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**3D contoured fabrics:
proposing a new product and
story for New Zealand wool**

**A thesis presented in fulfilment of the
requirements for the**

**Master of Design
in
Textiles**

at Massey University, Wellington, New Zealand

**Theresé Hollingsworth
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ABSTRACT

The 90s saw significant changes in the way New Zealand wool fibre was marketed to maintain a position in an increasingly competitive global market. This research has suggested that New Zealand textile design has been under-utilised as a means of adding value to this commodity and set out to investigate how design in conjunction with technology and marketing could create a new product idea and propose a new story.

Investigations into design, technology and marketing were carried out within a generic product design framework for a defined textile interior product. Research ceased at the point at which a product story could be proposed.

Woven prototypes developed through studio practice explored a 3D contoured aesthetic for New Zealand wool fabrics incorporating specialist yarn technology, and manufacturing capabilities were assessed to determine whether New Zealand industry could feasibly produce the resultant fabrics.

Approaches to the marketing of New Zealand wool were investigated through case studies of businesses involved with the manufacture and marketing of wool fibre/product.

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TABLE OF CONTENTS

	TITLE PAGE	i
	ABSTRACT	ii
	ACKNOWLEDGEMENTS	iii
	TABLE OF CONTENTS	iv
	LIST OF FIGURES	viii
1	INTRODUCTION	1
	RESEARCH AIM	4
	QUESTIONS	4
	OVERVIEW	5
2	LITERATURE REVIEW	7
	PRODUCT DESIGN MODEL	7
	DESIGN AND TECHNOLOGY	9
	MARKETING	15
3	METHODOLOGY	18
	PRODUCT DESIGN MODEL	19
	DESIGN AND TECHNOLOGY	20
	AESTHETIC	21
	FIBRE, YARN AND TWIST	22
	WEAVE STRUCTURE AND SETT	23
	FINISHING	23
	MANUFACTURING ASSESSMENT	25
	MARKETING	26
	PRODUCT DESIGN MODEL	26
	Participants	28
	BUSINESS CASE STUDIES	31

4 IDEATION TO GATE 2 32

DESIGN AND TECHNOLOGY MARKETING

IDEATION	32
GATE 1: First Screen	34
STAGE 1: Preliminary Investigation	34
GATE 2: Second Screen	36

5 STAGE 2 37

DESIGN AND TECHNOLOGY

RESULT	39
--------	----

AESTHETIC/TECHNICAL ANALYSIS	39
------------------------------	----

AESTHETIC	39
-----------	----

Design	39
--------	----

Handle	40
--------	----

Texture	41
---------	----

Drape	42
-------	----

FIBRE, YARN AND TWIST	42
-----------------------	----

Innovation in Yarn Production - LincLITE	45
--	----

WEAVE STRUCTURE AND SETT	46
--------------------------	----

FINISHING	49
-----------	----

SUMMARY	50
---------	----

MANUFACTURING ASSESSMENT	59
--------------------------	----

WRONZ	59
-------	----

Suggested Finishing of Prototypes	59
-----------------------------------	----

Yarn and Fabric Production	60
----------------------------	----

INTER-WEAVE	60
-------------	----

Fabric Production	60
-------------------	----

ALLIANCE TEXTILES (NZ) LIMITED	60
--------------------------------	----

Fabric Production	60
-------------------	----

SUMMARY	62
---------	----

6 STAGE 2 MARKETING 63

RESULT	65
COMPARATIVE ANALYSIS	65
PARTICIPANTS	65
Wholesaler/Distributor	65
Retailers	65
AESTHETIC	68
SUITABILITY OF PRODUCT FOR OUTLET	70
CUSTOMER BASE	72
PRICING	74
NEW ZEALAND MADE/NATURAL FIBRE	75
SUMMARY	76

7 BUSINESS CASE STUDIES 78

RESULT	80
NEW ZEALAND WOOL BOARD	80
C B COLLECTIONS	82
DILANA RUGS	85
ICEBREAKER	91
SNOWY PEAK	95
COMPARATIVE ANALYSIS	101
MARKET SHARE PRINCIPLES	101
SEGMENTATION	102
TARGETING	103
POSITIONING	103
MARKETING MIX	104
PRODUCT	104
Branding	107
PRICE, PLACE/DISTRIBUTION AND PROMOTION	109
PRICE	110
PLACE/DISTRIBUTION	111
PROMOTION	112
SUMMARY	113
Market Share Principles	113
Marketing Mix	113

8 PRODUCT STORY 116

EXTERNAL ENVIRONMENTAL FORCES 116

MARKET SHARE PRINCIPLES 117

MARKETING MIX 120

9 CONCLUSION

THE ROLE OF TEXTILE DESIGNER WITHIN THE
PRODUCT DESIGN MODEL 122

COOPER'S MODEL FOR TEXTILE PRODUCT 125

COMMONALITIES/DIFFERENCES IN DESIGN,
MARKETING AND TECHNOLOGY 126

THE CONTRIBUTION OF DESIGN, TECHNOLOGY
AND MARKETING TO THE PRODUCT STORY 126

3D CONTOURED FABRICS 127

GLOSSARY 129

REFERENCES 133

APPENDICES

LIST OF FIGURES

Figure 1.1	[periodical]	Postic, J. <i>"Cumulus" by Larsen.</i>	2
Figure 1.2	[model]	The Author. <i>Research Overview.</i>	3
Figure 1.3	[model]	The Author. <i>Content Overview.</i>	6
Figure 2.1	[periodical]	Donnelly, F. <i>Organic Forms within symmetrical arrangement in 2D and 3D Product.</i>	10
Figure 2.2	[table]	The Author. <i>Table of NZ Sheep Characteristics.</i>	12
Figure 2.3	[book]	Von Bergen. <i>Extract from von Bergen's table of 'Single Yarn Twist of Woolen [sic] Yarns'.</i>	14
Figure 2.4	[report]	New Zealand Wool Board. <i>New Zealand imagery used to promote product internationally.</i>	16
Figure 3.1	[model]	The Author. <i>Methodology Overview.</i>	18
Figure 3.2	[model]	Cooper, R. G. <i>A Generic Stage-Gate New Product Process.</i>	20
Figure 3.3	[diagram]	The Author. <i>Double weave draft worked on point paper.</i>	21
Figure 3.4	[diagram]	The Author. <i>Example of weave draft created in Scot-Weave Dobby Design programme.</i>	22
Figure 3.5	[diagram]	The Author. <i>Method for calculation of warp shrinkage.</i>	24
Figure 3.6	[model]	The Author. <i>Marketing Principles and Processes</i>	26
Figure 3.7	[table]	The Author. <i>Discussion points with retailers concerning prototypes</i>	28
Figure 3.8	[periodicals]	Various periodicals. <i>Style Categories.</i>	30
Figure 4.1	[periodical]	Cohen, L. <i>Blankets/Throw-rugs Magazine Feature.</i>	33
Figure 4.2	[sketch]	The Author. <i>Initial sketches for organic forms.</i>	33
Figure 4.3	[periodical]	JAB Anstoetz. <i>"'Carré' Crashed Throw".</i>	35
Figure 4.4	[book]	Grosicki. <i>Watson's example of Cloqué fabric.</i>	35
Figure 5.1	[model]	The Author. <i>Stage 2: Design and Technology Overview.</i>	37
Figure 5.2	[fabric]	The Author. <i>Effects of yarn on design forms.</i>	39

Figure 5.3 [fabric]	The Author. <i>Contouring comparison of face and back.</i>	40
Figure 5.4 [fabric]	The Author. <i>Example of fancy loop yarn used for textural effects.</i>	41
Figure 5.5 [fabric]	The Author. <i>Texture achieved through colour and yarn.</i>	42
Figure 5.6 [fabric]	The Author. <i>Lycra weft inserted every 4th pick.</i>	43
Figure 5.7 [fabric]	The Author. <i>Comparative effects of high twist yarns.</i>	43
Figure 5.8 [fabric]	The Author. <i>Effects of frequency of high twist yarn on weft contraction.</i>	44
Figure 5.9 [fabric]	The Author. <i>High twist weft inserted every 4th pick.</i>	44
Figure 5.10 [fabric]	The Author. <i>First sample to exhibit significant contouring using lincLITE.</i>	45
Figure 5.11 [fabric]	The Author. <i>Effects of juxtaposed weaves and yarns.</i>	46
Figure 5.12 [fabric]	The Author. <i>Effect of plain weave/sateen weave conjunction.</i>	46
Figure 5.13 [fabric]	The Author. <i>Effects of additional plain weave picks.</i>	47
Figure 5.14 [fabric]	The Author. <i>Corrugations formed through Double Weave stitching.</i>	47
Figure 5.15 [fabric]	The Author. <i>Effect of sett imbalance.</i>	48
Figure 5.16 [fabric]	The Author. <i>Irregularity of contours caused by open sett.</i>	48
Figure 5.17 [fabric]	The Author. <i>Effects of shrinkage caused through dyeing.</i>	49
Figure 5.18 [fabric]	The Author. <i>Sample 27, Selected Prototype.</i>	51
Figure 5.19 [diagram]	The Author. <i>Weave Draft "double o ribs – 3 Mar i".</i>	52
Figure 5.20 [fabric]	The Author. <i>Sample 28, Selected Prototype.</i>	53
Figure 5.21 [diagram]	The Author. <i>Weave Draft "double o ribs – 3 Mar ii".</i>	54
Figure 5.22 [fabric]	The Author. <i>Sample 39, Selected Prototype.</i>	55
Figure 5.23 [fabric]	The Author. <i>Sample 40, Selected Prototype.</i>	56
Figure 5.24 [fabric]	The Author. <i>Sample 45, Selected Prototype.</i>	57
Figure 5.25 [diagram]	The Author. <i>Weave Draft "double o ribs – 1 May ii".</i>	58
Figure 6.1 [fabric]	The Author. <i>Stage 2 Marketing Overview.</i>	63
Figure 6.2 [model]	The Author. <i>Selected woven prototypes presented to retailers for response.</i>	64

Figure 6.3 [table]	The Author. <i>Retail Analysis.</i>	66-67
Figure 6.4 [table]	The Author. <i>Response regarding suitability of product for outlet.</i>	70
Figure 6.5 [table]	The Author. <i>Response regarding customer pricing expectations.</i>	74
Figure 6.6 [table]	The Author. <i>Response regarding importance of NZ made/natural fibre.</i>	75
Figure 7.1 [model]	The Author. <i>Overview of Business Case Studies.</i>	78
Figure 7.2 [promotion]	CB Collections. <i>2001 Product Swing-tag.</i>	83
Figure 7.3 [web page]	CB Collections. <i>Home Page showing the designer's Endorsement.</i>	83
Figure 7.4 [periodical]	Next. <i>CB Collections magazine promotion.</i>	84
Figure 7.5 [periodical]	ProDesign. <i>Article in which "Key Suppliers", including Dilana are listed.</i>	87
Figure 7.6 [newspaper]	Gregg. <i>Sunday Star-Times "At Home" Feature on John Robertson.</i>	88
Figure 7.7 [web page]	Dilana. <i>'Gallery' 4 featuring rugs of artist Martin Poppelwell.</i>	89
Figure 7.8 [catalogue]	Icebreaker. <i>Double page spread from 2000 Catalogue.</i>	91
Figure 7.9 [catalogue]	Icebreaker. <i>Icebreaker nostalgic soft adventure.</i>	92
Figure 7.10 [catalogue]	Icebreaker. <i>Page layout variations from 2000 catalogue.</i>	93
Figure 7.11 [catalogue]	Icebreaker. <i>Wool as technical fibre.</i>	93
Figure 7.12 [web page]	Untouched World. <i>Untouched World 'kite' trademark/logo from website.</i>	96
Figure 7.13 [newspaper]	Export News. <i>Untouched World flagship store, Christchurch.</i>	97
Figure 7.14 [web page]	Untouched World. <i>Web page featuring U.S. President Clinton at page top.</i>	99
Figure 7.15 [brochure]	Today & Tonight. <i>Tourist information booklet containing Untouched World advertisement.</i>	100
Figure 7.16 [table]	The Author. <i>Comparative Table of Market Share Principles.</i>	101
Figure 7.17 [promotion]	Icebreaker and Untouched World. <i>Promotional material aimed at differing psychographic groups.</i>	102
Figure 7.18 [table]	The Author. <i>Marketing Mix analysis.</i>	105

Figure 7.19 [table]	The Author. <i>Product Values analysis.</i>	106
Figure 7.20 [table]	The Author. <i>Branding analysis.</i>	108
Figure 7.21 [table]	The Author. <i>Price, Place/Distribution and Promotion analysis.</i>	110
Figure 7.22 [table]	Icebreaker. <i>Advertisement in QT Magazine Visitor Information.</i>	112
Figure 7.23 [promotion]	Untouched World. <i>Advertisement in Today & Tonight Christchurch & Canterbury.</i>	113



INTRODUCTION

(Design)...is not just style or clever ideas; it is not an isolated activity, but a process. Design links the needs of the consumer with the potential of the enterprise. It is a process that lies at the very heart of innovation and thus at the heart of the company itself
(Cooper & Press:1995,36)

As a New Zealand textile designer, the researcher is concerned with the issues surrounding the design and promotion of New Zealand wool, being the country's most significant textile fibre contributing \$1 billion a year to the economy and accounting for about 4% of total export values.

(Edlin: 2000,15)

As student and subsequent textile lecturer in the mid-late 90s, it became apparent that the New Zealand Wool Board based in Wellington, did not consider that New Zealand textile design could add value to its commodity. Interactions experienced as a student were limited to one assignment concerned with garment and promotional ideas. While favourable feedback was expressed over class work, no further interest was demonstrated by the Wool Board in utilising the course and students as a resource for product development/promotion. The Wool Board was also known to employ European designers to create fabrics for use as promotional material in that market. In a global market, where product differentiation was being sought to create consumer demand, it seemed and still seems incongruous not to capitalise on New Zealand design as a point-of-difference.

With this in mind, the research project began to take shape. The following quote, ironically from Richard Janes in 1998 as Chairman of Wools of New Zealand, provided further direction.

To increase prices growers need to have a brand which identifies the wool ingredient in the final textile product. A consistent stream of new product ideas and technical innovation to create reasons for consumers to buy is also required.
(Country Wide:1998)

Design, technology and marketing synergies would seem to be the suggested formula here to add increased value to wool fibre. The re-

searcher therefore has undergone a journey to explore how textile design within a New Zealand context, can, in conjunction with technology and marketing propose a "new product idea" for New Zealand wool.

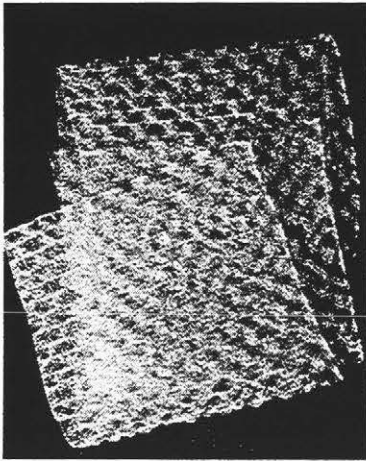


Figure 1.1
"Cumulus" by Larsen
Postic:1999

The desired design aesthetic was selected for its dramatic 3D contoured effects, which have the potential to either act as a room focal point, or alternatively blend in with the interior landscape. Interior fabric of this type is known to be produced in Europe and Asia by such companies as JAB, Larsen, Sahco Hesslein, Issey Miyake and Nuno. These woven fabrics can be constructed from man-made fibres to which heat may be applied to create 3D effects as in Figure 1.1, or, be a combination of natural fibres, such as cotton/wool that possess differing

shrinkage properties and which upon undergoing finishing produce 3D forms. The point of difference with the studio generated prototypes, is in the 3D effects made possible with specialist yarn technology, so facilitating a fabric almost entirely comprised of woollen fibre. The researcher's interest in interior woven fabrics, directed and determined the end-product to be throw-rugs.

Studio practice facilitated the exploration of weave variables to produce textile prototypes with the desired characteristics, and knowledge of technology was gained through qualitative primary and secondary research.

In New Zealand, hand-weavers Sheila Reimann and Ann Field, among others, have been creating garments/accessories with similar characteristics. These fabrics have not been industrially produced however, and an aim of this research has been to determine whether the capability to manufacture fabrics of this type exists within New Zealand industry. Textile mills and the Wool Research of New Zealand participated in a technology/manufacturing assessment to determine this capability.

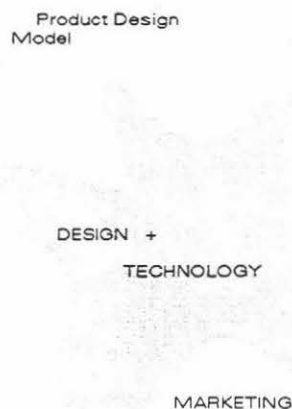
Janes' aforementioned reference to the importance of brand and the following quote that refers to product story, have also directed the course of this research.

The key to understanding the way of the future is that the story will become the product while the product becomes the by-product. Society will evolve, or rather is evolving, to increasingly value the stories behind products and services. And these stories will fulfil the need for emotional wealth when material wealth has become commonplace.

*-Rolf Jensen
(Leach:2000,18)*

Branding forms part of market theory and as little knowledge of this area was known to the researcher, marketing textbooks provided a source of secondary data with which to gain an overview of this area.

A generic product development model was adopted part-way through research when it was realised that a framework for investigations was required. In the absence of a specific textile product design model, Cooper's Stage-Gate method (1993) was applied and consideration as to its appropriateness given at the end of investigations. Design and technology tasks have been undertaken concurrently with marketing, and Figure 1.2 describes the fluid manner in which specialisations have interacted and so determined progress within the framework.



Investigations into the areas of design, technology and marketing

Figure 1.2
Research Overview

have also allowed the researcher to consider how far the role of a textile designer can realistically extend.

Marketing principles have been used to analyse case studies of businesses manufacturing and/or promoting wool/natural fibre to understand their marketing strategies in relation to end-product. As the most significant promoter of New Zealand wool historically, and in view of the comments made at the beginning of the Introduction, the New Zealand Wool Board has also been evaluated as a case study, albeit separate from the small business case studies. The same marketing principles used to evaluate all case studies have been applied to the development of the proposed "new" wool product.

The research has not set out to determine whether the proposed new wool product is a viable end product. Rather, the product design model has pro-

vided a framework for investigations of the areas that contribute to the creation of a product story, which, in line with the above quote by Jensen, add increasingly important values to a product. Investigations therefore have not necessitated consideration of the business structure or financial aspects of the model, and ceased partway through the product development process, at which point it was considered that a product story could be proposed.

No prior investigations have been identified by the researcher as being from the perspective of a New Zealand textile designer wishing to obtain a combined overview of design, technology and marketing through the development of a New Zealand wool product.

RESEARCH AIM

To propose a new product for New Zealand wool and gain sufficient knowledge of design, technology and marketing within a product design context to propose a "new story".

QUESTIONS

- How far does the textile designer's role extend within the product development process?
- How do design, technology and marketing interact within the product design model, and what are the commonalities/differences?
- Is a generic product design model an appropriate framework for textile product design?
- In what ways do design, technology and marketing contribute to the product story?

- How can 3D contoured fabrics be produced utilising predominantly New Zealand wool?
- Do the resources and manufacturing capabilities exist within New Zealand industry to produce 3D contoured fabrics?

OVERVIEW

Although a numerical system has been used to distinguish each chapter under investigation and allow for ease of reference, it should be pointed out that investigations have not progressed in a linear sequential fashion. Rather, in accordance with the product design model, investigations into the various areas have progressed concurrently and in parallel, in order that the information obtained can shape and determine the next step taken in the process. Figure 1.3 visually describes this approach.

Chapters 4, 5 and 6 relate to the development of the "new" wool product within the Product Design framework.

Chapter 7 looks at Business Case Studies outside of the Product Design model, in order to gain an overview of the marketing of New Zealand wool/natural fibre product.

Chapter 8 proposes a product story from the results of the former investigations.

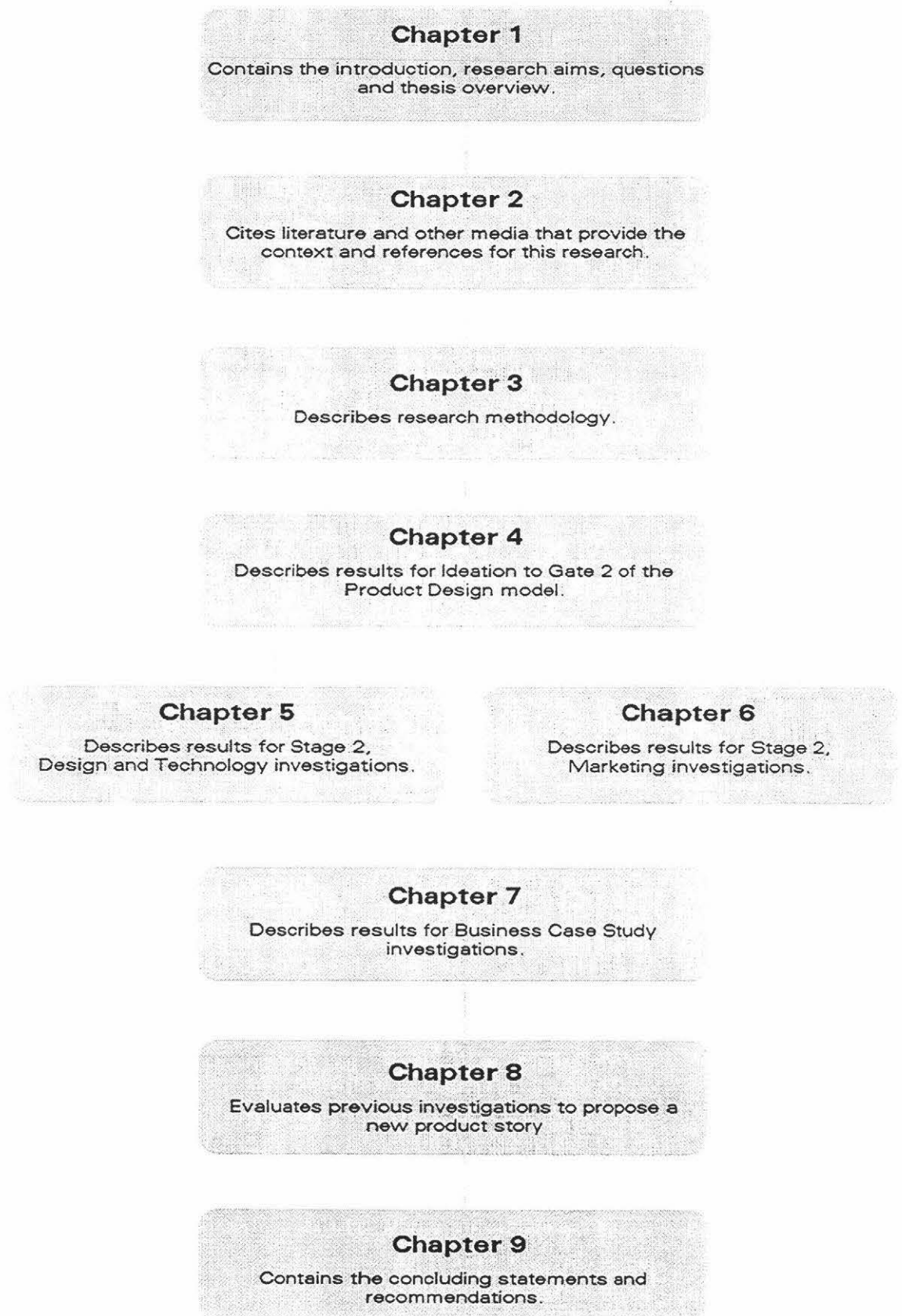


Figure 1.3
Content Overview

2

LITERATURE REVIEW

PRODUCT DESIGN MODEL

Although no current textile design product model has been located, recognition of the desirability for one to be formulated has been expressed. In 1998 in an article entitled "A cross-sectional approach to new product development" the authors discuss the challenges faced by the UK textile and clothing sector brought about by environmental legislation and overseas competition, and proposed funding for an improved product development model:

The new product development (NPD) process is perceived as a significant area for reorganization, innovation and investment. However, previous research has shown that typically companies in this industry suffer from having a fragmented inefficient product development process that adds unnecessary time and cost to the process.
(Bhamra et al:1998:2-15)

A two-year UK Department of Trade and Industry funded project aimed to improve the product development process in this sector by

...transferring knowledge and experiences from other industrial sectors, in particular, the electrical/electronics sector. Specifically, we are focusing on the use of teams to achieve concurrency in the new product development process and design for environment.
(Bhamra et al, ibid)

This recognition for concurrent teamwork is also reflected in Robert G. Cooper's product design model in Winning at New Products - Accelerating the Process from Idea to Launch. This industry recognised model¹ has, in the absence of a specific textile product design model, been applied as the framework for this research. Cooper's generic "Stage-Gate New Products Process" has been selected for its simplicity and flexibility of application. It has not, however, been helpful in defining the role of design, as it does not

acknowledge the position at all, seeing ideation "as everyone's job and no-one's responsibility". (Cooper:1993,123)

Design theorist Richard Buchanan, 1992, however, considered the nature and scope of design and discussed its emergence

*...as a new discipline of practical reasoning and argumentation, directed by individual designers toward one or another of its major thematic variations in the twentieth century: design as communication, construction, strategic planning, or systematic integration.
(Buchanan:1992,20)*

Buchanan goes on to speak of the confusion, about and between the various modes of argumentation, for example,

*...industrial design, engineering, and marketing each employ the discipline of design thinking, yet their arguments are often framed in sharply different logical modalities. Industrial design tends to stress what is possible in the conception and planning of products; engineering tends to stress what is necessary in considering materials, mechanisms, structures, and systems; while marketing tends to stress what is contingent in the changing attitudes and preferences of potential users. Because of these modal differences in approaching design problems, three of the most important professions of design thinking are often regarded as bitter opponents in the design enterprise, irreconcilably distant from each other.
(Buchanan ibid)*

The separation of design, technology and marketing is a feature of post-industrialisation when "technological complexity demanded increasing specialisation on the part of designers and more marked professional boundaries between them." (Cooper & Press:1995,43) Education specialisation further reinforced the separatism through

*...three largely separate cultures of management, engineering and 'art-based' design. The tribal territorialism this has engendered has restricted the integration of these three functions.
(Cooper & Press:43)*

Investigations within the Cooper model are delineated as market, technical and financial, however, as has already been stated, the product development process relies on teamwork and frequent assessments whereby representatives from all teams are involved. The responsibilities of each area of specialisation are summarised as follows:

<u>Technical:</u>	<i>Encompasses R&D, engineering and manufacturing. Includes assessment of technical feasibility, technical solutions, manufacturability, patent and legal and possible technical risks.</i>
<u>Marketing:</u>	<i>Assessment of market potential, identification of customer base, positioning, and other market related activities.</i>
<u>Financial:</u>	<i>Financial analysis and strategies.</i>

Although the position of designer is not acknowledged as part of this model, combining design with technology has been appropriate in terms of weave design, in that the designer requires knowledge of loom and computer technology in order to design effective fabric structures. Aesthetic considerations have also been included in design and technology, and these are discussed below.

In terms of the product design model, the focus of investigations has been on the areas of Marketing and Design and Technology up to and part-way through Stage 2 of the product design model, being the areas that contribute to the product story. Financial considerations have not been investigated due to this research focus.

Context and references for the two areas under investigation follows.

DESIGN AND TECHNOLOGY

Fabrics with 3D contours became visible in the 80s when textile innovator, Issey Miyake's exhibition "Pleats Please" presented garments created from fabrics with these effects. These fabrics have gradually been adopted by consumer culture until in the late 90's their visibility in both apparel and interior textile product became high.

Similarly the determined end product, i.e. throw rugs, is a current fashion item observed in design and interior design retail outlets and consumer periodicals.

The design aesthetic for these fabrics consists of organic forms placed in a symmetrical arrangement. The aesthetic, observed both in 2D and 3D product as in Figure 2.1 can be defined as 'retro', and Barnard (1996,164) quotes theorist Baudrillard as saying "'fashion is always retro'; fashion is always an 'immediate and total recycling' of past forms".

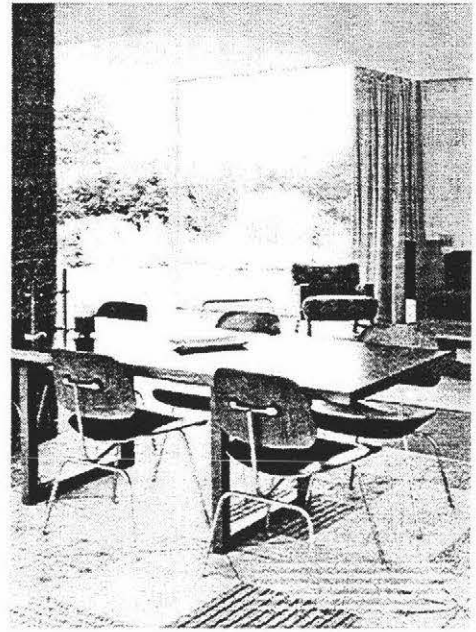


Figure 2.1
Organic Forms within
symmetrical arrangement in 2D
and 3D Product.
(Donnelly:2001,191)

This recycling and reinterpretation is a characteristic of postmodernism, the proponents of which Featherstone describes as detecting

...a major shift in culture taking place in which existing symbolic hierarchies are deconstructed and a more playful, popular democratic impulse becomes manifest.
(Featherstone:1991,109)

The result of this deconstruction process is the loss of an object's original symbolic meaning, and, according to Barnard, its value therefore being determined

...only by its differences from all other signs: meaning is entirely a product of coded difference. Consequently, postmodern society is a society of consumption, rather than of production.
(Barnard:1996,153)

The "new heroes" of this consumer culture are described by Featherstone as those who make

...lifestyle a life project and display their individuality and sense of style in the particularity of the assemblage of goods, clothes, practices, experiences, appearance and bodily dispositions they design together into a lifestyle. The modern individual within consumer culture is made conscious that he speaks not only with his clothes, but with his home, furnishings, decoration, car and other activities which are to be read and classified in terms of the presence and absence of taste.
(Featherstone:1991,86)

Throw-rugs therefore, form part of the assemblage of goods that a consumer will select from to communicate their own lifestyle preferences and this research has sought to understand how such a group can be identified and defined.

Having thus established the desired aesthetic, a technical process to achieve the result was required. Textile designer and innovator Junichi Arai had commented in the following way about the process of creating woven fabric:

Creating an image is the first step in making a work of art. But image alone cannot produce fabric; we need much more basic information in order to start to create: fibre, colour and twist of thread, weave structure, sett and possible effect of finishing. We cannot start to create without our experience being applied to this information. But selecting from the possibilities offered by this information is essentially an ability of the soul. Fine contemporary cloths are the results of the human spirit and new technology working hand in hand.

Junichi Arai

(Sutton et al:1989,8)

Therefore studio explorations have considered the areas of Aesthetic, Fibre, Colour, Yarn, Weave Structure, Sett and Finishing. Aesthetic has been defined in the following way in Textiles (Kadolph et al:1998)

A textile product should be appropriate in appearance for its end use. Aesthetic properties relate to the way the senses, such as touch and sight, assist in the perception of the textile.

(Kadolph et al:1998,24)

In accordance with the above quote, aesthetic has therefore been defined to include design (in this case structural weave pattern), colour, lustre, texture, hand and drape.

Textile Science (Hatch:1993) and Technology of Textile Properties (Taylor:1997) have been used along with Textiles (Kadolph et al) as reference books to provide data with which to evaluate fibre and fabric properties.

In terms of existing technical data which relate to 3D contoured fabrics, an article appeared in Nov/Dec 1989 in Handwoven magazine, in which Cynthia Schira, a known textile entity who has organised several artist collaborations with the textile industry, and others, set out to explore "the production of collapse fabrics on hand looms". Fabric with 3D surface contours is sometimes referred to as "collapsed" due to its seeming collapsing or twisting into itself when finished. The explorations by Schira and others covered a wide range of natural fibres including some wool sampling, although their observation that because "wool tends to shrink and felt, the elasticity of the fiber [sic] is partly or wholly lost," (Brackett et

al:1989,32) seemed to restrict exploration of the fibre in those investigations.

Wool fibre is characterised by external overlapping scales. These scales are partly responsible for the apparent ‘shrinkage’ of wool. When a finish that involves friction is applied to wool fabric, the scales intermesh and lock together. Once this felted state has been reached fibre loses its ability to return to its original length. Anti-felt treatments that prevent scales from locking together can be applied to yarn and fabric. Although wool’s felting qualities can be seen to be an undesirable feature in that elasticity is reduced, this fibre characteristic was not considered problematic within the context of the proposed end product. In a large and reasonably heavy piece of fabric it was envisaged that slight felting could in fact assist the stabilisation of fabric and prevent structural distortion problems.

The core or ‘cortex’ of wool fibre is divided into two distinct sections, the ortho-cortex and the para-cortex. The varying growth rates of these sections cause them to spiral around each other along the length of the fibre. This fibrillar, spiralling structure that manifests as ‘crimp’ in the staple, contributes to the bulk, flexibility, elongation, elastic recovery, tenacity and handle of the wool fibre. When yarn is released from tension following the spinning process, the spring-like crimp characteristic of wool fibre will relax within the limitations of the form in which the fibre is contained. The more crimp that a fibre contains, the more it will contract. Other fibre considerations are fibre micron count and the length of staple. The finer the micron count, the finer the resultant yarn will be and the longer the length of staple, the more lustrous the yarn will be.

Sheep breeds exhibit varying micron and staple lengths, and a sampling of NZ sheep is offered for comparison in Figure 2.2.

Category	Sheep Breed	Micron	Staple Length ¹
Fine	Merino	15-24	65-100mm
Mid-micron	Corriedale	28-33	75-125mm
	NZ Halfbreed	26-31	75-125mm
Crossbred	Perendale	31-35	100-150mm
	Romney	33-37	125-175mm
	Coopworth	35-39	125-175mm

Figure 2.2
Table of NZ Sheep characteristics

¹ Warman:1991

Significant variations can, however, also occur within breeds, as discussed by NZ spinner and author Margaret Stove in her book concerning merino and superfine wools.

...the Saxon breed of Merino produces a crimp pattern of 15-25 per inch/2.5 cm, which enhances the elasticity of the spun yarn and fineness, which can range from 24 microns to even finer than 14 microns; this allows it to be spun into a yarn of exceptionally fine diameter, which has a soft handle and is also lustrous. It also means that a yarn of greater diameter, for example double-knit/sports weight, will be light and very elastic compared to a similar yarn spun from stronger fleece, but will have less lustre than when it is spun fine.

*The feral Merino in New Zealand differs in the form of the crimp. Instead of the staple being crimped, the crimp is in the individual fibres, thus giving them a spongy character. If spun considerably thicker than the Saxon Merino, the result can be a soft, bouncy yarn of quite extraordinary elasticity.
(Stove:1991)*

Von Bergen's (1969) Wool Handbook aimed at the "Entire Wool Industry" provided some guidelines relating to yarn characteristics. During the spinning process fibres are extended lengthwise as they are drawn into yarn and twisted. The purpose of twist in a spun yarn is to bind the fibres together and give the yarn strength (Taylor:1997,64). An increase in twist will lead to added strength - up to a certain point, after which a further increase will lead to a decrease in strength. Similarly, the "higher the twist, the greater the shrinkage" (Taylor,84). Twist can therefore create textural and/or shrinkage effects as a result of tensions produced in the fabric.

There is no set rule or standard twist for yarn, and this will vary according to length and quality of fibre and the desired handle and finish of the resultant fabric.

Finer fibre will translate into finer counts, and a direct relationship exists between yarn no. and the micron (von Bergen:1969,235). Von Bergen quotes that "the classical rule of thumb" number of fibres for a woollen yarn is 120 and an extract from the table 'Single Yarn Twist of Woollen [sic] Yarns' is provided below at Figure 2.3.

Tex	Yarn No. run	Soft	(Twist in turns per inch) Degrees of twist			
			Filling	NORMAL Warp	Med-Hard	Hard
89	3.50	6.70	8.51	10.49	12.40	14.31
78	4.00	7.14	9.18	11.21	13.26	15.28
69	4.50	7.57	9.73	11.89	14.06	16.21

Figure 2.3
Extract from von Bergen's table of 'Single Yarn Twist of Woolen [sic] Yarns'

If the twist factor is increased, high twist and crepe yarns can be produced. Yarns listed as 'med-hard' and 'hard' in von Bergen's above table can be classified as high twist and crepe yarns.

Due to the publication date of von Bergen's book, the above table uses imperial rather than metric references. During the researcher's time with industry, it was noted that designers were conversant with both systems of measurement, perhaps in part due to older specialist textile publications being pre-metric. This exposure has unconsciously also led to the use of both systems in the course of this research.

Textbooks relating to weave structure by Oelsner (1951) and Grosicki (1975 and 1977) are dated, but, from the researcher's experiences are still recognised as authorities by industry and professional hand-weavers. As Jennifer Harris in 5000 Years of Textiles (1993) noted about the unchanging nature of weave design:

Industrialisation brought about greater speed of production and a reduction in the skilled labour required to operate the looms, rather than any improvement in the design or structure of the fabrics produced.
(Harris:1993,19)

Watson's Advanced Textile Design Compound Woven Structures (Grosicki:1977) provided the starting point for these investigations with technical information on "cloque or crepon effects", in which a "waved or cockled surface is produced" through "weave structure, or the use of yarns with different shrinkage properties, or both". (Grosicki,180)

Manufacturing related data for these investigations was sourced by way of primary data, specifically through interviews with New Zealand textile manufacturers, Alliance Textiles and Inter-Weave and wool research technologists, WRONZ. This method of data collection was considered most appropriate due to each business being set up differently to cater for its own variable end product.

MARKETING

Branding or creating a product story, occurs as part of the 'product mix' evaluation in marketing terms to ensure the product is positioned uniquely in the marketplace. Martin Davidson in the book titled Consumerist Manifesto (1992), describes brand equity, i.e. value added through branding, in the following way:

Things always stand for other values; and the advertiser is merely making sure the translation is vivid and to the product's advantage: the focus is on the additional advantage to be gained when advertising integrates tangible product characteristics with something else – symbols, meanings, images, feelings – to create a brand that is loved and wanted.

*What you create out of 'symbols, meanings, images, feelings' is a theme for a product, brought to life in an enduring, endearing way, and quickly becoming that product's most important equity.
(Davidson:26/27)*

In order to understand the marketing role within the product development model it has been necessary to gain an overview of marketing principles. Knowledge of this area has been gained through two textbooks; one providing an Australasian perspective called Fundamentals of Marketing (Stanton et al:1994) and the other a specifically New Zealand orientation. The latter, Marketing Principles in New Zealand, (Walters:1997), recommends itself as an introduction to marketing in tertiary-level commerce programmes. These texts have been compared to ensure that processes concur, and where an anomaly or difference in term has occurred, the New Zealand text has been favoured because of its relevance to the New Zealand marketplace.

New Zealand specific periodicals such as New Zealand Business, Marketing, Apparel, Export News, New Zealand Farmer and Rural News have contributed information to case study interpretations by way of providing a local and global context for significant activities and developments in New Zealand's marketing and commercial industries. New Zealand Yearbooks compiled by Statistics New Zealand have provided overviews of social/cultural/economic/political events.

New Zealand Wool Board Annual Reports and Wool Reports have provided an authoritative historical overview of the organisation's environmental and marketing promotions.

Case study Internet sites have provided data for evaluation.

The New Zealand 'iconic' landscape is frequently portrayed in advertisements for textile product, an example being the New Zealand Wool Board's Fernmark branding strategy with accompanying promotional images of New Zealand at Figure 2.4.



Figure 2.4
New Zealand imagery used to promote
wool product internationally.
(Annual Report 1994/95:4)

However, the Ministry of Environment in briefing papers to the Government cautioned:

New Zealand cannot continue to trade on its clean, green image and it must bridge the gap between the perception of a healthy environment and the sometimes unhealthy reality.
(Williams:2000,16)

Environmental contradictions have been brought to public attention through the media. Fiona Candy in her presentation at the 2000 International Conference on design in Perth spoke of the present day sophisticated consumer in the following way:

The twenty first century consumer is the most educated in human history. The media is saturated with advertising and bombards the consumer with information about every aspect of their lives. This has resulted in a general increase of media literacy and also in politicised cynicism within certain consumer groups.
(Candy:2000,132)

Rather than rely on questionable overt or covert claims to a pristine environment, therefore, this research has intended to highlight the coming together of design and technology, through marketing practice.

¹Rodney Adank, Massey University B.Des lecturer, Dip ID, NPDP (Diploma Industrial Design & New Product Development Professional Certification).

3

METHODOLOGY

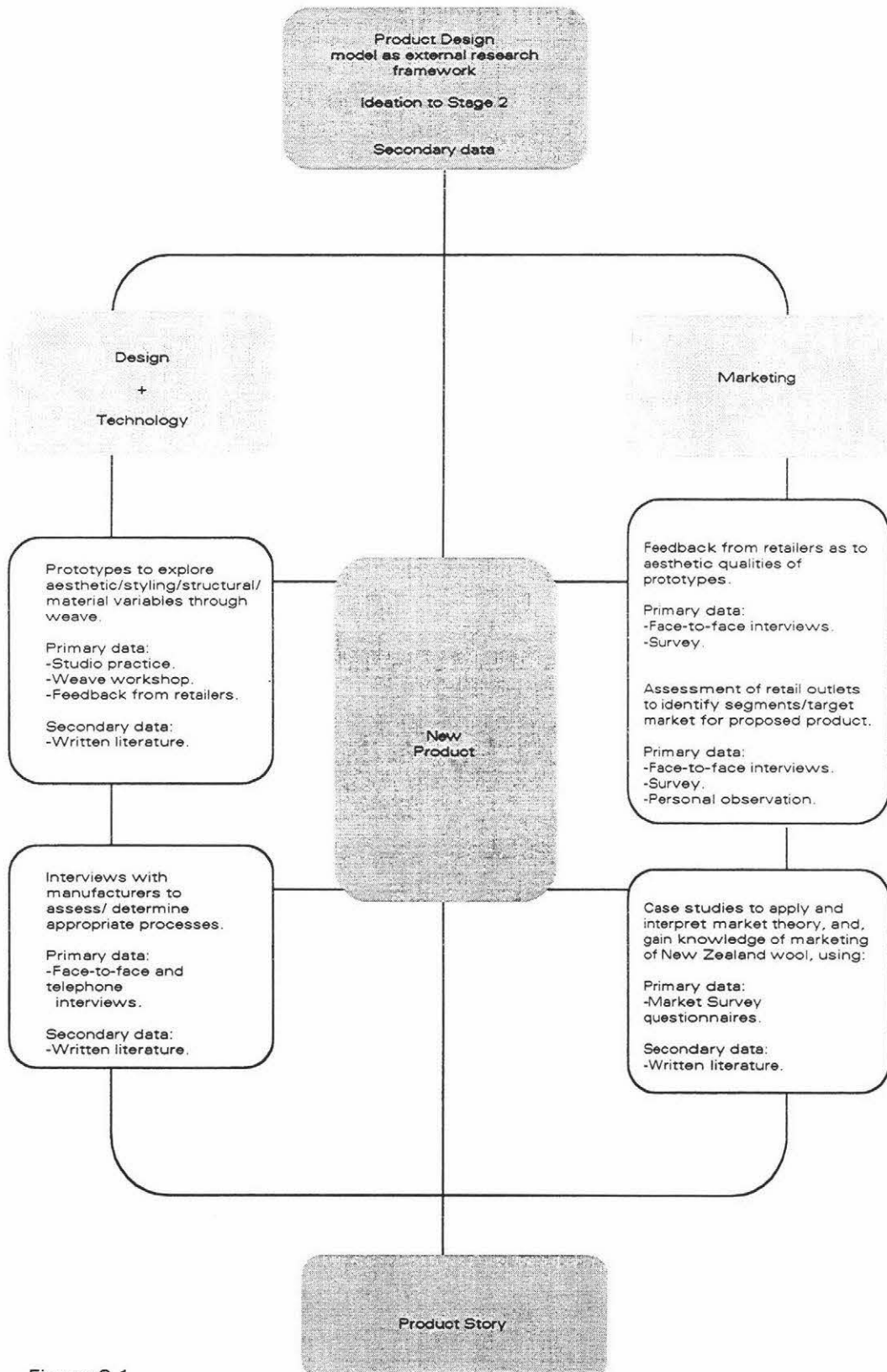


Figure 3.1
Methodology Overview

Figure 3.1 describes the methodology of this project whereby in accordance with the Product Development model, Design and Technology combined with Marketing investigations have simultaneously fed into and shaped the development of the new product.

Both primary and secondary data have been evaluated in this research. Design and Technology investigations through studio practice explored fabric variables in order to produce a range of woven prototypes with the desired aesthetic qualities established in Stage 1 Preliminary Investigations of the product design model.

Interviews with textile mills and WRONZ set out to assess available technology to determine whether the proposed new product could be produced within New Zealand industry.

Marketing investigations evaluated prototypes through feedback gained from retailers, while at the same time assessing their customer base in order to identify segments/possible target markets for the new product.

Market theory was used to evaluate businesses promoting New Zealand wool related product, in order to gain knowledge of promotional activities and the way product stories are formulated.

Methodologies for each of the three areas under investigation follow.

PRODUCT DESIGN MODEL

According to Cooper (1993), in an ideal business environment product development would be carried out by a multi-functional team, comprising members representing all functions and departments whose input into the project was required. Tasks would be carried out concurrently and in parallel, to provide a fast and efficient overview of all aspects involved in each 'Stage' and 'Gate' evaluation.

The series of 'Gates', in Figure 3.2, are points at which information from the previous 'Stage' is gathered and assessed to determine whether the project should progress to the next Stage.

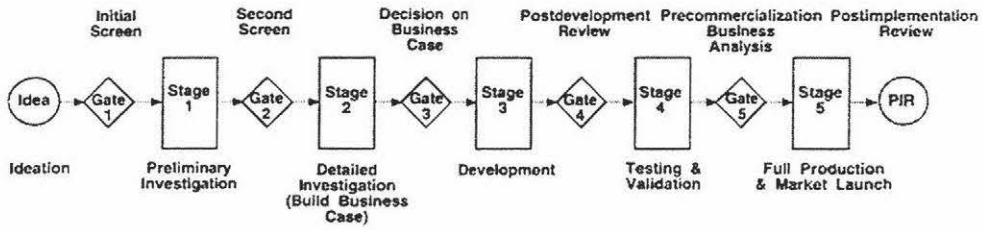


Figure 3.2
A Generic Stage-Gate New Product Process
(Cooper:1993,108)

As has already been indicated in the Introduction, the emphasis of investigations has been on design, technology and marketing. Therefore financial considerations, although an important part of the product development process, are not discussed in this report.

Product design investigation results are considered over three chapters:

- Chapter 4: Ideation to Gate 2;
- Chapter 5: Stage 2: Design and Technology;
- Chapter 6: Stage 2: Marketing.

Research was for the most part concerned with Stage 2 investigations which involved the development of prototypes and manufacturing and marketing evaluations. Progress through the model ceased part-way through Stage 2, at which point the following information had been determined to enable a product story to be proposed.

- Preliminary explorations to produce prototypes which met the desired aesthetic;
- technical/manufacturing processes assessed;
- initial product and market evaluation.

DESIGN AND TECHNOLOGY

Weave design as part of industry, is intrinsically linked with technology, through the use of computer for design and to power the loom; the loom

itself, being an intricate engineered piece of equipment which requires an understanding of its functioning and capabilities in order to design fabric. Therefore design and technology have for purposes of this research been considered together.

Studio practice explored various aesthetic and technical fabric properties to achieve the desired 3D contoured fabric effects in preliminary prototypes. Investigations were carried out through a series of warps using Scot-Weave dobby computer programme in conjunction with a 24 shaft floor loom, and a week-long workshop was attended with Wellington professional hand-weaver, Sheila Reimann.

Results have been evaluated in consideration of aesthetic; fibre, twist and yarn; weave structure; sett and finishing. The methodology concerned with these areas is further discussed in Chapters 4 and 5, due to its forming part of the Product Design technical analysis.

AESTHETIC

As has already been stated, aesthetic has been defined to include design (in this case structural weave pattern), colour, lustre, handle, texture and drape.

As the researcher's knowledge of double cloth was fairly limited, weave structures were first worked through on point paper as in Figure 3.3 to facilitate understanding. Scot-Weave's ability to simulate weave fabric from structural data then became an important design tool, an example of which is at Figure 3.4.

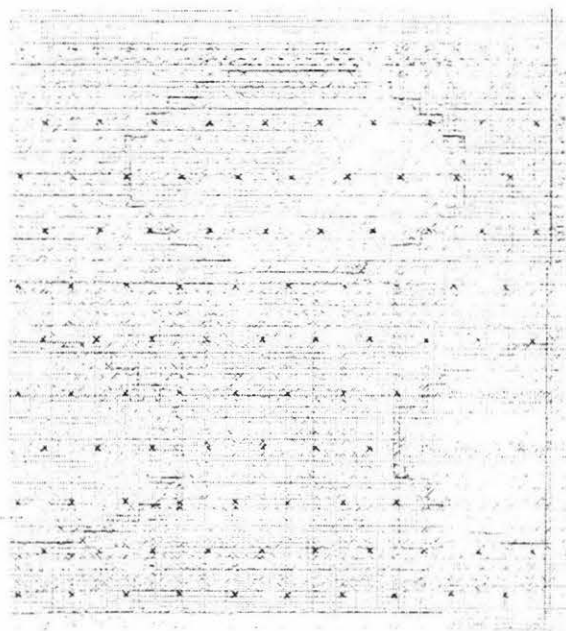


Figure 3.3
Double weave draft worked on point paper.

