NOTICE

The quality of this microform is heavily dependent upon the quality of the original thesis submitted for microfilming. Every effort has been made to ensure the highest quality of reproduction possible.

If pages are missing, contact the university which granted the degree.

Some pages may have indistinct print especially if the original pages were typed with a poor typewriter ribbon or if the university sent us an inferior photocopy.

Previously copyrighted materials (journal articles, published tests, etc.) are not filmed.

Reproduction in full or in part of this microform is governed by the Canadian Copyright Act, R.S.C. 1970, c. C-30.

AVIS

La qualité de cette microforme dépend grandement de la qualité de la thèse soumise au microfilmage. Nous avons tout fait pour assurer une qualité supérieure de reproduction.

S'il manque des pages, veuillez communiquer avec l'université qui a conféré le grade.

La qualité d'impression de certaines pages peut laisser à désirer, surtout si les pages originales ont été dactylographiées à l'aide d'un ruban usé ou si l'université nous a fait parvenir une photocopie de qualité inférieure.

Les documents qui font déjà l'objet d'un droit d'auteur (articles de revue, tests publiés, etc.) ne sont pas microfilmés.

La reproduction, même partielle, de cette microforme est soumise à la Loi canadienne sur le droit d'auteur, SRC 1970, c. C-30.
THE UNIVERSITY OF ALBERTA

THE DEVELOPMENT AND EVALUATION OF COSTUME REPRODUCTION PATTERN BLOCKS
FOR AN 1880's WOMAN'S DRESS

BY

MICHAEL MARENDY

A THESIS
SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH
IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE
OF MASTER OF SCIENCE
IN
CLOTHING AND TEXTILES

FACULTY OF HOME ECONOMICS

EDMONTON, ALBERTA
SPRING, 1988
Permission has been granted to the National Library of Canada to microfilm this thesis and to lend or sell copies of the film.

The author (copyright owner) has reserved other publication rights, and neither the thesis nor extensive extracts from it may be printed or otherwise reproduced without his/her written permission.

THE UNIVERSITY OF ALBERTA
RELEASE FORM

NAME OF AUTHOR: MIKAEL MARENZ

TITLE OF THESIS: THE DEVELOPMENT AND EVALUATION OF COSTUME

REPRODUCTION PATTERN BLOCKS FOR AN 1880's WOMAN'S DRESS

DEGREE: MASTER OF SCIENCE

YEAR THIS DEGREE GRANTED: SPRING 1988

Permission is hereby granted to THE UNIVERSITY OF ALBERTA LIBRARY to reproduce single copies of this thesis and to lend or sell such copies for private, scholarly or scientific research purpose only.

The author reserves other publication rights, and neither the thesis nor extensive extracts from it may be printed or otherwise reproduced without the author's written permission.

(Signed) [Signature]

(Permanent Address) [Address]

Date: 26th January 1988
The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research for acceptance, a thesis entitled THE DEVELOPMENT AND EVALUATION OF COSTUME REPRODUCTION PATTERN BLOCKS FOR AN 1880’s WOMAN’S DRESS submitted by MICHAEL MARENDY in partial fulfilment of the requirements for the degree of MASTER OF SCIENCE in CLOTHING AND TEXTILES.

Date: 26/11/88

[Signature]
Supervisor
I would like to dedicate this thesis to my colleague and friend Margo Miller.
ABSTRACT

The purpose of this study was (1) to document the 1880’s bustle dress, 84.40.172 (hereinafter referred to as the ‘study garment’), and (2) to develop a set of fabric pattern blocks which would authentically reproduce the study garment. The study garment is part of the Historic Costume and Textile Study Collection at the University of Alberta. In order to accomplish the purpose of this study the following question was addressed. For a standard size 12 body shape, which of the following processes will produce the most authentic reproduction of the study garment; (1) drafting a pattern using an 1880’s pattern making system, (2) drafting a pattern using a contemporary pattern making system or, (3) grading a pattern taken from the study garment?

Using patterns taken from the study garment, an 1880’s bustle and petticoat, and an original pattern of an 1880’s corset, toiles were produced in order to check the accuracy of the original patterns. The patterns were then all graded to fit British standard size 12 body shapes. The Price and Zanikoff (1974) grading system was used for this purpose. Using the Thomson (c.1887) and the Aldrich (1985) drafting systems, two further standard size 12 patterns of the study garment were developed. Toiles of the study garment were produced, and then mounted on dress forms which had been padded to simulate British standard size 12 body shapes. Each form had been encased by the appropriate undergarments. The study garment was mounted on a custom made mannequin developed using methods outlined by Serafino (1983).

A panel consisting of representatives from museums and historic sites, the
Prairie Costume Society, the University of Alberta and theatre costume workrooms, evaluated the toiles using a test instrument designed for this purpose. The panel then ranked the toiles from most authentic to least authentic. The panel was not briefed with regard to the processes used to create each toile. Each panel member carried out the evaluation independently.

The toile developed from the graded pattern pieces was chosen by the panel as being the most authentic reproduction of the study garment. The major problems identified with the Thomson system (c.1887) were the shape of the sleeve, the excess amount of ease in the sleeve head, the narrowness of the across chest area, the narrowness of the back waistline extension, and the poucing below the front skirt waistline caused by the large waistline darts. The major problems identified with the toile developed using the Aldrich (1985) drafting system were the shape of the armhole, and the length and shape of the sleeve.

It was concluded that the pattern making process which produced the most authentic reproduction of the study garment was grading a pattern taken from the original garment. The author, however does not dismiss either of the other pattern making processes. Period drafting systems remain an untapped resource, and until further systems are tested their applicability to costume reproduction will remain unknown. Further experimentation is required with regard to contemporary systems, in order to develop more authentic period patterns. Recommendations for further research are listed.
ACKNOWLEDGEMENTS

I wish to thank the members of my thesis committee Anne Lambert, advisor, Gail Bachynski and David Lovett, for their constant encouragement and guidance, and for the enthusiasm each of them showed for this study. I would also like to thank Dr. Anne Kernaleguen for the many hours of humour she provided during the development of the toiles, and the accumulation of the 'scraps'.

I also wish to thank:

The following museum staff who assisted me during the research phase of this project: Ms. Gladys Serafini, Domestic History Program, Provincial Museum of Alberta, Edmonton; Mrs Mary Holford, Textile Department, Royal Ontario Museum, Toronto; Mrs Jennifer Wearden and Mrs Madeleine Ginsberg, Department of Textiles, Furnishing and Dress, Victoria and Albert Museum, London; Miss Penny Byrde, Keeper of Costume, and Mrs Myra Mines, Technical Supervisor, Museum of Costume, Bath; Mrs Anthea Jarvis, Keeper of Costume, and Mr Myles Lambert, Assistant Keeper of Costume, The Gallery of English Costume, Manchester.

The librarians at the following resource centres;
Metropolitan Library, Toronto.
University of Washington Library, Seattle.

A special thank you to the staff of the inter-library loan office at the University of Alberta who diligently retrieved obscure books and journal articles from all parts of the world.
The Faculty of Graduate Studies and Research for awarding me a grant which enabled me to travel to the United Kingdom to conduct research related to my thesis.

The members of the evaluation panel who gave of their time so freely.

To my fellow graduate students who offered both moral and emotional support during this phase of my professional development.

In Australia, I wish to thank:

My parents Steve and Sophia Marendy, and my sister, Essie for their continuous support and encouragement.

The Division of T.A.F.E. for recommending my post-graduate scholarship application to the office of the Director-General of Education.

The former Director-General of Education, Mr George Berkeley and his immediate colleagues, for awarding me a post-graduate scholarship.

The Director of T.A.F.E. Mr John Swan, for approving an additional period of leave, which enabled me to undertake a program of study directly related to specific technical aspects of contemporary and historic dress.

The State Assessment Panel representing the King and Amy O'Malley Trust in Queensland, for recommending my post-graduate application to the Managing Trustees.

The King and Amy O'Malley Trust, for awarding me the Home Economics post-graduate scholarship.

My referees, Mr Mal Garland, Mrs Margaret Humphries, Miss Audrie Lawrie, Mrs Margo Miller and Mrs Erika Pflotzer.

All my friends across Australia who kept Canada Post busy sorting all the letters and cards constantly arriving from 'down under'.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>1.1 Background</td>
<td>1</td>
</tr>
<tr>
<td>1.2 Purpose and Statement of Problem</td>
<td>4</td>
</tr>
<tr>
<td>1.3 Objectives</td>
<td>5</td>
</tr>
<tr>
<td>1.4 Definition of Terms</td>
<td>6</td>
</tr>
<tr>
<td>1.5 Limitations</td>
<td>10</td>
</tr>
<tr>
<td>2. REVIEW OF LITERATURE</td>
<td>11</td>
</tr>
<tr>
<td>2.1 The Concept of Authenticity in Costume Reproduction</td>
<td>11</td>
</tr>
<tr>
<td>2.2 Pattern Development</td>
<td>20</td>
</tr>
<tr>
<td>2.2.1 Patterns taken from Original Garments</td>
<td>20</td>
</tr>
<tr>
<td>2.2.2 Patterns developed from Historical Information</td>
<td>23</td>
</tr>
<tr>
<td>2.2.3 Period Pattern Drafting Systems</td>
<td>23</td>
</tr>
<tr>
<td>2.3 Models used for Artefact Studies</td>
<td>28</td>
</tr>
<tr>
<td>3. METHODOLOGY</td>
<td>35</td>
</tr>
<tr>
<td>3.1 Procedure</td>
<td>35</td>
</tr>
<tr>
<td>3.2 Development of Evaluation Instrument</td>
<td>37</td>
</tr>
<tr>
<td>3.3 Selection of Evaluation Panel</td>
<td>38</td>
</tr>
<tr>
<td>3.4 Analysis of Data</td>
<td>38</td>
</tr>
<tr>
<td>4. THE APPLICATION OF THE PEARCE ARTEFACTS MODEL TO THE STUDY GARMENT</td>
<td>39</td>
</tr>
<tr>
<td>4.1 Material</td>
<td>39</td>
</tr>
</tbody>
</table>
4.2 History
4.3 Environment
4.4 Significance
4.5 The Documentation of the Study Garment
   4.5.1 Description of Study Garment
   4.5.2 Condition Report
   4.5.3 Fashion Continuum [c:1875-c1898]
   4.5.4 Date of Manufacture and Use
5. FINDINGS
   5.1 The Most Authentic Reproduction
   5.2 Bodice
   5.3 Armhole and Sleeve Shapes
   5.4 Skirt
6. DISCUSSION OF FINDINGS
   6.1 1880's Drafting Systems - A Brief Overview
   6.2 The Pattern Making Processes Used In This Study
7. SUMMARY, CONCLUSIONS and RECOMMENDATIONS
   7.1 Summary
   7.2 Conclusions
   7.3 Recommendations
8. BIBLIOGRAPHY
9. SUBJECT BIBLIOGRAPHY
   9.1 Costume Reproduction
   9.2 Taking a Pattern from an Original Garment
   9.3 Patterns taken from Original Garments
   9.4 Patterns developed from Historical Information
9.5 Flat-Pattern Bibliographies
9.6 Period-Pattern Drafting Systems
9.7 Clothing Production Techniques
9.8 Fashion Periodicals and Women's Magazines
9.9 Exhibition Catalogues
9.10 Secondary Costume References
9.11 Movement in Period Costume
9.12 Dictionaries, Glossaries and Indexes
9.13 Unpublished Masters Theses
9.14 Research Methods, Models and Guidelines
10. APPENDICES
    Research Guidelines
10.2 Standard Size 12 Body Measurements
10.3 Archives, Libraries and Museums Visited
10.4 Accession Numbers of Costumes Examined
10.5 Criteria used for Selecting the Period Drafting System
10.6 Members of the Evaluation Panel
10.7 Evaluation Instrument
10.8 Photographic Plates
<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Fabric component of Study Garment</td>
<td>44</td>
</tr>
<tr>
<td>2</td>
<td>Internal Measurements of the Study Garment</td>
<td>56</td>
</tr>
<tr>
<td>3</td>
<td>Panel Responses to Part A</td>
<td>58</td>
</tr>
<tr>
<td>4</td>
<td>Panel Responses to Part B</td>
<td>58</td>
</tr>
<tr>
<td>5</td>
<td>Ranking of Toiles by Evaluation Panel</td>
<td>58</td>
</tr>
<tr>
<td>6</td>
<td>Evaluation of Front Bodice</td>
<td>60</td>
</tr>
<tr>
<td>7</td>
<td>Evaluation of Waistline</td>
<td>61</td>
</tr>
<tr>
<td>8</td>
<td>Evaluation of Back Bodice</td>
<td>62</td>
</tr>
<tr>
<td>9</td>
<td>Evaluation of Armhole</td>
<td>64</td>
</tr>
<tr>
<td>10</td>
<td>Evaluation of Sleeve</td>
<td>66</td>
</tr>
<tr>
<td>11</td>
<td>Comparison of Bust Measurements of the Three Toiles</td>
<td>71</td>
</tr>
<tr>
<td>12</td>
<td>Comparison of Waist Measurements of the Three Toiles</td>
<td>72</td>
</tr>
<tr>
<td>13</td>
<td>Comparison of Skirt Dart Widths and Lengths</td>
<td>74</td>
</tr>
<tr>
<td>14</td>
<td>Comparison of Armhole Sizes of the Three Toiles</td>
<td>75</td>
</tr>
<tr>
<td>15</td>
<td>Comparison of Bodice Waist Sizes of the Three Toiles</td>
<td>76</td>
</tr>
<tr>
<td>16</td>
<td>Comparison of Waist Sizes 4 cm above the Waistline</td>
<td>77</td>
</tr>
<tr>
<td>17</td>
<td>Comparison of Skirt Waist Measurements of the Three Toiles and Measurements supplied by 1880's Drafting Manuals</td>
<td>79</td>
</tr>
<tr>
<td>Figure</td>
<td>Description</td>
<td>Page</td>
</tr>
<tr>
<td>--------</td>
<td>--------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>1</td>
<td>Fleming's Model for Artefact Studies</td>
<td>31</td>
</tr>
<tr>
<td>2</td>
<td>Pearce's Proposed Model for Artefact Studies</td>
<td>40</td>
</tr>
<tr>
<td>Plate</td>
<td>Description</td>
<td>Page</td>
</tr>
<tr>
<td>-------</td>
<td>--------------------------------------------------</td>
<td>-------</td>
</tr>
<tr>
<td>1</td>
<td>Front and Back Views of the Study Garment</td>
<td>146</td>
</tr>
<tr>
<td>2</td>
<td>Side Views of the Study-Garment</td>
<td>147</td>
</tr>
<tr>
<td>3</td>
<td>Front and Side Views of the 1880's Toile</td>
<td>148</td>
</tr>
<tr>
<td>4</td>
<td>Front and Side Views of the 1980's Toile</td>
<td>149</td>
</tr>
<tr>
<td>5</td>
<td>Front and Side Views of the Graded Toile</td>
<td>150</td>
</tr>
</tbody>
</table>
1. INTRODUCTION

1.1 Background

In recent years the use of costume as an interpretive tool has increased enormously. Anderson (1982) states that the three decades following the commencement of the restoration, reconstruction, and refurnishing of Williamsburg scores of historic sites and outdoor museums were found in the United States and Canada. They too were modeled on regional European folk museums but emphasized in true democratic fashion the "world of ordinary people." In this respect, Old Sturbridge Village, ... and the other new museums broke sharply in purpose with Williamsburg. However, they were inspired by the latter's use of costumed interpreters and historically accurate craft demonstrations. They sought to become "living museums of everyman's history", built on the premise that the folklife of a region is historically significant and its material culture should be collected, preserved, studied and especially interpreted. (p.293-294)

Interest in the area of historic costume and textile reproduction was stimulated in Canada in 1972 when "... the national Historic Parks and Sites Branch of Parks Canada set up a costume department to reproduce civilian costumes for its sites ... By 1979 the Costume and Textile group in Ottawa had been established to better meet regional requirements" (Blackstock, 1982, p.10). Similar interest was stimulated in the United States of America as a result of the Bicentennial preparations
in the mid 1970's. Until then, 'historic costume had ... been treated as a frivolous concern, suffering from a real lack of serious research' (Severa, 1979, p.1). During the 1970's the United State Senate ... formally declared costume to be a fine art form. This placed the design and study of costume on a level with other arts, making it eligible for the same support in grants and scholarship and placing high quality costume reproduction within reach for historic restorations' (Severa, 1979, p.1).

In 1978, the American Home Economics Association established the Home Economics Research Planning Projection Committee, in order to identify the major research areas in Home Economics. The committee identified five broad areas of clothing which required further investigation. These areas were, the social and psychological aspects of clothing, economics of clothing and textiles, design and aesthetics of clothing, special needs for clothing, and historic clothing and textiles (see Appendix 10.1 for H.E.R.R.A.P. Report - Historic Clothing and Textiles Research Guidelines). The Senate's formal recognition, together with the recommendations of the H: E.R.R.A.P. Report strengthened the need for research in the field of historic clothing and textiles.

Although several documentary and demographic studies have been successfully executed in the area of historic clothing, very little research has been done on the technical aspects of period costume reproduction. Studies completed by Burbard (1976), Morton (1981), Jay (1983), and Arbuthnot (1984) all involved American pattern drafting systems of the nineteenth century. Burbard completed a qualitative study of three pattern drafting systems. The purposes of Burbard's study were:
(1) to examine three of these late nineteenth century American pattern drafting systems and (2) to provide an explanation of how to use the systems, so that historians and designers may reproduce authentic garments by employing the original methods. Each method chosen for this study was tested by drafting the pattern and constructing it in gingham. The next phase of the procedure was to analyze each system's strengths and weaknesses in relationship with the others, using fit as the primary comparative factor.

