

Towards a typology of waste in fashion practice: an Australian perspective

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Keywords

Waste
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Abstract

Waste in fashion is a material problem as well as a cultural condition. In this paper we offer a cultural perspective on waste transformation in fashion practices: what happens to waste, rather than where it goes. We propose states of transformation of waste: disguise, elevation and enchantment. These states are not a hierarchy but rather a typology to consider the kinds of material and cultural transformations that waste undergoes when revalorised through fashion practice. The study centres on the Australian context, and seeks to examine the ways in which Australian fashion retailers, designers, and community groups are engaging with clothing and textile waste. We identified forty-seven initiatives and explored their approaches to waste transformation. Through selected vignettes, this paper examines both the material processes and symbolic meaning behind the approach and its messaging, and offers reflections on the ideas of waste that emerge. Selected examples include large fashion retailers, independent and experimental fashion practitioners, and grassroots campaigns by local charities. Looking beyond the practical approaches to waste management, such 'reduce, reuse, recycle,' or the waste hierarchy, we explore ways in which these practices may 'disguise' waste, 'elevate' waste, or 'enchant' waste. Through this analysis, we argue for a perception of waste beyond that of inevitable by-product of the industry, towards waste recast as a potent force of loss and renewal.

Introduction

Drawing from various disciplines, including material culture studies, fashion theory, and anthropology, this paper develops a typology of waste in fashion practice in order to conceptualise waste as both a cultural and material force. By using the term 'fashion practices' we seek to accommodate not only production and design practices, but practices by fashion's wearers. This study extends our prior research proposing a waste typology (Binotto & Payne, 2017) through applying these ideas to the Australian context. In order to examine waste within Australian fashion practices, we drew upon multiple sources including magazines, newspaper articles, reports, social media and retailer websites in order to identify ways in which waste is utilized and represented (see Appendix 1, Table 4). These examples we assembled into vignettes of fashion practice: examining communication of waste among retailers, independent practitioners, community groups, and makers, with full lists provided in Appendix 1, Tables 1-3. The reflections on practice draw on theories from Bennett (2001), Hawkins (2006) and others to examine how these practices may 'disguise', 'elevate', or 'enchant' waste.

Defining waste and waste making in fashion Waste

The term 'waste' encompasses a range of meanings. Put simply 'waste' refers to "discarded, expelled, or excess matter" (Hawkins, 2006, p. viii). 'Waste' can denote a loss of value in material, practical, or symbolic terms; things can deteriorate, become useless, or lose significance. Hence determining something to be 'waste' involves making value judgements according to notions of order, "that change historically and differ from one culture or group to the next" (Hauser, 2002, p. 40). 'Waste' is therefore a state that things can move in and out of depending on context and according to who is judging. In this understanding, following anthropologist Mary Douglas (1966), the state of 'waste' is a category of judgment within a system of classification intended to establish order. Douglas considered it the nature of society to create categories for things according to systems of order, with 'waste' (though Douglas used the term 'dirt') being a category for matter that is "out of place" (1966, p. 36). Waste as matter "out of place" is therefore an inconvenience: it lingers, no longer needed or wanted. Waste needs to go or be put somewhere.

Fashion as waste making

Waste-making is central to the workings of the modern fashion system - from design development to production, consumption and disposal - and waste-making keeps the system in motion, relying on new to replace old (see Calefato, 2004, p. 123). Although no biological or human-designed system can exist without waste (Moser, 2002, p. 102), the contemporary fashion system is predicated on its production. Stylistic changes and the desire for newness keeps the fashion system in motion, with aesthetic devaluing of garments occurring as they are replaced by new trends and styles, particularly so in the era of fast fashion (Entwistle, 2009). In this context 'waste' is linked to practices of excess and abundance - wasteful behaviour - and is particularly significant to the problem of waste in contemporary first-world consumer societies.

