

Copyright is owned by the Author of the thesis. Permission is given for a copy to be downloaded by an individual for the purpose of research and private study only. The thesis may not be reproduced elsewhere without the permission of the Author.

ReFashion ReDunn

A thesis presented in partial fulfillment of the requirements for the
degree of Master of Design at Massey University, Wellington,
New Zealand.

Janet Dunn 2008

For my suppliers:

Jackie, who has passed on, leaving me with bags full of the skirts, blouses and big cardigans which were her uniform in life.

Norma, who is moving into a time in her life where possessions will be less important. I have received her lifetime's hoardings, including a book of union rules for the garment trade.

Una, who let me buy her collection of beautiful ball gowns which she had made herself and wore while dancing the night away with her husband.

Uta, who was an excellent dressmaker and fashion designer, and kept her stock of couture fabrics for ten years to make sure that she really did not want to do that work any more.

Peter, who gave me his retired ties, and mentored me after his own fashion.

And Sharon, collector extraordinaire, whose Costume Cave conceals untold tatty treasures.

Thanks also to Andrea, Helen, Sylvia, Judith, and Margaret for modelling in the forest, city, flood and drought.

Acknowledgements

This study arises out of the researcher's experience in the fields of costume and fashion. It develops, through design practice and reflection, a design process for fashion wear made from post-consumer recycled materials. Theoretical analysis provides global, historical, philosophical and design contexts within which to develop an ethos for this variant form of fashion wear designated ReFashion.

Differences in design process between conventional fashion and ReFashion are detailed to highlight the significance of provenance of materials in the light of a perceived need to slow down clothing production and consumption. This perception is informed by scientific predictions that failure to engage with urgently needed changes to the prevalent economic paradigm will result in planet earth reaching a tipping point with potentially disastrous results for its inhabitants. Fundamental to the ReFashion ethos is preparedness for a speculative post-apocalyptic future that might render the fashion system unable to operate as it currently does, necessitating a more self-sufficient approach to clothing needs, with an accompanying shift in perceptions of what is deemed fashionable. The theme Survivalist Fantasy provides a lens to bring conceptual and material aspects of the work into focus. Informed by sustainability, Survivalist Fantasy recontextualises a failure of sustainable initiatives on a global scale and their adaptation on a local scale specifically in the arena of clothing.

Figures are by Janet Dunn, unless stated, and all figures by Janet Dunn date from 2007, unless stated.

Figure	Page
1. PCR materials before refashioning.....	3
2. Artificial silk slip machine-embroidered with text from Blessed Unrest (Hawken, 2006).....	11
3. Karen Walker: organic hemp prom-style dress. Copyright 2007 Earth Pledge.....	21
4. Jeffrey Chow: organic cotton bolero with recycled Coca-Cola sequins. Copyright 2007. Earth Pledge.....	21
5. Heatherette: recycled polyester bustier and Ingeo (corn fibre) taffeta skirt. Copyright 2007 Earth Pledge.....	21
6. Tin of salvaged labels with plastic doll's shoes symbolising ecological footprint.....	31
7. Queen, King and Polonius from 'Rozencrantz and Guildenstern are Dead' at Downstage Theatre, 2000.....	32
8. The Tragedians from 'Rozencrantz and Guildenstern are Dead' at Down stage Theatre, 2000.....	32
9. Unzip jacket: a reconstruction, 2004.....	33
10. Autumn leaves kimono: an embellishment, 2003.....	33
11. Raincoats: a combination, 2002.....	34
12. Upsdjkt: a reconfiguration, 2005.....	34
13. Raw finish jacket, 2002.....	35
14. Creatively mended skirt, 2004.....	36
15. Possum Rodeo: nylon jacket with fur trim, 2005.....	36
16. Hot pink knitted dresses with ties, 2005.....	37

Figure	Page
17. Appliquéd shirt with curler, 2005.....	37
18. Multi bush shirt and trimmed bush shirt, 2003 and 2006.....	37
19. The Duchess: dress, skirt and shawl ensemble. 'Demeter's Dark Ride, an Attraction' at Bats Theatre, 2005.....	38
20. Harris Tweed crossover front jacket: full and detail views, 2006.....	38-39
21. Provenance whiteboard.....	41
22-1. Waistcoat from man's three piece suit: front, side and back views.....	45
22-2. Woollen skirt reconstructed with frill: front, side and back views.....	45
23. Jacket, dress and hat from man's three piece suit.....	47
24. Singlet from Aran knit jumper: full and detail views.....	49
25. Macramé knotted caftan: front and side views.....	49
26-1 to 26-4. Trimmed dresses: fur, ties, lace, Japanese panels.....	51
27. 'Wastecoat' made from waste fibre fabric trimmed with gloves and tapestry panel: front and back views.....	52
28. Pullover with Velcro grid and coins: front and detail.....	53
29. Camisole and French knickers set, and slip, all artificial silk with machine writing.....	54
30. Quilted velvet jacket hand overstitched with tapestry wool: full, close and detail views.....	55
31. Bush shirt frock coat with felted skirt: front, back and detail views.....	56

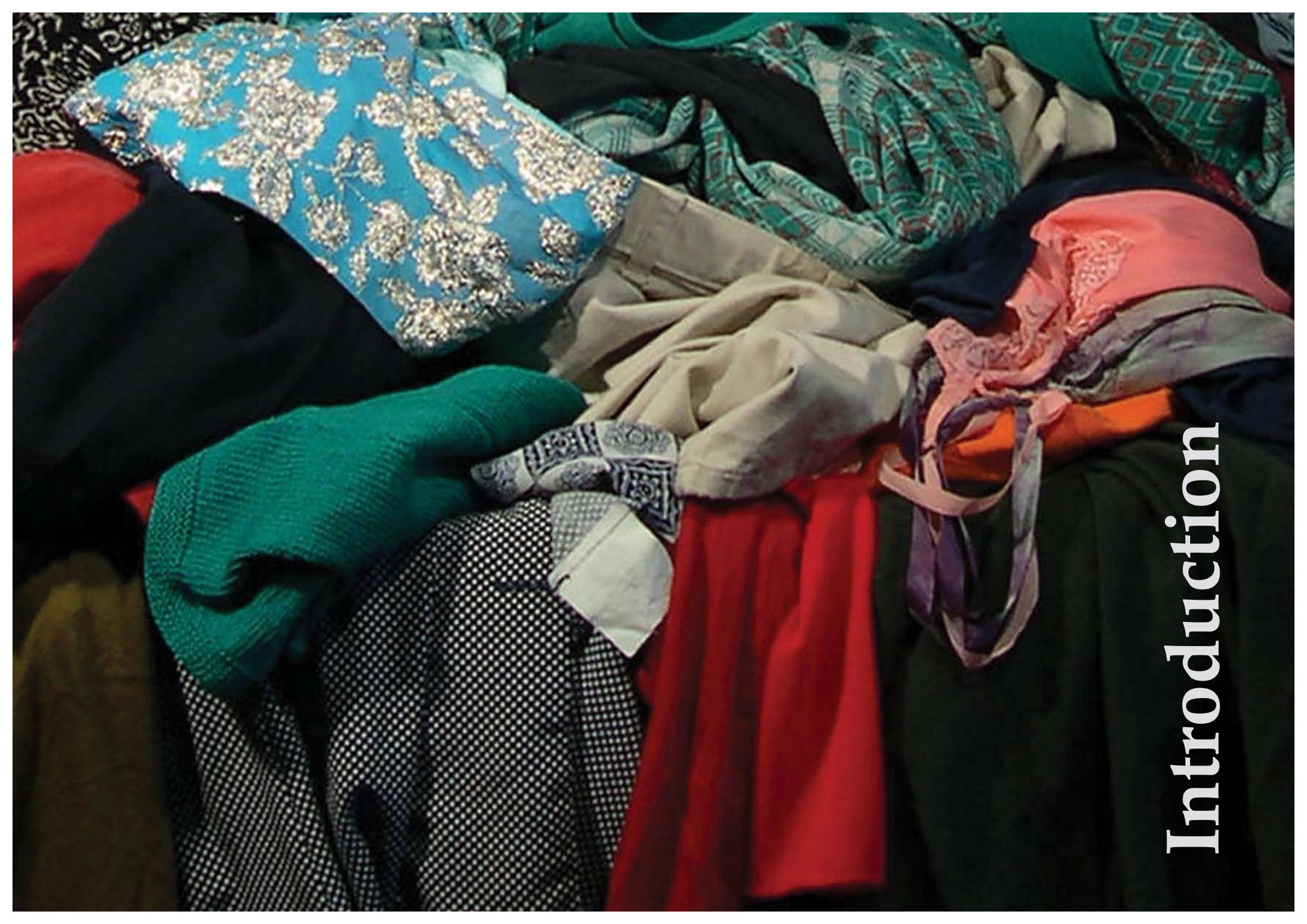
Figure	Page
32. Four tutees: blue and lime green with curler necklaces, bright yellow Drivers' Union, Victorian ladies and pale yellow Drivers' Union with large tie.....	57
33. Dress from woollen pullover, plaid pleated skirt and elastic trim: full, detail and close-up of bodice views.....	58
34. Double jacket, vertically joined: front and back views.....	59
35-1. Herringbone frock coat from joined jacket and skirt: full and shoulder detail views.....	61
35-2. Black and plaid frock coat from joined jacket and skirt: full and skirt detail views.....	61
36. Frtrjkt: jacket from men's trousers.....	63
37. Frtrtp: top from Indian satin trousers: full and close-up views.....	63
38. Frshsk: skirt from shirts: front, side and detail of pocket views.....	65
39-1. Lurex dress with very large hem: inside out, close-up of hem and outside out views.....	67
39-2. Hook-up dress: unhooked, hooked up front, and hooked up side with tutee underneath views.....	68
40-1 to 40-6. Six ways of reconfiguring a polyester double bodice print dress.....	70-71
41. Royal New Zealand Ballet tutu bodice inner.....	73
42. Apron from central Tibet. Retrieved December 12, 2007 from http://www.tanc.org/tibetan_dress/dress_small.html	75

Figure	Page
43. Tibetan Chuba of silk. Retrieved December 12, 2007 from http://www.tanc.org/tibetan_dress/dress_small.html	75
44. Skirt made from toddler dresses, 2003.....	77
45. Two WWII dresses with altered hems, courtesy of Tineke La Plant.....	78-79
46. Illegally logged forest in Riau Province, Indonesia. Retrieved November 20, 2007 from http://www.greenpeace.org/international/footer/search?=images Ruined building, Wellington, New Zealand. Flooded rugby field, Kaeo, Northland, New Zealand. NZPA/Nigel Marple, July, 2007. Drought in Wagga Wagga, Australia. NZPA/Rose Harding, March, 2007.....	83
47. Survival by Illegal Logging.....	84
48. Survival in Ruined City.....	85
49. Survival in Flood.....	86
50. Survival in Drought.....	87
51. Label Queen Jacket, 2005.....	91

	Page
Acknowledgements.....	iii
Abstract	v
List of Figures.....	vii
Introduction	01
Literature Review.....	09
Process and Reflection.....	29
Survivalist Fantasy Collection.....	83
Conclusions.....	89
Bibliography	93
Lexicon.....	97





A close-up photograph of a pile of various clothing items. The items include a blue top with a gold floral pattern, a green knit sweater, a red top, a patterned skirt, and a purple and pink lace-trimmed garment. The clothing is piled together, creating a sense of abundance and variety in style and color.

Introduction



Figure 1. PCR Materials before refashioning.

This study arises out of my background and experience in the fields of costume and fashion. During my time as a costume designer for theatre, I began to consciously integrate recycling into my design process, using the resources held in trust by Downstage Theatre, Wellington, New Zealand to create new costumes. It was a way of producing the sumptuous looks required by the scripts within the small budgets available as well as facilitating the development of an individual design style. The feeling that there was limited scope for innovative theatre design in New Zealand motivated me to apply the principle of recycling to fashion and set up a suburban design and retail outlet with a community focus. Creativity was always paramount in the work produced in this period, and the enterprise gathered a loyal clientele and developed the awareness of both designer and clientele about the need

for sustainability.

My personal rationale for this research is threefold:

1. It broadens my understanding of how creativity and theory link to forge a strong underpinning for my creative and professional practice.
2. The collected and documented findings of this research help increase public understanding of, and acceptability for, refashioned clothing as a variant form of fashion.
3. It contributes to the need for new paradigms, in all design fields, that engage with the urgent problems arising from what I perceive to be an overly materially focused world.

This study develops an ethos and a design process model for a variant form of fashion wear.