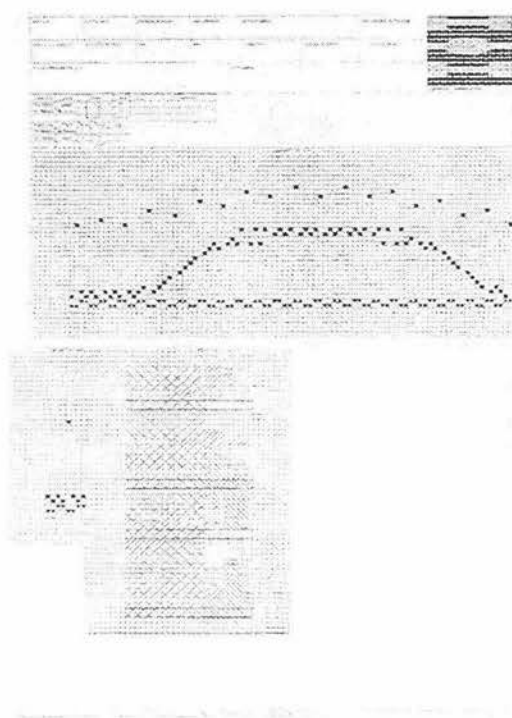


Figure 3.4
Example of weave draft
created in Scot-Weave dobby
design programme.

Breadth of range of designs is not extensive, due to a focus on achieving the 3D structural effect.

Colour also, although a vital component of fabric, has not been addressed except in a cursory manner. Therefore, prototypes are predominantly the colour of the original yarn except for a small percentage of samples that were piece dyed along the way. As well as providing some variation in aesthetic for later market evaluation, the dye process enabled the effects of temperatures at boiling point to be assessed, e.g. additional shrinkage.

Lustre, also an aesthetic consideration, has been excluded from results, due to the consistent matt characteristics of woollen fabrics.

FIBRE, YARN AND TWIST

Because dramatic effects were desired, specific yarns that exhibited surface contoured inducing characteristics were utilised in combination with regular yarns. The combining of two such yarns produces tensions within the fabric whereby one group will contract more than the other, causing the other layer to bubble and pucker. Yarns were also selected for their count, handle and aesthetic appeal. Fibre/yarn blends included lycra, merino, mohair and cross-bred fibre and yarn types included mostly woollen spun with some inclusion of fancy yarns. These were sourced from New Zealand hand-weavers, yarn wholesalers and retailers (both national and international), New Zealand spinners, mills, and the Wool Research Organisation of New Zealand (WRONZ).

Of particular significance to this research was a yarn supplied by WRONZ called lincLITE. Following discussions two variations of this yarn were kindly provided for prototype sampling and once explorations with lincLITE

were undertaken, it was decided to focus on this yarn in combination with normal twist yarn, due to its excellent shrinkage properties, ease of handling and its 100% wool composition.

Details such as fibre micron, sheep breed, yarn count were not always available for the yarns used in sampling, however, it is likely that in most cases unidentifiable yarn was likely to be fibre from sheep breeds in the mid-micron fibre range. Available fibre/yarn information has been placed at Appendix 1 along with a visual record of each yarn.

Investigations into the effects of twist in fabrics were explored through a weave workshop with Sheila Reimann, Wellington hand-weaver.

WEAVE STRUCTURE AND SETT

The way yarns intersect within weave structures is another important component in the creation of 3D contoured fabrics. Tensions can be created through considered juxtapositions of different weave groups within the cloth.

Investigations were carried out using weave derivations of the main three groups, i.e. plain, twill and satin weaves within single and double weave constructions.

Balanced, open and closed setts were explored through prototypes to determine how to best encourage the effects of shrinkage.

As weaving progressed variations in weave structures and sett evolved until a satisfactory result was reached, or an alternative approach suggested. Weave drafts were altered accordingly using Scot-Weave.

FINISHING

When woven wool fabric undergoes finishing and is washed and steamed, the fibre will move and curve back into its natural shape within the spaces that are available in the cloth. The resultant fabric structure will be 'fuller' - any gaps in weave structure will be smaller, and the overall dimensions of the fabric will be smaller.

Because prototype pieces were small and finishing took place in the studio environment, a simple process was employed whereby a sample was soaked for 10 minutes in hot tap water of between 60-65°C with added soap flakes. The technique of "pressure and release" (Sutton et al:1982,99) using hands, was employed to "full" or finish the fabric, which was then rinsed and placed flat on a towel to dry. Hot tap water was used rather than warm, as it was considered that piece dyed fabrics produced within industry are subjected to high temperatures during the dye process and the effects of high temperatures could therefore be observed. Piece dying fabric can save costs related to the purchasing and storage of a range of yarn dyed colours.

Fabric was then placed flat on a towel and allowed to dry at room temperature. Once dried, the finished sample was measured and the results recorded. Because, as sampling progressed, yarns with shrinkage properties were placed in the warp, the percentage of shrinkage was calculated only on warp contraction as weft contraction was negligible. The shrinkage percentage was arrived at in the following way, with rounding up if over .5% or rounding down if under .5%

$$\frac{\text{On Loom Length (a)} - \text{Finished Length}}{\text{On Loom Length (a)}} = (c) \div \text{On Loom Length (a)\%} = \text{Warp Shrinkage \%}$$

Figure 3.5
Method for Calculation of
Warp Shrinkage

In accordance with available time a range of sample fabrics was produced, and from these a small number were considered to be successful prototypes in that they met the aesthetic product criteria for the end product. This criteria is discussed in Chapter 4, Stage 1. The "success" of these prototypes was later verified through market investigations.

MANUFACTURING ASSESSMENT

Manufacturing investigations, involving production processes were carried out through analysis of primary data. Face to face interviews were conducted with The Wool Research Organisation of New Zealand (WRONZ)

in Christchurch and textile producer Inter-Weave in Auckland. WRONZ was visited initially, as being the inventors of specialist yarn technology, they had a thorough understanding of the properties and processing requirements for various wool yarns. Textile mill operations vary according to product line, and consultations were conducted with two of New Zealand's large-scale producers, i.e. Inter-Weave and Alliance Textiles. In the case of Alliance, who are based in Christchurch/Timaru, data was gathered by way of written correspondence and telephone conversations. The aim of investigations was primarily to determine whether selected prototypes could be produced by New Zealand industry, and if so, to establish the processes.

In a project of this size it has not been possible to address all the issues associated with manufacturing. Manufacturing investigations have focused on specialist yarn and production of woven fabric. Ideally, a comprehensive assessment would include the production/sourcing of all yarns, and the final stages of product finishing such as cutting, edging and labelling.

MARKETING

Two separate market investigations have formed part of this research as set out in Figure 3.1. The first relates to investigations of the new product within the product design model. The second has involved an analysis of New Zealand businesses manufacturing/promoting wool fibre or product, using market principles. This latter investigation has provided an opportunity to understand the way in which businesses that market wool fibre or product have evolved and gain knowledge of "old" and "existing" product stories.

Marketing principles have been applied as the bases for these investigations. According to secondary data analysed as part of marketing investigations, marketing principles can be summarised as follows in Figure 3.6.

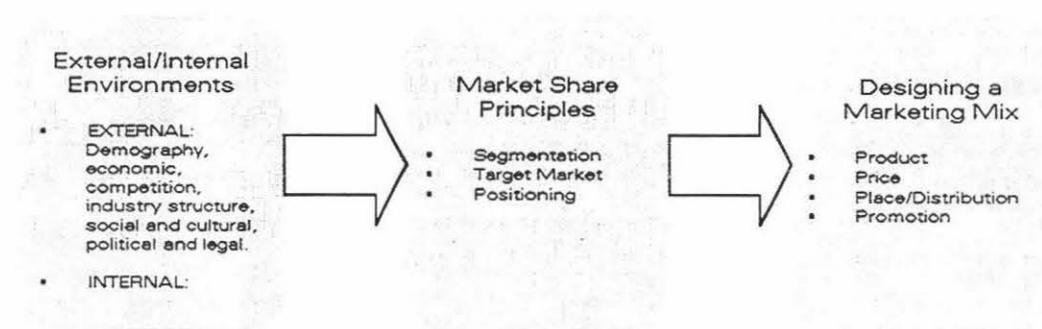


Figure 3.6
Marketing Principles and Processes

Methodologies for these investigations are discussed separately under the headings "Product Development Model" and "Business Case Studies".

PRODUCT DESIGN MODEL

Market analysis was carried out by way of descriptive, qualitative primary data, obtained through interviews and personal observations of design retail outlets. The aims were to:

- Assess initial response to prototypes.
- Determine whether links existed between response to prototypes and outlet. These would suggest:
 - customer characteristics which could be translated into segmentation bases;
 - appropriate trade-channels for product.

In the same way product is targeted to a particular market segment, design stores exhibit individual style characteristics and will select product to target their own customer segment. Although Candy is speaking of lifestyle stores and the "curation" of product mix in the following quote, it would seem to the researcher from observations in the marketplace that it is equally applicable to individual design traders, who are, on a smaller scale, "curating" their own product mix:

*In the twenty first century shops have evolved into design galleries. They are living museums of the style movement, consciously exhibiting the way we live our lives and interact with commercial culture.
(Candy: 2000,134)*

Although this survey was primarily concerned with retail outlets, the researcher considered it of interest to gain a response from a wholesaler/distributor, and while in Auckland collecting data for another aspect of this research, visited an importer/distributor of international product brands.

With the exception of the Auckland city wholesaler/distributor, Wellington city was considered a suitable sampling area for qualitative research because of the plethora of retail outlets in a concentrated geographical area specialising in design product. Surveying a broad spectrum was considered helpful in obtaining a more accurate pinpointing of market placement, and Wellington, as the country's third most populous region provided this scope. Its convenience as a location also enabled research to be carried out over a period of weeks.

Appointments were made in advance with sales management, where possible, or otherwise sales personnel, in the wholesale/distribution and retail outlets to be interviewed. In four cases where it was not possible to conduct face-to-face interviews written responses were sought. In the case of written interviews colour images of prototypes were sent. During each interview five selected prototypes were presented to interviewees.

These interviews were invaluable in that discussion naturally progressed to other areas, which might not otherwise have been touched upon. The following areas were covered in discussions:

Aesthetic. Comments sought on the body of work as a whole and on any particular samples felt strongly, either positively or negatively about.

Suitability of product for store.

Customer. Participants were asked to describe the characteristics of their own customer.

Pricing. What would customer be prepared to pay for a throw?

New Zealand made and natural fibre. Were these important issues for customer?

Any other comments?

Figure 3.7
Discussion points with retailers concerning prototypes.

Following on from these interviews, a covering letter with written transcript and Consent Form was sent to interviewees, in which they were asked to confirm details discussed and give their approval for inclusion in the thesis. (See Appendices 3, 4 and 5)

For reasons of business sensitivity it was agreed with interviewees that names be removed from printed material. Therefore interview results have been summarised at Appendix 6.

PARTICIPANTS

WHOLESALE/DISTRIBUTOR

Participants: Chris Sixton and Rachel Allden
Seneca
Parnell
Auckland

Seneca manages their own range and brand, and imports and distributes "high quality" furnishing fabrics as well as homeware. International product includes three "of the leading Textile Editors in the world. These are JAB of Germany; Stroheim and Romann of the USA, and ROMO Fabrics of the United Kingdom". (www.seneca.co.nz/aboutus.htm)

They operate from a showroom in Parnell where samples of product can be viewed, or be taken from here to show retailers on selling trips.

RETAILERS

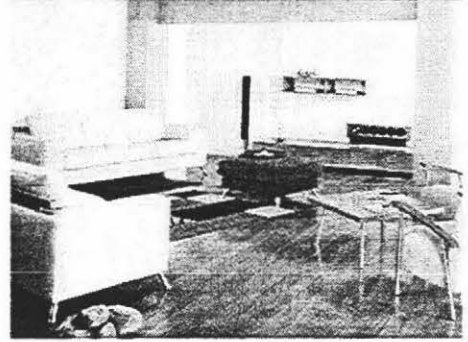
15 Wellington retail outlets were visited in order to conduct interviews and make personal observations of the outlet's characteristics. The outlets selected were chosen because of their visible design style, categories of which are illustrated on the following page at Figure 3.8. Those outlets without a strong aesthetic style or with product in a budget price range were not included.

It was considered that similarities or dissimilarities in outlets might suggest whether correlations exist between response to product and type of outlet. Areas of detectable visual difference noted during interviews, related to the size of store, layout and product. These were analysed using the following criteria.

- Size of outlet, i.e. small, medium or large (in relation to each other) and use of space.
- Method of product display, i.e. shelving or themed room settings.
- Product categories, i.e. range spectrum and style.
- Size of product, i.e. small, being items such as candles or a small vase; medium, being an item such as a cushion; and large being an item such as a piece of furniture.
- Product origin, i.e. International or New Zealand.
- Swing-tag. Whether product has store's own swing-tag attached makers/originators, or none at all.



middle-market



contemporary modern



country



antique



fashion

Figure 3.8
Style Categories

BUSINESS CASE STUDIES

Businesses manufacturing and/or marketing wool fibre/wool product were analysed through qualitative primary and secondary data, using marketing principles as the structure.

The first of these case studies examined the effects of external environment forces through an historical overview of the New Zealand Wool Board and its promotional activities. Secondary data, including annual reports and other written literature, provided the body of information for the analysis. A summary of the investigation is provided at the beginning of Chapter 7, with a more detailed analysis placed at Appendix 11.

Following this, qualitative research of four commercial businesses who manufacture and promote wool/mohair product provided a comparative analysis to identify the links between business size, product values, end product, customer base and promotional activities, through identification of segmentation, targeting, positioning and marketing mix strategies.

Icebreaker, Snowy Peak and Dilana Rugs are well established, successful manufacturers and marketers of New Zealand textile product which varies from apparel to original, one-off rugs. CB Collections in comparison, is a relative newcomer to the New Zealand textile industry, and as such is yet to prove the long-term success of its business strategies. However, the fact that the product being promoted by CB Collections is throw-rugs, being the same as the proposed prototype product in this research, has made this case study of particular interest and relevance.

A covering letter with Market Survey and Consent Form (see Appendices 7, 8 and 9) was originally sent to six businesses. Two of the six did not respond. Another responded but declined to participate due to time constraints. However, as a considerable amount of secondary published information was available on this latter business, Snowy Peak, the company has also been included in the analysis. Secondary data has also contributed to evaluations of the other three case studies.

Completed surveys received from the three respondents are contained at Appendix 10. This primary data, along with secondary data contributed to an analysis of businesses according to the marketing principles defined in the Methodology at Figure 3.6.

In the allowable time-frame an overview of business approaches has been gained in accordance with research aims, rather than intending to being comprehensive and complete.

4

IDEATION TO GATE 2 DESIGN AND TECHNOLOGY MARKETING

IDEATION

*The process is initiated by an idea. Ideation activities include basic research, seed or unfounded projects, and a variety of customer-based and creativity techniques.
(Cooper:1993,110)*

Ideation as the initial step in the new product development framework, covers various methods of generating conceptual ideas for product. 'Ideas' can originate from inside or outside a business structure, or, be as a result of market research to identify customer needs. On the subject of ideation for weave, UK weaver and educator, Ann Sutton commented:

*We might divide the world into two schools of thought: Classical, which relies on logic and order; and Romantic, which relies on intuition and emotion. In fact we normally operate somewhere on a sliding scale between these two extremes, using our intellect and involvement in the physical world, tempered by the feelings and dreams of the subconscious.
(Sutton et al:1989,32)*

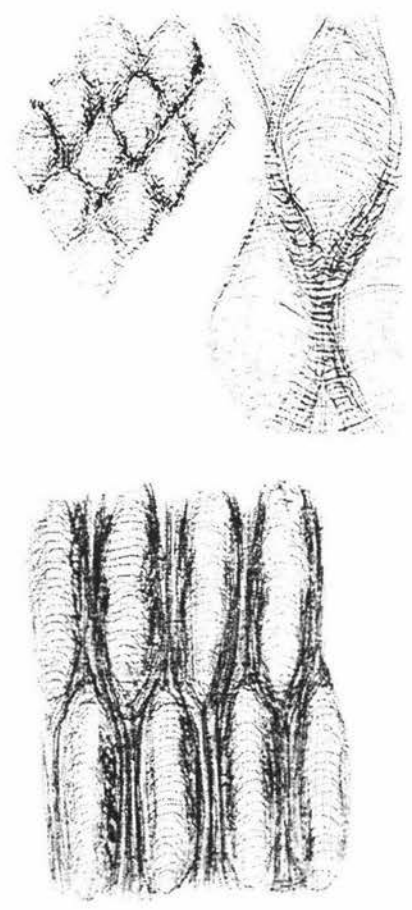
For purposes of this research, ideation has been generated both intuitively and consciously through market observations. The aesthetic correlates with current fashions in textiles, both apparel and interior, for fabrics with 3D contoured characteristics.



Figure 4.1
Blankets/Throw-rugs
Magazine Feature
(Cohen:1999,47)

Organic forms placed in a symmetrical arrangement have been observed both in 2D and 3D product, (see Figure 4.1), and strongly defined organic forms have featured as part of the product aesthetic.

The popularity of throw-rug product had been observed in interior design and retail outlets around Wellington city and in international consumer magazines such as World of Interiors and Homes and Gardens (UK). See Figure 4.1.



Simple, organic forms, such as those in Figure 4.2 were sketched initially, however, the weave process determined the end aesthetic and suggested new forms along the way.

Figure 4.2
Initial sketches for organic forms.

GATE 1: First Screen

*Initial screening is the first decision to commit resources to the project: the project is born at this point. If the decision is Go, the project moves into the preliminary investigation stage. Thus, Gate 1 signals a preliminary but tentative commitment to the project: a flickering green light.
(Cooper:1993,110)*

Considerations include:

- strategic fit;
- market attractiveness;
- technical feasibility;
- supply route identification.

Consideration of strategic fit will be variable according to the product focus, available resources and financial considerations of an individual business. In accordance with the aims of these investigations, the identification and/or establishment of a particular business structure was not considered relevant.

Market attractiveness was first determined through preliminary observations of product in retail outlets such as design and interior design focused stores, and through New Zealand and international consumer periodicals. Knowledge of existing fabrics being produced internationally and within New Zealand by hand-weavers, indicated potential technical feasibility, although manufacturing capabilities would need to be assessed.

Known textile mills and yarn producers indicated possible supply routes.

STAGE 1: Preliminary Investigation

The first and inexpensive stage has the objective of determining the project's technical and marketplace merits.

*Stage 1 thus provides for the gathering of both market and technical information – at low costs and in a short time – to enable a cursory and first-pass financial analysis as input to Gate 2.
(Cooper:1993,111)*

Considerations, which are investigated concurrently, and in parallel, include:

Market:

- market attractiveness and potential;
- possible product acceptance;
- competitive situation.

Technical:

- product requirements (may still be vague);
- how these might be achieved;
- key technical risks;
- ability to be manufactured.

Early assessment of the market had established available New Zealand and international product, which indicated probable market acceptance. For example, the JAB throw-rug "Carré" that had a similar 3D contoured aesthetic was observed on their website (see Figure 4.3), and in Wellington interior design stores. These identified interior design store outlets and other design product retailers in Wellington, suggested possible market potential.

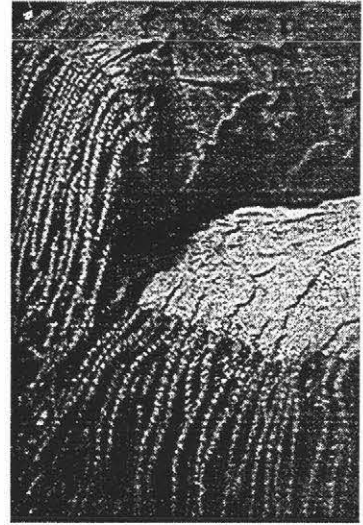


Figure 4.3
"Carré" crashed throw
(JAB Anstoetz:2000)

Because fabrics of this style have reached maturity in the fashion cycle, as evidenced in their high profile in the marketplace, investigations would need to determine whether the product was in decline. Levels of customer interest in the product evaluation process could help resolve this.

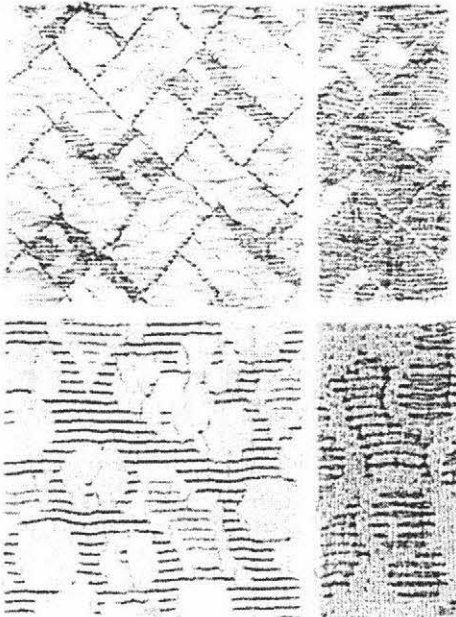


Figure 4.4
Watson's examples of Cloqué
Fabric.
(Grosicki:1977,181)

The aesthetic of Oelsner's cloqué fabrics in Figure 4.4 provided a starting point for these investigations and indicated how textural contrasts could be achieved by two separate and differing sets of warp. Designs of the complexity shown, however, would require a jacquard loom, and although design for the jacquard loom was considered, the conditions imposed in terms of sett and yarn seemed too restrictive. A 24 shaft double beam loom was therefore used to produce fabric. This would impose certain boundaries in terms of design, in that forms were required to be relatively simple.

Technical problems were seen to include sourcing and handling of yarns required to create these fabrics. It was recognised that New Zealand hand-weavers were required to source yarns such as high twist and single/double crepe overseas. Also these yarns, because of their extra liveliness can also have a propensity to kink and twist back on themselves and could possibly create difficulties in handling.

End-product requirements in terms of aesthetic were identified as:

- contemporary aesthetic, i.e. organic forms within symmetrical structure;
- soft handle;
- drape appropriate to being placed over 3D objects such as bed or sofa arm or back;
- textural appeal.

Exploration of weave and yarn variables during the creation of prototypes was deemed to be the way of achieving these product qualities.

New Zealand has several large textile mills with facilities to produce and finish woven fabrics and it was considered that there would be a good possibility that one or more mills could meet the challenges of producing these fabrics. In addition WRONZ was known to be able to provide specialist technical knowledge relating to the production of yarn and fabric made from wool fibre.

GATE 2: Second Screen

*The project is subjected to a second and somewhat more rigorous screen at Gate 2. This gate is essentially a repeat of Gate 1: the project is re-evaluated in the light of the new information obtained in Stage 1. If the decision is Go at this point, the project moves into a heavier spending stage.
(Cooper, ibid)*

Stage 1 has identified probable market attractiveness through observation of similar product in the marketplace. Interviews with retailers of design product would determine whether the product was still at a point of maturity in the fashion life cycle, or in decline. Feedback would also enable an evaluation of potential suitable retail outlets for product.

Probable technical feasibility has been established through the identification of fabric producers such as Inter-Weave and Alliance Textiles and the presence of fabrics with similar characteristics in the market.

5

STAGE 2 DESIGN AND TECHNOLOGY

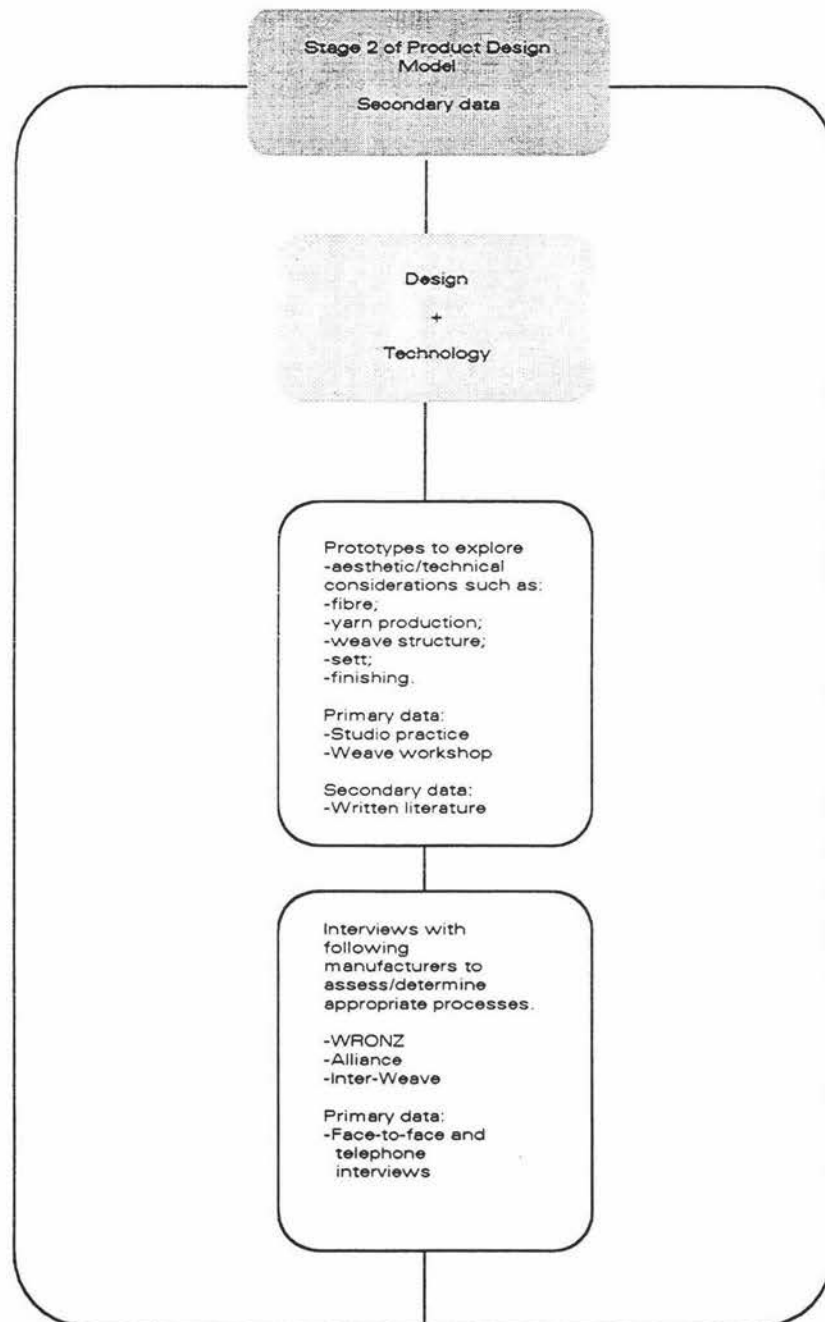


Figure 5.1
Stage 2 Design &
Technology Overview

*The business case opens the door to product development. Stage 2 is where the business case is constructed: this stage is a detailed investigation stage, which clearly defines the product and verifies the attractiveness of the project prior to heavy spending.
(Cooper:1993,112)*

In accordance with the overview at Figure 5.1, this chapter meets the following Stage 2 criteria of the Product Design model.

- detailed technical assessment including preliminary design work;
- manufacturing assessment (partial).

Visual representations and details of yarns utilised in prototype production are recorded at Appendix 1 and visual representations of fabrics can be found in chronological order at Appendix 2. Where a sample did not achieve a significant result, it was omitted. As the end product required a reversible fabric, it was not felt necessary to indicate either the face or back in the analysis except where clarification of this aspect was required.

Sizes of samples varied, in some cases due to exploration of sett on the loom, and sometimes due to limited amount of yarn. Samples at Appendix 2 have an outside border measurement of $12\frac{1}{4}" \times 9"$ (31x23cm). In all cases, the width and length of fabric samples was measured edge to edge while under tension on the loom, and, following wet finishing.

Aesthetic/technical investigations are discussed under the headings aesthetic; fibre, yarn and twist; weave structure and sett; and, finishing. A Manufacturing Assessment relating to the production of these fabrics within industry follows on.

RESULT

AESTHETIC/TECHNICAL ANALYSIS

AESTHETIC

DESIGN

One of the first design challenges was to achieve the desired aesthetic, i.e. organic forms within a symmetrical structure, within the technical limitations of a 24 shaft dobby loom. To create organic forms in weave these must be built up in steps, and in the beginning it was felt that these

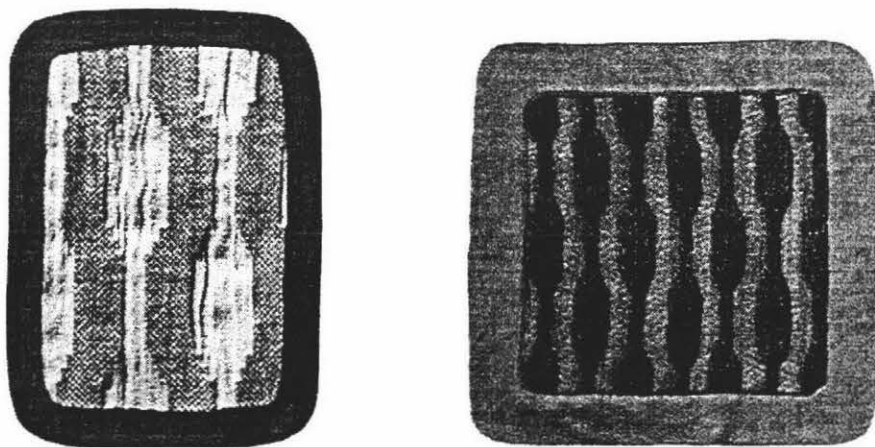


Figure 5.2
Effects of yarn on design forms.
Sample 38 (left) Sample 40 (right)

detracted from the organic nature of the forms. However, when fancy yarns were explored, the effect of these was to camouflage the 'steps' and so produce smoother outlined forms. See Figure 5.2 for a comparison.

Although initial investigations started with small scale forms, as investigations progressed it was realised that the size of throw-rugs, being approximately 150 x 200cm, would require larger scale forms. Considering the required woven width, it was realised early on that no width could afford to be lost due to the maximum finished width of dobby fabric in industry generally being 150cm. Therefore shrinkage was realised to be most desirable in a warp direction. With this in mind long oval forms were eventually designed on their sides to facilitate the warp-wise direction of shrinkage and create pleasing forms.

When it was realised in Sample 26, Warp 8, that the back of the fabric was not exhibiting the same surface contoured interest of the face (see Figure 5.3), the design was modified to create more even distribution of each layer on both face and back. The result can be viewed at Figure 5.2.



Figure 5.3
Contouring comparison of face and back.
Sample 26

HANDLE

Woollen yarns generally produce a soft handle due the characteristic short fibres that protrude from the spun yarn and the propensity of these to become enmeshed in the finishing process to create a slightly fuzzy, felted surface.

The amount of twist, will, however, affect the handle of a fabric and explorations with high twist yarns such as double crepe yarn in the weft produced fabric with a slightly rough, scratchy feel. The normal twist yarn used in the warp will have lessened the effect of the roughness to some

degree, so that the combination of yarns becomes an important consideration in the final fabric handle.

In Sample 3, the single crepe yarn woven area had a slightly less scratchiness than the double crepe section, with the high twist yarn area being the softest of all three.

Merino/mohair yarn no. 3 was used in the warp and weft of Sample 16, and it also resulted in a rough/harsh feel. This can be attributable to the type of fibre utilised. While merino has characteristics of softness, associated with the fine micron, mohair is a long (up to 30cm) hardwearing fibre. Fibre qualities are, however, influenced by yarn production, so that fancy yarn 13 which is a blend of mohair and merino, is soft to the touch due to a low twist and the use of a binder yarn to hold the fibres in place.

Weave structure will also impact on fabric handle, and the vertical corrugations in Sample 5 created by the juxtaposed 3/1 and 1/3 twills, caused the high twist weft to become almost entirely enclosed within the structure, and therefore not so able to be detected by touch.

Contrastingly, in Sample 6, where weft floats travelled over three ends, the fine high twist yarn is more exposed and therefore manifests as harsh to the touch.

The texture of fancy yarns also provides contrasts in handle, so that the boucle in Sample 39 has imparted tactile as well as aesthetic appeal.

TEXTURE

As has been just discussed using fancy yarns in combination with regular yarns creates both visual and tactile textures. As sampling progressed, other fancy yarns, such as 12, 17 and 18 were incorporated into fabrics, for added textural appeal. See Figure 5.4.

Interesting visual textural contrasts were apparent through colour variations in warp and weft, and variations in yarn count and sett.

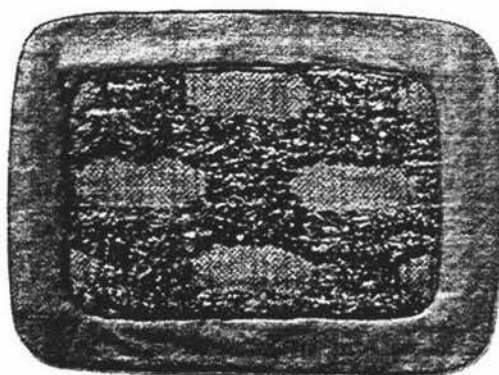


Figure 5.4
Example of fancy loop yarn
used for textural effects.
Sample 35

Figure 5.5, Sample 20 demonstrates contrasting textural effects produced in one layer with fine yarn 11 in plain weave areas, contrasted with the heavier count lincLITE and wool in the second layer within a 2/2 twill structure. Two differing warp yarn colours have created a further speckled textural effect.

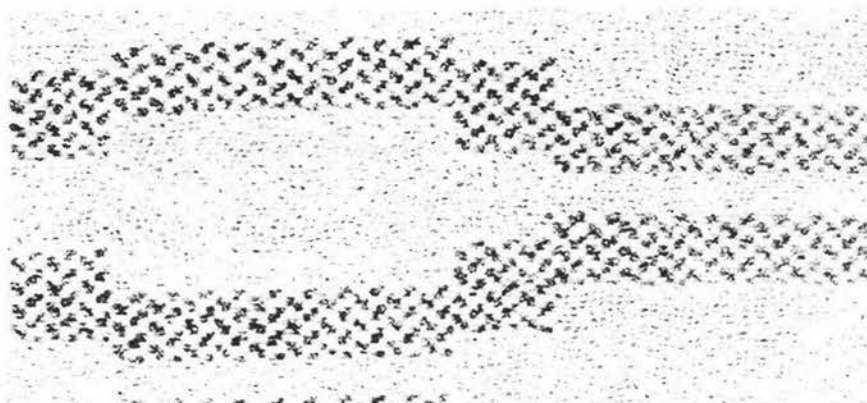


Figure 5.5
Texture achieved through colour
and yarn.
Detail from Sample 20

As sampling progressed and one solid lincLITE warp was used, the desired 3D contours began to become more emphasised to create textural interest.

DRAPE

Throws/blankets can be tossed casually across a sofa, or placed more formally over the arm or back of a sofa, or across the foot of a bed.

A high degree of drape, therefore, was not considered a necessary aim, and it is felt that all samples have achieved an acceptable level of drape. Proof of success however, would be in the testing of an actual sized throw-rug, and the product design model would provide this opportunity later in the process. The corrugations produced in the final warp would particularly need to be investigated in this way, to determine the ability to drape without visible distortion of contours.

FIBRE, YARN AND TWIST

A wool/lycra blend was initially used in conjunction with a 100% wool yarn. When used sparingly in the weft every 4th pick, the lycra's ability to create significant contouring can be observed in Figure 5.6.

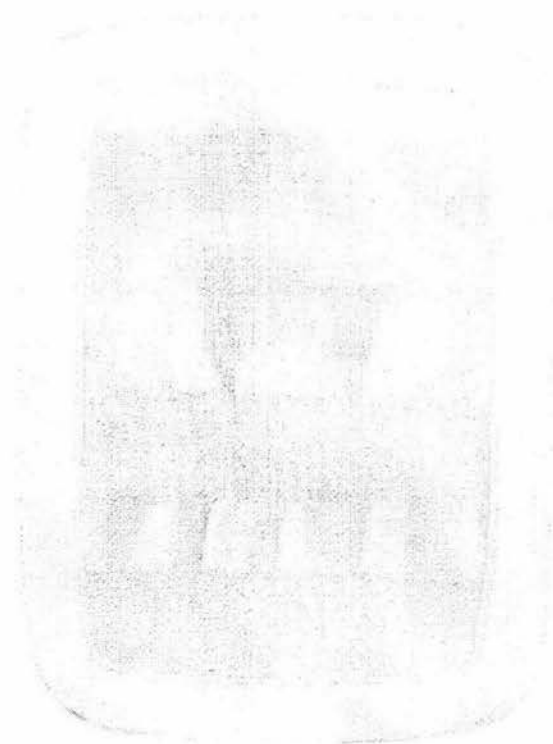
Two mohair/merino blends were utilised in sampling: yarn 3 in Warp 6, and fancy yarn 13 in Sample 35. The inclusion of mohair added lustre in contrast with the normally matt appearance of woollen fabric, however this was not considered a necessary or particularly desirable aesthetic feature and was not pursued.

High twist and crepe yarns were explored through a weave workshop with Sheila Reimann, Wellington weaver. Because a high level of twist increases the liveliness of a yarn and can cause it to 'snarl' and twist upon itself, these yarns were used in the weft.

The effects of weft shrinkage can be viewed in Figure 5.7, Sample 3. If only one direction of twist is used, as in the single



Figure 5.6
Lycra weft inserted every
4th pick.
Sample 1



- ◀ High twist 23 in weft
- ◀ Single crepe 22 in weft
- ◀ Double crepe 24 in weft

Figure 5.7
Comparative effects of high twist yarns.
Sample 3

crepe area, the fabric will develop a fluted appearance like a 'crepon' fabric, which contains puckers or wrinkles running vertically in the warp direction. This Sample, which was sett at 32 epi used a normal twist warp. 2/2 twill was used throughout, and bands of normal twist woven alternately with bands of each of yarns 22, 23 and 24.

The balanced double crepe shrunk with a flat effect in contrast to the unbalanced single crepe. High twist yarn 23 exhibited the least shrinkage.

The ratio of normal weft to special effect weft is also an important consideration. When two picks of normal twist yarn were alternated with one pick of high twist, using an alternating 1/3 and 3/1 twill structure, the effect of shrinkage was negligible as evidenced in Sample 4, Figure 5.8. In contrast, when the same high twist yarn was used solidly in the weft, the effect was dramatic, as in Sample 5.

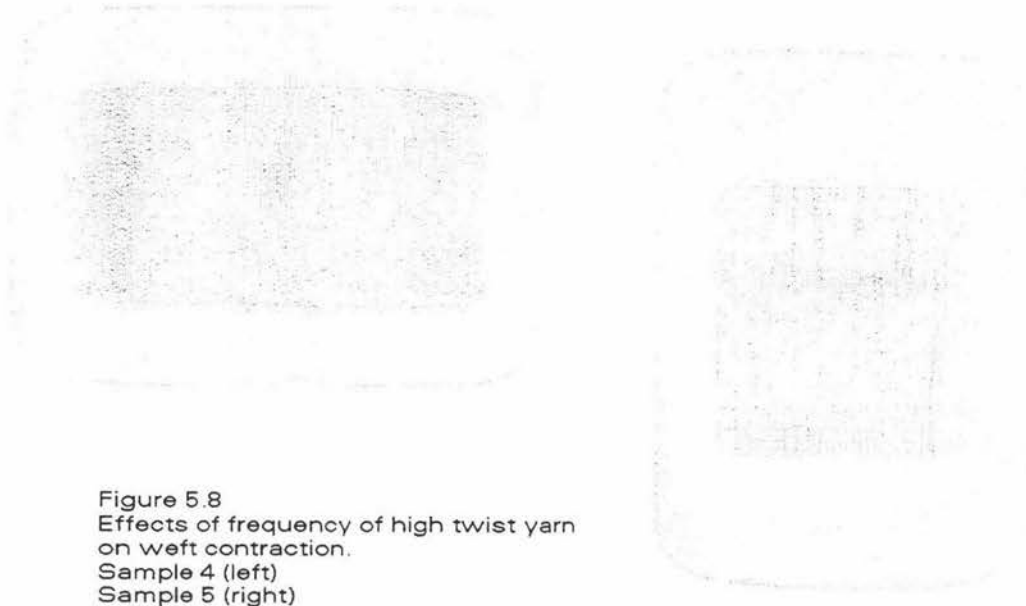


Figure 5.8
Effects of frequency of high twist yarn
on weft contraction.
Sample 4 (left)
Sample 5 (right)



Figure 5.9
High twist weft inserted
every 4th pick.
Sample 12

It should be noted, however, that variables exist within each category of yarn, so that when another high twist yarn, this time singles yarn 26, was inserted within a double weave structure every 4th pick, the effects were dramatic. See Figure 5.9, Sample 12.

INNOVATION IN YARN PRODUCTION - LincLITE

It became known in the course of this research that The Wool Research Organisation of New Zealand (WRONZ) had developed a spinning process to give yarn increased shrinkage/bulking characteristics. The yarn produced had been named lincLITE. The fibre is spun, temporarily stretched in a wet state then dried off in this state. When the fibre comes in contact with moisture again, shrinkage/bulking occurs. It is possible to blend unstretched fibre with stretched fibre to achieve variable amounts of shrinkage. Two variations and counts of lincLITE were supplied by WRONZ for sampling. In weave explorations the yarn behaved as a balanced yarn, without any propensity to twist or kink, and once these and its successful shrinkage capabilities were realised, explorations remained focused on this yarn.

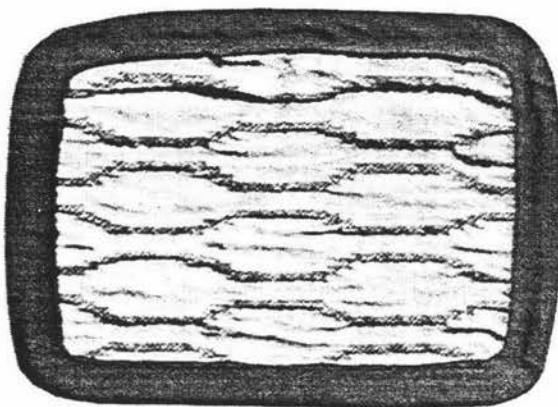


Figure 5.10
First sample to exhibit significant
contouring using lincLITE.
Warp 8, Sample 25

Explorations with lincLITE began in Warp 5 by placing the yarn in a double cloth structure every 8th end. Contouring, despite shrinkage, was insignificant. Warp 6 saw the lincLITE increased to every 3rd warp end, and although there was some improvement in warp shrinkage, the effects were still relatively mild. Warp 7 used a 1:1 ratio of solid lincLITE to normal yarn, and finally in Warp 8, significant contouring was achieved when a ratio of 2 ends of lincLITE to 1 normal was used. See Figure 5.10.

As a contrast to the yarns effecting shrinkage, low twist merino yarn no. 8, became a frequently used warp and weft yarn as sampling progressed, due to a combination of strength, softness and the ability to produce a felted texture.

Some weft yarns exhibited a tendency to shrink in finishing, such as Yarn 9 in Samples 25 and 26, which would indicate that some yarns do not undergo complete relaxation in the yarn production process. This additional shrinkage created slight vertical contours on the back of the fabric.

A finer RT46/2 stretched worsted lincLITE yarn was also trialled in Warp 10, however, apart from producing a softer handle, it was not considered significantly advantageous, and explorations returned to RT100/2.

WEAVE STRUCTURE AND SETT

Initially when vertical bands of plain weave (1) in Figure 5.11 using a normal twist yarn were combined with bands of 3/1 twill (2) using a high twist warp, the following contoured effect was obtained. Note that a normal twist yarn was used in the weft.

Plain weave and satin weave

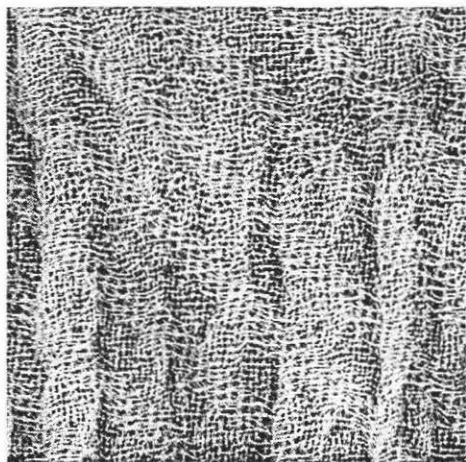


Figure 5.12
Effect of plain weave/sateen
weave conjunction.
Detail from Sample 8

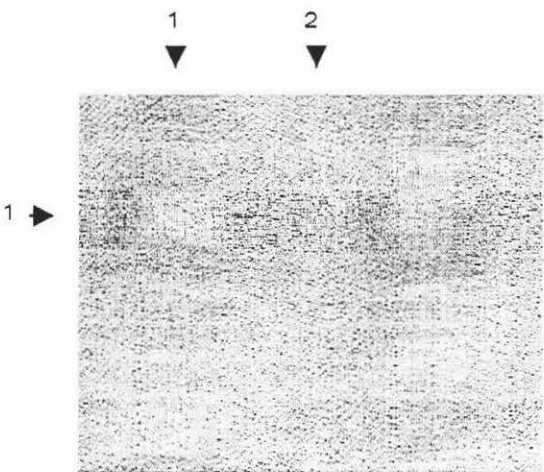


Figure 5.11
Effects of juxtaposed weaves and
yarns.
Detail from Sample 9

structures were explored with high twist yarn. Figure 5.12 shows the effects of diagonal lines of 1/7 sateen, alternating with bands of plain weave. The long weft floats gave the high twist room to contract, whereas the short, regular intersections within the plain weave structure did not allow room for the same degree of contraction to occur. The result was that the plain weave area puckered in response to the sateen's contraction.

Figure 5.8, already referred to in the "Yarn" result, highlights the effects of juxtaposed 1/3 and 3/1 twills, emphasised by the use of high twist yarn in the weft.

The double cloth structure utilised in Figures 5.6 and 5.9, where one layer was very open and the other closed, was recognised early on to be unsuitable for the end product due to the tendency of long floats to snag. Therefore double weave investigations continued using a more appropriate balanced sett in both layers.

2/2 broken twill in Warp 6 demonstrated a satisfactory twill structure to use in combination with plain weave, due to its uniform appearance on both face and back, and its textural effects without an apparent twill diagonal line. Twill structures add flexibility to fabric, and this was considered an important factor in prototype sampling where medium yarn

counts and double weave structure have the propensity to create a firm handle. Warp 9 saw the plain weave surface area increased to try to encourage contouring. 2 picks of plain weave in one layer were woven to 1 pick of the 2/2 twill structure in the other. This attempt was not effective, as contours became random and 'sleazy' as seen in Sample 30, Figure 5.13.

Plain weave and 2/2 twill continued to be utilised as the two primary structures in sampling.

In Warp 11, Sample 42 explored some alternate weave structures, including staggered picks of stitching which

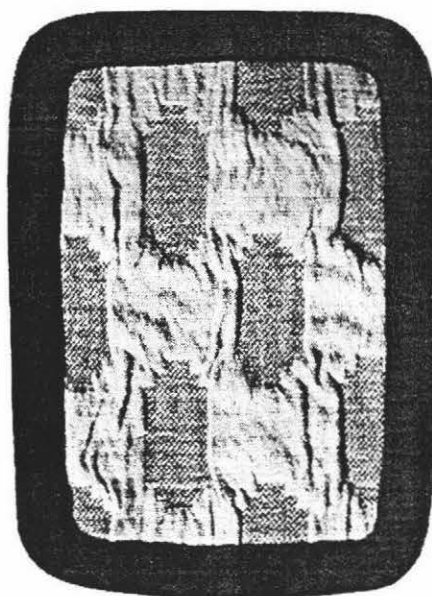


Figure 5.13
Effects of additional plain weave
picks.
Back of Sample 30

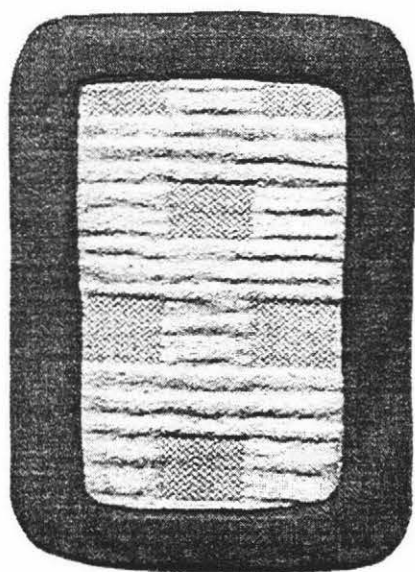


Figure 5.14
Corrugations formed through
double weave stitching.
Sample 45

produced a wave-like effect. Stitching was further explored in Warp 12 and effective corrugations were eventually achieved with contrasting heavier yarns 16 and 17 in combination with finer yarn 8 as in Figure 5.14.

The spacing between yarns is also a factor in facilitating or hindering movement of yarns. A weave sett is arrived at through consideration of the aesthetic, weave structure and function of the fabric. If, for example, a fabric with a firm, secure handle is required, warp and weft of similar count would be used and a sett calculated to provide a balanced warp and weft ratio.