Different types of waste may be created through fashion design process, whether energy expenditure, pollution and depletion of finite resources for fibre production and manufacture, textile scraps, offcuts and overproduction of stock, or prematurely discarded items that end up in landfill. As discussed elsewhere, waste may be nourishing, not only polluting, as fashion's creative excess can be harnessed and transformed into fresh ideas, and discarded clothing can be made new by wearers' revalorization (Payne, 2012).

Given the large volumes of post-consumer waste, repurposing this waste in fashion practice appears as the pragmatic, sustainable approach for designers. Recycled goods use less water and other inputs, and reused clothing can reduce energy by between 60 and 90 kWh per kilogram of fibre (Woolridge et al, 2006). That said, the scale of garment consumption and disposal is so far beyond the ability of recyclers to keep pace that recycling and recapturing waste is no long-term solution, but may simply "appease the 'green' conscience of another consumer" (Boscagli, 2014, p. 257). Rather, fashion's waste problem is systemic and related to wider economic goals that are incompatible with sustainability (Fletcher, 2011), and therefore profound shifts in thinking are required of individuals, industries and societies. However, in presenting a cultural typology of waste, we focus less on the functional aspects of utilizing waste, important though this is, and more on the social transformation that the waste undergoes. We propose three states that demonstrate what happens to waste when transformed by fashion practice, and in the following sections we discuss these with examples from waste in fashion practices in Australia.

Fashion and waste thinking

Australia and fashion's waste

Issues of overconsumption and textile waste are common to many developed, high consuming nations. However, in Australia they are thrown into stark relief. Australia has a small population over a large land mass, a hollowed-out

manufacturing base and a high consuming, first world customer base seduced by low-cost imported fast fashion products.

Australians discard an estimated \$140 million worth of clothes each year, with an average lifetime of three months per item (Ragtrader, 2014). Over 500,000 tonnes of textiles are annually sent to landfill (ABS, 2013). Fast fashion revenue in Australia rose 21.5% annually 2012-17, as since 2011 the overseas retailers such as H&M and Zara arrived in what was hitherto a market ignored by global retailers (Magner, 2017). With the increased speed of fashion production is a commensurate increase in textile waste to landfill. As reported by Leggatt-Cook et al (2017), Australian charities take the burden of the bulk of the waste or discarded clothing. They are struggling under the challenges of poor quality donations with high synthetic fibre content, and the traditional cotton ragging is growing more difficult. A portion of donated clothing goes to landfill, but much is also exported offshore (Press, 2017).

Within this context, post-consumer textile waste is recognised as a challenge and receiving increasing attention from industry, government and the media, for example, the War on Waste television show (2017). Despite growing public awareness, collaborations to promote garment durability such as the Sustainable Clothing Action Plan (SCAP) in the UK are not present in Australia. Instead, Australian charities and municipal councils are at the coalface of managing increasing volumes of textile waste. Although practices engaging with waste in fashion remain niche, we identified many examples of Australian initiatives (see Appendix 1, Tables 1-3) and below we describe several of these.

Disguising waste

One of the most common approaches to transforming waste is through utilising textiles developed from recycled feedstocks. With fabrics from recycled fibres, the fabric looks new and feels new, and it is only the communication around the product that reveals it as being made from waste: whether waste fabric, waste bottles, waste nylon fishing nets. This production method disguises the waste so that it may pass for a 'new' product. This mode of recycling can be seen as having a 'disguise' and a 'reveal', reminiscent of a magician's conjuring trick in which the new is revealed to be the old. The consumer is confounded to think that the puffer jacket was once coffee grounds, or that the swimsuit was once a nylon fishing net. In recycling of this nature the waste is captured and utilised, revalorised, but it is only through the storytelling around the object that its material origins are revealed. Yet as Boscagli (2014, p. 258) notes, industrial recycling of this kind may "alienate the object from its temporal and human context, its political economy, and its past."