Instead of acquiring new cloth for fashioning into garments according to a planned design, this study develops a variant based on the acquisition of post-consumer recycled (PCR) clothing and textiles for refashioning into garments.

I arrived at the designation ReFashion for this form of fashion through examining the etymology of the word 'fashion' and linking it to the etymology of the phonetic of my name. The English word 'fashion' comes from 'factio', 'done', the past participle of the Latin 'facere', 'to do' (Thompson, 1995). The name 'Dunn' is phonetically identical to 'done', the past participle of the English verb 'to do'. Hence ReFashion is a generic name for fashion made from PCR materials and ReDunn is a brand of ReFashion.

ReFashion is a wholistic entity encompassing interrelated design and philosophical and ethical stances. It is informed by sustainable design principles, awareness of fashion design trends, costume design, and an understanding of fashion design and technology. The philosophical foundation of the study is a re-contextualised interpretation of the old adage 'waste not, want not'. Recognising that the materials of clothing last far longer than the trends of fashion, ReFashion proposes enterprise founded on waste. The easily accessed commodity of discarded clothing and textiles transcends its original qualities through recommodification.

This research examines the use of PCR materials from a number of theoretical perspectives. Experts have recognised that the relentless growth on which capitalism is predicated cannot continue (Cato, 2006). Current textile and fashion production is part of this untenable economic system (Slater, 2003). Recycling provides a use for the waste generated by the over-consumption of Western society, working on the principle that reusing what is already made places less of a burden on the planet than new production (Steffen, 2006). Design inspired by selective use of recycled materials is a transitional step towards greater sustainability in materials, processes and clothing consumption (Earley, 2003). Historically, clothing has commonly been purchased, used and discarded by one set of people, to be picked up and reused by another set for a variety of economic, social and

cultural reasons (Palmer and Clark, 2005). In the light of the uncertain future of planet earth, fresh approaches to design signal a readiness to adapt to new circumstances, possibly at a basic survival level (Thackara, 2005). The cradle-to-grave paradigm for product design in the industrial system has been defined in Cradle to Cradle as being linear and one way, with the grave being a landfill or incinerator and material assets that still have plenty of value being wastefully disposed of (McDonough and Braungart 2005, p27). ReFashion intercepts discarded clothing, changes it and puts it back into the clothing stream, effectively creating a new loop in its journey and postponing its grave ending. The post-consumer recycled (PCR) materials used were manufactured in the cradle-to-grave paradigm. Refashioning is both a step towards a cradle-to-cradle approach to design, and an interim measure

whilst more renewable, eco-effective materials are developed. Also implicit in ReFashion is a variation on the way humans satisfy their need for continual self-renewal. This need has been described as an ego-driven search for identity through material objects (Tolle, 2005, p36). ReFashion takes an ideologically 'bright green' approach that accepts human need for renewal and meets this need in a way that stimulates thought about how we consume without sacrificing style or individuality.

This study presents ReFashion as a term to describe clothing made from post-consumer recycled (PCR) materials, including clothing, household textiles and other materials not originally intended for use in clothing. The central proposition is that the development of an ethos will expand the term ReFashion, not only for the benefit of my role as a design practitioner, but also giving ReFashion a coherent identity, allowing it to become established independently from me as a variant form of fashion. In a production context the transformation of used clothing appears to involve a paradox: the multiple production of one-offs. The materials used, because they are usually found or gifted, are likely to be disparate with only generic commonalities. As an example, the only common factor ten skirts have is that they are all tartan, being otherwise all different styles, colours and fabric types. There is

no standardisation of sizing, construction or quality in garments sourced either piecemeal or in bulk lots through donations, estates or opportunity shops. This one-off, eclectic quality is intrinsic to refashioned clothing because of the diversity of the starting point materials, and it is this quality that gives ReFashion the character which, from a marketing perspective, is its point of difference. The design process model has been constructed in such a way as to accommodate this diversity, enabling the design to be produced in multiples. The bulk acquisition of dead stock, while not post-consumer recycled (PCR), is an alternative choice of materials that supplies multiples of the same sizes and colours in each model. Also central to this project is the speculation that the planet may be facing some fundamental changes that will impact on all systems of production and consumption

including fashion. This focus is expressed in the project through the Survivalist Fantasy theme, and indicates shifts in the relationship between clothing's emphasis on physical needs and fashion's emphasis on image. This study is based on a holistic proposition, integrating theoretical and practical research and critical evaluation in the interrelated contexts of design practices, sustainable practices, socio-cultural fashion perspectives and global perspectives.

- Produce, using post-consumer recycled (PCR) materials, design prototypes and a themed collection that demonstrate creative use of recycled apparel and textiles.
- Critically reflect on this practice in order to arrive at a design process model that would enable multiple production of designs using PCR materials.
- Develop, through reflection on practice supported by and linked to the review of literature, an ethos for this variant form of fashion designated ReFashion, of which the design process is a significant component.

Objectives of this Research Project

This research is carried out through design practice and a review of literature to meet the objectives of developing the ethos and design process for the refashioning of PCR materials. The design practice follows an iterative method, with the repetition of a sequence of actions being linked to the accumulation of ideas identified through reviewing literature. Each cycle of repetition yields results successively closer to meeting the stated objectives.

The iterative sequence comprises these overlapping phases:

- Experimentation with materials.
- Documentation by oral diary for recording of thoughts during practice.
- Documentation by visual diary of influences and ideas.
- Photographs and diagrams of assemblages to remember their configurations.

- Construction, deconstruction and reconstruction techniques carried out.
- Return of garment to dress form for further fitting and critical assessment.
- Refinement by repetition of above two phases.
- Reflection on the ReFashion concept and Survivalist Fantasy theme.
- Reappraisal of prototypes required to create outfits that best express the theme.
- Photographic documentation.

Images of work from the designer's own archive and current stock were analysed, with attention paid to the work's forms, materials, modes of construction and its prevalent mannerisms. This analysis gave an orientation and take-off point for the practice.

The practical outcome of this thesis is a collection of design prototypes, some

of which were selected to be styled as complete outfits with accessories. The underlying design concept for this project, Survivalist Fantasy, suggests the consequences of failed sustainability and global breakdown. This concept provides the theme that motivates which prototypes are chosen, how they are styled and the settings for the photographs.

A topographical map showing contour lines. A prominent set of red contour lines forms a large, irregular shape in the upper left. Black contour lines are scattered throughout the map, some following the red lines and others forming separate shapes. A white cross symbol is visible in the lower right quadrant. The map is overlaid with a semi-transparent dark blue gradient.

Literature Review

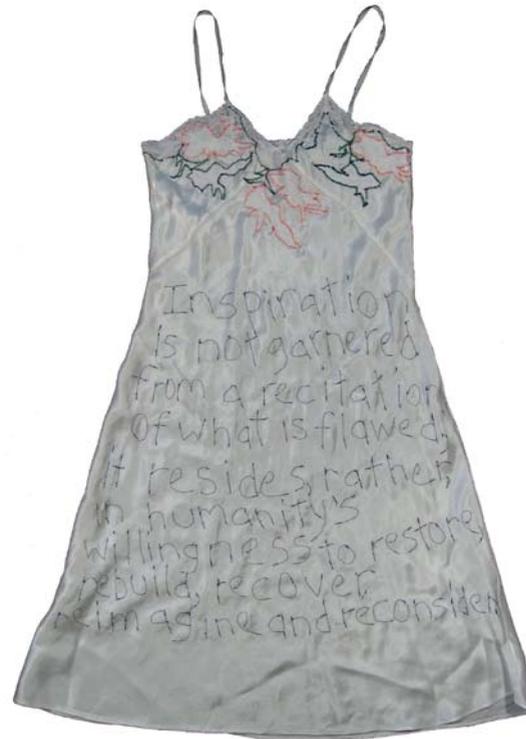


Figure 2. Machine-embroidered slip.

This review evaluates literature that examines global predicaments and their causes, and identifies some general responses to these predicaments. With the focus of this study being the need for change in the design of material objects, selected texts examine the role of designers in the context of sustainability. More specifically, literature is evaluated that positions the design of textiles and fashion in this context. New Zealand perspectives of historically difficult times show how people have adapted to meet their clothing needs. Lastly, this review evaluates theoretical perspectives on fashion designers working at the experimental edge of contemporary fashion to give a context for ReFashion as a local and global initiative towards changing approaches to fashion production and consumption.

Planet earth is in a time of transition with far reaching changes being forced by the systemic breakdown of the structures of global society (Steffen, 2006, foreword by Al Gore). The English Green economist Molly Scott Cato lays the causes of breakdown at the feet of the western economic model driven by relentless growth, currency, the pursuit of profit and material acquisition (Cato, 2006, introduction). Schumacher prophetically recognised that the infrastructure of the Industrial Revolution and the increasing numbers of people living in an urban environment would lead to the tendency for humans to feel that they are above nature instead of a part of it, and therefore able to conquer it (Schumacher, 1973, p11). Jensen (2006, p17) believes that civilisation is irredeemable and will not voluntarily change to a sustainable way of living. Civilisation, as he defines it, is a culture that both leads to and

emerges from the growth of cities with population densities high enough to require the routine importation of the necessities of life. Civilisation is hierarchical, argues Jensen, and there is an inherent violence towards land, humans and non-humans in the way the dominant minority culture attains what it considers to be necessities. Given human nature, this violence will escalate parallel to the growing pressure on resources due to the interrelated factors of climate change and peak oil. Premise number nine of twenty in *Endgame* (ibid, p x) states emphatically that there will be a reduction in human population numbers which could occur in several ways, all of which would involve a degree of violence and privation. Jensen sees the crash of civilisation as inevitable and advocates preparedness by learning some self-sufficiency skills in the basic human need areas of food, water and shelter (ibid,

p 306).

Whilst pessimism is necessary to convey the seriousness of the planet's predicament, optimism is also needed to project a desirable future based on sustainable premises. There is evidence that society is mobilising in an optimistic way, with intertwining movements based on environmental and social justice and indigenous cultures' resistance to globalisation (Hawken, 2006). Much of this mobilisation is occurring through non-governmental organisations (NGOs) and not-for-profit organisations. A dynamic example is the web-based 42 Collective who suggest that a rise in consumerism in developed countries is not linked to a growth in well-being. Their aims are to encourage a "less-cost lifestyle" through idea and resource sharing and to promote happiness without it costing others (Barclay, 2007). Similarly, voluntary simplicity (Elgin, 1981)

advocates singleness of purpose, sincerity and honesty in one's interior life and the avoidance of material clutter in one's exterior life that doesn't necessitate turning away from technology. In appearance terms, simplicity would entail individuals lowering their consumption by buying less clothing, paying more attention to what is functional, durable and aesthetic, and less attention to passing fads, fashions, and seasonal styles (ibid, p33). The development of personal skills such as the making of clothing for oneself and one's family would contribute to greater self-reliance and reduced dependence upon experts to handle life's ordinary demands (ibid, p34).

A commentary titled 'How vulnerable is New Zealand to the impacts of climate change?' by a convening lead author for the Intergovernmental Panel on Climate Change (IPCC) summarises the IPCC's findings

(Fitzharris, 2007). The IPCC presented its Fourth Assessment, a comprehensive international scientific review process developed over four years, in 2007. Scientific research of climate trends leads to the conclusion that warming of the global climate system is unequivocal, with increases in global average air and ocean temperatures, melting of snow and ice, and observed sea level rise over the twentieth century of about 0.17 metres. Evidence compiled since 1970 endorses the influence of human-induced warming on many physical and biological systems (ibid, p162). The major findings of a chapter dealing specifically with New Zealand show that its wealth generation to a large extent depends on natural resources, making an estimated 79% of its wealth generation vulnerable to climate change. Susceptibility to an increase in the frequency and magnitude of extreme events increases the level of

hazard, resulting in danger to life, damage to property or the environment, damage to resources, social disruption, and a breakdown in the flow of essential goods and services. In New Zealand, impacts of climate change are now evident in water supply, agriculture, natural ecosystems and in the loss of at least a quarter of glacier mass. Although it is thought that New Zealand possesses high adaptive capacity, nevertheless, the predictions for climate change will create stresses on sustainable land use, urban infrastructure, coasts, conservation and biodiversity. Disaster must be seen in a social context of the ability of people, organisations and societies to withstand adverse impact. Adaptation methods range from national policies and regulation to the encouraging of local and individual changes in attitude and behaviour. Adaptation can lead to economic

opportunities of a 'win-win' nature, with new products and services being introduced that create employment and wealth as well as offering protection, an example being rain-water tanks. More research can generate greater understanding of how local communities can adapt, especially in the context of social equity and fairness (ibid, 163-166).