(p. 2)

Although the other three studies did not investigate the technical aspects of the pattern drafting systems, two of them recommended that such research should be executed. Morton (1981) recommended that:

Additional research that would be of use to those wishing to create historically accurate productions, would be to use a format similar to Burford's thesis. . . . the modern researcher would select those pattern drafting systems . . . which are not missing information, whether text, pictures or technology, and would reproduce the garment in the same manner as the nineteenth century American tailor. (p. 80)

Arbuthnot (1984) recommended that:

Additional research that would be beneficial to those studying the history of costume within the text of drafting systems would be to reproduce the garment in the same manner as the dressmaker, homemaker and/or tailor. It would be necessary to select only those pattern drafting systems which all information was available. (p. 88)
Wells (1988) in her study on children's cognitive and affective response to costume reproductions, also recommended that further work needs to be done on the technical aspects of costume reproduction.

By combining the recommendations of Burford (1976), H.E.R.R.A.P. (1979), Morton (1981), Arbuthnot (1984), and Wells (1988) this exploratory study will shed further light on the effectiveness of specific drafting systems and drafting methods. The findings generated, will add to the body of knowledge, information which will aid costume designers to reproduce authentic period costumes.

1.2 Purpose and Statement of Problem

The purpose of this exploratory study is to (1) document the 1880's bustle dress 84.40.1/2 (hereinafter referred to as the 'study garment'), and (2) develop a set of period pattern blocks which will authentically reproduce the study garment. The study garment is part of the Historic Costume and Textile Study Collection at the University of Alberta. In order to accomplish this aim the following question was addressed. For a standard size 12 body shape, which of the following processes will produce the most authentic reproduction of the study garment: drafting a pattern using an 1880's pattern making system, drafting a pattern using a contemporary pattern making system, or, grading a pattern taken from the study garment?
1.3 Objectives

The objectives of this study were:

1. To document the study garment using Pearce’s (1986a) proposed model for artefact studies.
2. To produce a standard size 12, mid 1880’s corset pattern using an original pattern as a prototype.
3. To produce a standard size 12, mid 1880’s bustle pattern using an original bustle as a prototype.
4. To produce a standard size 12, mid 1880’s petticoat pattern using an original petticoat as a prototype.
5. To prepare toiles of the undergarments.
6. To prepare a full scale pattern from the study garment.
7. To produce a toile of the study garment.
8. To analyse and evaluate the original pattern using the toile and the original costume as criteria.
9. To identify a suitable 1880’s drafting system.
10. To produce a standard size 12 pattern of the study garment, using the 1880’s drafting system selected.
11. To identify a suitable contemporary drafting system.
12. To produce a standard size 12 pattern of the study garment, using the contemporary drafting system selected.
13. To identify a suitable 1880’s or contemporary grading system.
14. To produce a standard size 12 pattern of the study garment using the grading system selected.

15. To produce toiles of the study garment, using the three sets of standard size 12 patterns developed.

16. To evaluate the three toiles according to set criteria.

1.4 Definitions of Terms

**Across Chest** - the distance from armhole to armhole, 7 cm down from the neck point at the centre front. (Aldrich, 1985, p.29)

**Authentic** - conforming to an original so as to reproduce essential features. (Webster’s Ninth Collegiate Dictionary, 1984, p.117)

**Bustle** - pad, cushion or arrangement of steel strings creating a bulbous projection below the waist in the back of women’s dress . . . . (Calasibetta, 1975, p.65)

**Cardinal Points** - these are points on the pattern to which grading increments are applied. (Taylor & Shoben, 1984, p.28)

**Casing** - . . . a fabric “tunnel” made to enclose elastic or a drawstring. (Readers Digest, 1976, p.234)

**Combinations** - underwear in which two garments, chemise and drawers are combined to make one . . . . (Calasibetta, 1975, p.121)
<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contemporary Drafting System</td>
<td>a drafting system developed and used after 1950.</td>
</tr>
<tr>
<td>Corset</td>
<td>smoothly fitted undergarment extending from or below the bust down over the hipline; often stiffened by strips of steel or whalebone, limbered by elastic goings; sometimes tightened by lacing. (Picken, 1973, p.89)</td>
</tr>
<tr>
<td>Costume Replication</td>
<td>the exact internal and external duplication of a period garment.</td>
</tr>
<tr>
<td>Costume Reproduction</td>
<td>the duplication of the line, proportion, form, and fit of a period garment, as well as the duplication of any surface design.</td>
</tr>
<tr>
<td>Cushion Pad</td>
<td>tiny bustle, stuffed with horsehair worn in the late nineteenth century. (Calasibetta, 1975, p.138)</td>
</tr>
<tr>
<td>Drafting</td>
<td>a pattern developed through flat pattern design using measurements taken from the model form or live model, from standardized or individual manufacturers specifications . . . (Gioello and Burke, 1979, p.55)</td>
</tr>
<tr>
<td>Flots</td>
<td>. . . successive loops of ribbon or lace arranged to lie over-lapping one another at short intervals, so as to resemble the flow of small waves. (Caulfield &amp; Saward, 1972, p.211)</td>
</tr>
</tbody>
</table>
Form - three dimensional area enclosed by a surface, either hollow with volume or solid with mass (Davis, 1987, p.293).

Grade Track - this term is used when grade increments are applied to individual pieces of pattern by moving the base size pattern piece along pre-determined tracks, marking around the pattern section by section thus altering its size. (Taylor & Shoben, 1984, p.69)

Grading - a technique used to reproduce a pattern in other sizes. (Aldrich, 1985, p.156)

Line - visual direction in a design caused by seams, details, or trimmings. (Frings, 1987, p.265)

Longcloth - lightweight, high count cotton fabric woven in plain weave of slightly twisted yarns, similar to nainsook, formerly used for infants and children's dresses and lingerie. (Calasibetta, 1975, p.199)

Pattern Block - a foundation pattern constructed to fit an average figure. (Aldrich, 1985, p.8)

Period Drafting System - a drafting system developed and used before 1950.

Petticoat - women's underskirt usually just slightly shorter than outside skirt, ruffled or trimmed. (Picken, 1973, p.273)
Plastron - front centre portion set into a woman's dress usually made of contrasting fabric for a decorative effect; used in the 19th century and early 20th century. (Calasibetta, 1975, p.402)

Proportion - the relation of one part of a design to another... (Frings, 1987, p.266).

Rever Collar - another name for lapel, actually the facing of the lapel which folds back to show the reverse side or revers. (Calasibetta, 1975, p.119)

Satin - smooth, lustrous, silk fabric woven with glossy face and dull back... (Calasibetta, 1975, p.205)

Split Diagram - a diagram which... indicates where the pattern must be split and opened and by how much. (Taylor & Shoben, 1984, p.29)

Standard Size 12 - Standard size 12 according to the British Standards Institution is bust from 86 to 90 cm, hips from 91 to 95 cm (British Standards Institution, 1982, p.2).

Standard Sizing -... a size designation system that indicates... the body size of the women that a garment is intended to fit. The size designation system is based on body and not garment measurements. (Aldrich, 1985, p.9)

Ticking - sturdy cotton fabric woven in close satin or twill weave... (Calasibetta, 1975, p.205).
Toile - the finished pattern made up into muslin to check the proportions and shape. (Aldrich, 1985, p.8).

Velvet - a closely woven fabric with short dense pile on the upper surface. Velvet has a cotton back of twofold yarn and a silk pile, but it can also be woven entirely of silk (Waugh, 1968, p.319).

1.4 Limitations

1. This study focused on the production of pattern blocks suitable for reproducing the study garment in a standard size 12 only.

2. The toile used in this study, were generated through flat pattern drafting methods.

3. The number of 1880’s pattern drafting systems analysed for this study, was dependent on the number of manuals the inter-library loan office at the University of Alberta was able to retrieve, and the number the researcher was able to retrieve from other public and private sources.

4. Due to time restraints only three undergarments were developed, the corset, bustle and petticoat. The growth in the bust and waist areas due to additional layers worn in the 1880’s was simulated with additional fabric and polyfil. Additional and/or optional undergarments in the 1880’s might have included corset covers, combinations, drawers and chemise.
2. REVIEW OF LITERATURE

The following literature review consists of three parts: (1) the concept of authenticity in costume reproduction, (2) pattern development, and (3) models used for artefact studies. Part two is divided into three sections, (a) patterns taken from original garments, (b) patterns developed from historical information, and (c) period drafting systems.

2.1 The Concept of Authenticity in Costume Reproduction

In recent years there has been a growing interest in recreating authentic costumes for display purposes in historic houses and museums, or interpretive use in historic sites, and for use in theatre, film and television. Literature focusing on costume reproduction is indeed limited, and of the little that does exist, the bulk of it focuses on the production of costumes for specific projects (Frye, 1977; Hollander, 1972-73; Liebermann, 1985; Thoroid, 1971-72; Severa, 1980), or for use on historic sites (Blackstock, 1982; Cooper Cole, 1985; Razzolini, 1985; Severa, 1979; Wright, 1977).

Throughout the literature there seems to be a general consensus that if period costumes are to be recreated they should be reproduced as authentically as possible (Alderson & Low, 1976; Blackstock, 1982; Frye, 1977; Hollander, 1972-73, 1978; Hunnisett, 1986; Motley, 1964; Razzolini, 1985; Severa, 1979; Wright, 1977). And yet what makes a costume reproduction authentic? The literature focuses on six main factors: (1) thorough research, including the study of extant
costumes, (2) period cut, (3) correct silhouette, (4) good fit, (5) the direct reproduction of original features, such as lace, embroidery, trimmings, and fabrics, and (6) the use of period construction techniques (Anderson, 1984; Barton, 1969; Bender, 1978; Blackstock, 1982; Emery, 1981; Ferguson, 1981; Frye, 1977; Hollander, 1972-73; Hunnisett, 1986; Kelly, 1973; Motley, 1964; Liebermann, 1985; Severa, 1979; Razzolini, 1985; Reinhardt, 1966; Russell, 1985; Wright, 1977).

Greenwood, a free lance costume designer operating out of New York, recalls her student days at the London College of Arts and Crafts during the 1950's when there was a new interest in authenticity (Liebermann, 1985, p.25).

In the classroom, period accuracy was emphasized to an unprecedented degree. That, according to Greenwood, "had to do with the teachers who were at Central at the time. Norah Waugh was writing Corsets and Crinolines when I was a student, and involved us all in testing patterns for the book. Waugh believed that unless you have the correct silhouette under a garment, it won't look correctly period . . . ." (p.25)

Period costumes used in movies during the 1930's and 1940's reflected the style of these eras rather than the authentic line of the period depicted. During the 1950's this trend . . .

began to change in Britain, but in America in the late 50's and early 60's there was still a tendency to make leading ladies dresses with those moulded bust darts and zippers up the back even though it was an 18th century dress. (Liebermann, 1982, p.25)
Hollander (1978), provides the following example:

... Bette Davis behaved and dressed quite differently in her two versions of Queen Elizabeth, one in 1939 and one in 1955; both were 'authentic' period dress and naturalistically acted although neither much resembled the clothes and gestures in Queen Elizabeth's actual portraits. Each looked correctly dressed and naturally behaved for its own time. (p.297)

Van Den Ecker (1950) in his article 'A Veteran's View of Hollywood Authenticity', points out that early filmmakers were not concerned with authenticity:
"The general attitude was 'Who knows what is right or wrong anyway?' However, the number of letters proved that many knew. So the major corporations began to invest in research departments and materials" (Van Der Ecker, 1980, p.323).

Despite the research departments, and the use of technical advisers, period costume designs continued to follow established traditions. According to Hollander (1972-73):

... the 'long traditions of cinematic period costume ... require (1) that history take place in many changes of clothes ... ; (2) That armies be clearly distinguishable ... by some very visible difference in their gear or its colour; and (3) that the stars look sexy and terrific by modern standards. The last stipulation is of course, the key to all historic costume in the movies, except for certain British films, Zeffirelli's Shakespeare films and Visconti. (p.674)

Examples of these traditional conventions include the costumes worn by Vanessa Redgrave, starring as Mary Stuart in 'Mary, Queen of Scots'. "... Mary the passionate
and doomed, could be dressed in a whole range of doomed-and-passionate outfits, very becoming... indeed all the clothes in the movie have a slick synthetic look (Hollander, 1972-73, p.674-675). In 'Bridge on the River Kwai' the native girls all wore uplift bras under their tunics (Hollander, 1972-73).

The most exciting example of costume reproduction occurred in the early 1970's when B.B.C. television produced the series Elizabeth R.

All the clothes were copied from actual portraits, with no liberties taken or details glossed over. The exact patterns of lace, embroidery, and even fabric were reproduced to perfection. Television cameras, resting intimately on a character speaking, thus permitted a viewer to appreciate his clothes just as he could have done in actual life... Apart from the thousand details, the odd shapes and quirky proportions that appear in the portraits were also adhered to in spite of modern concepts of grace. This attention to the possible true flavour of the Elizabethan style in dress was one of the best aspects of this excellent series. (Hollander, 1972-73, p.673)

Queen Elizabeth's most famous dresses were carefully reproduced by a skilful production team headed by designer, Elizabeth Waller. Other members of the team included, Jean Hunnisett, cutter and manufacturer, Phyllis Thorold, machine embroideress, and Janet Arnold, Elizabethan dress adviser. The dresses recreated included the Phoenix, c.1575; the Darnley, c.1575; and the Armada, c.1588 and the Ditchley, c.1592 (Thorold, 1971, p.81). The patterns for the Darnley, the Phoenenix, and the Ditchley may be found in Hunnisett's (1986) book, Period Costume for Stage and Screen.
Anderson (1984), Emery (1981), Kelly (1973), and Russell (1985), state, that the theatre is a place of ‘make believe and illusion’, and therefore total authenticity of costume is not necessary. However each writer advocates that a designer of a period play should thoroughly research the social and costume history of the period. Barton (1969), Russell (1985), and Liebermann (1985) point out that although costume designers try to recreate the past, the final designs “... presented to the public ... [are] a personal interpretation, [coloured] by training, personality and culture” (Russell, 1985, p.171). Motley (1964) and Hollander (1972-73) on the other hand, maintain that the degree of authenticity depicted in costumes has always been governed by conventions of the industry. Motley points out that:

... a professional cutter ... may be reluctant to follow authentic period cut, partly because he fears the actor may find it uncomfortable to wear and partly because he has been conditioned for years by people who cannot detach themselves from the conventions of modern times. (p.80)

Emery (1981) points out how the research process ties in with movement:

For any given period, the appropriate attitude of the body, how it stands and how the garments influence the movement are important factors to observe during the research process. ... the proper cut and construction of the costume will assist the actor a great deal in achieving the proper movement in the costume (p.13).

The way people moved was influenced by the weight and stiffness of both outer and underclothing, as well as custom and childhood training (Green, 1966, p.3-4). Oxenford (1955) in her book Design for Movement, maintains that
Period movement, meaning movement in any other than contemporary clothes is mainly a question of common sense. Three things decide the poise and balance: what is worn on the head, what is worn on the feet, and whether or not corsets are in fashion. (p.32)

Reinhardt (1969) agrees with Ozenford, that when "analyzing the movement which a period costume requires, ... [one] should consider what is worn on the torso, feet, [and] head, [as well as] legs and arms" (p. 53). He also states that "... we must acknowledge the importance of exact period cut-if the actor is to move well and such cut is available only through a study of period garments and patterns" (p. 52).

In the past rigid undergarments were used to create the fashionable silhouette. Throughout the literature however, there is divided opinion with regard to the use of such undergarments with costume reproductions. Costume departments recreating costumes for use by interpreters working at historic sites have had to make compromises, as interpreters are not expected to wear corsets during the course of their duties. In order to approximate a period silhouette, a combination of padding, design lines, and minimum ease are used (Blackstock, 1982).

Theatre designers on the other hand tend to make use of structural undergarments. Blackstock (1984) states that "... corsets are essential to give a finished look; stage people know that actresses can work quite comfortably in them, even in rigorous performances. Corsets are not intended to whittle a twenty-inch waist but to maintain silhouette and direct movement (p.39)." Motley (1964) agrees that "... the unmistakable silhouette of the period ... can only be achieved by padding, corseting and the correct cut" (p.78). Bender (1978) in her article,
'Creating the Right Silhouette', outlines the process of recreating a period corset using a pattern from Waugh's (1954) book, *Corsets and Crinolines*. Bender has made several minor adjustments to the original pattern, in order to make the corset a little more comfortable to wear (p.20-23, 53, 54, 56,57).

Parks Canada, a division within the Department of Environment Canada, consists of two branches: National Parks, and National Historic Parks and Sites. Parliament has provided Parks Canada with the mandate to protect the natural and cultural heritage of Canada. The National Historic Parks and Sites Branch is divided into five sub-divisions: Research, Engineering, Policy and Planning, Finance and Administration and Interpretation. One of the major functions of the Interpretation Division is to restore National Historic Sites. In order to perform this task efficiently this division has been sub-divided into four sections: Curatorial, Collections Management, Costume and Textile Resource Group, and Design and Exhibits (Parks Canada Policy, 1982).

The main function of the Costume and Textile Resource Group is to recreate period garments which can then be used at historic sites throughout Canada. Pamela Blackstock, Curator for the Costume and Textile Resource Group, and Joan Severa, Curator of Costume and Textiles, State Historical Society of Wisconsin, are both involved in recreating period costumes, which are worn by interpreters at historic sites. Their task has become far more complex in recent years as Severa (1979) explains:

... Interpretation as a whole has advanced to the point where sights, sounds, and even smells are recreated to the past ... the public wants to see living
people dressed like folks from the past, preferably moving around and doing
things from the past. The public . . . if uneducated to the finer points of
clothing, interpret what is done at a historic site as the truth no matter how
poor it is. Thus it our responsibility to recreate an honest interpretation of the
past. (p.1)

Alderson and Low (1976) point out that:

not only should the costume elements be correct but ideally, so should hair
styles, make-up, watches, accessories and even eyeglasses. The public has a
right to expect authenticity if there is costuming of the interpreters. If
costuming cannot be done correctly it probably ought to be avoided and the
money used for other elements of the interpretation. (p.35-36)

In order to produce costumes which are historically correct, Blackstock and Severa
both advocate a thorough investigation of the social and costume history of the period
to be recreated. Suitable primary resources for costume information include:
advertisements, business directories, diary entries, drawings, dress- makers and
tailors manuals, estate lists, fashion plates, letters, mail order catalogues,
newspapers, extant garments, paper patterns, pattern drafting systems, photographs,
portraits, store inventories, and women's magazines (1982, p.12; 1979, p.3-5).