Australian independent designers and mass-market retailers alike are increasingly including disguised recycled materials in their product lines. At the mass-market level surf brand Billabong's Recycler board shorts are made from recycled plastic water bottles, more than 80,000 of which have been redirected over from going into the ocean or landfill (Billabong, 2017). Footwear brand Kustom uses recycled rubber off-cuts for the soles of limited edition boots created in collaboration with conservation group Sea Shepherd. In these examples both board shorts and boots show no visual clues to their origin. Another approach to 'disguise' is that of using dead stock and pre-consumer waste offcuts, an approach taken by The Social Studio and many others. These fashion collections are produced in limited runs or as one-off designs. Again, the garments appear new, and only through the brand's communication is the clothing revealed as being made from industry dead stock or end-of-roll fabric.

Independent designer Rachael Cassar creates couture pieces from the fabric of secondhand garments through a process of deconstruction, redesigning and reconstruction. Through the creation of one-off, highly embellished pieces that are not trend-based, Cassar gives old and unwanted materials a new life and long-term value. Though valuing the humble origins of her materials Cassar's upcycling methods, which include over dyeing, can also disguise their provenance. Drawing from Lucy Norris (2005, p.101) who suggests the transformative value of cloth and second-hand clothing lies in the "ambiguities of its material properties, its colour, its strength and fragility, its capacity to absorb, to reflect, to be cut and restitch[ed]", Cassar takes advantage of the materiality of old clothes and fabric employing processes which disguise and transform in order to create unique showpieces with a story.

The notion of disguise becomes more ambiguous in the second-hand markets and vintage clothing shops in which donated or end of season clothes can be transformed back into fashionable attire, becoming 'as new'. Strategies of presentation and display of second-hand goods can work to create value in different ways and according to how the experience of shopping is valued for the consumer (Gregson & Crewe, 2003). Charity stores such as the Salvos style second hand clothing into on-trend looks, producing photoshoots and styling 'how tos' to promote the aesthetic revalorization of the wasted garments.

Elevating waste

A second stream of 'what happens' to waste can be seen when the waste is transformed into a new item, but its material origins as waste remain visible. The wasted object or item may be recontextualised, without changing its form, or it may be upcycled into a new object in a way that celebrates its past life. These practices 'elevate' rather than 'disguise' waste. Visible traces of a wasted or even abject item transformed provide the biographical insight that elevates waste, giving a value to the new product as well as revaluing the waste that was transformed.

The deconstruction of old clothes into new fashion has a long lineage in fashion design practice (Gill, 1998). In the Australian context, bikini designer Paula Stafford produced bikinis made from tablecloths and carpet in the 1950s (King, 2013), and in the 1970s designer Jenny Bannister reworked old khaki uniforms, in two of many examples. The upcycled design aesthetic, in which shapes or elements of the original garment are evident, is integral to the value of the new product. This kind of visible transformation is also a magic of designer conjuring. However, upcycled garments may not always be more valuable or successful than the original reclaimed garments. The elevation of the waste garments occurs through the cleverness in execution and the aesthetic success of the transformation: the success of which is highly subjective.

In what has been a long term global trend, many independent designers capture waste streams of pre or post-consumer textile waste, however it is those using post-consumer waste that are mostly likely to elevate the waste through transformation. Australian examples include Nawato, using mending and patchwork strategies to embellish and deconstruct denim jeans, or Studio Mücke, deconstructing men's shirts to create womenswear. In Author 2's own work for label Maison Briz Vegas, secondhand t-shirts are collected from flea markets and op-shops, dyed, unpicked and patched into lengths of fabric that is re-cut and sewn into new garments that indicate a former life. Maison Briz Vegas also transforms generic consumer waste such as jar lids, plastic bags and plastic bottles into garment embellishments, though importantly the items' origins as rubbish remains evident.

The work of Sydney-based Seljak Brand is an example of the elevation of pre-consumer waste. Seljak Brand produces blankets made from recycled off-cuts from a wool mill in Tasmania. Off-cuts of Australian merino wool, alpaca, mohair and polyester as well as old blankets are shredded and re-spun into yarn that is woven into new blankets. Like the notions of 'disguise' discussed earlier, Seljak blankets are designed to be luxurious, yet to highlight the many fibres that went into their creation, with the mottled flecks of different coloured original fibre showcased in the new products, with a blanket stitch chosen to highlight the colours.