A foremost peak oil educator (Heinberg, 2007) gives some insights into the ramifications of peak oil on the global food system. By his assessment, peak oil threatens to imperil the lives of possibly billions of humans, and consists of four simultaneously colliding dilemmas, all arising from dependence on depleting fossil fuels. Higher oil prices, increased demand for biofuels, the impacts of climate change and extreme weather events, and the degradation or loss of basic natural resources are likely to result

in an unprecedented food crisis. Climate change, the greatest environmental crisis of our time, is complicated by fuel depletion, and failure to address these problems properly will have dire consequences. While there is some dispute among experts as to when the peak will occur, there is none as to whether. Oil has become the world's foremost energy resource, with no ready substitute, and decades would be required to wean societies from it. "Peak oil could constitute the greatest economic challenge since the dawn of the Industrial Revolution". This challenge will present itself in the meeting of not just food, but all basic human needs, including clothing.

Sustainable development has emerged as a set of principles and practices underpinning business, government and communities in order to tackle some of the urgently needed changes in the ways that we make, use and dispose of things. (Hollender & Fenichell, 2004, chapter 4). In 1985, the United Nations General Assembly convened the World Commission on Environment and Development with the mandate of suggesting ways to resolve conflict between the imperatives of economic growth and environmental and social protection. The global model for economic development arising from the Commission was referred to as a sustainable model, and defined as “sustainable development which seeks to meet the needs and aspirations of the present without compromising the ability to meet those of the future” (ibid, p81). The ethos of sustainability can be summarised

as the 3 Es, also called the triple bottom line, of Economy, Ecology and Equity. Economic prosperity is not measured solely by profit but must encompass a healthy planet with healthy inhabitants. Humans must not use the planet’s resources beyond the capacity of those resources for renewal. Ecological stewardship includes judicious use of natural resources, elimination of pollution, waste reduction and the setting up of enterprise according to best practice architecture, plant, use and type of energy, and use of water. Equity is the people component, meaning social responsibility towards the workforce, the consumer and the community (ibid, chapter 4). Vigorous debate around, and thoughtful interpretation of, these three cornerstones, as opposed to accepting them as dogma, will prevent them from becoming a panacea for all that is ‘wrong’ in the world. At the coalface of these

debates and interpretations are designers engaged in the design of quotidian objects. Designers can play a role in imagining an alternative cultural vision and guiding innovation towards a desirable future. Design is not only about the appearance of a thing, but also about its intangible values and its way of production (Thackara, 2005, quoted in Steffen, 2006, pp 83 and 85). A currently prevalent mode of production is a technology driven equation of minimalism and efficiency to arrive at a design solution that perpetuates economic growth. This emphasis on the economic aspect pushes the ecological and people aspects of sustainability into the background (Ramakers, 2004). Designers with conscience have the task of bringing ecological efficiency to the fore by embracing eco-effectiveness so that each design is conceived of and materialised in a holistic way that asks

What are its goals and potential ethics, both immediate and wide-ranging, with respect to both time and place? What is the entire system -- cultural, commercial, and ecological -- of which this made thing, and way of making things, will be a part? (McDonough and Braungart, 2002, p82)

As well as material, philosophical and ethical dimensions, sustainability has a spiritual dimension. Eckhart Tolle's insights in *A New Earth* (Tolle, 2005) could be viewed as a spiritual interpretation of sustainability. He suggests that humans have become almost completely identified with the analytical mind and its false constructed self, the ego. This identification with an incessant stream of thought is a collective dysfunction that manifests in the violence that humans are inflicting on the planet with the destruction of forests and the poisoning of land and water. Tolle believes that humans must make an

evolutionary leap towards awakening or enlightenment, or face extinction as a species through this continued spoiling of the planet (ibid, p11).

The unconscious compulsion to enhance one's identity through association with objects is built into the structure of the egoist mind. Tolle observes that designer fashion labels are primarily collective identities into which consumers buy. Their high cost makes them exclusive: if everybody could buy them, they would lose their psychological value, leaving only the lesser material value. Consumer society is perpetuated by humans trying to 'find themselves' through things. The ego's short-lived satisfaction keeps the supply and demand cycle going. Attachment to things in turn creates an economic structure where more is the measurement of progress. Endless growth is dysfunctional, bringing about destruction if

unchecked (ibid, p36-7).

The Slow Movement (Claridge, 2007) advocates a cultural shift towards slowing down in lifestyle that is associated with voluntary simplicity and an enhanced quality of life that may, if it gathers enough momentum, tip the balance in favour of the planet's survival. This concept of slowness has also been applied to design. "The process of slow design is comprehensive, holistic, inclusive, reflective, and considered. It belongs to the public and professional arenas and emphasises the importance of democratising the design process by embracing a wide range of stakeholders" (Fuad-Luke, 2004). The philosophy and principles of slow design include design to slow production, use of resources and rates of consumption, celebration of pluralism, and the encouragement of a long view. The movement adopts the term continuous present used by the

American architect Bruce Goff and originating with the writer Gertrude Stein (Meade, 1995). The principle "history is past and the future hasn't arrived but the present is always with us" is interpreted as focusing on the present instead of trying to design the future (ibid, 2.2).

There is a growing awareness that fashion plays a part in the problems facing the planet and therefore needs to be part of the solution. Slater summarises this awareness in *The Environmental Impact of Textiles* (Slater, 2003, conclusion), pointing out that all of the actions of humans are harmful in some way, but most of the adverse changes result from industrial activity. The products of the textile industry are central to human survival, though a distinction must be made between needs and wants. At all stages of fibre, yarn and fabric production there is impact through the use of chemicals and pollution from byproducts. In terms of the use of textiles, one of the most prevalent but least recognised harmful effects lies in the premature discarding of fabrics, particularly in the fashion arena. Best practice eco-effective materials, in a

cradle-to-cradle paradigm (McDonough and Braungart, 2002, chapter 4) are those that can return to the biological cycle to be consumed by micro-organisms in the soil or animals in the field. A clothing article fitting this profile would be the sole of a shoe, having worn out before the upper, which could be removed. The materials of the sole, if planted in the orchard, would break down to become food for the cherry tree (ibid, p105). Alternatively, materials can be designed to go back into a production cycle as separated elements. A customer might hire a carpet from the carpet service provider on a contract basis. When the customer wants to update, the service provider takes away the old carpet and breaks it down into separate components some of which may go to feed the cherry tree whilst others are reconfigured as 'new' carpet (ibid, p112). This is noted in order to

position the use of PCR materials in the context of McDonough's attitude that recycling is downcycling and that being 'less bad' is 'no good'. The energy required to break down materials for re-use, the toxins released in the process and the resultant material being poorer in quality than a virgin one are all cited as reasons for moving away from recycling towards eco-effective, fully biodegradable materials.

The terms 'reuse' and 'recycling' in relation to clothing and textiles apply to the breakdown of those materials for reformation into new fabric. Research conducted to quantify the energy used by a reuse/recycling operation demonstrated that

...for every kilogram of virgin cotton displaced by second hand clothing approximately 65 kwh is saved, and for every kilogram of polyester around 90 kwh is saved. Therefore, the reuse and

recycling of the donated clothing results in a reduction in the environmental burden compared to purchasing new clothing made from virgin materials. (Woolridge et al, 2006)

The term 'design' generally encompasses both mental and physical activity. A concept arrived at through mental effort leads to a plan for realisation that is carried out with the techniques, skill or art involved in the physical action of making. Intention is implied in design conceptualisation; in fashion design, the intended purpose of the garment, the intended wearer and how long the garment is intended to last before it outlives its purpose either by wearing out or falling out of fashion (Sproles and Burns, 1994). In commercial product development, design concepts are driven by market research and forecasting which determine what is directional and how these directions can be

adapted to the market segment at which the product is aimed (Carr and Pomeroy, 1992, preface and chapter 2). The industrialisation of fashion production has had the effect of making fashion labels less about the designer's signature and more about commercial imperatives of production lead times and seasonal trends (van Hinte, 2004, p244). Time and Design puts forward the idea of a moral scale for all kinds of design, with that demonstrating continuity being high on this scale. This would site fashion at the low end of the scale "because it reflects discontinuity, fragmentation and the artifice of the surface" (ibid, p242). Schumacher's term 'Buddhist economics' from the 1970s is a forerunner of modern sustainability. Consumption, in Buddhist economics, would be merely a means to human well-being, with the aim being to obtain the maximum of well-being with the minimum of consumption.

His application of this principle to clothing suggests that well-being means comfort and attractive appearance with the least “destruction of cloth” and designs that involve “as little toil as possible” (Schumacher, 1973, p47). His description of complicated tailoring as in “the modern vest” being uneconomic, and a “more beautiful” effect being able to be achieved by the skilful draping of uncut material both dates his writing and raises the question of whether there is a fashion aesthetic that could be described as sustainable. To say that the cutting of cloth for tailoring amounts to destruction-- the equivalent perhaps of the fragmentation mentioned above-- and that draped garments are more beautiful curtails designers’ creative expression rather than, as Schumacher asserts, giving it more scope. Schumacher’s attempt to impose an aesthetic that would improve fashion’s posi-

tion on the moral scale would also run into difficulties with today’s market expectations for the variety and constant turnover that constitute the ephemeral nature of fashion. The Empire of Fashion (Lipovetsky, 1994) puts forward the notion of frivolous ephemera becoming part of the right of the masses to be fashionable in democratic societies. To Lipovetsky, sustainable fashion appears to be a paradox because fashion celebrates the ephemeral whilst conservation tends towards the cautious and fearful. In unravelling this paradox, Lipovetsky concludes that ecological sensitivity and hedonism will simply become adapted to each other (ibid, p247), a more realistic ballpark for a sustainable fashion aesthetic than Schumacher’s equating of tailoring with toil and sustainability with uncut cloth. Further exploration to discover a discernible sustainable fashion aesthetic revealed that one

New Zealand fashion magazine saw environmental awareness as a fashion trend. An article in *New Zealand Fashion Quarterly* (Bates, 2006) reassured readers that eco-clothing did not equate to colourless, shapeless hemp garments. Fashion designers like New Zealand’s Karen Walker took part in a show called *Future Fashion* at New York Fashion Week, 2005. Her black hemp prom-style dress (figure 3) shared the runway with outfits featuring organic cotton (figure 4), and recycled polyester and new fabrics such as the trademarked Ingeo made from corn (figure 5).



Figure 3. Karen Walker: organic hemp prom style dress.

Copyright 2007 Earth Pledge.



Figure 4. Jeffrey Chow: organic cotton bolero with recycled Coca-Cola sequins.



Figure 5. Heatherette: recycled polyester bustier and Ingeo taffeta skirt.

The acceptance by the market of used materials is crucial for the uptake of any refashioned product. While the attempt to conclusively prove the existence of a sustainable fashion aesthetic is probably futile, the appearance of PCR materials in New York Fashion Week is a positive sign of shifting perceptions.

A cluster of projects carried out within the last five years by Rebecca Earley, Kate Fletcher and Matilda Tham, amongst others, engages with how ecological sensitivity is manifested in the materials of clothing, its processes of design and production or its use and disposal. Clothing Rhythms is a chapter in the Eternally Yours Foundation's publication *Time and Design* (van Hinte, 2004) that maps out ways of designing and planning products so that their value is sustained and they can be kept and used for a longer time. Fletcher & Tham assessed a number of clothing articles as to whether

their environmental impact was greater in their production, care during their use cycle, or their disposal. This assessment gave more depth to implications for ecological thinking than simply saying that fashion obsolescence is undesirable. Establishing the distinction between fashion, that satisfies the social being, and clothing, that is more concerned with physical needs, gave the basis of their analysis. A more expensive garment such as a winter coat would be expected to have a long consumer life, with more impact on the environment in its production phase given that it is not cleaned often during its use phase. By contrast, underwear items impact more through their frequency of laundering, making them potential candidates for disposable materials.

The SusHouse (sustainable household) Project (2000) envisioned a time fifty years hence when households would be more

sustainably run. Interesting propositions were put forward, particularly around a shift in clothing ownership away from the personal and private towards a more communal, leasing system. The care of clothing would be centralised, all materials would be organic and renewable with dirt-detecting and self-cleaning capabilities, and the cost of owning clothing would be high.

The 5 Ways Project (Earley and Fletcher, 2003) centred around five considerations for reuse of clothing that engaged the user and attempted to break the chain of dissatisfaction leading to more consumption. Number Three, Local, suggests that designing for one's locale and 'roots' fosters a sense of community and stimulates the local economy by creating local employment, minimising transportation costs, and, like the slow food movement, linking concepts of quality time and a visible line of production and distribution.

