

Title: Up-cycling through user interaction

Background

Over the last decade New Zealand apparel companies have increasingly moved their production offshore. Tariff reductions on imported clothing have resulted in cheaper prices for consumers who can now buy garments for less than they can purchase materials to make their own clothing. According to McAleers (2008), New Zealanders spend more on clothing than they did a decade ago, and with clothing items becoming cheaper, it means New Zealanders are buying more clothing than they used to. Discount retailers such as The Warehouse with the slogan “Where everyone gets a bargain” offer bargain prices all year round and in July 2011 were selling cotton t-shirts made in Bangladesh for 47 cents each. These prices do not reflect the real cost of the products, but reinforce a false perception of worth, as consumers become accustomed to cheap prices, and may not be willing to pay for higher quality products or made in New Zealand products, which are significantly more expensive. Laraman and Shirley (2010) investigated the clothing New Zealanders wore in the context everyday living. They found that 38% of the consumers surveyed preferred to buy New Zealand made, but made their purchasing decisions mainly based on price. While some considered quality an important issue, price was still the major factor.



Fig 1: New clothing on sale in a discount fashion store, New Zealand 2011

Schwarz and Laky (2008) suggest that flooding the market with low cost, low quality goods has “dumbed down” the consumer as they are drawn into a continual cycle of purchasing and replacing outdated goods. Shopping centres are filled with chain stores offering fashion that is hardly distinguishable from one store to another and by offering similar garments in similar colours and fabrics, consumers are almost encouraged to make choices based on other factors, such as brand or price. Fletcher (2007) suggests this lack of differentiation leads to boredom and over consumption. Laraman and Shirley (2010) found that one in four people were wearing at least one garment bought from Farmers (New Zealand department store) and 11% of all garments were from the Warehouse: both stores offer low priced clothing which was seen as a popular choice for many New Zealand consumers.

Low priced new clothing also impacts on the second-hand market, as consumers may be discouraged from buying second-hand as it can be seen as more expensive than buying new. Since the arrival of Savemart in New Zealand with their vast warehouses of highly priced second-hand clothing, charity stores have increased their prices, so over the last decade there has been a decrease in the cost of new clothing and an increase in the price of second-hand clothing (McIver, 2010).

While there have been no detailed studies that specifically investigated textile waste in New Zealand, the Ministry for the Environment (2009) estimates that 4% of the landfill is made up of textiles which equates to approximately 31.5kg per person, based on 2006 figures. Many discarded items donated to charity stores for resale are of low quality and thus not always on-sold. Karen Clements, the area manager for the Red Cross Otago estimates 30-40% of the donated goods are unusable. The unusable items are sent to the landfill which is costly for the charities. The Dunedin Salvation Army predict they will incur costs of \$8000 this year in landfill fees. Due to a lack of good quality donations, the Red Cross Store in Tauranga decided to import 128 tonnes of second-hand clothing from Australia during 2009 (Gates, 2010).



Fig 2: Red Cross, Cameron Road, Tauranga . New Zealand

In Tauranga (New Zealand's fifth largest city), 44 % of the population earn \$20,000 per annum or less and 15.6% of the population earn over \$50,000 per annum (Statistics NZ, 2006). With a vast sector of the community on low incomes, where it is not unusual to be paid the minimum wage of \$13 per hour it is understandable that consumers are choosing to buy cheap and low quality garments, as the reality is this is all many of them can afford (Department of Labour, 2011).

Until New Zealanders consumption habits are curbed, the amount of textiles and clothing being purchased and discarded is unlikely to be reduced, therefore finding ways to divert low quality goods from the landfill is important for New Zealand.

Practice based research

My research during 2008/2009 focused on ways to add value to low quality discarded clothing. Three main ideas emerged: up-cycling the garment, user interaction, and creating a narrative for the garment. The practice focused on developing methods to incorporate these concepts as a way of extending their useable life so these items can then be re-sold or kept by the owner for a longer period of time. In order to add value to garments it was important to identify what aspects were important factors in why consumers keep clothing. Bye and McKinney (2007) identified four categories of why women keep clothing they no longer wear, namely; weight management (either too big or too small), investment value (the cost of the item), sentimental value (relates to an event or memory, or a gift) and the aesthetic object (it is just so beautiful).