Waste can be elevated simply by context and representation. The setting, such as a curated secondhand boutique, may elevate items that were once waste, as old clothes are returned into a fresh commodity cycle with new economic and aesthetic value (Gregson & Crewe, 2003). Outlined by Gregson and Crewe, "representational strategies of looking (and buying)" (2003, p. 54) are often associated with particular retail and display practices that can within second-hand exchange these strategies can "provide the conditions within which value itself emerges". (2003, p. 18) Australian projects such as SWOP Clothing Exchange shops, Suitcase Rummage, the Garage Sale Trail,

and the Brisbane Revive festivals each display wasted clothing in ways that elevate it: old torn jeans, or faded brand t-shirts acquire a vintage aura in the right setting. Additionally, the communication and promotion around these shops and events work to elevate waste by tapping into the delight of treasure and bargain hunting.

Enchanting waste

The examples of disguise and elevate are two approaches to consider how waste may be revalorized and represented in fashion practice, and in this final section we propose a third way. Engagement with the material world of waste can be intimate, sensorial and profound (Edensor, 2005), invoke a range of emotional and somatic reactions (Hawkins, 2006), and spark moments of presence and wonder: an 'enchantment' (Bennett, 2001). Bennett (2001, p. 5) describes 'enchantment' as a mood of "fullness, plenitude, or liveliness" that comes with "active engagement with objects of sensuous experience; it is a state of interactive fascination" and can result from a multitude of sites, encounters or entities "that provoke joyful attachment" (Bennett, 2001, p. 4). In the context of fashion practice, Bennett's notion of 'enchantment' could come in the act or process of waste thinking / making with waste. The feelings that may be sparked by an engagement with and connection to waste may in turn challenge and transform understandings of waste and prompt other practices, possibly what Bennett (2001, p. 10) terms an "ethic of generosity".

Object Therapy (2016-2017) is an ongoing project and traveling exhibition that explores the transformation of broken objects through creative repair. Community participation is central to the project as members offered their own broken objects for repair by designers and artists. A video accompanying the exhibition features the owners relaying the story behind their broken object, discussing their reactions to the 'fixed' incarnation and contemplating the transformation of their object. These responses suggest wasted and transformed objects have an affective power that can prompt consideration of the meanings of waste and possibly spark a new or different relationship with waste. Following Bennett, Hawkins suggests enchantment might offer ideas of "how we might come to live differently with things" (Hawkins, 2006, p. 76). Alongside the exhibition Object Therapy hosts public repair workshops that attempt to provide a space of engagement that may spark new relationships with waste.

Currently the fashion industry is not only responding to waste created by its own production and consumption system but also with other forms of consumer waste. As such other waste stories can be told through fashion practice, for example the recycling of plastic water bottles into fabric tells of a throwaway society and polluted oceans. Thus it is not just fashion's waste but also other forms of waste that can be addressed through fashion practice. As Bennett proposes, encounters with wasted objects can startle and provoke an affect (2010, p. 4) and

designers may be motivated by the poignancy of visible waste and a desire to rescue it. The rescue work itself may hold enchantment for designers, and the rescue story may also for viewers and consumers. For the designers of Maison Briz Vegas moments of enchantment come from the processes of gleaning at sites such as flea markets and op-shops, as well as the play, care and transformation involved in the design and making process.

Drawing from Rachael Cassar's reflections on practice we consider her process and relationship with waste materials as a form of enchantment. Cassar describes using her hands to create as the aspect of fashion practice that matters most to her (Black, 2012). The sensory processes involved in creating and sculpting, as well as the problem solving that accompanies the limitations of waste items provides inspiration and joy for Cassar. While Cassar's methods of transforming old fabric and secondhand clothing may work to 'disguise' their origins, the process and engagement with materials may bring about 'enchantment'.

These ideas of enchantment may overlap with the notions of 'disguise' and 'elevation' described above. All three ideas are about 'what happens to waste', but the notion of enchantment goes beyond the transformation of the physical waste to encompass the moments of "delight and disturbance" (Bennett, 2010, p. xi) that waste can provoke in designers and consumers, and prompt meditation, reflection, discovery.