A sett can also be calculated to provide a more open structure. For example, by using an open sett, a crepe yarn "could snarl with the resultant design 'pebble effect' being coarse. A more closely sett fabric, however, could provide greater control on the distribution of the crinkles in the yarn, to create a finer pebble." (Taylor:1997,84).

Balanced, open and closed setts were explored through prototypes to determine how to best encourage the effects of shrinkage.

When the ratio of linCLITE to ordinary wool yarn was increased in Warp 6 and the sett made more open, shrinkage increased. However, when opening the sett, weight of yarns must be considered carefully. The results of a too fine warp yarn are apparent in Sample 19, Figure 5.15, where the warp has broken out and kinked in places.

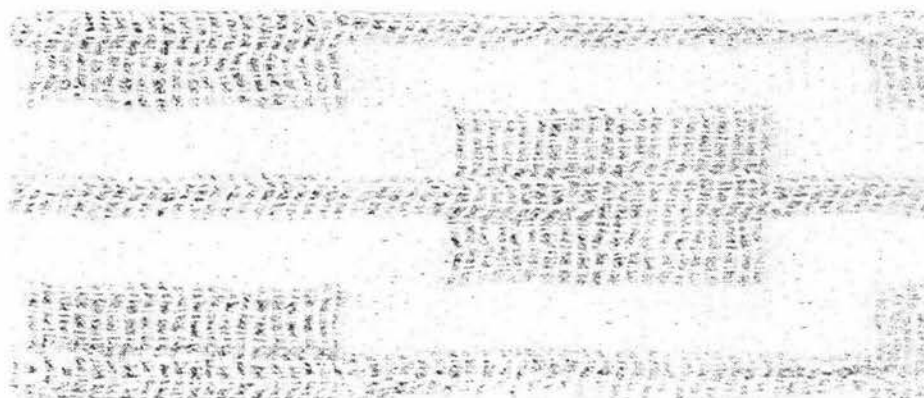


Figure 5.15
Effect of sett imbalance.
Detail of Sample 19

A sett that is too spaced will result in dissipation of the yarn's energy due to the lack of an adjacent structure to push against.

Conversely, if a warp is too closely sett, the yarn's ability to release its energy will be restricted and the effects of contrasting warp tensions will be negligible.

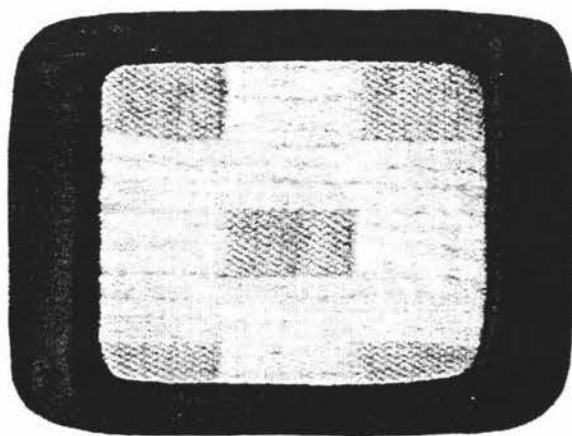


Figure 5.16
Irregularity of contours caused by
open sett.
Sample 46

The effect of sett on stitching in Warp 12 was also apparent. Corrugations proved most effective when plain weave was opened up enough to produce a more weft based weave, as in the aforementioned Sample 45, Figure 5.16. However, when the sett became too open this resulted in a loss of consistency in corrugations, as in Sample 46, Figure 5.16.

FINISHING

Finishing fabric samples and prototypes resulted in warp shrinkage of around 30% with lincLITE at a 2:1 warp ratio. An exception to this was Sample 45 (selected as one of the final prototypes), where warp shrinkage was only 23% while still retaining significant contouring. In this case a different fabric construction had been employed, i.e. stitching.

A small number of prototypes were dyed in order to observe the effects of additional shrinkage produced in a dye-bath and provide some variation in aesthetic for the following product evaluation process. Dyeing further reduced fabric by about $\frac{1}{2}\%$.

In the finer lincLITE count, shrinkage following finishing was about the same. However dyeing shrank the fabric considerably more than the heavier count, by approximately 13%, to total around 43% in overall warp shrinkage. This difference will be due to each of the lincLITE yarns being comprised of varying ratios of stretched to unstretched fibre.

When other yarns were subjected to further increases in temperature during dyeing, the structure and aesthetic of the fabric was sometimes also affected. The appearance of Sample 31 was altered considerably as yarn 9 shrank during dyeing and the effect of contouring was diminished. A comparison of this fabric undyed and dyed is provided at Figure 5.17.

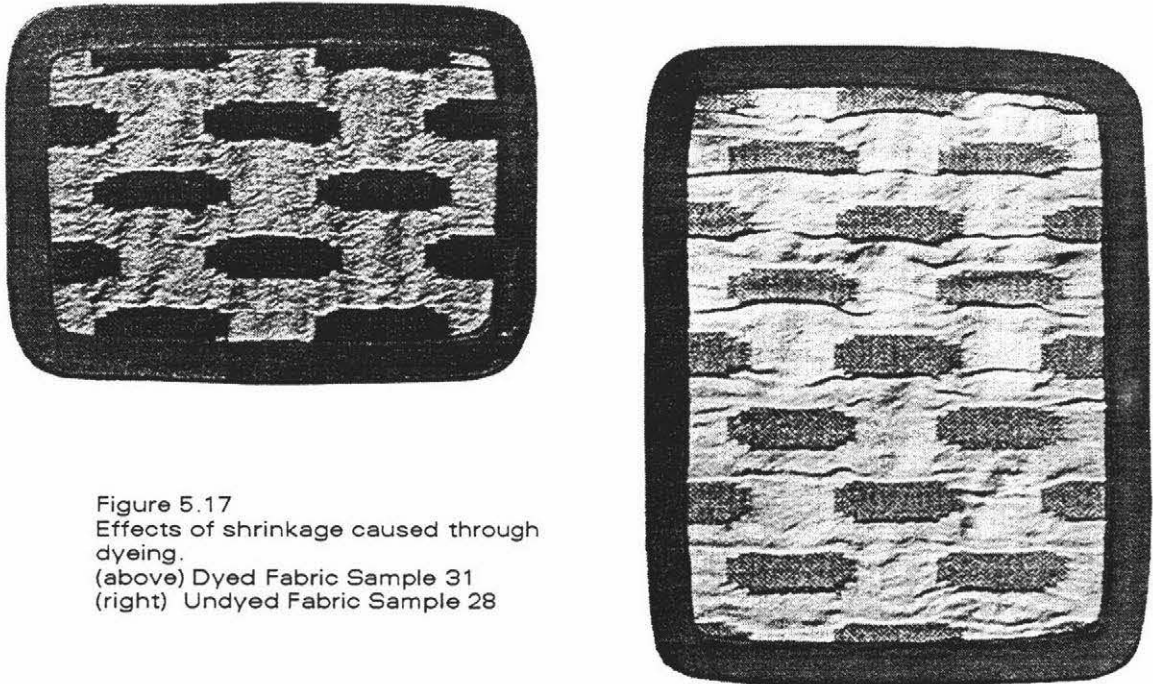


Figure 5.17
Effects of shrinkage caused through
dyeing.
(above) Dyed Fabric Sample 31
(right) Undyed Fabric Sample 28

SUMMARY

Shrinkage has not necessarily equated with contouring, as can be seen in Sample 21, where overall shrinkage was 29% with little evidence of contouring. The presence of twill in both warp areas can be seen to partly account for this lack of contouring, as twill's sparser intersections are able to release yarn tension. Plain weave in comparison holds the tension within its alternate intersections, therefore a combination of the two weave structures would seem most appropriate to achieve the desired effects.

The conclusion arrived at following these weave explorations, is that each variable, i.e. fibre, yarn, weave structure, sett and finishing are all interdependent. No prescribed formula can therefore be applied due to the fact that if one variable is altered, the others will also require reconsideration.

Although more expensive to produce, double weave cloth construction has several benefits. Firstly the structure provides additional fabric stability through the structural interchanging of layers. Secondly it is suited to a product where the reverse of the fabric may be revealed, and thirdly it provides more aesthetic features in terms of design scope and texture than a single fabric construction.

Selected samples for product 'prototypes' demonstrate the best use of variables to achieve the aesthetic and fabric properties aimed for. Images of these five fabrics follow at Figure 5.18, along with technical specifications.

Although the forms in Samples 27 and 28 have defined steps, it is felt that these do not detract in an unsightly way from the overall aesthetic.

The inclusion of fancy yarns in Samples 39 and 40 have to a large degree camouflaged any distinctive contouring effects, and it is recognised that a similar result could probably be attained without the use of shrinkage.

Sample 45 would seem to have best met the aesthetic aims in combining organic shapes within a symmetrical framework; having significant contrast in textures through 3D contouring and use of yarns with differing characteristics; having a substantial yet soft handle, and, satisfactory drape.

In the product design process, another stage of trialling would be desirable whereby full sized throws would be produced to test the appropriateness of fabric attributes at a larger scale.

SAMPLE 27

YARN SEQUENCES:

Warp Sequence:
2 ends of Yarn 1;
1 end of Yarn 8

Weft Sequence:
1 pick of Yarn 3; 1 pick
of Yarn 10

SETT:
EPI: 40
PPI: 42

WEAVE STRUCTURES:
2/2 broken twill in pink
linCLITE areas;
plain weave in cream
areas.

MEASUREMENTS:

On loom (L) 15"
(W) 11¹/₂"

Finished (L) 10¹/₂"
(W) 11³/₄"

Warp Shrinkage:
30%

(See weave draft
"double o ribs -
3 Mar i"
at Figure 5.19)

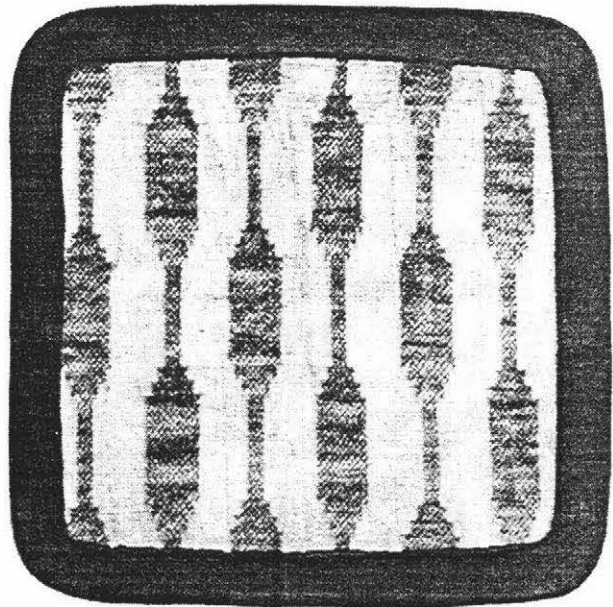
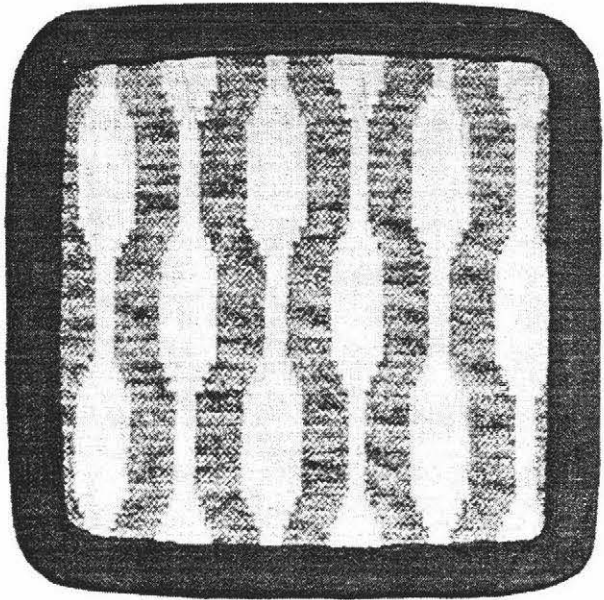


Figure 5.18
Sample 27
Selected Prototype

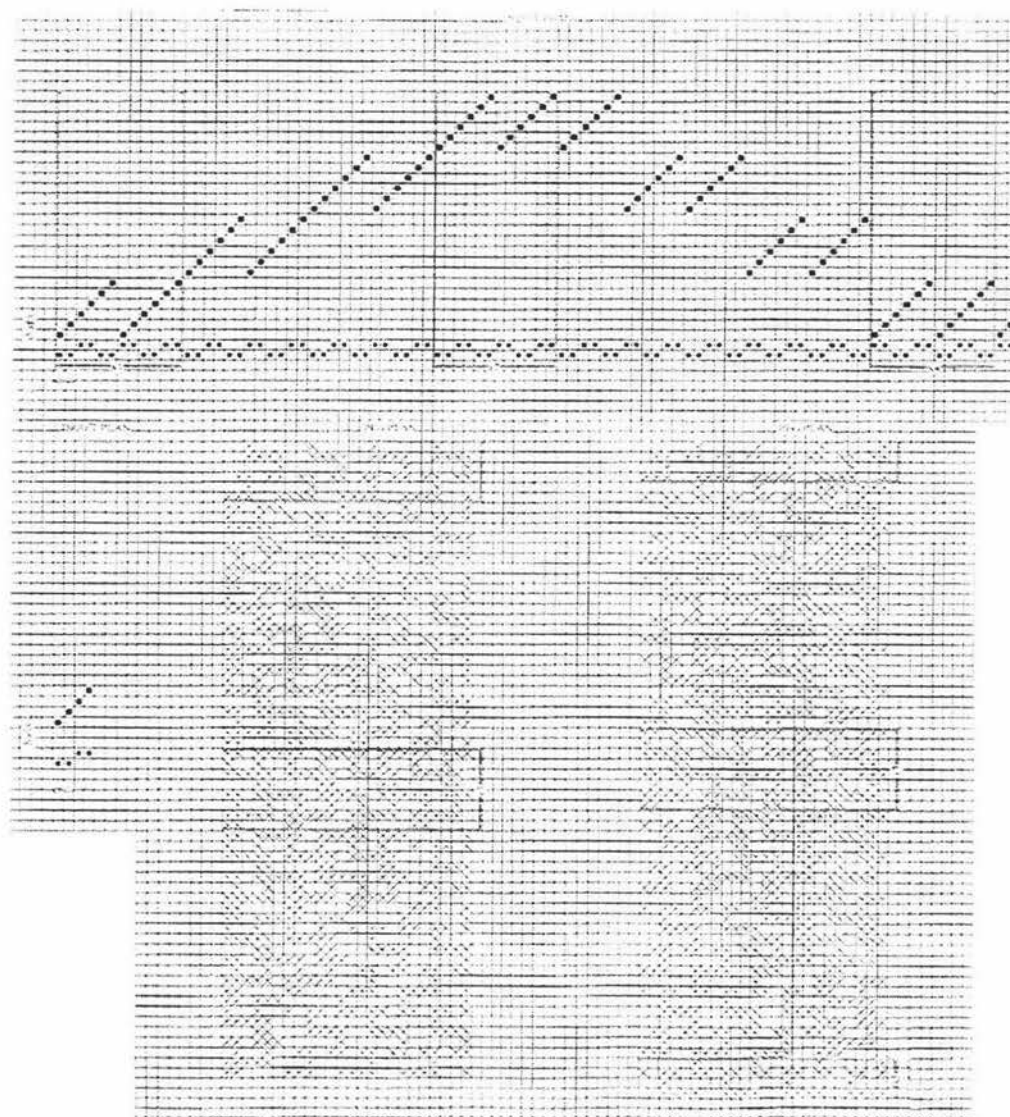


Figure 5.19
Weave Draft
"double o ribs - 3 Mar i"

SAMPLE 28

YARN SEQUENCES:

Warp Sequence:
2 ends of Yarn 1;
1 end of Yarn 8

Weft Sequence:
1 pick of Yarn 3;
1 pick of Yarn 9

SETT:
EPI: 40
PPI: 54

WEAVE STRUCTURES:
2/2 broken twill in pink
linCLITE areas;
plain weave in cream
areas.

MEASUREMENTS:
On loom (L) 20 $\frac{1}{2}$ "
(W) 11 $\frac{1}{2}$ "

Finished (L) 14 $\frac{1}{4}$ "
(W) 11"

Warp Shrinkage:
30%

(See weave draft
"double o ribs -
3 Mar ii"
at Figure 5.21)

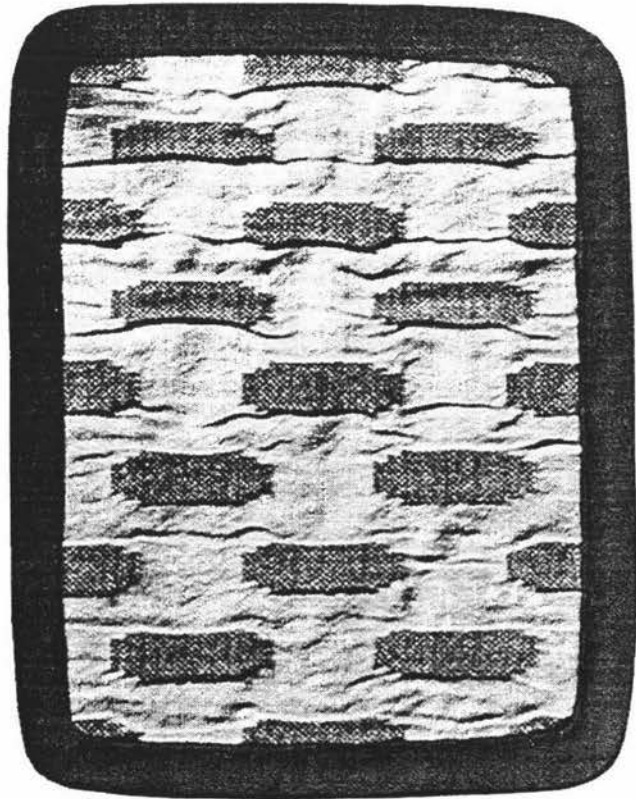
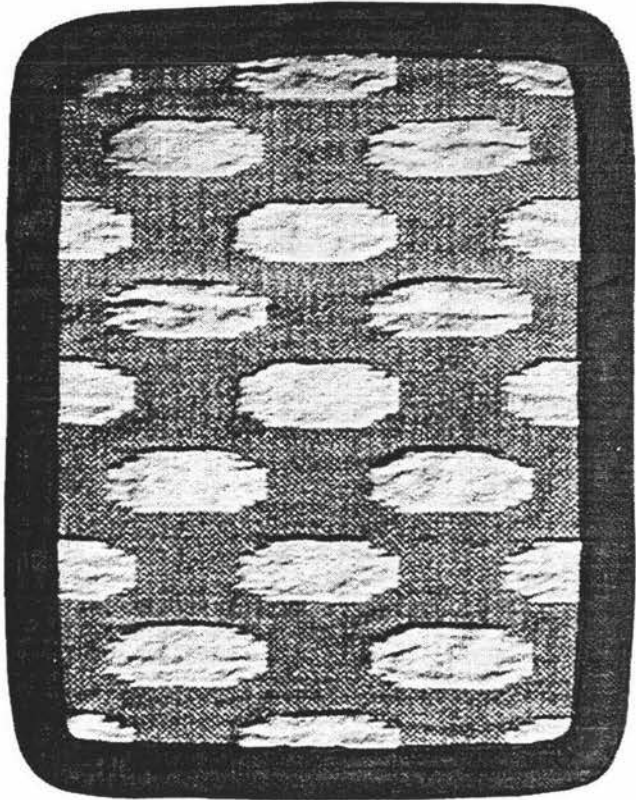


Figure 5.20
Sample 28
Selected Prototype

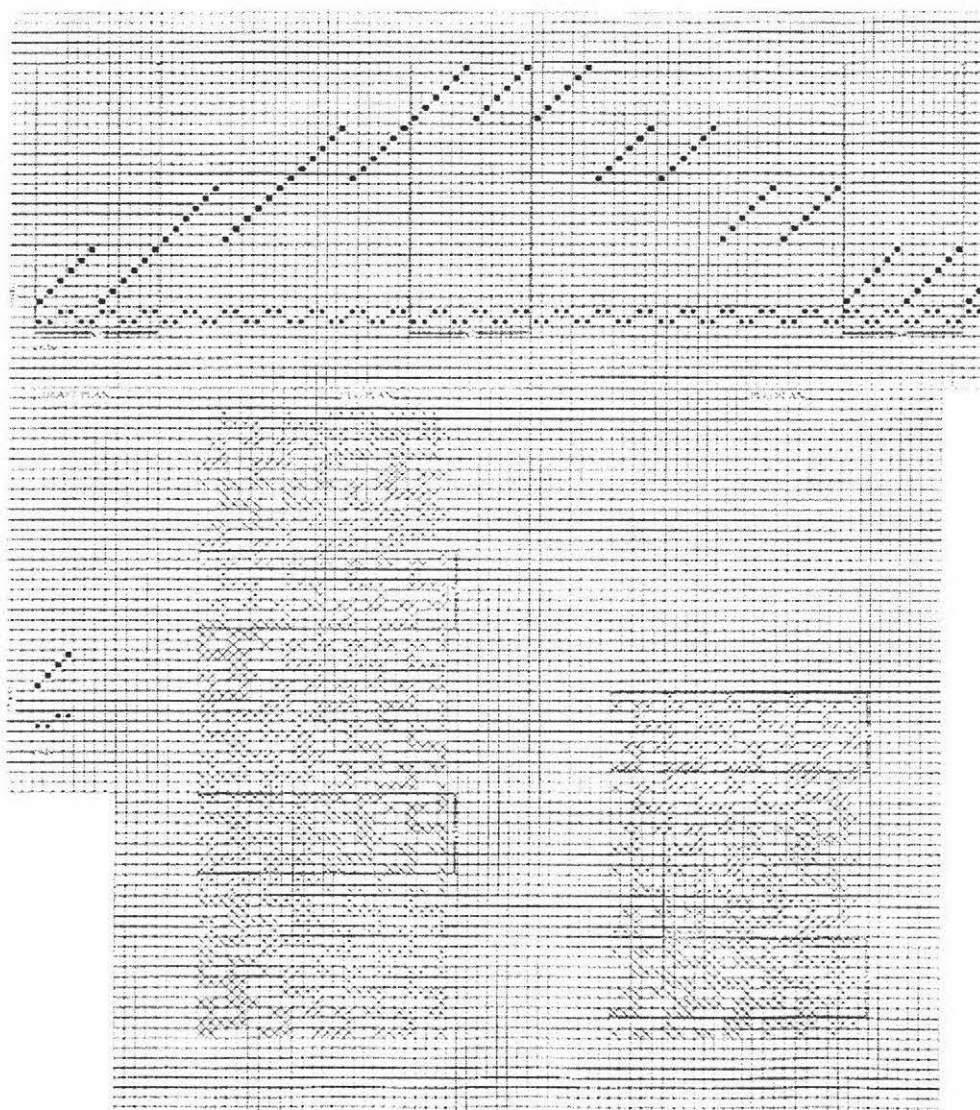


Figure 5.21
Weave Draft
"double o ribs - 3 Mar ii"

SAMPLE 39

YARN SEQUENCES:

Warp Sequence:
2 ends of Yarn 1;
1 end of Yarn 8

Weft Sequence:
2 picks of Yarn 8;
1 pick of Yarn 18

SETT:
EPI: 30
PPI: 36

WEAVE STRUCTURES:
2/2 broken twill in
smooth brown linCLITE
areas;
plain weave in fancy
yarn areas.

MEASUREMENTS:

On loom (L) 15"
(W) 15 1/2"

Finished (L) 11"
(W) 15 1/2"

Dyed (L) 10 1/4"
(W) 13"

Warp Shrinkage:
32%

(See weave draft
"double o ribs -
3 Mar ii"
at Figure 5.21)

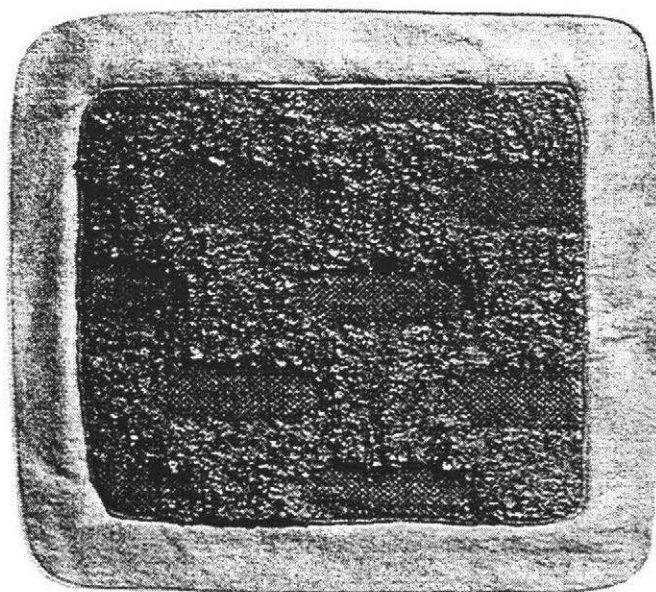
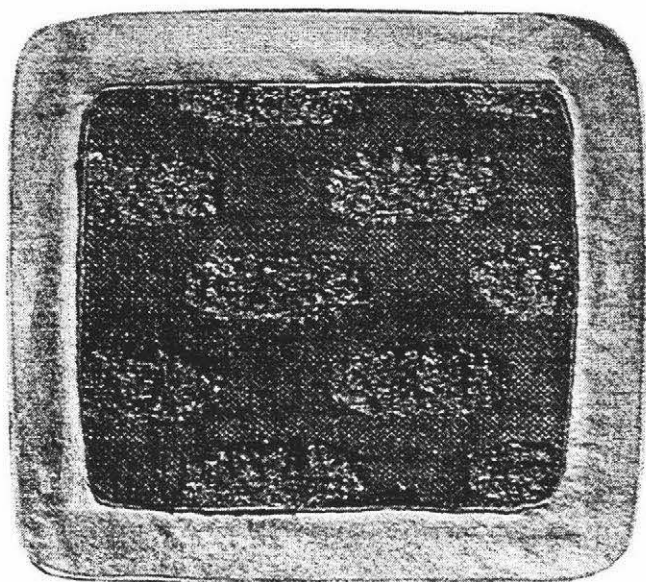


Figure 5.22
Sample 39
Selected Prototype

SAMPLE 40

YARN SEQUENCES:

Warp Sequence:
2 ends of Yarn 1;
1 end of Yarn 8

Weft Sequence:
2 picks of Yarn 8;
1 pick of Yarn 12

SETT:
EPI: 30
PPI: 36

WEAVE STRUCTURES:

2/2 broken twill in
smooth brown lineLITE
areas;
plain weave in fancy
yarn areas.

MEASUREMENTS:

On loom (L) 20"
(W) 15"

Finished (L) 14¹/₂"
(W) 15"

Dyed (L) 13³/₄"
(W) 14¹/₂"

Warp Shrinkage:
31%

(See weave draft
"double o ribs -
3 Mar i"
at Figure 5.19)

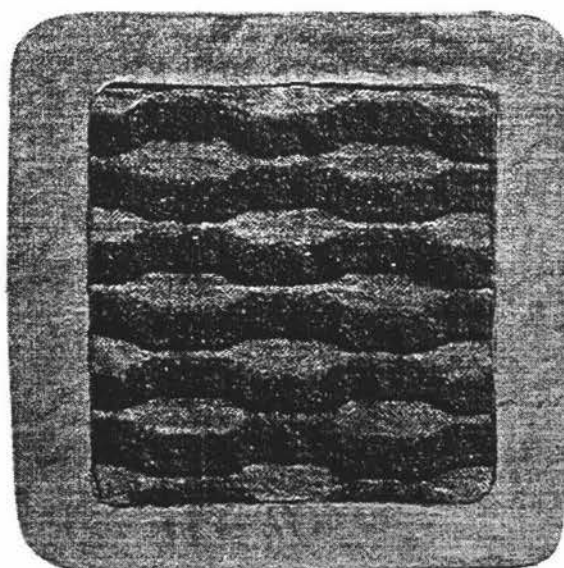
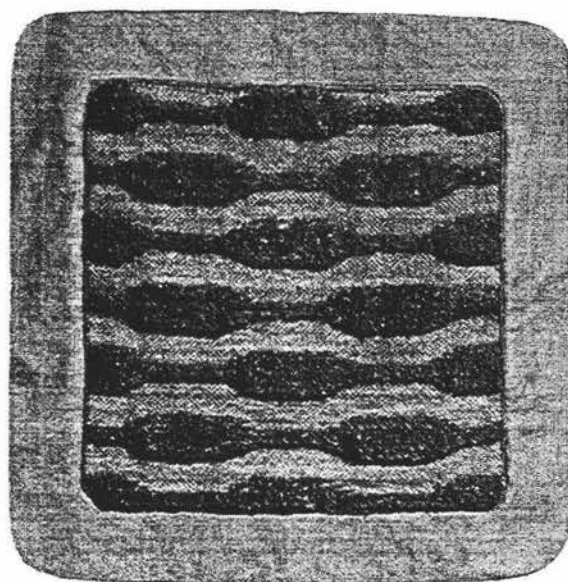


Figure 5.23
Sample 40
Selected Prototype

SAMPLE 45

YARN SEQUENCES:

Warp Sequence:
2 ends of Yarn 1;
1 end of Yarn 8

Weft Sequence:
2 picks of Yarn 8;
1 pick of Yarn 16

SETT:
EPI: 30
PPI: 34

WEAVE STRUCTURES:
2/2 broken twill in pink
linCLITE areas;
plain weave in grey
areas.

MEASUREMENTS:

On loom (L) $13\frac{1}{4}$ "
(W) 6"

Finished (L) $10\frac{1}{4}$ "
(W) $6\frac{1}{4}$ "

Warp Shrinkage:
23%

(See weave draft
"double o ribs -
1 May ii"
at Figure 5.25)

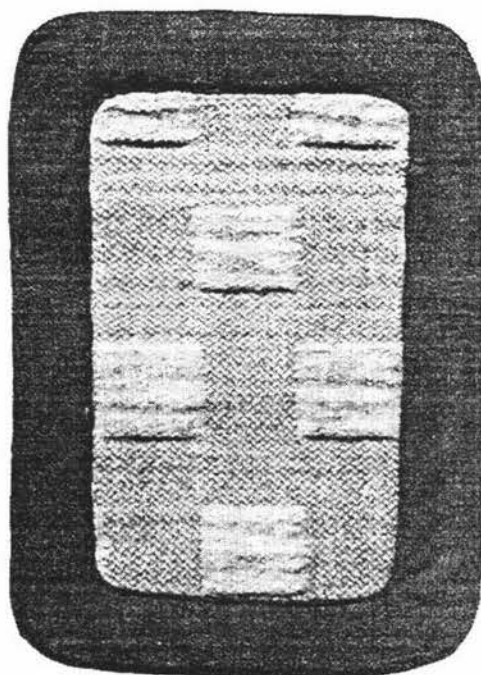
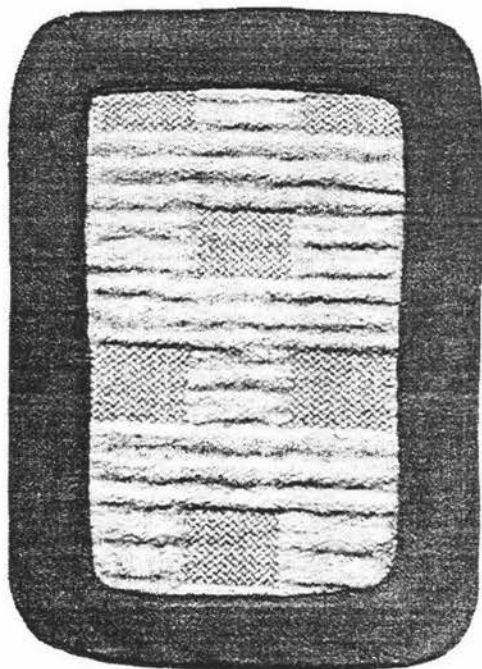


Figure 5.24
Sample 45
Selected Prototype

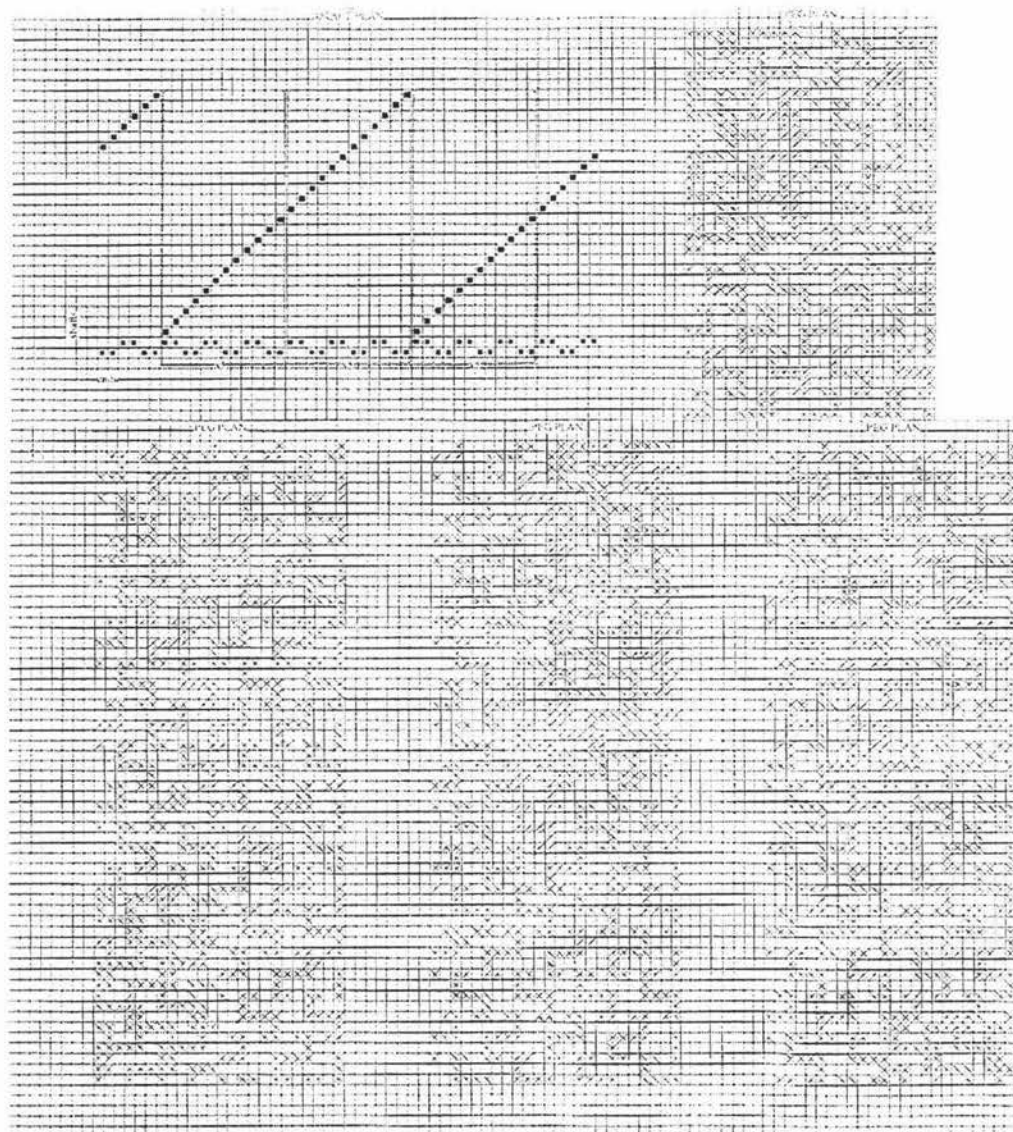


Figure 5.25
Weave Draft
"double o ribs - 1 May ii

MANUFACTURING ASSESSMENT

WRONZ

The WRONZ visit included a tour of the plant in relation to the processing of woollen, worsted and semi-worsted yarns and woven fabrics.

Prototypes were shown to three WRONZ experts, Surinder Tandon, Denis Maddever and Jack Watt, and during discussions the following possible finishing processes were suggested.

SUGGESTED FINISHING OF PROTOTYPES

Step 1 would entail open steaming without any tension being applied, to allow the linCLITE and other yarns to relax and shrinkage to occur.

Step 2 would involve scouring or washing the fabric, again without any warp-wise tension. An adjustable Scour-Mill machine was suggested as a means of achieving this. Scouring is carried out by means of circulating the fabric in a vat filled with water. Part of the process also entails the fabric passing through an open-ended metal rectangular cavity that is adjusted according to the amount of pressure required for the fabric.

As an alternative to this machine, it was suggested the scour could be carried out in a piece dyeing machine that has a non-tensioning, adjustable tumbling action.

Step 3 would involve stenter drying using an overfeed action to prevent undue tension.

YARN AND FABRIC PRODUCTION

WRONZ indicated that they could manufacture between 50-100kg of yarn and weave a sample fabric run. Larger batches of yarn would be required to be spun off-shore, as New Zealand industry has not yet purchased this yarn technology. Spinners in both China and Belgium have acquired the technology to produce linCLITE yarn.

A yarn quote was received from WRONZ Developments and is held with the researcher.

INTER-WEAVE

FABRIC PRODUCTION

Weave production was discussed with an Inter-Weave designer, who advised that a maximum of 16 shafts only could be utilised for weaving the fabric, with one loom beam available.

Minimum quantities were discussed, and within this total a minimum of 2 pieces could be woven in one warp colour.

WRONZ results were discussed with the Inter-Weave finisher, who agreed that the finishing process could be accommodated.

A quote was received from Inter-Weave and is held with the researcher.

ALLIANCE TEXTILES (NZ) LIMITED

FABRIC PRODUCTION

Prototypes were mailed to the Product Manager, Upholstery, for discussion with finishing personnel.

It was subsequently advised that fabrics would only be able to be woven on a maximum of 16 shafts with a single beam only.

The Alliance production manager advised that it is unlikely that the fabric would be able to be finished without applying tension in the warp when wet. Alliance uses winches to lift fabric out of the scouring bath, which would apply tension to the fabric and a commission finisher with "continuous line finishing facilities" was recommended.

A quote was received from Alliance and is held with the researcher.

SUMMARY

Prototypes were woven on a double beam loom and each warp layer allocated an individual beam. As industry looms in New Zealand utilise one beam only, further tests would be required to determine whether these fabrics could be woven on one beam. As has already been stated, lincLITE exhibits regular yarn characteristics, and, providing the second warp yarn possessed similar characteristics under tension, it is envisaged that there would not need to be difficulties with this aspect.

The challenge would be in reducing some of these fabrics to 16 shafts from 24 shafts. In terms of maintaining the ovoid forms in Samples 27, 28, 39 and 40, within a double weave structure using 2/2 twill this could be difficult. One of Inter-Weave's experienced designers however, suggested that an alternative "networking" weave draft that utilised only 16 shafts, could present a solution to the challenge.

The corrugations created through stitching in Sample 45 would not be a problem on 16 shafts.

Minimums varied considerably between the two textile mills. It is noted that colour restrictions also apply within minimums, so that careful consideration would need to be given to colouration of warp and the resultant colour mixes created through weft.

Finishing would appear to be possible through Inter-Weave, or with an independent finisher, as was suggested by Alliance.

It can be concluded from these investigations that fabric manufacturing of selected prototypes is possible within New Zealand industry. Quotes were received from both textile mills for a production run of fabric, and these are retained by the researcher to preserve company confidentiality. In the case of lincLITE yarn, quantities larger than 100kg would need to be sourced off-shore.

6

STAGE 2 MARKETING

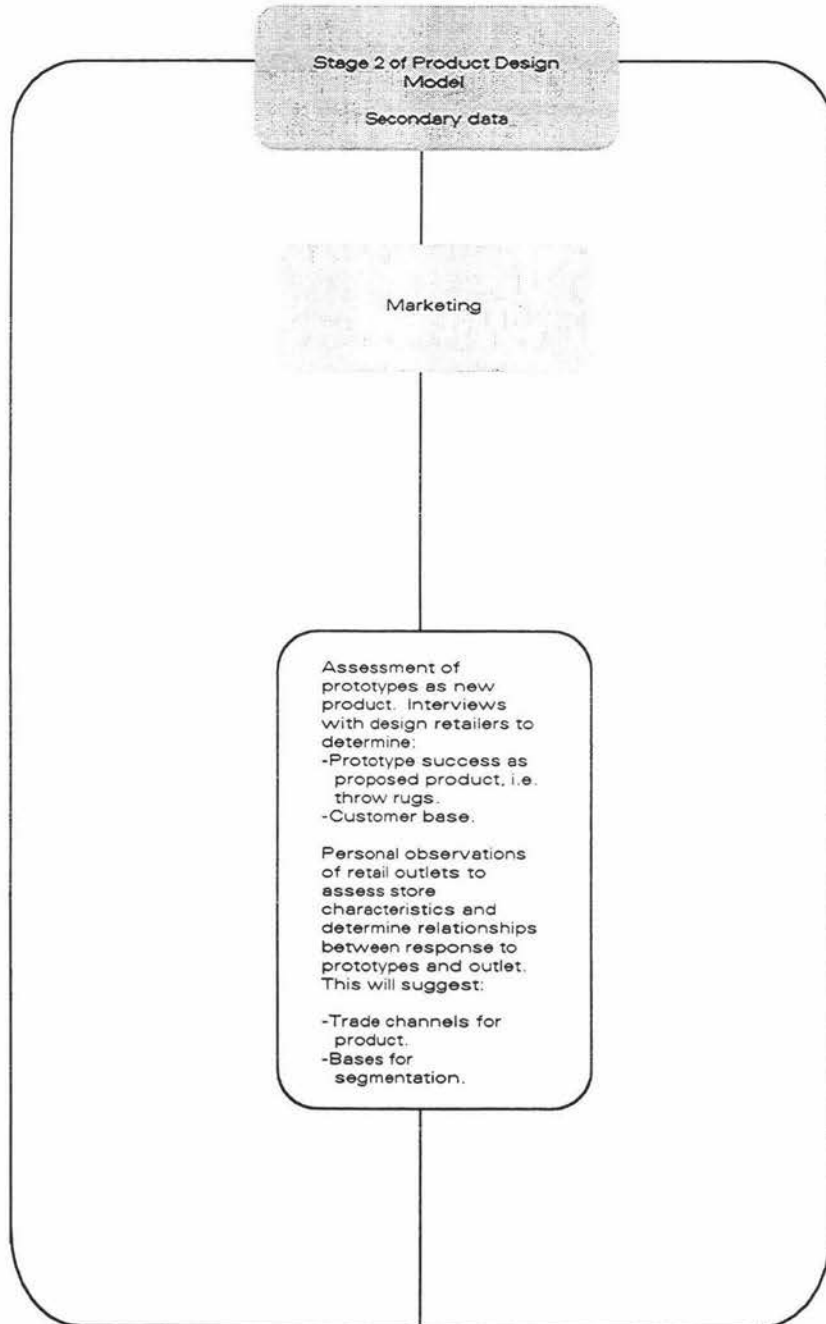
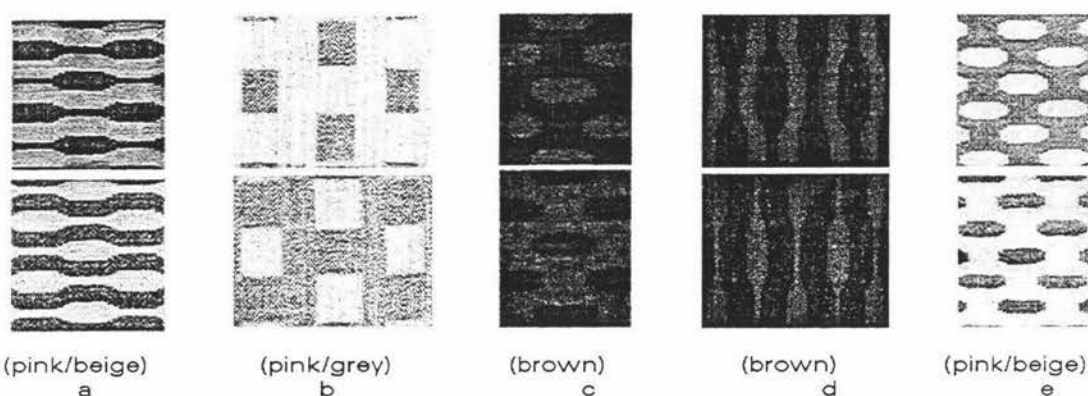


Figure 6.1
Stage 2 Marketing
Overview

The five prototypes at Figure 6.2 were considered by the researcher to meet the product criteria identified in Stage 1 of the Product Design model, i.e.

- contemporary aesthetic - organic forms within symmetrical structures;
- soft handle;
- drape appropriate to being placed over 3D objects such as bed or sofa arm or back;
- textural appeal.



Front and reverse of each fabric shown.

Figure 6.2

Selected woven prototypes presented to retailers for response.

An Auckland wholesaler/distributor and Wellington retailers were visited for store assessment and to gain feedback on prototypes. As reiterated in the Methodology, interviews were intended to be relatively informal in nature, to create a situation where both solicited and unsolicited information could be exchanged. Therefore conversations were written down after the event in the researcher's own words. Words like 'favourable' in relation to aesthetic, indicate that the interviewee responded well to all aesthetic considerations, i.e. design, texture, drape and handle. Any comments to the contrary are noted in the following analysis. To ensure that remarks were accurately recorded a copy of comments was forwarded to the outlets for approval and amendment if necessary, along with a consent form.

Comments have been summarised at Appendix 6. To prevent retailers from being identified in the survey, forms and consents are held by the researcher.

RESULT

COMPARATIVE ANALYSIS

PARTICIPANTS

WHOLESALER/DISTRIBUTOR

Participants: Chris Sixton and Rachel Allden
Seneca
Parnell
Auckland

The following comments were made with regards prototypes and market.

Prototypes were not considered mainstream, and Interior Design Stores were recommended as outlets rather than Department Stores. One of the products they distribute is a JAB throw-rug which retails at between \$500-600 and which is available through Interior Design stores such Limited Editions and Wade House in Wellington.

Issues of fibre content and New Zealand made are not significant issues for their customer base.

In view of the high NZ wool content, tourist outlets could also be considered.

RETAILERS

It was possible, as a result of personal observations of store characteristics, to form seven distinctive categories. These categories, along with product characteristics are listed in a Retail Analysis at Figure 6.3.

TYPE OF OUTLET	NO. INTERVIEWED	CHARACTERISTICS OF OUTLET	PRODUCT CATEGORIES - RANGE AND STYLE	CHARACTERISTICS OF PRODUCT
1. INTERIOR DESIGN STORE	3	<ul style="list-style-type: none"> Large, spacious with product displayed in separate themed room settings. 	<ul style="list-style-type: none"> Furniture, Interior accessories, Fabric ranges. Contemporary modern/country/classic. 	<ul style="list-style-type: none"> Small to large in size. International and some NZ. Store's own swing-tag attached to product.
2. LIFESTYLE STORE	1	<ul style="list-style-type: none"> Large, spacious with product ranges displayed in separate areas. Interior product displayed in room settings. 	<ul style="list-style-type: none"> Furniture, Interior accessories, Kitchenware, Apparel and Apparel accessories. Contemporary modern. 	<ul style="list-style-type: none"> Small to large in size. International and some NZ but branded with store's own name. Store's own swing-tag attached to product.
3. DEPARTMENT STORE	1	<ul style="list-style-type: none"> Large, spacious with product displayed in distinctive segregated departments. 	<ul style="list-style-type: none"> Furniture, Interior accessories, Apparel, Apparel accessories, Handcrafts, Personal items, Kitchenware, Books, Music, Food and wine, Tourist. Classic/country/antique. 	<ul style="list-style-type: none"> Small to large in size. International and some NZ Store's own swing-tag attached to product.
4. DESIGN GIFT-SHOPS	7	<ul style="list-style-type: none"> Small-medium, generally do not have many empty spaces. Product mostly on shelving with some special product display areas as space allows. 	<ul style="list-style-type: none"> May include: Interior accessories, Personal items, sometimes sample books of Fabric ranges and sometimes a small Furniture selection. Contemporary modern/fashion/country. 	<ul style="list-style-type: none"> Small to average in size. International and some NZ. Product usually carries store's own personalised price or swing-tag.

TYPE OF OUTLET	NO. INTER-VIEWED	CHARACTERISTICS OF OUTLET	PRODUCT CATEGORIES - RANGE AND STYLE	CHARACTERISTICS OF PRODUCT
5. APPLIED ART GALLERY	1	<ul style="list-style-type: none"> Medium, spacious, with separate exhibition space. Product mostly displayed in or on top of cabinets. 	<ul style="list-style-type: none"> Furniture, Interior items, Personal adornment. Art 	<ul style="list-style-type: none"> Small to large in size. NZ product only. One-off, handmade by artists. No identifying swing-tags.
6. DESIGN GALLERY	1	<ul style="list-style-type: none"> Small, but spacious. Product mostly on shelving with some larger product display area. 	<ul style="list-style-type: none"> Furniture, Interior items and accessories. Contemporary modern/fashion 	<ul style="list-style-type: none"> Small to large in size. NZ product only. Small runs of design product. Designers own swing-tags.
7. MUSEUM STORE	1	<ul style="list-style-type: none"> Large, moderately spacious. Product areas split into two distinctive areas. <p>Gallery space</p> <ul style="list-style-type: none"> Product mostly displayed in or on top of cabinets. <p>Souvenir space</p> <ul style="list-style-type: none"> Product on shelving. 	<p>Gallery space</p> <ul style="list-style-type: none"> Interior, Apparel items, Personal adornment. Craft/art <p>Souvenir space</p> <ul style="list-style-type: none"> Stationery, Food items, some Craft, Personal accessories, Books, Music, Cards etc. Souvenir 	<p>Gallery</p> <ul style="list-style-type: none"> Small to medium in size. NZ product only. Small runs of hand-made craft/art product. Store's own price-tag placed alongside object with maker's name. <p>Souvenir</p> <ul style="list-style-type: none"> Small to medium in size.

