the items of clothing made from the sourced materials was to produce items of clothing that were democratic in nature, i.e. not couture pieces to be consumed by an economic elite but those that were affordable and understandable to the masses. If we are to counter negative influences, seen to derive from the mass production and consumption sector, then

this approach was necessary in order to test how the items manufacture and consumption may fit into this model. This approach was thus taken to analysis the acceptance of items made from recycled materials within a main stream, high street market and to look at viable production methods for getting the clothes to this market. From a designer point of view there was also greater affinity with this style of clothing and fitted into the authors previous work. Thus pieces were designed with a fashion conscious consumer in mind, one that was generally aged between 18-45 and one who had an empathy with the production methods used but didn't have masses of disposable income. There was thus a desire to engage with and mimic what was happening on the high street as a way of positioning the designs and proposing viable manufacturing methods.

Knitted T-shirts

A T-shirt is laid flat and using a cutting motion up and down the garment a thin ribbon is produced. This is then knitted on large needles to give the necessary aesthetic and handle.



Figure 7: Examples of recut and knitted T-shirt (Image: Authors Own, 2008)

Household Textiles

Opportunities for reusing household textiles including duvet covers, sleeping bags and table clothes were explored together with other items such as sarees and other lengths of fabric.



Figure 8 : Example of jacket made from sleeping bag (left) and discarded sarees (right). (Image: Authors own, 2008)



Figure 9: Process of Reconstruction and Remanufacture, Men's Jacket (Image: Authors Own)

5.5. Engagement in outreach work

Outreach work was seen as a vital method of enquiry as it provided insight into relevant development aims and afforded opportunity to work alongside potential activators of clothes recycling. These included people engaged in financial inclusion projects, school children and agencies keen to promote recycling. On the whole

outreach consisted of the delivery of practical workshops in recycling skills and the promotion of the outputs of the workshops through fashion shows and exhibitions. These included the display of samples of recycled clothes and the demonstration of techniques in shopping malls, festivals, market spaces and within the studio space itself. The place of production of the recycled clothes⁴ was located in what could be described as a deprived area and thus represented the sort of small-scale initiative that could be applicable to other national and international contexts.



Figure 9: Example of a recycling workshop in a retail environment, Leeds, UK, 2009 (Image: Authors Own)

Collaborating with local authorities, similarly minded organisation, NGOs, development agencies and community groups also provided a source of income for the project and contributed to its sustainability. Spaces of make and interaction thus also formed the platform for the communication of ideas and provided an important source of contextualization and analysis. Within this context it was found that the ways in which participants, particularly under the guise of development and financial inclusions projects engaged with clothing and its remake led the way to a transformation of self. This was also borne out by the ways in which the objects themselves were transformed and inspiration for this process came from the writings of Bauman and practitioners such as Sherman and Bowery (Greer, 2005; Bauman, 2005; Sherman et. al, 2012).

⁴ Leeds 6 is an area close to Leeds University, UK, and home to many students and a large Asian population. It suffers from many issues relating to social and urban deprivation, including poverty, unemployment and lack of investment. It has a number of small-scale creative enterprises involved in, for example, the music industry and fashion design – operating from small studios and bedrooms..

6. Conclusions and Discussion

The drawing up and positioning of conclusions in relation to the value of recycling, local production and its relevance to sustainability has come about through two dependent methodologies namely the review of secondary, theoretical debate and the examination of reflective thoughts derived from engagement in practical activities that are alluded to in the literature – including recycling, social enterprises and activism. Reflecting on the theoretical debate, this has been assisted by author's engagement with development agencies on a practical level and with producers operating in both the UK and abroad (including India, Africa and Nepal). Translating this into practical applications, approaches to development and the role of technology, in particular notions of 'appropriateness' advocated by development critics has also framed the nature and way in which garments have been designed, produced and consumed with an emphasis on community engagement, empowerment and poverty alleviation (Schumacher, 1978; Chambers, 1997; Fletcher, 2008) This has included the establishment of a social enterprise (Ketchup Clothes) to test notions of activism, the production and sale of a wide range of garments made from recycled materials found in the author's locality to gauge customer and market and the delivery of workshops to disseminate techniques as a way of reflecting on 'sustainable' practices.