The Costume and Textile Resource Group (herein after referred to as the
'Resource Group') develops standard size patterns using original costumes,
period pattern making books and fashion plates. Each pattern is then tested in
unbleached muslin for accuracy of pattern, fit and silhouette. Changes are made to the
pattern at this stage if problems are evident. An extremely detailed reference book is
made up during the pattern and toile development. Two copies of the garment are finally made up. One copy is kept at head office, the second copy is sent to the appropriate historic site for reproduction by the local team. As several historic sites do not have the facilities for reproduction work, the resource group makes up a master pattern which is sent to a costume workshop which manufactures multiple copies of the garment in different fabrics, and with minor adjustments to the neckline and sleeves (Blackstock, 1982).

Over the years, the Resource Group has adopted the following construction techniques in order to maintain authenticity:

- The Parks Canada approach is to have outside stitching details accurate to the period, but inside sewing techniques may be modernized. Machine-made buttonholes are not used on costumes prior to 1900. Zig-zag machine stitching is not used on the outside of any garment. Zippers, snaps, and velcro are not used. (Blackstock, 1982, p.14)

The end use of the reproduction costume will usually determine the authenticity of a technique. It is quite acceptable to machine neaten the internal seams of a costume to be worn by an interpreter. However, if the same garment was to be viewed and handled by the public, then the original hand finish would have to be used (Blackstock, 1982).
2.2 Pattern Development

2.2.1 Patterns taken from Original Garments

To accurately take a pattern from an existing garment one of two methods may be used. The first method requires the pattern maker to shape fine muslin over the garment. The grainline of the muslin must match the grainline of the garment in order to shape the muslin piece, darts, gathers and pleats must be carefully pinned into position (Arnold, 1973; Tarrant, 1983). As in traditional draping, strategic positions such as armholes and necklines may be lightly pencilled into position. Once the outline of the garment has been transferred to the muslin, the muslin may then be carefully removed. The position of darts, gathers or pleats should then be marked in pencil, and the pins removed. Unfortunately, if the muslin moves during the copying procedure, the final pattern will not be accurate (Arnold, 1973).

The second and most favoured method is based on the establishment of a baseline, that is "... a line usually along the longest straight of grain of a pattern piece used as a reference point from which perpendicular measurements are taken " (Mills, 1986, p.2). The baseline may be highlighted by using felt strips (Mills, 1986), entomologists' pins (Arnold, 1973; Tarrant, 1983), or contrasting silk thread basted along the grainline/s (Arnold, 1973; Severa, 1980; Prellwitz & Metcalf, 1980). The baseline is then transferred to graph paper for scale work, or to pattern paper for full scale work. Using a tape measure or twill tape perpendicular to the baseline, and at intervals of three to five centimetres, the entire garment shape may be plotted. To facilitate this procedure, natural reference points "... such as the intersection of two seams or location of trimmings... can be used as a measurement reference."
(Mills, 1986, p.3). During the plotting stage it is imperative that the researcher makes detailed notes on the construction methods used (Arnold, 1974; Mills, 1986; Prellwitz & Metcalf, 1980). In order to check the accuracy of the pattern taken, a toile should then be made up (Arnold, 1974; Tarrant, 1983).

Amongst the literature there are six publications which include scale patterns taken from late nineteenth century women’s garments. Such patterns may be enlarged, and graded to contemporary sizing, or they may be used as shape references for reproducing specific costumes.

Arnold’s (1968) book, Patterns of Fashion - Englishwomen’s Dresses and their Construction, volume 2, provides the researcher and designer with a pictorial and written history of pattern cutting and dressmaking from 1860 to 1940. In order to accommodate the numerous number of pattern pieces required for each dress, the folio format was adopted. On the left hand side, detailed line drawings showing internal construction details, as well as the front, back and occasional side views are provided. A brief description accompanies each line drawing. On the right hand side the patterns have been reproduced on graph paper. The scale used is 1/8 inch to 1 inch. Construction details have been included on the pattern pieces, and concise notes explain intricate detailing. Seam allowances have not been included on the pattern pieces. The grainline to be used “... is indicated by the squared lines on the paper” (Arnold, 1972; p. 19). Arnold suggests various methods of adapting the scale patterns to a contemporary silhouette, however, despite which pattern modification method is used, “it is most important to keep the correct proportions and retain the position of the waist in relation to the skirt, whether high or low (Arnold, 1972,
Bernstein's (1959) book, *Masterpieces of Woman's Costume of the 18th and 19th Centuries* ... contains 32 equisitely printed colour plates, faithfully drawn from original period costumes (1700-1900) ... there are ... 51 correlated line drawings of appropriate accessories - shoes, undergarments, gloves, headgear - as well as pattern plates * (Introduction, no page number). Although the pattern shapes have been scaled down, the scale used has not been included. The size of each pattern piece is indicated by a set of external measurements. Unfortunately, some of these measurements are missing on several pattern pieces. Construction details have not been included.

Blanche Payne (1965) has included forty-three pattern drafts of male and female costume in her book, *History of Costume*. Each pattern has been drawn on graph paper. The scale used is 1/8 inch to 1 inch. Brief construction notes accompany each pattern. The majority of the costumes from which the patterns were taken are illustrated and described throughout the text.

Norah Waugh (1954; 1968) has written two books related to the cut and construction of women's garments, *Corsets and Crinolines* and *The Cut of Women's Clothes*. The first volume traces the evolution of artificial foundation garments from the sixteenth to the twentieth century. Twenty-five scale patterns of extant undergarments are scattered throughout the text. Each pattern is accompanied by a brief description, a scale rule and line drawings of the front and back views. Information related to the construction of foundation garments may be found in the accompanying appendices.
The Cut of Women's Clothes traces the cut and construction of women's dresses from 1600 to 1930. Each chapter deals with one century. Within each chapter there are descriptions of the types of dresses worn, popular fabrics, and construction techniques used. The text is complemented by quotations from primary sources. Original tailors and dressmakers patterns, as well as patterns taken from extant garments have also been included. The scale patterns have not been reproduced on graph paper, instead, a scale rule has been included on each page to aid the enlargement process. Individual measurements are also included on specific pattern pieces. The pattern pieces have been positioned so that the grainline runs parallel to the edge of the page. Brief descriptions, as well as line drawings of each costume are also provided.

2.2.2 Patterns Developed from Historical Information

Edson (1942) wrote *Period Patterns* as a supplement to *Historic Costume for the Stage*, by Lucy Barton (1963). This book offers the researcher and designer scaled men's and women's patterns dating from c.1575 to c.1911. The measurements have been adjusted to a standard size 16 for women, and a size 38/40 for men. Original garments, patterns and pattern drafting books from the Metropolitan Museum of Art, the Brooklyn Museum, the New York Historical Society and the Museum of Costume Art were used in the development of these patterns. All the patterns are very small, as a scale of 1/16 inch to 1 inch has been used. In order to simplify the technical aspects of pattern enlargement, the author has included a diagram for enlarging the scale patterns to full size. Costume descriptions are very sketchy; construction
details are not provided. Photographs of the original costumes from which the patterns were taken have been included at the back of the book. It is very difficult to see the surface decoration used on the costumes, as the photographs are quite small.

The only background information on the 42 patterns included in Costume Design and Making: A Practical Handbook by Fernald and Shenton (1967) is found in the following introductory note:

These cutting diagrams are designed to allow 1-inch turnings on all seams. The sizes are stock sizes, and each pattern will therefore need its own adjustments to individual requirements; it is advisable to tack the garment together and fit carefully to the wearer before finally making up (p.63).

Each set of patterns is accompanied by a scale, size of pattern (height and chest measurements only), quantity of fabric required, very basic assembly instructions, additional explanatory notes, and a coding system which identifies important parts of the pattern pieces.

Hill and Blacknell (1968) in their book, The Evolution of Fashion: Pattern and Cut from 1066 to 1930, provide the following explanatory notes:

The scale of the patterns is 1/8 inch to 1 inch. In some cases where space does not permit, a few patterns are cut 1/16 inch to 1 inch. Where this departure occurs, the scale is marked on the patterns. (Because of this small scale, the taking of accurate measurements from the patterns should be avoided. Specific measurements from the person for whom the costume is to be made and the drafting of basic blocks adapted to the character of these patterns is considered advisable).
The patterns are:
a. arranged with the men's patterns shown on the left-hand side of the book and the women's on the right-hand side, unless otherwise stated:
b. positioned in relation to the edges of the book wherever possible to establish grain of fabric.
c. cut without allowance for seams.
d. cut in most cases without giving front or placket overlaps, overlaps to buttoned fastenings, under flaps to vents, etc.
e. basic measurements:

   Men:  Chest: 38-40 inches
          Waist: 30-32 inches
          Height: 5 feet 10 inches - 6 feet

   Women: Bust: 35-36 inches
           Waist: 25-26 inches
           Height: 5 feet 5 inches - 5 feet 7 inches

(p.ix)

Although the pattern shapes were developed from period garments, paintings, carvings, prints, sculpture, manuscripts, period pattern drafting books and extant period patterns, "... they have been drafted to fit an average figure and to give the maximum freedom of movement (at times certainly very limited), for the wearer" (Hill & Bucknell, 1968, p.ix). The construction methods which are included have been simplified in order to save time.
2.2.3 Period Pattern Drafting Systems

Literature relating to period drafting systems has been published in five forms: bibliographies of flat pattern sources, books, journal articles, flat pattern newsletters and theses. The earliest annotated bibliography, consisting of 28 references, was compiled by Reinhardt in 1962. Kidwell (1979), in her book, *Cutting a Fashionable Fit: Dressmakers Drafting Systems in the United States*, cites over 300 "pre-1920 publications at the Library of Congress containing drafting systems for woman's garments" (p.105). In 1982-83, Seilgman published a bibliography of flat pattern sources in *Theatre Design and Technology*:

The bibliography, divided into three sections begins with an alphabetical listing of flat pattern sources. This is followed by listings of sources which cover topics of a more specific nature, i.e. draping, millinery, dance etc. The third section presents a listing of professional periodicals devoted to flat patterning and a listing of journal articles which present pattern drafts (1982, p.23).

The most recently published bibliography is, *Clothing America: A Bibliography and Location Index of Nineteenth Century American Pattern Drafting Systems* by Patricia Trautman (1987). "... [this] bibliography and location index... is the result of more than a decade efforts to locate all extant American pattern drafting technology of the nineteenth century" (p.4). Each entry is indexed alphabetically according to author, followed by its title "... decade of publication, region of publication, type of system (direct, proportional, hybrid, or diagram), menswear, womenswear, childrenswear, military garments, mens shirts, mens formal wear, and sewing techniques. Additionally, each system has been coded for some topics such as..."
technology used . . . " (p.4). Bibliographies by Anthony and Arnold (1974), The Costume Society of America (1979), and Kesler (1979) also provide lists of flat pattern sources.

In 1979, the Flat Pattern Source Committee of the United States Institute of Theatre Technology, began to publish " . . . a series of pattern drafts from out of print source materials for the use of costume designers and technicians . . . . The series [hoped] to present a variety of pattern drafts for both men and women, either as whole garments or as separate parts" (Seligman, 1979, p.27). In 1986, the same committee began to publish the 'Flat Pattern Newsletter'. In addition to publishing information on period pattern drafting sources and systems, the newsletter offers columns on period construction techniques, computer-assisted pattern drafting, and a pattern listing service.

To date, four theses have used period pattern drafting systems as their foci: Burford (1976), A Qualitative Study of Three American Pattern Drafting Systems of the Late Nineteenth Century; Morton (1981), American Pattern Drafting Systems for Men in the Nineteenth Century; Jay (1983), Centralization of a Place of Publication of Drafting Systems as it Related to the Garment Industry; and Arbuthnot (1984), Dress of the American Female Child 1860-1900 Relationship to Woman's Dress as Depicted in Drafting Systems.
2.3 Models used for Artefact Studies

Schlereth (1982) defines material culture study as "... the study through [artefacts] (and other pertinent historical evidence) of the belief systems - the values, ideas, attitudes, and assumptions of a particular community or society, usually across time" (p.3). For ease of scholarly reference Schlereth has "... divided [the history of American material culture] into three chronological phases: (1) the collecting or classifying period (1876-1948); (2) the descriptive or historical period (1948-1965); and (3) the analytical or exploratory period (1965-present)" (p.6).

During the first phase "... American material culture enthusiasts ... saw their task as primarily one of 'find and save'; their main objectives were the collecting and preserving of historical materials" (p.10). Material culture studies focused on the artefact or its maker; rather than looking at the artefact in terms of the culture that produced it, its significance then, and its signifance now (Schlereth, 1982, p.10). The main disciplinary specialities of this phase were: (1) art history; (2) architectural history; (3) anthropology; and (4) archaeology (p.7).

The number of disciplinary specialities increased from four to nine during the second phase. The new study areas were: (1) history of technology; (2) folkart and folklife studies; (3) cultural and historical geography; (4) cultural history, and (5) historical archaeology (p.7). One of the most important outcomes of this phase was the institutionalization and specialization of these new study areas. Research components were set up in history museums. Universities and museums began to develop joint material culture programs. Researchers began to examine different ways of
describing and cataloging the artefacts which had been collected by aquarists during the first phase.

During the last phase "... contemporary material culturists... [began] to expand the emphasis of the discipline from description to the interpretation of them" (p.33). Many different approaches to artefact study have been exercised. Some of these approaches include the use of: (1) structuralist theory; (2) behavioural theory; (3) functionalism theory; (4) semiotics; and (5) environmentalist theory (Schlereth, 1982; Pearce, 1986a, b, 1987). In order to provide a systematic method of analyzing material culture, and in particular individual artefacts, artefact study models were developed by various scholars.

Montgomery (1981) in his article, *The Connoisseurship of Artifacts*, outlines a series of fourteen exercises which a connoisseur must undertake in order "... to determine the date and place of manufacture; the author if possible; and where within the range of its fellows the subject stands in terms of its condition, excellence of execution, and success as a work of art" (p.145). The fourteen steps are: (1) overall appearance; (2) form; (3) ornament; (4) color; (5) analysis of materials; (6) techniques employed by the craftsman; (7) trade practices; (8) function; (9) style; (10) date; (11) attribution; (12) history of the object and its ownership; (13) condition, and (14) appraisal or evaluation. These steps or exercises were developed by Montgomery specifically for the study of "... two dimensional objects (primarily paintings) ... and three dimensional artifacts such as: furniture, silver, textiles, and ceramics" (p.143).
Gilborn (1968) states that "objects are capable of yielding a considerable amount of information about themselves and the conditions in which they were formed or fashioned" (p.14). In order to extract this information, Gilborn developed a study model which consisted of three broad operations: (1) description - "... [it] provides a written and iconic record which can be consulted on other occasions, and ... [it] involves the student - or the scholar - scientist - as a learner of every detail of the object to be studied" (p.14); (2) classification - "... [reveals] relationships that are real and not categorical ...; and ... [provides] a future reference against which freshly uncovered specimens may be compared and identified or otherwise accounted for" (p.15), and (3) interpretation which "... addresses itself to the broad question, What possible meanings can be derived from the products of our labors?" (p.16)

In 1974, Fleming published a paper which presented another model for artefact study. This model was also "... developed in the context of the study of early American decorative arts ... The classification or the basic properties of an [artefact] and a set of four operations to be performed on these properties" (p.154) (see Figure 1). Gonzales (1983), applied Fleming's model to a study of clothing with labels of Lansing dressmakers and milliners (p.14-20). In the concluding chapter of her thesis, Gonzales states that:

The strength of the model is that it provides procedures and consequent data from which interpretations can be made about historical artifacts ... The model however, due to its hierarchial, analytical steps tended to have a mushroom effect resulting in a lengthy discussion of artifacts. Yet, the
Figure 1. Fleming's Model for *Artfact* Studies

- **Operations (A)**
  1. Identification
     (factual description)
  2. Evaluation
     (judgements)
  3. Cultural analysis
     (relationship of the
     *artfact* to its
     culture)
  4. Interpretation

- **Information supplementing the *artfact* (B)**
  - Values of present culture
  - Selected aspects of the *artfact's* culture
  - Comparisons with other objects

*The *artfact*: History, Material, Construction, Design, and Function*
in investigator acknowledges that each chapter in this study could have been expanded to greater length, but due to time and money constraints additional effort was not possible. (Gonzales, 1983, p.153-154)

Prown (1982) developed a model consisting of three phases: "... [1] description, recording the internal evidence of the object itself; ... [2] deduction, interpreting the interaction between the object and the perceiver; ... and [3] speculation, framing hypotheses and questions which lead out from the object to external evidence for testing and resolution" (p.7). Each of the phases are then further subdivided to enable the researcher to extract as much information from the artifact as possible (p.7-10). Prown also grouped [artefacts] according to function. The six groups are: (1) art; (2) diversions; (3) environment; (4) modification of landscape; (5) applied arts, and (6) devices.

Pearce (1986a, b, c; 1987) in a series of articles entitled 'Thinking About Things' explores different approaches to the study of artifacts. To unlock the "... unique information [objects embody] about the nature of man in society..." [Pearce states that]... it should be possible to ask the questions how, what, when, where, by whom and why about every artefact..." (1986 a, p.198). In order to organize "... the properties of an object for the purposes of artefact study..." (p.193) Pearce developed a model based on Fleming's artefact study model. Pearce's model focuses on four main areas:

- **material**, which includes raw material, design, construction and technology;
- **history**, which includes a descriptive account of its function and use;
- **environment**, involving all its spacial relationships; and **significance**,
which embraces its emotional or psychological messages. The sum of our understanding of these properties may be described as interpretation (Pearce, 1986a, p.198).

These areas are then expanded into the eight phases of the proposed model.