Figure 6.3
Retail Analysis

AESTHETIC

In general, the aesthetic qualities of prototypes, as outlined at the beginning of this chapter, were favourably commented on by all who viewed them, including those who considered the product unsuitable for their retail outlet.

The prototypes' pattern consists of simple organic forms created from curved lines, ovals or rectangles. The 3D effect at its most dramatic has created ripples and corrugations. At its most subtle, it has created textural contrast.

Colour of available yarns, particularly lincLITE, has dictated the overall colour scheme. It was indicated to interviewees that these colourations are not intended to be those of the envisaged final product. Two of the five fabric prototypes were piece dyed to achieve a more mono-chromatic look. These provide a distinctive comparison to the more contrasting colours of prototypes a,b and e, and thus present a range of possibilities for the interviewee to comment upon.

Texture has, in addition to the use of lincLITE been created through use of textured yarns. Handle varies from softer, more drape able as in 'c' to the firmer handle of 'd'.

Words like "refined, elegant, sophisticated" were used by retailers at the mid to higher end of the market to describe the aesthetic qualities desirable in a product. This equated with a pared down, understated and more subtle aesthetic. Prototype 'c' was the most consistently commented upon as displaying these qualities.

A large store buyer commenting on the body of work as a whole, said the samples had too much of "a point-of-difference", and thus did not equate with the qualities associated with the store's retail product. In part this could be attributed to use of colour. The samples that were coloured pink/beige and pink/grey were seen as "too contrasting" and therefore "distracting", in comparison with the favoured subtlety of the monochromatic colouration of 'c'.

The higher end of the market does not seem to favour a "trendy", colour palette. One reason could be the higher price paid for an item, which is expected to exhibit qualities associated with endurance rather than being merely fashionable. A retailer in recommending a colour palette at the higher end of the market suggested that "dirty" colours, along with charcoal be used. She suggested an additional highlight colour being

included according to the season. "Dirty" was used to suggest subtle/muted rather than bold.

Colour is seen as critical, although the choice of colour palette is an individual one, depending on the retail outlet's style philosophy. Colour was observed to be a particularly individualising feature of a number of the gift shops. One gift shop paints their wall colours seasonally to reflect a current fashion colour. The participant said they are attracted to product that will complement their colour scheme.

While the higher end of the market favoured a pared down aesthetic, the more contemporary modern gift shops, looked favourably upon a point-of-difference. One outlet that appreciated the prototypes' point-of difference lamented the general lack of design difference available in textile product.

The buyer for a contemporary modern product gift-shop commented that the prototypes had hand-made/ethnic/natural qualities, which she considered to be "very big and will (would) be for some time". This comment highlights a differing viewpoint to the former, where a hand-made/ethnic look would generally be interpreted as non-acceptable in a sophisticated, elegant environment. Fineness is generally perceived to be a quality associated with a more expensive 'classic' woven item, in part due to its associations with the value associated with skill, knowledge and time.

Frequently prototype 'c' was singled out for having the desirable qualities of softness, tactile appeal and drape. The handle of 'c' was summed up by one retailer as "luxurious". The other qualities of prototype tend to be firmer. For the majority, the heavier quality was not indicated as a problem – in fact one retailer suggested that they could double as a blanket for the bed.

SUITABILITY OF PRODUCT FOR OUTLET

TYPE OF OUTLET	RESPONSE REGARDING SUITABILITY OF PRODUCT FOR OUTLET		
	YES	NO	MAYBE
INTERIOR DESIGN STORES	3		
LIFESTYLE STORE			1
DEPARTMENT STORE		1	
DESIGN GIFT SHOPS	3	2	2
APPLIED ART GALLERY		1	
DESIGN GALLERY	1		
MUSEUM STORE		1	

Figure 6.4
Response regarding suitability of product for outlet.

While fabrics were favoured aesthetically by all interviewees, not every outlet would be willing to carry the product. These reasons are as follows.

The large store buyer considered the aesthetic inappropriate to their customer, who are attracted to a more refined, elegant product. She cited a 'Pelage' product in black and featuring possum pom-poms as being representative of the acceptable look in the higher price range.

The three interior design outlets indicated that they would take on product.

Five of the eight gift shops carry little or no textile product. Although three of the five were interested in the proposed product, two were not interested. One of these two carries quirky, playful product, and the interviewee spoke of pillowslips being tried in the past with unsuccessful results. The one textile that has proved successful in that same outlet, however, is tapa cloth, which has found popularity with tourists because of its unique appearance. Ironically this 'textile' can be seen to have an untypical textile appearance and function!

Display would seem to be a problem with textile product, and large product particularly. Sitting folded on a shelf does not display it to advantage nor

make its function clear, and the alternatives of being draped or suspended can take up valuable space. Smallish gift shops, unless having furniture

props are limited in their ways of displaying large product. Of the three remaining gift shops that indicated positively that they would take on product, they all carry existing textile product and two of the three have furniture props.

Neither the craft nor art galleries were interested in viewing product and interviews ceased with the preliminary telephone conversations. Reasons given by the craft gallery were connected with gallery space restrictions. The interviewee said that successful textile products were scarves and knee rugs, being neither bulky nor requiring large display areas. The buyer commented that their product expectation is that it be strongly representative of New Zealand due to their large tourist customer.

The art gallery does not carry textile product apart from Maori kete. Visually this outlet follows the fine art gallery tradition, with objects on plinths or in cabinets and no swing-tags or information in view to detract from the presence of the object. Product is promoted as one-off and hand-made and therefore would not be suitable for an industry manufactured product.

The design gallery indicated they would be interested in having prototype product. The product they carry has the designer's own swing-tag attached, which indicates the importance of the individual product story for the buyer.

Other issues to do with suitability dealt with quality and standard of presentation. A higher-end gift shop expressed that this would be of primary consideration in the acceptance of any product and another mid-high range gift shop reiterated the same point, along with commenting on the importance of packaging and product story.

CUSTOMER BASE

This varied considerably between outlets and sometimes within the same outlet.

Some retailers were unable to define their customer at all, due to the demographic diversity that exists. In general it can be concluded that a store carrying a range of small-medium sized gift/accessory product, will attract a more demographically diverse customer. Stores that sell medium-large or more expensive items will accordingly attract customer with higher disposable income. However, the diversity that exists within these groups still makes it difficult to pinpoint a set of characteristics - for instance a home-focused person with a good level of disposable income could still vary in age and gender.

The nature of the gift shop's style philosophy further fragments any similarities in this retail category. Some design gift shop product is distinctly quirky and playful, while another will be eclectic and yet another will have a more fashion oriented product. Client motives for selecting a particular outlet, apart for reasons of product range and style, have not been determined. In the case of gift shops it can be surmised that the customer will be home-focused or gift buying, but they will probably vary in age, occupation and income level. Range of gift-shop product can vary in price from low cost, as in the case of a cake of soap for example, or, high cost, as in the example of a \$600 Zimmer and Rohdes throw.

The department store customer will also be diverse, but will be attracted to this shopping experience for reasons probably associated with the store's characteristics of sophistication, elegance and tradition.

The design gallery interviewee commented on the variable demographics of their customer, who could be a group of young people joining together to buy one expensive item, or, customer with good disposable income. This outlet may have been selected for purposes of supporting New Zealand designers, seeking contemporary modern fashion design, quality and/or original, limited-run product.

A general summing up of retail outlet customer follows:

Interior Design Store

- male and primarily female with or without children;
- 20-60 years old;
- home-focused;
- mid-high income bracket.

Lifestyle Store (Interior product)

- predominantly female or gift buying males
- 28-60 years old;
- home-focused or gift buying;
- seeking quality;
- mid-high income bracket.

Department Store (Interior product)

- predominantly female;
- 30-60 years old;
- home-focused or gift buying;
- mid-high income bracket.

Design Gift-Shops

- female and male (balance varies according to outlet);
- 20-50;
- not necessarily home-focused;
- low-high income bracket;
- may be motivated by price before quality or quality before price.

Applied Art Gallery

- female and male 50/50;
- mid-high income bracket;
- professional;
- original, exclusive product;
- buying for self or gift buying.

Design Gallery

- female and male;
- 25-60;
- home-focused or gift buying;
- mid-high income bracket;

Museum Store

- female and male;
- 6-60;
- souvenir/gift focused;
- low-high income bracket;

PRICING

TYPE OF OUTLET	RESPONSE REGARDING CUSTOMER PRICING EXPECTATIONS
INTERIOR DESIGN STORES	\$100-700.
LIFESTYLE STORE	Price not provided, but higher end customer.
DEPARTMENT STORE	\$450 maximum; \$100 preferred.
DESIGN GIFT SHOPS	Up to \$600.
APPLIED ART GALLERY	N/A as would not stock product.
DESIGN GALLERY	Open - consider price irrelevant.
MUSEUM STORE	N/A as would not stock product.

Figure 6.5
Response regarding customer pricing expectations.

The trend was for retail outlets dealing with more expensive large items, such as interior design stores, to be able to sell higher priced interior accessory items. One interviewee from this category of store said that pricing was not too problematic up to \$700 retail, but that they would not stock a \$2500 accessory product that was also available to them.

The department store, however, indicated that turnover of throw rugs at around \$450 would be limited to about 6 per year, and their preferred pricing would be around \$100 for such a product.

Although some gift shops deal with smaller, lower priced items, the positioning of other such stores in this category is variable, so that some are dealing with higher priced product. One of these gift shops who would sell to customer at the higher end of the market said that a Zimmer and Rohdes mohair rug, which retailed at around \$600, had sold without too much difficulty. Yet another gift shop with strongly fashion design product, commented that "many customers are buying gifts, therefore often value for money is more important than beautiful quality".

A general summary of all information offered was that

- throws up to \$200 are popular and move relatively easily;
- throws in excess of this amount do sell, but turnover would be less;
- if the product is 'right' it will sell irrespective of price.

NEW ZEALAND MADE/NATURAL FIBRE

TYPE OF OUTLET	RESPONSE REGARDING IMPORTANCE OF NZ MADE/NATURAL FIBRE	
	IMPORTANT CONSIDERATION?	
	YES	NO
INTERIOR DESIGN STORES		3
LIFESTYLE STORE		1
DEPARTMENT STORE		1
DESIGN GIFT SHOPS	1	6
APPLIED ART GALLERY	1	
DESIGN GALLERY	1	
MUSEUM STORE	1	

Figure 6.6
Response regarding importance of NZ made/natural fibre.

For those specialising in New Zealand made goods, this is obviously a vital ingredient. One gift shop who deals with both New Zealand made and international product commented "yes, we specialise in New Zealand made and love hand-made, natural products, and yes, that is an important consideration for those customers who can afford it."

But the majority of outlets who carry international product commented that New Zealand made and/or natural fibre is secondary to the look/aesthetic of the product. This is probably to be expected when considering that the emphasis of these outlets is on style and aesthetic, and those drawn to shop in them do so for these reasons.

If someone is looking for a distinctly New Zealand product they will generally seek out a craft/art/design shop that targets this market.

One gift shop has within its client demographic range, a group who were described as female in the 30-40 age range with good disposable incomes. This grouping were said to be interested in social issues and would be interested in supporting New Zealand made products.

SUMMARY

As has been stated at the beginning of this section, bases for segmentation will be applied to customer base information in order to determine which are most appropriate. These include geographic, demographic, psychographic, and behaviouristic.

In these investigations, the customer range within each category of outlet has a similar broad range of age/gender/income bracket/ occupation, therefore demography is not sufficient in itself to evaluate a customer base. When looking for identifiable commonalities shared by retail outlets, those that responded most favourably to prototypes carried product that exhibited fashion and contemporary modern design style. Customers selecting these outlets, would probably do so for lifestyle/psychographic motivations, i.e. be home-focused and design/fashion/style conscious. Candy quotes from Lury, 1996 in defining lifestyle as:

...the ways in which people seek to display their individuality and their sense of style through the choice of a particular range of goods and their subsequent customising or personalising of these goods.
(Candy:2000,135)

Style therefore goes beyond demographic boundaries to form new groupings, and this is summed up by Candy in the following quote as part of a discussion on identity:

The cogency of style's dynamic effect is such that it can simultaneously stimulate both affirmative and counter cultural reactions. As a social taxonomy, it has heterogeneous and homogenous influences and as such is a powerful personalising and socialising force.
(Candy:2000,134)

Retail stores exhibiting fashion and contemporary modern design style included:

- 3 interior design outlets;
- 1 design gallery;
- 1 lifestyle store;
- 2 design gift shops.

Some gift shops with a fashion style, although expressing enthusiasm for the product, were not enthused about textile product in general.

Observations of textile product in retail outlets would suggest that its role is as an accessory, rather than exhibiting its own distinctive characteristics. Given that some of the design prototypes have a fashion style that takes them out of the subtle, classic style, there is potential to get the product accepted by such retailers. However, when considering the limited number of stores in this category in the Wellington sampling, it is unlikely that New Zealand alone could support such a fashion product line.

The lifestyle store is not a suitable distribution outlet, as it manufactures and markets product under its own brand.

Consideration could also be given to targeting product to the tourist segment. In this event the product would, for ease of display and convenience for the traveller, be a smaller item such as a knee rug. Given that the tourist would be gift/souvenir oriented, the product promotion would need to be strongly representative of New Zealand.

Overall the aesthetic of 'c' has clearly been the favourite for its successful meeting of all the established product criteria, i.e. being contemporary, luxurious in handle, having textural appeal and subtlety.

A number of stores recommended that a product range would be advantageous rather than a single product. Reasons given were for benefits of display, i.e. to be able to better create a presentation context, and to give the customer product choice in terms of variety and price.

This research has indicated that the New Zealand market alone would not be enough to absorb this product and generate sufficient turnover, therefore, it would be advisable to explore international markets.

In accordance with the external product development framework, further product refinement/development would be carried out on these prototypes, then product-sized samples which demonstrate finishing would be produced and the market re-tested/evaluated.

7

BUSINESS CASE STUDIES

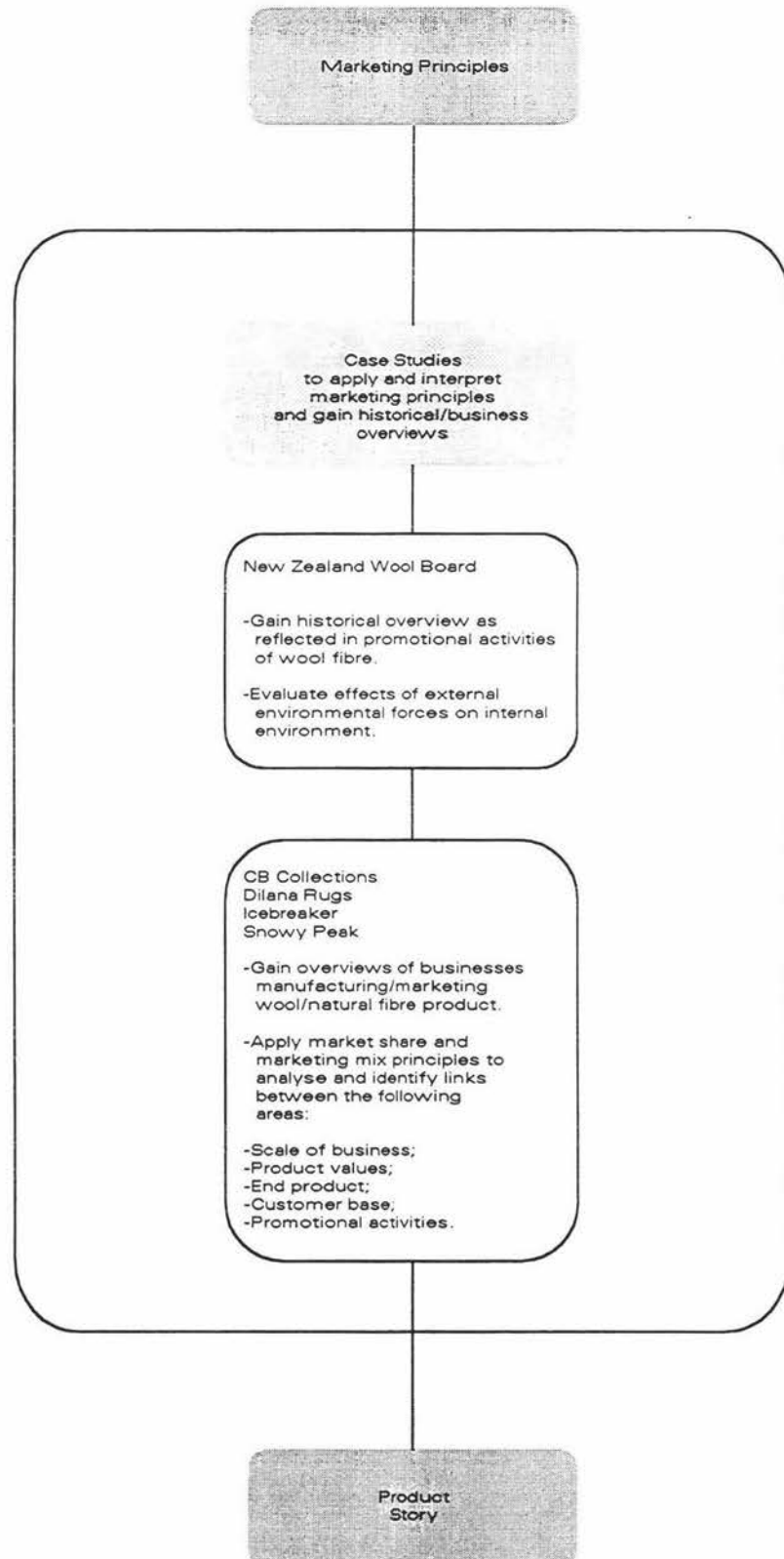


Figure 7.1
Overview of
Business Case Studies.

As indicated in Figure 7.1, business case studies have provided an opportunity to gain an overview of businesses who manufacture/market New Zealand wool/natural fibre.

The New Zealand Wool Board as the most prominent promoter of New Zealand wool, has been looked at to evaluate the impact of external environmental forces as reflected historically in its promotional activities. This analysis has been placed at Appendix 11 and a summary follows.

Following this are overviews of four businesses who manufacture and promote wool/mohair product. An analysis follows using the marketing principles at Figure 3.6 for comparison.

RESULT

NEW ZEALAND WOOL BOARD

Since the New Zealand Wool Board's formation in 1944, New Zealand wool marketing has evolved from generic under the Woolmark brand, to differentiated under the Fernmark brand. Wool Board Chairman, Pat Morrison spoke of the significance of the Fernmark brand's introduction in 1994:

The Fernmark brand links the positive international perceptions of NZ to the well established values of wool, as country of origin branding assumes new significance in today's marketplace.
(Annual Report 1994/95:3)

The recognition of the importance of marketing strategies in the 90s, including segmentation, targeting, branding and positioning wool product, has been used to advantage to communicate to a market which has become increasingly diverse.

Selling wool fibre generically at auction has also been recognised as undervaluing the commodity, and links between growers and end-producers have been encouraged to both satisfy customers' specific needs and lead to stability of price for growers.

Brand partnerships have seen Wools of New Zealand give various forms of support, such as financial assistance for marketing, to its partners, and in return end-products have provided tangible quality products with which the Fernmark brand can be associated.

Interestingly the success of this symbiotic relationship has allowed Wools of New Zealand to cease its own generic form of advertising and have brand partners contribute financially to promotions. This development has enabled the brand partner to increase the profile of its own brand and therefore potentially its own market share.

External environmental forces such as economic and political events both

nationally and globally, and competition from synthetics have also clearly impacted and directed the New Zealand wool industry's evolution. Decreased demand for product and subsequent low prices have seen pressure applied to the Wool Board's internal environment and resultant changes in management structure.

The recognition of the necessity to add value to wool through technology has seen funding to WRONZ significantly increased. New fibre developments are branded and promoted to help create the perception of wool as a technical fibre with features to offer the consumer in the new millennium. This has to some extent helped it compete with man-made fibres, whose qualities have since the 60s and 70s become increasingly improved and therefore more widely acceptable.

Social and cultural attitudes are reflected in advertisements, from giving the homemaker confidence to make the "right" carpet selection in the late 80s/early 90s, to giving the individual the right to make their own decision in accordance with their own styled environment in 2000. The new cultural heroes, sportspeople, and the decreased societal stronghold of religion are both reflected in the whimsical, irreverent advertisement for carpet which features golfer, Steve Ballesteros as a modern-day saint.

Increased global environmental awareness saw New Zealand introduce a revised Resource Management Act in 1991 to improve and promote the sustainable management of natural and physical resources. This is reflected in the 90s 'Let's get real' campaign, with wool promoted as "real" and "designed by nature" with "qualities no man-made fibre can truly reproduce". Promotional material was correspondingly printed on brown paper.

Fashion cycles have brought about the virtual demise of mid-micron fibre usage for apparel, with the current fashion preference being for fine-micron yarn. While mid-micron growers have suffered, the fine-micron merino growers have benefited, which has in turn aided Merino New Zealand's rapid growth and establishment of a strong profile for the fibre both locally and internationally.

Sometimes, these environmental forces would seem to be sudden and unpredictable, as in the case of political events in another country which might create a slump in prices. However, some trends will be sustained over a period of time, as with environmental concerns, so that integration into a business plan is more possible.

Thus external environmental forces have shaped and continue to determine the Wool Board's future, so that at the time of writing this report the McKinsey report has recommended its dissolution in favour of commercial, non-profit making companies.

CB COLLECTIONS

*CB Collections is the brainchild of Deb Clinton-Baker, a designer and decorator with a dream of marketing the ultimate New Zealand product – something beautiful and luxurious for everyone and everywhere!
(CB Collections website)*

Deb Clinton-Baker operates her business from Masterton, where Master-Weave Textiles contract-weave her mohair throws. The mohair comes from New Zealand angora goats and is spun and dyed in Napier. C B Collections is a small business employing two persons, established in 2000. 90% of product is sold in New Zealand.

The product range is limited to two variations of rug – plain and checked or tartan. The product line includes knee rugs, throws, and single, queen and king-sized silk-trimmed blankets. Plains have proved to be the more popular of the two variations. The product is described as a 'luxury gift item' (Survey:2001) and "a fashion item for the well-dressed home." (CB Collections website:2001) Colour reflects interior trends, as indicated in the following quote:

*A soft summery range including citrus yellow, lollipop pink and cobalt sits well against the intense colours of Designers Guild fabrics. At the other end of the spectrum, are deep, natural, earthy tones – liquorice, aubergine, navy and taupe. Deb calls them her Kelly Hoppen colours, after the-flavour-of-the-moment British based decorator whose signature style is to layer lots of texture in the home.
(Next:2000,135)*

Another colour palette contains 'paua' colours and is named 'Pacific'. Of colour in general Clinton-Baker says:

*...my leading edge in the market place comes through being at the cutting edge of 'COLOUR' – anticipating colour and decorating trends and offering two seasonal ranges a year on top of my standard colour range of 20.
(Survey:2001)*

These seasonal ranges are called "collections" and are themed. The CB Collections website describes the winter 2001 theme as "'Bella Tuscany' – new colours with names so delicious you could eat them! Chianti, Tiramisu, Olivo and Siena join the CB Collections colour story". (CB Collections website:2001) The Pacific range would seem to relate to one of

Colour is listed as one of the most important product values, along with styling/aesthetic, quality, New Zealand made and natural fibre. The least important values are listed as durability, technical innovation and value for money. The low value of durability is understandable, considering the product is colour/style oriented, with a limited lifespan.

New Zealand text is placed prominently inside the swing-tag to identify the product country of origin. This makes the product suitable for the tourist looking for a souvenir gift item, or, for the socially aware local consumer wishing to purchase a 'New Zealand' product. The outside cover shows a stack of paua coloured blankets, reflecting the shell often associated with tourist product. The inside features a baby, thus reiterating the product values of softness and comfort.

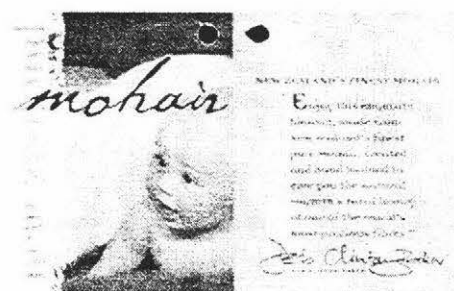


Figure 7.2
2001 Product Swing-tag.
Outside (top) and Inside (below)
Text inside reads:
NEW ZEALAND'S FINEST
MOHAIR

Enjoy this exquisite blanket, made from New Zealand's finest pure mohair, created and handloomed to give you the natural warmth and total luxury of one of the world's most precious fibres.



Figure 7.3
Home Page showing
the designer's
endorsement.

Clinton-Bakers' signature appears under the text, in the manner of a personal endorsement.

The same signature is also positioned to capture attention on the CB Collections website Home Page where Clinton-Baker refers to her role as designer and decorator. See Figure 7.3

Of the brand name Clinton-Baker says that it is

...not meant to just imply "MOHAIR" – I called the company CB Collections aiming it as a neat, upmarket name, but able to cover products from various sources under one umbrella name. (Survey:2001)

Promotional programmes have been determined by finance, and involve a website, brochures and monthly newsletters to clients. Personal customer contact through calls and visits is also an important feature of the business. Promotion in the way of a two page article in 'Next' magazine under the title "enterprise" appeared in the July 2000 issue. See Figure 7.4.



Figure 7.4
CB Collections magazine promotion.
(Next:2000,133-135)

The website is divided into 5 sections as follows:

- Home
 - Promotes Clinton-Baker as designer and speaks of "the beautiful Wairarapa region of New Zealand, famous for its rugged scenery, farming, wines and more recently olive groves".
- About Us
 - Includes information on mohair's benefits and production; colour ranges, corporate 'gifting' service which includes an endorsement from a legal firm) and where to locate product.
 - Catalogue
 - Lists product line with sizes and brief description of the 27 colours available.
- Samples
 - Not yet available for viewing, but will provide of product.
- Feedback
 - Comments/feedback form.

DILANA RUGS LTD

We will facilitate an ongoing study of textile imagery for the floor, its aesthetic function within a given environment and the artistic properties of the textile within its own parameters. The medium is the hand-tufted woollen textile.
'Our Philosophy'
(Dilana website:2001)

Hugh Bannerman, Director of Dilana Rugs, manufactures and markets signed Limited Edition or original one-off wool rugs, described as a "unique collection of contemporary textile artworks". (Dilana website:2001)

Since Dilana's inception in the early 80s, the business has progressively moved from being product driven to design driven.

In the first two years of business, redundant yarns were sourced from spinning mills, but this approach proved unsatisfactory with colour and yarn aesthetic too restrictive. Bannerman commented that at that time "we had no design, and were selling a converted yarn, without much margin. It was like making something out of a waste product." (Kerr:1997,11)

After two years Bannerman shifted the emphasis to quality. Yarns were selected for quality (Romney/Romney-cross 37-38 micron wool sourced from Southland/Otago growers), a colour range was established (with yarn being dyed in Timaru at Alliance Textiles) and yarn density was increased in the rugs. A range of studio designs was also introduced from which the customers could change the colours. However, this proved limiting in that the colour selection was linked to fashion, which meant the rug dated after a couple of years. Interior product, unlike apparel 'fashion' product is expected to have greater life expectancy. The solution to the problem arrived at by Bannerman, was to have rugs designed by artists. The success of this strategy reiterates the widely perceived associations art has with qualities of timelessness, prestige and investment. It also highlights the importance of matching consumer product values/expectations to the product.

Dilana has tapped into the New Zealand art scene, forming liaisons with art schools and designers in other mediums. Bannerman has commented:

Over the years we've built up relationships with fine artists. They've adapted to rugs as a working medium, and keep pumping out fresh ideas. Some of them are speculative, some great, some not so crash hot.

There are other people who make rugs in Australasia, "but we've designed ourselves out of the competition."

A lot of local industries don't see that. If you have the design, you've beaten any competitors.

Unfortunately a lot of people look to Europe for their design inspiration. A typical manufacturer will do that, bring in a batch, and copy or adapt it. They then try to take the product back to those European markets. The only thing they can compete on is price.

(Kerr:11)

Bannerman describes Dilana's market segment as above average income earners, having four or more years tertiary education (Survey:2001). He states that customers will "have a discerning eye for design and understand and appreciate it. They are very conscious of their living environment, and are willing to spend money maintaining it." (Kerr:11). In the research market survey this clientele was described as the "design professional" or an unspecified "end user".

Targeting is undifferentiated with both local and international markets being exposed to the same promotion strategies. New Zealand absorbs 49% of Dilana product with the international market the remainder. Bannerman, perceives product values differing slightly in emphasis between local and international markets. The New Zealand market places importance on aesthetic, value for money, quality and natural fibre. Value for money is further down the priority list for international buyers, with uniqueness, natural fibre and New Zealand made being more important considerations. (Survey:2001)

Promotional activities are carried out via internet, magazine and brochure. This order is indicative of Dilana's advertising expenditure with internet absorbing the most funding. (Survey:2001). Bannerman has commented that the internet is a useful tool for Dilana to showcase and sell product with designs able to be emailed around the world. It is noted that the success of the internet would in part be due to the nature of the designs rich graphic content, which translates well into digital format. This accords with the fact that the aesthetic of the rugs is the most important product value for the target market locally and internationally. Subtleties such as 3D texture are not always able to be communicated successfully into the 2D internet format. Bannerman in an article in ProDesign Apr/May 99 about the value of internet sites, stated that internet sales had at one point in 1998 accounted for a quarter of all their sales. He went on to say that this had dropped off, despite an increase in hits.

In speaking of how an appropriate promotional programme was determined, Bannerman says he relies on editorial promotion and word of mouth. He goes on to state that

"The top end of the New Zealand market is too small for any major promotion programme to be cost effective, while offshore markets are too expensive to promote in."
(Survey:2001)

As already stated, Dilana's target market are design professionals and the unspecified "end user". A Dilana rug can often be sighted as part of an interior fit-out, in magazines that contain feature articles relating to design in the residential and commercial areas, such as Home and Entertaining, ProDesign and Urbis. See Figure 7.5.

Editorial promotions which carry reference to Dilana will either be concerned with artists or home-makers in the design context. For example, an article in 'The Evening Standard', (2000,9), tells of the opportunity to view the latest works of leading contemporary Maori artist John Bevan Ford. The article speaks of the paintings and their content, then goes on to say

Ford's art can be found in extraordinary as well as common surroundings all over the world. Last September, a highly prized Dilana rug with a one-off design by the artist was chosen by the Governor-General Sir Michael Hardie Boys as a gift for United States President Bill Clinton during his tour of the country.
(Mahoney:2000,9)

Another article at Figure 7.6, which appeared in the Sunday Star Times (1997), speaks of John Robertson moving into his "palatial Paritai Drive, Auckland, home" and wanting to stamp his mark on the interior and "brighten the place up a bit". His wall art included "heavyweight names" such as Jasper Johns, David Hockney and Jim Dine and he selected Dilana rugs to provide floor colour. The article says

CASE STUDY

PROJECT

DESIGN

CLIENT



Figure 7.5 shows a page from the ProDesign magazine, 1998, 46. The page is titled 'Key Suppliers' and lists various companies and their contact information. The list includes Dilana, among other suppliers. The page is organized into columns, with the company name, address, phone number, and website listed for each supplier.

Figure 7.5
Article in which "Key Suppliers", including Dilana are listed.
(ProDesign:1998,46)

Although Mr Robertson chose his pieces of plush pile for aesthetic reasons alone, he's aware that, as one-off originals, their financial value could grow.

As yet, the rugs have no proven track record as a fine art commodity, but it's a safe bet to assume that if you owned a Colin McCahon doormat right now you wouldn't be wiping your feet on it.
(Mahoney:2000,9)

The article ends up on a confusing note, contradictory to the former comments of the rugs as precious artwork:

And despite his love of art, Mr Robertson is not fussy about taking your shoes off first. In this home, art is meant to be stomped on.
(Gregg:1997,3)



Figure 7.6
Sunday Star-Times "At Home"
feature on John Robertson
(Gregg:1997,3)

This seeming confusion could be attributable to the product falling in a blurred area between art, design and craft. Marketing them as one-off pieces puts them into the art category, where work is expected to be unique. However the fact that they are not created by the artist's hand but by a skilled 'artisan', and, that they are a domestic object which, in the course of everyday living, is supposed to be 'walked on', links them with craft/design. Also, the artwork being produced

and sometime's modified to suit a client's specifications, places them within a craft/design context.

The clarification of this issue is an important one for Dilana's educated customer, and the website page titled "About Dilana" sets out to explain under the sub-heading "Artist and Artisan".

When fine artists began to influence the design portfolio, the rug makers had to rethink their modus operandi and come to terms with the "process of collaboration", whereby technical expert and artists work together.

Rather than rug makers following a colour design instituted by the artist, there is an interplay of skills and influences. When an artist can let the textile take on its own properties and when the changes that must occur within the medium are captured, a good work becomes a great work.

The web page uses the 'voice' of artist Don Peebles to further explain:

In the normal sense the artist is concerned with making works which must operate aesthetically; the question of function other than in the aesthetic sense is seldom an issue. An artist, when stepping outside this usual role, will proceed from assumptions rather different from those which govern the function influenced by designer.

It is not enough for the artist to simply convert a painting or sculptural idea into a carpet... a profoundly different approach is called for..."

The carpet will present problems and challenges of its own. It is for the artist to find these and to reveal a personal response to the possibilities of the decorative.

*Here (is) art relating directly to architecture. Accessible, versatile... like the mosaics, the terrazzo, the parquet of other times.
(Dilana website:2001)*

Dilana's web page provides information for the browser under the following headings. Words like 'gallery', 'portfolio' and 'stockroom' relate to the art world, and serve to position the work as art.

- Navigation Tips.
- Gallery - offers four gallery sites with rug installations by varying groups of artists. Rug images are placed on virtual walls in 3D perspective.
- Portfolio - includes names of heads of state and royalty who have been the recipients of rugs.
- Search Stockroom.
- My Favourites.
- Discussion Room.



Figure 7.7
Dilana web-page 'Gallery 4'
featuring rugs of artist Martin Poppelwell.

- Visitor Information – includes
 - Our Philosophy.
 - About Dilana.
 - Artists.
 - Newsletter – Dilana offers a newsletter issued three times a year as a way of keeping in touch with latest events.
 - Notification of new works is also available.
 - Make Purchase.
 - Contact us.
 - Recommended Links

Dilana are brand partners with Wools of New Zealand and the web pages all carry the Fernmark. In speaking of the advantages of this affiliation, Bannerman commented

There were some good information cross overs between the growers, manufacturers and market.

Apart from that there was a small amount of promotion benefit associated with the Fernmark, but it was generally not pushed at our end of the market. More beneficial to the larger manufacturers and market segments.

*Now with the radical change in direction for Wools of New Zealand I have a hunch any label associated with the wool industry will gradually lose its effectiveness.
(Survey:2001)*

ICEBREAKER

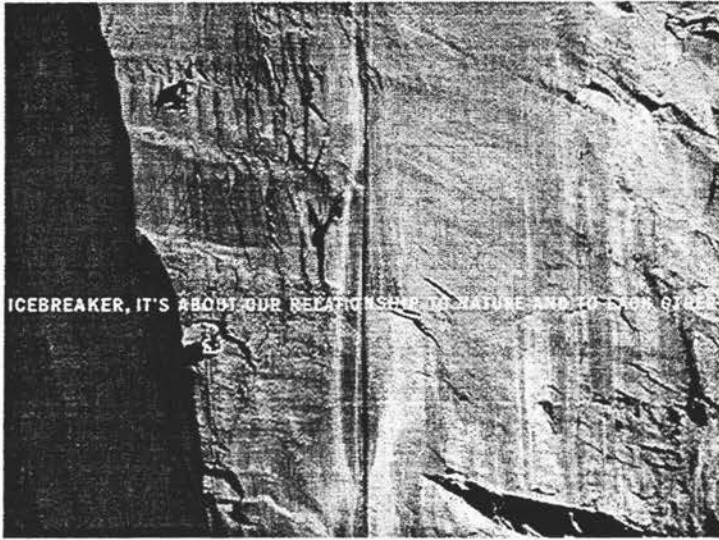


Figure 7.8
Double page spread
from 2000 Catalogue

Jeremy Moon, Managing Director of Icebreaker regards the business as ideas/marketing oriented, rather than manufacturing. His own background is marketing, and when he became involved with the merino product in 1995, his priority was to re-brand and reposition it prior to any further product development.

Brian and Fiona Brakenridge had developed their merino fibre into thermal underwear under the name Ice Breaker targeted at the hard-core trumper. To Moon, the name Ice Breaker conjured up "images of ice, conquering and competition, and the idea of man against nature." The name was changed to Icebreaker to reflect "more about a kinship with nature and exploration, a play on relationships, and was targeted at the broader 'soft adventure' market". (Morrison:2000,29)

Six ranges of merino apparel appear in the 2000 Icebreaker catalogue. Icebreaker is not intended to be fashion product and Moon has said "You'll never ever see us talking about how it looks or fashion... We let people come to that conclusion themselves." (Morrison:2000,39) The garments, are, however, designed by Wellington fashion designer Alison Blain and the fact that the wearer is "just as likely to wear the product in a café as in the outdoors", indicates they are not without fashion merit. Originally clothing was only sold in New Zealand through outdoor stores, however the retail mix now includes fashion stores. Moon has noted "increasing crossovers between the two, with adventure clothing becoming more fashionable, and some fashion clothing becoming more adventure and outdoor orientated." (Teutenberg:1997,39)

The brand's core values include understated elegance, kinship with nature, adventure aspiration and celebrating body fitness/beauty. (Teutenberg:1997)

Moon has identified the Icebreaker market segment as 28 years of age. Segmentation is more aligned to consumer psychographics and lifestyle, with Icebreaker's promotional catalogue depicting the target age group involved with activities relating to the natural environment. The price tag suggests that the clientele will have a mid-high income. In speaking of the significance of using pricing to position Icebreaker to the target market, Brian Richards, Auckland based international brand marketing strategist, said:

When the client first came to me, the price expectation at retail was \$60 a garment. We finished up successfully commanding \$149 for the same item after a lot of hard work from talented young marketers.

*"I believed it was such a wonderful product it should be positioned well away from the hairy-legged bush shirts and black woollen singlets at Wrightsons.
(The New Zealand Farmer:1997,11)"*

In keeping with the 'soft adventure' theme, the 1998/99 catalogue used sepia imagery of target age individuals interacting with New Zealand



Figure 7.9
Icebreaker nostalgic soft
adventure.
(1998/99 catalogue)

landscape in a pleasurable non-arduous manner. A camping 'adventurer' holds a box brownie camera and two people at the airport arriving or departing for 'adventure travel' are shown at Figure 7.9 with a clearly dated aeroplane in the background; both examples evoking romance and nostalgia. Connections with the city are also established, with historic rather than contemporary architecture used as the backdrop.

The 2000 catalogue also has a sepia cover, but the inside content is noticeably

different to the 1998/99 catalogue. Predominately colour photographic images relate to 'the now' rather than the past, as seen at Figure 7.10. The nostalgic mood has gone and has been replaced with more references to hard sport, than soft adventure. A sense of adventure is artfully conveyed to the reader as each turned page presents the possibility of a change of pace created through use of imagery, layout and information presented. For example, a two page monochromatic close-up of a rugged sportsperson's face, contrasts with busier pages containing action montages of sportspersons; and, then again the pace is changed and calmed with a spacious double page spread of a beautiful colour landscape surrounded by a large border of white.

Targeting is undifferentiated with the product marketed internationally being identical to the New Zealand range. The 2000 catalogue, however, contains significantly more information about New Zealand than its earlier edition. The size has also increased and the number of pages more than doubled to 44. Text boxes interspersed throughout the catalogue provide facts relating to geography, an explanation of the evolution of the land-mass and flora and fauna. Some of the colour landscapes are not of New Zealand but other countries, making reference to the international traveller or compatriot. This ties in with Icebreaker's increasing penetration of export markets. In September 2000 the range was introduced into Japan, Britain and Denmark. Icebreaker has already been established in Australia, Holland, Switzerland and Canada.

Wool is promoted as "natural and technical". Terms such as "bioelectrical harmony" are used for no static; "anti-microbial" properties equate with no odour.

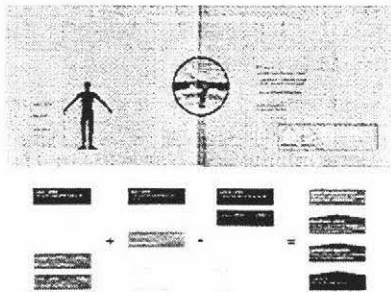


Figure 7.11
Wool as technical fibre.
(2000 catalogue)

the ultimate in personal climate control."

In addition to technical information provided, the catalogue contents include:

- a suggested Icebreaker wardrobe for the traveller;
- information boxes providing facts about NZ geography, history, flora and fauna;

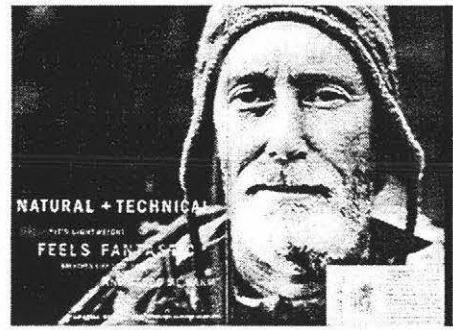


Figure 7.10
Page layout variations from
(2000 Icebreaker catalogue)

Fibre enlargement diagrams at Figure 7.11 demonstrate how the Icebreaker garment "warms and cools" and "keeps you dry". Comparisons of synthetic fibre are made with merino to illustrate its superior comfort. Three suggested garment layers are promoted - "skin, mid and outer - for

- product endorsements from sportspeople and creative individuals whose careers are associated with adventure;
- information on the merino sheep and Glenmore, one of the sheep stations that supply the fibre;
- garment specifications.

Jeremy Moon has said that "the New Zealand story is woven through our promotional material, with stories used to explain the origin of merino wool and the character of the people." (New Zealand Way Magazine:1997,10) Stories such as Sir Peter Blake's provide product differentiation for Icebreaker. As well as providing insights into the 'character of the people' well known sportspeople such as Sir Peter Blake and Graeme Dingle provide product endorsement by being 'heroic' figures who have grappled with the forces of nature and come out on top. Sir Peter's story appears in the 2000 catalogue:

When you are among the icebergs, driving hard for a world record, the last thing you need is to have to strip to change your grundies. I didn't change my Icebreakers for 40 days and 40 nights. They didn't itch at all, were comfortable at all times, were very warm, didn't get whiffy (as most polyprop does after a few days) and dried quickly when damp...Icebreaker is a real breakthrough for sporting and outdoors people who want minimum bulk and maximum protection against the elements.

Use of colloquial language links these high profile figures to the 'common' man/woman and seemingly makes their achievements possible for all.

SNOWY PEAK

There is a place on our planet, which still nurtures untouched natural environments; New Zealand – a country of thick forests, towering trees, golden empty beaches, cobalt blue mountain lakes, perennial glaciers, volcanic hot springs, wave filled oceans and skies dancing with winds. Earth, wind, air and water interact in New Zealand to create nature's most magical events and ecosystems home to spectacular animals, plants, flowers and people.
(Untouched World website:2001)

Peri Drysdale, CEO of Snowy Peak, began her business from home in 1981 using outworkers to hand-knit childrenswear for the American market. By 1985 she had 500 outworkers knitting for her under the Snowy Peak label, with the product being sold to tourist centres such as Queenstown and Rotorua. Since then the tourist resort markets have increased to include Sydney, the Gold Coast and Calgary and Snowy Peak has its own knitting mill in Christchurch which employs 75 persons.

Snowy Peak uses a multi-segment strategy with separate marketing mixes developed to reach each market segment. The two main brands are Snowy Peak and Untouched World. Snowy Peak's name is also combined with separate product line brand names of Mountainsilk, Merinomink, Cassum, Nature Fleece and Sun Protection. In-store garments have the Snowy Peak label sewn into the garment and an additional swing-tag attached to the garment that describes the product line brand. Some of the product line in the Snowy Peak range includes patterns of penguins, sheep faces and mountains that would be regarded as kitsch to the New Zealander. Drysdale says the tourist market is complex, made up of many different demographics and each has to be understood. For example, Japanese tourist segments will include honeymoon couples, office women and silver haired, gold-pocketed men and women. (Light:1999,12) The significance of the Japanese market is indicated through the Untouched World website, where a Japanese translation of pages is offered.

In speaking of the importance of using design to create a point-of-difference, Drysdale says that initially she hired a Japanese designer to design for the Japanese market. This turned out to be a mistake because "Snowy Peak was then producing Japanese designs in New Zealand and the magic was lost. It was the New Zealand flair they wanted to buy." Snowy Peak has a core range which is supplemented with additional designs for markets such as the United States and Japan. Drysdale also speaks of the importance of updating/adding to an existing collection to entice the customer back to the store. This is not so important for the

tourist segment, as there "are new faces coming through all the time and classic designs last for years".

The idea for the Merinomink brand began in 1992 and in 1996 the company commercially blended possum and merino wool to produce a yarn suitable for knitwear. Although significant R&D was required to achieve a yarn of high and consistent quality from variable raw materials, the product's success made it all worthwhile. Other product line brands have been introduced since.

During overseas travels Drysdale observed that the American leisure-wear brands which had taken off across Canada, the US and Asia were starting to take hold in Europe. She considered that they were mostly look-alikes, and recognised an opportunity for product and brand differentiation. Drysdale subsequently began developing a global lifestyle brand of clothing, accessories and food that became Untouched World. The product and brand were formed with the help of a "leading fashion brand manager and image expert from Tokyo, an Italian specialist in design, marketing and promotion of retail products, and a Californian who had developed one of the world's leading outdoor clothing companies." Drysdale wanted to position a brand on the world market partly for reasons of financial security, so that in times of currency fluctuations production could be moved off-shore. "Because the brand is more compelling than the 'Made in New Zealand' label, it doesn't matter if it's made off-shore." (Light:1999,12)

Despite the products' country of origin being specified as not important, the brand uses New Zealand's "sought-after lifestyle" as its point of difference with models in photo-shoots set against elemental New Zealand backdrops. Of this Drysdale has said:

Untouched World is a whole concept, one which encapsulates all that is great and unique about life in New Zealand. Or, as it says in the brochures, Untouched World is a brand that expresses "the attitude of a country that, in spite of its advanced level of civilisation, has preserved its truest spirit...a brand philosophy about fun, freedom, and adventure, harmony with nature; and life rich in multicultural heritage of Maori and pakeha pioneers."
(Brett:1999,1)

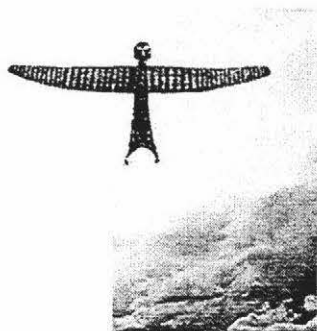


Figure 7.12
Untouched World 'kite'
trademark/logo from
website

The brand includes a trademark/logo which is described as a Maori kite (see Figure 7.12). The following explanation appears on the Untouched World "About Us" web page subtitled 'Logo':

The Untouched World logo is derived from the Maori kite. Cultures the world over have deep and intimate relationships with kites. Myths and legends since the dawn of time bring us the Maori kite, in the shape of a bird, as an intermediary between people and gods.

The Maori prophesied the future as omens were read from the kite's interplay dancing on wind. Untouched World finds its whole philosophy reflected in the kite, the ideal relationship between people and nature. (Untouched World website:2001)

This reference to the Maori and their culture, and other images such as cave drawings and carvings, can be seen to contribute to the mystery and allure of New Zealand as an "untouched world". The theme is further promoted through The

Untouched World flagship store (see Figure 7.13) which was opened in Christchurch in 1998, by the then Prime Minister Jenny Shipley. The store is themed with a native garden and stream, an indoor/outdoor café and wine bar. These are adjacent to retail space for the brand's outdoor and leisure clothing, plus apparel accessories. It is noted however, that the "lifestyle experience" is not only intended to be about New Zealand's culture and environment, but also should be seen to encompass sophistication, as stated on the Untouched World website.



Figure 7.13
Untouched World flagship store,
Christchurch.
(Export News:1999,15)

Here you will be immersed in the "New Zealand Lifestyle" while enjoying an unequalled world class shopping and dining experience with a difference.

Untouched World's design inspiration is from New Zealand's natural beauty blended with the latest European trends. A unique style equally comfortable in the New Zealand outdoors or downtown New York, Paris or Milan. (Untouched World website:2001)

Education and information on "outdoor pursuits and leisure quality" is also available in-store.