Understanding why women kept clothes they no longer wore was important, as it indicated the added value of the garment to them, beyond the ability to wear the item. The identification of the four categories enabled a set of criteria to be developed to guide my design decisions and help me evaluate my work. This criteria indicated that garments should be able to fit more than one size, or be adjusted as the user's body changes, be sold at a higher price point (not budget), connect with the user (create a story, or allow the user to interact with the garment to create their own story) and be seen to be beautiful or desirable.

User interaction was intended to encourage an emotional attachment to the garment (add sentimental value) which I hoped would encourage a user to keep a garment for longer. According to Walker (2008), objects we have had a hand in creating ourselves are valued for their intrinsic qualities rather than extrinsic beauty, and we are more likely to repair them than simply discard them. In contrast, most fashion garments do not offer the opportunity for the consumer to engage with the product, and are often discarded rather than repaired, as it may be more cost effective to replace the item.

The early practical experimentation focused on methods to up-cycle worn, stained and low quality t-shirts that would usually be sent to the landfill. The t-shirt was selected as a symbol of globalisation and mass produced apparel.



Fig. 3: up-cycled t.shirt , front



Fig. 4: back view



Fig. 5: side view

The concept for this garment (as shown in Figures 3, 4 & %) was about transformation, and questioning our perceptions of value. Garments purchased for a special occasion are often the most expensive items we buy and yet we may only wear them once, yet items we regularly wear are often the less expensive ones we buy. I felt the t-shirt was a good example of a low cost garment that is worn often and is of low value and I was interested in how a garment could be transformed into something more decorative and less useful but be perceived to increase in value.

However it became apparent that some mass produced t-shirts were highly valued by their owners, which I discovered when I opened a bag of donated t-shirts and came across a note from the owner explaining how much she loved this particular white t-shirt.



Fig. 6: note found with the t-shirt



Fig. 7: donated t-shirt with the note

I also found several t-shirts from sporting events that had taken place almost 10-20 years earlier, and had been worn so much that they were almost threadbare. I felt these items could be seen as a souvenir of a lived experience helping to connect the wearer with this moment in time (Vaughan, 2006), and were kept for sentimental reasons (Bye and McKinney, 2007).



Fig. 8: donated souvenir t.shirt



Fig. 9: up-cycled knitted top

Several garments were created using the donated t-shirts. I felt it was important to reference the original garments in the new designs, to imbue the clothing with meaning and make it more special to the new owners (Gregson & Crewe, 2003) and because these items appeared to have been special to the original owners and I wanted the story to continue. However my own feelings towards second-hand clothing were a key factor in the design of the garments, as I did not feel comfortable handling other people's clothing. I found the method of slicing up garments and reassembling the pieces became a way to create something I could view as new but with a history. Through anecdotal evidence, I found that many people viewed second-hand clothing as dirty and would not consider buying it, so creating methods to overcome these negative feelings was necessary in order to produce an item that could be sold as a new garment, not as a second-hand garment.

Experimentation with textile techniques enabled garments to be created that appeared new but still referenced their origin; this is an aspect that was considered important in communicating the story of the product to the consumer. Garments were designed to fit more than one size, and to encourage users to keep evolving the garment by adding further fabrics and decoration. I attempted to design garments that were complete but not finished, so there was still room for further development.



Fig. 10: Researcher's cape featured in Good Magazine, Issue 3, September (2008).

The notion of transformation led to experimentation with old, threadbare garments as well as the waste created during the manufacture of garments such as scraps and threads from the overlocker. These were incorporated into garments as decorative features.

The accessory was viewed as a way of adding interest to existing garments almost like a piece of jewellery but the irony of this was the materials that were used were worthless, and yet could be worn with an expensive garment and become the main feature of the ensemble.