Phase one of the material component focuses on the basic documentation which usually takes place during accessioning. "This will include a full written description of the construction and ornamentation cast in the appropriate technical language, together with relevant measurements, drawings, photographs and x-ray photographs . . ." (p.199). Phase two focuses on comparative analysis, that is comparing an artefact "... with other artefacts of its own broad type so that its position on its typological band can be established" (p.199). During the third phase of the material component, the raw materials used in the production of the artefact should be identified and analysed. Identifying treatments applied before and during the manufacture of the artefact is also recommended.

Phase four focuses on the history of the artefact "... that is the details... of its maker and manufacturer, and its use in its own time and place; and its subsequent history of collection, publication and exhibition" (p.199). Primary and secondary sources need to be consulted in order to uncover as much information as possible, relevant to the artefact.

The environment provides an abundance of valuable information as many "objects exist in a locational relationship to other artefacts and to the landscape and the study of these relationships can be very useful for our understanding of the role of the artefact." (Pearce, 1986a, p.199). When establishing the context of an artefact
Pearce recommends an examination of both the micro and macro elements. The micro environment refers to the immediate environment in which the artefact is located. Descriptions of this environment should include "... details of surrounding related objects, containers, debris ..." (p.199). The macro environment extends to "... the workshop, church or bedroom from which these were situated (p.199).

The final stage focuses on "... the significance of the artefact for its own time and place and for ourselves, since these are often different ... (p.200). Objects found in collections have survived because they demonstrated, and continue to demonstrate prestige, social position, and religious and ceremonial significance.
3. METHODOLOGY

This chapter discusses the procedure of the study, development of the evaluation instrument, selection of evaluation panel and analysis of data.

3.1 Procedure

1. In order to achieve the aim of this study a set of specific objectives were developed.

2. Using the Pearce (1986 a) model for artefact studies, the study garment was documented as very little was known about the costume.

3. Using procedures outlined by Arnold (1974) and Mills (1986), a scale pattern was taken from the study garment.

4. The scale pattern of the study garment was enlarged to full size, and then used to produce a toile.

5. A study tour of Canadian and British Museums and Libraries (see Appendix 10.3 for museums and libraries visited, and Appendix 10.4 for accession numbers of costumes examined) was arranged, in order to enable the researcher to gain a wider knowledge of the cut and construction of 1880's ladies garments. During the study tour, patterns were taken from a variety of day dresses and undergarments. Other primary sources, such as fashion periodicals, photographs, pattern drafting manuals, and women's magazines were also examined.
6. A scale bustle pattern taken from an original bustle at the Royal Ontario Museum was enlarged to full size, and a toile was made.

7. A scale petticoat pattern taken from an original petticoat at the Museum of Costume, Bath, was enlarged to full size and a toile was made.

8. Using a corset pattern from Harpers Bazar (June 19, 1886, supplement VIII, figs. 56-60) a toile was made.

9. The corset, bustle, petticoat and study garment patterns were then analysed and evaluated by the researcher for accuracy using the toiles, the original garment, duplicated fashion illustrations, and photographs of original garments as criteria.

10. Modifications were made to the original patterns, in order to improve specific features, such as the bust darts, sleeve shapes and waistline curves.

11. Using the Price and Zamkoff (1974) grading system, the study garment, corset, bustle, and petticoat patterns were graded to a British standard size.

12. Using the graded pattern pieces, a toile of the study garment was made in red cotton ticking.

13. Three corsets, three bustles, and three petticoats were made using readily available 100% cotton fabrics.

14. Using the Thomson (c.1887) drafting system, a standard size 12 pattern of the study garment was developed. A toile was made using red cotton ticking.
15. Using the Aldrich (1985) drafting system, a standard size 12 pattern of the study garment was developed. A toile was then made using red cotton ticking.

16. The original study garment was mounted on a custom made mannequin developed using methods outlined by Serafino (1983). Each toile was mounted on a dress form, which was padded to a British standard size 12, and encased by the appropriate undergarments. The bust, waist and hip measurements were reduced by 4 cm following the application of the corset. The size reduction cited in the literature varied from 2.5 cm to 5 cm (Anderson, 1982; Bender, 1979).

17. An evaluation panel was selected (see Section 3.4). The panel was asked to evaluate each toile according to the criteria provided in the evaluation instrument. The panel was not briefed with regard to the processes used to create each toile. Each panel member carried out the evaluation independently.

18. The data generated by the evaluation panel was used to determine which of the three toiles was the most authentic reproduction of the study garment.

3.2 Development of Evaluation Instrument

The evaluation instrument used by the local evaluation panel was developed and then tested using members of the 1987 CLTX 403 History of Costume class. Following the testing procedure, modifications were made to the instrument. The final instrument was then administered (see Appendix 10.9).
3.3 Selection of Evaluation Panel

For the purpose of evaluating the authenticity of the three toiles developed, a panel of local experts was selected. The panel consisted of 12 members (see Appendix 10.6 for members of the evaluation panel). In order to obtain an appropriate representation of personnel associated with costume reproduction, panel members were drawn from the following work areas: museums and historic sites, the Prairie Costume Society, the University of Alberta, and theatre companies. Each prospective member was contacted by telephone, then by letter.

3.4 Analysis of Data

The data generated following the evaluation sessions was analysed using descriptive statistics. The frequency of response to each factor listed on the evaluation sheets was computed. This information together with the scores on the 'ranks' was used to determine which of the three toiles was the most authentic reproduction of the study garment.
4. THE APPLICATION OF THE PEARCE ARTEFACTS
MODEL TO THE STUDY GARMENT

For the purpose of this study, the Pearce (1986a) proposed model for artefacts
studies was chosen to document the study garment as it offered a coherent "... way of
organizing the properties of an object ..." (p.198). The four main areas of this
model are: material, history, environment, and significance. These areas are
expanded to form an eight phase model (see Figure 2). By working through each phase
of the model, one is able to extract the unique information an object embodies
(p.198).

4.1 Material

In order to become familiar with the study garment's form, an extensive physical
examination of the artefact was carried out. Its individual components, design
features, trimmings and construction techniques, as well as its overall condition were
described. Basic measurements were noted, and a pattern was taken from the artefact
using methods described by Arnold (1974) and Mills (1986). The artefact was then
mounted on a custom made mannequin and photographed. Internal construction details
and damaged areas were also photographed. 200 ASA Kodak photographic film was used
for this purpose.

Costumes similar to the study garment were examined at the Historic Costume
and Study Collection, University of Alberta, Edmonton; the Provincial Museum of
Alberta, Edmonton; the Royal Ontario Museum, Toronto; The Victoria and Albert
Figure 2  Pearce's Proposed Model for Artefact Studies

1. **material - construction and ornament**
   - physical description, relevant records

2. **material - design, of itself, of ornament**
   - comparison with other artefacts to create typology sets

3. **material - characterisation**
   - provenance
   - industrial techniques
   - comparison with other samples and artefacts

4. **history**
   - its own history
   - its subsequent history
   - its practical function
   - dating etc. techniques relevant documentary research

5. **environment - context**
   - on site recording, research
   - micro
   - marco

6. **environment - location**
   - in the landscape
   - in relation to patterning
   - landscape and location studies

7. **significance**

8. **Interpretation - role of artefact in social organization**
   - sum of previous study, body of cultural knowledge and analytical techniques

In order to identify the fibre content of each fabric used in the construction of the study garment, loose yarns were carefully removed from the different fabrics making up the garment and examined under a microscope. Several chemical tests were also performed to confirm the results of the microscopic testing. Weave types were also examined and then documented.

4.2 History

Using a combination of primary and secondary sources, the production date of the study garment was narrowed down to a time span of approximately four years. Information on fashionable colours, prominent design features, dress designs, fabrics, pattern drafting, and clothing production techniques of the 1880's was obtained from the following sources: advertisements, archival photographs, dressmakers' manuals, costume exhibition catalogues, fashion periodicals, fashion plates, paper patterns, pattern drafting manuals, women's magazines and costume reference books.

Unfortunately, no information could be located on the designer and/or the maker of the study garment. The information provided by the donor was very limited. Using information gathered from primary sources, conclusions were made in regard to the maker. Fashion advice given by fashion editors of late nineteenth century women's
magazines allowed the researcher to make several assumptions with regard to the purpose of the study garment.

4.3 Environment

Information relating to the micro and the macro environments of which the study garment was a part, was difficult to locate. Instead, an investigation of other garments, especially undergarments and accessories which may have been worn with the study garment was carried out. Additional research isolated the general fashion changes of the preceding and following decades, thus placing the study garment into the historical continuum of clothing evolution.

4.4 Significance

Costume reflects the economic prosperity of a given period, and more importantly it illustrates more graphically than any book or document, the essence of a period. A costume is a mirror of the cultural attainments of its time, the changing decorative styles and techniques, sensitivity to colour and texture, the changing morals and social values, the elaborate patterns of etiquette of a bygone era. Although the role of women was beginning to change during the 1880's, the study garment reflected the traditional values of the period. Women, such as the owner of the study garment, continued to be 'caged' in restrictive under and outerwear, and were displayed as ornamental objects by their husbands or family. Of all the extant costumes examined as part of this study, the study garment was one of the few garments which reflected the ultimate in decorative styling. The study garment also
provided important information on the cut and construction techniques used during this period.

4.5 Documentation of Study Garment

For the purpose of this thesis, only the relevant sections of the documentation report have been included here. The complete documentation report, condition report, and the pattern are stored in the Historic Costume and Textile Study Collection, University of Alberta, Edmonton. The bustle dress illustrated in Appendix 10.8 was donated to the Historic Costume and Textile Study Collection in 1984, by Mrs F. D. Locke of Lacombe. The following note accompanied the dress:

This dress belonged to Mrs. F. H. Reed whose husband was Superintendent of Lacombe Experimental Farm (now Research Station). It belonged to an old aunty of Mrs Reed's in Ontario. Mrs Reed gave it to me when she left Lacombe a number of years ago. The dress now must be 150-200 years old. Mr and Mrs Reed are now both dead.

During a recent telephone interview, Mrs. Locke was unable to provide any further information about the artefact. Thus, in order to date the garment, it was necessary to consult costumes in other collections, nineteenth century ladies magazines and various primary and secondary photograph collections. This particular dress style, according to these sources, was popular during c.1883 - c.1886.

4.5.1 Description of the Study Garment

The study garment is made of three different types of fabrics: satin, cotton twill,
and velvet (see Table 1). As the satin is shot, the warp yarns on the right side appear to be "... porphyry, a beautiful tint between brick-red and garget" (Godey's Lady's Book, 1885, p.100), and the weft yarns on the wrong side of the fabric are a blue-grey colour. A slightly darker red velvet has been used for the plastron and shaped cuffs. The bodice is lined with the same cotton fabric which was used to make the foundation skirt. This fabric was probably white or slightly off white originally, but now has discoloured with age.

Table 1
Fabric Components of Study Garment

<table>
<thead>
<tr>
<th>Garment Component</th>
<th>Fabric</th>
<th>Fibre</th>
<th>Weave</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bodice</td>
<td>Satin</td>
<td>Silk</td>
<td>Twill</td>
</tr>
<tr>
<td>Bodice Lining</td>
<td></td>
<td>Cotton</td>
<td>Twill</td>
</tr>
<tr>
<td>Plastron and Cuffs</td>
<td>Velvet</td>
<td>Silk</td>
<td>Pile</td>
</tr>
<tr>
<td>Foundation Skirt</td>
<td></td>
<td>Cotton</td>
<td>Twill</td>
</tr>
<tr>
<td>Surface Decoration</td>
<td>Satin</td>
<td>Silk</td>
<td>Twill</td>
</tr>
</tbody>
</table>

The study garment is made up of two parts, a bodice and an ankle length skirt. The bodice is very fitted. The extreme shaping has been obtained by the use of a five piece bodice. Although the two dart bodice block was the most commonly used block during the 1880’s, the cut of this bodice has successfully eliminated one of the darts by incorporating it into the panel line. Even the central opening, which is decorative rather than functional, has been shaped in order to create a closer fit around the bust and waist areas. The back panels are also very shaped. The traditional side seam has
been eliminated and replaced by a shaped underarm panel which fits closer to the body. The entire bodice extends below the natural waistline. The front section is pointed, the back is curved.

The front bodice has a central plastron which is 2.5 cm shorter than the front bodice. Fifteen small buttons and buttonholes are located in the middle of the plastron. The buttons and buttonholes are purely decorative as it is impossible to undo all of them. The upper edges of the plastron are folded down to form a small rever collar. The shape of the collar is maintained by fine wire which has been sewn to the inner edge. Above the plastron is a small pleated insert which resembles the upper section of a pleated blouse. The left hand side of this insert is attached to the narrow neckband. The right hand side of the insert forms part of the asymmetrical opening. The left side of the plastron is machine stitched to the front bodice piece. There are sixteen hand stitched eyelets along the right hand edge of the plastron. Sixteen medium sized hooks are stitched on the under side of the hand bodice piece. The thread used for this process has been carried from one hook to the other, rather than being cut each time. Each panel line is trimmed with flots made of velvet ribbon. The trimming begins at the shoulder and ends below the waistline. The narrow neckband is edged with gathered white net. The raw edges of net have been enclosed in a narrow cotton strip which has been carefully hand stitched around the inner edge of the neckband.

By using a seam in the centre back position of the bodice, additional flare was added at the hemline, thus enabling the lower edge of the bodice to fit over a hip pad or bustle frame. The shoulder line has been moved slightly toward the back in order to improve the fit around the shoulder area. The two piece, set in sleeve is extremely
fitted. Gathers have been incorporated at the elbow position to allow for movement. Each sleeve is trimmed with a shaped velvet cuff.

The skirt consists of two parts, the foundation skirt which is made of cotton twill, and the overskirt which is made of silk satin. The foundation skirt consists of two fitted, front panels and a large rectangular back panel. Seven darts have been used to shape the front panels. The back section was originally gathered or cartridge pleated onto the waistband, however, as the back waistband has disintegrated, the gathers or pleats have broken away. Approximately 25 cm below the back waistline is a drawstring casing which enabled the wearer to pull the back skirt taut, following the application of the hip pad or bustle frame. Above the casing and in the centre of the skirt is a placket opening which was originally fastened by a hook and eye, and possibly a button. The lower section of the skirt has been stiffened with a piece of crinoline 9 cm wide, and then faced with a piece of silk satin measuring 32 cm in width. A knife pleated frill made of silk satin has been stitched 9 cm from the hem edge. The edge of the foundation skirt is bound with brown cotton tape.

The skirt is asymmetrical in design. On the left hand side of the skirt is a feature panel made of seven layers of knife pleating. The panel appears triangular, as the back drapery piece is attached over the pleats along the straight grain. The front drapery piece is attached to the right hand side of the pleated panel in such away that it forms a broken diagonal line. The diagonal edge of the panel has been trimmed with three large gathered silk satin bows. The front and back overskirt pieces are both rectangular in shape. To create drapery the sides of the front and back pieces were pleated and hand sewn to the foundation skirt. The centre front folds were kept in
position by hand stitches along the centre front seam. The thread which held these folds in position has deteriorated with time. Fragments of thread have remained along the seam. An additional drapery piece has been added over the front overskirt. This addition has been made recently, as it has been attached in quite a different manner. Originally this rectangular piece of fabric would have been draped over the bustle.

4.5.2 Condition Report

Although the study garment is over one hundred years old, the fabrics are still in good condition. The original sewing thread used in the construction of this garment has been deteriorating over time. The velvet ribbon trim and the hooks on the right hand side of the bodice are no longer stable. The lower part of the velvet trim on the bodice is hanging feely. The second bow on the skirt is also loose and the hem of the overskirt is coming down. The tearing which has occurred along the waistband and the upper part of the back foundation skirt has been induced by numerous alterations which have been made overtime. Six different threads had used in the remodelling and repair of the back waist area. The silk overskirt is no longer attached to the back waistband.

4.5.3 Fashion Continuum [c.1875-c.1898] - A Brief Overview

Up until c.1875 the bustle silhouette had been favoured by fashionable women. The silhouette had been introduced by the Parisian couturier Worth in c.1869. During the latter years of the 1870's the bustle was temporarily abandoned in favour of garments which were more fitted especially around the hip area. Two basic dress
modes were popular during the period c.1875 to c.1882. The first mode consisted of a separate bodice and skirt, and in 1877 the blouse, sometimes called the Russian blouse made its appearance (Laver, 1985, p.112). The second mode was the princess gown.

Four main bodices were worn during the period: the plain tight bodice, the jacket bodice, the cuirasse bodice, and the Norfolk jacket bodice (Cunnington, 1970, p.488). Although each bodice had its own distinct characteristics, they were all very fitted. The corset in vogue at the time gave the bust a rounded appearance, and also emphasized the waistline when worn with the plain or cuirasse bodice. Full length and three quarter length sleeves trimmed with ruffles of lace or cuffs of contrasting fabric were popular. Necklines were high, and were usually finished with narrow neckbands, trimmed with lace or net. The open V neck with revers was used on the jacket bodice. Skirts became much flatter in front. This flatness was achieved by a series of tapes located on the underside of the skirt. The tailor made skirt was untrained and slightly shorter than other skirts.

The princess gown was a one piece garment which fitted snugly over the bust, waist, and hips. Yarwood (1967) states that:

After 1876 . . . the fitting princess gowns were predominant, with the looped-up draperies in different colours and patterns still worn, but arranged lower at the back and giving a narrow skirt, often tight nearly to the ankles, but ending in a train of accordion pleating and/or lace frills. (p.227)

There were five variations of princess gown. These were: the Polanaise, the Dolly Varden, the Jersey Costume, the Teagown, and the Aesthetic Dress (Cunnington, 1970,
p.493). Popular colours included blue, black, purple, apple green, red, and mandarine. It was very fashionable to combine different colours and fabrics in the one dress.