Drysdale has backed up her brand with business and production activities that relate to environmental protection and sustainability. This commitment is publicly declared on the Untouched World Internet site, under the web page entitled Sustainability Report. An excerpt from this reads:

Untouched World and its parent company Snowy Peak Ltd have established a voluntary sustainability task force from across the organization...

At Untouched World our goal is that within ten years:

- *our rates of use of renewable resources should not exceed their rates of regeneration;*
- *our rates of use of non-renewable resources should not exceed the rate at which sustainable renewable substitutes are developed;*
- *and our rates of pollution emissions do not exceed the assimilative capacity of the environment.*

In-house initiatives have been implemented within Snowy Peak, such as changing from plastic milk containers to glass bottles, through to reducing unnecessary components used in packaging such as ribbons and labels. (Untouched World website:2001) This commitment to action has also extended to staff seeking improvements at home as well as at work.

Social sustainability is also prioritised on the website with the following statement:

"Further, Untouched World is aware that without social sustainability, that is every human having access to basic life necessities, then whole planet sustainability is impossible. Therefore all financial and environmental decisions made by Untouched World are balanced with consideration of PEOPLE. Our questions – how can we deliver more benefits to more people both in New Zealand and across the planet?"

Untouched World combines deeply thought out product solutions to minimise impact on the planet and maximise benefits to people. Examples can be found in many places from our organic food to our high quality high performance natural fibre clothing.

One example in our pioneering is use of possum fibre. Possum is an animal introduced from Australia and found only in these two countries. In Australia the possum is a protected species. (This should not be confused with the North American Opossum, which is a different animal). We have led the way for New Zealand's major ecological disaster, seventy million possums eating their way through 20,000 tones of native herbage each night, in becoming a multi million dollar industry generating employment in regions of New Zealand where unemployment had been well entrenched. Our now globally renowned luxury Merinomink brand incorporates possum fibre and merino wool and creates the most beautiful light soft and durable fabrics and knitted garments."

This paragraph relating to the possum, also serves to educate and reassure the reader/consumer of the acceptability of buying a product which has

been obtained at the expense of an animal. There is still public resistance in some quarters to the act of killing animals for fashion purposes.

The final statement regarding sustainability reads:

*By combining social and environmental sustainability we have the tools to ensure the world will be a better place to live for future generations.
(Untouched World:2001)*

An Untouched World Trust has been set up, with \$1 from every garment sale going into the fund. In 2000 a financial and technical support scheme was started to help possum trappers get started in business. In return for this Snowy Peak will get the volume and quality of possum fibre it needs to develop the market (Macfie:2000,25)



Figure 7.14
Web page featuring U.S. President Clinton at page top.
(Untouched World website:2001)

with the caption "The smartest outfit I've been given in seven years of being President of the United States".

Peri Drysdale has earned herself a reputation as a fearless executive who pursues all possible opportunities to promote her product.

At the APEC conference in 1999, Prime Minister Jenny Shipley was photographed welcoming Russian Prime Minister Vladimir Putin, wearing New Zealand clothing. The Southland Times reported one of these items being "...a black, long-sleeved polo shirt, designed and made by Snowy Peak of Christchurch out of Merino wool." (Southland Times:1999)

At the same event, US President Clinton was photographed (see Figure 7.14) wearing a Snowy Peak shirt. This image appears on the Untouched World web page along

Untouched World's website is split into five sections as follows:

About Us

- Logo.
- Explanation of the Maori Kite logo.
- Sustainability. The Company's commitment to environmental and social sustainability.
- Charitable Trust. Explanation of the target areas of education, environment and multiculturalism.

Our Store

- About the Flagship Store in Christchurch and its lifestyle experience, café, location, apparel styling and product range.
- Clothing/knitwear.
- Body Products.
- Food and wine. Organic and other products.
- Art. Images of ceramic vessel and cards with paua shell insert.

Our Café

- Native garden café including menus and an invite to join the 'Tea Club'. Where to find the store, courtesy bus details and shop hours.

Product

- Same page as for Clothing/Knitwear, then individual pages for:
 - . Mountainsilk
 - . Merinomink
 - . Cassum
 - . Nature Fleece
 - . Sun Protection.

The Club

- An opportunity to join 'The Club' and receive updates on Untouched World activities. Abstracts on recent happenings such as 'Loyal Evening' for loyal customers, the 'Untouched World Experience' being eco adventure, and Sustainability Reports.

In addition to newspaper editorial promotions, an advertisement for Untouched World appears in the Winter Edition of "Today and Tonight, Christchurch and Canterbury". This booklet which provides an extensive range of information centred around tourist related activities is available through Tourist Information offices.

A lifestyle experience was announced in May 2001. The "Untouched World Experience" offers an "individually tailored eco adventure experience of the great outdoors" (Untouched World website:2001).

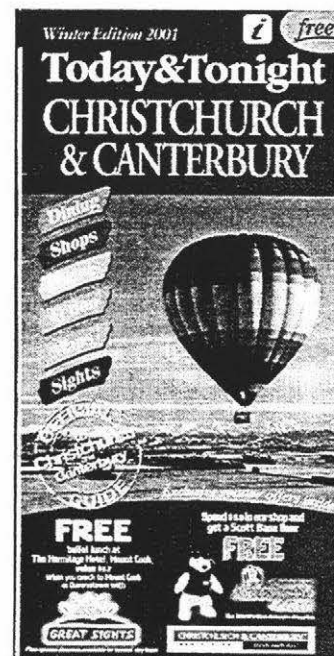


Figure 7.15
Tourist information
booklet containing
Untouched World
advertisement.
2001

COMPARATIVE ANALYSIS

MARKET SHARE PRINCIPLES

BUSINESS	SEGMENTATION & TARGET MARKET STRATEGY	POSITIONING
<p>CB Collections Ltd</p> <p>Established: 2000³</p> <p>Employees: 2</p>	<p>-behaviouristic tourist gift-buying</p> <p>-psychographics home-focused</p> <p>Concentrated marketing</p>	<p>-fashion -designer -natural -upmarket -New Zealand</p>
<p>Dilana Rugs Ltd</p> <p>Established: 1980¹</p> <p>Employees: 8</p>	<p>-psychographics educated home-focused</p> <p>-demographics design professional higher income earners</p> <p>Concentrated marketing</p>	<p>-art -quality -New Zealand -handmade -unique</p>
<p>Icebreaker</p> <p>Established: 1995²</p> <p>Employees: 20 plus 50 contracted to make clothing</p>	<p>-psychographics adventure seeking café frequenters</p> <p>-demographics 28 years mid-high income</p> <p>Concentrated marketing</p>	<p>-stylish -New Zealand -soft/hard adventure -performance -quality</p>
<p>Snowy Peak*</p> <p>Established: 1982¹</p> <p>Employees: 60</p>	<p>Snowy Peak Note: Not all data available for a complete analysis of segmentation</p> <p>-behaviouristic tourist gift-buying loyalty</p> <p>-psychographics soft adventure lifestyle</p> <p>Differentiated marketing with separate marketing mixes</p>	<p>-stylish or souvenir -New Zealand -soft adventure -commitment to environment and social sustainability</p>

Figure 7.16
Comparative Table of
Market Share Principles.

*Market Survey not completed

¹Kompass New Zealand, 1999

²The Press, 29.03.00 p24

³Data from company website

SEGMENTATION

"Segmentation is the process of identifying and categorizing markets according to similarities among sub-groups based on their characteristics or behaviour patterns."
(Walters:1997,102)

Market segmentation covers a range of consumer characteristics including geographic, demographic, psychographic and behaviouristic characteristics. Listed above are some of the identifiable characteristics obtained through written and promotional material. Segmentation is about identifying various groups, from which a selection will be made according to the segment group size, its ability to be reached through some form of media activity and its likely responsiveness to that activity. Those listed in Figure 6.38 have been through that selection process and are therefore more correctly classified as target groups.

Generally segmentation commonalities indicate that interior product consumers will be home-focused and have a higher level of income with which to allocate to this area.

The two apparel manufacturers both use psychographic factors such as lifestyle to relate to their target market, although these vary. Both use the New Zealand outdoors as part of their product story, however, Snowy Peak's garment wearers are usually stationery, observing nature as a tourist might do, while Icebreaker's are clearly individuals interacting with nature. See Figure 7.17

The Untouched World website gives customers the opportunity to belong to 'The Club', through which they can attend events such as a 'Loyal Evening', where "the champagne flowed..." This behaviouristic segmentation involves issues concerning consumer purchasing behaviour, and includes this 'benefits' group which offers rewards in exchange for customer loyalty.

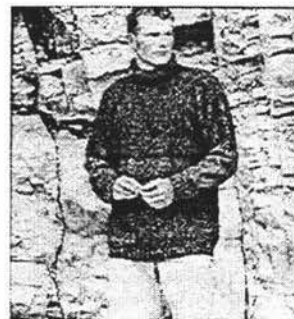


Figure 7.17
Promotional material aimed at differing psychographic groups.
Icebreaker (left) and Untouched World (right).

TARGETING

*Target markets are those segments of a market at which we will direct marketing activity. Targeting a segment involves developing a marketing mix that will appeal to that segment.
(Walters:1997,116-117)*

Targeting to the identified segments is mainly concentrated, i.e. directed to a market niche. Snowy Peak uses differentiated marketing with separate mixes. The two brands, Snowy Peak and Untouched World are targeted and positioned to different customer segments. Snowy Peak includes the tourist segment, and Untouched World represents a lifestyle brand with a diverse product range positioned at the global market.

While Icebreaker and Dilana clearly orient their product to specific niches, CB Collections is not so specific in their targeting as segments include tourist, gift-buying corporates and the home-focused individual. In terms of recognised target market strategies they do not fit neatly into either general 'mass market' or 'concentrated' approaches. Rather they use a single marketing mix targeted to more than one market segment, but which cannot be described as mass market.

POSITIONING

*Positioning works to determine a product's position in relation to competing products. Positioning creates offers and messages that influence a market's understanding of the product.
(Walters:1997,118)*

Positioning can be based on product features, consumer characteristics, benefits sought, price and quality or any combination of these dimensions. Perceptual mapping is used to establish where in relation to competitors a product sits in the marketplace, through selecting criteria relevant to product. Due to time limitations and the diversity of product investigated in these case studies, this has not been undertaken.

Case study positioning has alternatively been evaluated from information gathered through investigations, particularly brand values, product story themes and pricing.

Icebreaker and Snowy Peak can be seen to be offering a similar outdoor, stylish, natural fibre product. The point-of-difference in the way product has been positioned has been provided through Snowy Peak's pledge to environmental/social sustainability and their soft, tourist-oriented adventure focus, as opposed to Icebreaker's sportsperson-oriented hard adventure.

MARKETING MIX

The Marketing Mix consists of the 'four ps': Product, Place, Promotion and Price. Action plans are worked out for each variable and these make up a company's marketing programme.
(Walters:1997,16)

PRODUCT

A product is the combination of product decision variables designed to satisfy a market. People buy the promise of satisfaction that comes from the bundle of benefits they receive from consuming a product. Therefore, in its simplest form, a product is a collection of benefits designed to bring about market satisfaction.
(Walters:1997,166)

BUSINESS	PRODUCT MIX	FIBRE QUALITIES PROMOTED IN ADVERTISING				
		Aesthetic	Comfort	Appearance Retention	Safety	Care
CB COLLECTIONS	Mohair Homewear	-Softness, -Lightness, -Tactility	-Thermal retention			
DILANA RUGS	Signed limited edition or original one only rug			No specific wool qualities promoted.		
ICEBREAKER	Merino apparel	-Softness -Lightness -Smoothness	-Low static -Low odour -Thermal retention -Moisture absorbency -Breathability		-Flame retardency	-Most garments machine washable
SNOWY PEAK	Snowy Peak: Apparel Untouched World: Apparel, Accessories, Food, Activities.	** -Softness -Lightness -Smoothness	-Thermal retention -Low odour -No itch -Water repellent -Low static -Moisture absorbency -Breathability	-No pill -Durability -Resistance to soiling -Natural resiliency	-Flame retardency -Anti-bacterial	-Some lines machine washable

**Qualities are listed across product line brands.

Figure 7.18
Marketing Mix analysis

Product mix includes apparel, homewear and one-off hand-made rugs. In the case of the Untouched World brand, the lifestyle mix includes apparel, accessories, food and activities.

Apparel manufacturers and marketers, Icebreaker and Snowy Peak promote similar fibre qualities in the areas of aesthetic, comfort, safety and care.

Dilana Rugs do not promote any New Zealand wool qualities. Their focus is on product as original art works. The only reference to wool on their website, is in the use of the Fernmark, a New Zealand wool quality mark restricted to use by manufacturers meeting certain quality standards.

CB Collections throw rugs mainly refer to aesthetic qualities of wool, which is in keeping with a fashion product that reflects colour trends.

BUSINESS	PRODUCT VALUES (in order of importance)	
	NZ	INTERNA- TIONAL
CB COLLECTIONS	1 Styling/ Aesthetic 1 Colour 1 Quality 1 NZ made 1 Natural fibre 1-2 Breadth/Depth of range 2 Comfort 3 Uniqueness 5 Durability 6 Technical Innovation 8 Value for money	Same as for NZ.
DILANA RUGS	1 Styling/ Aesthetic 2 Value for money 3 Colour 3 Quality 3 Natural fibre 4 Uniqueness 4 Breadth/Depth of range 5 Durability 5 NZ made 7 Comfort 8 Technical Innovation	1 Styling/ Aesthetic 3 Colour 3 Uniqueness 3 Quality 3 Breadth/Depth of range 3 Value for money 4 NZ made 4 Natural fibre 5 Durability 7 Comfort 8 Technical Innovation
ICEBREAKER	1 Uniqueness 2 Quality 3 Styling/ Aesthetic 4 Natural Fibre 5 Colour 6 Comfort 7 Technical innovation 8 NZ made 9 Value for money 10 Breadth/Depth of range 11 Durability	Same as for NZ.
SNOWY PEAK	Information not available.	

Figure 7.19
Product Values analysis.

Styling/aesthetic is shared as the most important product values by the interior product producers. The values are listed in a similar order, with two exceptions. Comfort and 'New Zealand made' are listed as relatively important throw-rug values, but are nearer to the bottom for rug product. Considering that Dilana's rugs are promoted more as art than as a New Zealand or domestic product, this is not surprising.

Value for money is perceived as an important product value for the rug, but not for the throw rug. This would seem a questionable placement, for in the throw-rug market these have been observed to be priced for the low-mid end of the market and this placement would therefore be likely to be perceived by the retailer and customer alike as a desirable product feature.

'New Zealand made' is not considered an important product value by Icebreaker, although promotional activities certainly use New Zealand as a story theme in their catalogues. Drysdale of Snowy Peak also, in speaking of the 'Untouched World' brand, stated that the brand was "more compelling than 'Made in New Zealand'". (Light:1999,12)

Technical innovation is more important for the apparel garment than the interior product. This would seem related to the expected performance characteristics of garments intended to be worn in soft/hard adventure environments, as Icebreaker and some of the Snowy Peak product line are.

All respondents rate styling/aesthetic and quality highly, followed by colour and natural fibre.

Two of the three market survey respondents regard both local and international product as having the same product values. Dilana rugs, however, sees the local market as placing slightly more importance on value for money.

BRANDING

The brand identifies the product...Brand equity, from the marketer's perspective, is the asset value of the brand (minus its liabilities) and its potential to deliver further sales and profit benefits. From the consumer's point of view, brand equity is the awareness of and attitudes associated with the brand. If positive, those attitudes translate into brand preference and brand loyalty. The more positive those attitudes, the more brand equity there is and the more brand influence or dominance it has over the market.
(Walters:1997,180)

TRADE NAME, BRAND NAME TRADEMARK AND SLOGAN	BRAND NAME VALUES	PRODUCT STORY THEMES
	CB Collections -upmarket -non specific	-fashion product -designer product -NZ environment and product from the land -natural fibre/softness/comfort
	Dilana -design -wool -quality -art -NZ	-artist inspired
	Icebreaker -understated elegance -kinship with nature -adventure aspiration -celebrating body fitness/ beauty	-soft/hard adventure in the natural environment -technical fibre -heroic people -uniqueness of New Zealand
	Snowy Peak Untouched World -sought after NZ lifestyle -naturalness combined with sophistication -commitment to environment and social sustainability	-cultural myths and legends -tourist/observer of NZ environment -natural fibre and products -‘fun, freedom, adventure’ -uniqueness of New Zealand

Figure 7.20
Branding analysis

Trade names and brand names are one and the same in all cases, while Snowy Peak manages Untouched World in addition to its own name brand.

Icebreaker is the only business to have a separate trademark, brand name and slogan. In keeping with trademarks, the symbol is simple and graphic, and a spiral motion is suggestive of energy/movement. ‘Nature Clothing’ cleverly relates to nature in an ambiguous way, posing the questions

- Is the clothing intended to be worn in the natural environment, or,
- Is the reference to clothing made of natural fibre?

Either interpretation is of course correct. Icebreaker’s brand name reflects “...a kinship with nature and exploration, a play on relationships, and was targeted at the broader ‘soft adventure’ market”. (Morrison:2000,29)

Although Snowy Peak and Untouched World brands have a graphic trademark, their brand name is also marked with the '™' symbol. Therefore Snowy Peak's trademark includes the brand name, as does that of Untouched World. Both brand names refer to New Zealand – Snowy Peak being a geographic region representative of majestic, pristine beauty and Untouched World, representing New Zealand's "sought after lifestyle".

CB Collections' trade name and brand name are the same, and a separate trademark conveys a simplicity and elegance, in keeping with one of their stated "upmarket" brand values. Other values are reflected in their product stories with themes being broad and non specific. New Zealand is referred to in text rather than imagery on their product swing-tag, and an image of a baby is representative of softness and comfort.

Dilana's product stories use art references as in the virtual "gallery" pages on their website. Quality, New Zealand and wool are represented by the Fernmark symbol. Imagery of the New Zealand environment is not used.

The New Zealand environment is however used as a dominant product story theme by Icebreaker and Snowy Peak/Untouched World. Both use the outdoors to promote soft/hard lifestyle adventure activities. Untouched World emphasizes the uniqueness/mystique of New Zealand through use of cultural myths and legends.

PRICE, PLACE/DISTRIBUTION AND PROMOTION

In addition to Product features, Price, Place and Promotion are the other three parts to the Marketing Mix.

Although these aspects have been grouped in the table at Figure 6.43, they each represent comprehensive areas requiring careful consideration. Because the end result of this thesis is the Product Story as part of the branding exercise, an in-depth analysis of these areas has not been carried out here. It should be stressed, however that these are significant areas which will reflect and be in accordance with the overall positioning of the product in the marketplace.

Apart from the 'Promotion' category, the following information has been gathered by way of personal observation and analysis of written information.

BUSINESS	PRICE	PLACE/ DISTRIBUTION (Trade Channels)	PROMOTION (Promotional Mix)
CB Collections Ltd	Mid	<ul style="list-style-type: none"> -Interior Design Retailers -Bedding Retailers -Internet <p>90% NZ; 10% International</p> <p>Italy, USA, England, Ireland, South America, Hong Kong.</p>	<ul style="list-style-type: none"> -Internet -Brochures -Monthly newsletter
Dilana Rugs Ltd	High	<ul style="list-style-type: none"> -Agent -Dilana, Christchurch -Art Galleries -Internet <p>40% NZ; 60% International</p> <p>Australia, Japan, Singapore, Spain, USA, Europe.</p>	<ul style="list-style-type: none"> -Internet -Magazine -Brochure -Editorial
Icebreaker	High	<ul style="list-style-type: none"> -Outdoor Retailers -Fashion Retailers -Internet <p>50% NZ; 50% International</p> <p>Australia, Switzerland, Netherlands, Japan, Canada, Britain and Denmark</p>	<ul style="list-style-type: none"> -Internet -Catalogue -Advertisements in tourist publications
Snowy Peak	High	<ul style="list-style-type: none"> -Tourist Retailers -Lifestyle Store -Internet <p>% unknown.</p> <p>Australia, Germany, Italy, Japan, Korea, Switzerland, USA.</p>	<ul style="list-style-type: none"> -Internet -Brochures -Advertisements in tourist publications -Loyalty Club -Eco-adventure experience

Figure 7.21
Price, Place/Distribution and
Promotion analysis.

PRICE

Price reflects the value we place on something and value is measured by the relationship between the benefits of obtaining something and the cost (sacrifice) of obtaining it. If something has value it is also said to have worth: the greater the worth the more we expect. There is a direct relationship between the concepts of price, value, worth and expectations. (Walters:1997,223)

From observations in retail outlets in Wellington, Snowy Peak and Icebreaker product is at the higher end of the market. As was stated by Icebreaker's brand strategist, the "price expectation at retail was \$60 a

garment. We finished up successfully commanding \$149 for the same item after a lot of hard work..." (The New Zealand Farmer:1997,11)

Various forms of pricing exist, and these will be determined according to the products' positioning in the market place. A high price may be set deliberately to establish prestige for that product in the market place, or, a price might be set in line with competitors. This latter approach enables competitors to co-exist, because prices are perceived as fair to the consumer.

It is difficult to interpret the various business pricing strategies without further information. In the case of Dilana, where product is promoted as unique/one off, 'prestige' pricing could be thought to apply. However, as one of their more important product values given was 'value for money', this strategy is unlikely to have been used.

PLACE/DISTRIBUTION

Distribution explains how products move between where they are made, the point of production, and where they are purchased, used or consumed, the point of consumption. The distribution channel is the group of organizations, called intermediaries, that assists the movement of products between producers and consumers.
(Walters:1997,229)

All four companies use a two stage distribution system as follows:



All businesses act as producers/manufacturers, either operating their own manufacturing operations, or contracting to manufacturers.

Dilana Rugs manufacture their own product in Christchurch, Snowy Peak operates their own knit plant, and Icebreaker contracts 50 people to make their garments. CB Collections contract Master-Weave in Masterton to produce their product.

Product is passed onto appropriate retailers who act as trade channels. In the case of Dilana, they utilise agents, for example Kate Wells, designer/artist in Auckland, or sell through Galleries.

In the case of the Untouched World brand, Snowy Peak produces and sells direct to the consumer through its lifestyle store, therefore a one stage distribution system operates here.



The internet also facilitates a one stage distribution system, which eliminates the middle person. The less intermediaries involved in the process, the more control a business will have over timing and quality.

PROMOTION

Promotion brings to life the satisfactions created by the marketing mix by making consumers aware of what is available (Product), where and when it's available (Place) and, how it can be owned (Price). (Walters:1997,251)

Promotion activities include advertising, personal selling, sales promotions and public relations.

A company may choose to carry out their own advertising, employ an advertising firm to assist, or, hand complete responsibility over to an advertising agency.

By using a 'pull' strategy through promotional activities, businesses draw customers towards the product.

Snowy Peak and Icebreaker use tourist specific publications to promote their product to that segment. See Figures 7.22 and 7.23.

Icebreaker's current point-of-sale merchandising that appears in outdoor retail outlets such as Gordon's in Wellington, is displayed in stylish eye-catching purpose-built shelving. Accompanying this is large-scale imagery with Icebreaker's name. As competition in fine merino apparel increases, this sophisticated merchandising can be seen to give Icebreaker the edge over its competitors.

All four companies use the Internet to promote and sell their product.



Figure 7.22
Advertisement in QT Magazine
Visitor Information.
2001



Figure 7.23
Advertisement in Today &
Tonight Christchurch &
Canterbury.
Winter Edition 2001

SUMMARY

MARKET SHARE PRINCIPLES

Because product is related in all cases to fashion/style/aesthetic, all customer segmentation groupings include psychographic characteristics. Behaviouristic characteristics are also relevant when considering product targeted to the tourist/gift buying public, such as Snowy Peak and CB Collections.

Segmentation may involve more than one identifiable customer grouping and a business will choose to either adopt a concentrated or differentiated target marketing strategy. Size of the market segment will be a deciding factor. If too

small, there will be limited profit to be made and the segment may be threatened by competition. CB Collection's segments include the tourist, corporate and the home-focused customer. The product story themes are broad and non-specific enough to cater to all these groups.

Positioning product draws on various tangible and intangible product features. External environmental factors will play a part also in determining these qualities. For example health and body awareness is one of the current lifestyle trends, and this is reflected in one of Icebreaker's stated brand values "celebrating body fitness/beauty". Their use of athletic, well proportioned "sportspeople" in their promotional catalogue is likely to attract the customer who has/or is aspiring to, the same body/fitness ideals.

MARKETING MIX

Wool properties as part of 'Product' are promoted according to the relevance of the end product. An 'art' product such as Dilana, is valued principally for its aesthetic/unique qualities rather than any specific wool qualities. However, Dilana does use the Fernmark on its website, which represents quality New Zealand wool product.

The apparel marketers make more reference to fibre properties in promotions. As the garments are in close proximity to the human body, and are expected to interact and perform with the body, the attributes of the fibre across all areas are of importance to the customer. Icebreaker refers to the 'technical' properties of the fibre and garments, at the same time stressing the natural properties of a fibre produced by the 'heroic' merino, specially bred for the purpose.

Styling/Aesthetic is at the top of interior product values, due to their fashion/art/style positioning. This value is placed third for Icebreaker, who although not regarding their product as fashion, have their product styled by a fashion designer, and state their intended market will just as likely wear the product in a café, as the outdoors.

Because three of the four businesses target their product to higher income groups, value for money is not a consideration, except, interestingly, in the case of Dilana, who consider 'value for money' as one of product's higher values.

New Zealand made is not considered important except by CB Collections whose customer base includes the tourist market. Although product is promoted in the case of Icebreaker and Snowy Peak with strong references to New Zealand as part of the product story, its being "Made in New Zealand" is not considered important. This confirms the quote at the beginning of this thesis at page 2 in which Rolf Jensen states that the story is increasingly becoming more important than the actual product, so that it will not necessarily relate to the actual product properties.

Trade names and brand names tend to be the same. Trademarks communicate simply and eloquently through use of symbols.

Brand values are reflected in product story themes. New Zealand is used as an important story theme by the apparel businesses, in their promotion of garments for the outdoors. Interior product businesses refer to New Zealand through use of text, but not imagery. The intangible brand values may or may not relate to the actual, physical product values, as evidenced with Untouched World and Icebreaker using New Zealand as a brand value, but not being concerned whether the product is "Made in New Zealand".

Price, Place and Promotion, as the remaining parts of the Marketing Mix will also reinforce the product's positioning and so influence customer perceptions.

Icebreaker's point-of-sale merchandising and purpose designed display in outdoor retail outlets, provides an effective way of distinguishing their product from that of their competitors.

All four companies use the internet as part of their promotion and selling strategies. Fiona Candy in her presentation at the 2000 International Conference in Perth spoke of the links between consumer and commercial culture and the internet's potential to facilitate new links and therefore new market niches.

Developments in the Internet and e-commerce, where people are self connecting through all manner of shared identity and interests – may have the potential to aid the identification and cultivation of new niche markets, which have previously not been considered for reasons of scale or geography. Our current understanding of mass production and our uneasy commitment to it, can be challenged and diversified because design for all scales or production can now be showcased throughout the world.
(Candy:2000,132)



PRODUCT STORY

Based on product development and business case studies investigations, the following areas have been evaluated with respect to the proposed product.

- External environmental forces
- Segmentation
- Targeting
- Positioning with Product Story

In the allowable time-frame it has not been possible to produce imagery to visually express the product story. Some time was invested in this area, however it was realised that the undertaking was not feasible in the time-frame. Therefore, a written scenario has been proposed as follows:

EXTERNAL ENVIRONMENTAL FORCES

As has been highlighted with the New Zealand Wool Board investigation, external environmental factors create societal changes through which public perceptions are formed and which accordingly impact on business and promotional activities.

Media coverage reflects the popularity with sporting activities in New Zealand, which in turn is presented internationally as part of our identity. This current focus on sport and body is reflected in the New Zealand Wool Board's promotional activities, as discussed in Appendix 11, along with that of some of the smaller business case studies. Fashion has also been presented as one of the faces of New Zealand, as evidenced in the nation's pride with "The New Zealand Four's" success at London Fashion Week in 1999.

Len Cook, Government Statistician, also identified current forces influencing New Zealand society in the New Zealand Official Yearbook

2000. Included are issues relating to New Zealand's social framework such as globalisation, which serve to challenge and also reinforce our identity as we come to value the qualities that are distinctly our own. Information and communications technology have created huge opportunities to change the way in which information is gathered, used and disseminated. 47% of New Zealanders have a computer at home and 25% an internet connection.

For women, Cook reports that educational shifts have occurred over recent decades.

Increasing numbers of young women are entering the workforce with higher levels of education, but older women without qualifications may, like older men, face limitations on access to future employment.
(Statistics New Zealand:2000,2)

As reflected in small business and New Zealand Wool Board promotions, public awareness and concern for the environment continues to be a significant issue.

The importance of environment and its contribution to wealth, through tourism, lifestyle and ecological balance, is now being recognised by orthodox economies. There is more international travel and trade, a common dependence on the limited resources the earth provides, increased local and international research into the impact of human activities on our environment and the ability to broadcast information about these impacts around the world in a short space of time.

When considering the future we can be better informed, by statistical evidence of current environmental change and the environment's response to human influence.
(Statistics New Zealand:2000,3-4)

MARKET SHARE PRINCIPLES

Retail outlets willing to stock the proposed product, have in common product style characteristics, i.e. contemporary modern or fashion product lines. These outlets include interior design outlets; a design gallery and two gift shops. The lifestyle store, although having product within this criteria, has been omitted due to its only carrying its own producer brand.

As has been discussed, because the fashion style outlets are smaller in number, it is considered that their consumption of product would be too marginal to be profitable. Therefore, the focus has been placed upon the "contemporary modern" market grouping.

Characteristics of customers of these groups have been identified broadly as:

- predominantly female, but some male;
- 20-60 years of age;
- home focused or gift buying;
- low-high income;
- student-professional.

Because some of the product line carried by these outlets ranges from small to large, this consequentially has broadened the age, income and occupational demographics.

If the Gift Shop Store Category which carries small product range is removed from the above demographics, a more accurate pinpointing of an appropriate customer segment can be arrive at. This resultant demographic range follows:

- predominantly female;
- 30-60 years of age;
- predominantly home focused;
- mid-high income;
- predominantly professional.

This grouping will, because of the pricing, expect the product to exhibit the following values:

- subtlety;
- quality;
- be contemporary but not 'fashionable'.

As a result of these research investigations, it has been ascertained that when considering a fashion product, the significant defining characteristics of the customer relate to psychographics - "lifestyle" in particular. The survey called "New Zealand Beyond 2000: A Consumer Lifestyles Study" (Todd et al:14-15) has provided an analysis of such groupings. The segment called "Educated Liberals" forms 10.3% of the population and most closely fits the identified characteristics of the above group, being:

- well educated;
- predominantly female;
- mostly aged between 30-49 years;
- high income households;
- professional.

Lifestyle and psychographic features of this group include:

Interest/concern in social issues

- they do not agree that too much is spent on either arts and culture or social welfare, but do think less should be spent on the military and defence, and more on the environment and education;
- involved with community or volunteer work, and recycling;
- higher than average numbers bike, walk or use public transport with underlying reasons being to protect the environment and flexibility.

Progressive and egalitarian

- believe that NZ should be a republic and that the flag should be changed;
- with reference to family issues, they believe in equal roles for males and females;
- do not believe that anything good is necessarily borrowed from overseas.

Enjoy variety and diversity

- relatively active group, indicating high consumption of libraries, museums, galleries and theatres;
- exercise to keep fit/lose weight, rather than sports;
- listen to music;
- radio and TV consumption light, with arts programmes and non-commercial radio stations more likely to be listened to.

Quality products valued

- product ownership relatively lower than expected given their high incomes, but what is owned is more likely to be expensive;
- foods consumed are in line with their expressed preference for natural and unprocessed products, and they are more likely than most to eat at cafes and restaurants;

- technological products such as PCs, laptops, Internet feature, as do original artworks and musical instruments.

Feel in control of their lives

- are well educated, with a number holding postgraduate university qualifications.

A single segment marketing strategy would be implemented to target the above group. It is acknowledged that if the product were to be promoted internationally, a differentiated targeting strategy with two different marketing mixes would probably be advisable.

In this latter scenario, the tourist market could also be included.

MARKETING MIX

As indicated, the product story has been created in response to the demographics identified in the retail survey and the matching psychographics of the "Educated Liberal" segment.

As this group are not large consumers of product there would need to be other associated product values. Believing as they do in an egalitarian society, this segment is likely to be interested in issues of race, gender and education.

It is therefore proposed that the brand name and values reflect these concerns. The brand name "unite" is suggested as reflecting egalitarian interests. It is envisaged that the trademark would consist of fragments coming to rest collectively in the centre of the brand name. Underneath, the slogan "New Zealand design + technology" would be placed.

"Design + technology" reflect the importance of the collaborative partnership required to create the product. Accompanying images of people in the associated workplaces would also appear, to personalise and visually describe the processes involved.

It is intended that the product story would also include details of the designer/s and manufacturer/s. Given that 47% of New Zealanders have a computer, and that the identified market segment is likely to own a computer, reference to a website would be made and this would provide further details of the various business partnerships, and the aims and philosophies.

In accordance with the values of the intended market segment, 'unite' would have a commitment to the society in which it functions. A percentage from each sale would go into a fund to promote New Zealand design and technology. Some possible projects at which funding could be targeted are:

- sponsorship/award/apprenticeship to assist/encourage lesser privileged within the community to attend university/receive training;
- a national design competition to promote students abilities and synergies between industry and students;
- investigations into methods of 'green' manufacturing processes.

A brochure would accompany the product at point-of-sale to explain the business philosophy, and in the event that a purchase is not made, it could be uplifted and taken home to read, potentially encouraging the interested party to seek out the product at a later date. Information would also be included on a swing-tag attached to the product.

Paper and packaging would be recycled, but not overtly so. A classic, sophisticated styling would be maintained.

This proposed product story is a framework only around which further market investigations and consultations would need to be carried out to verify its appropriateness, and, of course suggest more specific detail.



CONCLUSION

This project has achieved an overview of the areas of design, technology and marketing in the product development process, achieved through analysis of qualitative primary and secondary data. Investigations have been taken to the point at which a product story could be proposed.

THE ROLE OF TEXTILE DESIGNER WITHIN THE PRODUCT DESIGN MODEL

The role of the textile designer will vary according to business structure and purpose, and the following three scenarios are offered in order to understand some of the variables. These are based on the researcher's own knowledge and experiences within industry and education.

SCENARIO 1: FREELANCE WEAVE DESIGNER

Design and Technology:

A freelance weave designer may initiate new ideas. Ideation may be generated intuitively as a result of past personal observations and experiences; consciously, through study of trend predictions and/or market competition, or by studio explorations using a weave specific programme and/or loom, or, other 'creativity' techniques; or externally, by way of a customer's own specifications.

The designer's technical knowledge of weave and manufacturing could be enough to solve technical issues, however, in order to determine whether the new product is able to be manufactured, consultations with textile producers may also be part of the process.

Prototype development would probably be carried out by the designer through studio practices, utilising a loom in conjunction with weave programme. Design artwork, in some instances could be acceptable in the place of actual fabric. Issues of copyright would need to be addressed.

Marketing:

A freelance weave designer will probably determine customer needs, wants, preferences through their personal observations, analysis of trends, and contact with clients. A possible limited

knowledge of marketing practices could restrict analysis to informal interviews and observations. Once prototypes had been produced, evaluation of market could occur through attendance at a trade textile show, or consultations with clients/agents.

Prototypes/weave designs could be sold onto an agent, textile mill, client, or through a textile/trade related show. Product development could be ongoing once the purchaser was in possession of the product.

SCENARIO 2: WEAVE DESIGNER WITHIN A TEXTILE MILL

Design and Technology:

A designer or other suitably experienced employee working within a textile mill may initiate new ideas. Ideation may be generated intuitively as a result of past personal observations and experiences; consciously, through study of trend predictions and/or market competition, or by studio explorations using a weave specific programme and/or loom, or, other 'creativity' techniques; or externally, by way of a customer's own specifications.

The designer's knowledge of weave design and the company's technical capabilities will determine initial feasibility, although a technical production person may also be consulted.

A hand-loom may or may not be used by the designer in development of prototypes. It is likely that weave instructions would be issued to the associated production area, and prototypes woven mechanically/electronically. The designer, or other authorised person, would then select successful prototypes, and a sample blanket woven to explore colour mixes. A selection would then be made for the company's range of product, to be shown to a particular customer base on a selling trip. According to customer dictates, prototypes may be subjected to modifications.

Marketing:

Designers within industry would probably determine customer needs, wants, preferences through their personal observations, analysis of trends and contact with clients. If the designer has a marketing role within the company it is possible that market research could be undertaken to assess the market. However, it is possible that marketing persons within the company will carry out this function and inform the designer of customer response.

Modification to design work may need to be carried out. Sold designs will probably become the exclusive property of the client, who will then place orders for fabric with the same mill.

SCENARIO 3: SMALL BUSINESS PERSON OUTSIDE OF INDUSTRY WISHING TO DEVELOP A NEW TEXTILE PRODUCT

Design and Technology:

A small business person may generate their own ideas, either intuitively or consciously as in previous scenarios. They may, or may not have knowledge of technical processes.

If the required technical knowledge is unknown, advice could be sought through an experienced weave designer or other person within a textile mill, to work out the technical solutions. The business person, would, in any case, need to consult with various yarn, dye and fabric producers to co-ordinate prototype production and processes associated with the finished product.

Marketing:

A small business person may determine customer needs, wants, preferences through their personal observations, analysis of trends and contact with other persons, or, they may carry out formal market research.

Marketing principles would need to be understood in order to evaluate market response, and to eventually promote the product. If this knowledge is unknown, a marketing and/or other specialist/consultant could also be contracted to undertake these activities.

From these scenarios, it can be deduced that the textile weave designer's role may be as ideator, researcher and developer, product designer and marketer, or, they may receive specific briefs from management/marketing or customers which do not require any other knowledge/decision making other than design aesthetic considerations.

The designer's skills will of course indicate the appropriateness of participating in particular roles, and having knowledge of marketing principles along with design and technology will give the designer more awareness of the issues affecting the customer base. The value of customer contact is in the direct feedback received on design work and the opportunity for information not anticipated or sought regarding product needs, wants, and preferences to be exchanged. The designer's knowledge of design and technology will put them in an ideal position to recognise the efficacy of new product ideas.

Although every business scenario will be different, it is suggested that in those roles where there is no customer or team interaction, the textile designer will be under-utilised.

COOPER'S MODEL FOR TEXTILE PRODUCT

Cooper's model has been useful in describing the tasks and processes that need to be considered in a product's development.

In consideration of the above textile scenarios and the variable tasks undertaken by the textile designer, it has not been helpful, however, to delineate tasks under headings such as marketing and technical. Rather, it would be more appropriate to list tasks and allow various business scenarios to evaluate how these should be allocated within their own structure.

The strength of Cooper's model would seem to be in its providing constant opportunities to re-evaluate the process through the Stage-Gates, and facilitate interactions between all persons involved in every aspect of the process.

From the researcher's own experience in the textile industry, criticisms directed at the textile designer by the mill technical operators, equated with those levelled at the architect by the builder - a lack of understanding of technology, materials and processes. In the same way, criticisms of the technical operators by the designers, included frustration at a lack of awareness of the importance of sampling/prototyping, which was viewed by the production team as an interruption to the flow of customer generated work. In the researcher's intermediary role, it was something of a revelation to realise that each 'side' had such little awareness of the processes and difficulties encountered by the other. Sadly therefore, this was a recipe for misunderstandings and therefore missed opportunities for new synergies. As Buchanan has commented:

The challenge is to gain a deeper understanding of design thinking so that more cooperation and mutual benefit is possible between those who apply design thinking to remarkably different problems and subject matters. This will help to make the practical exploration of design, particularly in the arts of production, more intelligent and meaningful.
(Buchanan:1992,8)

It has been noted in the course of this research that textbooks focus on their own area of specialisation with little information provided about the contribution of other areas. This accords with developments since the industrial revolution in industry and education, where the cultures of

design, technology and marketing have moved further apart, for reasons of specialisation and efficiencies.

COMMONALITIES/DIFFERENCES IN DESIGN, MARKETING AND TECHNOLOGY

The commonality between these three areas is the ability of each to add intrinsic tangible and intangible product values.

All three areas require a recognition and understanding of the needs of culture and society in order that appropriate products can be created and marketed. In marketing theory "lifestyles" are included in psychographics, one of the bases for segmentation. Fiona Candy in her presentation at the 2000 International Conference on design in Perth commented on the relevance of lifestyle studies as follows:

Consumer lifestyle, like the mix of brands which reflect it, provides a common vehicle for study. Practitioners from many disciplines collaborate in the cultivation of brand identity as each branded product comes in many forms – clothing, homewares, retail environment, advertising, packaging, web site etc., which are mutually dependant. An understanding of lifestyle brand values has thus become a commonly held field of knowledge for both designer and consumer.
(Candy:2000,135)

Within the segregation of disciplines, each has their own differing aim. Broadly speaking the designer is concerned with the aesthetic as the ultimate expression of their ideas, the technologist will be focused on material/equipment improvements for greater efficiency/competitiveness, whereas the marketer will be motivated by customer needs and how best to satisfy these, with the goal being to make a profit.

THE CONTRIBUTION OF DESIGN, TECHNOLOGY AND MARKETING TO THE PRODUCT STORY

The textile designer contributes to the product story through aesthetic/styling/structural considerations of the product. As has been stated by Hugh Bannerman of Dilana Rugs and Peri Drysdale of Snowy Peak, New Zealand design can create a significant product point-of-

difference. In the case of interior product manufacturers', Dilana Rugs and CB Collections, the New Zealand landscape has been left almost entirely out of their promotional activities, and instead aesthetic considerations such as colour, texture, handle, design imagery used in their product stories.

Technology adds to the product story, as in the case of WRONZ through research into fibre and production developments, which have allowed wool to compete more ably with synthetics. In the case of this research, WRONZ technology in the form of lincLITE has contributed to and extended weave design possibilities. Wools of New Zealand, Snowy Peak and Icebreaker have all used the 'technical' properties of wool fibre and fabric in their product stories.

Marketing, through research and the marketing mix, positions and communicates product values to an identified consumer group. Icebreaker and Snowy Peak have recognised the importance of marketing strategies to clearly identify their product in the marketplace - Icebreaker's eye-catching point-of-sale displays and Snowy Peak's Untouched World purpose built life-style store in Christchurch both promote the uniqueness of New Zealand. For these businesses the New Zealand environment presents an obvious backdrop against which to place product. Snowy Peak also promotes an ethical "societal" approach in marketing, where their concern about the impact of their business activities on the community and environment is made part of their product story.

3D CONTOURED FABRICS

This research also set out to explore whether 3D contoured fabrics could be achieved utilising predominantly New Zealand wool. The production of prototypes through studio practice has indicated the feasibility of this utilising both design and technical expertise.

The preliminary manufacturing assessment undertaken has also indicated that these fabrics could be produced within New Zealand textile mills. A large order of lincLITE, however, would need to be sourced off-shore, as WRONZ's spinning technology does not exist in a commercial situation in New Zealand.

Whether or not the proposed throw-rugs would prove a commercially viable product, would need to be determined in further stages of the product development process. The product evaluation carried out in the marketplace generated enough positive feedback to suggest that a

continuation through the product design model be feasible. For purposes of this research it has been sufficient to take the proposed product to the point at which knowledge of the various specialisations had been gained and a product story proposed.

The changing fortunes of New Zealand wool fibre have been documented in the overview of the New Zealand Wool Board. The wool industry's value added chain has been a long one, with five, sometimes more processing businesses between harvest and manufacture of products, with most of the value adding product stories being created beyond New Zealand shores. Having concluded this course of study, the researcher considers even more strongly that New Zealand textile designers with knowledge of technology and market, or, as part of a team, could be utilised to suggest new design aesthetics and product ideas to add value to wool.

From the perspective of textile designer, the researcher has achieved the intended aims of experiencing first-hand some of the areas involved in creating a product. In so doing, it is felt that knowledge of the market and marketing principles, along with design and technology, could empower any designer both within and outside of industry, to position and place textile product in the market more effectively.

As has been made apparent through this research, each specialisation brings its own valid perspective, expertise and aims to the product development process, and within industry or small business, it would seem imperative that each specialisation is given 'a voice' which is heard by all, to facilitate new synergies and thus create new product ideas.

Promoting New Zealand as a country capable of sophisticated design and technology is not a new idea, as has been recognised in the course of this research. Stressing these aspects in a product story to promote product is considered entirely feasible if design, technology and marketing synergies can create a contemporary, quality product with relevant values that communicate effectively to the customer.

GLOSSARY

ADVERTISING CAMPAIGN the total advertising program for a product or brand that involves co-ordination, a central theme and specific goals.

BRAND a name and/or mark that identifies the product or service of one seller or group of sellers.

BRAND EQUITY is the value a brand adds to a product.

CLOQUÉ compound or double weave fabric with a blister effect brought about by the use of yarns of different character or twist which respond in different ways to finishing treatments.

CONSUMER an individual or organisational unit that uses or consumes a product.

CREPE YARN has a high twist factor which produces fabric characterised by a crinkled or puckered surface. Fabrics can also be produced by weaving with a pair of 's' and pair of 'z' twist yarns alternately in the weft.

CULTURE the symbols and artefacts created by people and handed down from generation to generation as determinants and regulators of human behaviour in a given society.

CUSTOMER an individual or organisation that makes a purchase decision.

DOBBY mechanism for controlling the movement of shafts on a loom.

DEMOGRAPHY the statistical study of human populations.

DIFFERENTIATION a strategy of satisfying either a broad or narrow market by creating a distinctive product.

DISTRIBUTION the channel structure (institutions and activities) used to transfer products and services from an organization to its markets.

DOUBLE BEAM two cylinders on a loom around each of which a different set of warp yarns are wound.

DOUBLE CREPE YARN each ply is twisted in one direction, then plied together in the same direction again. The extra twist in the same direction results in an uneven, unbalanced yarn with particular characteristics.

ENVIRONMENTAL FORCES the forces such as demography, which affect a company's external environment.

ENVIRONMENTAL MONITORING the process of gathering information regarding a company's external environment, analysing it and forecasting the impact of whatever trends the analysis suggests.

FANCY YARNS characterised by having deliberately introduced irregularities intermittently inserted along their length, e.g. loop and boucle yarns. Generally these yarns consist of three components - a ground thread around which is twisted an effect thread, and a binder yarn that serves to hold the former two in place.

FASHION a style that is popularly accepted by groups of people over a reasonably long, but limited period of time.

FASHION CYCLE representing the introduction, rise, popular acceptance and decline in popularity of a given style.

FIBRE textile raw material, characterised by flexibility, fineness and high ratio of length to thickness.

GREEN MARKETING any marketing activity of a firm that is intended to create a positive impact or lessen the negative impact of a product on the environment in order to capitalise on consumers' concerns about environmental issues.

GREEN RETAILING a strategy or policy of conducting retail operations in a manner that protects the environment.

GREIGE FABRIC usually woven in undyed yarn and resultant fabric piece dyed to requirements.

LIFESTYLE a person's activities, interests and opinions.

LINCLITE yarn with increased shrinkage/bulking characteristics developed by WRONZ using a specific spinning process.

MANUFACTURER'S BRAND a brand owned by a manufacturer or other producer

MARKET people or organizations with wants to satisfy, money to spend and the willingness to spend it.

MARKET SEGMENTATION the process of dividing the total market into one or more parts (sub-markets or segments), each of which tends to be homogeneous in all significant aspects.

MARKET SEGMENTATION (WITH MULTIPLE SEGMENTS) a segmentation strategy that involves identifying two or more different groups of customers as target market segments. The seller then develops a different marketing mix to reach each segment.

MARKET SEGMENTATION (WITH A SINGLE SEGMENT) a segmentation strategy involving the selection of one homogeneous group of customers within the total market. The seller develops one marketing mix to reach this single segment.

MARKETING MIX a combination of the four elements - product, pricing structure, distribution system, promotional activities - that constitute the core of an organisation's marketing system.

MARKETING RESEARCH the systematic gathering and analysis of information relevant to marketing.

MICRON a measurement representative of a fibre's diameter.

MULTIPLE-BRAND STRATEGY a strategy in which a firm has more than one brand of essentially the same product, aimed either at the same target market or at distinct target markets.

MULTIPLE DISTRIBUTION CHANNELS the use of a producer of more than one channel of distribution for reasons such as achieving broad market coverage or avoiding total dependence on a single arrangement.

NICHE MARKETING a strategy in which goods and services are tailor made to meet the needs of small market segments.

PACKAGING all the activities of designing and producing the container or wrapper for a product.

PIECE DYED fabric dyed as a length.

PLAIN WEAVE contains the maximum number of intersections possible in a weave, as both warp and weft yarns pass alternately under and over each sequential yarn.

- PLYED YARN two or more groups of fibres to which twist has been added to each 'ply', then generally plied together in the opposite direction.

POSITIONING a retailer's strategies and actions related to distinguishing itself favourably from competitors in the minds (and hearts) of selected groups of consumers.

PRICE what you pay for what you get; value expressed in dollars and cents.