In New Zealand colonial society, where fabric was a scarce resource, every scrap was saved and hoarded to be reused over and over again (Ebbett, 1977). Social equality and blurring of distinction between classes arose in colonial situations because of this scarcity, and because people may have been from a higher class in England but in the new country they were engaged in the kind of work where it was more practical to adopt working class attire.

Chapter Six of *Looking Flash* (Labrum, McKergow and Gibson, 2007) is an account of castaways' clothing from the Auckland Islands, the site of at least ten shipwrecks before 1907 (ibid, p76). Solutions addressing a lack of clothing played a critical part in the survival, in an extremely harsh environment, of Auckland Island castaways, and in the struggle to maintain personal and social identity. Shipwrecked mariners were frequently referred to as wild men because

of their inadequate, distressed or improvised garments made from animal skins, and their dirtiness and long hair. The wild man is associated with barbarity, primitiveness or lack of civilisation and the setting up of this 'other' reinforces what is the 'norm'.

Written descriptions, both by rescuers and the castaways themselves, reveal the fear that, with the loss of 'civilised' clothing, the wearers had sunk into a state of 'barbarity'. "The rough, improvised garments and lack of personal hygiene were a source of intense psychological, as well as physical, discomfort and unease, for viewer and subject alike" (ibid, p77).

Individuals constantly negotiate their role or identity by resolving who to be, and how to conduct themselves, including how to present themselves through the medium of dress. In the castaway's situation the circumstances severely reduced the means to create and maintain a 'normal'

identity in this way. (ibid, p77)zz
One shipwreck, in 1866, included the only female survivor on the Auckland Islands. With much experimentation, and the skills that were part of most Victorian women's education, the castaways worked out how to make sealskin into clothing and shoes. They used needles made from bird bones and thread unravelled from the canvas sails salvaged from the ship (ibid, p79). The garments produced were stylistically contemporary, indicating the links between fashion and social identity even in an isolated community (ibid, p81). The conclusion drawn was that clothing protects from the elements, but, even in such desperate circumstances, fashion exists as an intangible expression and transmission of identity (ibid, p93).
There are many accounts of a make-do attitude towards the necessities of life from

the depression years of the 1920s and 30s (Simpson, 1974). There was a perception that the slump was a social equaliser, closing class gaps (ibid, p33). The sugar bag was a characteristic example of make-do clothing: an impromptu parka prototype, with one corner being used for a hood and one side ripped open to form the front (ibid, p119). It was common for women to make their children's clothes from cast-offs such as men's trousers and woollen underwear, and the scarcity of clothing per person led to situations where children had days off school while their only outfit was being laundered (ibid, chapter 1).
These historical perspectives reveal the importance of dress even in circumstances of privation. People's ingenuity has come to the fore in the past and there is no reason to suppose it will not do the same again, if need be, in the future. ReFashion sees

adaptation as an opportunity in a future where, because of the growth in clothing production to satisfy want as opposed to need, the stockpile of useable resources is likely to be larger than it was in the past.

Old Clothes New Looks (Palmer, 2005) is a collection of studies about second-hand clothing in selected historical, contemporary and geographical contexts. In historical and modern affluent societies whose consumption is based more on desire than on requirement, the material of clothing lasts much longer than the trend of fashion. Historically, the casting off of clothing by a wealthier class before it was worn out gave a poorer class the opportunity to be modern. The global nature of modern trading makes second-hand clothing readily available, allowing third world people to achieve modernity and be well dressed, and thus, argues Hansen, it should not be seen as dumping (Palmer, 2005, p100). The term 'recommodification' is used to denote both physical and meaning change in the garments purchased first in bales by dealers, and then by customers in the

marketplaces of, in this case, Zambia. Today the major purveyors of second-hand clothing are charity organisations. Much of the clothing that is donated to charity bypasses opportunity shops, to be shipped overseas as described above, or to be sorted as waste textile. Textile waste is reconfigured as fibre and fabric in various ways with a wide application of clothing and industrial uses (Hawley, 2006). Fabrics made of materials such as recycled plastic bottles appear to be an ecologically sound choice, but in fact the bottles contain toxins, making for unhealthy wear (McDonough, 2002, p58). Martin Margiela is a fashion designer known for using recycled materials. A review of a Margiela exhibition in Rotterdam critically evaluates and speculates on Margiela's use and transformation of second-hand clothing in the field of high fashion (Evans, 1997).

The term recommodification appears in Evans' analysis of Margiela's work, pre-dating use of the same term in *Old Clothes New Looks* by some years. Repetition of the use of this word has led me to accept it as a recognised term in academic analysis of uses for post-consumer recycled materials. The idea that narratives are embedded in used clothing comes to light when examining Margiela's work. "The warehouse full of old clothes contains a contradiction: what is on the one hand a tantalisingly obscure narrative is also, on the other, no more than a pile of smelly old clothes" (ibid, p89). Her description of Margiela's 'bringing forgotten histories back to life' (ibid, p88) appears, to me, to be paradoxical; the history of a secondhand item of clothing, rather than being forgotten, was probably never known and therefore out of reach of revitalisation. Nevertheless, the element of conjecture

around used clothing narratives is an important aspect of refashioning PCR materials. In its attempt "to cast new light on contemporary [fashion] practice and its context", another work by Caroline Evans (Evans, 2003, p4) makes a strong connection with the Survivalist Fantasy theme of this project. The chapter titled 'Dereliction' is of particular interest in the discussion about how time operates in fashion design. The stains and repairs of second-hand fabrics are vestiges of the past and garments made from these fabrics were described by the designer Jessica Ogden as capable of bearing memory traces (ibid, p 252). The autumn-winter 2001-2 collection of designer Miguel Adrover featured a dress made from an old, dirty mattress, and was accepted by a New York fashion audience (ibid, p 258). In general, the late 20th century saw the evolution of a new kind of conceptually and

stylistically experimental fashion with dark themes related to death, disease and dereliction that expressed anxiety about the approaching millennium (ibid, p4). Recycling of ideas as well as materials was prevalent, with visual links between past, present and imagined future being a way for designers to construct contemporary meanings and think about how time operates in a fashion context. A prominent example of idea recycling was the fascination with, and resurrection of, the Victorian corset (ibid, p22). The design process for 1990s designers Gautier, Westwood and Galliano was a kind of charity shop styling that scavenged both ideas and materials to produce a contemporary aesthetic that defied linear time (ibid, p 25). The London designer Shelley Fox produced ideas-led fashion that reversed the usual overlaying of the new on the unfashionable by folding the present

back on the past, elevating decay as an aesthetic and evoking ruination in the past as a vision of the future (ibid, p 56). An artisanal way of working represents a keeping alive of the past and rejection of rapid technological change, globalisation, capitalism and mass production conglomerates. Images of decay mask the failure of environmental politics and global protest (ibid, p 260).

Dereliction was a recurring theme from the 1980s when Rei Kawakubo introduced the idea of patina and ageing to Paris fashion (ibid, p 249). Kawakubo also pioneered wabi-sabi, which represents a comprehensive Japanese world-view centred on the acceptance of transience, as a 'poor' fashion aesthetic (ibid, p 256). The aesthetic is described as one of beauty that is imperfect, impermanent, and incomplete.

Pared down to its barest essence, wabi-sabi is the Japanese art of finding beauty

in imperfection and the profundity of nature and of accepting the natural cycle of growth, decay and death. It's simple, slow and uncluttered, and it reveres authenticity above all... It reminds us that we are all but transient beings on this planet – that our bodies as well as the material world around us are in the process of returning to the dust from which we came... (Noble Harbor, 2006)

In conclusion, evidence points to the probability of change to life as we know it, with no certainty that human responses to climate change and peak oil will occur in time to avert hardship and loss of life. The evidence of science is sobering but the extent of devastation is speculative and would vary in different localities. Sustainability is necessary and there are admirable initiatives towards it on a number of levels. The need for sustain-

ability in fashion appears to be interpreted mainly as initiatives towards slowing down the cycle of production and consumption, and the use of organic and/or new fibres in textiles. Currently the use of PCR materials for refashioning is a small niche of designers whose work is characterised by an awareness of contemporary social and environmental issues. Adaptation is key to survival and leads to economic opportunities of a win-win nature that could conceivably include fashion products. The survivalist fantasy theme of this project supposes a failure of sustainable initiatives and explores how ReFashion might adapt sustainability to a more self-sufficiently oriented reality in New Zealand.



Process and Reflection



Figure 6. Salvaged labels.

Examination of Past Work and Reflection

Since this study arises out of previous experience, my first process was to examine my past costume and fashion work to identify recurring moda operandi, constructions, themes, signatures, and a fashion wearer profile. Chronologically, my costume work precedes my fashion work, and my modus operandi for fashion design conceptualisation and realisation is influenced by my work as a costume designer, where the parameters for a set of costumes are defined through the analysis and breakdown of a play script. Depending on the type of script, I might jump straight from script breakdown to working with materials from the costume stockpile, compiling outfits and/or fabric on dress forms and photographing them as a way of bringing a train of thought or an inspi-

ration to life. Ideas could be speedily worked to the point where they could satisfactorily communicate intention to the director. From there, designs could be refined in drawings, or the drawing phase could be skipped and the outcomes achieved by working directly with the materials. Tom Stoppard's 'Rozenkrantz and Guildenstern are Dead' is an example in my experience of script that lent itself to this way of working. Rozenkrantz and Guildenstern are two minor courtier characters in Shakespeare's Hamlet, whom Stoppard has placed at the centre of the action along with the leader of a troupe of travelling players known as The Tragedians. The 2000 production at Downstage Theatre, Wellington, NZ was directed by Colin McColl who wanted to do the play with period costumes and set without resorting to a stiff Elizabethan court style. The play was set in a draughty northern European castle

and I looked at this setting through a 2000 lens. I retained the generic Renaissance silhouettes and ruffs for the court and mixed them up with contemporary materials and garments or fragments of garments selected from a costume stockpile. The court characters' costumes were created by combining conventional methods of drawing, pattern making and construction with adaptation of existing garments. The Queen's coat combined new furnishing fabric and remnants of a fur coat, and Polonius's coat was a 1970s woman's coat worn back to front (figure 7). The raggle taggle troupe of travelling players was dressed entirely from the costume stockpile. Since Stoppard had not given them individual characters, I had some licence in the way that they were styled and was able to introduce anachronistic elements such as shrunken jumpers made into hats (figure 8).



Figure 7. Left to right Queen, King, Polonius.

In 2001, I had the idea of making fashion wear from PCR materials and I began developing some designs using mainly tartan skirts, woollen pullovers and old donated ballet costumes. In retrospect, I see this quote from the novel 'Kafka on the Shore'



Figure 8. The Tragedians.

(Murakami, 2005) as expressing something I realised intuitively in the early days of my shop ReCreation: "It's all a question of imagination. Our responsi-

bility begins the power to imagine. Turn this on its head and you could say that where there is no power to imagine, no responsibility can arise". Murakami's character links the taking of responsibility to the power of imagination. Sustainability has an implied morality of taking responsibility for the future. Design, the province of the imagination, influences sustainability, and sustainability, the province of responsibility, influences design. An examination of my archives of sold and current stock of fashion wear revealed four consistently recurring construction principles whose key words are reconstruction, embellishment, combination and reconfiguration. Figures 9 to 12 are examples of these principles, selected one from each year, 2002 to 2004. The manifestations of these principles represent my intuitive reading of sustainability as resourcefulness, versatility and ingenuity.



Figure 9. Unzip jacket: a reconstruction.



Figure 10. Autumn leaves kimono: an embellishment.



Figure 11. Raincoats: a combination.



Figure 12. Upsdjkt: a reconfiguration.

Time constraint has been the most profound influence on my design approach for costume. Fast turnaround television shows like *Skitz*, a Gibson Group comedy sketch series, required a shoot-from-the-hip approach to design. With only a week to gather a large collection of costumes, ingenuity and fast action were required to costume, for example, a large Samoan male as O.J. Simpson's mother. I learnt also to assess the level of finish required in terms of how close the audience was and how robust the costumes needed to be according to the activities of the character and the length of the season. Spontaneity, improvisation and fast, intuitive responses are the legacies from this time that show up in my early refashioning as a raw quality representing my appreciation of a sense of freedom in this way of working (figure 13). The



Figure 13. Raw finish jacket.

ready availability of PCR materials at little or no cost allowed an almost reckless attitude of 'nothing ventured, nothing gained' giving this work an experimental, uncensored quality.