The early experiments focused on exploring techniques, methods and garment designs that could be constructed with minimal equipment. It became apparent that processes to enable the consumers to create their own product whilst developing skills was necessary rather than just trying to add to an existing garment.

A range of kits were created that were easy to follow but not too prescriptive, as I wanted to provide an opportunity for the participants to experiment and adapt the techniques to suit themselves. Von Busch (2008) suggests step-by-step instructional manuals can be commands or take the form of a cookbook, in that they can be directional or offer advice and encourage users to experiment by themselves.



Fig. 11: Beginner level kit



Fig. 12: Intermediate level kit

Seven kits were created which catered to a range of skill levels and used a heart symbol to identify the level of difficulty, with one heart indicating a Beginner /Easy level, to 4 hearts being an Advanced level. Each kit focused on a particular technique and included hand knitting, hand stitching, and machine stitching through to an experienced level kit that included making your own fabric and garment pieces simultaneously. The kits were packaged in rubbish bags, with a fact sheet about issues of landfill and textile waste.



Fig. 13: The Kits

The kits were trialled by a group of participants from a variety of professions. The participants indicated if they had access to a sewing machine, could knit or hand sew, and the experience they had in making garments. Most of them they had made things in the past, but had given up due to time, cost of materials versus the cost of buying readymade, and disappointment with the end result.

On completion of the garments, the participants met to share their experiences with each other and discuss what they did, how they felt, and show the finished garments.

One participant spoke of how difficult it was to cut into the t-shirt for the first time even though a template had been provided as a guide for cutting the sleeves from the garment (refer Fig. 14).



Fig. 14: Participant's finished garment



Fig. 15: Participant's finished garment

The participants adapted the methods to their own skills, knowledge and experience and some added extra items to the kit, for example; one kit had an image of a shrug made from a terracotta and a black t-shirt, but the kit contained a white and a black t-shirt, so the participant sourced a second-hand t-shirt in the same colour as the original one, and did not use the white t-shirt. (refer Fig. 17).



Fig. 16: Researcher's original garment



Fig. 17: Participant's finished garment

Other participants sourced additional materials to embellish the items and one researched natural dyeing techniques and dyed her finished garment in tea (refer Fig. 19).



Fig. 18: Researcher's original garment



Fig. 19: Participant's finished tea dyed garment

One participant had recently completed a part time pattern making class and so she drew on this knowledge and created bust darts in her garment, even though the instructions had eliminated them by molding fabric to create shape.

The feedback indicated that the most successful results were the beginner and intermediate level kits that focused on easy to master techniques and required little equipment, or focused on items that did not need to fit the body, such as the mini cape.

Participants reported that they

- Adapted methods to suit themselves
- Liked to follow the instructions but were able to use their own knowledge and preferences
- Formed an attachment to the garment by being involved in the process
- Were inspired to do more sewing and learn more techniques
- Realised the potential for using old clothing and revamping items they already owned
- Were excited by the projects and felt a sense of achievement
- Would have liked to select kits they made
- Not all garments fitted or suited them
- Practice materials would be helpful
- Possibly too much work

As a result of the feedback I focused on two distinct areas: up-cycled garments and a stand alone transformation kit. Up-cycled garments were intended to be sold in fashion stores, with an accompanying kit for the potential user to continue evolving the design. This would enable the user to complete less work and have more chance of achieving good results . They could also select a garment that appealed to them and wear it immediately.

Swing tags provided with the garments, included information about the original garment, its transformation and an invitation for the new owner to add their details and continue the story. Fletcher (2008, p. 168) suggests that “signing a garment label can be seen as a declaration of responsibility and an expression of long term commitment”. The swing tags also suggested what to do with the garment if the owner no longer wanted it.



Fig. 20: Researcher’s garment made from recycled t-shirts, bias binding and fabric off cuts



Fig. 21: Researcher’s garment: Men’s skivvy transformed into a skirt at a “complete” stage



Fig. 22: Indication of how the design can be added to by the user

Several garments were created, some that were very simple to make and others that were more complex.

