

*Q. L. Johnson*

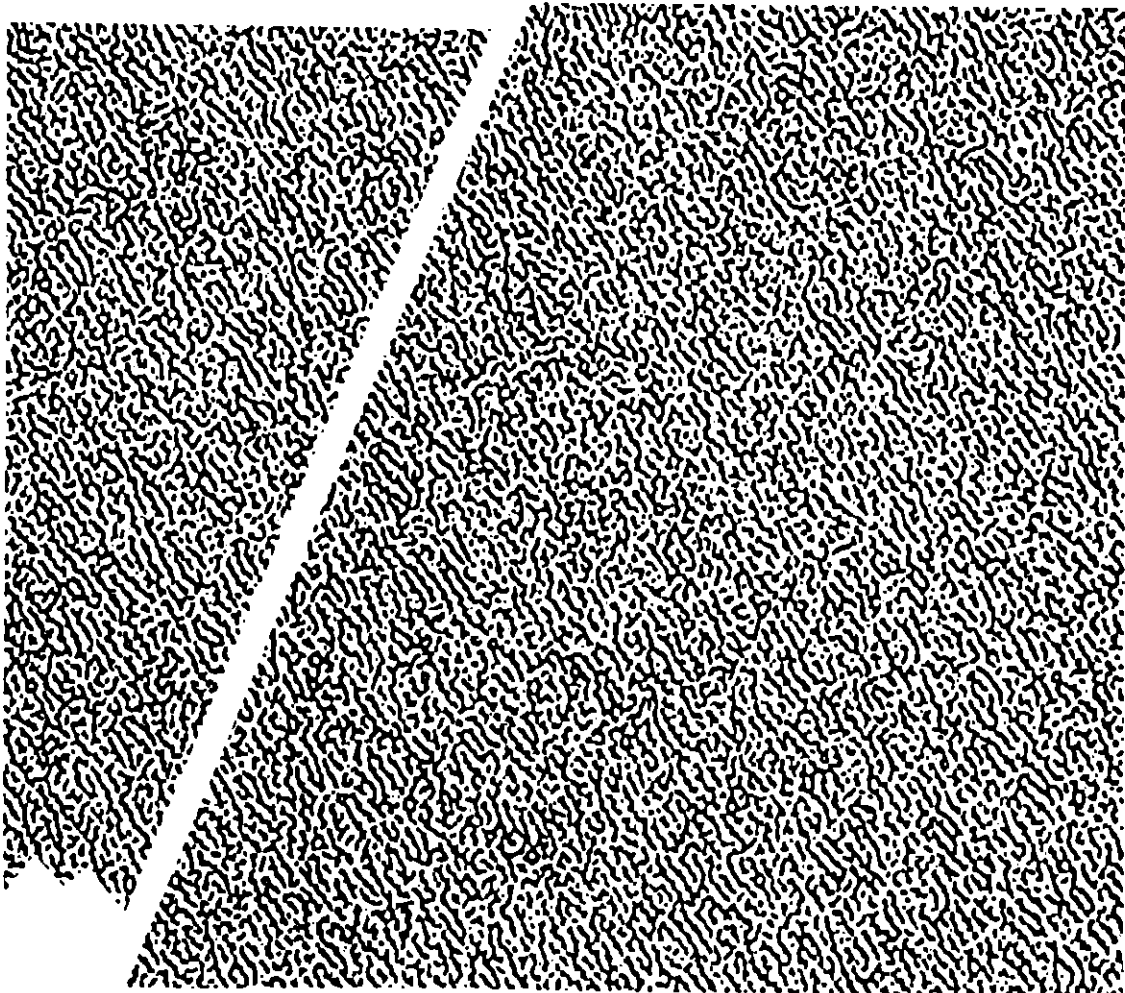
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**TCN**

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**TEXTILE  
CONSERVATION  
NEWSLETTER**

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*FALL 1985*

"DEAR EDITORS"

In the Spring '85 issue of Textile Conservation Newsletter Colleen Wilson described a problematic group of archaeological textiles from the Hesquiat burial site on West Vancouver Island and solicited approaches taken with similar material.

I am currently addressing a large group (ca. 300 pieces) of textiles recovered from the Norwegian archaeological expeditions to the arctic Svalbard conducted in the late 50's and early 60's. Upon excavation the wet-waterlogged textile material was "stuffed" into brown paper bags and shuffled about from one temporary store to another.

The international nature of archaeological expeditions to Svalbard has resulted in the scattering of recovered material over Northern Europe. Since excavation, the Norwegian textile material has not been examined by either archaeologists or textile specialists. Some of it has never been catalogued. Prompted by inquiries from abroad concerning the Norwegian material a three-year textile conservation project was set up in 1982. The scope of the project is to rescue the material from present storage and by pursuing a policy of minimal intervention prepare it for accessible academic research.