Presenting 'quickfix' and 'oneline' garments for sale was a way of testing the tolerance of the market towards a product that is not standardised in the same way as a conventionally manufactured one. The quickfix is literally restorative, as in the patching up of damage, and figuratively as in a breath of fresh air, a metaphor for breathing new life into tired old garments (figure 14). The oneline (figure 15) has a jokey quality, because of the incongruous juxtaposition of fur and tracksuit jacket.



Figure 14. Creatively mended skirt.



Figure 15. Possum Rodeo nylon jacket with fur trim.

The amusement factor is one of ReDunn's variations on self-renewal. The garment is revitalised and the customer feels revitalised by the glee and wry commentary of a garment in combination with other factors such as style and colour appeal (figures 16 & 17). Picking up on these ReDunn signatures of humour, wit and optimism, customers were unphased by the improvised nature of the garments, instead enthusing on their uniqueness and the positive opportunism in the use of materials.

Familiar Kiwi garments like the bush shirt can be co-opted for customising in a combination of functional and fanciful (figure 18). A functional shirt used as a canvas for bricolage garners a cheeky chic, extending its dress code appropriateness beyond the bush and farm.



Figure 16. Hot pink knitted dresses with ties.



Figure 17. Appliquéd shirt with curler.



Figure 18. Multi bush shirt and trimmed bush shirt.

Garments were effectively a work-in-progress, and those that did not sell were thought of in terms of not having found their wearer in a particular reincarnation. These were often re-refashioned, in an ongoing evolutionary process. With an 'anything goes' approach, there is no hard line to be drawn between costume and fashion. Costumes have been known to go from stage to washing machine to rack to walking out with a customer. The Duchess (figure 19) was a character in Demeter's Dark Ride, an Attraction, Bats Theatre, Wellington, 2005. The outfit was later purchased to wear to a wedding.

My construction processes, derived from fashion, costume and craft practice, are as eclectic as the garments to which they are applied. I tend to match techniques to the character of the garment. A rough textured

Harris Tweed jacket with a rustic character suits a rough finish with raw edges and chunky wool darning (figure 20). This jacket has an artisanal quality, with hand stitching at the shoulders and inside around the lining.



Figure 19. The Duchess dress, skirt and shawl ensemble.



Figure 20. Harris Tweed crossover front jacket.



Figure 20. Harris Tweed crossover front jacket.

Determining the Prototypes

I chose prototyping as a way of selectively demonstrating some of the enumerable possibilities for creating refashioned clothing. The ReFashion design process starts with a finished garment, meaning that there is little or no separation between the conceptualisation and realisation aspects of the design process. The first stage of design development for the present study was based around construction principles, the rationale being that (re)construction is a fundamental design principle in refashioning. This preoccupation on a physical level with structure, whilst inadequate as the sole design consideration, gave me some initial parameters for a work-out of prototypes:

- ‘Prototype’ refers to a garment that demonstrates a construction or combination of constructions.
- Right from the start I think in terms of outfits, including underwear and accessories.
- Prototypes range from more conventional to more experimental.
- Prototypes represent all garment types across the collection, as in dresses, skirts, outerwear, etc.
- Some generic styles such as workwear or leisurewear are apparent.
- Some prototypes are multiples to show their potential for repeatability.

The setting of these parameters facilitated the next process, the choice of materials.

Provenance

All the materials of clothing, synthetic or natural, come from and ultimately return to, the earth. The journey of a piece of clothing from fibre to fabric to garment use and disposal can be on a convoluted pathway with many sidetracks. In ReFashion, the article of clothing is intercepted on its cradle-to-grave journey, and another loop added into its life cycle. Provenance, in refashioning terms, does not mean where materials originally came from, but how and from where they come to the designer. In conventional fashion design, the availability and selection of cloth is key to the design process. In a similar way, the selection of PCR materials is key to the ReFashion process.

While working for Downstage Theatre, I utilised their costume resource in a fluid way,

with garments being co-opted to be variously adapted and customised. I was able to take seldom hired-out garments and reuse them as components in another costume; for example a lurex jersey maxi skirt from the 70s became a trim on the Queen's dress (figure 19). The costumes in the Downstage stockpile were accumulated over many years from productions and donations.

Similarly, in order for refashioning to take place, there needs to be a stockpile. Sources for PCR materials might include purchasing bales from charity sorters like the Salvation Army, contacts in the rag trade like the owner of a costume hire, auction houses where one can obtain whole estates, and donations from friends, family, supporters and well wishers. When sourcing in bulk or piecemeal from charity organisations, it is important to ascertain what the organisation's policy is about washing, as

often they do not undertake it themselves. Newly sourced materials are sorted into piles such as compatible to wash together, discard, clean in another way than with water, doesn't need cleaning, etc. The amount of cleaning or mending required is assessed in terms of what is acceptable patina and whether the nature of soiling is such it can be remedied. A garment requiring a lot of resources to clean it might be better broken down into parts, some ideally becoming waste fibre for new fabrics and others becoming components for refashioning. Stains such as blood or other bodily excretions, especially odorous ones, must be eliminated because of health risks. A residue of grime or makeup on a washed shirt collar might be deemed an acceptable patina by some consumers and rejected by others. With these varying consumer reactions to take into account, there exists the possibility of offering the same designs with

different choices of materials. By buying up dead stock that might otherwise be trashed, a source of unworn garments is obtained with the advantage of having more than one in the same colour and size. This gives the customer the choice of the PCR patinated one or the one made of new materials. Currently I have a studio with space dedicated to garments racked in categories of skirts, dresses, etc., with subcategories of colour differentiation and fabric types. On acquisition raw stock is assessed and cleaned as necessary, catalogued as to its provenance and price and stored. Provenance information can be used to give each garment a story as a marketing tactic. If I decide the garment is unusable then I salvage and store useful parts such as zips, buttons and trims and dispose of the remainder thoughtfully. Figure 21 is a diagrammatic representation of the provenance phase of the ReFashion design process described above.



Figure 21. Provenance whiteboard.

Selection of Materials

The next process is the selection of materials, influenced by tangible values of fabric, cut and colour and intangible ones like sentimentality, nostalgia and vintage. General motivations for selection include:

- Where design decisions are based on the designer's signature, selection is made according to her eye, and personal taste is the main arbitrator. Selection is made on the basis of the appeal of certain styles and/or fabrics and/or colours.
- Specific garments being selected because they best fulfil the intentions of the design or theme.
- Parameters for rejection, related to environmental or ethical standpoints. For example, it might be decided that nothing made of polyester will be selected because

of evidence about its negative environmental impact. An ethical stand might be taken on using inferior quality imports made by indentured labour.

- Some garments not being selected because they don't lend themselves to re-fashioning or are already complete in themselves as vintage wear.
- Other garments, by their simplicity or complexity, lending themselves to a particular design idea.
- The influence of nostalgia factors.
- Sourcing according to the theme of a collection, for example Indian or 1950s. The procurer sources to a brief for the production run of a particular style.
- The potential for narrative as an influence on a theme or collection.

Prototype Development and Documentation

I searched my stockpile for a variety of garments that could demonstrate the reconstructions, embellishments, combinations and reconfigurations I had identified, as well as fulfilling style, garment type and colour requirements that would allow for styling into outfits. The modular wardrobe system of mainstream fashion also pertains to ReFashion, as it offers flexibility through the mixing and matching of components. Thus the prototypes were conceived of as both stand-alone demonstrations of the design process model and elements able to be combined as outfits. Through a process of trial and error, and mindful of my parameters, I selected from my stockpile and experimented with the four constructions on dress forms. I

used safety pins for these assemblages and photographed them to aid recall. My tendency is to spend a few days experimenting freely with lots of garments before deciding which ones will proceed to the next stage. These are then removed from the dummies and disassembled for unpicking and the first stages of stitching. They are then refitted and further decisions made in terms of the stitching, trims, fastenings, replacements of components and other additions or subtractions required for completion. A specification sheet for documenting production processes needs to be developed for ReFashion to efficiently operate as a commercial venture. I have documented the prototypes in table form, with the second column telling the provenance, the third giving an outline of process, and the fourth being dedicated to an assessment of whether

the prototype meets the stated objectives of demonstrating creative use of PCR materials and being able to be produced in multiples.

Figure Number	PCR Materials	Refashioning Process	Assessment in terms of Objectives
22-1.	Large man's waistcoat donation.	In this reconstruction, the waistcoat was unpicked at the shoulders and the fronts were reattached each to the opposite shoulder. The buttons were removed and new ones repositioned, a new back belt was made out of a fragment of red silk satin and a buckle salvaged off another waistcoat, and two darts were made at the bust level to eliminate extra fabric.	Men's tailoring in larger sizes gives plenty of fabric to create interesting reconstructions that retain the essence of corporate style. The garment makes more sense on a body than on a hanger, an issue to be aware of in display for merchandising.
22-2.	Black woollen straight skirt donation.	The black skirt is a simple reconstruction of a long straight skirt that was shortened and a circular frill cut from scrap fabric attached to the hem. The frill was not hemmed, but cut with pinking shears.	Simple garments complement complex ones in a modular wardrobe and simple designs are simple to produce in multiples.



Figure 22-1.



Figure 22-1.



Figure 22-2.

Large man's 3-piece suit with two pairs of trousers purchased from Salvation Army.

Figure Number	PCR Materials	Refashioning Process	Assessment in terms of Objectives
23.	<p>Jacket from suit above. Small woman's jacket donation.</p>	<p>The jacket is a hybrid of reconstruction and combination. A large and a small jacket have been snap-fastened together, leaving open the option of wearing them separately. The shoulder pads and front interfacing were extracted from both jackets to eliminate bulk and stiffness.</p> <p>The amount of unpicking depends on the nature of the PCR material and the intended design finish. The linings of tailored garments can be unpicked to access the inside structure, or, for a rougher finish cut through layers and left with raw edges.</p>	<p>When refashioning men's jackets for women, design decisions focus on how to deal with the excess fabric, especially around the armhole and shoulder.</p> <p>Unpicking is labour intensive so the more unpicking that occurs, the more expensive the garment will be.</p>
	<p>Two pairs of trousers from suit above.</p>	<p>The dress is a hybrid of reconstruction, reconfiguration and combination. With two pairs of trousers there was plenty of fabric to play with. The fronts and backs were separated, and the trousers threaded upside down onto elastic through their hems.</p> <p>Another casement was made for a second row of elastic to fit the waist. The dress could also be worn as a skirt.</p>	<p>There is a scarcity of trousers in this collection because they are hard to successfully refashion. In the ideal ReDunn boutique, trousers would be made from new organic fabric.</p>
	<p>Waistcoat from suit above.</p>	<p>There is enough fabric already in this outfit, with the two jackets and two trousers, so I moved the waistcoat away from the body and made it into a hat.</p>	



Figure 23.

Figure Number	PCR Materials	Refashioning Process	Assessment in terms of Objectives
24.	Cream Aran knit pullover donation. Ten reels of elastic from The Salvation Army shop.	This handmade pullover was reconstructed as a singlet with thin plaited salvaged elastic being stitched to the edges.	This is an easily repeated design with a variety of pullovers being suitable and a pattern that has been graded to standard
25.	Caftan donation.	This shapeless caftan was divided into strips and knotted front and back using macramé knotting.	While caftans like these are a rare find, the same principle of dividing and knotting could apply to other garments, and other fabrics like sheets could be made up caftans and receive the same treatment.



Figure 24.



Figure 25.



Figure Number	PCR Materials	Refashioning Process	Assessment in terms of Objectives
26-1 to 26-4.	Jackie's shirtwaister style dresses donated by her family and described by her daughter as 'Mum's old hippy dresses'.	The dresses demonstrate one kind of embellishment each: fur, stitched together ties, lace, and the addition of apron-like panels from PCR Japanese textiles salvaged from kimono.	Embellishment is one of the simplest ways to freshen up a garment, and it is a great way of using up all the little interesting bits.



Figure 26-1.



Figure 26-2.



Figure 26-3.



Figure 26-4.

Figure Number	PCR Materials	Refashioning Process	Assessment in terms of Objectives
27.	A 'wastecoat' made from a waste fibre packing blanket purchased from a charity shop.	This jacket is made from scratch and then embellished with odd gloves attached for pockets and an opportunity shop tapestry patch stitched on the back. The neck sits too high in the stiff fabric.	This fabric is usually used as packing for household removal. It represents an intention for the future: for the making of new fabric from old to be an intrinsic part of an enterprise, and a way of attaining zero waste.



Figure 27.

