

TEXTILE CONSERVATION NEWSLETTER

TABLE OF CONTENTS

From the Editors	3
Just for Fun	4
Ethical Considerations in Private Practice or Does It Match the Curtains?	5
Surface Cleaning a Doll's Corset Using Eraser Crumbs	9
Analysis and Treatment of a Woolen Military Tunic	14
In Search of the Ideal Military Mannequin	18
A Faster and Better Way to Carve Polyethylene Foam: The Arbortech Woodcarver and Mini-Carver	27
Silk Crepeline Patches	29
New Ventures From CCQ	31
Changes in Cancer List Recommended by NTP	33
Announcements	34
How to Reach Us: Subscription: Information	35
Back Issues and Supplements Available	36

Disclaimer

Articles in the Textile Conservation Newsletter are not intended as complete treatments of the subjects but rather notes published for the purpose of general interest. Affiliation with the Textile Conservation Newsletter does not imply professional endorsement.

FROM THE EDITORS

This issue of TCN includes a very interesting article by New Zealand conservator, Gaynor Duff. The main theme of the article concerns ethics in the conservation community, but as a non-conservator, it is the final paragraphs that are of particular interest to me.

Have you ever gone to a fancy restaurant or a chic store and wavered at the door because you are unsure of the correct "rules" for that particular establishment? Nothing can be more humiliating than to display the fact that you have never "done this before". Worse is finding that you have embarrassed yourself by doing everything all wrong!

Gaynor lists a code of ethics she would like to give her clients, rules for behaviour that are not unreasonable. The question I have for her and all conservators is; how are we supposed to know? Before I got involved with this publication I had no idea of the kinds of issues conservators address everyday. Clean it up, put it in a frame and give me a good price, that's about the extent of my interest.

As a quiltmaker, I belong to a large guild in my area, subscribe to several quilting and sewing magazines, and attend many conferences and shows. The references to conservation are few and far between.

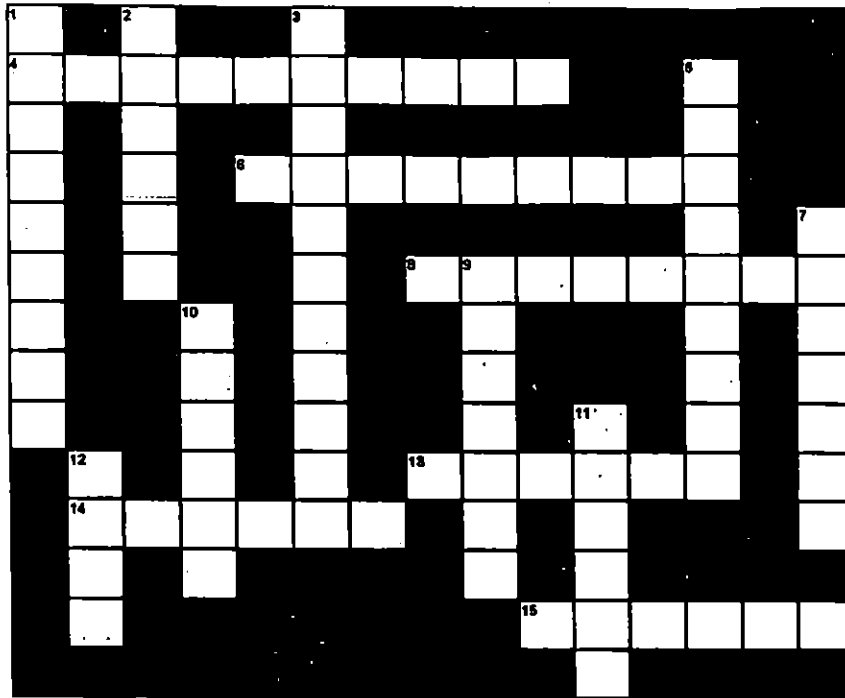
It is easy to dismiss quiltmakers as a bunch of old dears with no money and no power, but nothing could be further from the truth. The resurgence of interest in quilting has been deemed to be the greatest factor in the survival of the American cotton industry. If my own guild is any indication we are active, well educated, have disposable incomes and most importantly, we care.

This is my challenge to all conservators, especially those in private practice. Seek out your local guild, consider making a presentation to them and tell them what you want them to know. You'll have great time and we will all be richer for it.

Lesley Wilson

Reminder. The current editorial team will step down with the last issue of this subscription term (Fall 2000). We'd like to hear from anyone interested in taking over. J. Holt.

Just for Fun



ACROSS

4. The increase in length or deformation of a fibre as a result of stretching.
6. A naturally occurring carbohydrate polymer found in organic woody substances of most vegetation.
8. Fine, downy undercoat hair from a goat.
13. The wool shorn from any sheep, or from any animal in the wool category.
14. There are many forms of this: mechanical, electrical, heat, atomic, chemical, potential.
15. A weight-per-unit-length measure of any linear material.

DOWN

1. A cleaning agent belonging to the class of chemicals known as surface active agents.
2. The envelope that a larva forms before becoming a pupa.
3. A process of passing cloth between one or more rollers to produce surface effects or textures.
5. In textile conservation, a fine, plain weave silk.
7. The protein substance of which wool fibres and hair are composed.
9. A manufactured fibre in which the fibre forming substance is any long chain synthetic polymer composed of at least 85% by weight of acrylonitrile units.
10. A small hole or perforation made in a series to receive a string or ribbon.
11. A plain stitch, knitted cloth sometimes known as tricot.
12. A methacrylate-based resin used as a consolidant and thermoplastic adhesive.

Created by Shelley Keele for TCN after being bribed with a fine dinner. Solution on page 34.

Ethical Considerations in Private Practice or Does it Match the Curtains?

When I was asked to write about the ethics in private practice I was at first flattered, then dismayed and then rather sad as I researched the ramifications of this question. I realized that no longer was one's word one's bond, but that we were now being asked to legislate to be honest in our dealings with each other and with our clients. The Chambers Twentieth Century Dictionary states:

'ethic (now rare) adj. ethical. -n. the science of morals: a system of morals, rules of behavior, ethical, relating to morals, professional standards of conduct, etc. etc. and situation ethics, ethics based on the proposition that conduct is good or bad in itself and that one must determine what is right or wrong in each situation as it arises'.

The last sentence I thought counteracts the other statements but would certainly suit many people in the world today. I especially liked the note in brackets after the word *ethic*. Does this sum up a cynical writer for this dictionary?

The New Zealand Professional Conservators Guild has had a Code of Ethics since 1985 (amended in 1995) in which is set out five major areas of concern, with each area being sub divided. (1) Purpose - the code which sets out a standard of professional conduct of a conservator of cultural property. (2) Definition of terms such as Conservation, Conservation Treatment etc. (3) The Conservator, with areas such as Professional Limitations, Development, Disclosure and Conflicts of Interest. Number (4) The Conservator and the Object, states mainly that the first responsibility of the conservator is to the object and to its long term preservation and recommending standards, Examination and Documentation, extent of treatment and reversibility. (5) deals with professional relationships such as Owners and Custodians, Trainees and Colleagues etc. The Code of Ethics is published on the front pages of the New Zealand Directory of Conservators of Cultural Property so that the names of conservators and their Code of Ethics are linked.

When I trained in Canada in the late 1970's, we were taught the academic standards and practical skills of Conservation and Restoration, how to care for each object as a unique item, and the care that each object deserved. We were encouraged to read widely, study other disciplines especially in the museum world such as curatorial work, display, registration, preventive storage, security etc. There seemed no need for a written Code of Ethics as these were embodied in our training and our understanding of the world around us.

After training in all aspects of conservation I decided that I would enter the world of archaeological conservation as my husband's career took him to many parts of the globe, and while I could not often work for financial reward, I would be able to work in a field of my choosing whilst retaining my skills. Over the years, I worked for various archaeological groups and museums in many countries, and in all of these I was accepted with references

TCN

and referees, and at no time was I asked to sign a Code of Ethics. It was understood however, that one already possessed these, and that one would encompass the cultural sensitivity required for each separate country, in my case South Korea, Iraq, Greece, Italy etc. Considerations of the archaeological site, the country's cultural heritage, the trust given in return for one's care of archaeological objects discovered, and the importance of these discoveries to the understanding and future publication of the site meant that honesty was expected and accepted.

I remember one 'dig' in southern Italy where I was working on fugitive painted pottery in one area of a workroom and watching 'potmenders' of another excavation tossing everything into baths of acid to remove encrustations (and everything else of course). When the 'potmenders' went to work on the largest black Greek vase I have ever seen, tied it together with rope, shellacked it and with a Bunsen burner moved up and down the adhesive, I broke out in a rash and while biting my lip, tried to communicate with sign language, dictionaries, an interpreter and lots of diplomatic utterances. I was assured that the reason I had white hair was that I worried too much. Are our Codes of Ethics the ethics of others or are our Codes of Ethics applicable only to our own cultural sphere? Or was this a case of **situation ethics**?

After many years of working in various archaeological capacities (no one wants to pay you a living wage but rather bed and board!) and on my husband's retirement, I decided to enter private practice (and so retrained in textile conservation which I had worked upon briefly and enjoyed), so that I could work to suit myself with hours of work, conditions of service and could be my own boss. (Plus avoid the ever expanding "Meeting" syndrome that seems to be taking over the museum world.) I also felt the need to treat clients as I would like to be treated myself - nothing is more soul destroying than someone saying "it will not cost much"...infuriating...their "not much" might be my "too much". To this end I always provide a written Quotation, broken down into separate items such as, removal from frame, vacuuming, wetcleaning, support and mounting, materials etc. The Treatment Proposal sets out exactly what I will do, any alternatives that are available and includes expected results and recommendations. The input of the client is accepted at every stage. Work does not begin until a copy of the Quotation is returned signed and dated. Everything is in writing and copies are kept. Photographs are taken before and after treatment.