The material is from burial areas associated with 18th Century hunting/whaling settlements along the west coast of Spitsbergen. It consists of fragments of clothing, footwear, and bedding. The pieces are crumpled, distorted, and inflexible.

Treatment has varied as few items have been alike. The material is extensively documented before and after treatment including x-radiography of wads and collapsed footwear. Some items have received no or minimal conservation; that is, simply repackaging for storage or surface cleaning and repackaging, anything more being judged too hazardous.

For items receiving a higher degree of conservation, the general treatment adopted has been: 1) painstakingly careful surface cleaning; 2) rewetting in H<sub>2</sub>O:EtOH with the initial ratio gradually raised to 100% H<sub>2</sub>O; 3) relaxing and lightly cleaning while wet; 4) plasticising in low concentrations of glycerol in H<sub>2</sub>O; 5) pre-freezing; and 6) freeze-drying.

This approach has yielded consistently acceptable results. The method is dependent upon the use of the technique of freeze-drying. The method is dependent upon

the use of the technique of freeze-drying. Results of initial trials employing air-drying were unacceptable.

This has been one approach to a problem seemingly similar to that of Colleen Wilson. With such problems it is exceedingly difficult and dangerous to generalize especially sight unseen. If nothing else, it is reassuring (frightening) to learn the problem is not unique.

Elizabeth E. Peacock  
Trondheim University  
Norway

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## CURRENT PROJECTS

### BRITISH COLUMBIA PROVINCIAL MUSEUM

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Much time has been spent by all at the BCPM on Reorganization. Since Bill Barkeley assumed the directorship a year ago, a lot of energy has gone into reassessing the role of the museum and the part different jobs play within the overall structure. Scarcely anyone has been exempt from contributing to committees and re-writing job descriptions. We now have three assistant directors and a complete new schema for organization into sections, but as yet most jobs have not changed drastically. It is an internal re-organization, so although we are all to apply for jobs in the new structure, no applications will be taken from outside the museum. The Conservation section will exist in the new structure with an expanded mandate and increased personnel, responsible for the daily maintenance of the galleries. Environmental monitoring and pest control functions may be formalized into a single position, and the textile position may no longer be specified as such. There is some hope, however, that the conservation positions may be removed from the technical scale. While this might improve our salaries (unlikely), the real attraction would be opportunities to have educational leave and time for professional development, currently denied to mere technicians.

There is no real end in sight to the re-organization. There are changes to which both the government and our union must agree and as we have just begun contract negotiations, the museum's proposals have become part of the larger discussion. There is speculation that the negotiations may go on until June, so there is no telling when we will finally be re-organized.

Work is in progress selecting quilts to be displayed at the Canadian Quilters Convention to be held at the University of Victoria in June 1986. The Maltwood Museum will display a selection of quilts chosen by Zane Lewis, Social History Curator, from the Provincial Museum collection. The collection is not large (approximately twenty-five quilts), but there are some interesting local examples. Most are in good condition, but some will require a lining for support; all will be hung with velcro. A poster and pamphlet detailing the quilts should be available in June.

Christine Rushforth, a student in the Anthropology Department, University of Victoria, is now working as a volunteer one day a week.

Colleen Wilson

### Drycleaning: The Conservator Visits the Real World

Cleaning soiled artifacts with solvents has some real advantages over washing. Fibres do not swell in solvent, so there is no shrinkage, a boon when dealing with artifacts composed of more than one fabric. Many dyes that will bleed in water are stable in solvents. Similarly, many finishes are stable in solvent that would be lost in washing.

There are drawbacks to cleaning with solvents though, pH will not be affected, so acidic textile will not be neutralized. Water based soils such as perspiration are not removed. Some dyes, painted decorations, glues and rubber based accessories are affected by solvents.

The most serious drawback, however, is that, except for rare instances, the solvent cleaning must be done outside the museum, by non-museum staff, by a Drycleaner. Most effective solvents have too low a threshold limit value to be safely used without at least fume extraction facilities, or preferably, within a totally enclosed system. The amount of solvent required to clean even a small garment is quite large. Solvents are not inexpensive and there is a real problem of disposing of the used liquid. Facilities must also be available for removing all the solvent from the cleaned article.

Being unsure of what commercial drycleaning has to offer, I decided to review the local establishments. Having examined the literature, I sent a questionnaire to the forty-five drycleaners in Victoria. I then visited the four who replied. The businesses varied from a single person operation to one employing about twenty-four people; from brand new facilities, to ones thirty years old. They all were interested in cleaning old and delicate articles and claimed to have some knowledge and experience in this field.

Items are sorted by colour, weight and fibre, but depending on the volume of goods handled by the business, the loads will be more or less discrete. Some cleaners said they would be willing to run a cycle for a single item. Delicate articles are generally placed in net bags. When I asked if it was useful to protect fragile areas by basting them in net, I was assured that the bag was adequate (as another bagged item was tossed onto the pile in the corner). One cleaner, when asked about protecting buttons or delicate trim with muslin or net, thought it wasn't a bad idea, but unnecessary. If they thought the buttons would be a problem, they would cut them off and re sew them later.