In c.1883 the bustle was re-introduced as a high fashion accessory. At first it merely consisted of a stuffed cushion, however by c.1885 complex systems had been developed whereby half hoops of wire were sewn into the back of the foundation skirt, or set onto a band and worn around the waist. The desired shape was maintained by a series of internal tapes. Skirts were once again covered in drapery, and trimmed with knife, kilt and box pleats, gathers, tucks, rouching or bows made of the same fabric as the overskirt. Other popular trimmings included velvet ribbon, braid, passementerie, and fringing. Asymmetrical skirt designs were characteristic of this period. Skirts of the early 1880's were slightly shorter than those worn in the previous decade. This new length enabled the wearer to walk a little easier, and a little faster. In c.1885 the full length, vertically pleated skirt was introduced. This skirt style remained in fashion until c.1889.

During the 1880's two new bodices were introduced: the polonaise bodice, popularized by Worth, and the blouse bodice (Cunnington, 1970, p.517). Bodices continued to be very fitted. The corset in vogue gave the bust a more rounded appearance, and at the same time emphasized the waistline which had returned to its normal position. In order to soften the rigid line of the fitted bodice, couturiers once again combined fabrics of differing colours and textures. Popular combinations included silk and velvet, wool and velvet, and velvet and silk brocade (Waugh, 1968, p.147). Although sleeves were still very fitted they were softened by the addition of
lace or a cuff of contrasting fabric or colour. Necklines remained high, and were either finished with stiff fabric bands or lace ruffles. The open V neck with rears was used on tailored garments.

As women became more actively involved in professional work and sporting activities, the need for new and more practical garments arose. In c.1889 the bustle shrank to a mere hip pad, and by c.1890 it was totally discarded. Layered clothing slowly began to disappear in the 1890’s. The new bell shaped skirt and its variations were more fitted and much narrower than the skirts worn during the previous decade. As the skirt became narrower, the heavy foundation skirts and flounced petticoats were also discarded. Lighter weight fabrics such as crepe-de-chine, surah, voile, and muslin were adopted, and used for day dresses.

The skirt, however, was not the most innovative fashion change to occur during this period. By c.1892, the focal point of most garments was the shoulder area. Up until c.1893 the ‘most fashionable sleeves’ were the gigot and puff, however, by c.1896 these sleeves now known as the leg of mutton and the balloon, had expanded so much that up to four layers of fabric were required to support them. By the end of 1896 these voluminous sleeves collapsed, and were replaced by moderately sized puff sleeves, and the traditional fitted sleeve.

The bodice continued to be very fitted. The corset of this decade was very long bodied, thus producing a bustline which was more sharply defined, a small waist and well rounded hips (Waugh, 1968, p.227). The dress waistline was slightly lower than normal. Yokes of various sizes were trimmed with either lace, beads or ruffles.

"From c.1893 wide rears tapering to the waist and equallettes or shoulder frills,
emphasized the growing spread of the sleeves and the smallness of the waist" (Waugh, 1968, p.227). Collars were so high that they required boning to support them.

During the latter part of the nineteenth century, the tailor mades were launched by the House of Redfern. "These consisted of slightly feminized male jackets, braid trimmed and buttoned down the front, allied to plain skirts flat in front but with sufficient flare at the back to allow for easy walking..." (Black & Garland, 1975, p.296). Popular fabrics for the tailor mades included linen, tussore, tweeds, mohairs, serges, and cashmere. These new garments were favourably accepted by women. In 1898 the London Tailor stated that "... the only really new dress development which has taken place during the last half century has been the evolution of the tailor-mad gown which is doubtless due to the active life now lead by women of every class" (Cunnington, 1970, p.538).

4.5.4 Date of Manufacture and Use

During the years 1883 to 1886, fashion writers for Harpers Bazar, Godey's Magazine, and Petersons Magazine described costumes similar to the study garment. The popular features were described as follows:

Very small buttons are used on the bodice...

The left side of the bodice... buttons over this plastron, which is attached to the other side-front of the bodice.

The corsage is of the plain material... the plastron is of the plaid.

(Petersons Magazine, 1883, p.419)
There has been suddenly developed a fancy for simple dresses of plain fabrics and a single colour, by way of giving variety to the wardrobe.

The upper drapery is not cut out by any pattern but is arranged in explicable folds on top of the skirt, in any way most becoming to the wearer.

(Harpers’ Bazar, June 30, 1883, p.403)

... chaudron reds, with the dark garnet and cardinal shades... are the colours most prominent in the new woollens and the rich silks and velvets imported for autumn and winter... the blues are pure and simple shades, sapphire, marine and azure with some of the electric blues that have grey shades. (Harpers’ Bazar, August 18, 1883; p.515)

Flowing bows of red velvet ribbon are placed on the right side near the hip and under the left near the puff. (Godey’s Lady’s Book, July 1884, p.202)

The foundation of the skirt is bordered with a narrow ruffle... (Godey’s Lady’s Book, July 1884, p.305)

Narrow satin ribbons and velvet trim many of the new promenade toilettes.

(Godey’s Lady’s Book, July 1884; p.91)
Piastron in front, collar cuffs, and pockets can be a different material from the rest of the bodice if desired. . . . The velvet is used for the waistband, upper right collar, and cuffs. (Godey's Lady's Book, July 1884, p.200)

. . . this foundation skirt does not show at all, being covered with trimming and drapery. (Godey's Lady's Book, December, 1884, p.645)

A pad bustle is fastened into the skirt at the back, this is made of satin, silk, or silesia . . . . Put it upon a band, fasten into the dress or let it be worn with any dress . . . . all dresses have this bustle added to them.

(Godey's Lady's Book, January, 1885, p.102)

Box plaited ruffles, double box plaitings, and triple box plaiting are all fashionable. (Godey's Lady's Book, January 1885, p.105)

Similar garments were also featured in costume catalogues such as: A Stitch in Time: Clothing in West London; Dress from Three Centuries; Eight Chicago Women and their Fashions, 1860-1929; Great Grandmother's Clothes: Women's Fashion of the 1880's, and Roman Isto Ten: Evolution of Fashion, 1835-1895. Similar garments were featured in archival photographs from the City of Edmonton Archives, the Glenbow Museum Photographic Archives, the Historic Costume and Textile Study Collection at the University of Alberta and the Public Archives of Canada, Ottawa.
During the 1880's, dressmaking resources were readily available. Leading women's magazines such as *Le Bon Ton*, *Godey's Lady's Book*, *Harpers Bazar*, *La Mode Actuelle*, *Le Moniteur de la Mode*, *Myra's Journal of Dress and Fashion*, *Myra's Threepenny Journal* and *Peterson's Magazine* were providing dressmaking instructions, paper patterns, pattern drafting methods as well as mail-order services for custom pattern making and custom dressmaking. The following instructions which appeared in *Godey's Lady's Book* in 1885 may be directly related to the construction of the study garment:

Darts are taken in the top of the front and sides to make the skirt fit smoothly over the gored foundation skirt. First commence with the front dart seam, basting from the point downward. Then the second, and follow by basting the front side-shape to the front. The fronts being finished, proceed by basting the back to the side-shape at the back. . . . After the backs, follow the side seams joining the back with front. Now after the other side is similarly treated, join both halves of the waist together in the centre of the back. This finished, the shoulder seams should be basted . . . (January 1885, p.102)

As a label does not appear anywhere on the study garment, one could assume that it was made by a home dressmaker. The bodice and skirt have been very well executed. Although the skirt has been remodeled, the original foundation skirt and asymmetrical surface decoration reflects the precision of an experienced seamstress. As the domestic sewing machine was now readily available seamstresses could produce garments with far more surface decoration on them. Gathering and the preparation of pleats could now be done by machine. A combination of machine and hand techniques
have been used on the study garment.

According to the original information supplied by the donor, the dress belonged to a woman who had lived in Ontario. The measurements taken from the garment indicate that she probably would have been equivalent to standard size 6/7 (see table 2). The total length of the garment is approximately 140 cm. If one adds an additional 25 cm for the length of her neck and head, her approximate height would have been 165 cm.

It is difficult to determine the precise age of the original wearer, as the style was popular amongst women of all age groups. Mrs McCormick, in a photograph (c.1885), featured in the costume catalogue, *Eight Chicago Women and their Fashions, 1860-1929*, is wearing a dress similar in cut to the study garment. Mrs McCormick was 50 in 1885. Photograph 96 from Victorian Dress in Photographs features two women from different age groups wearing garments which are also similar in cut to the study garment.

From descriptions and illustrations featured in: *The Girls Own Paper, Godey's Lady's Book, Harpers Bazar, Ladies Treasury, The Lady, La Mode Actuelle, L'Art de La Mode, La Mode Artistique, La Mode Illustree, Le Moniteur de la Mode, La Mode Pour Tous, La Mode de Style, Myra's Journal of Dress and Fashion, Myra's Three Penny Journal, Peterson's Magazine, The Queen, Sylvia's Home Journal, and Tailor and Cutter*, it would seem that the study garment could have been an autumn costume used for promenading or visiting.
### Table 2

**Internal Measurements of the Study Garment**

<table>
<thead>
<tr>
<th>Measurement</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bust</td>
<td>89.2</td>
</tr>
<tr>
<td>Waist</td>
<td>64</td>
</tr>
<tr>
<td>Hips</td>
<td></td>
</tr>
<tr>
<td>Back width</td>
<td>27.6</td>
</tr>
<tr>
<td>Across chest</td>
<td>28.7</td>
</tr>
<tr>
<td>Shoulder</td>
<td>11.8</td>
</tr>
<tr>
<td>Neck size</td>
<td>32.2</td>
</tr>
<tr>
<td>Dart width at natural waist</td>
<td>4</td>
</tr>
<tr>
<td>Dart width 4 cm above natural waistline</td>
<td></td>
</tr>
<tr>
<td>Top Arm [with ease]</td>
<td>33</td>
</tr>
<tr>
<td>Wrist [with ease]</td>
<td>22.5</td>
</tr>
<tr>
<td>Nape to waist</td>
<td>35.5</td>
</tr>
<tr>
<td>Nape to lower edge</td>
<td>51.75</td>
</tr>
<tr>
<td>Front shoulder to waist</td>
<td>40.3</td>
</tr>
<tr>
<td>Armhole depth</td>
<td>20.3</td>
</tr>
<tr>
<td>Waist to floor - front</td>
<td>103</td>
</tr>
<tr>
<td>Waist to floor - back</td>
<td>108</td>
</tr>
<tr>
<td>Sleeve length</td>
<td>54.5</td>
</tr>
<tr>
<td>Cuff width</td>
<td>4.5</td>
</tr>
</tbody>
</table>

*Note: Unit of Measurement - Centimetres*
The aim of this exploratory study was to determine which of three processes would produce the most authentic reproduction of the study garment. The three processes used were: drafting a pattern using an 1880's pattern making system, drafting a pattern using a contemporary pattern making system, and grading the pattern taken from the study garment. Three toiles were made, and then mounted on dress forms which had been padded to simulate British standard size 12 body shapes (see Appendix 10.8 for photographic plates). The padded forms were then encased by the appropriate undergarments. The study garment was mounted on a custom made mannequin which had been developed using methods outlined by Serafino (1983). Each toile was then evaluated by members of the selected panel.

5.1 The Most Authentic Reproduction

The evaluation instrument used by the panel was made up of three parts. Part A consisted of a five point descriptive graphic rating scale. A checklist was used in part B. In part C panel members were asked to rank the toiles from most authentic reproduction to least authentic. In parts A, B and C of the test instrument, the panel’s responses indicate that the graded toile was the most authentic reproduction of the study garment (see Tables 3, 4 and 5).
### Table 3
**Panel Responses to Part A**

<table>
<thead>
<tr>
<th>Toile</th>
<th>Same as original</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Garment Components (n=16)**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1880</td>
<td>3</td>
</tr>
<tr>
<td>1980</td>
<td>1</td>
</tr>
<tr>
<td>Grade</td>
<td>1 2</td>
</tr>
</tbody>
</table>

### Table 4
**Panel Responses to Part B**

<table>
<thead>
<tr>
<th>Toile</th>
<th>Same</th>
<th>Deviates</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Garment Components (n=5)**

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1880</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>1980</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Grade</td>
<td>5</td>
<td>0</td>
</tr>
</tbody>
</table>

### Table 5
**Ranking of Toiles by Evaluation Panel**

<table>
<thead>
<tr>
<th>Toile</th>
<th>First Choice</th>
<th>Second Choice</th>
<th>Third Choice</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Responses</td>
<td>(n=12)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1880</td>
<td>0</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>1980</td>
<td>1</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Grade</td>
<td>1 1</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>
5.2 The Bodice

Of the six features related to the front of the bodice, three featured on the graded toile were ranked by the panel as being closest to the original. These features were: the neckline, shoulder line, and the across chest area. With regard to the fit across the bust area panel members favoured the 1880's toile (see Table 6). The panel did not agree with regard to the position of the bust dart and the position of the dart point (see Table 6).

The narrowest part of a woman's torso in the 1880's was immediately below the last pair of ribs, as this is where the body could easily be compressed by a corset. The narrowest part of a present day woman's torso tends to be further below the rib cage area. Panel members favoured the waistline size of the graded toile, and the waistline position of the 1880's toile (see Table 7).
Table 6: Evaluation of Front Bodice

<table>
<thead>
<tr>
<th>Neckline</th>
<th>Tighter</th>
<th>Same as Original</th>
<th>Looser</th>
</tr>
</thead>
<tbody>
<tr>
<td>1880</td>
<td>0</td>
<td>2</td>
<td>9</td>
</tr>
<tr>
<td>1980</td>
<td>0</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Grade</td>
<td>0</td>
<td>8</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Shoulder Line</th>
<th>More</th>
<th>Same as</th>
<th>Less</th>
</tr>
</thead>
<tbody>
<tr>
<td>1880</td>
<td>8</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>1980</td>
<td>0</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Grade</td>
<td>0</td>
<td>10</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Bustline</th>
<th>Tighter</th>
<th>Same as Original</th>
<th>Looser</th>
</tr>
</thead>
<tbody>
<tr>
<td>1880</td>
<td>1</td>
<td>8</td>
<td>1</td>
</tr>
<tr>
<td>1980</td>
<td>0</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>Grade</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Across Chest</th>
<th>Wider</th>
<th>Same as</th>
<th>Narrower</th>
</tr>
</thead>
<tbody>
<tr>
<td>1880</td>
<td>0</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>1980</td>
<td>2</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>Grade</td>
<td>4</td>
<td>7</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Position of Bust Dart</th>
<th>Closer to Centre Front</th>
<th>Same as Original</th>
<th>Closer to Side Seam</th>
</tr>
</thead>
<tbody>
<tr>
<td>1880</td>
<td>1</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>1980</td>
<td>2</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>Grade</td>
<td>0</td>
<td>5</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dart Point</th>
<th>Higher</th>
<th>Same as</th>
<th>Lower</th>
</tr>
</thead>
<tbody>
<tr>
<td>1880</td>
<td>0</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>1980</td>
<td>0</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Grade</td>
<td>6</td>
<td>3</td>
<td>0</td>
</tr>
</tbody>
</table>
Table 7
Evaluation of Waistline

<table>
<thead>
<tr>
<th>Waistline</th>
<th>Tighter</th>
<th>Same as Original</th>
<th>Looser</th>
</tr>
</thead>
<tbody>
<tr>
<td>1880</td>
<td>0</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>1980</td>
<td>0</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Grade</td>
<td>0</td>
<td>0</td>
<td>7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Waistline Position</th>
<th>Higher</th>
<th>Same as Original</th>
<th>Lower</th>
</tr>
</thead>
<tbody>
<tr>
<td>1880</td>
<td>0</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>1980</td>
<td>1</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>Grade</td>
<td>2</td>
<td>5</td>
<td>5</td>
</tr>
</tbody>
</table>

The back and side panel pieces created through the grading process were chosen by the panel as being the closest reproduction of the original proportioning and shape (see Table 8).
<table>
<thead>
<tr>
<th>Shape of Back Bodice</th>
<th>Responses (n=12)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Centre Panel</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1880</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>1960</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>Grade</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Side Panel</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1880</td>
<td>1</td>
<td>11</td>
</tr>
<tr>
<td>1960</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>Grade</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>Under Arm Panel</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1880</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>1960</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>Grade</td>
<td>11</td>
<td>1</td>
</tr>
<tr>
<td>Back Bodice Below</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1880</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>1960</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Grade</td>
<td>7</td>
<td>5</td>
</tr>
</tbody>
</table>
5.3 Armhole and Sleeve Shapes

Armhole shapes used during the 1880's were usually circular in appearance. Mallison (1886) and Kendall (1885) directed their patrons to draw the armhole using a circle as a guide. The diameter of the circle used was based on the circumference of the upper arm. Each author provided an appropriate table of measurements. With reference to the patterns developed in this study, the armhole shape of the 1880's toile was found to be much flatter than the original. Contemporary armholes tend to represent ovals, thus automatically making the armhole shapes flatter. The armhole shape produced by the Thomson (c.1887) drafting system although circular deviated from the original. The front armhole appeared far more curved than the original, as it cut sharply into the chest area. The back armhole being shorter in distance appears much flatter than the original. The panel agreed that the front shape of the graded armhole closely resembled the original shape (see Table 9).