Private practice however means dealing often with people who are not sold on the idea of minimalist treatment of an object, preventive storage, or any form of storage, and who think when you talk about the integrity of the object you are suggesting they have a fake! Most clients wish to display the object, they wish to have their heritage and heirloom on view and are often not happy when you explain the consequences of their future actions. I worried over this anomaly, and then decided that having done my best, and made the correct suggestions and recommendations in writing, I had to accept that the object was their personal property, and at the end of the day they can do with it as they wish.

However, private practice does, I think, require one to emphasize the rarity of an object, with the probable value versus the cost of conservation, to sometimes save an object from being destroyed. An 1812 sampler, for example, would lose its value if it is displayed in direct light either natural or artificial and this would destroy it for future generations as well. I have some horrific photographs of fading, gluing, nailing, mildew, shattering, etc. that I keep to display to clients which emphasizes the possible destruction of their object

with careless display, poor and cheap framing and storage. I also sometimes have been asked to give advice on the pros and cons of gifting objects to a museum versus selling via an auction house. Many people would like to gift their treasures to a museum, but wonder if their bequest will see the light of day or be discarded if the museum changes its accession policy. This difficulty I have overcome by suggesting to the client that they make a list of the pros and cons regarding selling versus gifting and asking their family for their input. I will not recommend either course of action.

In the six years I have been working privately, I have only had one occasion where my ethics may have been compromised, when I have handled goods that I discovered were acquired in a suspicious manner. An elderly client had brought me two Chinese paintings on silk, charred at one end, linings torn and shattered, boot print etc., that he wished to have cleaned so that he could preserve them. His wife did all of the talking, saying that they had been in a fire as they dropped them off, Quotations done, Treatment Proposal accepted. I discovered upon completion of treatment, when he came to pick them up, that he had "found" them near a burning house when he and his friends had stopped to "brew up" (make tea) in between skirmishes during the Korean War. I suggested that perhaps he could send them back to the National Museum of South Korea explaining how and where he had acquired them, and how I was sure that they would be thrilled to receive these paintings on silk even though the original owners were unknown. There has not been any feedback on this suggestion.

Some, though not all, antique and collectible dealers are a worry, as I have found that they are not likely to use the services of a trained conservator, but would rather treat the object themselves, or use the services of "a little lady who sews" and will undertake the work for a very small fee and is not adverse to remaking any object they desire.

My largest source of damaged textiles is often caused by picture framers who feel that they can frame needlework easily. Many of these framers have attended night school, bought a mitre box and set up business. One such framer explained that he was aware of conservation techniques and therefore only used stainless steel staple to attach the needlework to the board. Others use double sided sellotape with some abandon while others place the glass directly on top of the needlework without a matt or spacer. In Auckland, where I live, we have high humidity and a tremendous amount of pollen etc. The mould and mildew damage is something to behold in many of these badly framed works.

It seems, in this day and age, that there is a need for a written Code of Ethics with rules and samples of documentation to be followed. In private practice, a Code of Ethics could protect the conservator from being forced to undertake unsuitable treatments or practices as demanded by some clients.

After a horrendous week, I think there should be a Code of Ethics for Clients as well:

DO NOT

- (a) Bring in a fragment of your curtain material and ask me to match the object to the curtains.
- (b) Ask for a special price.
- (c) Ask me how to care for the object so you may go home and "do it yourself".
- (d) Seek advice over the phone without the conservator actually viewing the object and

TCN

them become offended when this is refused.

(e) Don't bring in an object, agree to the written Quotation and Treatment Proposal and then not pick up the object for a year.

In addition to the New Zealand Professional Conservator's Guild Code of Ethics, I have now stapled to my cork board several of my own additions:

(1) Say NO before it's too late (to remind myself that if my instincts say to avoid an object I'm usually right).

(2) DO NOT WAIT FOR TOMORROW, PICK THE ROSES OF LIFE TODAY.

*Gaynor Duff
Textile Conservation Services
Auckland, New Zealand*

Surface Cleaning a Doll's Corset Using Eraser Crumbs

The use of eraser crumbs to surface clean paper artifacts is very common, and the benefits of this type of cleaning are well documented. At the Canadian Conservation Institute (CCI), eraser crumbs have occasionally been used (in addition to more traditional methods) to surface clean textile artifacts, especially when wet or dry cleaning is not an option. The recent treatment of a Queen Anne Doll's corset is one such case. The doll, pictured in *Dolls*² dates to 1750-1770 and is from the Vancouver Museum Association (accession number H971.109.1g).

Description of the Corset

The silk corset looks very similar to the one illustrated in colour plate 6 of *The Collector's History of Dolls*³. It is constructed of six pieces: two triangular-shaped fabric-covered front panels, each 3cm wide at the top and tapering to a point at the bottom; two side panels (one right and one left) that follow the curvature of the armhole at the top, taper at the waist, and open up to form two side tabs over the hip area approximately 3cm from the bottom edge; and two separate back panels that meet down the centre back. Along each of these edges are eleven small eyelet holes, approximately 1 cm apart, which have been overcast with silk thread (metal was not yet in use for eyelets). The corset appears to be stiffened with 0.4 cm-wide strips of baleen that have been inserted into successive parallel channels stitched into the silk fabric. These small stitches do not penetrate the lining, suggesting that there is another layer of fabric inside that makes up these channels. With the exception of the two centre back edges where the fabric has been folded to the back, all the outside edges are bordered with self-fabric piping not cut on the bias. Both front and back descend to a point or V-shape. A decorative yarn acting as piping is stitched over all the seamed joins. The two front panels are covered from top to bottom with a series of horizontal floating yarns stitched from right to left, making it appear as though the front is constructed of only one panel. The lining is pieced in the tabs and then in three larger pieces, one for the front and side panels, and one piece for each back panel. The lining is much less finely stitched than the outer layer of the corset and is whipstitched in place. To tie the corset, a 43cm long silk filament yarn is knotted at the proper right back interior bottom eyelet. In general, stays can be attached to the bodice or worn separately; the front of the stays can be visible and form the stomach. This corset is a separate garment, and the front to the waistline is visible when the doll is fully dressed.

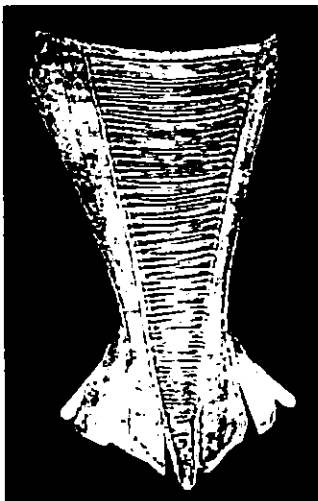


Photo 1. Queen Anne's Doll's corset, front



Photo 2. Queen Anne's Doll's corset, back

TCN

The thread count and weave structure of the various textiles used in the corset are as follows

Description	Weave type	Warp/ weft	Colour	Thread count	Twist/ply	Fibre content
Corset outer fabric	1/1 plain weave rib variation unbalanced	vertical	off-white	40 fine single	no twist/	silk
		horizontal direction	off-white	25 medium threads/cm	no twist/unplied	silk
Corset lining fabric	1/1 plain weave	vertical direction	Off-white	36 threads/cm	Z twist/unplied	bast
		horizontal direction	Off-white	36 threads/cm	Z twist/unplied	unable to sample
Corset filament yarn	n/a	n/a	off-white	n/a	S twist/2-ply	silk
Corset centre front yarns	n/a	n/a	Off-white	n/a	Z twist/2-ply	silk
Corset sewing thread	n/a	n/a	off-white	n/a	S twist/2-ply	unable to sample
Corset lining	n/a	n/a	off-white	n/a	S twist/2-ply	bast

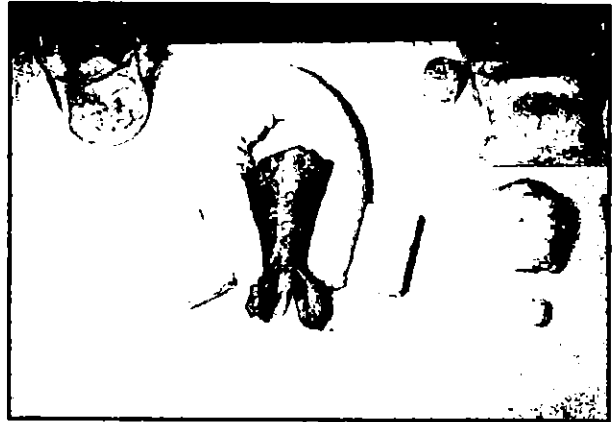
Condition of the Corset

The general structural condition of the corset and the outer silk rib fabric was very good. There was greying of the surfaces from surface dirt, and some generalized yellowing, especially on the horizontal floating yarns in the front. The self-fabric piping around the outside edges was completely worn in the centre front and in a few of the points at the bottom edge. There was a small green stain on the upper part of the proper left back panel, possibly from contact at some time with a metal fastener. The decorative yarn piping bordering the back panels had missing or broken lengths around the waist area, and the loose ends appeared to be glued in place. A weak area was visible in the upper part of the lining of the proper left back panel.

Surface Cleaning Treatment of the Corset

A preliminary surface cleaning of the corset was first carried out. The corset, which is rigid and three-dimensional, was immobilized by laying it on a fabric-covered padded board, surrounding it with a stuffed Stockinette sausage that conformed to the corset's shape, and placing lead weights on the outside of this structure to keep it in place. The interior and exterior of the corset were then surface cleaned using a vacuum hose with the end covered with nylon netting, low suction, and a natural bristle brush. The colouring of the corset remained uneven after this vacuum cleaning, indicating that not all the surface dirt had been removed. Therefore, surface cleaning with eraser crumbs was considered.