PRODUCT DEVELOPMENT the technical activities of product research, engineering and design.

PRODUCT DIFFERENTIATION a product strategy wherein a company promotes the differences between its products and those of its competitors.

PRODUCT LIFE CYCLE the stages of a product from its introduction through its growth and maturity, to its eventual decline and death (withdrawal from the market or deletion from the company's offerings).

PRODUCT LINE a group of similar products intended for essentially similar uses.

PRODUCT MIX the full list of products offered for sale by a company.

PRODUCT POSITIONING the decisions and activities involved in developing the intended image (in the customer's mind) for a product in relation to competitive products.

PRODUCT STORY theme as part of branding process which adds tangible and intangible product values.

PROMOTION the element in an organisation's marketing mix that is used to inform and persuade the market regarding the organisation's products and services.

PROMOTIONAL MIX the combination of elements that constitute the promotion ingredients in an organisation's marketing mix.

PSYCHOGRAPHICS a concept in consumer behaviour which explains a market in terms of consumers' attitudes, opinions and lifestyles.

PUBLICITY non-personal promotion that is not paid for by the organization benefiting from it.

'PULL' PROMOTIONAL STRATEGY aiming product promotion at end users so they will ask intermediaries for the product.

'PUSH' PROMOTIONAL STRATEGY the producer directs its promotion at intermediaries that are the next link forward in distribution channels.

SATIN WEAVE satin/sateen weaves use floats to create lustrous fabrics, the resultant fabric having a considerably higher weft or warp count which may not drape as well as a twill.

SELLING informing and persuading a market about a product or service; synonymous with promotion.

SETT spacing between warp and weft yarns, calculated according to aesthetic, weave structure and function of fabric.

SHAFT a frame which contains heddles through which warp yarn passes and which are used in various formations to create differing weave structures.

— **SINGLE BEAM** one cylinder around which a set of warp yarns is held.

SINGLE YARN a single group of fibres to which twist is added.

SOCIAL AND CULTURAL FORCES a set of factors, including lifestyles, social values and beliefs, that affect the marketing activities of an organization.

STAPLE a mass of fibres having a certain homogeneity of properties, usually length.

STITCHING warp or weft ends used to join two or more layers of fabric together, or, fasten long floats to the body of the fabric.

STYLE a distinctive presentation or construction in any art, product or activity.

TARGET MARKET a group of customers at whom an organization specifically aims its marketing effort.

TEST MARKETING commercial experiments in limited geographic areas, to determine the feasibility of a full-scale marketing programme. The seller may test a new product, a new feature of an existing product or some other element in the marketing mix.

THEME in promotion, the central idea or focal point in a promotional campaign. The promotional appeals are dressed up in some distinctive attention-getting form.

TWILL WEAVE warp and weft yarns pass over two or more warps and/or wefts, thereby creating a fabric with less stability than plain weave but better draping characteristics.

TWIST added to fibres for cohesion. Can be inserted in 's' or 'z' direction, i.e. to left or right.

WARP lengthwise yarn ends.

WEFT yarn which travels widthways across the fabric and intersects with the warp.

WHOLESALE a merchant intermediary who takes title to the products and whose primary purpose is to engage in wholesaling activities.

WHOLESALE all activities involving sales to organizations that buy to resell or to use the products in their businesses.

WOOLLEN YARN characterised by protruding fibres that give a 'hairy' appearance, produced on the condenser system.

WORSTED YARN combed wool fibre through which the fibres become more parallel and the resultant yarn smoother and more lustrous than woollen.

YARN continuous length of fibres produced by a spinning process such as ring, open-end or self twist.

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www.untouchedworld.co.nz/category.cfm/CategoryID/3 03.08.01

APPENDICES

Appendix 1:	<i>Yarns Used in Studio Practice.</i>	II
Appendix 2:	<i>Fabrics Produced in Studio Practice.</i>	V
Appendix 3:	<i>Summary of Interview Sheet</i>	XXXIV
Appendix 4:	<i>Letter of Explanation to Retailers</i>	XXXVI
Appendix 5:	<i>Consent Sheet</i>	XXXVIII
Appendix 6:	<i>Results of Retail Interviews</i>	XXXIX
Appendix 7:	<i>Business Case Study Survey Form</i>	XLIII
Appendix 8:	<i>Letter of Explanation to Businesses</i>	XLVI
Appendix 9:	<i>Consent Sheet</i>	XLVIII
Appendix 10:	<i>Respondents' Completed Survey Forms</i>	XLIX
Appendix 11:	<i>New Zealand Wool Board: Historical overview as reflected in promotional activities</i>	LVIII

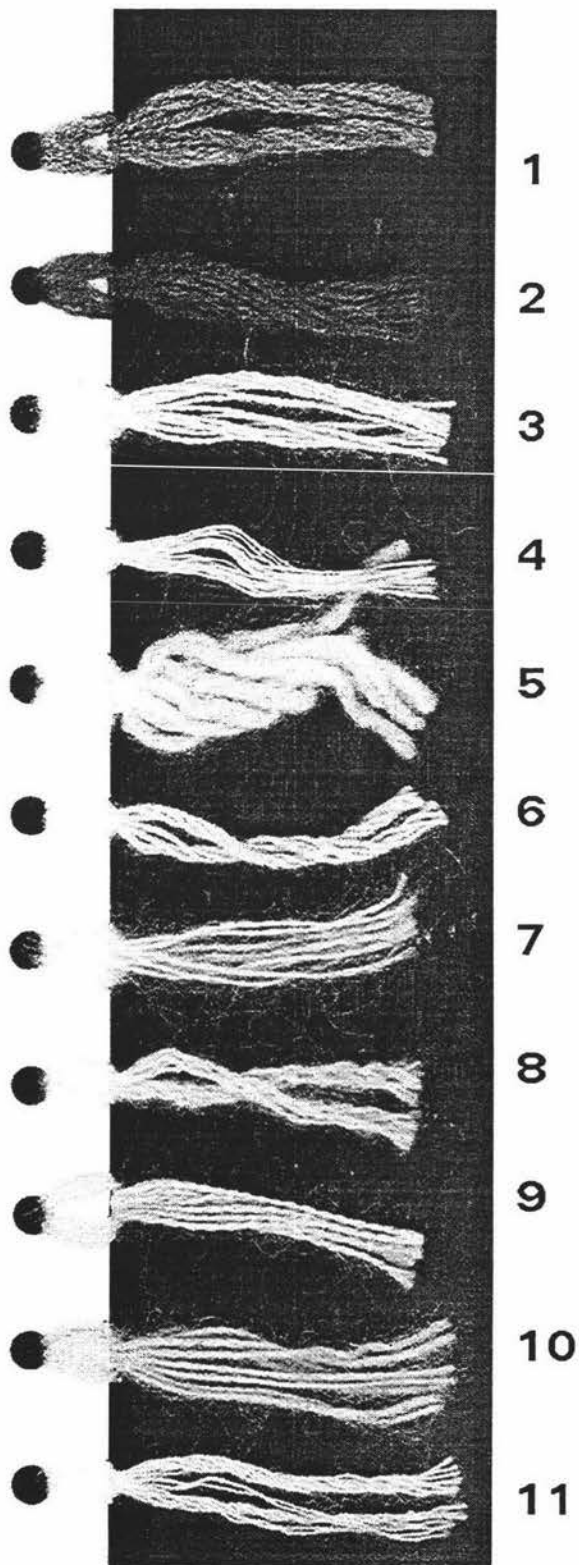
APPENDIX 1

YARNS USED IN STUDIO PRACTICE

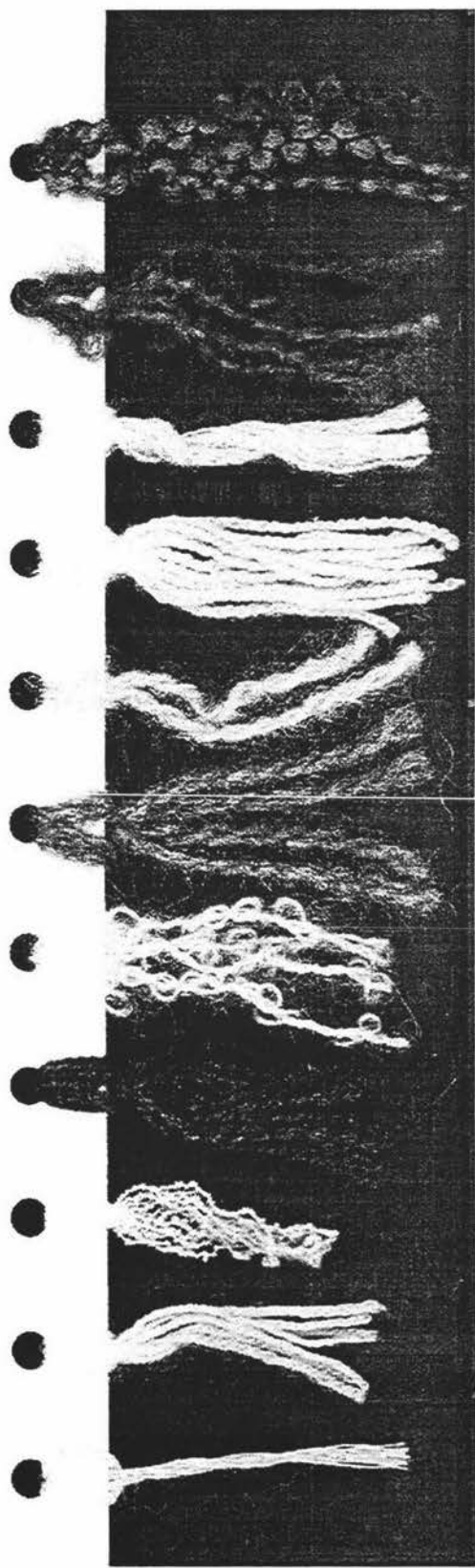
As discussed in the Methodology, yarns were acquired from various sources, and accordingly details such as fibre micron, sheep breed, yarn count, etc. were not always available.

Available yarn information has been placed alongside the visual image of each yarn.

LincLITE Unshrunk 22.5nm wool RT100/2 50/50 lincLITE/conv
2/25 nm 100% wool
RT110/2 60/40 Mohair/Merino
RT33/1
1/9 YSW
Single twist
180/2
RT76/2 19 micron merino
2/15 YSW
Single twist
RT34/2 Merino



10 ply 95% wool; 5% polybinder
Kid Mohair/Merino
LincLITE R46/2 Stretched worsted
2 ply merino
10 ply
10 ply
RT600
2 ply yarn Similar to no.2
Nm 2/58 Lycra/wool
3 ply
RT36 m27.5 22.5 micron Single crepe 30 tpi



12

13

14

15

16

17

18

19

20

21

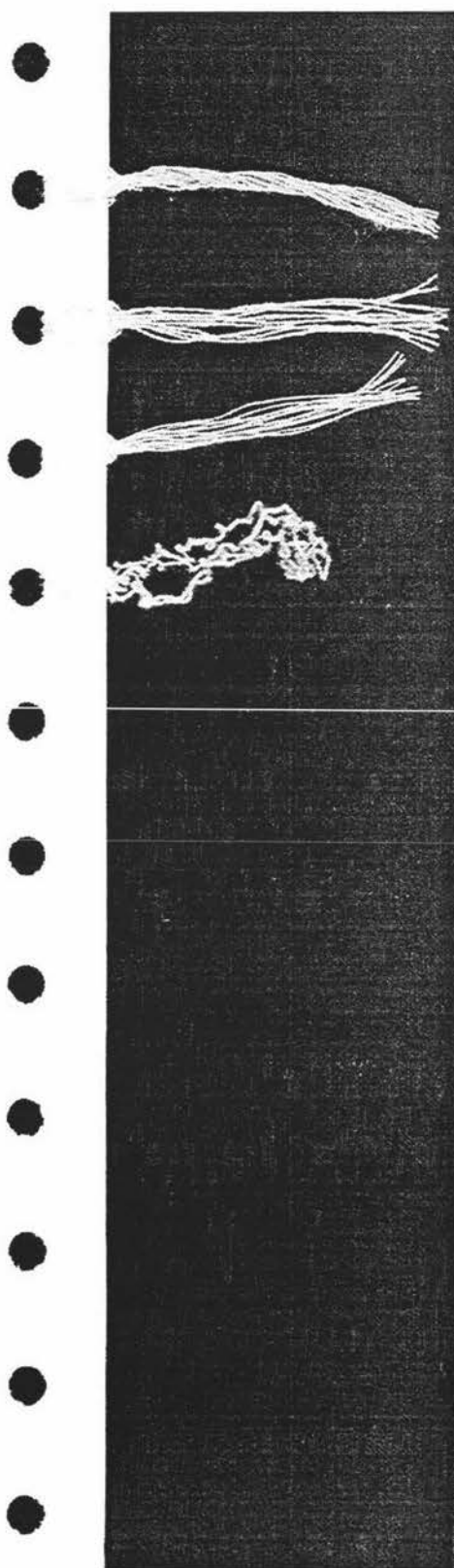
22

RT38/2 m52/2
20-21 micron
High twist
26 tpi

m2/58
Double crepe
10 tpi

2 ply
Normal twist

1/28 YSW
Merino
High twist



23

24

25

26

APPENDIX 2

FABRICS PRODUCED IN STUDIO PRACTICE

Fabric samples are shown in chronological order within warps. Where woven samples within a warp were considered not to offer any significant new development they have been omitted.

While individual samples are variable in size, the outside border measurement as viewed in this Appendix, is approximately 31 x 23 cm. Where the border measurement has exceeded this size, it has been accordingly noted.

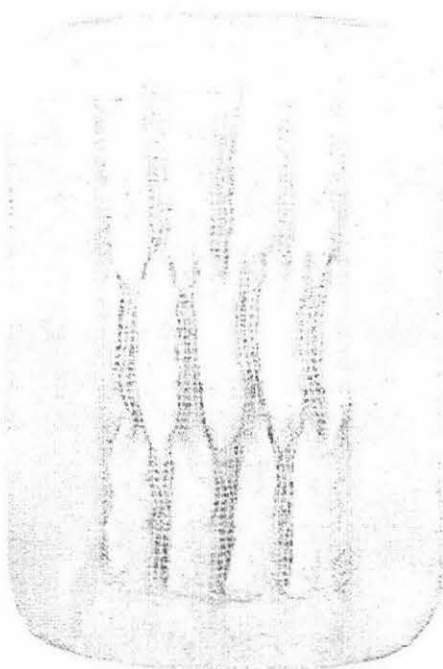
As both sides of the fabrics are intended to be viewed in the finished product, no distinction has been made between face and back. Where no significant difference has occurred between either side of a fabric, only one side has been shown.

Actual samples are held by the author.

WARP 1



Sample 1

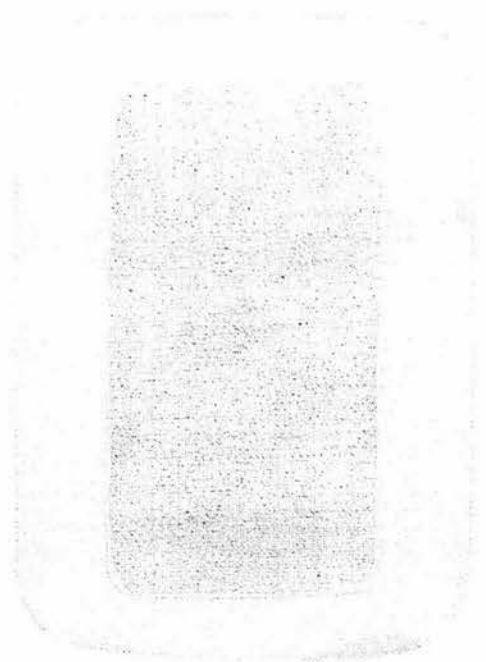


Sample 2

WARP 2



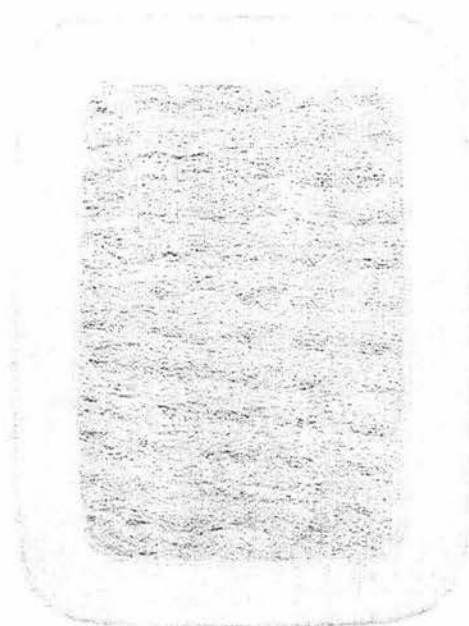
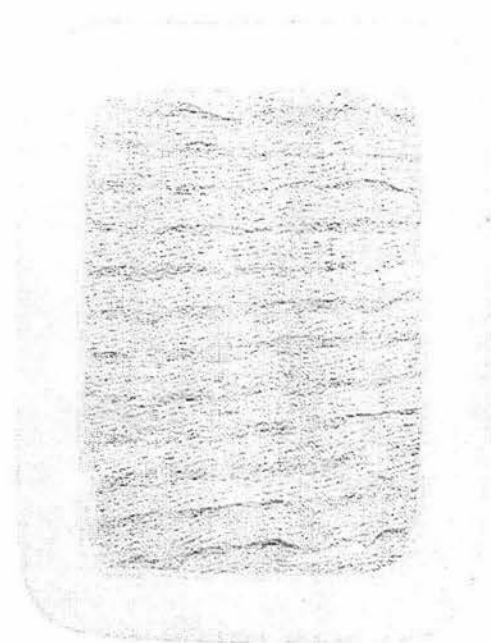
Sample 3



Sample 4



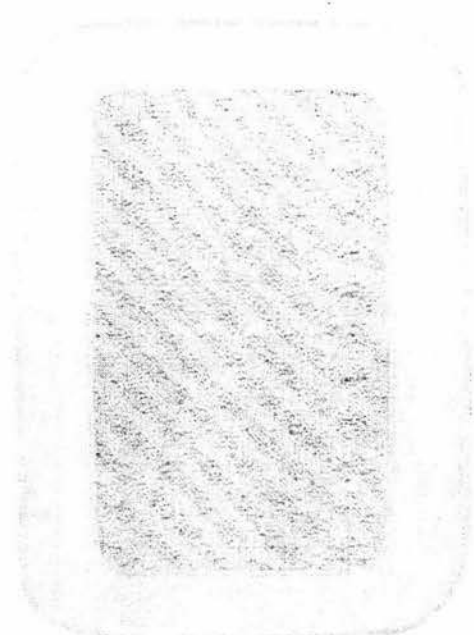
Sample 5



Sample 6



Sample 7



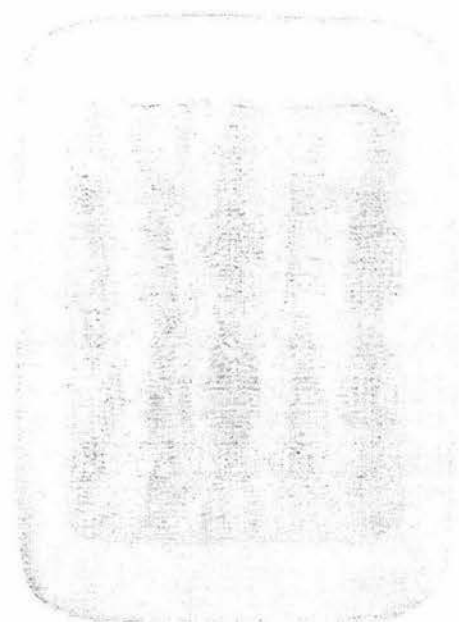
Sample 8



WARP 3

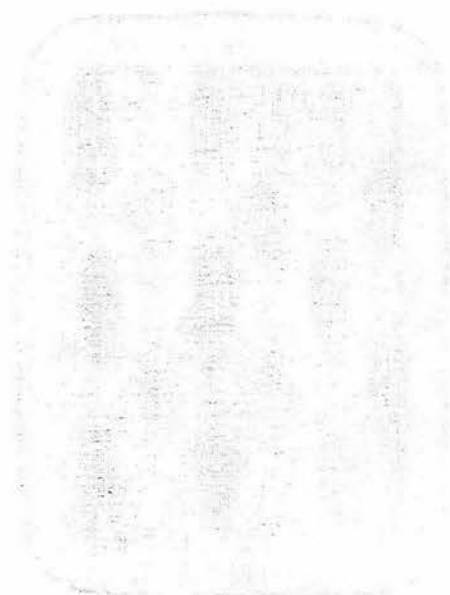
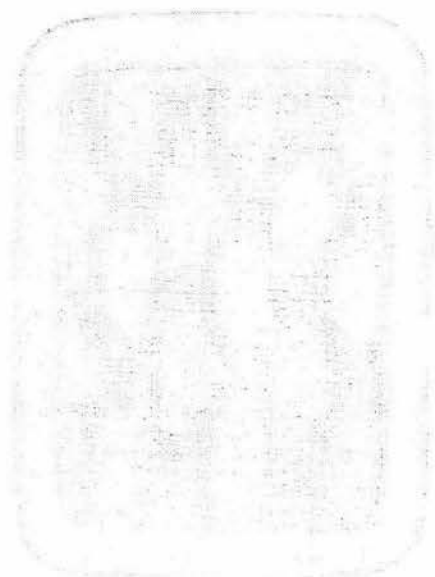


Sample 9

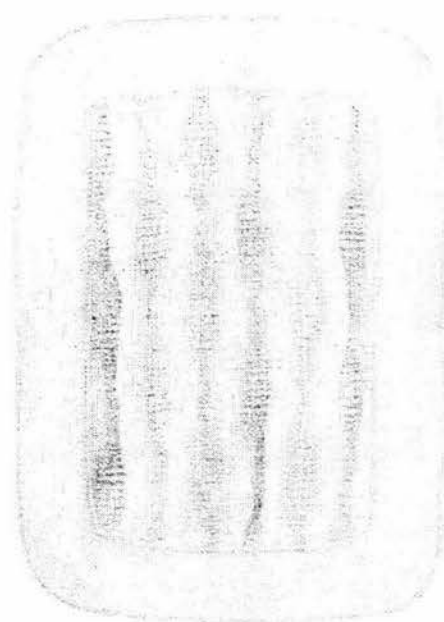
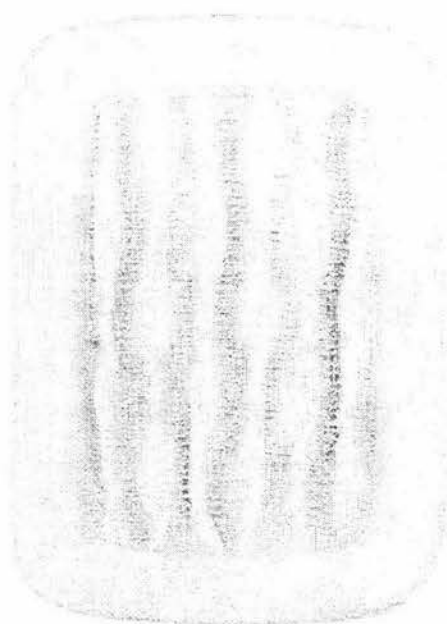


Sample 10

WARP 4

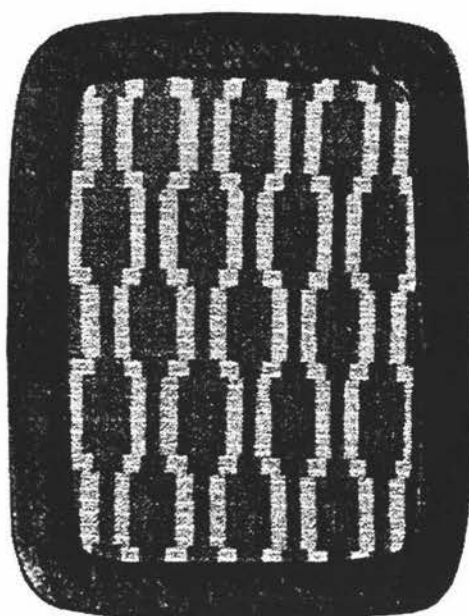


Sample 11

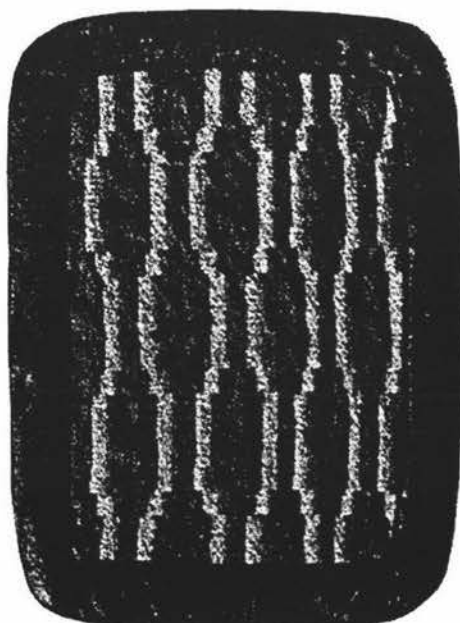
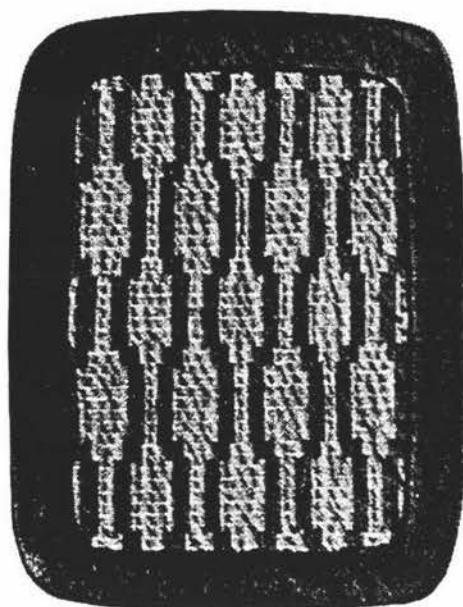


Sample 12

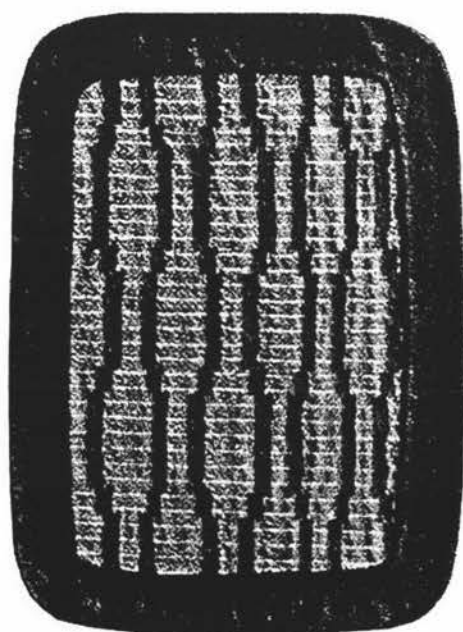
WARP 5

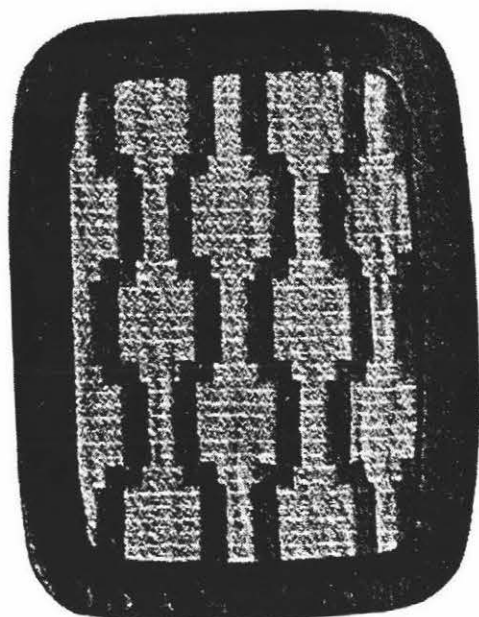
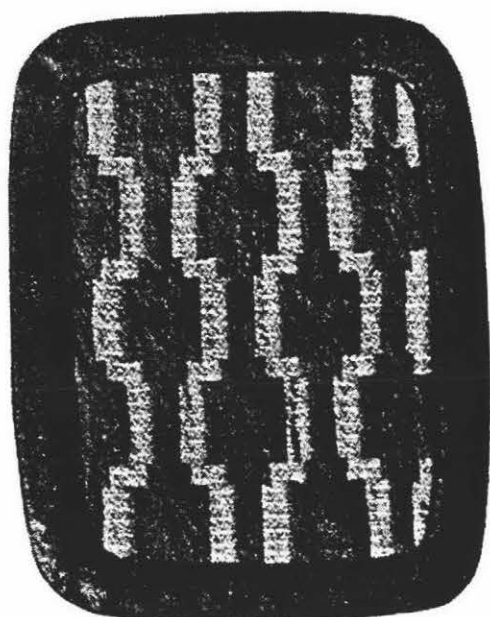


Sample 13



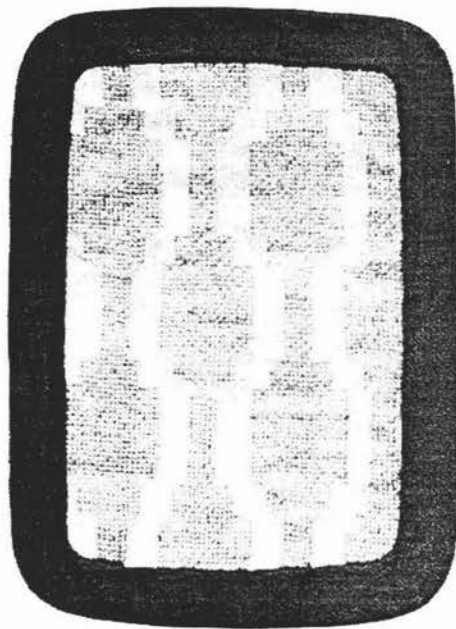
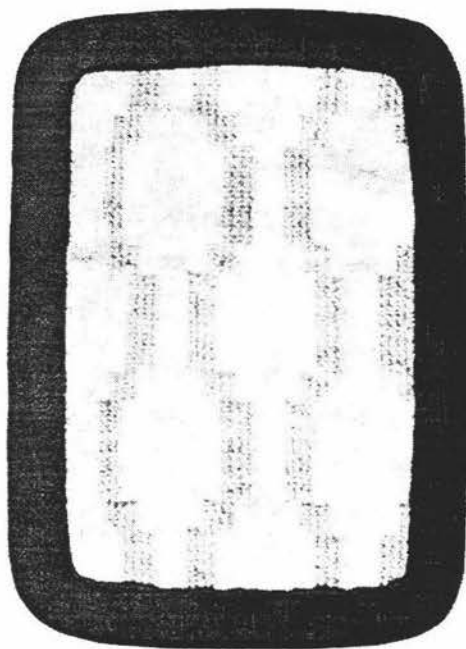
Sample 14



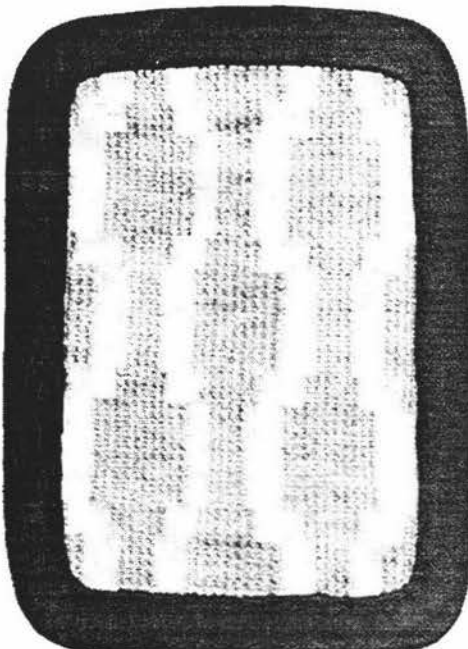
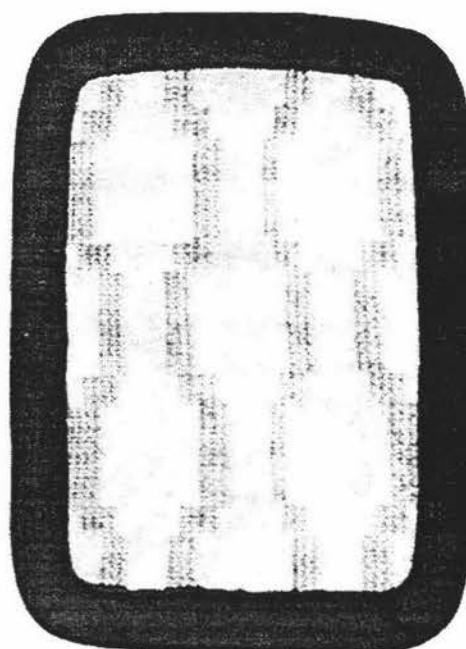


Sample 15

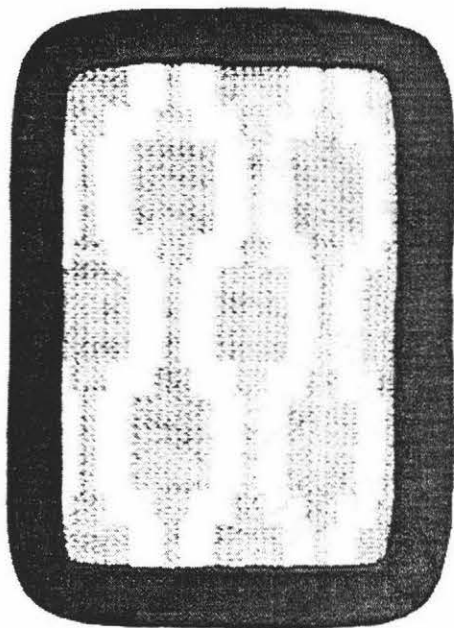
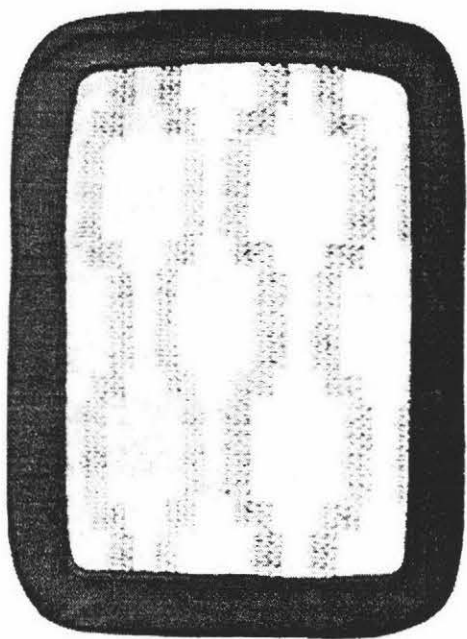
WARP 6



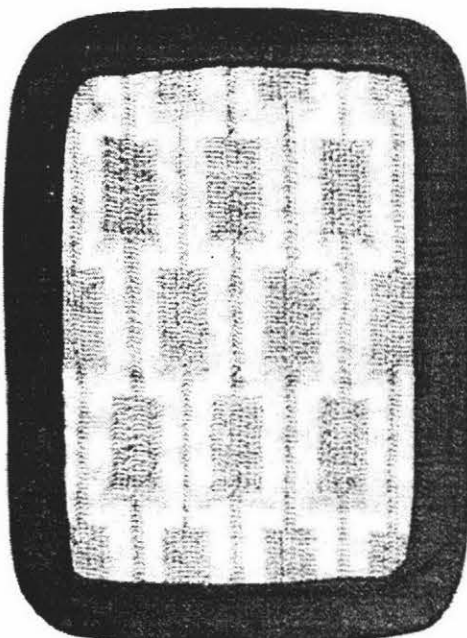
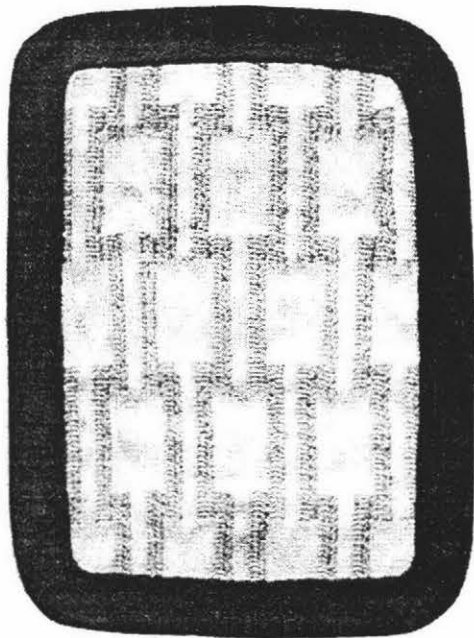
Sample 16



Sample 17

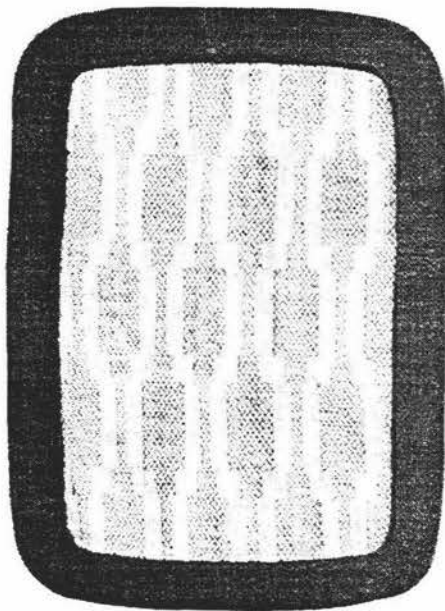
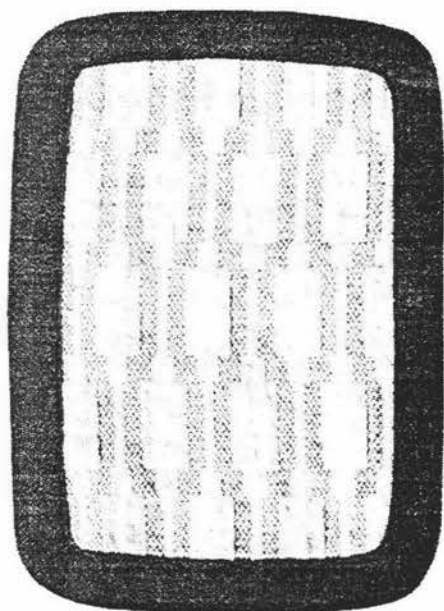


Sample 18

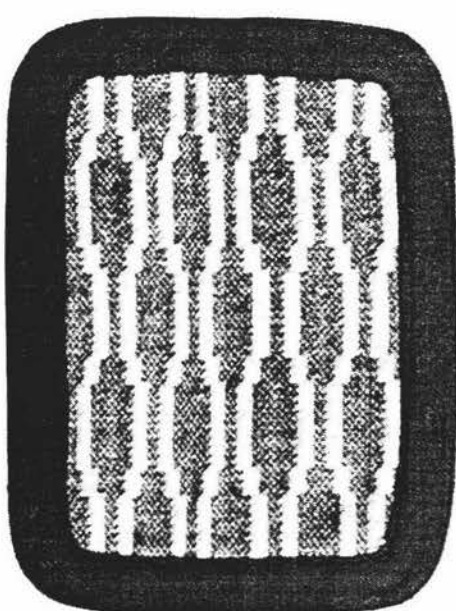
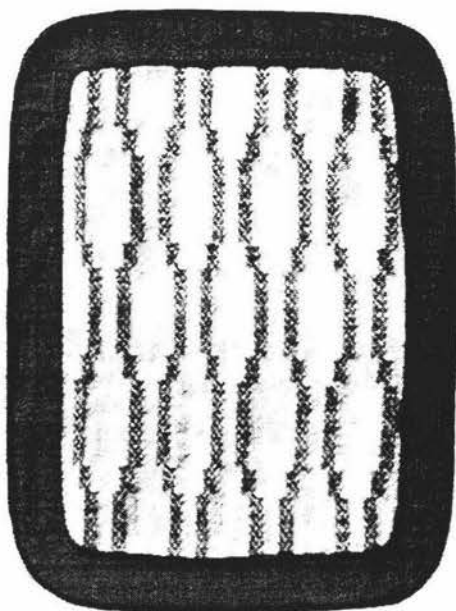


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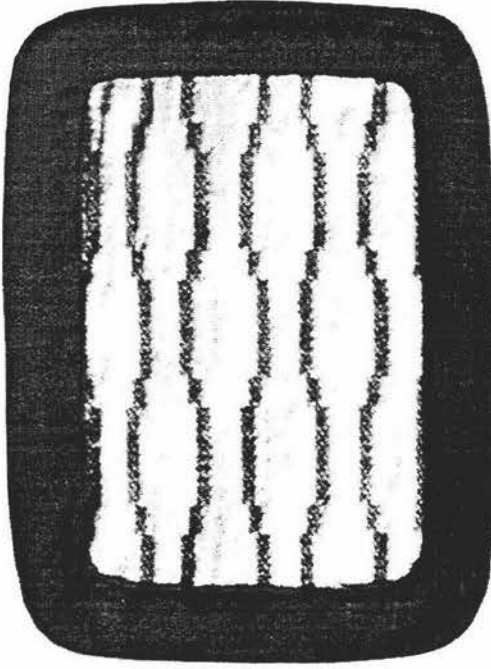
WARP 7



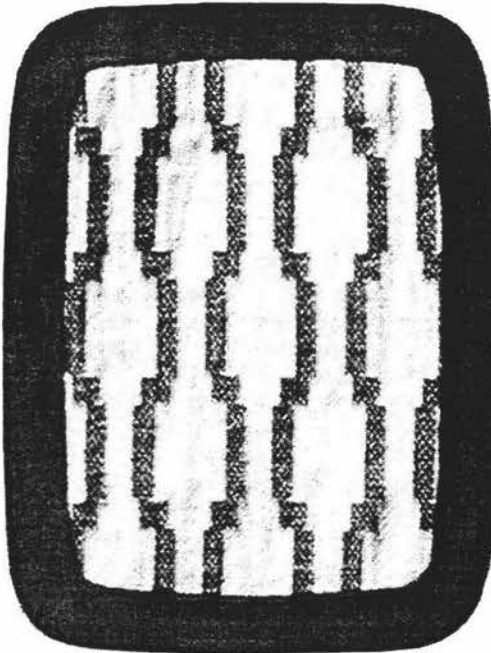
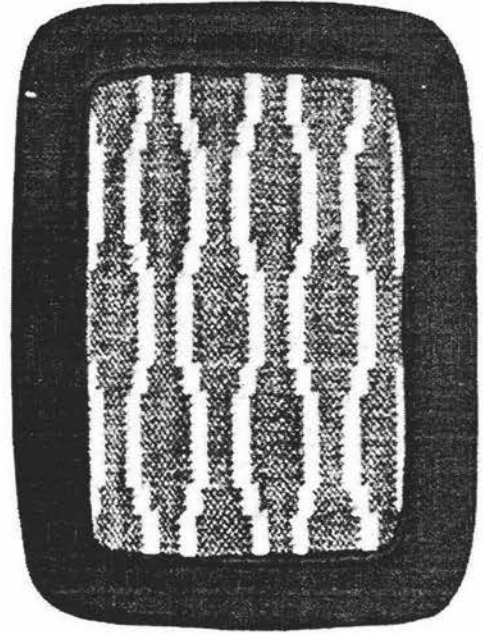
Sample 20



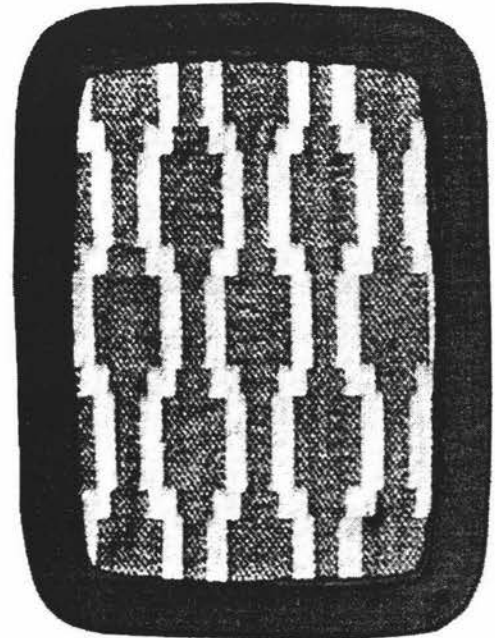
Sample 21



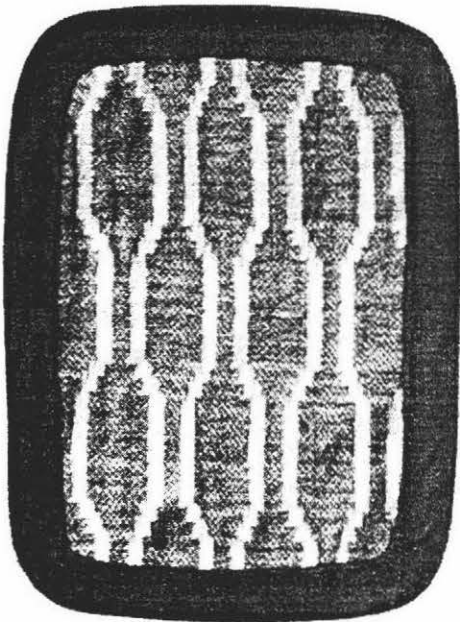
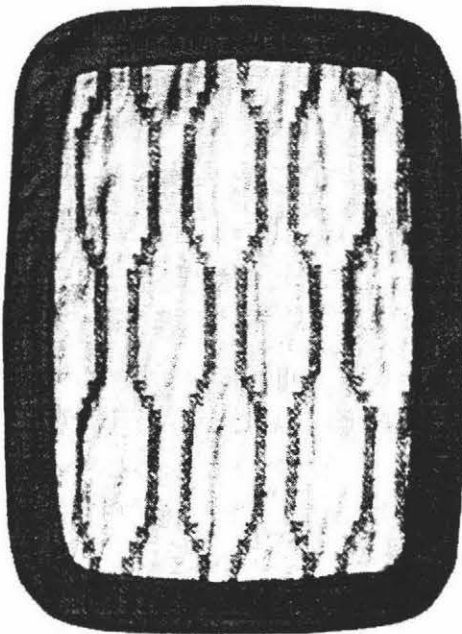
Sample 22



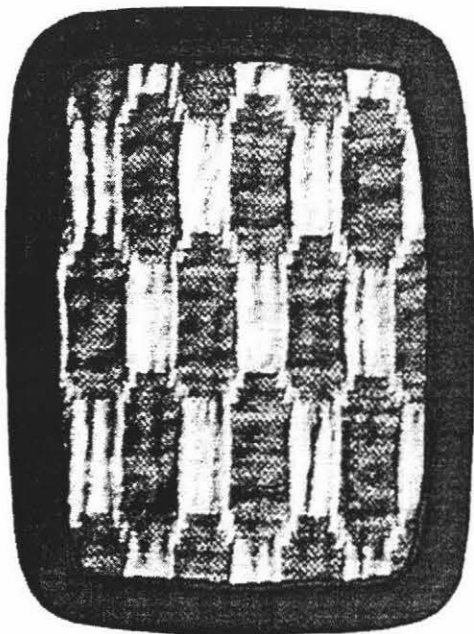
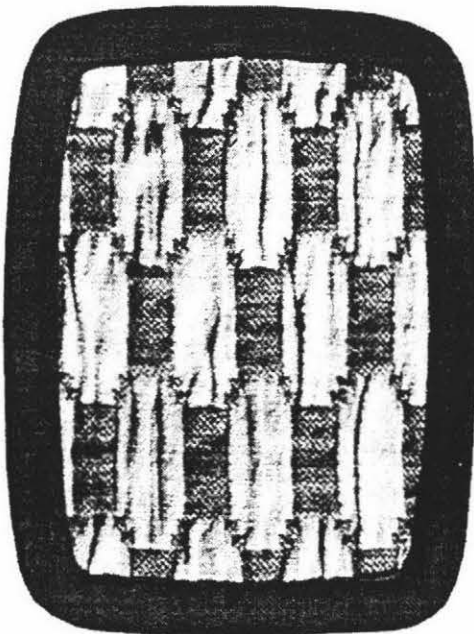
Sample 23



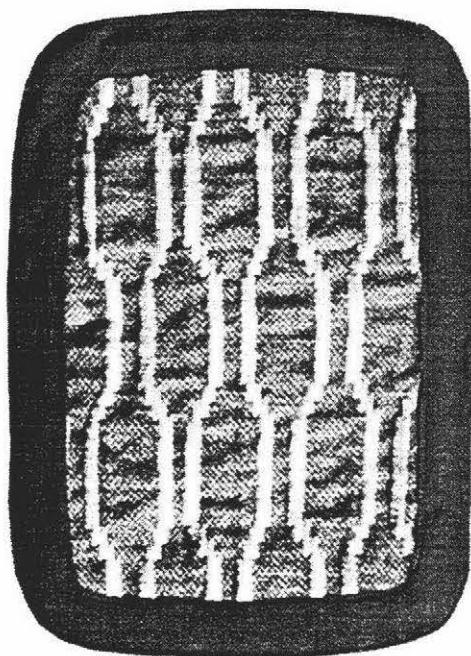
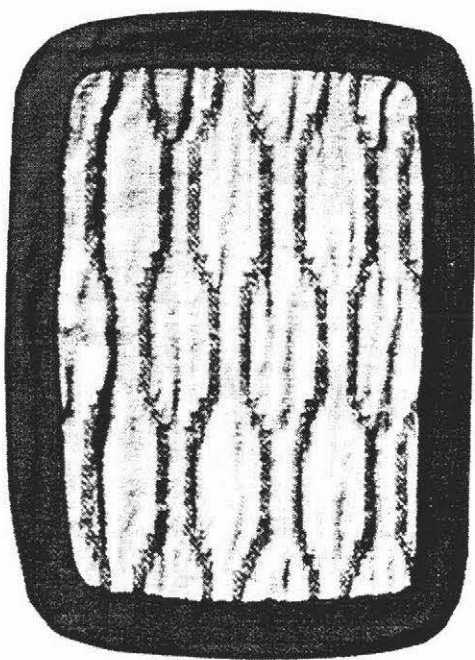
WARP 8