The second approach involved the development of a stand-alone Transformation Kit, so that the consumer could extend the life of their own garments. A prototype was developed called the “ T-shirt Transformation Kit” which was intended to be sold in a fashion store, rather than a haberdashery or craft store in order to attract a new consumer and position it in a fashion context. The kit included instructions for a variety of styles and ideas and had a focus on developing skills that could be easily mastered and adapted to suit other garments.

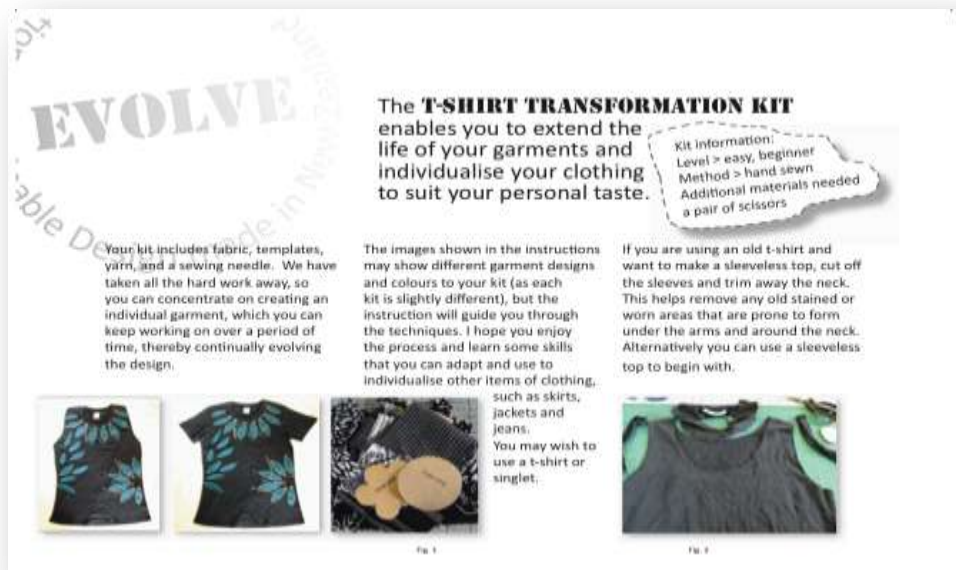


Fig. 23: A page from the T.shirt Transformation kit booklet

Both approaches focused on ways to up-cycle low value garments and to encourage user interaction as a way of adding value and extending the life of the product. By designing items that acknowledge the creativity of the potential user and encouraging users to engage in the design process it was hoped that they would feel a sense of satisfaction and accomplishment to connect them to the garment for a longer period than fast fashion seems able to.

By focusing on user participation as a design constraint, and utilizing discarded clothing as a resource, the fashion designer could facilitate the development of skills in the consumer and encourage the design process to continue with a more personal connection to the user. Focusing on user participation would not herald the death of the designer, but could provide new opportunities for designers to operate in a more collaborative way and have a more “lifecyle” approach to design.

Further opportunities

This study did not seek to look at the issues of low quality second-hand clothing in charity stores, nor did it attempt to work with these organizations to consider how they could encourage consumers to buy their products and divert these items from the landfill, however this is an area that needs further investigation.

Kim Frazer's Masters project RE-dress (2009) investigated the standardization of garment patterns designed to fit into the dimensions of second-hand men's trousers, with a focus on creating multiple items rather than one-offs. Junky Styling offer a similar approach and also offer consumers a "wardrobe surgery service", where they can take in their existing clothing in and have it re designed (Junky Styling, 2009).

Both these approaches require good quality fabrics in the original garments; however, this concept could be expanded by designing standard garments using the type of second hand clothing typically found in New Zealand charity stores. These items tend to be men's polo shirts, t-shirts, business shirts and women's skirts and blouses. Up-cycling these items into new garments would be difficult for most people, as it requires selection of appropriate garments, with an eye for fabric type, colour and performance characteristics necessary for a particular design. However by packaging second-hand clothing into colour coordinated RE-MAKE kits with instructions for transforming the items into easy to make garments, it may be possible to reduce the clothing waste going to landfill from the charity stores and encourage consumers to actively engage with their clothing while creating their own unique items and learning new skills. The garment designs should ideally be easy to make, using minimal equipment and fit a variety of sizes. Simple packaging would allow the user to see the items and should be made from recycled paper with the ability to be reused.