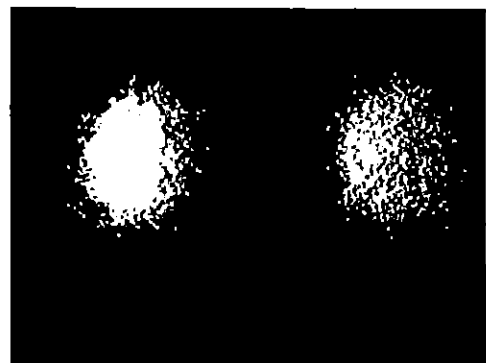
Photo 3. The corset is immobilized by placing it on a fabric-covered board, and surrounding it with a stuffed Stockinette "sausage" that conforms to the corset's shape. Weights are placed on the outside of the structure to keep the corset in place during the cleaning treatment



The use of eraser crumbs for cleaning was first tested on a small area of the proper right rear panel of the corset. After noting that cleaning did occur, and that the lustre and sheen of the silk rib fabric were not adversely affected by the eraser crumbs, the decision was made to continue the cleaning. A paper conservator at CCI was consulted to develop the following technique: a small pile of fresh eraser crumbs was placed on the area to be cleaned; a small swab of cotton batting held between the thumb and index finger was rolled, not rubbed, in slow very controlled movements over the small surface area covered by the crumbs (approximately 0.5 by 0.5 cm); each area was rolled a few times before moving to the next area, and no areas were cleaned twice. (Unlike techniques used in paper conservation where a circular motion is used to move the eraser crumbs over the surface of the object, very small back and forth movements in the direction of the vertical straight of grain, in this case the direction of the fine untwisted yarns, was used. No cleaning movements were undertaken in the horizontal direction, as this could have caused damage to the untwisted yarns.) A fine natural fibre brush was used to aid in the placement and removal of the eraser crumbs, and the crumbs were used only until they became slightly greyed in colour compared with fresh ones. Great care was taken not to clean the areas of loss on the self fabric piping and the lining. The corset was then vacuumed lightly to remove any loose eraser crumbs. Light pressure is needed to carry out this type



Photo 4. A small cotton swab is used to lightly 'roll' the eraser crumbs over the surface of the corset in the direction of the straight of grain.



*Photo 5. Left-unused eraser crumbs
Right-rolled eraser crumbs*

TCN

of cleaning; therefore, the outside/front of the corset was cleaned before moving to the interior so as not to risk grinding dirt particles into the visible surfaces while working.

Observations

After cleaning with eraser crumbs, the overall yellowed colour of the corset remained, as well as the small green stain on the upper back panel. However, the level of greying was lessened and, although the change was subtle, the level of cleaning was deemed acceptable and the treatment was considered worthwhile.

General Comments

Cleaning the surfaces of a textile with eraser crumbs can remove finely divided surface dirt that is tightly bound by the fibres or mechanically entrapped; however, it is debatable whether or not it can remove ingrained dirt from the fibres. It is not expected to decrease the overall yellowing of fabric, nor stains that have penetrated the fibres. It is an extension to vacuuming a textile, and can be considered if the textile is in sound structural condition and other types of cleaning (such as wet or dry cleaning) are not possible. This type of cleaning is not recommended for loosely woven fabrics or those having yarns with low or no twist, as the risk of fibre breakage would be too great.

Types of Eraser Crumbs Available

Staedtler Mars Plastic and Faber Castell 1954 "Magic Rub" are the ground erasers recommended for use in conservation; they are available from William Minter Bookbinding and Conservation, Inc.⁴ (both types) and from Woolfit⁵ (only the Staedtler Mars Plastic). Four grades of crumbs are available: the medium grind is probably the most useful as the particles of the fine grind could get trapped in the interstices of fabrics or seamlines, etc., and the particles of the coarser grinds are too large. Purchasing the erasers already ground is advantageous because the crumbs will be a consistent size; also, using a metal grater to create your own crumbs increases the risk that metal particles could appear in the eraser crumbs and be ground into the textiles. Slight differences are evident in the texture of the medium grinds of both eraser types, the Staedtler Mars Plastic particles being less spongy and having highly defined edges that may or may not be desirable, depending on the situation. It would be a good idea to test small samples of each type before ordering large quantities of either.

*Renée Dancause
Textile Lab, Treatment and Development Division
Canadian Conservation Institute
1030 Innes Road
Ottawa ON
K1A 0M5*

Acknowledgement

I thank Robin Hanson, intern at CCI Textiles Lab from September 1996 to February 1997, for her work in the initial examination and condition reporting phase of the treatment of this corset.

Notes

¹. Cowan, Janet. "Dry Methods for Surface Cleaning of Paper". Technical Bulletin No. 11. Ottawa: Canadian Conservation Institute, 1986. [Please note that this Technical Bulletin currently being revised.]

². Sayers, Ivan W. *Dolls*. Vancouver, BC: The Vancouver Museum, 1983

³. King, Constance Eileen. *The Collector's History of Dolls*. New York: St. Martins Press, 1977.

⁴. William Minter Bookbinding & Conservation, Inc.
R.D. 1, Box 99
Woodbury PA 16695
USA
Tel: (814) 793,,4020
Fax: (814) 793,,4045

⁵. Woolfitt
1153 Queen Street
Toronto ON M6J 1J4
Tel: (416) 536 7878, 1 (800) 490 3567
Fax: (416) 536-4322

TCN

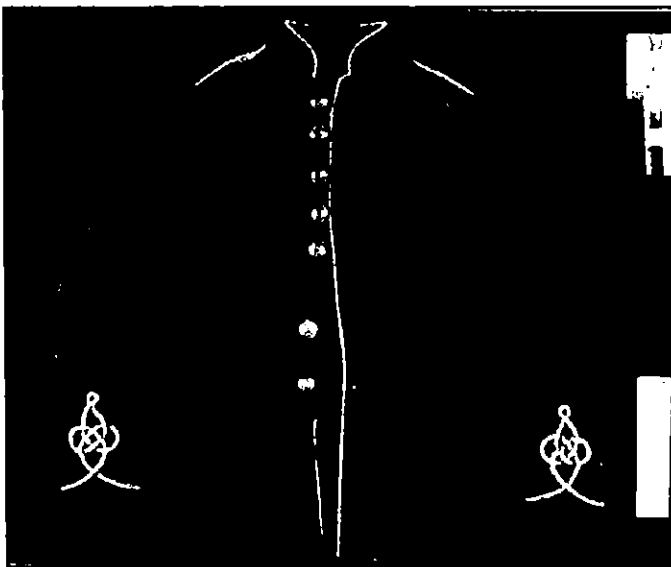
Analysis and Treatment of a Woolen Military Tunic

Description of the Tunic

This Canadian Militia tunic was made in Britain (circa 1863) by Peter Tait and Company. Records indicate that it was issued to a private of the Brockville Infantry Company, a volunteer Militia Infantry. The Canadian Militia changed the style of its uniform in 1871, so this tunic would have been worn in battle only between 1863 and 1871. It currently belongs to the Brockville Museum, Brockville, Ontario, and is rare both because it was worn by an ordinary private and because it was one of the first standard uniforms supplied to soldiers by the government of Canada (prior to 1863, soldiers were allotted money for accoutrements, arms, and uniforms rather than the uniforms themselves). The single-breasted tunic is made of plain-woven brushed scarlet wool fabric with navy cuffs and stand-up collar. Off-white wool piping finishes the front edge, the collar, and the rear vent. The change in sleeve colour is bounded by off-white wool braid finished at the front in an Austrian knot; the same braid is used for the shoulder straps. The tunic has white domed metal relief buttons down the centre front and on the shoulder and rear vent. The lining is made of twill-woven off-white wool fabric that is pieced in the same manner as the tunic, including the front left and right, back left and right, back centre, and two skirt sections.

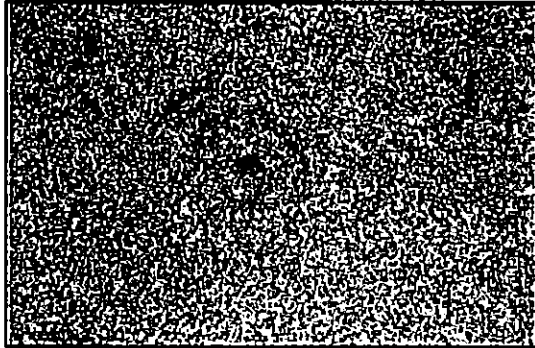
Condition and Documentation

Before an object is treated at the Canadian Conservation Institute (CCI), it is thoroughly examined and documented. During the initial examination of the tunic, an old insect infestation was discovered. To prevent another outbreak, immediate preventive action was taken: the uniform was first quarantined; then the metal buttons were isolated from the wool, the sleeves and body were stuffed with acid-free tissue, and the tunic (in its acid-free box) was sealed in polyethylene sheeting and frozen at 40°C for 10 days. The Brockville Museum was notified of the insect problem and advised to inspect the uniform storage location for possible infestation. As soon as the threat of active insect infestation had been mitigated, the tunic was thoroughly examined and the types of infestation identified. Scale drawings of each component of the uniform were made to document areas of damage resulting from insects and



natural wear of the outer fabric as well as the lining; the drawings were also used to draft patterns of the parts composing the lining. The uniform was very wrinkled, soiled, and had a stiff hand. Mould-like material was visible on the surface. Dark purple-brown stains, which appeared to be transferred images of the metal buttons, were present in several locations on the uniform and more diffuse dark staining occurred on the proper lower right front of the tunic. The overall appearance suggested that at some point the uniform had been wet or very damp.