The basic sleeve of the 1880's was the fitted two piece sleeve. Variations included gathers at the head, gathers, darts or tucks at the elbow position, and an under sleeve either equal to, or narrower in width than the upper sleeve. Of the three sleeves, the graded sleeve was ranked as the most authentic reproduction of the original. The form of the sleeve was determined by three factors: armhole shape, shape of final pattern pieces and position of grainline. According to the panel's responses, the 1980's sleeve appeared much straighter than the other two sleeves. The sleeve was set into the armhole with the grainline running perpen-
### Table 9
Evaluation of the Armhole

<table>
<thead>
<tr>
<th>Front Armhole Shape</th>
<th>Responses (n=12)</th>
<th>Same as Original</th>
<th>More Curved</th>
</tr>
</thead>
<tbody>
<tr>
<td>1880</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>1980</td>
<td>3</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>Grade</td>
<td>0</td>
<td>3</td>
<td>8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Back Armhole Shape</th>
<th>Flatter</th>
<th>Same as Original</th>
<th>More Curved</th>
</tr>
</thead>
<tbody>
<tr>
<td>1880</td>
<td>1</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>1980</td>
<td>4</td>
<td>8</td>
<td>0</td>
</tr>
<tr>
<td>Grade</td>
<td>4</td>
<td>8</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Armhole Depth</th>
<th>Higher</th>
<th>Same as Original</th>
<th>Lower</th>
</tr>
</thead>
<tbody>
<tr>
<td>1880</td>
<td>0</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>1980</td>
<td>1</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Grade</td>
<td>0</td>
<td>0</td>
<td>9</td>
</tr>
</tbody>
</table>

Dicular to the floor. As the 1880's sleeve was cut to resemble a bent arm, the grainline ran only from the head to the elbow position. The lower section of the sleeve was on the bias. The upper grainline was perpendicular to the floor. Although the position of the grainline on the graded sleeve was similar to the 1880's sleeve, the original sleeve had been set into the armhole with the grainline at an angle to the floor. Several panel members commented that the sleeve head of the 1880's sleeve appeared to be higher and fuller than the other two sleeves. The panel favoured the
sleeve head, and wrist shaping of the graded sleeve. However, in the case of the shape and length of sleeve they favoured the 1880's sleeve (see Table 10).

5.4 The Skirt

Due to conservation reasons, it was unwise to display the foundation skirt of the study garment to panel members. Although panel members examined the surface features on the foundation skirts, these results will not be discussed as the surface features were not developed using a drafting system. The development of the three foundation skirts will be discussed in chapter 6.
<table>
<thead>
<tr>
<th>Sleeve Length</th>
<th>Responses (n=12)</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Longer</td>
<td>Same as Original</td>
<td>Shorter</td>
<td></td>
</tr>
<tr>
<td>1880</td>
<td>1</td>
<td>2</td>
<td>9</td>
<td>0</td>
</tr>
<tr>
<td>1980</td>
<td>8</td>
<td>4</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Grade</td>
<td>1</td>
<td>7</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sleeve Shape</td>
<td>Straighter</td>
<td>Same as Original</td>
<td>More Curved</td>
<td></td>
</tr>
<tr>
<td>1880</td>
<td>0</td>
<td>2</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>1980</td>
<td>8</td>
<td>4</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Grade</td>
<td>1</td>
<td>7</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sleeve Head</td>
<td>Higher</td>
<td>Same as Original</td>
<td>Lower</td>
<td></td>
</tr>
<tr>
<td>1880</td>
<td>3</td>
<td>6</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>1980</td>
<td>2</td>
<td>6</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Grade</td>
<td>0</td>
<td>0</td>
<td>12</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lower Edge Of Sleeve</td>
<td>Wider</td>
<td>Same as Original</td>
<td>Narrower</td>
<td></td>
</tr>
<tr>
<td>1880</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>1980</td>
<td>2</td>
<td>6</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Grade</td>
<td>0</td>
<td>5</td>
<td>6</td>
<td>1</td>
</tr>
</tbody>
</table>
6. DISCUSSION OF RESULTS

6.1 1880's Drafting Systems - A Brief Overview

The fourteen pattern drafting systems examined as part of this study ranged from 1883 to 1888. Ten of the systems were originally published in the United States of America, and four were published in the United Kingdom. Nine of the systems examined [American Scientific Systems, (1883); Anglo-Parisian Associated School, (1885); Cornwell, (1888); Doughty, (1887); Thompson, (c.1887) and Walker, (1885)] required special drafting machines, rulers or scales in order to calculate certain measurements, and to draw certain parts of the pattern pieces. As these drafting tools were unavailable, the systems were difficult to execute. Of the remaining five systems [Bland, (1884); Mallison, (1886); Moody, (1885); Myra, (1888) and Thomson, (c.1887)], only Myra and Thomson provided informative diagrams and accurate instructions for drafting an 1880's bodice, sleeve and skirt.

Patterns developed during the 1880's were drafted using measurements which had been taken over undergarments. Two of the drafting systems examined for this study make reference to such practices. The Anglo-Parisian Associated School of Dresscutting, Draping and Design (1885) advised patrons to:

Be sure you are measured in the same undergarments and corsets you intend wearing with the dress. If you are accustomed to wear padding in any part be sure to have it placed in the same position in the dress you are making (p.16).

Doughty (1887) advised patrons to ensure that:
Before taking the measures [sic] see that the skirt bands do not increase the size of the waist or shorten the length of the under-arm and back measures; also ascertain if the person to be fitted is wearing the same weight under garments and the same shaped corset, while being measured that are to be worn under the garment when it is finished, as a change in the weight, of undergarments and lacing of the corset will make quite a difference in the fit.

(p. 6)

Ease, "the factor taken into consideration when drafting a pattern, allowing extra measure at bust, hip, and waist so garments will be comfortable . . ." (Calasibetta, 1975, p.166), was not referred to in any of the drafting systems examined. As nine systems required special tools, it was difficult to determine whether additional length had been added to the bust, waist and hip measurements. Of the remaining six systems only three (Mallison; 1885; Myra, 1888; and Thomsof c.1887) made reference to additional length which had to be added to the bust measure: Mallison and Myra both used half bust measure plus .75 cm and 2 cm respectively. This additional length created a curved centre front line which fitted the corseted body more snugly. Thomson used half bust measure plus 5 cm, plus an additional 3.25 cm for the centre front shaping. Of the 5 cm added to half the bust measure, 2 cm were lost through the shaping of the back panel pieces. Thus, the Thomson method increased the working bust measure by a total of 6.25 cm (see Table 11). Thomson's system was the only system which increased the bodice waist measurement. The waist measurement gained a total of 5 cm, (see Table 12).

The American Scientific Systems, (1883); Greenwood, (1884); Jackson,
(1888); Taylor, (1883) and Walker, (1885) did not provide instructions for skirt drafts. Of the remaining 9 systems only three systems [Anglo-Parisian Associated School, (1885); Myra, (1888); Thomson, (c.1887)], provided complete instructions which would enable a machinist to execute a skirt using the completed pattern. Although the instructions for the other seven drafts were incomplete it would be possible to execute all of them with the aid of the information provided by the complete drafts and dressmaking manuals of the period. The three complete drafts indicated the finished waist size. The Anglo-Parisian Associated School maintained a skirt waist equal to the body waist measurement. Myra's draft was 2.5 cm larger than the waist measurement referred to, and Thomson's draft was 10 cm larger than the waist measurement referred to in the text.

6.2 The Pattern Making Processes Used In This Study

Using the criteria listed in appendix 10.5, the Thomson drafting system was selected for the purpose of this study. This system used both direct and proportional drafting techniques. The scale which was used to calculate many of the measurements required was based on the bust measurement. The formula used was bust measurement plus 7.5 cm divided by two. The direct measurements required were front length, nape to waist, nape to back bodice edge, and back width (optional). The neckline, shoulder line, armhole, back width, front chest width, depth of armhole, underarm and the panel lengths and widths were all determined by various calculations based on the scale.

The instructions provided enough information to draft the bodice blocks to the
waistline only. Guidelines were provided for the centre back and centre front extensions. An example of the type of shaping one could incorporate below the waistline was provided by the accompanying illustrations. The particular shaping required for this project had to be based on the study garment, and therefore the patterns taken from the study garment were used as a guide to complete the waistline extension. The final alteration which was required, was the elimination of the bust dart closest to the centre front opening and the creation of the plastron piece.

The position of the shoulder line, which the panel noted as being more angled than the original could not be moved as this would have meant ignoring the instructions provided. Due to the position of the neckline-shoulder junction point it was very difficult to keep the upper right hand side of the front bodice piece on grain as the original. As this part of the bodice was cut on the bias, a more rounded look resulted.

With regard to the fit around the bust area eight panel members chose the 1880's toile as depicting the study garment. The panel agreed that the fit around the bust of the 1980's toile appeared looser than the study garment. With regard to the graded toile, opinion was divided; six chose the grade as depicting the study garment, three felt the fit around the bustline was tighter and three felt it was looser. When examining the bust measurements one finds that the actual measurements are approximately the same (see Table 11). The final shape of each bodice differed, as the distribution of the bust measurement was not the same on each pattern piece. The visual confusion related to the bustline fit of the 1880's toile was probably due to the narrowness of the across chest area partly caused by the extreme curvature of the front armhole. The across chest area (7 cm below the front neckline) only measured
14.5 cm on the 1880's toile, as compared to 16.5 cm and 16.75 cm on the 1980's draft and the grade respectively.

Table 11
Comparison of Bust Measurements of the Three Toiles

<table>
<thead>
<tr>
<th></th>
<th>1880</th>
<th>1980</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Bust Measurement</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Required</td>
<td>84</td>
<td>84</td>
<td>84</td>
</tr>
<tr>
<td>on Draft</td>
<td>94</td>
<td>98</td>
<td>96.2</td>
</tr>
<tr>
<td>Loss Through Darting</td>
<td>4</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Gain at Corset</td>
<td>96</td>
<td>93</td>
<td>92.2</td>
</tr>
<tr>
<td>Plastron Shaping</td>
<td>6.5</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Total Bust Measurement</td>
<td>96.5</td>
<td>97</td>
<td>97.2</td>
</tr>
<tr>
<td>Bust Measure Increase</td>
<td>12.5</td>
<td>13</td>
<td>13.2</td>
</tr>
</tbody>
</table>

Note: Unit of Measure: Centimetres

The front armhole curve could not be flattened as the shape was pre-determined. Panel members felt the waist fit of the graded toile appeared to resemble the fit of the study garment. Panel members felt that the 1880's toile and the 1980's toile were looser than the original. Once again when examining the waist measurements one will find that the waist measurements of the 1980's toile and the graded toile are very similar. Even though the waist measurement of the 1880's toile was much smaller, the panel felt that the waist of this toile was looser than the original (see Table 12).
Table 12
A Comparison of the Waist Measurements of the Three Toiles

<table>
<thead>
<tr>
<th></th>
<th>1880</th>
<th>1980</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waist Measurement</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Required</td>
<td>64</td>
<td>64</td>
<td>64</td>
</tr>
<tr>
<td>Waist Measurement</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>on Draft</td>
<td>94</td>
<td>98</td>
<td>96</td>
</tr>
<tr>
<td>Loss through Darting</td>
<td>29.5</td>
<td>31</td>
<td>28.4</td>
</tr>
<tr>
<td>Waist Measurement</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>less Darting</td>
<td>64.5</td>
<td>67</td>
<td>67.6</td>
</tr>
<tr>
<td>Gain at CF due to</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Piastron Shaping</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Total Waist</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Measurement</td>
<td>66.5</td>
<td>70</td>
<td>70.5</td>
</tr>
<tr>
<td>Waist Measure</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increase</td>
<td>2.5</td>
<td>6</td>
<td>6.5</td>
</tr>
</tbody>
</table>

Note: Unit of Measure: Centimetres

The shape and proportion of the back and side panel pieces produced by the Thomson drafting system were ranked third by the panel. This was to be expected as the shape and proportion of each of these pieces was predetermined by the drafting system.

The instructions accompanying the Thomson skirt draft were complete, concise, and supplemented by line drawings. The skirt consisted of three pieces, two front panels and one back panel. Two sets of measurements were provided by Thomson, indicating that a 1.25 cm seam allowance had been built into the draft. The
instructions indited that:

This foundation skirt as a model, is really all that is required for any size, only make it longer or shorter, according to the measure taken; the skirt is sewn on to a waist band made for the purpose, which, generally has the name of the firm stamped on it, the band has only to be turned in at the ends to suit the size of waist, and is fastened with two hooks and eyes. (Thomson, c.1887, p.5)

The draft was executed as directed, and the necessary adjustments were made to the length and waistband. The front length used was 104 cm the back length was 112 cm.

The same front length was used for the bustle skirts. Back skirt lengths in the 1880's were longer in order to accommodate a bustle and/or hip pad. The front skirt panel was cut with the centre front on the straight grain and the side seam slightly on the bias. Five darts were used to shape the front waistline. The dart widths and lengths are listed in Table 13. Due to the size of the darts, the front skirt tended to pouche. The waistline sloped slightly towards the centre front position, as the rise used was 2.5 cm, as compared to 1.25 cm used in the 1980 draft and .5 cm in the grade. The back panel was cut with the centre back on the grainline, and side seam slightly on the bias. The back panel was a little more tailored than the back panel used in the foundation skirt of the study garment. The side seam was shaped into the waistline rather than being cut on the grainline from waist to hem. This reduced the amount of gathered fullness resulting at the back waistline position.
Table 13

A Comparison of Skirt Dart Widths and Lengths

<table>
<thead>
<tr>
<th></th>
<th>1880</th>
<th>1980</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Centre Front Dart</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Width</td>
<td>5</td>
<td>2</td>
<td>1.5</td>
</tr>
<tr>
<td>Length</td>
<td>19</td>
<td>10</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Second Dart</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Width</td>
<td>3.75</td>
<td>2</td>
<td>3.2</td>
</tr>
<tr>
<td>Length</td>
<td>16.25</td>
<td>10</td>
<td>12.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Third Dart</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Width</td>
<td>5</td>
<td>3</td>
<td>2.5</td>
</tr>
<tr>
<td>Length</td>
<td>17.5</td>
<td>12.5</td>
<td>11.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Fourth Dart</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Width</td>
<td></td>
<td>3</td>
<td>3.2</td>
</tr>
<tr>
<td>Length</td>
<td>12.5</td>
<td>12.5</td>
<td>12.5</td>
</tr>
</tbody>
</table>

**Total Amount of Darting** 13.75 10 10.5

Note: Unit of Measure - Centimetres
The Aldrich (1985) fitted bodice was executed using the standard body measurements listed in appendix 10.2. The bust dart had to be pivoted from the shoulder position in order to improve the grainline in this area. The dart could not be pivoted to the waistline as this would cause the side seam to become too angled, thus making it difficult to develop the underarm panel. As the front armhole of the Aldrich block was much smaller than the armhole of the 1880's draft it was decided to transfer some of the dart to the armhole position (see Table 14).

Table 14
Comparison of Armhole Sizes of the Three Toiles

<table>
<thead>
<tr>
<th>Toile</th>
<th>Armhole size prior to dart transference</th>
<th>Final Armhole Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>1880</td>
<td>46.9</td>
<td>46.9</td>
</tr>
<tr>
<td>1980</td>
<td>43.6</td>
<td>45.6</td>
</tr>
<tr>
<td>Grade</td>
<td>46.4</td>
<td>46.4</td>
</tr>
</tbody>
</table>

Note: Unit of Measure - Centimetres

The shoulder dart was reduced by half and the transferred to the armhole. The armhole was then redrawn. The centre back, side back and underarm panels were then drawn using the 1880's draft and the original pattern pieces as guides. In order to counteract the compression caused by the corset, 2 cm was eliminated along the bustline, through the panel shaping. This reduced the bust measure to 47 cm. The front waistline dart had to be moved further towards the side seam, as another dart
was required near the centre front. This dart was incorporated into the development of
the plastron shaping. The additional centre front shaping required for an 1880's
bodice was already built into the plastron shape. An additional 2 cm was gained along
the bustline as a result of the plastron shape.

Although a 64 cm waist was required, a 70 cm waist resulted (see Table 15). During the 1880s, the narrowest part of a bodice was not at the natural waistline
but slightly above. Thomson (c.1887) specifically instructs users of his drafting
system to make the dart shaping between the front bodice piece and the underarm
panel, narrower, 4 cm above the waistline. The waistlines were reduced as shown in
Table 16. A larger waist measurement was necessary in order to accommodate the
additional garment layers which were worn around the waist. The 1880's bodice
tended to pucker around the waistline, as it had the least amount of waist increase.

Table 15

Comparison of Bodice Waist Sizes of the Three Toiles

<table>
<thead>
<tr>
<th>Process</th>
<th>Final waist size'</th>
<th>Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>1880</td>
<td>69.5</td>
<td>4.5</td>
</tr>
<tr>
<td>1980</td>
<td>70</td>
<td>6</td>
</tr>
<tr>
<td>Grade</td>
<td>70.5</td>
<td>6.5</td>
</tr>
</tbody>
</table>

Note: Unit of Measure - Centimetres
Table 16
A Comparison of Bodice Waist Sizes 4 cm above the Waistlines of the Three Toiles

<table>
<thead>
<tr>
<th>Process</th>
<th>Waistline measurement</th>
<th>Waistline measurement 4 cm above the waistline</th>
<th>Decrease</th>
</tr>
</thead>
<tbody>
<tr>
<td>1880</td>
<td>69.5</td>
<td>61.5</td>
<td>8</td>
</tr>
<tr>
<td>1980</td>
<td>70</td>
<td>59</td>
<td>11</td>
</tr>
<tr>
<td>Grade</td>
<td>70.5</td>
<td>60.5</td>
<td>10</td>
</tr>
</tbody>
</table>

Note: Unit of Measure - Centimetres

The foundation skirt was developed by using a set of standard size 12 blocks, which had not been separated following completion. A new side seam was established by transferring one third of the back skirt block to the front skirt block. The waistline increased from 19.25 cm to 33.75 cm. The back skirt contributed 7.1 cm and the side dart which is usually eliminated when blocks are separated, contributed 7.4 cm. The waistline was redrawn and the darts reallocated. A 1 cm dart was placed at the centre front position. The waistline was then divided into quarters, and further darts were placed at these positions (see Table 11 for dart lengths and widths). The front and back skirt proportioning was based on the study garment.

As the back waistband of the study garment had deteriorated, the size of the back waistline was indeterminable. Thus, the size of the back waistline on the toiles had to be based on information supplied by the 1880's drafting systems. The size of the back waist area, as suggested by the drafting systems varied from 7.5 cm to 30.4 cm (see Table 17). Three of the drafting systems (Doughty, 1887; Garlid, 1884; Mallison, 1885) suggested that two thirds of the skirt waistline should go into the
front area and other third into the back. Doughty also suggested that the waistband should be cut at least 5 cm longer than the waist measure. Doughty does not indicate whether this measure included seam allowance or not. Gartland suggested that the waistband should be cut at least 12.5 cm longer than the waist measure. Seam allowances of 5 cm were included in this waistband. It is not clear whether this increase in length was to form an overlap or whether it was to accommodate a gain built into the draft. Although the instructions provided are incomplete, the measurements as shown in Table 17 suggest the latter. Myra (1888) and Thomson (c.1887) both increase the waist measure in the skirt drafts. Myra increases the waist by 2.5 cm and Thomson by 5 cm. The toile skirt waist were drafted so that they were 69 cm, that is 5 cm larger than the actual waist.