Fig. 24: Re make Kits .



Fig. 25, 26 & 27: The shirt skirt; finished garment from the Re Make Kit worn three different ways, made from 2 x business shirts.

By encouraging consumers of new or second-hand clothing to become involved in transforming or making their own clothing consumers may become more fulfilled and less concerned with consumption (Fletcher, 2008). Furthermore, they may begin to consider the real value of clothing and invest in better quality garments that will last them longer.

Most fashion garments are presented to the consumer as complete, or closed design (Fletcher, 2008) and there is little opportunity for the consumer to personalise or adapt their clothing, as they may not have the skills or expertise needed. Websites, blogs and You Tube are filled with D.I.Y. craft projects and instructions for re-cycling garments. They enable people to learn new skills, be inspired and play an important role in raising awareness of sustainability, while connecting like-minded people. However the people who are actively participating and seeking this information may already have skills and an active interest in engaging with their clothing. The challenge is to communicate with the wider community and encourage other consumers to participate.

If designers wish to encourage user participation they need to consider designing garments for re-design, or garments that are complete but not finished (Tonkinwise, 2005) and can be adapted and evolved over time. Natalie Chanin (2008) encourages users to make her designs and add to them over a period of months or years which allows the design to become more complex and change over time, becoming more beautiful as it ages.

Encouraging the user to redesign their clothing at a later stage could be considered within the original garment design. Simple ideas such as including directions for future cutting, via printed lines on the inside of the garment, or by using seam lines to create a map for a future design journey, that enable the user to re-cut the garment around particular seams to create a new neckline, a sleeveless garment or make a skirt and top from a dress, are all easy ways to involve the consumer. Rissanen (2011) suggests a lifecycle approach to design would require designers to consider how users engage with a garment they have designed, and this approach should aim to foster more sustainable behaviour in users.

If consumers begin to view buying new garments as purchasing “future waste” we may begin to see a shift in focus from buying quantity to quality. Siegle (2011) characterizes the continual focus on buying and throwing away as “Style bulimia” and suggests that if the current stockpile of future waste was released it would yield enough fabric to keep the United Kingdom dressed for a decade.

Currently the way a product is disposed of is the responsibility of the consumer and often second-hand stores are seen as a dumping ground for unwanted garments. If those responsible for creating products or creating future waste also have a role in how these items are disposed of they may be encouraged to design products that are longer lasting and could be used as a future resource. Extended producer responsibility places responsibility for the products’ lifecycle with the producer, not with the consumer, to encourage producers to design products that are recyclable, and reduce resources and waste.

In New Zealand all new garments are required to have country of origin labels, but very few supply information about how to recycle your garment. Starfish, a New Zealand fashion label owned by Laurie Foon, has recently implemented “The Big Starfish Exchange”, where you can take in your existing Starfish or Laurie Foon items and receive a 50% discount on the winter 2011 fashion range. Foon says she is always concerned about designing garments that will last, but realizes sometimes women want or need new items and the exchange process

came from a concern about increasing the life of the garment. This is one example of designer/producer responsibility that provides benefits for the consumer, for the business and for the community.

As more consumers become aware and concerned with ethical, environmental and sustainable issues they have become more interested in knowing about the products they use and consume. In New Zealand, farmers markets have been growing in popularity and connecting the grower with the buyer is an important aspect of this. In the fashion industry it is all too rare that we ever know who made our garments, how they were made and what chemicals were used in the production. More transparency in the production and manufacturing processes of our clothing will provide information to consumers to enable them to make informed purchasing decisions and allow some real choice over the products we consume. Realistically, until responsibility for the lifecycle of products is paramount for designers, producers and consumers we may see little reduction in the growing problem of waste.

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