Photo 1. The Canadian Militia Tunic, Brockville Museum



*Photo 2. Transferred image from a metal button
(the image has been digitally enhanced
to show detail)*

The fibres comprising the various textile components were identified using polarized light microscopy; all components of the tunic were wool, except for the sleeve and pocket linings (cotton) and the interfacing (a bast fibre). Using a combination of high performance liquid chromatography and X-ray microanalysis, the scarlet wool was found to have been dyed with cochineal carmine on a tin mordant. A sample of a metal button was examined using X-ray microanalysis and found to be composed of white metal, an alloy containing copper and smaller amounts of nickel and zinc.

Analysis of Stains

Information from the Brockville Museum suggested that the diffuse dark staining of the wool on the proper right skirt front and under the left arm of the tunic might be caused by residues of gunpowder. The presence of historically significant gunpowder residues would affect the treatment of the uniform, so analysis was undertaken to determine the origin of this staining. Between 1863 and 1871, when the tunic would have been worn in battle, the gunpowder in use was traditional black powder (nitrated organics such as guncotton or nitroglycerine were not commonly used until after 1870). "Black powder" is a mixture of potassium nitrate, charcoal, and sulfur; various solid residues remain after detonation, the most important being potassium carbonate, potassium sulfate, potassium sulfide, and sulfur. Therefore, gunpowder residues on the tunic could be either unreacted "black powder" (from hand packing or leaks in the ammunition, for example) or solid residues produced after detonation.

Samples of stained fibres and accretions from the proper right front of the uniform and from the button transfer images were analysed and compared with control samples of unstained fibres using X-ray diffraction, polarized light microscopy, and scanning electron microscopy with X-ray microanalysis. There was no evidence that the dark staining on the proper right front of the uniform was produced by the presence of unreacted black powder or



Photo 3. Detail of the diffuse dark staining of the wool, proper

TCN

detonation residues. The centre of the stained area contained iron corrosion products, and microscopic examination of the darkened fibres surrounding the corrosion indicated that the discoloration was not produced by particulate matter on the fibre surface but rather by an alteration of the colour of the dye from red to purple-brown; a similar observation was made on the stained fibres from the button transfer images. In addition, X-ray microanalysis indicated that the stained fibres from the front of the uniform contained more iron than adjacent unstained fibres, and the stained fibres from the button transfer images contained more copper.

One possible explanation for the discoloration of the fibres is that metal (iron on the front of the uniform and copper from the buttons), placed in contact with the textile in a damp environment, has mordanted a portion of the cochineal and caused the colour change. Cochineal mordanted with either copper or iron is purple-brown in colour; mordanted with tin it is scarlet.

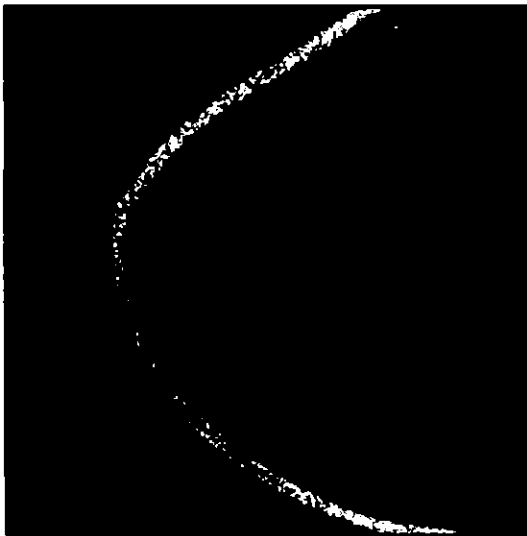


Photo 4 X-ray map for sulphur of a partially discoloured fibre from a button transfer image. The bottom part of the fibre appeared red, while the top two thirds was discoloured to purple brown. Light areas on the x-ray map correspond to high concentrations of sulfur. Sulfur from the protein structure of the wool is present over the whole fibre surface, and the x-ray map outlines the shape of the fibre.

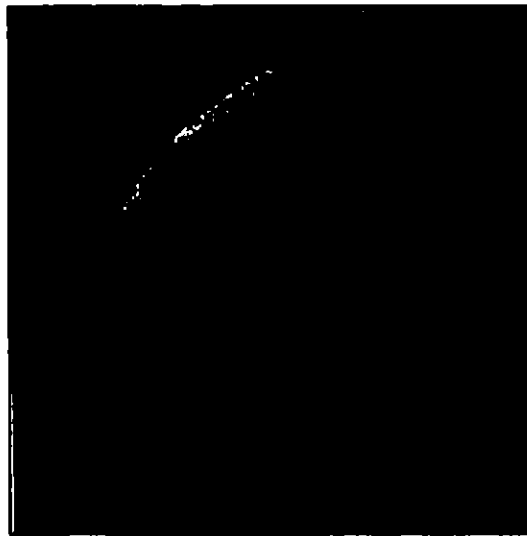


Photo 5. X-ray map for copper on the same area of the fibre as in photo 4. Light areas on the x-ray map correspond to high concentrations of copper. The x-ray map shows clearly that high concentrations of copper are present only in discoloured portion of the fibre

Conservation Treatment

As no gunpowder residues were found, the uniform was thoroughly surface cleaned with a stiff-bristled brush and a vacuum on low suction with nylon netting covering the end of the hose. Each colour of wool and the cotton pocket lining were tested for colourfastness. All colours areas were stable in perchlorethylene, so the uniform was dry-cleaned in an enclosed spray booth at CCI using an immersion/hand-blotting technique. Significant soiling remained in the solvent, and there was a marked improvement in the appearance of the tunic after cleaning, including a slight overall brightening of the red colour as well as some lightening of the lining, although the large stains remained.

To impart a soft hand to the highly wrinkled and stiff uniform, it was humidified section-by-section with warm steam from the hand-held wand of a Jiffy Steamer using two small tailors hams in a hand-blocking technique. The small areas of insect damage in the navy, red, and off-white areas were infilled with wool and stitched with suitably coloured hairsilk threads. The lining was secured piece-by-piece to a custom dyed wool backing; the need to open any original seam lines was eliminated by using a conveniently located very large extant hole in the centre back lining panel. The white metal buttons were degreased with 95% ethanol and cotton swabs.

All phases of the process were photographed. When the treatment was finished, the tunic was packed in its original acid-free box for transport back to the Brockville Museum. Details of the analysis and treatment have been recorded and can be found in the artifact dossier.

Renée Dancause and Kate Helwig

Acknowledgements

Renée Dancause thanks her textile lab colleagues who advised on this treatment and were involved in the dry-cleaning process, including Robin Hanson who interned in the lab from September 1996 to February 1997. Both authors thank Elizabeth Moffatt, who carried out the high performance liquid chromatography, and Tom Strang, who examined the tunic for evidence of insect and mould infestation.

Notes

Crocker, G. *The Gunpowder Industry*. Dyfed: Shire Publications Limited, 1986.

Helwig, Kate, and Elizabeth Moffatt. *Analysis of Samples from a Canadian Militia Tunic*. CCI Analytical Report, ARL 3563. Ottawa: Canadian Conservation Institute, 1996

Summers, Jack L., and René Chartrand. *Military Uniforms in Canada 1665-1970*. Ottawa: National Museums of Canada, National Military Museums and Canadian War Museum, 1981.

TCN

In Search of the Ideal Military Mannequin

Introduction

Finding museum quality mannequins that suit the requirements of a particular project is a difficult job. This problem faced the Australian War Memorial (AWM) this year when it undertook large-scale redevelopments of its galleries. While taking into account the conservation and material needs of mannequins required for long-term display, the fact that it is for a military museum and memorial also posed its own set of requirements. We found that the best alternative has been to produce the mannequins in-house, based on the intersecting system developed by Denis Larouche¹, and adapt the system to suit our needs. We have made further developments on the leg supports as well as the arms and necks, processes that were made easier by using two custom made tools. The end result has been the successful production of mannequins and torsos for museum display - and a steep learning curve for the staff involved.

Requirements of the AWM

There are a number of specific requirements that helped determine the type of mannequin chosen for displaying collection items in the AWM's new galleries. The scale of the redevelopment meant that many uniform supports were required. Seven full-bodied mannequins and twenty torsos were needed, along with a number of flatter padded supports on stands and hanging mechanisms. Where action poses for set pieces on open display were required, prop or non-collection items have been used.

One of our requirements for the mannequins is strength. Being a military museum means that a number of the mannequins are being displayed with full kit. In some cases this may be 12kg of weight that the mannequin has to support and balance which includes the heavy woolen or leather uniforms that they are wearing. Therefore, they need to be strong enough to carry a heavy load without falling over or sagging.

As these are long-term exhibitions, special attention has to be taken to provide adequate support and padding over time. It also means that the mannequins have to be made from stable materials that are unlikely to react with their environment over a long period.

Another requirement for the mannequins is an aesthetic one. The AWM developed lateral display standards that include a decision not to have heads or hands on the torsos and mannequins displaying collection items. The uniforms are to be seen on their own without the distraction that particular facial styles can bring. This means that hats and helmets have to be supported on stainless steel stands that fit into the mannequin's neck. A neat finish to the neck and good strength in this area is important for any of the mannequin types being considered. The mannequins also need to have a solid presence to be in keeping with the requirements of a military museum.

The other requirement is cost-related. The mannequins needed be a reasonable price in order to fall within the allocated budget of the project.

Our Options

Keeping a list of the basic requirements for the mannequins in mind we looked at a number of

options. Wire mannequins were an initial possibility. They are made of plastic-coated wire body sections (torsos, arms, legs, etc) that are fixed together. They can be padded and covered, or left as is for a more dramatic look. Although they appear relatively easy to assemble and cost-effective, we thought that they would not be strong enough to carry the weight of a soldier's kit. A considerable amount of time would also have been spent shaping, padding and covering them, and some difficulties can also be experienced when fixing their arm attachments in place.