As an 1880's grading system was not located during the course of this research, alternate systems had to be used. Two contemporary grading systems were tested, the Aldrich (1985) system and the Price and Zamkoff (1974) system. Both systems were two dimensional, that is "... the [patterns changed] only in girth and height and not in shape ... (Taylor & Shoben, 1984, p.28). The Aldrich system applied the increments to selected cardinal points around the basic pattern blocks. The Price and Zamkoff system used girth and height tracks. Split diagrams supplied with this system indicated the position of the increments. To increase the size of a pattern section, the block had to be moved either horizontally or vertically using the tracks as guidelines. The Price and Zamkoff system also enabled a pattern maker to grade evenly, that is adding equal growth in the bust and waist areas, or unevenly, that is an
Table 17
A Comparison of Skirt Waist Measurements of the Three
Toiles and Measurements supplied by 1880's Drafting Manuals

<table>
<thead>
<tr>
<th>Drafting System</th>
<th>Front Waist</th>
<th>Back Waist</th>
<th>Total Waist</th>
<th>Body Measure</th>
<th>Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anglo-Parisian</td>
<td>56</td>
<td>7.5</td>
<td>63.5</td>
<td>63.5</td>
<td>0</td>
</tr>
<tr>
<td>Cornwell</td>
<td>56</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>C</td>
</tr>
<tr>
<td>Doughty</td>
<td>47.6</td>
<td>18.6</td>
<td>66.2</td>
<td>61</td>
<td>5.2</td>
</tr>
<tr>
<td>Gartland</td>
<td>35.6</td>
<td>30.4</td>
<td>66</td>
<td>58.5</td>
<td>7.5</td>
</tr>
<tr>
<td>Moody</td>
<td>56</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>CD</td>
</tr>
<tr>
<td>Myra 1</td>
<td>45.7</td>
<td>15.3</td>
<td>61</td>
<td>58.5</td>
<td>2.5</td>
</tr>
<tr>
<td>Myra 2</td>
<td>50.8</td>
<td>10.2</td>
<td>66</td>
<td>58.5</td>
<td>2.5</td>
</tr>
<tr>
<td>Thompson</td>
<td>43.2</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>C</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Toile</th>
<th>1880</th>
<th>1980</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>53.4</td>
<td>49.6</td>
<td>47</td>
</tr>
<tr>
<td></td>
<td>10.1</td>
<td>19.4</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>63.5</td>
<td>69</td>
<td>69</td>
</tr>
<tr>
<td></td>
<td>58.5</td>
<td>64</td>
<td>64</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
</tbody>
</table>

Note: Unit of Measure - Centimetres

Key:
A  Seam allowances included in the draft
B  Seam allowances not included in the draft
C  Seam allowances assumed to be included in the draft
D  Darts assumed to be included in the draft
E  5 cm waist increase built into the draft
F  5 cm waist increase assumed to have been built into the draft
G  2.5 cm waist increase built into the draft
uneven growth in the bust and waist areas. An uneven grade was used in order to maintain the proportional difference of approximately 26 cm between the bust and waist measurement. The suggested increments had to be readjusted slightly, as the study garment bodice consisted of five pieces rather than the standard four used in contemporary princess styles. No adjustments were necessary for the skirt grade.

In order for the study garment to fit the prepared dress forms, the pattern pieces had to be graded up two sizes, that is an increase of 8 cm in the bust, waist and hip circumferences. The Aldrich system proved unsuccessful for this particular design as it added too much width in the upper part of the bodice. The increase in this area was too great, thus making the upper part of the bodice out of proportion in relation to the lower part. The Price and Zamkoff system proved to be more appropriate as the increase could be more easily controlled using the grade tracks. The increase across the chest area was only 2.4 cm as compared to the Aldrich increase of 5.2 cm.

During the course of this study it became apparent that very little literature related to 1880's pattern making techniques existed. Some descriptive literature was available (Arnold, 1968, 1972; Collard, 1975; Kidwell, 1979), however in order to find information directly related to pattern cutting the researcher had to consult extant 1880's drafting systems, garment assembly manuals and costumes. Relevant manuals were located by consulting theses by Arbuthnot, (1984); Burford, (1976); Jay, (1983), and Morton, (1981); and publications by Arnold, (1972); Kidwell, (1979); Sielgman, (1982, 1983), and Trautman, (1987).

The major problems identified with the period drafting systems examined were: (1) the need for special drafting machines, tools and scales and, (2) the lack of
informative instructions. The Thomson (c.1887) bodice draft, although concise, proved to be rather time consuming as there were numerous calculations to perform during each step. During the execution of this system it became apparent how different the pattern shaping and proportioning was, compared to contemporary placed blocks. However, despite how strange the pattern shapes appear to the contemporary eye, the proportioning and severe shaping should not be altered if authenticity is to be achieved.

Using the Aldrich system to authentically reproduce the study garment proved to be the most time consuming process, as detailed information on 1880's pattern making techniques had to be consulted before the blocks could be converted into the five piece bodice which was used during that time. Because an extant costume, rather than a period silhouette was to be reproduced, the proportioning and shape of the individual pieces had to be based entirely on the study garment. Without making continual reference to the study garment, and the pattern pieces taken from the study garment, the degree of authenticity would have been greatly reduced. For the purpose of this study, each system executed had to be treated as pure system with the minimum amount of manipulation, other than the styling of the required design features. The major problem confronting contemporay designers wishing to recreate period silhouettes using modern drafting systems is the shape of the armhole and sleeve. Only after examining numerous period drafting manuals will a pattern maker to able to manipulate these features.

Of the three pattern making methods used in this study, grading proved to be the least complex to execute. The Price and Zamkoff (1974) grading system enables a
pattern maker to grade evenly or unevenly. Uneven grading proved particularly useful for this project as it allowed the full grade to be placed through the bust, and less through the waist. This technique helped to maintain the proportional difference between the bust and waist measurement. Once the increments were calculated and the grade tracks were drawn into position, the pattern could be quickly and accurately enlarged. This technique would be useful to designers who wish to reproduce extant costumes for use in interpretive programs. However, the degree of authenticity achieved using this method will depend on how accurately the original pattern was taken from the extant costume to be reproduced.
7. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

7.1 Summary

The purpose of this exploratory study was to determine which of three pattern making processes would produce the most authentic reproduction of an 1880's bustle dress. Before the pattern making processes could be executed the study garment had to be fully documented, as very little was known about the garment. For this purpose the Pearce (1986a) model for artefact studies was used. In order to create the correct silhouette, appropriate 1880's undergarment patterns were developed using original patterns and extant undergarments as prototypes. Three dress forms were carefully padded to simulate British standard size 12 body shapes. Each form was encased by a corset, bustle and petticoat. The bust, and waist measurements were reduced by 4 cm following the application of the corset toiles. The dress toiles were then evaluated by members of a selected panel. The panel was asked to evaluate each toile according to the criteria provided in the evaluation instrument. The panel was not briefed with regard to the processes used to create each toile. Each panel member carried out the evaluation independently.

Standard size 12 patterns were generated using the Thomson (c.1887) drafting system, the Aldrich (1985) pattern drafting system and the Price and Zamkoff (1974) grading system. In order to locate a suitable 1880's drafting system a set of criteria was developed. The criteria were used to compare the characteristics of the pattern shapes produced by the extant 1880's drafting systems examined, to the characteristics of the study garment. Fourteen extant 1880's drafting systems were.
located and examined. Of these 14 systems, nine required special drafting tools or scales. As these tools were unavailable, these systems were difficult to execute. Of the remaining five systems only two provided complete instructions. The Thomson (c.1887) system was chosen for the purpose of this study, as it fulfilled the criteria established for choosing the period drafting system. This system used a combination of direct and proportional pattern making techniques. The costume bodice, two piece sleeve and foundation skirt were drafted according to the instructions provided. As the study garment bodice had several unique features, these features had to be incorporated into the blocks. The design features added were: a rounded waistline extension, the addition of a centre front plastron, and the addition of gathers at the elbow position of the upper sleeve. The contemporary system used was the Aldrich (1985) drafting system. This system is used in many pattern making courses in Australia, Canada and the United Kingdom. The researcher was very familiar with the system. Standard size 12, close fitting bodice blocks, two piece sleeve blocks and skirt blocks were prepared. As contemporary systems only produce two piece bodice blocks, the blocks had to be manipulated in order to produce the four piece bodice block which was popular during the 1880's. The skirt blocks were used unseparated, as the side seam had to be reallocated towards the back. The waistline had to be redrawn and the darts repositioned. The overall shape and proportion of this foundation skirt was based on the original foundation skirt.

In order to produce a reproduction of the study garment using grading as the process, a pattern had to be taken from the original garment. The pattern was tested by making up a toile. Curved features such as armholes, sleeves, hemlines, necklines
and darts were all thoroughly checked, as these had all become distorted through wearing. The shape of the waistline darts, the waistline curve and the hemline were checked on the skirt toile. The sleeve pattern had to be redrawn as the sleeve toile did not resemble the original sleeve.

As an 1880's grading system was not located, alternate grading systems were examined. These were: the Price and Zamkoff (1974) and Aldrich (1985) systems. The major problem with the Aldrich system was the increase in the across chest area. The change in proportion between the upper and lower bodice was too great to warrant the use of this system. The Price and Zamkoff system was finally adopted, as the increase in specific areas could be controlled more easily.

According to the results of this study, the most authentic reproduction of the study garment was the toile produced by grading the patterns taken from this garment. Of all the features analyzed only the position of the front bust dart deviated from the original. The 1880's toile was ranked second, and the 1980's toile was ranked third. The major problems evident with the Thomson (c.1887) patterns included, the excessive fullness in the sleeve head, the shape of the sleeve, the narrowness of the across chest area caused by the severe shaping of the front armhole, tightness of the back waist line extension, and the pouching caused by the large waistline darts in the front skirt panels. The major problems with the patterns developed by the Aldrich (1985) system included, the shape of the armhole and sleeve, and the hang of the sleeve.
7.2 Conclusion

One of the major problems of the study was obtaining a large sample of 1880's drafting systems which were based on direct measure pattern making techniques. Nine of the systems examined required special drafting machines, scales or rulers. Of the remaining five, only two provided precise and accurate instructions. Burford in her thesis, *A Qualitative Study of Three American Pattern Drafting Systems of the Late Nineteenth Century*, also found that "each author stated that his method was complete within itself but this was incorrect" (Burford, 1976, p.43). Thus, when choosing period drafting systems it is important that only drafting systems with complete instructions be executed.

Drafting systems are formulated to enable a pattern maker to develop a pattern only. In order to understand how garment pieces are assembled one must not rely on the drafting manual. Even though half the manuals examined provided accompanying garment assembly instructions, only two manuals (Garland, 1885; Myra, 1888) provided detailed descriptions. Useful garment assembly instructions, which may be used in conjunction with drafting systems may be found in women's magazines such as *Godey's Lady's Book, Harpers Bazar, Le Moniteur de la Mode, Myra's Journal of Dress and Fashion* and *Myra's Threepenny Journal*, and in Caulfield and Saward's (1972) book, *The Dictionary of Needlework: An Encyclopaedia of Artistic, Plain and Fancy Needlework*.

The results of this study did not favour the toile produced by the 1880's drafting system. The major problem with this system was the narrowness of the across chest area, which was accentuated by the extreme curvature of the front armhole. However,
if period drafting systems are to be used successfully they must be put into perspective. During the 1880's, drafting systems were designed to produce garments which would fit over a body which had been moulded for many years by a heavily boned corset. The combination of corset and bustle caused the central axis of the body to change. The weight of the bustle caused the upper part of the body to lean forward. The shoulders were thrown back. The corset severely constricted the lower abdomen, creating the fashionable hourglass shape. The upper chest area was then padded in order to create the illusion of a very small waist.

Even though contemporary measurements were used in the execution of the Thomson (c.1887) draft, the proportioning built into the system belonged to the 1880's. One also, can not expect a period drafting system to produce a reproduction of extant costume to the last minute detail. As with contemporary pattern design, late nineteenth century cutters would have manipulated the systems to suit their situation. The Thomson system was executed as a pure system, the only variation being the waistline extension, the addition of the front-plastron and the addition of gathers at the elbow position of the upper sleeve. The major problem with this system could have been overcome, however the system would no longer have been the focus of the study, it would have been the skill and knowledge of the researcher.

Contemporary basic pattern blocks are designed to produce garments which fit a body snugly, yet comfortably. Ease is added to the bust, waist, across back and depth of armhole measurements to allow for comfort and movement. Between 8 and 12 cm is added to the bust, 2 to 4 cm to the waist, 1 to 3.5 cm to the across back and 0.5 to 4 cm to the armhole depth. To transform such a block into a period garment requires not
only a thorough knowledge of contemporary pattern making but a thorough knowledge of period cut. The ease built into contemporary blocks has to be manipulated, and adjustments have to be made in order for the block to fit a silhouette created by corsetry and padding.

Even though the researcher had an extensive working knowledge of the Aldrich (1985) system, in order to recreate the study garment using this system, extant 1880's drafting systems, dressmaking manuals, extant costumes and under-garments had to be examined prior to the execution of the patterns. Technical problems included the shape of the armhole and sleeve, the ease built into all the blocks and the repositioning of the shoulder part. It became evident only after thoroughly examining the period systems that the ease built into the bodice block could be manipulated when shaping the back panel. Some of the ease, however, had to be maintained as many 1880's bodices were padded, and therefore the ease became the extra fabric required to mold over the padding. The ease in the natural waist position also had to be maintained as there were as many as four layers of fabric at this position. The narrowest part of the 1880's bodice was approximately 4 cm above the natural waistline. The measurement had to be extremely snug to create the fashionable silhouette of the 1880's. The skirt waist measurement was also made slightly longer in order to fit over the underlying layers. Without consulting extant 1880's drafting systems these finer points of pattern cutting would have been overlooked.

Although the literature is inconclusive about which pattern making processes produce the most authentic reproductions of extant garments, the findings of this study indicate that grading the patterns taken from an extant garment will achieve this
purpose. This technique, therefore could be used by costume workrooms where costumes are being developed for use in interpretive programs. In order for this process to work effectively however, the pattern taken from the original garment must be extremely accurate. The end use of a reproduction costume, budget allocations, research time and the skill and knowledge of the pattern maker will ultimately determine which pattern making process is used.

7.3 Recommendations

1. Of the 14 extant 1880's drafting systems examined, as part of this study, only two provided complete instructions and useful diagrams. As many of the 1880's drafting systems have been located by Kidwell, (1979) and Trautman, (1987), future studies should isolate the systems which could be successfully used by contemporary pattern makers. Following the completion of this study, two additional systems which warrant investigation were retrieved by the inter-library office at the University of Alberta. The systems were, *How to Cut and make Ladies Garments* by Hecklinger (1886), and *The New Practical Cutter: A Treatise on the Science and Practice of Cutting Ladies Garments* by Steuernagel (1885).

2. Further testing of contemporary grading systems and their applicability to historic costume reproduction could be done. Toward the end of this study, another grading system which warrants investigation was obtained from London, England. This system was, *Grading for the Fashion Industry* by Taylor and Shoben (1984).
3. The study should be repeated using individual measurements instead of standard measurements.

4. The study should be repeated many times using costumes from different decades. The following variables could also be taken into consideration: (1) gender (boys, girls, men, women), (2) age (children, adult) and (3) type (sportswear, formal wear, and military uniforms).

5. With the increased use of computer aided design and computer grading, future research should focus on: (1) the development of software which would generate basic period blocks in a range of contemporary standard sizes, and (2) the development of a grade rule library which could be used in conjunction with existing computer software to grade period blocks and patterns taken from extant costumes.
8. BIBLIOGRAPHY


Doughty & Co. (1887). Doughty’s new work on dressmaking by the new improved and perfect tailor system of square measurement. Cincinnati, Ohio: Doughty & Co.


Green, R.M. (19 ). *The wearing of costume: The changing techniques of wearing clothes and how to move in them from Roman Britain to the Second World War*. London: Pitman & Sons Ltd.


*Harpers Bazar - A repository of fashion, pleasure and instruction*. (1867 - present). New York


*La Mode Actuelle.* Paris.


*Le Mode Pours Tours: Journal de la famille et des modes pratiques.* Paris.

*La Mode de Style: Recueil de toilettes inedites.* Paris.


Toronto, Ontario: Ministry of Citizenship and Culture.

London: Myra and Son.


Parks Canada Policy. (1982).
Canada: Minister of Supply and Services.


*Museums Journal, 86*(2), 79-82.

Pearce, S.M. (1986). Thinking about things: Objects as signs and symbols.


New York: Funk & Wagnalls.


*The Queen: The lady's newspaper and court chronicle.* (1861-present). London.


*Tailor and Cutter: An index of clothing, fashion and trade.* London.


Thompson, F.E. (1887). *Thompson's new improved garment cutter.* Kansas City: Mr. & Mrs. F.E. Thompson.

Thornton, J.P. (1901). The sectional system of ladies garment cutting. 

Embroidery, 22 (3), 80-82.

Thorold, P. (1972). Embroidery for Elizabeth R. 
Embroidery, 23 (1), 12-13.

London: Pitman.

Trautman, P. (1987). Clothing America - A bibliography and location index of 
nineteenth-century American pattern drafting systems. 
The Costume Society of America.


Walker, Mrs. H.M. (1885). Madam Walker, champion fitter, a self-instructor in the 
science of cutting and fitting all the garments worn by ladies, gentlemen and 

clothes: How they were cleaned and cared for. London: Peter Owens Ltd.

London: Pitman.

London: Faber & Faber Ltd.