Conclusions

In this paper we have examined a range of ways waste is transformed through fashion practices, drawing upon illustrations from the Australian context. Pragmatically, the sheer volume of textile waste overwhelms charities and textile recyclers. The two different modes of waste transformation through fashion practice, 'disguise' and 'elevation,' are methods that reduce the environmental burden of fashion production, consumption and disposal. Reclaiming or reusing waste reduces the demand for virgin resources to create new products, and prolongs the useful life of products otherwise headed for landfill. These modes of transformation have functional benefits, however there is another state that waste occupies that may not have quantifiable environmental benefits but can play an important role in prompting reflection on issues of waste. Waste is a cultural force that may prompt moments of enchantment and reflection through fashion practices. This typology of waste is a prism through which to examine issues surrounding fashion product lifetimes and ways in which practitioners may engage with waste. Although this paper has provided an Australian perspective on waste in fashion practice, the typology established could be applied to any locality and mode of design practice.

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Appendix 1

Tables 1-4. List of analysed Australian fashion waste initiatives and search methodology.

Table 1. Independent labels (24).

Name	Utilising waste	URLs
Aarli	Indigenous upcycled clothing	https://pozible.com/project/189822/rewards
ALAS	Recycled Polyester in active wear	https://alasthelabel.com/pages/our-fabrics
Baaby swimwear	Recycled Nylon swimwear	https://wellmadeclothes.com.au/designers/baaby
Belmore shoes	Minimal waste shoes	https://wellmadeclothes.com.au/designers/belmore
Don Pozzano	Upcycled menswear	https://www.etsy.com/au/shop/urbandon
Dis/Owned	Post-consumer clothing	http://www.disowned.com.au
Edition	Zero Waste clothing	http://www.editionalicesutton.com/about.html
Hanny-D Creations	Upcycled clothing	http://www.abc.net.au/news/2015-07-21/upcycled-the-art-of-turning-old-clothes-into-new-fashion/6635700
Her Swimwear	Recycled Nylon and Recycled Polyester	https://wellmadeclothes.com.au/designers/her-swimwear
Jenny Bannister	Upcycled clothing	http://www.smh.com.au/lifestyle/fashion/sustainable-style-meet-the-queen-of-australian-upcycling-20160906-gra5i0.html
Kit Willow - kitX	Recycled Polyester textiles, Reclaimed Horn buttons	http://www.abc.net.au/news/2017-05-17/sustainable-brands-at-australian-fashion-week-2017/8532358
Liar the label	Recycled Polyester swimwear	https://liarthelabel.com.au/about/
Maison Briz Vegas	Upcycled post-consumer clothing and rubbish	http://thefashionarchives.org/?faqanda=maison-briz-vegas
Nawato	Upcycled clothing	https://www.nawato.com/pages/about-us
NICO underwear	Recycled Cotton and Recycled Nylon underwear	https://nicounderwear.com/pages/recycled-cotton
ReWright	Upcycled clothing	http://www.upcycleclothing.com.au
Seljak Brand	Recycled Wool, Alpaca, Mohair and Polyester (pre-consumer factory waste)	https://www.seljakbrand.com.au
Sinerji	Recycled polyester	http://www.sinerji.com.au/product.php?id_product=290
Social Outfit	Upcycled pre-consumer textile remnants	https://thesocialoutfit.org/pages/mission
Social Studio	Upcycled pre-consumer textile remnants	http://www.thesocialstudio.org/fashion/
Studio Mücke	Upcycled post-consumer shirts and sweaters	http://www.mucke.com.au/home
Thoreau	Reclaimed Italian designer fabric	http://www.ragtrader.com.au/news/designer-tackles-10-of-all-greenhouse-emissions
Two threads	Upcycled clothing	http://www.twothreads.com.au/website/home.html
Upcycle studio	Upcycled products	https://www.upcyclestudio.com.au

Table 2. Mass-market retailers (11).