Figure Number	PCR Materials	Refashioning Process	Assessment in terms of Objectives
28.	A rather shapeless black synthetic jumper donation.	The pullover has a grid of coloured Velcro with coins that can be stuck on according to taste or whim.	The intention is twofold: to allow wearers to reconfigure the embellishment themselves and to be able to remove items before laundering. There is a wide range of possibilities for garment types, items to attach, and arrangement of the fluffy Velcro.



Figure 28.

Figure Number	PCR Materials	Refashioning Process	Assessment in terms of Objectives
29.	Long slip and camisole top and French knickers set, white artificial silk (satin), made in England, and still in the boxes they were purchased in, donated by Norma.	The slip and camisole have messages machine stitched onto them. I usually write on linen garments with an indelible marker but I did a test on a piece of satin and the ink ran.	The tee shirt is the usual item of clothing for bearing screen-printed messages. In the ReDunn world, textile ink is replaced with thread, as in these machine-stitched messages. Another slower option is to cut letters off other tee shirts and sew them onto another garment like a kidnapper's ransom note.



Figure 29.

Figure Number	PCR Materials	Refashioning Process	Assessment in terms of Objectives
30.	Faded pink quilted velvet jacket in a Chinese style purchased from second-hand fashion store.	I am embroidering over the quilt stitching on the pink velvet jacket with coloured wools from the opportunity shop.	This is a work in progress, a personally sustaining project done on a winter evening in the company of my flatmate doing her elaborate darning. This kind of artisanal work is not commercially viable, but is worth doing as a remembrance of old values.



Figure 30.

Figure Number	PCR Materials	Refashioning Process	Assessment in terms of Objectives
31.	Four Seasons active gear by Fairydown 100% pure new woollen bush shirt, donated by Jackie's family. Fragments of felted fabric and a herringbone jacket.	Top + bottom combination. Fairydown bush shirt had a faded area at the bottom that I replaced with a piece of hand felted material that I put some tucks into and backed with fabric cut from the herringbone coat.	I wonder if some people would be squeamish about wearing a dead woman's clothes? People who knew her could regard these garments as mementos of her, but this would have no meaning for most customers.



Figure 31.

Figure Number	PCR Materials	Refashioning Process	Assessment in terms of Objectives
32.	Issey Miyake long-sleeved top made in Japan. Lime green battered tulle rock 'n' roll petticoat. Donations.	Top + bottom combination of tee shirt + skirt = tutee. The 'tu' component comes from tutu and is made from tulle in these examples, but it would also work in other fabrics.	This design has potential as an inexpensive basic line, especially if remaindered stock is used.



Figure 32.

Figure Number	PCR Materials	Refashioning Process	Assessment in terms of Objectives
33.	A Vienna Classics multicoloured tartan pleated elasticised waist skirt. Part of a Himalayan jumper.	A top + bottom combination of part of a jumper and a tartan skirt in a simple horizontal join finished with blanket stitching and jagged hem cut with pinking shears.	With so many variations possible, this design could be adapted to profiles ranging from this 'eco-chic(k)' style to an urban work wear style for an older clientele.



Figure 33.

Figure Number	PCR Materials	Refashioning Process	Assessment in terms of Objectives
34.	Two Executive by Millers checked sports coats.	Two jackets combined with a vertical join through the collars and front edges. Extra fabric was formed into tucks.	This jacket is at the experimental edge, and would not appeal to people who like clothes they are barely conscious of wearing, as it is heavy and cumbersome and sits oddly on the shoulders.



Figure 34.

Figure Number	PCR Materials	Refashioning Process	Assessment in terms of Objectives
35-1. 35-2	<p>Herringbone wool sports coat purchased from a Costume Cave surplus sale.</p> <p>Rosaria Hall herringbone skirt donated by Jackie's family.</p> <p>Trelisse Cooper black woollen jacket part of a suit purchased for a theatre production.</p> <p>Homemade plaid skirt donation.</p>	<p>Two frock coats were made from combined jackets and skirts. The herringbone one demonstrates a fast method of eliminating extra fabric in the shoulder area by overlocking.</p> <p>The Black jacket had a worn lining so I adapted an unfinished brocade robe into a new lining, leaving the old one underneath.</p> <p>I noticed, on the black and plaid frock coat after I thought it was finished, that the checks at the waist on one side were misaligned.</p>	<p>Quality control issues arise in refashioning with diverse materials. I was not on the alert and didn't notice the misalignment until I did the buttonholes, the last operation. I decided to leave it for the purpose of demonstrating what is, in fact, an unacceptable anomaly.</p>



Figure 35-1.



Figure 35-2.



Figure Number	PCR Materials	Refashioning Process	Assessment in terms of Objectives
36.	Gray men's slacks purchased from The Costume Cave surplus sale.	Frtrjkt-- a jacket from trousers reconfiguration. The grey slacks were opened up from the back waistband to the bottom of the zip. The legs became sleeves by shortening and narrowing. The pocket bags were overlocked off, as they would otherwise hang down. The front edge was trimmed with lace.	The jacket from trousers is another example of a garment that makes more sense on the body than on the hanger. It is an easily repeatable design.
37.	Green satin 'homemade' Indian trousers donation.	Frtrtp-- a top from trousers reconfiguration. The green Indian trousers were unpicked at the crutch and hemmed for a head opening. The waistline elastic was extracted.	When I tried on this top I found there was a huge quantity of extra fabric under the arms. Perhaps on a bigger person it would be okay, but I thought I would try to take a tuck in the front to shift some of the extra fabric. When I went to do this, I found that the existing ones were so uneven I would have to unpick them and realign them. It was another example of the anomalies that can occur especially in homemade clothing.



Figure 36.



Figure 37.



Figure Number	PCR Materials	Refashioning Process	Assessment in terms of Objectives
38.	Two camouflage shirts purchased new, so they are not PCR but are an example of the potential for remaindered stock.	Frshsk--a skirt from shirts reconfiguration. I experimented with different ways of buttoning two shirts together to make into a skirt.	The skirt from shirts is not stitched so the challenge was to put it on several times over the course of a week and see if I could remember how it was meant to go. My conclusion was that there doesn't have to be only one way of wearing. Colour coding of buttons and buttonholes conveys one way of configuring the shirts with scope for other configurations, including wearing as shirts. Instructions and diagrams would be part of a 'sustainable styling' package with the wearer being able to continue customising after the designer is out of the picture.



Figure 38.



Figure Number	PCR Materials	Refashioning Process	Assessment in terms of Objectives
<p>39-1.</p> <p>39-2.</p>	<p>Green brocade formal dress donation.</p> <p>Rayon brown pattern dress with contrasting godets donated by Jackie's family.</p>	<p>The donor was going overseas and was a bit half-hearted about letting go of her mother's self-made dresses. This influenced my choice to not cut the dress, so I made a feature of the huge hem by using orange thread to sew it up. I have put a zip on the inside as well to make it easier to do up if it is worn inside out.</p> <p>The brown dress hooks up with buttons and buttonholes to become a shorter style with more interesting drape.</p>	<p>Figures 36 and 37 are fixed reconfigurations while figures 38 to 40 are fluid and demonstrate the experimental possibilities of refashioning that need to be presented for sale.</p>



Figure 39-1.





Figure39-2

Figure Number	PCR Materials	Refashioning Process	Assessment in Terms of Objectives
40-1 to 40-6.	Pink patterned polyester dress with double layer top.	<p>Six-ways to wear reconfiguration-- I set myself the challenge of finding at least 5 ways to re-arrange the pink black patterned dress on the dress form.</p> <p>The garment can be reconfigured by the wearer, requiring instructions to be part of the package.</p>	<p>Garments with less fixed structures allow more drape, fluidity and variety in their wearing. If you put on something upside down, the fabric gathers and falls differently, sometimes with surprising results. I decided to leave the dress without any extra fastenings apart from a zip to close the neck for a crutch. Other reconfigurations are done with safety pins.</p>



Figure 40-1 to 40-6.



Reflection on Provenance

PCR materials are not new and have already had a life before refashioning, so time in ReFashion design does not operate in a linear way of moving forward and simply replacing the 'old' with the 'new'. The 'new' is made up of the 'old' in material terms, and in symbolic terms the use of old materials creates a visual link to a past that is projected into a future 'what if' scenario. For example, the use of a pair of unexceptional men's slacks as a jacket (figure 36) conjures up for me the 1930s depression when there was an extreme shortage of resources. Fundamental to the ReFashion ethos is preparedness for such times that may come round again. So design ideas are conceived of in the present using materials from the past and referencing past events to project to a speculative future.

I don't feel any personal sentimentality about, or attachment to, PCR materials, but I do look deeply at their potential as usable resources, literally and metaphorically, structurally and anecdotally. I examine how the garment is made, prying inside, unpicking the lining and seeing what dust has gathered in the corners, what old coins or bus tickets might be lurking, sometimes finding things that are distasteful like used handkerchiefs. I note the patina: of pee stains and rust and mildew spots that refuse to be budged even by dry-cleaning solvents. In my survivalist fantasy, a future operating in the present, materials of conspicuous consumption become the materials of survival, and, wherever they're sourced from, are valued and appreciated in a different way than if there's a surfeit of choices. The 'artificial silk' slip (figure 9) is just material, not even real silk, certainly not a

sacred object to be shut up in a museum. Conspicuous consumption--consumerism motivated by status seeking rather than by need-- is obsolete in survival mode, as is sentimentality.

There are two modes of interception, depending on circumstances. The first is to seek out certain materials to fulfil an order from an outlet or a plan for a collection. The second mode is to accept anything that comes along, as has been my practice for this study and in business since I began. Engaging with community, this practice brings with it joyous and sad encounters, and involves traditions of bartering and negotiation. Some people exchange materials for payment or services. Others are involved in a complex personal rationalising process, understanding that lightening the load is both physical and psychological. Clothing, for example a wedding dress, is a marker of

life points. It may be associated with regret, if the marriage ended in divorce. Memories and stories are passed on by word-of-mouth with the clothes and sometimes these give clues as to the original provenance. I always receive gratefully, listen to the stories and show the donor my stock of refashioned garments to pique their curiosity about what might become of their donation. Currency has become largely abstract in modern society, with pay packets replaced by direct deposits which are spent using a plastic card. PCR materials obtained by donation or a negotiated transaction are a concrete currency involving participation. The stories of garments obtained in a more impersonal transaction from an opportunity shop can't be known for sure, but can be imagined. Second-hand clothing has a poignant lingering residue that nourishes its reconception.

The former garment is imbued with traces of its past wearers that are transferred by means of the ReFashion designer creating a fictional fantasy association.

A marketing strategy based on suggestion leaves space for the customer's own musings on provenance and narrative. In the case of ex-costume hire garments, I can sometimes get an inside story on the garment's passage through various productions. For example, on old tutus the ballet and character are recorded on a label, and the names of ballerinas who have worn them are written on the calico lining in biro (figure 41).

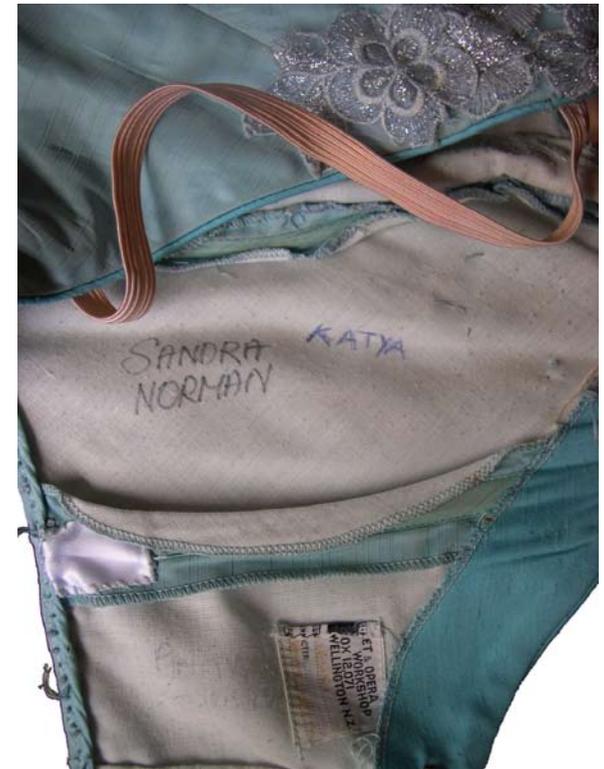


Figure 41. Royal NZ Ballet tutu bodice inner.