Markham, Ontario: Thomas Allen & Son Ltd.

reproductions worn by a female interpreter at the Victoria Settlement, an 
Alberta Provincial Historic Site. Unpublished master's thesis, University of 
Alberta, Edmonton.


An introduction to social research methods (2nd ed.). 
Boston: Little, Brown & Co.
Wright, J. I. (1977). I bet you wear blue jeans on the weekend, eh?

London: B.T. Batsford Ltd.
9. SUBJECT BIBLIOGRAPHY

9.1 Costume Reproduction


Severa, J. (1979). *Authentic costuming for historic site guides.* (Technical Leaflet
113). Nashville: Association for State and Local History.

Victorian Society in America*, 6 (4), 38-41.


*Embroidery*, 22 (3), 80-82.

Thorold, P. (1972). Embroidery for Elizabeth R.


Wright, J. I. (1977). I bet you wear blue jeans on the weekend, eh?

9.2 Taking a Pattern from an Original Garment.


Mills, R. (1986). Taking a pattern from an original garment.
*Flat Pattern Newsletter*, 1 (2), 1-5.

*Dress*, 6, 24-30.

Victorian Society in America*, 6 (4), 38-41.

Tarrant, N. (1983). *Collecting costume: The care and display of clothes and
9.3 Patterns Taken From Original Garments


9.4 Patterns Developed From Historical Information


9.5 Flat Pattern Bibliographies


9.6 Pattern Drafting Systems


Doughty & Co. (1887). *Doughty's new work on dressmaking by the new improved and perfect tailor system of square measurement*. Cincinnati, Ohio: Doughty & Co.


9.7 Clothing Production Techniques


9.8 Fashion Periodicals and Women's Magazines

American


English


*The Queen: The lady's newspaper and court chronicle.* (1861-present). London.


*Tailor and Cutter: An index of clothing, fashion and trade.* London.

French


*La Mode Actuelle.* Paris.


Le Mode Pours Tours: Journal de la famille et des modes pratiques. Paris.

La Mode de Style: Recueil de toilettes inédites. Paris.

9.9 Exhibition Catalogues


9.10 Secondary Costume References


9.11 Movement in Period Costume

Green, R.M. (19). *The wearing of costume: The changing techniques of wearing clothes and how to move in them from Roman Britain to the Second World War.* London: Pitman & Sons Ltd.


9.12 Dictionaries, Glossaries and Indexes


9.13 Unpublished Masters Theses


9.14 Research Methods, Models and Guidelines


Parks Canada Policy. (1982). Canada: Minister of Supply and Services


10. APPENDICES

Objective

To describe historic textiles and clothing accurately and to relate characteristics of production, distribution, technical processes, and artistic expression to characteristics of the producing groups and conditions of the time.

Current Situation:

The American Bicentennial stimulated interest in the study of historic [artefacts] of all types. Information was in demand about historic costume and textiles for the home, for the Colonial Period of our history as efforts were made to recreate the settings and the way of life of the era. Concise and accurate information was very limited and became available to dedicated workers only after many hours of searching obscure printed sources for descriptions and attics of homes and museums for authentic [artefacts] still in existence.

Currently, systematic efforts are made in the area of historic costume and textiles to authenticate the date and source of museum holdings. Few of these investigations are widely reported and those reports which are published are mainly descriptive of design and weave for historic textiles and of cut and decoration of costumes. Investigations into and analyses of the forces—economic, technical, social and political—that account for variations in products have generally not been within the purview of museum curators. The latter type of investigations are needed for fuller understanding of the relationship of historic artefacts to their producing cultural groups.
A good deal of research has been published relative to the place of production and distribution of textiles in the economy of various historic periods and geographic locations. However, this research has generally been limited to an analysis of the economic situation rather than being a comprehensive study of interacting forces which explain the existence of the particular textiles and clothing styles.

**Researchable Problems and Current Activity:**

**Most Important Problem Areas**

1. Analyze historic costume and textiles for relationships to material resources available, climatic conditions, and social organization of dominant groups in various geographic areas.

2. Determine the effects of supply of raw materials and labour on the production, design, and use of costume and textiles over time.

3. Trace the migration of textile knowledge and workers over time and relate each to political or social events which might explain the spread of textile technology and garment design geographically.

**Other Important Problem Areas**

4. Analyze the sources of new ideas for textile fabrics and costume items over time to foster understanding of current behavioural processes relative to clothing and textile use.

5. Study design qualities of variations of historic costume and textiles during periods of introduction, acceptance, and decline of fashionable textiles and clothing to assist in the understanding of current consumer demand and the
prediction of future demand.

6. Analyze historically and economically the social position and welfare of workers in the various segments of the textile industry in relation to supply and demand for textiles.

7. Determine the relative economic value of clothing, textiles in house furnishings, and industrial textiles during various and later historic periods.

8. Investigate ways in which the important personages are differentiated from others through the use of dress and textiles during various historic periods.

9. Determine the pattern of evolutionary development and change of ritualistic costume across historic periods and geographic areas.

10. Investigate the contributions made by lower classes to fashionable clothing and textiles over time.

(H.E.R.R.A.P., 1979, p.70-72)
10.2 Standard Size 12 Measurements

WOMEN OF MEDIUM HEIGHT 160cm-170cm

<table>
<thead>
<tr>
<th>Measurement</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size Symbol</td>
<td>12</td>
</tr>
<tr>
<td>Bust</td>
<td>88</td>
</tr>
<tr>
<td>Waist</td>
<td>68</td>
</tr>
<tr>
<td>Hips</td>
<td>93</td>
</tr>
<tr>
<td>Back Width</td>
<td>34.4</td>
</tr>
<tr>
<td>Chest</td>
<td>32.4</td>
</tr>
<tr>
<td>Shoulder</td>
<td>12.25</td>
</tr>
<tr>
<td>Neck Size</td>
<td>37</td>
</tr>
<tr>
<td>Dart</td>
<td>7</td>
</tr>
<tr>
<td>Top Arm</td>
<td>28.4</td>
</tr>
<tr>
<td>Wrist</td>
<td>16</td>
</tr>
<tr>
<td>Nape to Waist</td>
<td>40</td>
</tr>
<tr>
<td>Front Shoulder to Waist</td>
<td>40</td>
</tr>
<tr>
<td>Armhole Depth</td>
<td>21</td>
</tr>
<tr>
<td>Waist to Knee</td>
<td>58.5</td>
</tr>
<tr>
<td>Waist to Hip</td>
<td>20.6</td>
</tr>
<tr>
<td>Waist to Floor</td>
<td>104</td>
</tr>
<tr>
<td>Sleeve Length</td>
<td>58.4</td>
</tr>
<tr>
<td>Cuff Size, Two-Piece Sleeve</td>
<td>13.75</td>
</tr>
</tbody>
</table>

(Aldrich, 1985, p.11).
10.3 Archives, Libraries and Museums Visited

The British Library - Newspaper Division
Cotindale Avenue
London NW9 5HE
England, U.K.

The British Library - Reference Division
Great Russell Street
London WC1B 3DG
England, U.K.

Castle Howard Costume Galleries
Castle Howard
Yorkshire
England, U.K.

City of Edmonton Archives
10105 112 Ave.
Edmonton
Alberta, Canada

Fashion Research Centre
4 Circus
Bath, Avon BA1 2EW
England, U.K.
Fawcett Library
City of London Polytechnic
Calcutta House
Old Castle Street
London E1 7NT
England, U.K.

The Gallery of English Costume
Platt Hall
Platt Fields
Rusholme
Manchester M14 5LL
England, U.K.

Glenbow Museum Photographic Archives
130 9th Avenue SE
Calgary T2G 0P3
Alberta, Canada

Gunnersbury Park Museum
Gunnersbury Park
London W3 8LQ
England, U.K.

Historic Costume and Textile Study Collection
Department of Clothing and Textiles
University of Alberta
Edmonton T6G 2M8
Alberta, Canada
London College of Fashion Library
20 John Prince's Street
Oxford Street
London W1M 0BJ
England, U.K.

Metropolitan Toronto Library
789 Yonge Street
Toronto M4W 2G8
Ontario, Canada

Provincial Archives of Alberta
12845 102 Ave.
Edmonton T5N 0M6
Alberta, Canada

The Museum of Costume
Assembly Rooms
Bath, Avon BA1 2EW
England, U.K.

National Art Library
Victoria and Albert Museum
South Kensington
London SW7 2RL
England, U.K.
Provincial Museum of Alberta
12845 - 102 Avenue
Edmonton T5N OM6
Alberta, Canada

Royal Ontario Museum
100 Queens Park
Toronto M5S 2C6
Ontario, Canada

Royal Scottish Museum
Chambers Street
Edinburgh EH1 1JF
Scotland, U.K.

Shambellie House Museum of Costume
New Abbey
Dumfries
New Abbey 375
Scotland, U.K.

University of Washington Library
Seattle
Washington, U.S.A.

Victoria and Albert Museum
South Kensington
London SW7 2RL
England, U.K.
Welsh Folk Museum
St. Fagans
Cardiff CF5 6XB
Wales, U.K.
10.4 Accession Numbers of Costumes Examine

Fashion Research Centre, Bath

(1) 109 No. 3004

- c.1885 day dress.
  - Black/tan shot silk, dark blue velvet trim.

(2) Mrs. G. M. McFarlane

- c.1883-1886 day dress.
  - Navy blue, silk satin.

The Gallery of English Costume, Platt Hall, Manchester

(1) 1947.4156

- c.1883-1885 day dress.
  - Grey/green figured silk satin.

(2) 1947.4160

- c.1884-1886 day dress.
  - Cream cotton figured with open work geometrical patterns enclosing formal floral motifs.

Historic Costume and Textile Study Collection
University of Alberta, Edmonton

(1) 71.7.8

(2) 73.15.16 1a & 1b

(3) 81.13.28a & b

(4) 84.40.1/2

(5) 87.27.1 a,b,c

c.1880’s day dress. Brown silk satin. Trimmed with cream satin, and gold and brown bead.

c.1887 day dress, bodice and skirt. Brown silk satin. Tucked and couched detailing.

c.1883-1886 day dress.

Red silk satin, velvet trim.

c.1880’s court gown. Pale pink and grey/green striped silk.

Museum of Costume, Bath

(1) Blake

c.1889 day and evening bodice, trained skirt. Garnet silk satin, velvet trim.

c.1887 evening gown, trained skirt.

Pale pink silk.

c.1880’s corset, heavily boned, lace trim.

Biege twill.

c.1884 young lady’s day dress.

Deep mulberry silk satin, velvet trim.

c.1883 petticoat. White longcloth.
Provincial Museum of Alberta

(1) H65.260:1a,1b,1c

Royal Ontario Museum

(1) no accession number

(2) 971.193.1

(3) 948.8.75

(4) 948.8.74

Victoria and Albert Museum

(1) T7 1926

(2) T308 1982

(3) T147 1986

(4) T704

(5) T69 1937

c.1887 day dress. Brown silk.

.c.1908 combinations, lace trimmed.

White wool cloth.

c.1884 day dress. Royal blue silk taffeta.

C.1880's bustle, three hoops.

Sand cotton sateen.

C.1880's bustle, 12 covered hoops,

tape waistband. Cream cotton sateen.

C.1885 day dress. Light blue cotton

with multi coloured circular motif.

C.1880's day dress. Light tan silk,

contrasting chocolate and tan stripe trim.

C.1880's gored petticoat. White cotton.

C.1880's bustle. Chocolate and orange

stripe.

C.1885-1886 day dress. Terra-cotta

ottoman silk, terra-cotta velvet trim.
(6) T254 1928

c.1880's day dress, Red and white printed cotton.
10.5 Criteria used for Selecting the Drafting Systems

In order to determine which of the cited 1880's drafting systems would enable the researcher to produce an authentic reproduction of the study garment, the following list of criteria was used to compare the characteristics of the pattern shapes produced by each system, to the characteristics of the study garment.

1. Total number of pieces
   a) bodice
   b) sleeve
   c) foundation skirt
   d) drapery

2. Front bodice
   a) shape of shoulder line
   b) centre front shape
   c) number and shape of darts
   d) side seam shape
   e) shape of lower edge

3. Under arm panel
   a) side seam shape
   b) shape of lower edge

4. Side back panel
   a) side seam shape
   b) shape of lower edge

5. Centre back panel
   a) shape of shoulder line
   b) centre back shape
   c) side seam shape
   d) shape of lower edge
6. Sleeve
   a) upper & lower sleeve proportioning
   b) elbow fitting
   c) wrist width

7. Skirt
   a) number of pieces
   b) basic shape of pieces
   c) waistline shaping
   d) number of waistline darts
   e) hemline shaping
   f) total hem circumference
   g) position of casing
   h) basic shapes of drapery pieces
10.6 Members of The Evaluation Panel

**Museums and Historic Sites**
- Alberta Culture
- Fort Edmonton
- Musee Heritage Museum
- Provincial Museum of Alberta
  - David Dusome
  - Pat Clayton
  - Donna Fallis
  - Gladys Serafinio

**Prairie Costume Society**
- Catherine Coopers-Cole
- Janice Smith

**University of Alberta**
- Department of Clothing and Textiles
  - Becky Dahl
  - Karen Wells
  - Nancy Hawkins

**Costume Cutters**
- Alberta Ballet
  - Denise Donnelly
- C. Roy Tailor
  - Catherine Roy
- Free Lance
  - Kerri Ward
10.7 Evaluation Instrument

Title: Evaluation of Costume Reproduction Toiles
Evaluator's Name: .................................................................
Date: .............................................................................

Definition of Terms

Authentic - conforming to an original so as to reproduce essential features

Costume Replication - the exact internal and external duplication of a period
  garment.

Costume Reproduction - the duplication of the line, proportion, form, and fit of a
  period garment, as well as the duplication of any surface design.

Toile - the finished pattern made up into muslin to check the proportions and shape
(Aldrich, 1985, p.8).
Introductory Statement

The three costume reproduction toiles you are about to evaluate have been designed to fit a British standard size 12 - bust from 86 cm to 90 cm, hips from 91 cm to 95 cm (B.S.I., 1982, p.2).

Part A

Directions: Make your ratings on each of the following characteristics by placing an X at any of the five points along the horizontal line. In the space for comments, include anything that helps clarify your rating.

Example

Collar

X

Wider
Same as original
Narrower

Comments:

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
Toile Number: 1 2 3 (circle appropriate number)

1. **Neckline**
   - Tighter
   - Same as original
   - Looser

   Comments:
   __________________________________________________________
   __________________________________________________________
   __________________________________________________________
   __________________________________________________________
   __________________________________________________________

2. **Shoulder Line**
   - More angled
   - Same as original
   - Less angled

   Comments:
   __________________________________________________________
   __________________________________________________________
   __________________________________________________________
   __________________________________________________________
   __________________________________________________________

3. **Bodice Circumference** (bustline)
   - Tighter
   - Same as original
   - Looser

   Comments:
   __________________________________________________________
   __________________________________________________________
   __________________________________________________________
   __________________________________________________________
   __________________________________________________________
4. Across Chest Area (from armhole to armhole)

| Wider | Same as original | Narrower |

Comments:

5. Position of Bust Dart

| Closer to C.F. | Same as original | Closer to side seam |

Comments:

6. Dart Point (top of dart)

| Higher | Same as original | Lower |

Comments:
7. Waistline

| Tighter | Same as original | Looser |

Comments:


8. Waistline Position

| Higher | Same as original | Lower |

Comments:


9. Front Armhole Shape

| Flatter | Same as original | More curved |

Comments:
10. Back Armhole Shape

- Flatter
- Same as original
- More curved

Comments:

11. Armhole Depth

- Higher
- Same as original
- Lower

Comments:

12. Sleeve Length

- Longer
- Same as original
- Shorter

Comments:
13. Sleeve Shape

- Straighter
- Same as original
- More curved

Comments:

14. Sleeve Head (upper part of sleeve)

- Higher
- Same as original
- Lower

Comments:

15. Lower Edge of Sleeve

- Wider
- Same as original
- Narrower

Comments:
16. Position of Side Back Side Seam

Higher in the armhole    Same as original    Lower in the armhole

Comments:
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Part B
For each of the following, check off the most appropriate response. In the space for comments, include anything that helps clarify your choice.

1. Shape of Centre Back Panel

I  I same as original
I  I deviates

Comments:
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
2. Shape of Side Back Panel

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>same as original</td>
</tr>
<tr>
<td></td>
<td>deviates</td>
</tr>
</tbody>
</table>

Comments:

3. Shape of Under Arm Panel

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>same as original</td>
</tr>
<tr>
<td></td>
<td>deviates</td>
</tr>
</tbody>
</table>

Comments:

4. Shape of Front Bodice Below Waistline

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>same as original</td>
</tr>
<tr>
<td></td>
<td>deviates</td>
</tr>
</tbody>
</table>

Comments:
5. Shape of Back Bodice Below Waistline

I_1 same as original
I_1 deviates

Comments:

6. Front of Skirt

I_1 same as original
I_1 deviates

Comments:

7. Pleated Side of Skirt

I_1 same as original
I_1 deviates

Comments:
8. Back of Skirt

_1_1 same as original
_1_1 deviates

Comments:

9. Draped Side of Skirt

_1_1 same as original
_1_1 deviates

Comments:
Part C

Rank the toiles in terms of most authentic reproduction to least authentic (most authentic = 1; least authentic = 3).
10.8 Photographic Plates
THE QUALITY OF THIS MICROFICHE IS HEAVILY DEPENDENT UPON THE QUALITY OF THE THESIS SUBMITTED FOR MICROFILMING.

UNFORTUNATELY THE COLOURED ILLUSTRATIONS OF THIS THESIS CAN ONLY YIELD DIFFERENT TONES OF GREY.

LA QUALITÉ DE CETTE MICROFICHE DEPEND GRANDEMENT DE LA QUALITÉ DE LA THESE SOUMISE AU MICROFILMAGE.

MALHEUREUSEMENT, LES DIFFERENTES ILLUSTRATIONS EN COULEURS DE CETTE THESE NE PEUVENT DONNER QUE DES TEINTES DE GRIS.