Sample 24

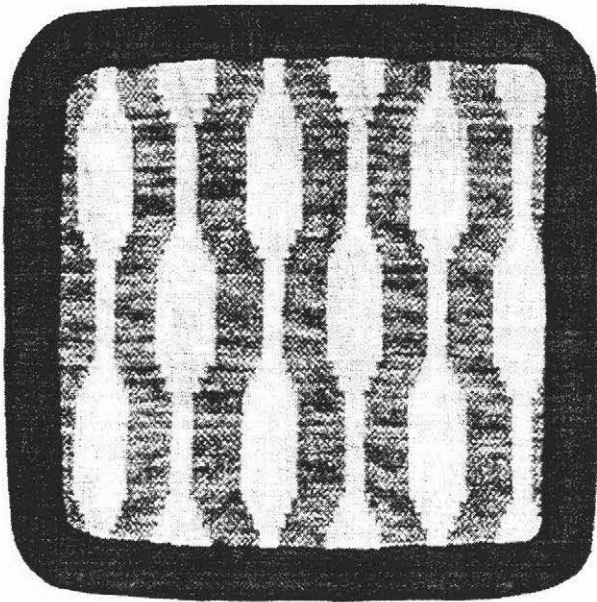


Sample 25

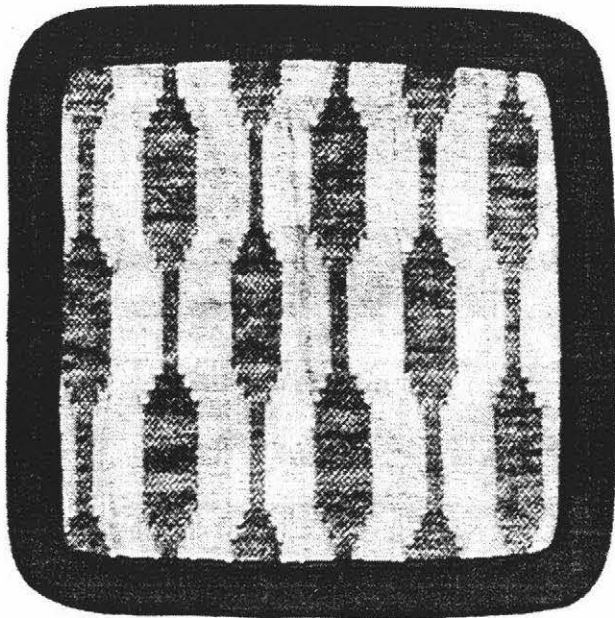


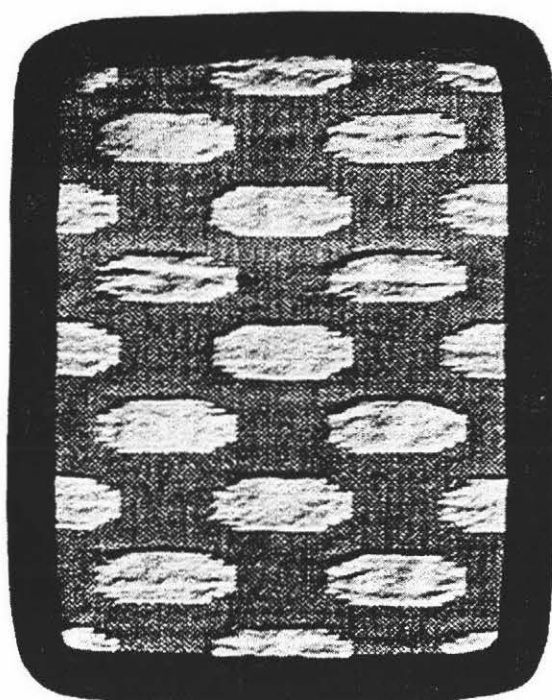
Sample 26

WARP 9



Sample 27
(31 x 31cm)

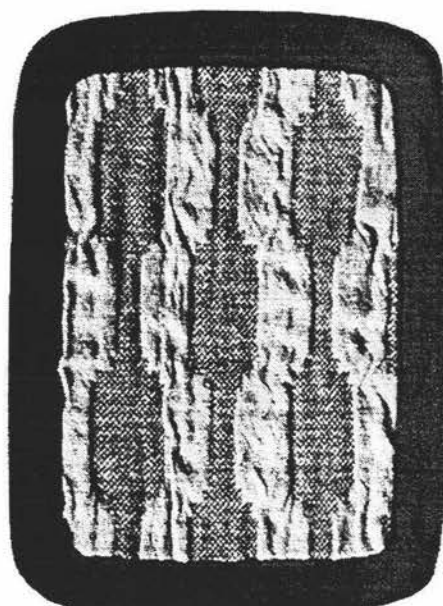
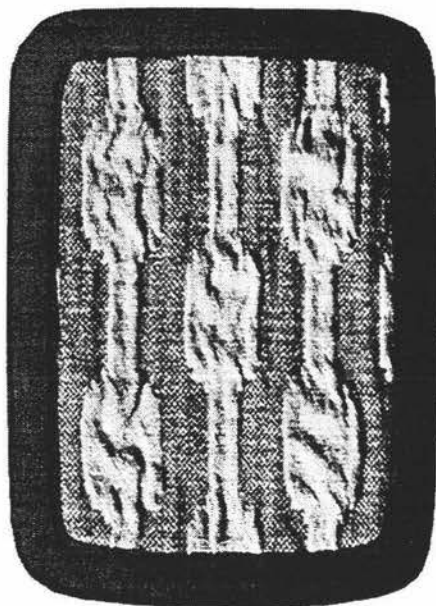




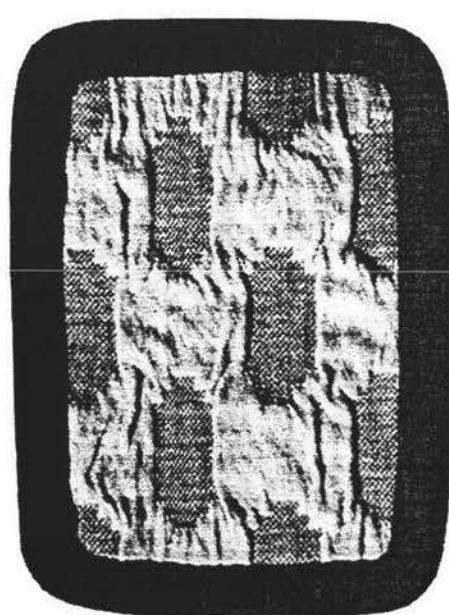
(39.5 x 31cm)

Sample 28

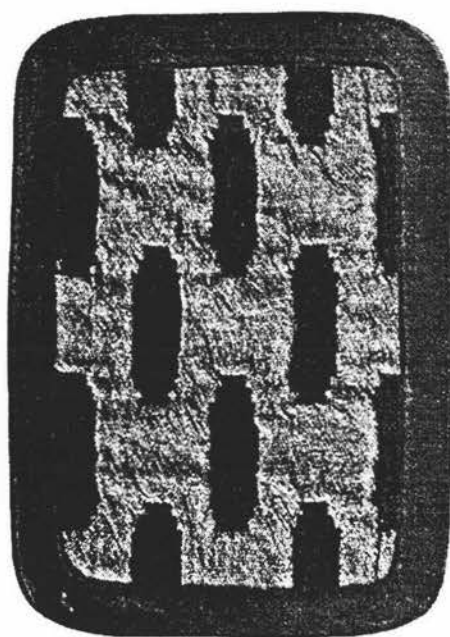
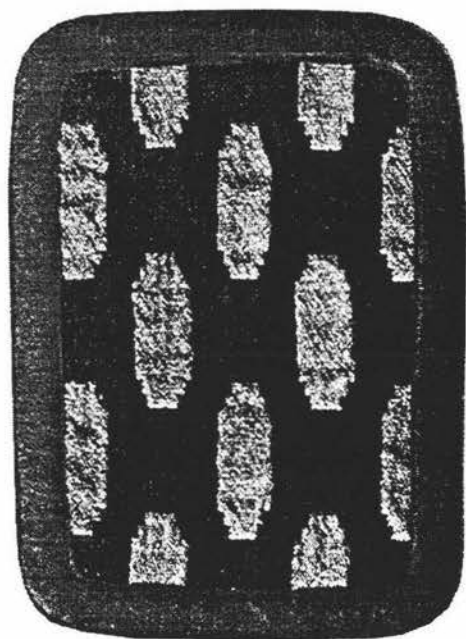




Sample 29

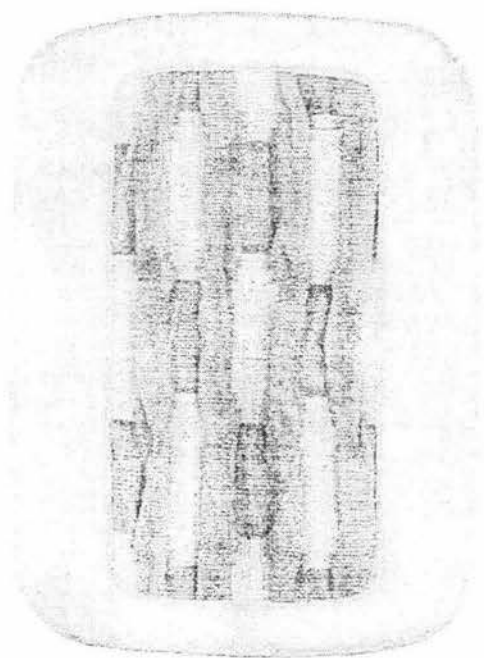


Sample 30

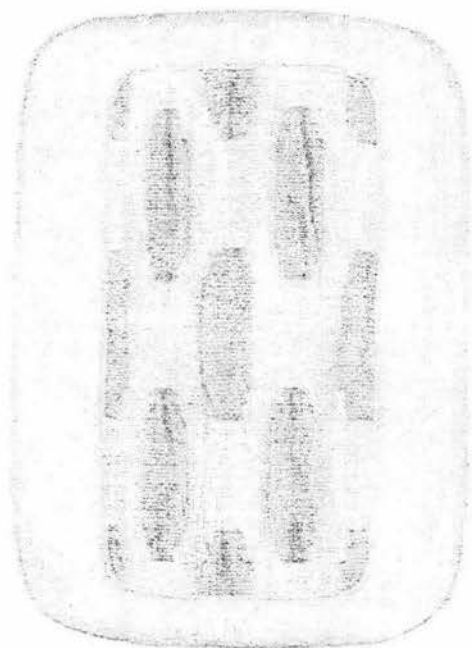


Sample 31

WARP 10

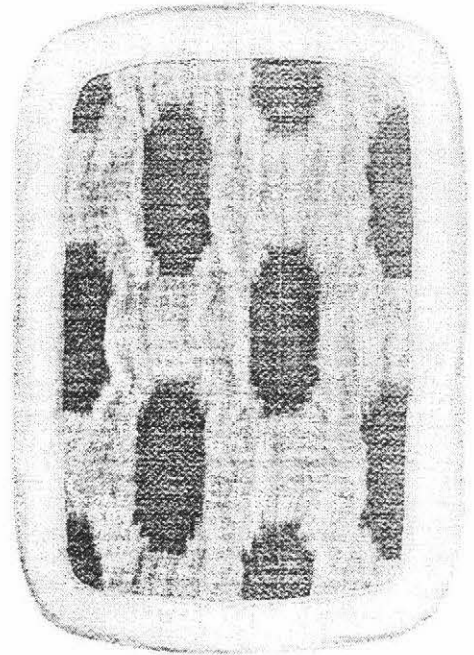
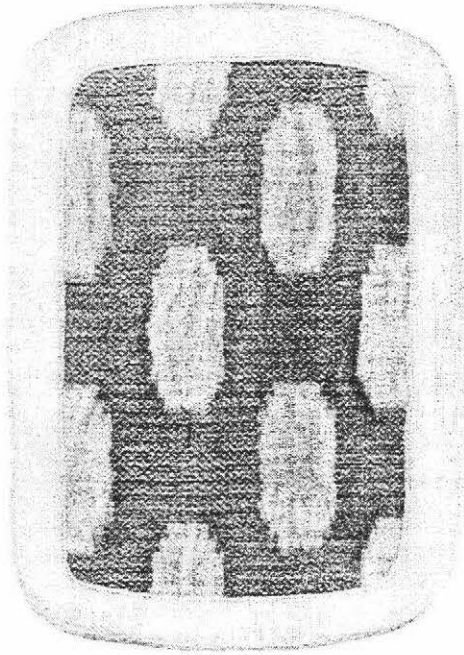


Sample 32

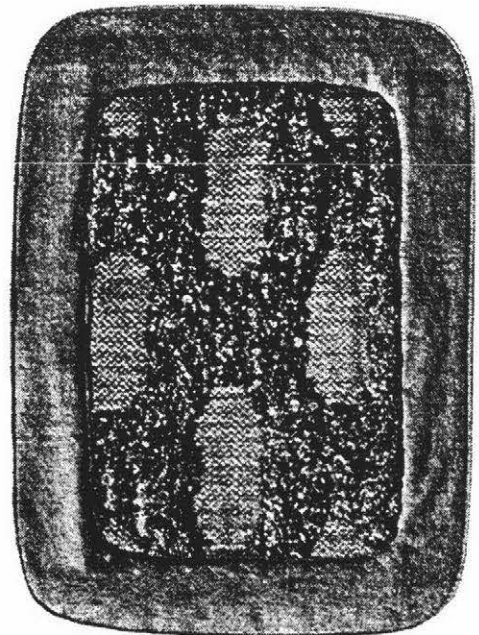
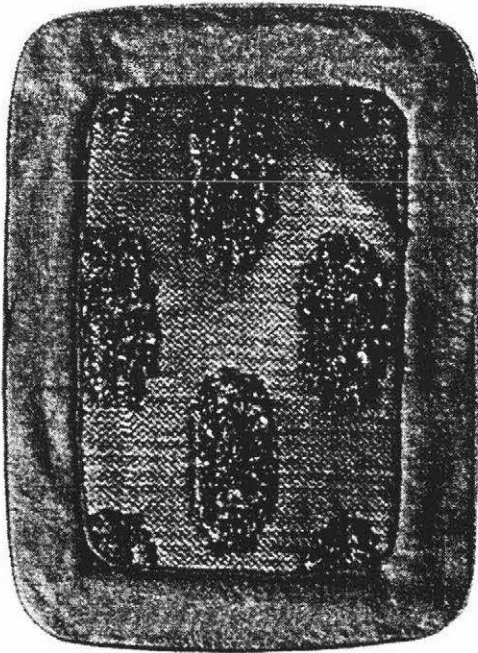


Sample 33

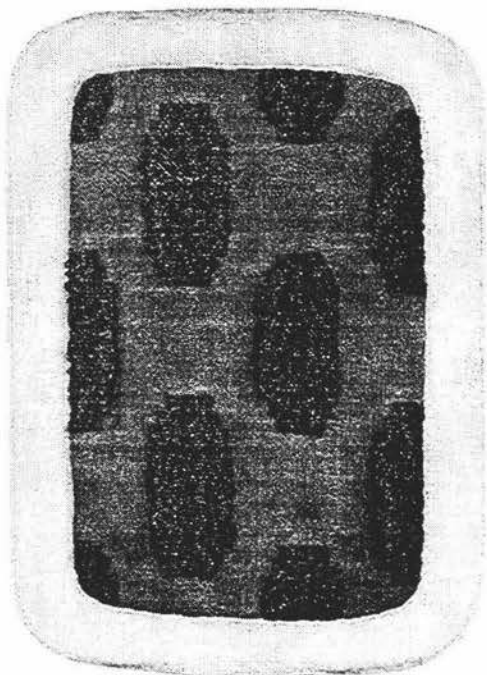




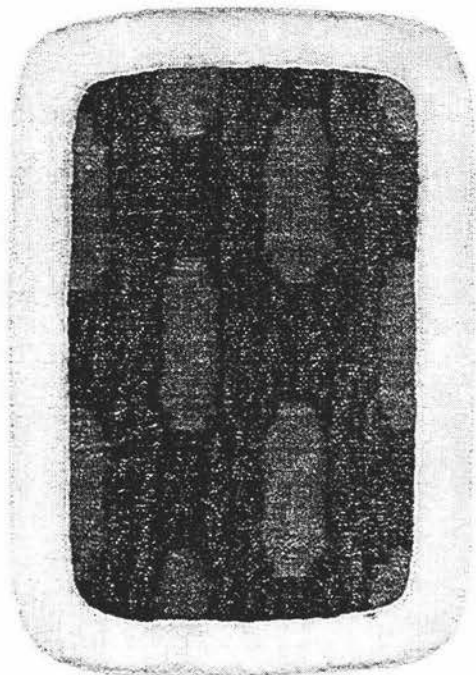
Sample 34



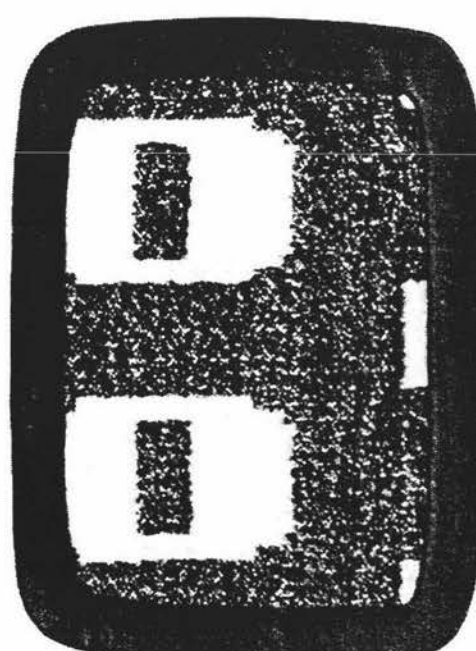
Sample 35



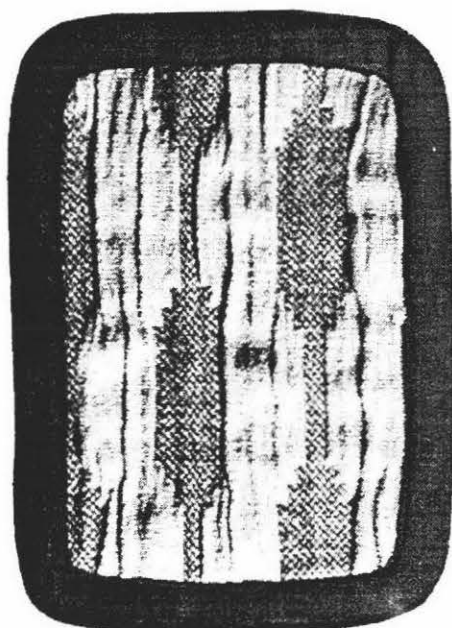
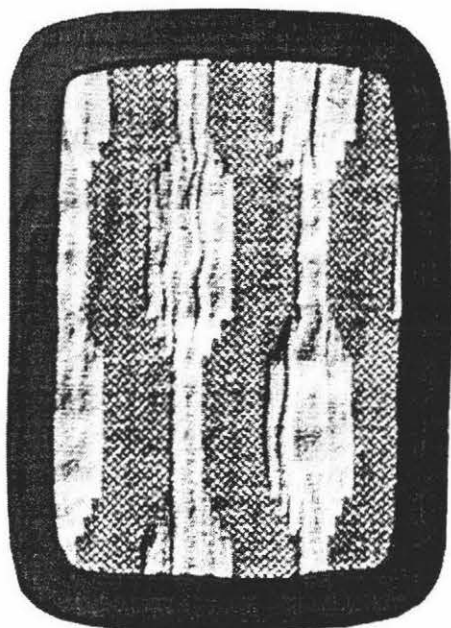
Sample 36



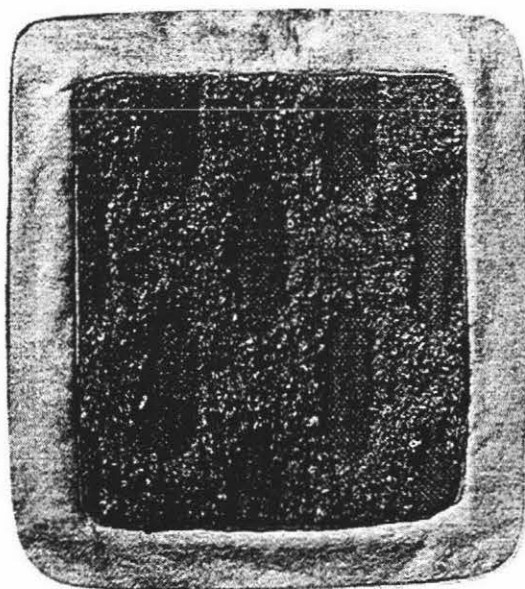
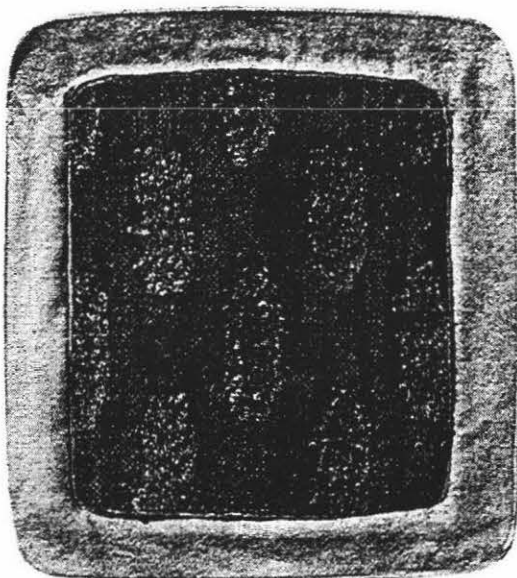
Sample 37



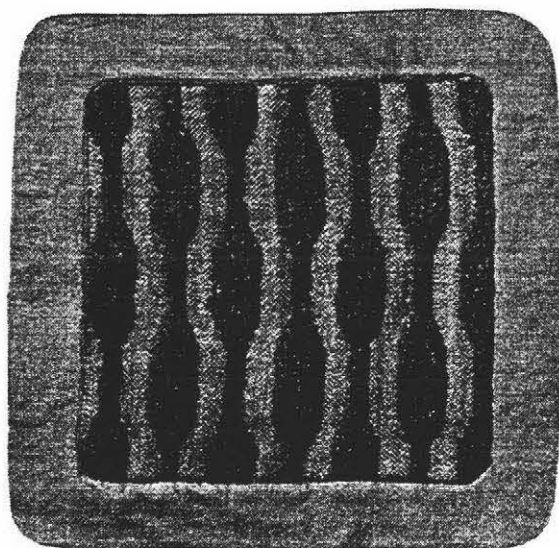
WARP 11



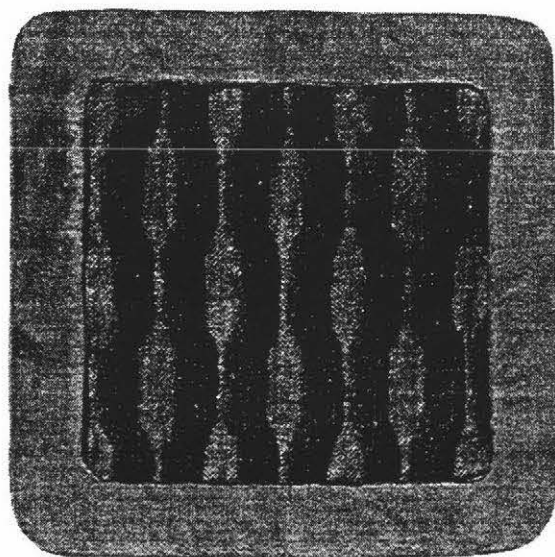
Sample 38

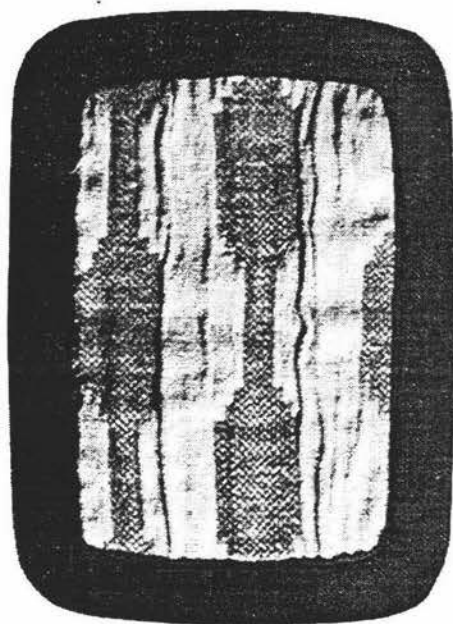
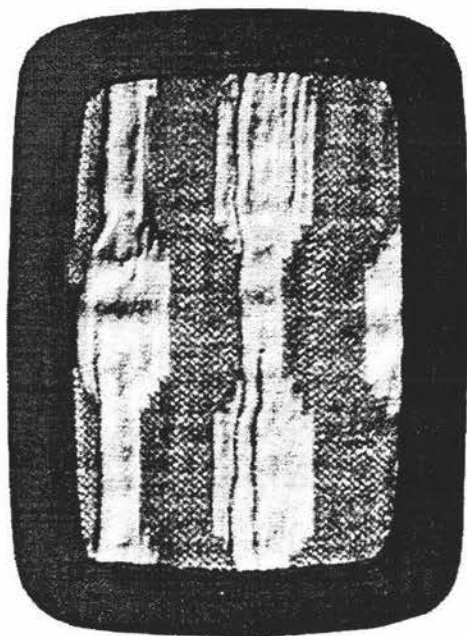


Sample 39
(34 x 38cm)

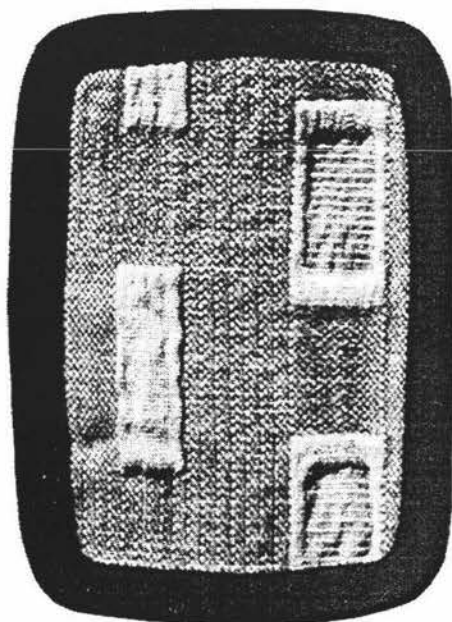
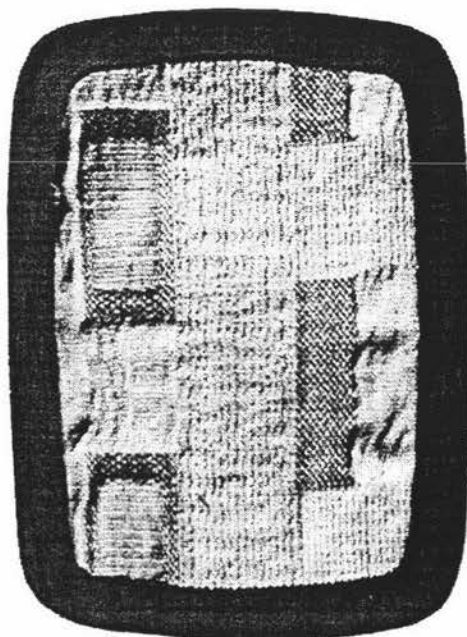


Sample 40
(48 x 46.5cm)



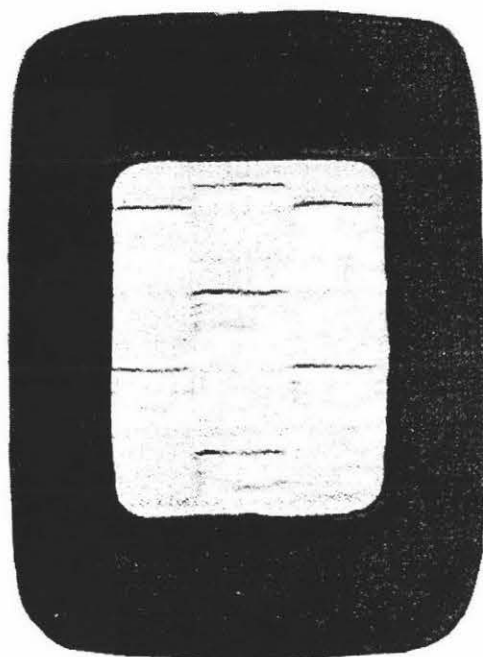
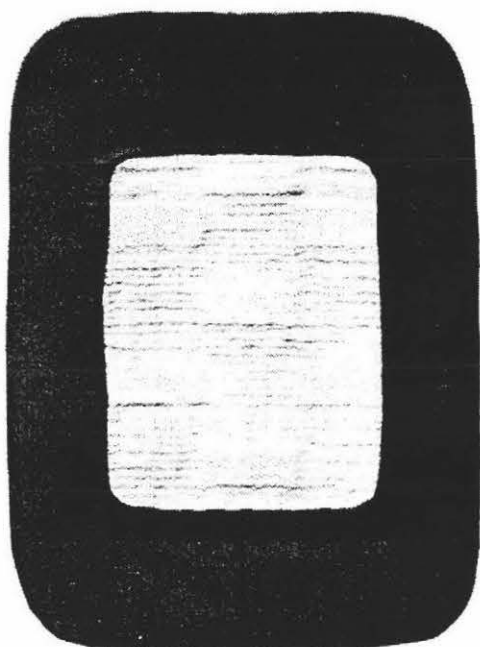


Sample 41

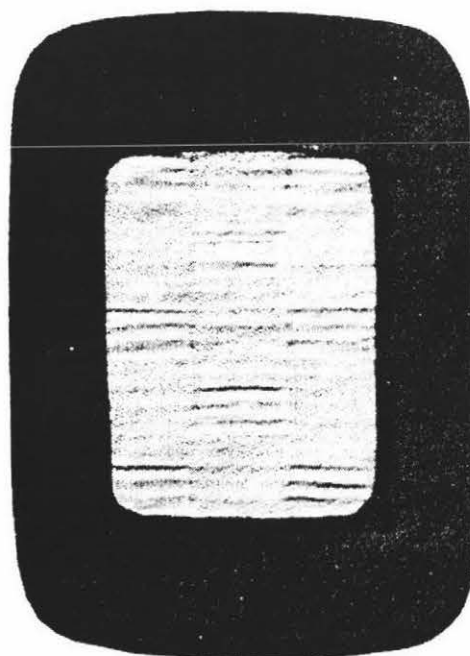
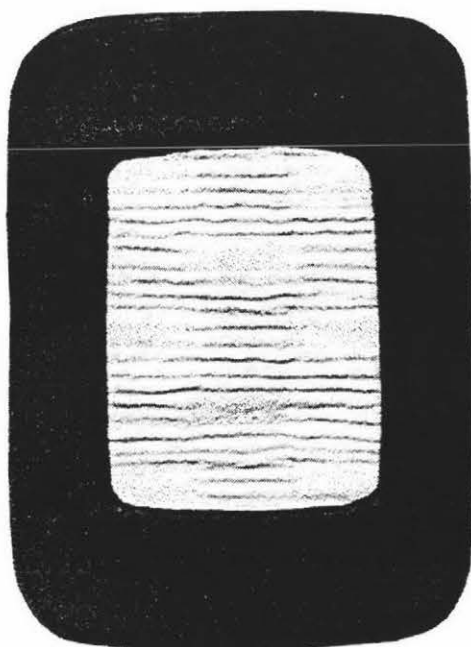


Sample 42

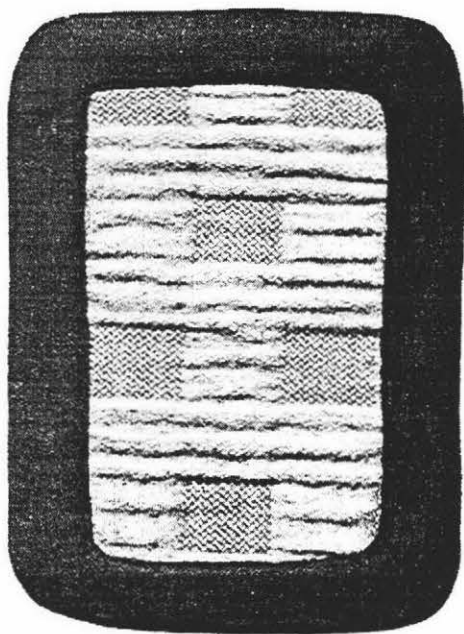
WARP 12



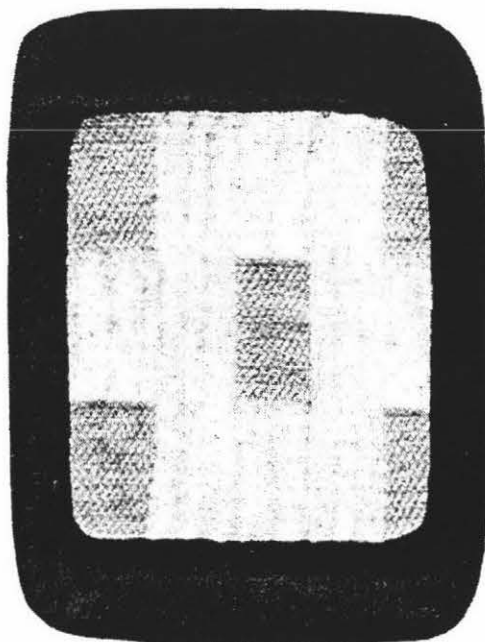
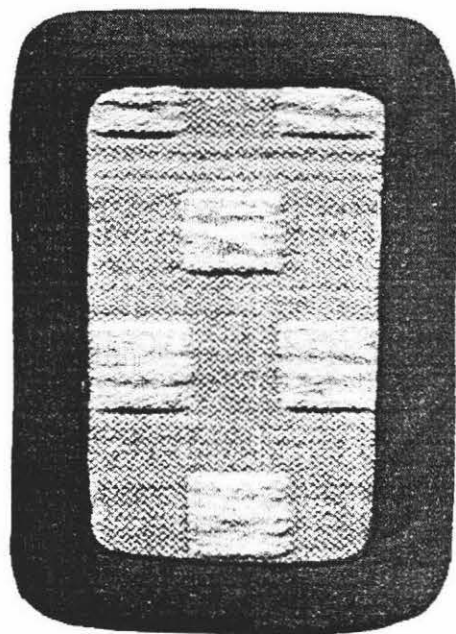
Sample 43



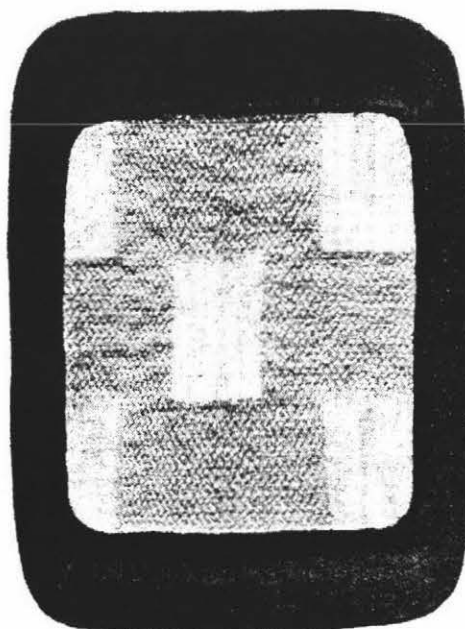
Sample 44

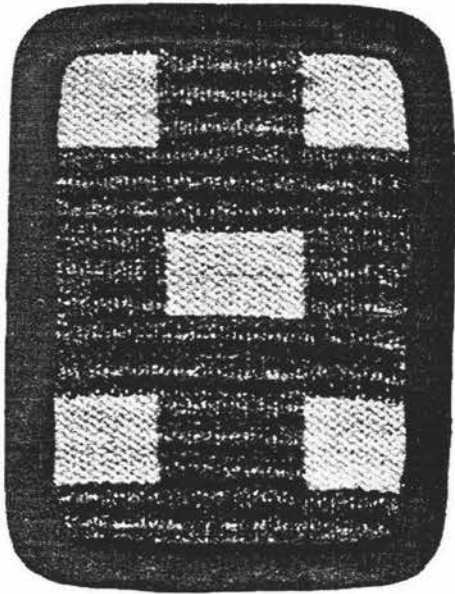


Sample 45

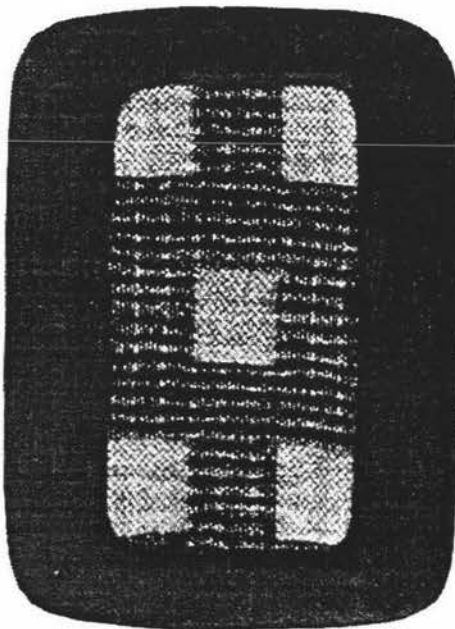
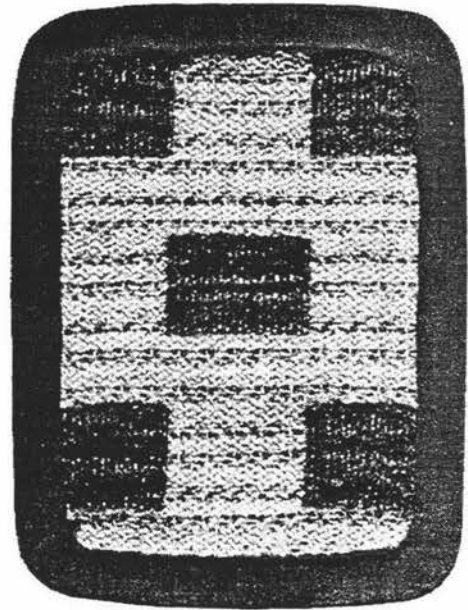


Sample 46

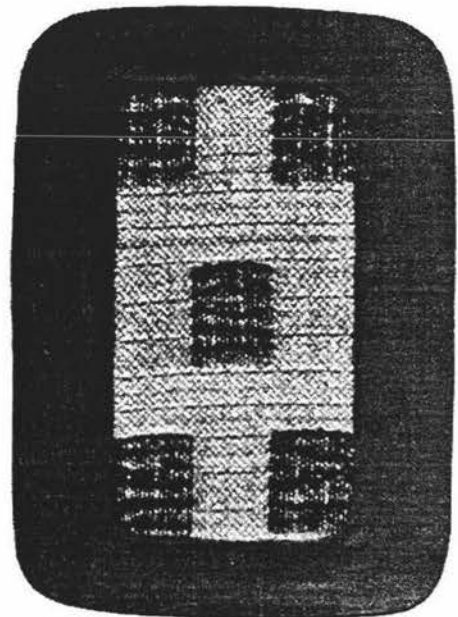


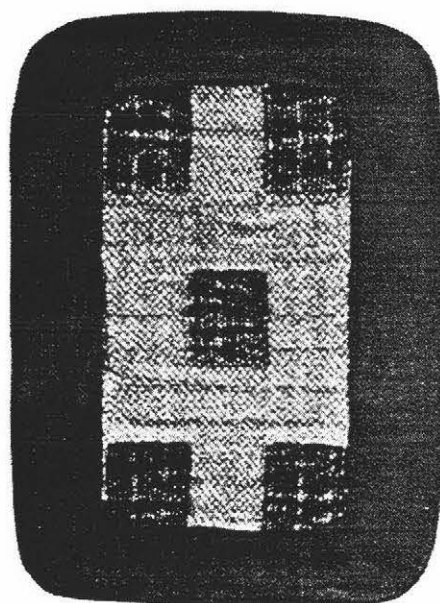
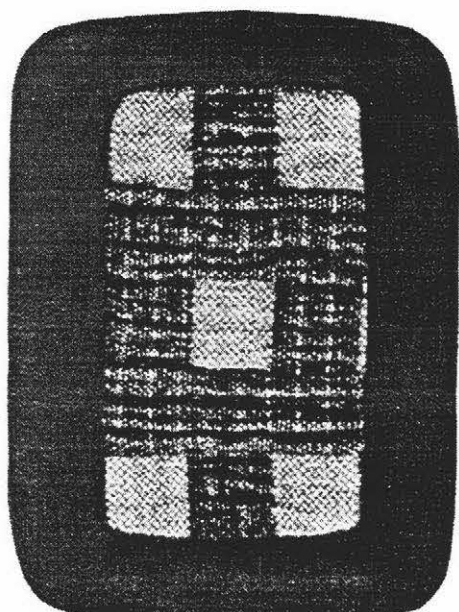


Sample 47



Sample 48





Sample 49

APPENDIX 3

SUMMARY OF INTERVIEW SHEET

SUMMARY OF INTERVIEW SHEET

NAME AND BUSINESS:

COMMENTS: (please write on back if you run out of room)

Aesthetic of samples (see letters under images on previous page if you wish to refer to a particular sample)

Product suitable for store? YES/NO/MAYBE Comments:

Characteristics of store's clientele, e.g. gender, age group, lower/middle/high income bracket; student/professional/tourist/other

Pricing - what price range would clientele be prepared to pay for a throw?

Importance of 'New Zealand made' and natural fibre to clientele

Any other comments

I agree that the information contained on this sheet is accurate.

Signature_____

THANK YOU. PLEASE ALSO COMPLETE CONSENT FORM OVER.

APPENDIX 4

LETTER OF EXPLANATION TO RETAILERS

6 July 2001

Dear

RE: THROW RUG MARKET RESEARCH

Thank you for recently allowing me to interview you with respect to my Masters project, which as you may remember involved the fabric samples at the foot of this page, intended for use as throw rugs.

As already mentioned, the interview with you formed part of a survey intended to gain knowledge of where this 'product' would fit in the marketplace. 16 retail outlets including your own, have been interviewed in this manner.

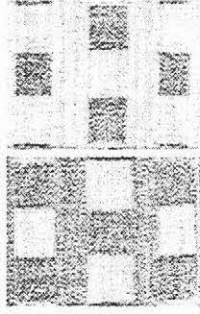
Before including the information discussed with you in my thesis, I would like to gain your approval for its inclusion, and also check that I have recorded the details correctly. With regards to confidentiality, it is my intention that any of the information quoted will be without reference to your own name or that of your business.

Could I please therefore ask you to do the following:

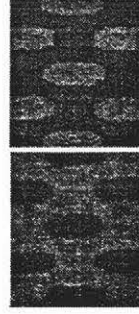
1. Read the attached Summary of Interview sheet and correct any details as required. Please delete anything you do not wish included in the thesis. If you are able to fill in any blank areas that we may not have covered, this would be much appreciated.
2. Please sign and return the enclosed Consent Form to indicate that you are happy to have the interview material included in the thesis.
3. Please return Summary of Interview sheet and Consent Form in the enclosed reply paid envelope.



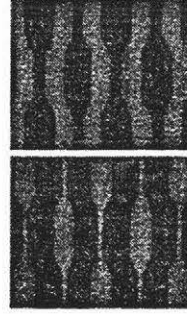
(pink/beige)
a



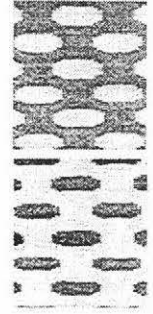
(pink/beige)
b



(brown)
c



(brown)
d



(pink/beige)
e

(Front and reverse of each fabric shown)

As part of Massey's protocol, I am required to give you the name of my Research Supervisor, in case you wish to contact her for any reason.

Her name is
Amanda Bill
Textile Design Lecturer
Phone no. 801-2794, ext 6995.

At the end of my study, a copy of the thesis will be held in the Massey University Wellington Campus Library.

Should you wish for a copy of the summary of this market investigation when it is concluded please let me know. I can be contacted on email at:

Theresa.Hollingsworth.1@uni.massey.ac.nz

or

Phone no. 389-6459

THANK YOU for taking the time to read and complete the attached sheets.

Regards

Therese Hollingsworth
Masters of Design student
Massey University
PO Box 756
Wellington

APPENDIX 5

CONSENT SHEET

CONSENT SHEET

I agree to the information on the Summary of Interview sheet being included in the Masters of Design thesis being undertaken by Therese Hollingsworth through Massey University.

I understand that the names of both myself and the retail store will not be included in the thesis.

Signed:

Name:

Date:

Please return both this Consent Form and the Summary of Interview Sheet in the enclosed reply paid envelope.

THANK YOU FOR YOUR TIME AND THE INFORMATION YOU HAVE PROVIDED.

APPENDIX 6

RESULTS OF RETAIL INTERVIEWS

Participants were asked to comment on the following areas.

1. Aesthetic Comments were sought on the body of work as a whole and on any particular samples they felt strongly, either positively or negatively, about.
2. Product suitable for store.
3. Characteristics of store's customer.
4. Pricing. What would customer be prepared to pay for a throw?
5. New Zealand made and natural fibre. Were these important issues for customer?
6. Any other comments.

Where an issue was not discussed or an answer given, this is indicated below with "No comment".

PARTICIPANT 1

1. Favourable.
2. Yes.
3. Primarily female, 28-60, middle-upper.
4. Not too problematic up to around \$700. JAB has a \$2500 product which we would not stock.
5. Being NZ made and natural fibre alone will not sell the product - it has to look good as well!
6. No comment.

PARTICIPANT 2

1. Favourable - curved lines are in, according to Australian conference just attended.
2. Yes, however, throws do not move very fast - suggest looking at international markets as well. Stock 'Pelage' throws and mohair throws.
3. House owners (include apartments) in particular those people in middle to upper incomes (\$50,000+). Females and males but with a steer towards females who are more responsible for doing homework prior to purchasing. Aged 30-late 40s generally however some purchases fall outside this age group.
4. \$100-\$500.
5. Not important - the look is the thing.
6. These could double as blankets for the bed as well.

PARTICIPANT 3

1. Favourable, but not refined, elegant enough for store. Too much of a point-of-difference. Need to be understated.
2. No for above reasons.
3. No stereotype.
4. \$450 maximum for 'Pelage' throw - (possum pompom) but would sell only 6 per year. Lower cost throws such as chenille for around \$100 sell well.
5. Not particularly important.
6. Classic neutrals such as black and beige sell well. Belgian throws at 150x150cm a popular size.

PARTICIPANT 4

1. Favourable.
2. Maybe. Not big on textile product, apart from apparel. Have stocked mohair rugs in the past, but did not have much of a design difference. Recommend a range of product, e.g. cushions - easier to display and customer to read.
3. No comment.
4. No comment.
5. Not important - style that counts.
6. Suggested Macy at Home, Republic and Empire - Sydney.

PARTICIPANT 5

1. Favourable, but a high level of quality and standard of presentation would be required.
2. Maybe.
3. High end of market. Classic, sophisticated and professional.
4. Not a problem if product right. Zimmer and Rhodes mohair rug, for example, sold for \$600.
5. No comment.
6. No comment.

PARTICIPANT 6

1. Favourable, although colour very important.
2. Yes, offering a range of product advisable.
3. Varies - could be a group of young people uniting to buy one thing OR otherwise clientele would have good disposable income.
4. Not a problem for a unique item.
5. NZ made ONLY - store's point-of-difference.
6. Really liked the samples a lot! Lots of potential - here and overseas. Good luck!

PARTICIPANT 7

1. Liked, particularly 'b' - has an 80s retro feel.
2. No. Do not have textile product apart from Tapa cloth, which interests tourist clientele, as "they haven't seen anything like it before". Tried pillow slips at one time, but they did not sell.
3. No comment.
4. No comment.
5. Not important.
6. No comment.

PARTICIPANT 8

1. Favourable, although colour would be an important consideration.
2. Yes.
3. No comment.
4. No comment.
5. No comment.
6. No comment.

PARTICIPANT 9

1. Favourable.
2. Yes.
3. No typical customer! Although middle to upper end of market.
4. Above \$200 can be difficult but not unobtainable to \$00. Would not buy product outright, but would take on as S.O.R.
5. Made in NZ can have extra appeal.
6. No comment.