Survivalist Fantasy Theme

My theatre experience informed my choice of a device— a script— to progress from a bunch of prototypes demonstrating constructions to a collection that captured and expressed the characteristic spirit of Re-Dunn. The Survivalist Fantasy theme provides a lens to bring into focus different aspects of my work: the theme for a collection, an undercurrent fundamental to the ethos, a wearer profile, a positioning on a spectrum of art, commerce and fashion design, the role of sustainability and the setting for a fashion spectacle. The theme also motivated the selection of four outfits, and decisions about their styling and finishing details.

In the same way that I make no distinction between clothing for the stage and clothing for life, the boundaries also blur between

art, fashion and commerce. As an artist, I play polemically with ideas. The polemic is literally worn on the body, as fashion. The script for my polemic is speculative, since I don't know what the future will be and can only imagine a scenario based on a synthesis of scientific evidence and conjecture. A concerned citizen speaking with an alarmist voice might be ignored if they said the same thing over and over again. As a designer wishing to serve the greater good I could say repeatedly 'we shouldn't buy clothing made by indentured labour' and not make much headway. The controversial stance of disallowing consumption of the new is expressed in a more positive way by presenting adaptation as a prominent design feature.

Upheavals in the form of climate change and peak oil would bring about shifts in priorities away from self-indulgent desires, towards

a more self-sufficient approach to material needs. Many of the systems we recognise, including the fashion system, might become irrelevant or unable to operate in their present form. It is not my intention, in juxtaposing fashion wear and dystopian scenes, to suggest that this is what should be worn in a disaster. Rather, it is a device to express a key aspect of my ethos: that ReFashion is part of a movement towards preparedness for major changes that may be forced upon us. The world I am describing is not immediately post-apocalypse; an unspecified interval of time has passed and people have started to rebuild society. The human capacity for optimism and creative self-expression has irrepressibly bubbled up to the surface again. By using what is available in a creative way, humans continue to satisfy, in a changed way, their need for self-renewal and individuality. This project is

about a failure of sustainability on a global scale, but its success on a local scale of people dealing with the consequences of dystopia. In survival mode, sustainability radiates out from the personal to the family to the community, reverting back to a less industrialised time when it was natural to use what was available, adapt and be resourceful, in other words to 'waste not want not.' The dissemination of trends is currently facilitated by computer and mobile communication technology and a high level of physical mobility. If these things were no longer easily available, sustainability and lifestyle would become localised in a similar way to folk dress still worn by cultures such as the Tibetans, (figures 42 and 43) who survive in harsh conditions. Local culture and etiquette, including dress, are connected with identity, self-sufficiency and survival. The result is not purely concerned

with function, but embraces colour, pattern and decorative craft.



Figure 42. An apron worn by married women from central Tibet.



Figure 43. A Tibetan chuba of silk.

The use of familiar fabrics and garments in the prototypes, like tartan, herringbone, ties and pullovers helps the wearer retain identity in a changed world. A frock coat made from recognisably corporate-style garments (figure 35) allows for the retention of a business identity even if business practices have altered. The garment is functional on a semiotic level of being appropriate enough in colour and cut to allow the wearer to be believable in their position. It is functional on a practical level because it is made from warm fabrics that accommodate changes in lifestyle like taking public transport that involve more exposure to the elements. In a post-apocalyptic world, where circumstances limit distinction between daily, functional dress and ceremonial dress, ReFashion injects ritual into daily dress, in a celebration of self and community. A survivalist, subsistent way of life encourages

a more inventive self-expression through clothing than when there is a continuous stream of new manufactured goods. Clothing that reconfigures like the dress that can be worn several ways (figure 40) elevates one's daily dressing of oneself into a ritual.

The theme highlights some typical aesthetic qualities of ReFashion. Recycled materials refuse to be anything but themselves. There is a slightly skewed, 'undone' quality about ReFashion; a disreputable air rather than a streamlined or mass produced look. Fragments can be built back up into a whole entity or the design process can start with a finished garment and reduce it to a fragment or series of fragments. This fragmentation on the material plane reflects fragmented time, with bits of the past being remade in the vision of the future. The conceptual lens in fashion design references the past,

remodelling it for a contemporary sensibility. In ReFashion, the sense of past is strong because the materials have a history; the sense of an ambiguous future is strong in the message of the garments, and the sense of present is strong in the transformation process. A craft-based artisanal way of working reminds us of the importance of slow fashion in a world of fast mass production and consumption. Slow fashion, for example taking time to hand stitch over the existing quilting on a velvet jacket, (figure 30) is anachronistic in the mass produced world. A skirt made from toddlers' dresses (figure 44), designed for an adult, has a chronological misplacement. The sense of anachronism in the work is also due to using outdated clothing, bringing an interesting juxtaposition of 'classic' and experimental.



Figure 44. Skirt made from toddler dresses.

Exaggeration belongs on the list of Re-Dunn design sensibilities. Have the large tie (figure 32), and enormous hem (figure 39) grown or have we shrunk? On the one hand, there is a feeling of being small and insignificant in the face of large-scale disaster, while on the other hand, the hem may simply be versatility brought forth by resourcefulness. Figure 45 demonstrates two dresses that have been adapted to a longer length by inserting extra fabric. They belonged to the mother of a Dutch woman who remembers, as a small girl, a woman who used to come and do this kind of sewing work for the family. Multiple ways of using and styling garments encourage longer and more varied use. The huge hem, exaggerated to be almost as big as the garment, becomes a design feature, to express the possibility that at some time in the future a long dress may be needed.



Figure 45. Two WWII dresses with altered hems.



Craft and resourcefulness are linked in the adage 'waste not want not'. Versatility is conceived as both functional and renewing. There is a sense of glee in being able to convert a shirt into a skirt and back again (Figure 38), and relief in knowing that the short dress can be unbuttoned to protect more flesh from the sun if need be (Figure 39-2). A personal bohemian notion of poverty as inherently aesthetic comes from my life as a squatter in Amsterdam and London in the 1980s. This notion is maintained as a fundamental aspect of my design sensibility but it now has in addition an awareness of the issues of sustainability. Living in survival mode brings about a change of attitude towards clothing ownership from individual to non-individual or pooled. A clothing exchange operates like a book exchange or a quotidian-use clothing hireage outlet like a fancy dress hireage

outlet. Adaptation in terms of the laundering of clothing is also required. With water being scarcer, and washing clothes by hand being an arduous and time-consuming task, there is a change in attitude towards what is an acceptable level of grime.

ReFashion as Commercial Enterprise

My perception of an audience profile is that it is not defined by demographics like age or income bracket. People who have purchased ReDunn are fascinated by the transformation of something ordinary like an Aran knit pullover into something unexpected like a singlet (figure 24). The singlet exposes much more flesh yet retains the image of a warm and sensible pullover. This fascination is bound up with a sense of satisfaction at seeing something unappealing, because it is 'unfashionable', as in not trendy, being made 'fashionable' again, rather than going to waste. Waste is associated with guilt, and recycling has the effect of alleviating that guilt. ReFashion may be of more interest to urban dwellers than rural dwellers who might regard clothing as some-

thing predominately functional, and see no reason to change an Aran knit pullover into something else. ReFashion encourages its clientele, as an alternative form of self-renewal, to take part in the customisation of clothing from their own wardrobe. An unremarkable or standard item could be personalised, as a service offered by the outlet or done by purchasers themselves. A built-in capacity for reconfiguration would allow wearers to continue customising garments themselves and to take a more active role in styling instead of leaving it to 'experts'. Systems for pooled clothing and clothing leases could allow for the circulation of fancy dress or occasional items that might otherwise be quickly obsolete and thrown away. Some garments might not be fully finished when offered for sale. The outlet could offer the service of finishing the garment/outfit to the customer's wishes by

altering the fit or embellishment to taste. All these ways of offering fashion allow for a measure of ritual that connects the client to the purchase and the maker, lifting it above mere commodity. ReFashion, as a generic variant of fashion is quintessentially inclusive, being able to traverse gender boundaries and cater to differing dis/abilities, body types, ages and lifestyles. The output can range from simple to complex and haute couture to baby clothes to fancy dress. Having established the ethos of ReFashion as being concerned with adaptation and the use of what is to hand, I am prepared to address these challenges in order to make it into a successful fashion enterprise:

- Its acceptance relies on the market recognising that the reworking of abstract ideas and craft expertise into PCR materials is an adding of value; something 'worth' paying for. This adding of value is absent

in second hand clothing, which is generally considered to be of low commodity value unless it carries the tag 'vintage'. Regardless, there will also always be some people for whom a stain is not a badge of honour, but a stigma.

- The market also needs to be able to recognise and accept clothing made from PCR materials as fashion, and as fashionable. This adoption relies on ReFashion being developed as a commercial brand with the associated investment and marketing.
- Research is needed to ascertain whether the New Zealand audience for experimental fashion and enterprise built on waste is large enough to make it a commercially viable proposition. Sustaining a business is an aspect of sustainability of equal importance to any other.

- There is always the possibility of finding overseas buyers for the larger marketplaces of the USA and Europe, but this brings with it an ethical dilemma equivalent to the food miles debate, where the lesser environmental impact of re-fashioning is cancelled out by the impact of transportation.
- The best way(s) of presenting the product to the market need to be determined, for example as part of a conspicuously sustainable outlet that also offered clothing and accessories made from organic fabrics and fabrics made from recycled textiles.

ReFashion rejects the wastefulness of the cycle of constant production, consumption and disposal but in other ways models itself on or refers to the fashion system. It is mindful of directions without

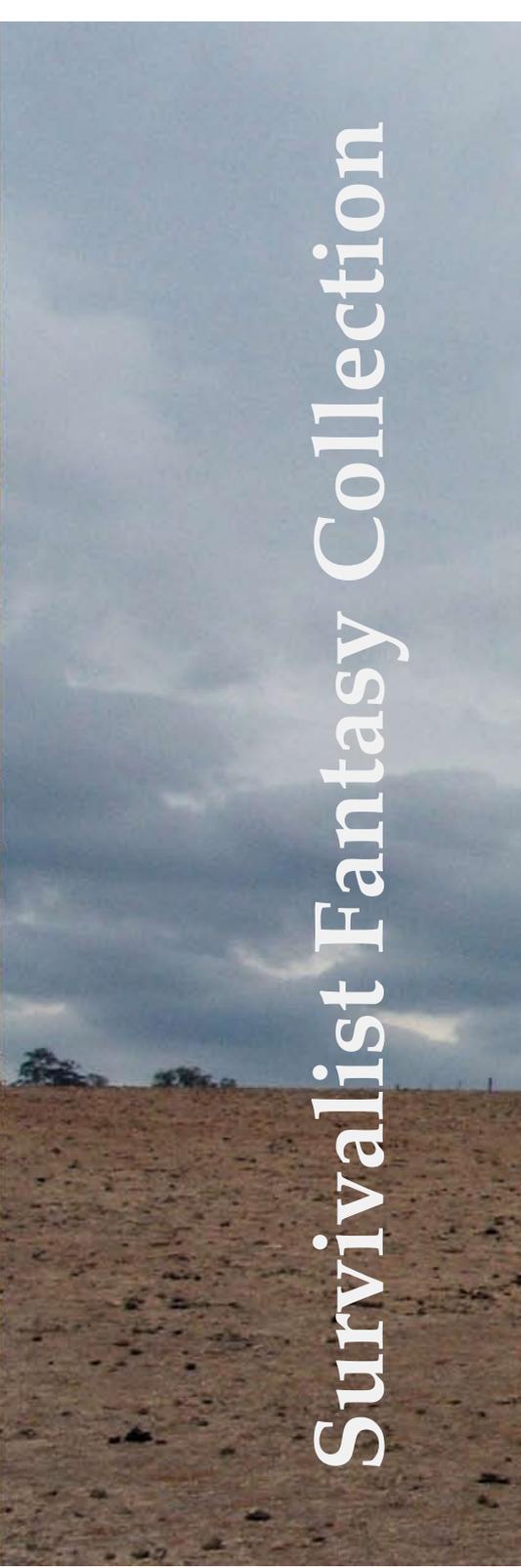
being a slave to the short cycles of slender ideas. ReFashion could operate in a conventional manufacturing paradigm of identifying a market, researching and forecasting directions and interpreting them for this market. This need not restrict the expression of a designer signature, nor experimentation and creative expression. But ReFashion, in its relationship with sustainability, reinterprets the design and production cycles. The seasonal approach of several cycles of renewal a year can be wasteful and the nature of clothing needs to adapt to a changing climate.

Selection for Survivalist Fantasy Collection

The final step in the process was the selection of prototypes for a collection, and the selection of models and settings for the collection. The selection for photographing on models was made according to which prototypes best expressed the predominant subtexts of resourcefulness, versatility and ingenuity.