A number of other shop and fibreglass mannequins were also looked at with little success. All appeared unsuitable for various reasons: many were strangely proportioned when compared to the size of the AWM's uniforms, some were made of materials that were unstable, while some were not flexible enough and would stress the garments too much during fittings. It would have taken considerable time to adapt and reshape them to suit our needs.

From the shop-bought mannequins available, only one came closest to meeting our needs. It is a size adaptable system made from stable materials, and one that is easily dressed. However, we still had concerns about its stability and strength when "kitted" up and the shoulders also required building up for the same reason. These forms are multi-sized but needed to be enlarged to their greatest potential for many of the uniforms that were being displayed. To provide support we would have had to pack the enlarged space out with more Ethafoam. For the number required, this would have meant spending a significant amount of time modifying them. It was also felt that their look still wasn't quite solid enough (mainly around the legs) although this could have been resolved if we spent more time padding them.

It came to a point where the options appeared to be running out. Nothing had fully met our requirements and if there was to be a lot of time spent modifying already bought mannequins, then there was a case for making our own. At this point it was decided to make the mannequins in-house based on the intersecting system that had been invented by Denis Larouche¹ and adapt the process to fit our needs. This meant that we would be able to get an exact fit for each uniform and be able to check the fitting throughout the process as we needed. As they were being made of solid Ethafoam then they would be strong enough to carry the weight required, as well as look sufficiently 'filled out'. Staff numbers were increased so we had enough people to complete the task in time for the installations.

Adaptations

Denis Larouche's basic principle for making intersecting mannequins is a successful method for producing mannequins and forms. However, the AWM adapted it in a number of ways: the leg supports, the types of arms used, the neck finishing, and the use of custom-made tools to make it easier.

Legs

Larouche's method of supporting a full mannequin displayed with shoes is through a rod inserted into the waist that follows the back contour of the mannequin and fixes down to the floor². Many of the AWM's tunics have hemlines that are lower than the waist, and often include shirts tucked into skirts or trousers underneath. This means that a method that isn't

TCN

going to interfere with the fit of the garments around the waist is preferable. Gina Drummond devised a system that allows the mannequin to be supported through both legs but one that doesn't compromise the fit of the shoes. The system uses a metal tube (25mm diam.) that is inserted up a pre-cored hole in the centre of each leg. It is attached to a flat-bar metal support (6mm thick) that comes up on the inside of the shoe, bends over its back edge and continues to follow the shoe's contour down to the ground where it is fixed to the floor (see Photo 1).



Photo 1

The main benefit of this method is that no stress is put on the shoe as it just 'sits' under the ankle of the mannequin, and can be padded out separately as required. It also allows for the mannequin to be dressed without interference from stands. These stands have shown to be strong enough to carry the weight of dressed mannequins with full kit, although they need to be made carefully so they don't interfere with the top edge of the shoe or boot. Depending on the weight the mannequin is carrying it would be possible to use less bulky leg supports.

Arms

Two types of arms have been developed for the AWM's mannequins: a soft padded one, and a firm one that can be fixed at an angle. The soft one is made to support the sleeve and gives

TCN

the garment the appearance of being 'worn' without having to be strong enough to hold a pose. These are made with a thick wire core that is sandwiched between polyester wadding and covered in stretch fabric (see Photo 2). A large flap is incorporated into the top of the outer covering which is then used to attach the arm to the mannequin around the shoulder's profile. As the arm and shoulder joints can be one of the most difficult to deal with when dressing mannequins, a system that is easy to dress is crucial. We found that by sewing the soft arms onto a 'bodice' with a front opening (see Photo 3) then it can be slipped into the arms of the uniform and pulled onto the mannequin with the tunic at the same time. This dressing method works quite successfully and once in place can then be given it's final adjustment and fitting. Being able to fit the arms before dressing the mannequins works better for garments that have front openings - fortunately most uniforms do.

The second type of arm that we developed is a firm one that can be fixed at an angle to hold a particular pose. This firm arm contains a bent copper pipe with a threaded end and lock-nut that connects to the fitting in the shoulder. It is then heavily padded with polyester wadding and covered in the same way as the soft arms. A right-angle plumbers' fitting is set into the shoulder of the mannequin to enable the angle at this joint to be held. This allows the joint to swivel until the desired setting is reached and then be tightened (with another lock-nut) to keep the arm in place (see Photo 4). Previously a number of other mechanical devices had been trialed to find a suitable shoulder joint (including click-in garden fittings, dowels, and metal tubing) however, none held the position without sagging over time, or with slight pressure applied to them. While the plumbers' fitting meets the requirements of the job, it is difficult to tighten during dressing. This is an area that would benefit from more trialing and research.



Photo 2

TCN

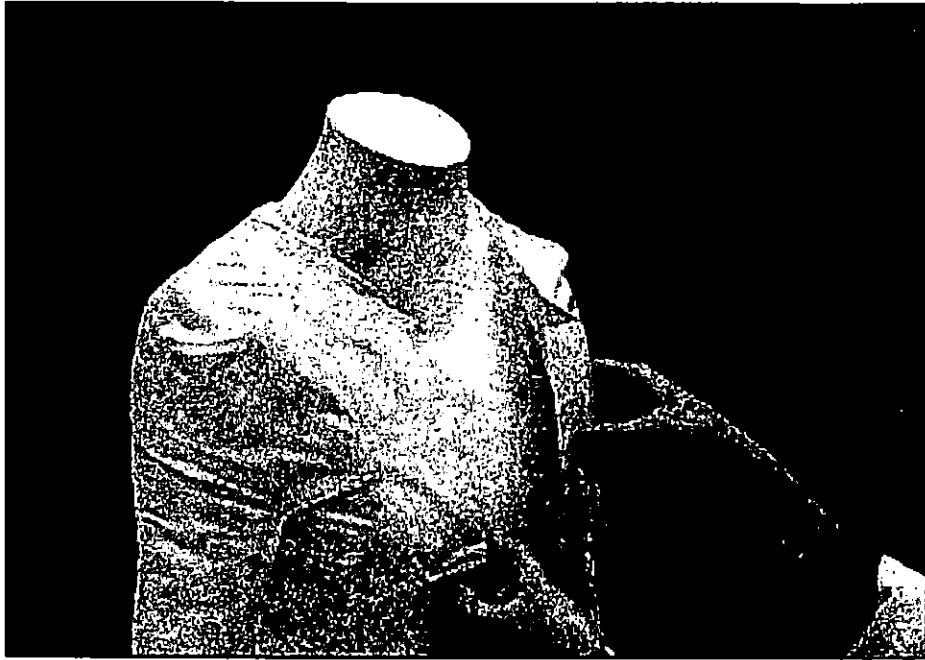


Photo 3

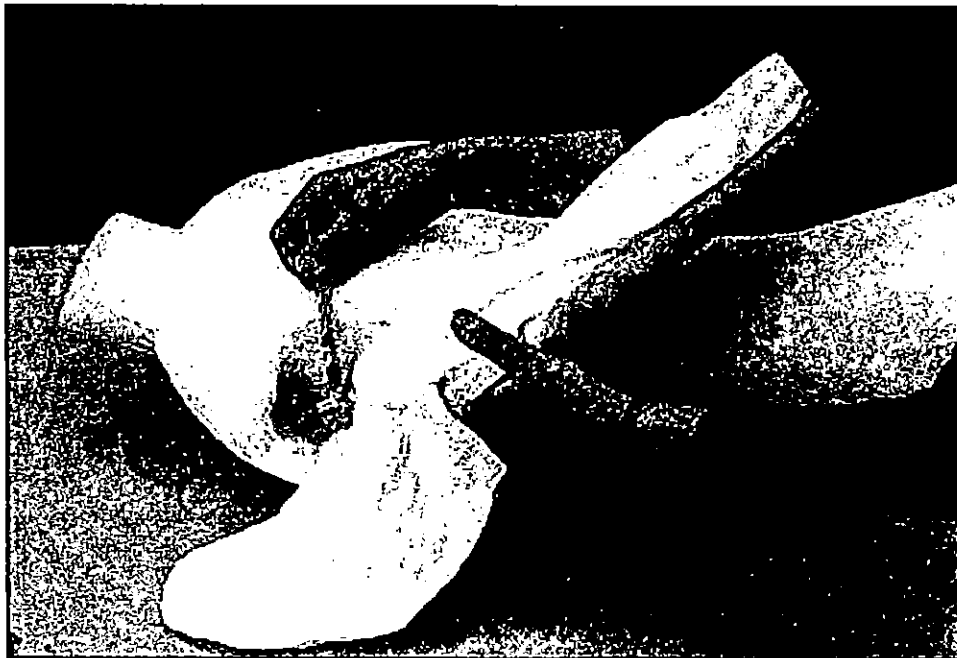


Photo 4

Necks

As the mannequins were to be without heads, a mechanism for supporting the headwear had to be incorporated into the neck area. The stands are a stainless steel rod with a threaded end and an acrylic disc at the top, upon which the hat sits on its padded Ethafoam support. A core is made into the neck to allow for a wooden dowel (with a 'Demon' nut at the end) to be glued in place. This enables the hatstands to be screwed into the dowel and successfully held in place. The placement of the dowel is tricky as it has to be straight, that is, vertical in both directions (front and side), as any error is magnified by the length of the hat support. The best results are obtained by keeping the mannequin upright and coring down from above - with the use of an assistant to hold the mannequin and be a 'sighter' (see Photo 5). The most natural placement for the hats is given when the dowel is cored near the centre-line of the shoulders. This means that it sits towards the back of the neck when it is finished.