The overall aim of this chapter was to present data and literature pertaining to the dilemmas of development and in the process proposes methods through which 'fashion' and its associated industry may be 'reconstructed' both in material form and structure. This included the proposal of methods for both the construction of garments made from second-hand clothes but also the need for sustainable practices to be embedded with business models. To live in a global world is to be constantly aware of our own lives and histories and how they may merge and blend with others. Within the context of the fashion industry relationships to modes of production, make and consumption form the basis for these globalized interactions and provide the focus for an analysis of sustainable practices. Taking a practitioner-led approach to design, and the production of cultural artifacts, this chapter drew on the author's response to clothing waste and provided reflection on almost twenty years of recycling under the guise of a social enterprise, Ketchup Clothes, based in the UK.

Drawing on a range of global and cross-cultural references this chapter also demonstrated how waste can be transformed into a thing of beauty and in the process provide insight into our relationship to clothes, technology and modes of disposal, production and consumption. The jacket and waistcoat developed as a response to the Global Denim project illustrated how the discarded jeans, through a process of deconstruction were converted into something 'new'. This newness grew out of the previous owners no longer having a use for the garments and a contention that they no longer fitted into changing notions of their identity and lifestyles. As such this case study provided insight into the global practices of wearing 'jeans' and the implications of changes in fashion to our perceptions and connection to denim

items and fashion obsolescence. Similarly the case study of Ketchup Clothes demonstrated how knowledge of manufacturing methods can lead the way to the development of a commercially focused and 'fashionable' clothing collection.

The relationship of the objects to global processes was thus viewed through the lens of sustainability and it was argued that production methods, especially those based in a studio environment, have the potential to impact on notions of social enterprise and design activism. To this aim reflection on the authors approach to design and the shaping of 'fashion' inspired objects was provided together with an investigation into how models of social enterprise may be developed to have relevance to global processes. Theories relating to aspects of liquid modernity and global identities will also framed discussion into how objects become personalised and lead to a transformation of self. Our relationship to development is also crucial particularly as it relates to our concept of the future. To this end we can draw on readings of the future from popular culture and consequently fashion (Piercy, 1979; Martin Margiela, 2010; Chalayan, 2008). In this we often see two dialectically opposed scenarios namely utopia and dystopia. We imagine that sustainability lies within the utopian realm of our world and thus dystopia becomes our foe.

In her utopian world and recounted in her book *Woman on the Edge of Time*, Piercy (1979) prophesized how clothing would perform two functions – it would be hardwearing, functional and made from natural materials. Agriculture and bioscientists paving the way for innovations in fibres that came naturally dyed and finished. The other function related to the need for attractiveness, uniqueness and individuality and to this end Piercy proposed extravagant and elaborate structures that were either vintage pieces shared around the community or one-of pieces that naturally biodegraded. In the dystopian world the distorted and exaggerated body forms dictated more by stereotypical rendings, were covered by garments that were derived from digital and virtual contexts and all about portraying an ever changing identity.

Whilst this is just a story, a piece of fantasizing about the future it does make us think about what is possible and just how far away from a sustainable future in fashion we may be. Elements of the story have come true – we can grow leather, we know which materials biodegrade, organic cotton is readily available, clothes swaps proliferate on the outskirts of the mainstream and much has been done to adjust modes of production to be more equitable and less polluting. However we also have elements of dystopia within the system. Workers rights are still routinely ignored, mountains of waste litter the road on the quest to be 'fashionable' and materials and finishes are not developed with the environment in mind. We have the knowledge but it seems that the political and social will to change things is still dormant.

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