PARTICIPANT 10

1. Favourable.
2. Yes. Colour important – attracted to colour which fits into store's own colour theme.
3. Very few males; mostly female.
 - 20-30 yr olds who will buy the trendy throw-away item.
 - 30-40 yr olds interested in issues and products with a meaningful story.
4. No comment.
5. Older age bracket more interested in NZ made.
6. Packaging, brand and story very important.

PARTICIPANT 11

1. Like b, c, d. Not drawn to the pink. The handmade/ethnic/natural product is very big and will be for quite some time.
2. No. Not well set up to sell large soft items, such as throws/bedlinen, cushions etc. – so unlikely that we would take on.
3. Many customers are buying gifts, therefore often value for money is more important than beautiful quality.
4. No comment.
5. Yes we specialise in NZ made and love hand-made, natural products and yes that is an important consideration for those customers who can afford it.
6. Other places that could be suitable:
Texan Art Schools, Ak/Hmtn; Republic, Ponsonby, Ak; Weta, Coromandel; Quinns, Christchurch; Kina, New Plymouth; Avid, Wgtn, Masterworks, Ponsonby, Ak; Macy's, Ponsonby, Ak; Redcurrent, Ak/Chch.

PARTICIPANT 12

1. Did not view as do not stock textile product, apart from Dilana rugs.
2. No.
3. Male/female 50/50. Middle/high income professional.
4. No comment.
5. No comment.
6. No comment.

PARTICIPANT 13

1. Favourable – likes subtlety, handle and weight of ‘c’, rather than contrasting colours. Colour a big consideration. In the higher price range colour should be more classic than trendy. Suggest a charcoal and neutrals with ‘dirty’ colours, and a colour highlight which could be added/subtracted per season.
2. Yes. Suggest a product range, e.g. cushions, which are a good lower-cost item.
3. Mid-higher incomes. 20-55 male and female. Home focus.
4. Throws under \$200 sell – higher would move more slowly.
5. Not particularly important in accessory items.
6. No comment.

PARTICIPANT 14

1. We love the tactile and cosy look of ‘c’. It has interesting texture. Great reversible pattern/design. Staff including me, would love to place an order for a throw in dark charcoal.
2. ‘d’ too ethnic – contrasting colours distracting. Maybe it would work if made in one colour without contrasting colours. Others also would need to be one colour instead of a contrast. Look of store is generally simple and contemporary and our customers would want a throw as an investment item.
3. Aged between 28-60.
Females generally or gift giving men!
The look for a point of difference.
Quality.
Something special.
4. No comment.
5. Not generally, but often on throws/blankets customers are thrilled if they are NZ made.
6. No comment.

PARTICIPANT 15 (telephone interview)

1. Did not view samples as they do not stock large objects – not the room.
2. No. Would only be interested in product that evokes NZ in a distinctive way to appeal to tourist market.
3. Tourist.
4. No comment.
5. No comment.
6. Suggested Kirkcaldies. Knee-rugs and scarves acceptable product for tourists.

APPENDIX 7

BUSINESS CASE STUDY SURVEY FORM

Therese Hollingsworth
Masters of Design Market Survey

NAME AND POSITION: _____

BUSINESS

NAME: _____

For purposes of helping to establish the size of business, could you please indicate the number of persons employed:

Could you please describe how you determined your market segment/s. For example, did you take into account demographics/psychographics/geographic or other such statistical information relating to consumer characteristics?

Do you target your product to more than one market segment, and if so does this require separate brand and promotional activities? Please comment.

How did you determine what an appropriate promotional programme would be for your product?

Could you please name the various forms of advertising you use, i.e. type of media – TV, radio, magazine/journal, internet, brochure, etc.

What does your business brand name communicate to your customer?

Please rate the following product values in order of the importance your customers, both in New Zealand and internationally, place on your product.

Place '1' alongside the most important consideration, through to '11' being the least important consideration.

	NEW ZEALAND	INTERNATIONAL
--	-------------	---------------

Please specify product brand name:		
Type of product:		

	Rate in order from 1-11	Rate in order from 1-11
Value for money		
Styling/Aesthetic		
Colour		
Uniqueness		
Quality		
NZ made		

Natural Fibre		
Breadth/Depth of range		
Durability		
Comfort		
Technical innovation		

Could you please give an indication of % of sales by country groupings:

_____ % New Zealand

_____ % Australia

_____ % Rest-of-world (if you are willing please name countries)

Please explain influences, if any, which have modified your original product idea to what/where it is now.

THANK YOU FOR TAKING THE TIME TO COMPLETE THIS. COULD YOU PLEASE ALSO COMPLETE THE CONSENT FORM OVER.

APPENDIX 8

LETTER OF EXPLANATION TO BUSINESSES

21 July 2001

Hugh Bannerman
Dilana Rugs Limited
PO Box 2927
CHRISTCHURCH

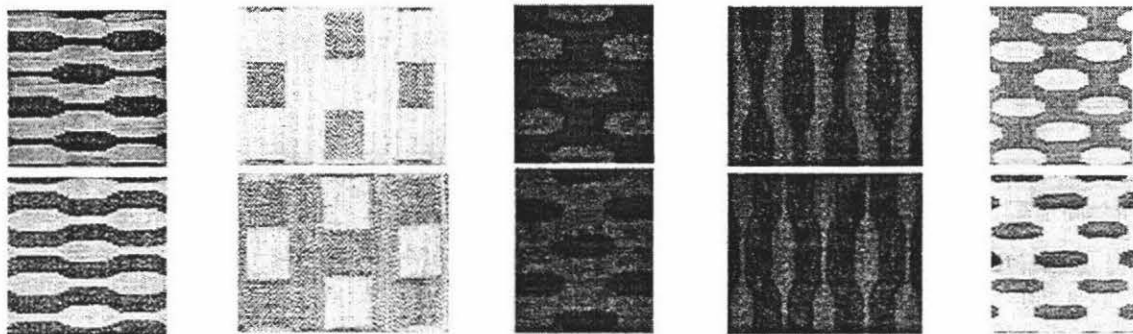
Dear Hugh

RE: MARKET SURVEY

Many thanks for having a look at this.

As explained I am a student with Massey in Wellington, undertaking a Masters of Design programme.

My research consists of two parts - one in which the following fabric prototypes have been developed from New Zealand wool with the intention that they be part of a range of interior product, e.g. throw-rugs/cushions. The other part of this research is concerned with looking at the marketing of New Zealand wool product.



The attached questionnaire, which is being sent to businesses such as your own who are manufacturing and marketing textile product, is intended to provide an overview and give an indication of any important considerations involved with the marketing NZ wool product.

Thank you for sharing your expertise and giving your time to this.

Before including any of the information you provide in my thesis, would you please also indicate your consent for me to do so by signing and returning the enclosed Consent form. Please also indicate whether it will be in order for me to use your name and that of Dilana's. A copy of the thesis will eventually be kept in the Massey University Wellington campus library.

As part of Massey's protocol, I am required to give you the name of my Research Supervisor, in case you wish to contact her for any reason.

Her name is

Amanda Bill
Textile Design Lecturer
Phone no. 0061 4 801-2794, ext 6995.

THANK YOU again! It would be appreciated if you could return this by 31 July. A reply paid envelope is enclosed for your use.

Regards

Therese Hollingsworth
Masters of Design student
Massey University
PO Box 756
Wellington

APPENDIX 9

CONSENT SHEET

CONSENT SHEET

I agree to the information on the Summary of Interview sheet being included in the Masters of Design thesis being undertaken by Therese Hollingsworth through Massey University.

DELETE ONE:

I do not wish any reference to be made to my name and that of the business in the thesis.

I am happy to allow my name and that of the business to be included in the thesis.

Signed:

Name:

Date:

Please return both this Consent Form and the Market Survey in the enclosed reply paid envelope.

THANK YOU FOR YOUR TIME AND THE INFORMATION YOU HAVE PROVIDED

APPENDIX 10

RESPONDENTS' COMPLETED SURVEY FORMS

Theresa Hollingsworth
Masters of Design Market Survey

Page 1 of 3

NAME AND POSITION Deborah Clinton-Baker

BUSINESS NAME C. B. Collections Ltd

For purposes of helping to establish the size of business, could you please indicate the number of persons employed.

2 - casual help
at busy times

Could you please describe how you determined your market segment/s. For example, did you take into account demographics/psychographics/geographic or other such statistical information relating to consumer characteristics?

The main factor that determined our
market - (very gift items, 100% New
Zealand made & really broad appeal -
any age group & both genders.

Do you target your product to more than one market segment, and if so does this require separate brand and promotional activities? Please comment.

C.B. is a boutique. I target the retail
wholesalers/gift tourist/breeding market
also target the corporate
gifting - business, mainly Kiwi, then

How do you determine what an appropriate promotional programme would be for your product?

Through a Marketing promotion
at minimal cost. Personal reporting
& calls & letters.

Could you please name the various forms of advertising you use, i.e. type of media - TV, radio, magazine/journal, internet, brochure, etc.

Quite limited, a web site, brochures,
whether by letters to clients & personal
calls & visits where appropriate -
possible - very much a hands on
personal experience for my customers
with me as owner/designer for the
company. Lots of personal contact.

What does your business brand name communicate to your customer?

I intended my brand name to not imply "retailer" - I called the company "C. Blackmore" - aiming to be a bit, hipster + vintage, the idea to have products from various sewing vendors, an umbrella name.

Please rate the following product values in order of the importance your customers, both in New Zealand and internationally, place on your product.

Place "1" alongside the most important consideration, through to "11" being the least important consideration.

	NEW ZEALAND	INTERNATIONAL
Please specify product brand name:	CR Collections	same
Type of product:	Modern Thrift + accessories	same
	Rate in order from 1-11	Rate in order from 1-11
Value for money	8	8
Styling/Aesthetic	1	1
Colour	1	1
Uniqueness	3	3
Quality	1	1
NZ made	1	1
Natural Fibre	1	1
Breadth/Depth of range	1-2	1-2
Durability	5	5
Comfort	2	2
Technical innovation	6	6

Could you please give an indication of % of sales by country groupings:

90 % New Zealand

10 % Australia

10 % Rest-of-world (if you are willing please name countries):

Italy, USA, Scotland, Ireland,
Sth Africa, Hong Kong

Please explain influences, if any, which have modified your original product
idea to what/where it is now.

My leading edge in the marketplace comes
from being at the cutting edge of "colour" -
developing colour + design trends
often 2 seasons ahead of the rest of
my standard colour range of
20.

THANK YOU FOR TAKING THE TIME TO COMPLETE THIS. COULD
YOU PLEASE ALSO COMPLETE THE CONSENT FORM OVER.

The main modification has
been that plain - as opposed to
checked + tartan have proved to
be more popular.

NAME AND POSITION: Hugh Bannerman
Director

BUSINESS NAME: Dalton Page Ltd.

For purposes of helping to establish the size of business, could you please indicate the number of persons employed? 8 full time staff

Could you please describe how you determined your market segment/s. For example, did you take into account demographics/psychographics/ geographic or other such statistical information relating to consumer characteristics?

- Above average earnings earners
- 25 to 40 years old tertiary education
- Single, married, and
- Education by counting by city.

Do you target your product to more than one market segment, and if so does this require separate brand and promotional activities? Please comment.

We 2 main target segments are the design professionals and the end user. We use the one brand for both segments.

How did you determine what an appropriate promotional programme would be for your product?

Relied on editorial promotion and word of mouth. The top end of the NZ market is the small firm long ago in promotion programme to be cost effective while off shore adverts are too expensive the promote our

Could you please name the various forms of advertising you use, i.e. type of media - TV, radio, magazine/journal, internet, brochure, etc.

- In order of expenditure
- 1) internet
- 2) Magazine
- 3) Brochure

What does your business brand name communicate to your customer?

Design, wear, quality, Art, NZ

Please rate the following product values in order of the importance your customers, both in New Zealand and internationally, place on your product.

Place '1' alongside the most important consideration, through to '11' being the least important consideration.

	NEW ZEALAND	INTERNATIONAL
Please specify product brand name:	<i>Distane Bag</i>	
Type of product:	<i>Signature Limited Edition bag</i>	
	Rate in order from 1-11	Rate in order from 1-11
Value for money	2	3
Styling/Aesthetic	1	1
Colour	3	3
Uniqueness	4	3
Quality	3	3
NZ made	5	4
Natural Fibre	3	4
Breadth/Depth of range	3 4	3
Durability	5	5
Comfort	7	7
Technical innovation	8	8

Could you please give an indication of % of sales by country groupings?

20% New Zealand

1% Australia

5% Rest-of-world (if you are willing please name countries)

Europe + USA

Please explain influences, if any, which have modified your original product idea to what/where it is now.

Challenge for the last 15 years

THANK YOU FOR TAKING THE TIME TO COMPLETE THIS. COULD
YOU PLEASE ALSO COMPLETE THE CONSENT FORM OVER.

NAME AND POSITION:

Termy Mann

BUSINESS NAME:

Lebrant

For purposes of helping to establish the size of business, could you please indicate the number of persons employed?

20

Could you please describe how you determined your market segment/s. For example, did you take into account demographic/psychographic/geographic or other such statistical information relating to consumer characteristics?

Identified a ^{subset} gap in the market
and then was the thought about who
could buy the new product we wanted

Do you target your product to more than one market segment, and if so does this require separate brand and promotional activities? Please comment.

No, only 1 segment per brand.

How did you determine what an appropriate promotional program would be for your product?

Think about who is buying
the product & how to
reach them.

Could you please name the various forms of advertising you use, i.e. type of media - TV, radio, magazine/journal, internet, brochure, etc.

Magazine
internet

What does your business brand name communicate to your customer?

You tell me

Please rate the following product values in order of the importance your customers, both in New Zealand and internationally, place on your product.

Place '1' alongside the most important consideration, through to '11' being the least important consideration.

	NEW ZEALAND	INTERNATIONAL
--	-------------	---------------

Please specify product
brand name:

Icebreak Performance

Type of product:

Mens warm weather clothing

	Rate in order from 1-11	Rate in order from 1-11
Value for money	<i>9</i>	<i>—</i>
Styling/Aesthetic	<i>3</i>	<i>—</i> <i>Score</i>
Colour	<i>5</i>	<i>—</i>
Uniqueness	<i>1</i>	<i>—</i>
Quality	<i>2</i>	<i>—</i>
NZ made	<i>8</i>	<i>—</i>
Natural Fibre	<i>4</i>	<i>—</i>
Breadth/Depth of range	<i>10</i>	<i>—</i>
Durability	<i>11</i>	<i>—</i>
Comfort	<i>6</i>	<i>—</i>
Technical innovation	<i>7</i>	<i>—</i>

Could you please give an indication of % of sales by country groupings:

50 % New Zealand

10 % Australia

30 % Rest-of-world (if you are willing please name countries)

Europe, Japan, Canada

Please explain influences, if any, which have modified your original product
idea to what/where it is now.

We innovate & grow the product
each year.

THANK YOU FOR TAKING THE TIME TO COMPLETE THIS. COULD
YOU PLEASE ALSO COMPLETE THE CONSENT FORM OVER.

APPENDIX 11

NEW ZEALAND WOOL BOARD: HISTORICAL OVERVIEW AS REFLECTED IN PROMOTIONAL ACTIVITIES.

LIST OF FIGURES

Figure 1.1 [model]	New Zealand Wool Board. <i>New Zealand Wool Board Structure.</i>	XX
Figure 1.2 [report]	New Zealand Wool Board. <i>IWS "Pure New Wool" Trademark.</i>	XXII
Figure 1.3 [graph]	New Zealand Wool Board. <i>Sources of IWS Income Forecast for 1991/92.</i>	XXII
Figure 1.4 [report]	New Zealand Wool Board. <i>IWS Advertisement for "Cool Wools"</i>	XXII
Figure 1.5 [report]	New Zealand Wool Board. <i>IWS Advertisement for "Cool Wool".</i>	XXIII
Figure 1.6 [report]	New Zealand Wool Board. <i>"IWS Decorating Package" Advertisement.</i>	XXIII
Figure 1.7 [report]	New Zealand Wool Board. <i>Jointly funded Wool Board/Bremworth Cavalier Advertisement</i>	XXIV
Figure 1.8 [report]	New Zealand Wool Board. <i>"Let's Get Real" Swing-tag.</i>	XXIV
Figure 1.9 [report]	New Zealand Wool Board. <i>"Let's Get Real" campaign emphasising the "Natural Qualities of Wool".</i>	XXV
Figure 1.10 [report]	New Zealand Wool Board. <i>Trademark and Slogan.</i>	XXVI
Figure 1.11 [report]	New Zealand Wool Board. <i>Product promotion for Fernmark.</i>	XXVII
Figure 1.12 [report]	New Zealand Wool Board. <i>Marketing wool to Australasia.</i>	XXVIII

Figure 1.13 [report]	New Zealand Wool Board. <i>Fernmark carpet advertisement: Iconic sportsperson.</i>	XXVII
Figure 1.14 [report]	New Zealand Wool Board. <i>The "designed" environment. Woolscape Advertisements.</i>	XXIX
Figure 1.15 [report]	New Zealand Wool Board. <i>Interior of Wool Centre.</i>	XXIX
Figure 1.16 [report]	New Zealand Wool Board. <i>Wools of New Zealand Internet Title Page.</i>	XXX
Figure 1.17 [report]	New Zealand Wool Board. <i>Heroic Sheep.</i>	XXXII
Figure 1.18 [report]	New Zealand Wool Board. <i>Merino "Loro Piana" promotion.</i>	XXXIV
Figure 1.19 [report]	New Zealand Wool Board. <i>Fernmark sports sponsorship.</i>	XXXV
Figure 1.20 [report]	New Zealand Wool Board. <i>Chatham Island millennium promotion.</i>	XXXVI

A GLOBAL PERSPECTIVE

Currently New Zealand is the second largest wool producer and exporter of wool in the world. It produces about 200,000 tonnes of clean wool annually from a flock of 46 million sheep.

Annual wool production was recorded for 2000 at around 185 million kilograms, down from 280 million kilograms produced during the 1980s. The great bulk of the wool (135 million kilograms) was strong cross-bred, used mainly in carpets and rugs. New Zealand supplies 25% of the world total of strong crossbred wool, and is the largest supplier of carpet wool, with 60% of its clip being processed in the carpet industry.

All up, the industry contributes \$1 billion a year to the economy and accounts for about 4% of total export values. (Edlin:2000,15)

World wool production has been on a steady downward trend since 1990/91 with production in New Zealand decreasing at 3-6% per year.

NEW ZEALAND WOOL BOARD

The New Zealand Wool Board was established in 1944. The Wool Industry Act of 1977 conferred the Board with "powers to engage in activities which maximise the long-term returns to New Zealand woolgrowers". The scope of these activities has ranged from production, processing and distribution of raw product, through to promotion, research and development of end product applications.

Most of the Board's income has come from grower levies with the remainder from investments. This dependence on grower levies has seen dramatic fluctuations in the Board's overall revenue. Revenue for the year to 30 June 1997 for example, was recorded as 39.3 million, compared with 180 million for the year to 30 June 1988.

Recent years have seen wool production at its lowest level since the early 60s as world demand for wool has slumped due to external environmental conditions such as global economics, political changes and competition from man-made fibres. This depressed market situation has in turn put pressure on the Board to revise its operational strategies in an effort to maximise returns. Growers have demanded more accountability for their Wool Board levies, and 1995/96 saw the first Annual General meeting held, with growers able to vote to appoint two directors to the Wool Board.

In June 1994 the New Zealand Wool Board announced the new 'Fernmark' branding strategy for New Zealand wool to differentiate NZ wool in the global market. Wools of New Zealand was charged with managing the brand, with the intended results being to create increased demand and stability for the grower.

The existing process of selling wool, where anonymous growers sell to anonymous end users, is running counter to modern marketing methods.
(Annual Report 1996/97)



NEW ZEALAND
WOOL BOARD

Wools of New Zealand Ltd
Merino New Zealand Ltd
Wool Production Technology Ltd
WRONZ Inc

At the time of the re-grouping, Richard Janes, Chairman of WONZ, bluntly told growers that no one needed wool. He pointed out that it had to compete with a wide range of fibres – all of which invested heavily in R&D.

product development, branding and promotion. He went on to state that the main cause of low wool prices was

*the fact that 42% of New Zealand's clip was sold in developing markets such as China, India and Nepal. Commodity products in developing markets will not deliver higher wool prices. In contrast, more affluent, sophisticated markets can pay more for quality fibres and products. This is where Wools of New Zealand will concentrate its efforts – the top end of the market in Europe, the US and Australia.
(Anderson,D:1998)*

The four subsidiary business units charged to carry out specific tasks for the Board are as follows:

- Wools of New Zealand:
 - Responsible for building demand and marketing New Zealand crossbred and mid-micron wool internationally.
 - Provides links between growers and customers, with the goal being to increase the price for the grower.
 - Manages the branding programme.
- Merino New Zealand:
 - Dedicated to the marketing and promotion of merino fibre.
- Wool Production Technology Ltd (WoolPro)
 - Funds new wool production technologies and training programmes which provide growers with the tools to improve their production and quality.
 - Manages the Fernmark Quality Programme.
- The Wool Research Organisation of New Zealand Inc. (WRONZ)
 - Uses science and technology to develop new ways of using New Zealand wool and reduce processing costs.

A separate product development and styling unit called the Wools of New Zealand Design and Development Centre is based in Ilkley, Yorkshire, England. It carries out work on behalf of manufacturers, including marketing and design ideas and technical support.

IWS & WOOLMARK



Figure 1.2
IWS "Pure New
Wool"
Trademark

(Annual Report
91/92:18)

The International Wool Secretariat (IWS) based in London, was initially given responsibility to promote NZ wool. The Woolmark symbol, launched by the IWS in 1964 played a major role in the positioning of wool in international markets in response to the troubling rising tide of synthetics. Wool was marketed generically, with no reference to country of origin.

Each member country of the IWS contributed to a base budget in proportion to the average weight of its net wool exports over the previous five seasons. Base budget contributions were allocated to apparel, interior textiles and core (not product specific) activities, to form a budget matrix in proportions which reflected the main uses of each member country. (Annual Report:1990)

New Zealand's contribution in 1990 funded 92% of the IWS's interior textile budget and 4% of the apparel budget. Additional funds from New Zealand for expanded carpet promotion were made available to the IWS from July 1988. Carpet yarn, woven and tufted carpets, have been and remain a significant revenue earner for New Zealand.

In apparel fine merino wool was being marketed, as in the advertisement in Figure 1.4, under the name 'Cool Wools' to establish wool's credibility as a cool-to-wear fibre.

Figure 1.4
IWS advertisement for
Cool Wools
(Wool Report,1990:12)

Text reads:
COOL WOOLS
Excitingly seasonless.

*There's a new feeling in wool...
It's lighter weight, light hearted, cool,
comfortable, fun.*

*You can see it.
Now you just have to feel it.*



(b) 1991/92

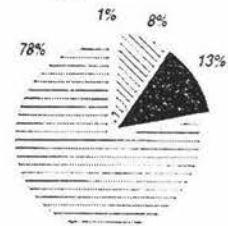


Figure 1.3
Sources of IWS
Income forecast for
1991/92.

(Annual Report
91/92:18)

Another Cool Wool promotion features romantic imagery of a couple on a warm summery day, dressed in summer clothing presumably made from 'Cool Wool'. See Figure 1.5. The environment and atmosphere highlight the efficiency and suitability of wool as a cool fibre. A teasing question is posed in the text. Does wool have the ability to magically take on the colour/qualities of its environment?

Figure 1.5
IWS advertisement for
Cool Wool
(Annual Report 1990:21)

Text reads:
Cool Wool.
Reflects all the colours of summer.
Could the sheep be a distant relative of the chameleon?

Cool Wool.
Love from Woolmark.



Meanwhile the IWS's "new carpet marketing strategy" for Western Europe in 1990 recognised "consumer based segmentation" and the need to "link the ideal product information and imagery to the personal values of the consumer". Four main segments were identified – the first of these to be addressed was named "decorating confidence", as in Figure 1.1.



Figure 1.6
"IWS decorating package"
advertisement.
(Wool Report:1990:10)

Research revealed an important group of consumers who had a strong interest in style and décor but who needed reassurance to overcome their nervousness over choice of colour and design – and concern over the financial cost of "getting it wrong".

IWS has taken this information and designed a decorating package designed to help consumers make the right decision.

The result of this consumer based segmentation "will allow IWS to compete in more than one segment without creating damaging overlaps in product image and sales."

The New Zealand Wool Board, was at the same time, responsible for the promotion of interior textiles in Australasia. Some of these diverse promotional activities included marketing assistance for a carpet advertising campaign by Bremworth Cavalier as seen in Figure 1.7; assistance for the launch of a hand-knitting yarn called "Wool Twist" by Wendy Wools (NZ); a programme called 'Operational Knit' to encourage school children to acquire hand knitting skills, and a service to "the trade" offering market research information and colour, styling and point-of-sale materials. (Annual Report:1990)

Despite the new marketing implementations, however, political events in China and the USSR, along with large production increases, especially in Australia, and a price upheaval forced by the Australian Government were blamed for the slump in demand and resultant lower wool prices in 1989/90.

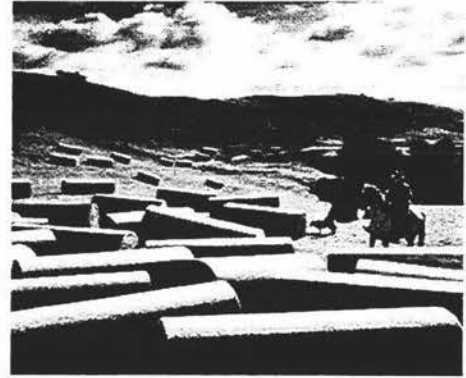


Figure 1.7
Jointly funded Wool
Board/Bremworth
Cavalier advertisement

(Annual Report 1990:17)

*Let's
get
real.*



Figure 1.8

"Let's get real"
swing-tag.

(Annual Report:
1993/94:16)

As part of the Board's stated long-term strategy to "build international consumer preference for New Zealand wools through a mix of products and markets which deliver price premiums", it was decided to increase New Zealand's total IWS contribution by 35% to \$89.6 million in 1991. 76% of this was earmarked to build demand in interior textile markets.

The downward trend continued however, and the following 91/92 period saw a resultant heavy reduction in the IWS contribution to \$30 million. Changes were then sought by the Board for improvements in overall accountability of IWS operations, and more specifically, to see "funding targeted to users of New Zealand wools in key interior textile markets". (Annual Report 1991)

The early 90's also saw the generic 'Let's Get Real' Woolmark campaign, with television and print tags, as at Figure 1.8, emphasising wool's unique consumer benefits for apparel. While research and product development provided essential 'push' behind the market for wool products, the key associated activity was promotion to encourage consumer 'pull'.

The Board targeted consumers through extensive media coverage which included the Board's annual media fashion show of wool garments and a 16 page feature in the autumn edition of 'Fashion Quarterly' magazine.

The success of the campaign was extended to carpet promotion with each of three different print advertisements emphasising the key benefits of warmth, performance (appearance retention) and naturalness. See Figure 1.9. The 1993/94 campaign also emphasised wool's advantages in environmental terms. This can be linked to an increased public awareness and concern for the environment.

Promotional material was printed on brown card with a natural, recycled appearance. New Zealand had seen the introduction of the Resource Management Act in 1991 to improve and promote the sustainable management of natural and physical resources. Global environmental issues, such as climate change, sustainable management of resources, and the rise of green consumerism also impacted on New Zealand.

(Department of Statistics:1992,255)

Although the 'Let's Get Real' campaign was considered successful, recognition of the limitations of generic marketing and a desire to differentiate the New Zealand product in a global market, saw Wools of New Zealand take responsibility from 1 July 1994 for interior textile (carpets, bedding, upholstery) promotions in the northern hemisphere and in New Zealand. Internationally the IWS continued to promote wool apparel but New Zealand advised its intention not to fund the apparel programme beyond 1995/96. 78 staff from the former Interior Textiles Division of the IWS joined Wools of New Zealand on 1 July 1995.

The association with IWS all but came to an end on 30 June 1996 when the Wool Board ceased its funding.

A new era had begun in wool product marketing....



Figure 1.9
"Let's Get Real" campaign
emphasising the 'natural'
qualities of wool.

Text reads:
Real Carpet

Wool has been designed by nature. It possesses qualities no man-made fibre can truly reproduce. The only carpet fibre that can look and feel as natural.

Let's get real.

(Annual Report 1994/95:17)

WOOLS OF NEW ZEALAND & FERNMARK



Figure 1.10
Trademark
and slogan.

The Fernmark, a black and white trademark, (Figure 1.10), was selected to symbolise both New Zealand's silver fern and the parted fleece on a sheep's back. The slogan 'Wools of New Zealand' always accompanies the trademark.

General International Marketing Manager, John Grainger, said at the time:

We researched several branding approaches with consumer groups including the symbol based on sheep, wool fibres, Maori art, New Zealand land mass and the fern. The fern was chosen for three main reasons: firstly it strongly communicated the environmental values we wanted – that is natural, green. Secondly, the design we chose was seen as bold and modern; and thirdly, we saw immense value in linking with other New Zealand organizations, using the fern so that one day consumers would identify with the fern automatically.
(Spring Way:1997,2)

This replaced the Woolmark as a registered trade-mark licensed to manufacturers who met the 'quality' requirements. These national and international manufacturers became known as 'brand partners' and marketing resources were concentrated on selected manufacturing partners, who "already have a strong presence in their respective markets".
(Annual Report:1994/95:2)

Wool Board Chairman, Pat Morrison stated at the time:

The Fernmark brand links the positive international perceptions of NZ to the well established values of wool, as country of origin branding assumes new significance in today's marketplace.
(Annual Report 1994/95:3)

Globally co-ordinated branding programmes were created for the launch of the Fernmark, taking into account cultural and language differences in the production of retail and consumer promotional materials.

FERNMARK FOR INTERIORS

Roger Buchanan in speaking at the launch of the Fernmark brand for carpets in 1995 stated:

Wools did extensive market research. Four main groups of consumers were identified – those who bought for prestige, colour, durability or ease of care.

*Adding New Zealand's clean, green image, the branding strategy addressed the first three points. (Given that 80% of European carpets are synthetic, Wools saw little gain in taking DuPont head-on in the ease of care area.)
(The Independent 1996:25)*

The Fernmark brand launch provided a "new, united umbrella for several segment brands" (Annual Report:1994/95,13). In Europe promotion of Decorwool, Decorwool Prestige, Decorwool Rugs and Contract wool segment brands which had been established under the IWS Woolmark brand, were re-branded with the Fernmark.

The Decorwool segment brand continued to offer consumers colourful, fashionable wool carpets and practical assistance "to give them more confidence in making decorating decisions."

Decorwool Prestige was applied to top of the range wool carpets for "consumers who want luxury and quality."

Decorwool Rugs represented machine-made wool rugs and promotion capitalised on "the growing trend towards rug-covered hard flooring."

Contractwool was hard-wearing carpet or upholstery aimed at commercial end users looking for "the highest durability".

As part of new product promotion under the Fernmark, cards displayed "typical New Zealand landscapes and others demonstrate fashionable wool carpets in attractive, contemporary settings" as at Figure 1.11.

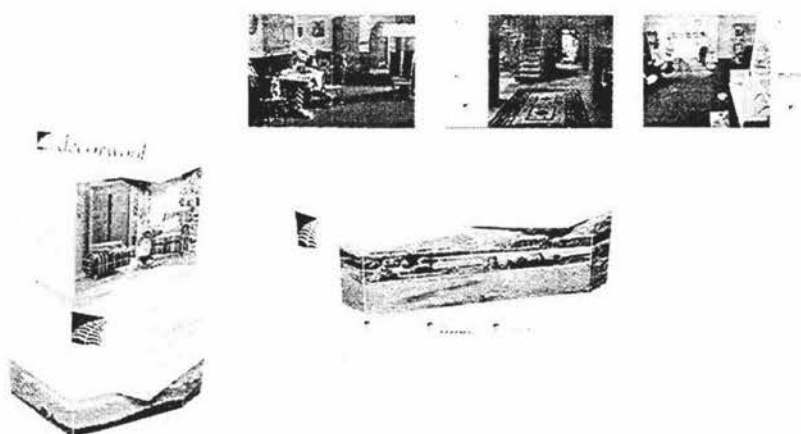


Figure 1.11
Product promotion for
Fernmark

(Annual Report 1994/95:14)

In Japan and Germany the Insulana and Isolana brands respectively identified bedding products, including blankets, duvets, pillows and futons, manufactured predominantly from New Zealand wool.

Wools of New Zealand's brand launch of the Fernmark into New Zealand and Australian markets was considered the most challenging. With New Zealand having more than 70% market share of wool usage in carpets in Australia and close to 100% in New Zealand, the need for an explicitly New Zealand theme was less pronounced. Promotion in Australia and New Zealand therefore adopted international brand positioning to promote the benefits of wool carpets to consumers "in a fresh and compelling way, not previously seen by the flooring industry". (Annual Report 94/95)

Each image, translated into carpet, clearly communicates the product values of a broad available colour spectrum, natural wool fibre and pleasing aesthetic as seen in Figure 1.12.

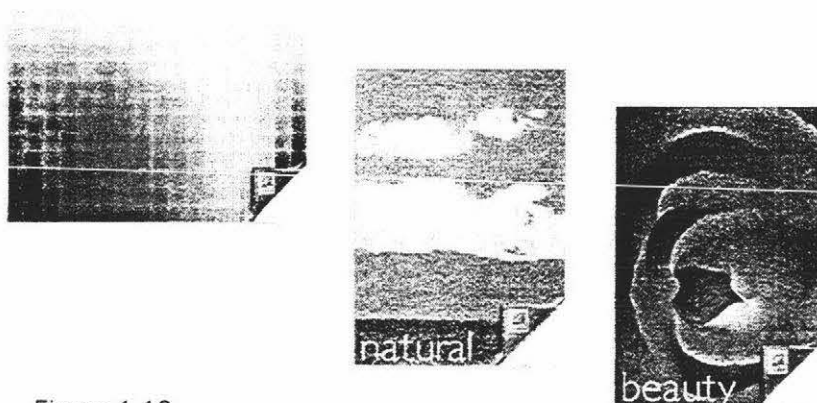


Figure 1.12
Marketing Wool to
Australasia.
(Annual Report 94/95:15)

Latterly, with the popularity of sports internationally and the elevation of successful sportspeople to iconic status, sportspeople such as golfer Steve Ballesteros, have been used to market wool product, as in the advertisement at Figure 1.13. In this quirky 1997 carpet advertisement he lies on a green carpet in a pose reminiscent of a saint, with a halo of golf balls surrounding his head.

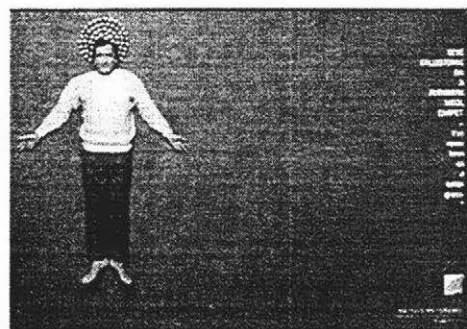


Figure 1.13
Fernmark Carpet advertisement:
Iconic sportsperson.

Text reads:
Steve Ballesteros on a Fernmark Wool Carpet
– I've never been on a better green.

(Annual Report 1997/98:12)

Wools of New Zealand's 'Woolscape' promotions during 1998-2000 featured "the new look in textured carpets". A number of different advertisements have featured one or two persons arranged on the floor of a 'designerly' environment as in Figure 1.14.



Figure 1.14
The "designed" environment.
Woolscape' advertisements

(Left: Annual Report:1999/2000:8)
(Right: Annual Report:1998/1999:9)

Wool Centres were established in more than 20 European cities by 1991.

These were located in department and specialty carpet stores such as Harrods and Hatfields, and provided education for customers about buying and caring for carpet in addition to ranges of Fernmark branded carpets to choose from. See Figure 1.15.



Figure 1.15
Interior of Wool
Centre

(Annual Report
1999/2000:11)

By 2000, Wools of New Zealand global consumer website (Figure 1.16) had been expanded to include virtual home decorating, thousands of carpet and rug samples, and extensive information about the benefits of New Zealand wool. The site had been customised to 12 different countries and could be viewed in five languages. Special 3D imaging was introduced to the UK and European sites. This allowed consumers "to lay their choice of carpet in virtual rooms in perfect 3D perspective".

An 'extranet' available exclusively to brand partners was being developed in 2000. This would feature information on colour trends, advertising schedules training programmes, point of sale material and electronic newsletters. (Annual Report 1999/00)

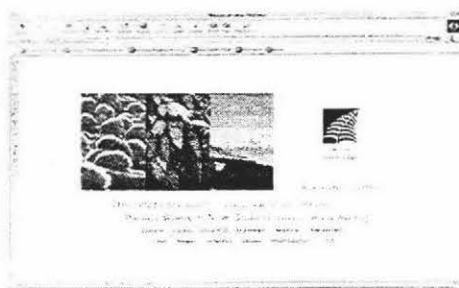


Figure 1.16
Wools of New Zealand internet title page.

Text reads:
*Discover a new world of luxury, comfort and high style.
Discover Wools of New Zealand branded carpets and rugs.*

(Annual Report 1999/00:11)

FERNMARK FOR APPAREL

In February 1996, the Fernmark brand coverage was extended to apparel. Although 45% of New Zealand's wool clip was allocated for apparel use, New Zealand did not share the same dominant supplier status as for carpets, so the road ahead was not considered an easy one.

In the apparel market recognition of the demand by consumers for blended fibres was made. Therefore, the Fernmark apparel criteria allowed wool fibre to be blended with natural and man-made fibre, as long as wool was the predominant fibre. A key Fernmark apparel target was to utilise 24-31 middle micron fibre in knitwear.

Product styling workshops for wool were held to give colour and design direction to manufacturers, while encouragement of young designers to use wool was provided through high profile fashion awards such as the Benson and Hedges Fashion Award, which evolved into the Smokefree Fashion Awards.

An advertising campaign designed to reach the young fashion consumer who is "not loyal to wool" included postcards in cafes and large illuminated posters at key city bus stops.

The campaign, headlined 'Tested on Animals', uses arresting images of sheep in unfamiliar but contemporary pursuits to promote the Fernmark as "the name behind the best wool clothing in the world."
(Annual Report:1996)

The power of a successful fashion event to draw international attention to wool and result in financial gain for all participants, was evidenced when "The New Zealand Four" – Karen Walker, Nom D, World and Zambesi attended London Fashion Week in February 1999. Paul Blomfield, Chief Executive of the Apparel and Textile Federation of New Zealand, commented just after the event:

I believe the flow on effect of that one show in London in February has been far larger than any other overseas advertising campaign for this country.

*In February, for an investment of tens of thousands of dollars by the designers themselves, Wools of New Zealand and Trade New Zealand, this country got millions of pounds worth of publicity in the European media.
(Trade New Zealand website:2000)*

Glen Candy of Trade New Zealand also spoke of the significance of the event and the

*...potential that London Fashion Week has – and is beginning to realise – in re-positioning New Zealand as a sophisticated producer of goods and services.
(Trade New Zealand ibid)*

Two thirds of the garments in the show contained New Zealand wool, and many of the fabrics used had been specially developed by Wools of New Zealand in conjunction with New Zealand manufacturers. All four designers were brand partners.

Wools of New Zealand announced its intention to support the following September Fashion Week event as a result of the great exposure for New Zealand mid-micron wool and the Wools of New Zealand brand. This second promotion took place in front of a 4mx4m piece of felted wool fabric, on to which a video of an unfolding fern was projected. Mark Williamson, Wools of New Zealand Apparel Marketing Manager summed up the event as "an unbelievable opportunity to promote our national textile to a significant trade audience".

Peter Blake was another high profile proponent of mid-micron wool, fronting a retail promotion in France on behalf of a group of French knitwear manufacturers.

However, a trend towards finer and softer yarns was becoming prevalent as consumers were increasingly opting for finer, more lightweight garments, and in May 2000 Wools of New Zealand announced their

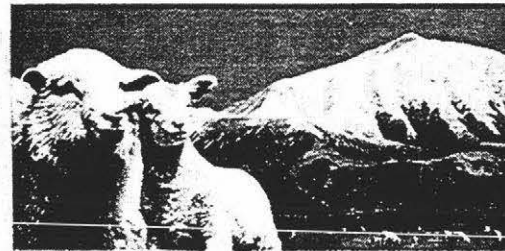
intention to end their international apparel marketing programme. The responsibility for marketing mid-micron wool was passed back to the New Zealand Wool Board.

The Wools of New Zealand marketing programme would now focus exclusively on promoting carpets and rugs made from strong New Zealand wools.

FERNMARK FOR TOURISM

Prior to the Fernmark's introduction, initiatives to promote wool to tourists had been introduced by the Wool Board. A video which screened on incoming Air New Zealand international flights and sold in tourist shops was one such example.

Continued recognition of the importance of tourism saw the introduction of a promotional campaign in June 1996, aimed at making woollen products a "must buy" for visitors to New Zealand. The campaign featured natural wood-framed posters of 'hero' sheep set against a spectacular New Zealand.



Home of the best wool in the world.

Figure 1.17
Heroic sheep

Text reads:
Home of the best wool in the world.

(Annual Report 1996/97:21)

CESSATION OF GENERIC ADVERTISING AND PROMOTION

On 1 July 1998 Wools of New Zealand adopted a new name and structure. Wools of New Zealand Ltd became a commercial subsidiary earning commercial revenue in overseas markets, in addition to grower levies. This revenue was raised from royalties on intellectual property and fees for product endorsements, retail promotions, colour forecasts etc.

In the same year generic advertising was phased out in all markets. After four years of promotion, the Wools of New Zealand brand was considered to have amassed sufficient strength for brand partners to be willing to invest in joint promotions.

For the first time the 1999 edition of 'Décor' magazine, a key promotional tool with a circulation of 1.3 million copies, was jointly funded by brand partners.

However, this new emphasis on revenue generating activities was slowed mid 1999, when reports from brand partners warned that New Zealand's "overall market presence and brand visibility were being compromised." Wools of New Zealand consequently diverted some funds back into marketing activities. (Annual Report 1999/2000)

MERINO NEW ZEALAND

Merino New Zealand formed in 1996 under the New Zealand Wool Group's umbrella and similarly positioned itself at the higher end of the market. The organisation was set up in 1995 to differentiate merino from the world's total clip, of which it had been "a tiny and insignificant part". Independent research had recommended that New Zealand merino should be taken to the market in a manner that was "distinctively different to the rest of the clip".

These distinguishing qualities were identified as

*...the fibre's purity, colour and length relative to clips from other sources were attributes which could be used to differentiate New Zealand merino as a superior fibre. On top of this, being only a tiny resource by international standards meant that local merino could be positioned for its scarcity value rather than competing directly with major volume producers.
(Le Pla:1999,14-15)*

In speaking of the record amount paid for a 13.8 micron merino bale in 1999, John Brakenridge, chief executive, stated that

*our quality is such that New Zealand merino is now highly sought after. For example, the fabric created from this record bale will be carefully allocated to the world's most exclusive tailors... It will be worn by some of the wealthiest and most influential people in the world.
(Export News:1999,12)*

One of these exclusive end producers has been Italian weaver Loro Piana. His eye-catching advertisement (Figure 1.18) features a man upside down in a meticulous suit, set against a background of the Southern Alps. The Italian text translates into "Loro Piana presents Zelander - a new fabric

from another world". A booklet under the same weaver's name tells the story of New Zealand merino which lives in a "spacious, distant land". This romance and drama has been deliberately promoted by Merino New Zealand in its product story.

Likewise, the allure of a 'Merino Trail' has been the brainchild of the merino marketers, to bring the product experience to life. Merino sheep stations have found a new niche in hosting tourists who wish to participate in the outdoors adventure.

Marketing and promotional programmes have been developed in tandem with brand partners. As with Wools of New Zealand, Merino has encouraged direct links between grower and end user, while technical experts have worked alongside potential partner companies to develop product.

The success of their strategies saw Merino New Zealand's earnings for 1999 at 90 million, up from 30 million.



Figure 1.18
Merino "Loro
Piana"
promotion.

(Annual
Report
1998/99:13)

THE WOOL RESEARCH ORGANISATION OF NEW ZEALAND INC. (WRONZ)

Quality alone will not enable the New Zealand wool industry to prosper. For our wool to claim a margin, it must take advantage of the ways in which it is different from its competitors.

The New Zealand Wool Group puts considerable resource into this differentiation, using technology to build on the widely recognised natural advantages of New Zealand scoured wool.
(NZ Wool Group website:2001)

The importance of research can be evidenced in the increase of WRONZ's operating funding from 1.3 million in 1991 to 13.5 million in the 1996/97 year. This funding has come from Wools of New Zealand, Private Sector and Government.

WRONZ is responsible for the development of new technical solutions that benefit partner processors and manufacturers of New Zealand wool products. Some examples of these are:

Flexiwool

Flexiwool has provided a counter to synthetic 'polar fleece' products. A 100% merino wool fabric is finished in a special manner to create a tough, durable, flexible and lightweight fabric with superior stretch. The product was promoted through sports promotion of The New Zealand Barbarians rugby team, as seen in Figure 1.19.

Figure 1.19
Fernmark sports sponsorship.

Flexiwool is produced commercially by Alliance Textiles as part of its Swannndri range. It was developed by WRONZ, Wools of New Zealand and Alliance Textiles.

Swannndri jackets formed part of The New Zealand Barbarians rugby team and here the Wools of New Zealand logo is worn as acknowledgement of their team sponsorship.



(Annual Report:1997:17)

Lanalbin APB

Lanalbin APB is an anti-photobleaching agent applied in the wool scour that eliminates the effect of photobleaching in wool carpets.

Fernmaster Needle

The Fernmaster Needle improves the appearance of tufted carpets and enhances the efficiency with which they are manufactured.

TRUTRAC

Trutracc prevents the change of appearance of carpets commonly known as shading or watermarking. The process involves the application of controlled pressure to permanently set the carpet's natural pile orientation in place.

Solospun

Solospun spinning technology, which enables wool to be used in a singles warp yarn for the first time, is being introduced to spinners around the world. It is a joint effort by the Board, WRONZ, the Commonwealth Scientific Research Organisation (CSIRO), and the International Wool Secretariat (IWS). Solospun will allow spinners to produce lightweight fabrics faster and at lower cost than the usual preparation of woven fabrics.

ILKLEY DESIGN AND DEVELOPMENT CENTRE

The Centre undertakes a range of product development work on behalf of manufacturers and sometimes promotes the technology WRONZ has developed. Their scope of activities includes devising design ideas, marketing strategies, and technical support.

For example, a range of marketing concepts for grower groups has been developed, each with a "unique promotional idea that differentiates various New Zealand wool products". One of these concepts was the 'millennium' theme for Chatham Islands wool. To date three manufacturers are selling "First Light" wool carpets and rugs. "Participating clients of Wrightson on the Chatham Islands will receive a royalty payment for each square metre sold at retail." (Annual Report 1998/99)



Figure 1.20

Chatham Island
millennium promotion.
"First Light" brand.
(Annual Report 98/99)

THE MCKINSEY REPORT

Compare a wool carpet or garment with cheddar cheese, frozen peas and apples at the supermarket or meat at the butcher. A lot more has to happen to wool before it is ready for the final consumer, with value being added at each step.
(The McKinsey Report 2000)

In order to assess and improve its productivity and profitability levels, the New Zealand Wool Board commissioned a report from business consultants McKinsey and Company, which was completed in 2000.

One of the main thrusts of the report was the dissolution of the Wool Board as it was organised. In its place, a selection of commercial, non-profit making companies was recommended. These would be responsible

for specific areas of the wool pipeline such as R&D, genetics research, and the marketing of specific wool brands.

Two of these transformations would be Wools of New Zealand and Merino New Zealand Ltd into commercial and marketing enterprises, StrongWools NZ and FineWools NZ. Levy-funded promotion of both strong and fine wools should stop, as according to the report there was no evidence that there were benefits to growers in excess of the costs.

Although good growth prospects were seen to be with strong and fine wool "at the premium end of the market", the outlook for mid-micron wool, was seen "as poor" and these growers were advised to change land use or focus on lower-cost niche markets.

A 'Task Force' was recommended to identify market opportunities for mid-micron growers who decided not to change their land use. A group was formed to carry out this investigation and a review of the situation is expected by 1 June 2001.

A reduction in the wool levy from 5% to 1% was recommended effective from July 2001 with the usage of money limited to research and development and on-farm skills training such as shearer training. It was suggested that the wool and meat industries co-fund R&D activities and that a commercial genetics company research improved sheep performance.

The report saw room for improvement in the broking and export sectors, with the internet having the potential to help streamline costs between grower and buyer. (Edlin:2000,15)

Many meetings have been held as a consequence of the report and many heated debates have occurred. A chief area of concern has been the possible erosion of the gains made with the Fernmark brand through the dissolution of established marketing units.

Although the Wool Board has supported the recommendations of the report, it has questioned the ability of fully commercialised marketing businesses to succeed, and awaits reports to assess "the scale of risks". Chairman Bruce Munro cautioned that "it is important to remember that the only people with a real interest in promoting New Zealand wool explicitly are New Zealanders." (Annual Report 1999/2000)

Resistance has come from some quarters on the focus on biotechnology and particularly genetic engineering. Bruce Munro has defended the need for "new tools and technology which can drive productivity...We can no longer simply work harder on the farm - we have to work smarter."