Name	Utilising waste	URLs
Billabong	Recycled polyester in board shorts	http://www.billabongbiz.com/phoenix.zhtml?c=154279&p=irol-socialcompliance
Country Road	Take-back and donation schemes	https://www.countryroad.com.au/fashion-trade
First Base Activewear	80% Recycled Nylon	http://www.ragtrader.com.au/news/urban-outfitters-asos-revolve-snap-up-activewear#EyAKwps6Ygi1cbHY.99
Gorman	Recycled cotton	http://www.gormanshop.com.au/dawn-jumper.html
Jeanswest	Recycled cotton	http://www.jeanswest.com.au/en-au/
Lorna Jane	Activewear take-back and donation scheme	https://www.lornajane.com.au/swap-shop
Kathmandu	Recycled cotton (pre-consumer waste); Recycled Polyester;	http://www.kathmandu.com.au/corporate-responsibility/sustainability/recycolor-made-with-recycled-cotton http://www.kathmandu.com.au/corporate-responsibility/sustainability/repreve-recycled-polyester
Kustom	Recycled rubber off-cuts in boots	https://www.kustomfootwear.com.au/shop/product/shoes/sea-shepherd-combat-boot-army-black?color=ACK
Mountain Designs	Recycled coffee grounds into performance textiles	http://www.ragtrader.com.au/news/what-the-frappe#8ik5B6KrgVME04X.99
One Teaspoon	Recycled Cotton and Recycled Polyester; Recycled Denim jeans Recycled Polyester swimwear	http://www.ragtrader.com.au/news/urban-outfitters-asos-revolve-snap-up-activewear#EyAKwps6Ygi1cbHY.99 https://liarthelabel.com.au/about/
Trenery	Recycled cotton, polyester	https://www.trenery.com.au/thestylefile/ecodown-april-2017.html

Table 3. Charities and community groups (12).

Name	Utilising waste	URLs
Bower Reuse and Repair Centre	Post-consumer waste repairs	https://australiandesigncentre.com/object-therapy/
Endeavour Foundation	Post-consumer waste sales	https://www.endeavour.com.au/shop-with-us/recycled-clothing-stores
Garage Sale Trail	Post-consumer waste sales	https://www.garagesaletrail.com.au
Lifeline (Uniting Care)	Post-consumer waste sales	https://uccommunity.org.au/lifeline-rag-sales https://uccommunity.org.au/lifeline-shops
Object Therapy	Post-consumer waste repairs and education	http://www.hotel-hotel.com.au/fixandmake/events/object-therapy/ https://australiandesigncentre.com/object-therapy/
Salvos (The Salvation Army)	Post-consumer waste sales	http://salvosstores.salvos.org.au/about-us/fashion-with-a-conscience/street-boutique/ http://www.ragtrader.com.au/news/salvos-tackles-industry-issue
State Library Queensland (SLQ) upcycling workshops	Post-consumer waste repairs and education	http://blogs.slq.qld.gov.au/indigenous-voices/2016/04/11/kreative-kuril-workshop-upcycled-fashion/
Suitcase Rummage	Post-consumer waste sales	http://suitcaserummage.com.au
SWOP	Post-consumer clothing swap	http://www.swop.net.au/
The Clothing Exchange	Post-consumer clothing swap	http://www.clothingexchange.com.au
Textile Beat	Post-consumer waste repairs and education	http://textilebeat.com/
Vinnies (St Vincent de Pauls)	Post-consumer waste sales	https://www.vinnies.org.au/shops

Table 4. Methodology details.

Search engine terms	Conducted advanced Google searches of Australian region, in past five years, using search terms such as [waste fashion] ["recycled fashion"] [repair fashion clothing] [upcycled fashion] ["recycled polyester"]
Magazines	Conducted in site searches of independent fashion magazines Peppermint and Frankie, and fashion industry magazine Ragtrader
Retailer in site searches	Conducted in site searches of twenty-six mass-market Australian retailers, based on retail presence, using search terms [waste] and [recycled]. We excluded global brands headquartered offshore.