Photo 5

The necks were finished using a cardboard disc covered with two layers of fluffy stretch fabric that gives a soft line to the edge of the completed neck. The discs have holes punched directly above the dowel (for the stands) and are then glued to the top of the neck. Excess Ethafoam is cut away from the disc as any that overlaps the edge gives an uneven line to the finished product. The necks are also padded with polyester wadding (apart from the top disc) and then covered in two-way stretch fabric. Using two way stretch fabric allows for the neck to be covered in one piece without having to make any extra tucks; all the excess can be pulled down and pushed into the base of the neckline. A hole also needs to be cut into the outer covering fabric for the hatstand. Paraloid B-72 is painted around the raw edges of the cut to stop any possibility of fraying, and a washer sits around the base of the stand to cover this area.

Using different coloured fabrics, and experimenting on where to finish the neck in relation to the garment achieves quite different appearances. Allowing time and being fussy with this process

TCN

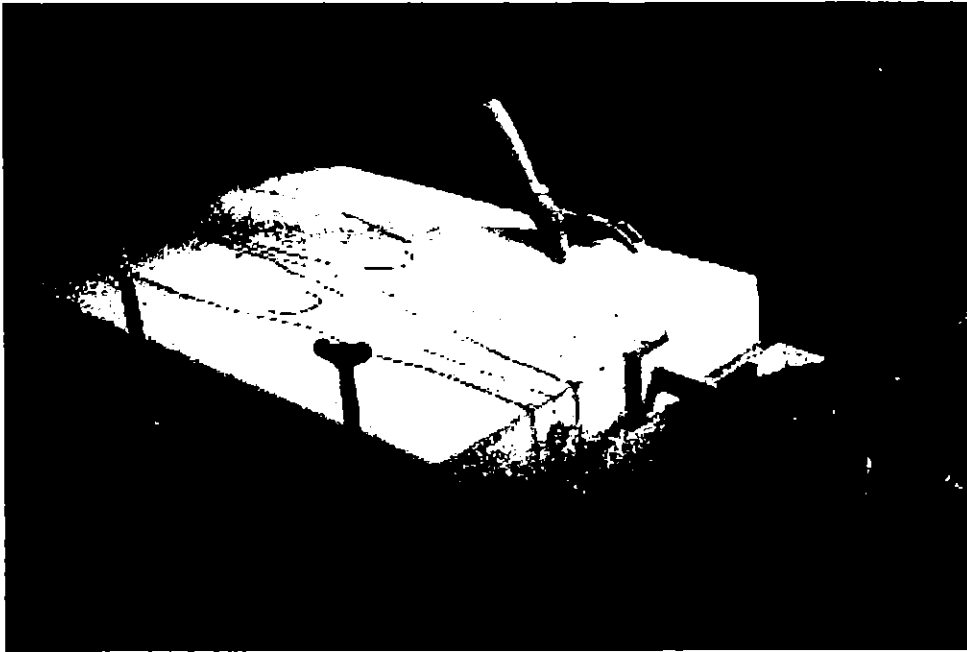


Photo 6

definitely pays off with the final appearance. There are numerous alternatives to finishing the necks, including metal or wooden caps, which will produce equally pleasing results.

Tools

Producing the mannequins 'in-house' has been made easier with the use of some very useful tools: an 'Arbortech Mini-Carver', and a long corer. The 'Arbortech Mini-Carver' is a commercially available Australian invention consisting of a small cutting disc that is mounted onto an angle grinder. It allows for fine carving and is particularly useful in smoothing the finished surface of the Ethafoam; see article dedicated to this device by Gina Drummond³ as well as her article in this issue of TCN. As carving with an Arbortech produces fine Ethafoam dust it needs to be used with appropriate safety masks and protective clothing. Protective gloves are useful when gluing the Ethafoam sections together as hot-melt glue also sticks surprisingly well to your skin. The adhesive that we use is '3M Jet Melt 3764'.

In order to core the 25mm diameter holes for the leg poles and the necks, George Bailey made a corer in the AWM's object laboratory. It consists of a long metal tube with a sharpened end and an internal angled cutting piece that 'screws' into the foam, cutting as it goes. This is mounted onto a hand drill (bit and brace) for easy use. The corer enables holes to be evenly drilled, up to 700mm deep into the foam for the mannequins with full legs. We developed this system to avoid weakening the legs and to embed the leg poles firmly in the mannequin. It is vital to core the holes into the front body section while it is still a flat plank of Ethafoam so that they are straight, and easily clamped to a square edge (see Photo 6). We also made a wooden jig to ensure that the corer was kept straight, and in the centre of the foam planks. The holes for the torsos needed to be done carefully so that they do not sit off-centre on their stands.

Discussion

The in-house supply of mannequins and torsos had not been on the agenda when the AWM started the large-scale redevelopment of its galleries. However, due to the lack of museum quality mannequins that fitted the requirements of the institution we decided that the best option was to produce them ourselves. This is no small undertaking and not necessarily an option that many museums would have, but due to the increased number of textile staff for the project it has been possible in this case. The finished product is very successful and found to be easily installed. One of the benefits of an Ethafoam mannequin is the ease with which they can be dressed and adjusted (cut down, added to, etc). We have even had some minor alterations that were able to be done on-the-spot in the galleries which saved excess handling and movement of objects.

Although the basic method is surprisingly quick to pick up, there are obviously refinements that need to be mastered when the technique is completely new to the user. One of these is the stance required for a full mannequin with a lot of kit. We found it important to think about balance and position in order to capture the slightly hunched over movement of a person who is carrying a heavy weight. More unusual and active poses like these require subtlety when shaping and carving such mannequins. The points that Gaby Kienitz⁴ raises regarding how variation in body size changes the basic silhouette are also very useful when planning the initial stages of manufacture. Luckily most of our uniforms fitted the standard body silhouette and the variation could be incorporated into the cutting and shaping stages. Larouche describes the intersecting system as a sound base from which many adaptations can be made⁵. We definitely found this to be the case. The leg supports, arm and neck systems are developments that have been made especially for the AWM's project needs. There will, no doubt, be many more opportunities to refine our processes even more - steps that may take us closer to the finding our 'ideal' mannequin.

*Stefanie Woodruff
Australian War Memorial,
Canberra, Australia*

Notes

¹ Larouche, Denis (1995) 'Intersecting Silhouette Mannequins' in *Textile Conservation Newsletter*, Ottawa, Spring Supplement 1995.

² Larouche (1995), p13.

³ Drummond, Gina (1997) 'The Arbortech Mini-carver: An Australian invention - the perfect tool for carving Ethafoam' in *AICCM National Newsletter*, Canberra, No 65 December 1997.

⁴ Kienitz, Gaby (1996) 'Observations on the Construction of Intersecting Silhouette Mannequins for Use with women's Fashionable Clothing' in *Textile Conservation Newsletter*, Ottawa, No 31 Fall 1996, pp13-15.

⁵ Larouche (1995), p15.

TCN



Fully kitted mannequins.

A Faster and Better Way to Carve Polyethylene Foam: The Arbortech Woodcarver and Mini-Carver

Closed-cell polyethylene foam (known as Ethafoam™, Packfoam™ and Jiffyfoam™) has become a standard material used in conservation for the display and storage of significant objects. It is chemically inert, rigid and lightweight making it an ideal material for shaping into object supports and for constructing mannequins.

Whilst it can be readily cut in a single plane with a band or jig-saw, or have grooves cut into it with a router, it has always been a problematic material to work with when it has needed to be sculpted especially with concave cuts.

Recently when constructing a mannequin made of polyethylene foam using the intersecting silhouette mannequin method developed by Denis Larouche at the Canadian Museum of Civilization, we started to think hard about a better way to shape the foam. This particular method of mannequin manufacture allowed us to produce the blocky silhouette of the custom-made mannequin in less than one hour. The shaping and smoothing of the foam to a more life-like shape took many hours and used a variety of tools including shaped knives and various rasps, none of which gave particularly satisfactory results.

A colleague suggested that an Arbortech Woodcarver might do the trick. The Arbortech Woodcarver, an Australian invention, is a small cutting wheel with curved teeth that can be fitted to an angle grinder and was designed for wood carvers essentially to speed up the tedious cutting away of excess wood in sculpting and carving.

We trialed the Arbortech and found it ideal for cutting rigid closed-cell polyethylene foam. On contacting Arbortech for more information about their blade, we discovered that they were about to release a new wheel known as the "mini-carver" (or "mini-grinder" in North America). This carving tool allows fine detailed carving work as it is a smaller 50mm wheel with a 150mm extension neck allowing access into recessed areas such as in the carving of bowls.

The Mini-carver can be fitted to a variety of angle grinders by the use of various adapters. It is best to get a list of suitable angle-grinders and their adapter requirements from the distributor or retailer if you are going to purchase a dedicated angle-grinder as some angle grinders are easier to adapt than others.

We have found the Arbortech Woodcarver and Mini-carver to be ideal for shaping polyethylene foam. The larger wheel of the Arbortech is ideal for smoothing over large surfaces such as with the construction of mannequins, and the Mini-carver is ideal for doing more detailed work including smaller supports. Whilst practice and specific technique are required to obtain good results, in the hands of an expert carver such as the inventor Alistair Mitchell, polyethylene foam can be quickly and expertly carved. For a novice, it takes about three hours of carving to become comfortable and to produce good results with the Arbortech Woodcarver or Mini-carver.

Whilst using these power tools, we had to overcome a few safety issues. The larger Arbortech Woodcarver wheel should only be used with the custom safety guard. This must be purchased separately. In 1992 the Woodcarver cutting wheel was awarded the European BG Safety Standard certification after passing rigorous testing including kickback and injury tests. However, users must remember that most angle grinders turn at 20,000 revs per minute and without the safety guard the potential risk to the operators fingers are very high. The Mini-carver does not have a guard but the extension moves the smaller wheel further away from the operator's hand.