ReFashion presents great opportunities for spectacle, gliding without effort between life and theatre. The placing of the models in the disaster scenarios gave rise to further styling of accessories and props. The two women with chainsaws (figure 47) symbolically represent a section of society responsible, through greed and exploitation, for disastrous consequences. Distress techniques like the dripping of wax

on the neckpiece of figure 48 are metaphors for the distressing of the planet about which I would otherwise feel helpless. A woman half submerged in floodwaters wearing a suit represents the displacement caused by disaster. There is an eerie sense of desolation about a cloned woman in a dry landscape.



Survivalist Fantasy Collection



Figure 47.



Figure 48.

Survival in Ruined City



Figure 49.



Figure 50.

Survival in Drought



Conclusions



Figure 51. Label Queen Jacket.

The ReFashion design process centres on the potential of PCR materials as usable resources. This potential resides in the physical qualities (style, texture, colour, etc.) of the materials as well as intangible, abstract qualities of social or cultural meaning. Potential is assessed through close examination of the PCR materials in conjunction with the principles of the design system.

ReFashion is a marriage between a conceptual artistic response to PCR clothing and a moral response to a global predicament. As such, it is a more developed mode of sustainability than the simple purchasing of second-hand clothing and, if able to penetrate the market place, could provoke new approaches to consumption of clothing. It cannot be claimed that the PCR materials of ReFashion have been consciously designed to go back into a

production cycle as separated elements. Thus if, by a cradle-to-cradle definition (McDonough & Braungart, 2002), ReFashion is not best practice eco-effectiveness, it is nonetheless an evolutionary way of making and using clothing that demonstrates environmentally and socially responsible practices. ReFashion is based on an optimistic premise that cumulative efforts to change how things are made, used and disposed of will help to mitigate the breakdown of the planet. This optimism embraces the hope that the use of less eco-effective materials is a transitional solution until such time as more eco-effective materials are developed and become readily available. The characteristic spirit of ReFashion is make-do resourcefulness. Attitudes of hope-for-the-best and prepare-for-the-worst operate simultaneously.

Conclusions

The same principles of design and production operate in both best and worst case scenarios, for example putting aside etiquettes of manufacturing such as exact colour matching of thread and allowing imperfections and anomalies such as the misaligned checks on the skirt of the coat (figure 35-2) to remain.

In ReFashion production terms, repeatability is a realistic objective, with bigger production runs made feasible by more standardised raw materials such as remainder stock. The ReFashion workroom operates along similar lines to a costume workroom, with key personnel having costume experience. Sustainability in action allows maximum creativity, not just of the designer, but as much as possible for all employees. The design process model requires the designer to maintain a hands-on involvement because the starting point for

design is a complete garment. Because of the diversity of ReFashion styles the model also accommodates employees taking an active role in design niches ranging from corporate to skate wear.

My survivalist fantasy is, on one level, an allegory for survival of humanity through evolution to a state of consciousness where material becomes less central to identity without sacrificing beauty or denying an attraction to colour, texture and form. The materials created by humans cause the problems, but the change of attitude towards them helps bring about the solution. The survivalist fantasy operates in two modes: as an underlying theme for experimental fashion in the current commercial climate it may trigger a thoughtful response in some consumers, and as a preparation for survival its adaptive nature could lead to economic win-win opportunities in the future.

- 42 Collective (August, 2007). Retrieved September 10, 2007 from <http://www.42collective.org.nz>
- Ashdown, S. (2004). Undesigned: A study in sustainable design of apparel using post-consumer recycled (PCR) clothing. *Clothing and Textiles Research Journal* 22 (1), 61-68.
- Barclay, S. (2007, October 15). 42 Collective. *Salient Magazine*, Issue 25.
- Bates, J. (2006). Moral Fibre. *New Zealand Fashion Quarterly*. New Zealand: ACP Media. Summer 2006, 74-78.
- Carr, H. & Pomeroy, J. (1992). *Fashion Design and Product Development*. Oxford: Blackwell.
- Cato, M. S. (2006). *Market Schmarket: Building the post capitalist economy*. Cheltenham: New Clarion Press.
- Chochinov, A. (2007). 1000 words: a manifesto for sustainability in design. Retrieved June, 2007 from http://www.core77.com/reactor/0407_chochinov.asp
- Claridge, C.L. (2007). *The Slow Movement*. Retrieved 11 December, 2007 from <http://www.slowmovement.com>
- Coleman, R. (April, 2007). *Inclusive Design- An introduction*. Retrieved June, 2007 from <http://www.design-council.org.uk/en/About-Design/Design-Techniques-Inclusive-design>
- Diamond, J. M. (2005). *Collapse : How societies choose to fail or survive*. London: Allen Lane.
- Earley, B. & Fletcher, K. (2003). *5 Ways Project*. Retrieved October 13, 2007 from <http://www.5ways.info/docs/intro/intro.htm>
- Ebbett, E. (1977). *In True Colonial Fashion : A lively look at what New Zealanders wore*. Wellington: Reed.
- Elgin, D. (1993 revised edition (first edition printed 1981)). *Voluntary Simplicity: Toward a way*

- of life that is outwardly simple, inwardly rich. New York: William Morrow.
- Evans, C. (1997). The Golden Dustman: A critical evaluation of the work of Martin Margiela and a review of Martin Margiela: Exhibition (9/4/1615). *Fashion Theory Journal* 2(1), 73-94.
- Evans, C. (2003). *Fashion at the Edge*. New Haven and London: Yale University Press.
- Fitzharris, B. (2007). How Vulnerable is New Zealand to the Impacts of Climate Change? *New Zealand Geographer* 63 (3), 160-68.
- Fuad-Luke, A. (March, 2004). *Slow Design*. Retrieved December 11, 2007 from <http://www.slowdesign.org>
- Hawken, P. (2007). *Blessed Unrest: How the largest movement in the world came into being and why no one saw it coming*. New York: Viking Press.
- Hawley, J. (2006). Digging for Diamonds: A conceptual framework for understanding reclaimed textile products. *Clothing and Textiles Research Journal* 24, 262-275.
- Heinberg, R. (December, 2007). *Muse Letter 188: What will we eat when the oil runs out?* Retrieved 12 December 2007 from <http://www.richardheinberg.com/museletter/188>
- Hoffman, L. (February, 2005). *Future Fashion: the Evolution of Style*. Retrieved 12 December 2007 from <http://www.earthpledge.org/fashion>
- Hollender, J. and Fenichell, S. (2004). *What Matters Most : Business, social responsibility and the end of the era of greed*. London: Random House Business.
- Jensen, D. (2006). *Endgame I: The Problem of Civilisation*. New York: Seven Stories.
- Jones, T. and Mair, A. (Eds.) (2001). *Fashion Now: i-D selects the world's 150 most important designers*. Koln: Taschen.
- Kawamura, Y. (2005). *Fashion-ology*. Oxford/New York: Berg.

- Knot, J.M.C. (2000). The SusHouse Project: Clothing Care. Retrieved October 13, 2007 from <http://www.sushouse.tudelft.nl>
- Labrum, B., McKergow, F., and Gibson, S. (Eds). (2007). Looking Flash: Clothing in Aotearoa New Zealand. Auckland: Auckland University Press.
- Lipovetsky, G. (1994). The Empire of Fashion : Dressing modern democracy. Chichester: Princeton University Press.
- McDonough, W. and Braungart, M. (2002). Cradle to Cradle : Remaking the way we make things. New York: North Point Press.
- Mead, C. (1995). The Architecture of Bruce Goff, 1904-1982: Design for the Continuous Present. The Journal of the Society of Architectural Historians 54 (4), 459-461
- Menkes, Suzy. (May, 2006). Eco-friendly: Why green is the new black. USA: International Herald Tribune.
- Murakami, H. & Gabriel, J. P. (Translator). (2005). Kafka on the Shore. London: Harvill.
- Noble Harbor. (2007). What is Wabi Sabi? Retrieved November 10, 2007 from <http://nobleharbor.com/tea/chado/WhatIsWabi-Sabi.htm>
- Palmer, A. and Clark, H. (2005). Old Clothes, New Looks : Second-hand fashion. Oxford: Berg.
- Ramakers, R. (Ed.) (2004). Simply Droog 10+1 years of creating innovation and discussion. Amsterdam: Droog.
- Schumacher, E. F. (1973). Small is Beautiful. A study of economics as if people mattered. London: Blond and Briggs.
- Simpson, T. (4th ed. 1997, originally published 1974). The Sugarbag Years. Auckland: Godwit Publishing,.
- Slater, K. (2003). Environmental Impact of Textiles: Production, processes and protection.

- Cambridge: Woodhead Publishing Ltd.
- Sproles, G. & Burns, L.D. (1994). *Changing Appearances: Understanding dress in contemporary society*. New York: Fairchild Publications.
- Steffen, A. (ed). (2006). *World Changing: A user's guide for the 21st century*. New York: Abrams.
- Thackara, J. (2005). *In the Bubble: Designing in a complex world*. Cambridge, Massachusetts: The Massachusetts Institute Of Technology Press.
- Thompson, Della. (Editor). (1995). *Concise Oxford Dictionary*, ninth edition. Oxford: Clarendon Press.
- Tibet Association of Northern California (2007) Slideshow of Tibetan dress.
Retrieved 11 December 2007 from http://www.tanc.org/tibetan_dress/dress_small.html
- Tolle, E. (2006). *A New Earth : Awakening to your life's purpose*. Waterville: Thorndike/Chivers.
- Transition Towns. (2007). Retrieved October 9, 2007 from <http://www.transitiontowns.org>
- van Hinte, E. (2004). *Eternally Yours Time in Design: Product Value Sustainance*. Rotterdam: Oio Publishers.
- Woolridge, A. C. et al and University College Northampton School of Health, UK. (2006). Life Cycle Assessment for Reuse/Recycling of Donated Waste Textiles Compared to Use of Virgin Material: A UK Energy Saving Perspective. *Journal of Resources, Conservation and Recycling* 46 (1, 94-103.

All definitions are from the Concise Oxford Dictionary (Thompson, 1995) unless stated.

Adage– traditional maxim or proverb.

Anomaly– an irregularity. Anomalous – having an irregular or deviant feature; abnormal.

Bright Green– optimistic view of how passion and creative thinking can translate into world changing action (Steffen, 2006, editor’s introduction).

Combine– joining together. Researcher’s definition used contextually as a construction term to describe garments that have been refashioned by the combining of 2 or more PCR elements.

Embellish– beautify, add interest to. Researcher’s definition used contextually as a construction term to describe garments that have been refashioned by applying decoration to their surface.

Ethos– the distinctive or characteristic spirit or attitudes of a culture, era, community, people, system, etc. From Greek for nature, disposition--natural tendency or inclination.

Patina– (conventionally) green film (oxide) on bronze surface or other surfaces; gloss produced by age on woodwork; the term is also used in relation to desirable ageing effects on other artwork. Researcher’s definition used contextually to describe marks, holes, stains or other damage to fabric or clothing. Assessment must be made as to whether the item is stained beyond remedy, i.e. whether the amount of time and resources that would have to be put into cleaning it outweigh its potential.

PCR– post-consumer recycled, referring to materials that are obtained for the purpose of re-use after they have been purchased, used and discarded by someone else (Palmer and Clark, 2005).

Potential– as an adjective– capable of coming into being or action–latent; for example potential use for. As noun– the capacity for use or development; usable resources. From Latin ‘posse’– be able; present participle–‘potens’. Researcher’s definition used contextually as a principle for assessing PCR materials for refashioning.

Provenance–conventionally, place of origin or the earliest known history, especially of a work of art. Researcher’s definition used contextually to refer to where the PCR item came from– its source, and cost, a description of the item, the label, where it is made and what the fabric is. This information may not be significant in practical terms but it may have some value as part of the marketing of the refashioned garment.

Recommodification– commodification, noun, the action of turning something into, or treating something as, (mere) commodity. A commodity is an article of raw material that can be bought and sold, a useful thing. So recommodification is the action of taking something that has been made into something– a ‘cooked’ material– that can be rebought and resold.

Reconfiguration– a rearrangement of parts or elements in a particular form or figure. Researcher’s definition used contextually as a construction term to describe garments that have been rearranged to be worn in a way different from the original design intention.

Reconstruction–something reassembled or rebuilt. Researcher’s definition used contextually as a construction term to describe garments whose structure has been altered, reworked or deconstructed.

Sustain–support, give strength or nourishment to.

Sustenance–nourishment, livelihood.