Carving polyethylene foam at high speed produces an enormous amount of fine plastic dust. To protect operators from inhaling the dust, we purchased a self-contained dust-filtering visor. The specific type we purchased was a Record Power Turbovisor. It operated by battery and therefore did not require an airhose linked to a compressor

TCN

from the back, which presents a potential trip hazard. The model we purchased gave up to 6 hours of use before requiring recharging. The mask was lightweight and very quiet when in operation and the large clear visor enabled a good view of the working area. All operators also wore earplugs to reduce risk from noise levels from the angle-grinder.

Almost continuous use of the carver over a few weeks produced tingling sensations in the operators' hands from vibration. We were unable to locate specific information regarding the maximum hours of use for tools with fine vibration but operators should be aware that extensive daily use may create discomfort and permanent damage to nerves in the hands. When doing many days of carving, it is recommended only a few hours of carving be done in any day by an individual operator or that days without using the Arbortech Woodcarver or Mini-carver are scheduled into bigger projects. It is also important with operating any grinding tool that the piece of work be well clamped or fixed. It is dangerous and difficult to obtain good results from a moving piece of work.

Arbortech has also produced a 40 minute video 'Learn to use the mini-grinder' for USD \$19.95 showing how to use the Mini-carver safely and how to get the best results. Whilst the demonstrations are of woodcarving, the points raised in the video such as the standing position, holding of the Mini-carver, direction of cutting and safety points are all valid with carving polyethylene foam and make the purchase of the video very worthwhile.

The Woodcarver BG style cutter costs USD \$45.00. The Pro-Guard to be used with the Woodcarver costs USD \$29.00. The Mini Carver/Grinder Kit costs USD \$79.50.

United Kingdom distributor:

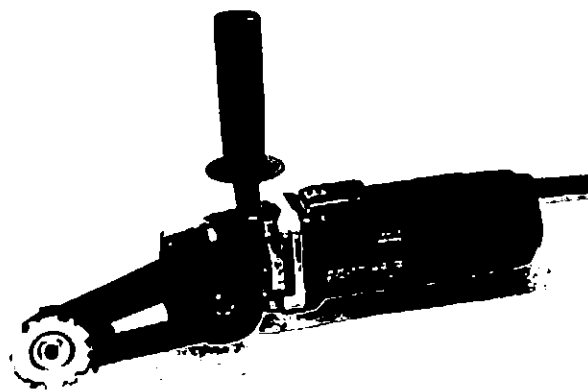
Martin Brown
Brimarc Associates
7-8 Ladbroke Park
Millers Road
Warwick CV34 5AE
Ph: (Int + 44 + 1926) 493 - 389
Fax: (Int + 44 + 1926) 491 - 357

For Australian and USA retailers contact:

Arbortech Pty Ltd
67 Westchester Road
Malaga WA 6066
Australia
Ph: (Int + 61 + 8) 9249 - 1944
Fax: (Int + 61 + 8) 9249 - 2936

Canadian distributor:

Dennis Moor
Chipping Away Inc
247 Blackhome Drive
Kitchener, Ontario N2E 1Z2
Tollfree: (888)-682 - 9801
Ph: (519) 743 - 9008
Fax: (519) 578 - 6074
Email: dennis@chippingaway.c



Happy carving!

*Gina Drummond
Textiles and Objects Conservator
Australian War Memorial,
Canberra, Australia*

Silk Crepeline Patches

This article describes method first used while working at the Canadian Conservation Institute a few years ago. I was assisting contract Conservator Bonnie Halvorson with the treatment of an 18th Century quilt made of white cotton fabric which was decorated with applique obtained by cutting out and then applying floral prints. Many of these floral appliqués were partially torn and had fraying edges which required stabilization.

Bonnie's treatment involved individually covering the worn and stressed appliquéés with silk crepeline patches. The irregular curved and zig-zagged contour of these appliques made them very difficult to cover without puckering along the edges.

To resolve this problem we developed a technique of preparing custom fitted crepeline patches for each applique to be covered. This technique is currently being used at the ROM on a 19th Century crazy quilt from the collection.

This method can be used for damaged or fragile areas which need to be covered with silk crepeline but are particularly difficult to cover because of irregular shapes. The material required is:

- Mylar (a medium weight for overall covering and heavy for the template)
- permanent marker,
- silk crepeline,
- silk thread,
- pins,
- pinning board.

The colour fastness of the silk crepeline and any permanent marker used to draw the template on the Mylar should be checked. Some commercially dyed silk crepelines are not colour fast and require soaking and thorough washing to remove the excess dyes. Some of the components of so called permanent ink are also not water fast (e.g.: black Staedtler lumocolor).

The first step is to make a template using heavy Mylar. Lay the textile flat with the area to be treated easily accessible for tracing. Protect the area to be worked on by laying a piece of light weight Mylar over it. Position a piece of heavy Mylar over the area to be covered by the patch and using a permanent marker trace the outline. Mark one corner of the template with an asymmetrical sign that has only one possible right way up. If the template is flipped over (wrong side up, reverse, etc) it can be easily identified (e.g.: the letter R but not the letter B). This sign will also be used as a placement point later on.

Next, cut along the contour line of the Mylar template. Placing a piece of white paper under the Mylar will help you see the line while cutting. If the patch is for a padded piece, the outline should be slightly enlarged to accommodate the thickness. This must be modified as necessary. Adding too much or too little would make the silk crepeline patch too big or too small for the area to be covered. For example, in the CCI project, the appliqué was stuffed with cotton so we had to move the cut line 2mm out from the traced contour line.

The second step is to prepare the silk patch. On a clean board pin the silk crepeline on grain, then pin the Mylar template over it. With a running stitch trace the outline of the template onto the silk

TCN

crepeline. It is preferable to use a contrasting but colourfast colour for the thread. Start the stitch near the mark on the Mylar. This will become the placement point. Always make the knot on the same side (face up or face down) so that you can identify the proper side of the crepeline for the hemming.

Cut the silk crepeline patch leaving about 5mm for the hem. When preparing many patches at once, make sure to allow enough space between them for the 5mm hem allowance. Fold the hem under along the stitching line.

This technique works particularly well on unwashed crepeline as the sizing makes finger pressing the hem very easy. Using a thread of another contrasting colour, sew down the hem using a running stitch. Again, start at the marking point which will serve as a placement guide after washing. Wash the patch to remove the sizing. Rinse well. If the silk crepeline does not require washing soak it anyway. The hemming and handling distort its shape and wetting it will allow you to reshape it against the template for a perfect fit. To reshape after washing, place the template on the board. Then cover it with a piece of lightweight Mylar to protect the crepeline from snagging on the sharp corners of the template. Use the knots as guides, aligning with the marks on the template. Stretch as needed to regain the original shape and pin in place around the edges. Leave to air dry. The piece should fit the original template. Once dry, verify that the shape precisely fits the damaged area. Cut off any excess hem. Apply to the textile. Stitch the patch along the outer edge using a running or whip stitch. Remove basting stitches as you go.

*Esther Méthé and Tracy Hain
Royal Ontario Museum
Toronto, Canada*

New Ventures From CCQ

Since the designation of the Centre de conservation du Quebec (CCQ) as a Crown Corporation, which permits the acceptance of contracts from the private sector, the textile lab has been involved in the rental of laboratory facilities on two occasions. On both occasions the large wash table and the large blocking and sewing tables were used by private sector individuals under the supervision of a textile conservator.

The rental of the equipment to a local textile artist for the washing and blocking of a tapestry (possibly an Audenarde) and to the Honorary Consul of Holland, for the washing and mounting of a recently completed, oversized needlepoint (a copy of an Aubusson tapestry, purchased in France directly from Aubusson) permitted safe treatments of these textiles in an environment supervised by a professional conservator hence ensuring and maintaining conservation standards.

The philosophy of the textile conservation laboratory is that under certain circumstances, it is advantageous to assist the general public with the rental of in-house equipment, utilized under the supervision of a professional conservator and to have the textile adequately treated, rather than run the risk of having a textile poorly treated, due to lack of equipment etc.

This could have been the fate of the Aubusson needlepoint, as even though the dyes tested stable prior to washing, they started to bleed during washing and the prompt intervention of the conservator, with adequate materials and extra equipment, prevented a near disaster.

-oOo-

Research preparation for a presentation on "Canada's International Position in the Fight Against the Illicit Traffic of Cultural Objects" brought me into contact with Mr. Alain Lacoursière, Chief Inspector of Inquiries for Cultural Objects of the Montreal Urban Community Police Service (SPCUM). Mr. Lacoursière was most happy to discover the CCQ. Since December 1998, the CCQ has agreed to collaborate with SPCUM in supplying scientific and technical information and expert witnesses for court hearings etc. Such information has already proved valuable for the prosecution in a recent case.

As professional conservators we all know that the problem of the illicit traffic of cultural objects exists, but for many reasons we are not entirely familiar with the complex mechanics of the issue, which is further complicated when intermingled with international issues. However, the conclusion of my presentation and the helpful collaboration of Mr. Lacoursière indicated that we can become positively involved. First, Mr. Lacoursière suggests that private conservators and institutions employing conservators, contact their local district attorneys who supply lawyers with information on where to get scientific and technical information and expert witnesses. As the district attorneys work very closely with the local police forces any further inquiries will be directed to Mr. Lacoursière. He has established an interprovincial reputation and a bank of information through his 10 year involvement with these issues. This is the final step before the involvement of the RCMP (Interpol). Financially speaking, and I can only speak for Quebec, expert witnesses are paid \$250 for a half day and \$500 for a full day in court.

TCN

Secondly, we could support our respective provincial governments in the modification and/or implementation of a new laws regarding the protection of cultural objects and even their classification. Without going into a lot of detail, Canada's "Cultural Property Export and Import Act - 1994", has been most valuable but is a federal border law. Once objects cross provincial borders they are subject to their respective provincial civil law. For example, the only objects in Quebec that are protected (classified) under civil law, are movable objects that are used in religious rites such as chalices, ciboriums, ostensories etc. As a result, Mr. Lacoursière has recently submitted a document for study to the Ministre de la culture et des communications, concerning the creation of new laws to protect classified cultural objects located in public institutions in Quebec. Such a procedure would also involve the establishment of sophisticated and secure institutional inventories, which would indirectly be valuable to conservators for determining storage requirements, disaster planning etc.

I would like to suggest that a discussion group be created concerning the illicit traffic of cultural objects and what role that we, as professional conservators in Canada, should undertake. Hopefully, both myself and Mr. Lacoursière will be attending the CCR conference in Winnipeg in June and we can get together with other interested individuals for an informal meeting. In the meantime, if you have an inquiries or suggestions please contact me.

*Sharon Little
Chief Textile Conservator
Centre de conservation du Quebec
1825, rue Semple
Quebec, Quebec
G1N 4B7*

*Tel: (418) 643-7001
Fax: (418) 646-5419
e-mail: Sharon.Little@mcc.gouv.qc.ca*

or

*Alain Lacoursière
Chief Inspector of Inquiries for Cultural Objects
Montreal Urban Community Police Service
7275 rue Sherbrooke est
Bureau, 605
Montréal, Quebec
H1N 1E9*

*Tel: (514) 280-3124
Fax: (514) 280-3151
email: Alain.Lacoursière@spcum.qc.ca*

CHANGES IN CANCER LIST RECOMMENDED BY NTP
BNA-OSHR, 28(27), December 9, 1998, P. 891

On December 2, the National Toxicology Program voted to recommend changes for their next report on carcinogens including:

- Ethylene oxide and crystalline silica: upgraded from "reasonably anticipated human carcinogens" to "known human carcinogens;"
- Alcoholic beverages to be listed as "known human carcinogens;"
- Diesel particulates to be listed as "reasonably anticipated to be human carcinogens;"
- Environmental tobacco smoke finally listed as "known human carcinogen;" and
- Nickel compounds listed as "known human carcinogens."

MEDIEVAL CURE FOR INDIGO POLLUTION
Nature, 396, 1998 p. 225 & C&EN, November 23, p. 37

Indigo used for dyeing denim blue must first be solubilized for dyeing by reducing it. This is done via a process that consumes copious amounts of sodium dithionite, a wastewater pollutant.

Plant scientist Philip John, at the University of Reading in England, and his coworkers, looked for ways to eliminate the sodium dithionite pollutant. They found the answer in a medieval process in which woad, an indigo-containing herb native to Europe, was fermented in order to solubilize the dye. After the fermentation had used up all the oxygen in the vat, the woad dye is reduced, which causes it to lose its color. The dye is then applied to fabric and it regains its color when reoxidized by air.

Philip John's team isolated the anaerobic bacterium responsible for the fermentation, a distinct species of Clostridium. The bacterium could provide the textile industry with a more environmentally friendly approach to denim dyeing. Artists who use natural dyes probably wonder why no one thought of this sooner.

*Reprinted with permission from ACTS FACTS
Monona Rossol, Editor
181 Thompson St., # 23
New York, NY 10012-2586
E-mail: 75054.2542@compuserve.com*

The Textile Conservation Newsletter, published twice yearly is a forum for textile and costume news from around the world. Submissions related to textile conservation, history, technology and analysis, information regarding recent publications, supplies and equipment, health and safety, employment opportunities, and upcoming courses conferences and exhibitions are invited. They should be typed and, if possible, accompanied by a disk using Microsoft Word or ASCII formats.

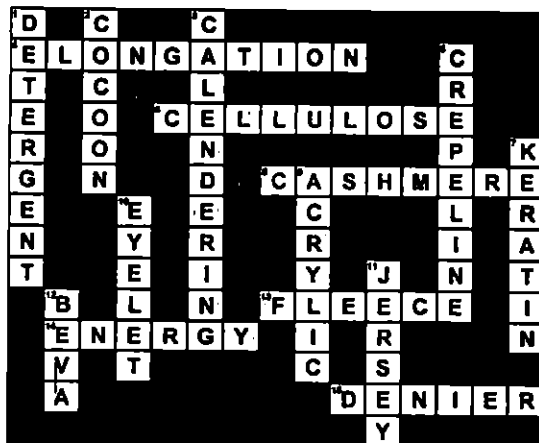
TCN

EXCITING CHALLENGE IS BEING OFFERED:

Experienced Textile Conservator
in pre-Columbian textiles
is sought to finish conservation and lining of a Wari
tunic at the Ica Museum
in Ica, Peru.
Approximately July 9-23.

Cost approximately \$1600US for airfare, ground
transportation, and room and meals.

Inquires: send resume to:
Nanette Skov,
fax: (502) 393-7331
or
P.O. Box 13465, Tucson, AZ
. 85732, USA.



TCN Subscription Form

The TEXTILE CONSERVATION NEWSLETTER is an informal forum for textile and costume news from around the world. It contains information related to textile conservation, history, technology and analysis, recent publications, supplies and equipment, health and safety, employment opportunities and upcoming courses, conferences and exhibitions. The TEXTILE CONSERVATION NEWSLETTER is published twice yearly, in the spring and fall, with one supplement each year devoted to a specific topic.

All submissions should be typed or, preferably, forwarded on an IBM compatible 3.5" disk in Microsoft Word or ASCII formats. The disk will be returned. Inquiries, submissions and address changes should be sent to:

TEXTILE CONSERVATION NEWSLETTER
P.O. Box 37089,
3332 McCarthy Road
Ottawa, Ontario
K1V 0W9

The subscription term is two years and includes four issues and two supplements. The subscription rates are: Canada - \$35.00 CDN: USA and Overseas - \$38.00 US. Back issues and supplements of TCN are available at \$5.00 CDN in Canada, all other locations: \$5.50 US. If you subscribe part way through the subscription period you will receive all the back issues of that period. Subscriptions received after the last issue of the two year term but before the first issue of the next term will automatically be carried forward.

NAME _____

ADDRESS _____

NEW SUBSCRIPTION _____

RECEIPT REQUIRED _____

BACK ISSUES _____

Please send cheque, International Money Order*, or bank draft in Canadian or American funds payable to: Textile Conservation newsletter, at the above address.

* Please request an International Money Order drawn on a Canadian clearing bank encoded with the following three part coding line: 5 digit number - 3 digit number - account number; branch code; bank code.

You may also contact TCN via e-mail or fax:

e-mail address: lwilson@achilles.net Fax: (613) 826-1221

The following back issues and supplements of the TEXTILE CONSERVATION NEWSLETTER are available:

<u>Annotated Bibliography on the Use Adhesives Used in Textile Conservation</u> <i>Jacinthe Moquin, Provincial Museum of Alberta</i>	Spring 1987
<u>Mannequins for the Royal Ontario Museum Gallery</u> <i>Alexandra Palmer, Textile Department, Royal Ontario Museum, 1987</i>	Spring 1988
<u>Warning! Dichlorovos Resin Strip Fumigation</u> <i>Sharon Hammick, Conservation Department, Royal British Museum, 1989</i>	Spring 1989
<u>Recent Trends in Costume and Textile Storage</u> <i>Jaquelin Beaudoin-Ross, McCord Museum of Canadian History, and Eva Burnham, Canadian Conservation Institute, 1990</i>	Spring 1990
<u>The Effects of Substrate Variation on Colorimetry Readings</u> <i>Leslie K. Redman, Canadian Museum of Civilization, 1990</i>	Spring 1991
<u>Characterization and Preservation of Weighted Silk</u> <i>Merrill Horswell et al, Department of Environment, Textile and Design, University of Wisconsin, 1992</i>	Spring 1992
<u>Conservation of an Egyptian Mummy Shroud</u> <i>Isabella Kravski and Diane McKay, Royal Ontario Museum, 1992</i>	Spring 1993
<u>Have Suitcase, Will Travel: Techniques for Packing Costume</u> <i>Irene F. Karsten, McCord Museum of Canadian History, 1994</i>	Spring 1994
<u>Intersecting Silhouette Mannequins</u> <i>Denis Larouche, Canadian Museum of Civilization, 1995</i>	Spring 1995
<u>Humidification of Glazed Cotton Fabrics</u> <i>Bonnie Halverson, 1996</i>	Spring 1996
<u>A Preliminary Investigation of the Tensile Properties of Yarns Used for Textile Conservation</u> <i>Shirley Ellis, 1997</i>	Spring 1997
<u>An Investigation of Poultice materials for Textile Conservation</u> <i>Shawna Lemiski, 1998</i>	Fall 1998

BACK ISSUES

September	1981	Spring	1987	Fall	1992 #23	Spring	1997 #32
February	1982	Fall	1987	Spring	1993 #24	Fall	1997 #33
September	1982	Spring	1988	Fall	1993 #25	Spring	1998 #34
February	1983	Fall	1988	Spring	1994 #26	Fall	1998 #35
October	1983	Spring	1989	Fall	1994 #27		
March	1984	Fall	1989	Spring	1995 #28		
Fall	1984	Spring	1990 #18	Fall	1995 #29		
Spring	1985	Fall	1990 #19	Spring	1996 #30		
Fall	1985	Spring	1991 #20	Fall	1996 #31		
Spring	1986	Fall	1991 #21				
Fall	1986	Spring	1992 #22				

ISSN 11-80-3649