Solvent cleaning is done in a machine very similar to a large front-loading washing machine. Newer machines are completely enclosed and computer

controlled. The load is put in, the machine programmed (they do have a shorter, gentler cycle, but only as short or gentle as the programme allows - there is no manual control) and the load passes through wash, spin, possibly a rinse, spin and tumble dry. Older machines are dual units - a washer from which the clean but wet articles are removed to the tumble dryer. The cycle of the older washers can be modified more readily - one cleaner explained that their most delicate treatment "French cleaning" involved running solvent into the machine, stopping it and opening the door then gently agitating the article by hand. Although excellent for the artifact, I don't think anyone should be asked to endanger their health in that way. While the cycle of the older machines can be more easily modified, the items are subjected to more handling as they are bundled into trolleys and placed in the drying machine.

Whether on a gentle cycle or not, the cleaning machine poses a great hazard to delicate artifacts. Perchloroethylene, the solvent used by all the cleaners visited, is eight times heavier than water. Considerable agitation is required just to wet items with the solvent. Any artifact that cannot withstand considerable stress, will probably be damaged by even "gentle" agitation in a drycleaning machine.

There are a number of solvents available for drycleaning, some preferable to others. ("The Ideal Drycleaning Solvent and Areas of Application of R113"

N.F. Crowder, N. Daniels, J.K. Macleod, Imperial Chemical Industries Ltd.)

Perchloroethylene is a relatively harsh solvent. It requires some heat to evaporate the solvent remaining in the items after spinning.

1-1-2-trichloro,

1-2-2-trifluoroethane is not only a less aggressive solvent making it more suitable for delicate work, but it evaporates more easily, requiring less heat in drying.

It is also less toxic, more stable and more easily purified. According to the literature it is also cheaper in operation. Apparently, however it is not used locally.

One of the cleaners questioned (a past president of the B.C. Fabricare Institute) claimed that it is just too expensive, requires too expensive equipment and doesn't clean effectively. He thought it was perhaps used occasionally in the East. (White

Spirit/Stoddard's Solvent, another gentle solvent, though having its own drawbacks, is apparently used by some suede and leather cleaners but I have not pursued that).

Solvents are not used on their own however to increase effectiveness, especially on water-based soils, the cleaning solution is "charged" with a percentage of water and detergent. The charge varies

from 1% to 4%. Of the cleaners visited, only one routinely rinses the items, another rinsed delicate items as necessary. One operation routinely charges their cleaning solution with a "size". Drycleaning can strip the size normally present in modern garments, leaving them limp. The cleaner claimed that the size charge was not strong enough to add sizing to an already unsized item, but would only maintain the levels in already sized pieces. Sizes are substances such as thermoplastic resins, materials completely foreign to most historic artifacts and it does not seem advisable to risk even a slight contamination. Some operations also include an additive to prevent static build-up, though this can be controlled by the equipment.

It was my understanding that solvents are used and filtered until they are full of soil and grease, at which time they are replaced. However solvents are now very expensive, they are never discarded. Instead there is continuous filtration and frequent distillation. Distillation returns solvents to a pure state, and can be done with greater or less frequency. Modern, single unit machines distill part of the solvent with each drying cycle - older machines require a "boil-off". All the cleaners to whom I spoke appeared to have absolute faith in filtration systems to remove any transient dyestuffs or heavy soils.

Drying is accomplished in a tumble-dryer, at temperature up to 140°F, although some noted that it would depend on the type of fabric. While some claimed there were alternatives to tumble-drying, including hanging to drip-dry, I saw no evidence that this was ever done, or facilities to indicate that it ever should be done. Hanging a delicate garment full of a liquid eight times heavier than water is probably not a gentler solution than tumbling. The drying machine, except for the temperatures, in fact appeared less vigorous than the cleaning machine. As with the spotting and finishing techniques, any garment that is strong enough to have survived cleaning, will probably not be damaged further by drying.

After passing through the cleaning/drying machines, any items still with stains are passed to the "spotter". Stains are treated manually with a choice of cleaning solutions, a brush and a steam gun. All the spotters I saw in action, although vigorous in their treatment, appeared to be experienced and effective. They were all intent, however, in getting the dirt out.

The means of "finishing" items that have been drycleaned were reassuring. Because labour costs money, many labour saving devices have been developed that minimize the handling of the articles. Trouser presses, "suzies" (expanding, steaming, body forms) and steam guns are used to eradicate creases without

the labour or flattened sleeves or shiney seams produced by a hand iron. The finishing treatment received by a drycleaned garment is probably gentler and less manipulative than similar exhibit preparation done in a conservation lab without the sophisticated equipment.

All the drycleaners visited were willing to test for unstable dyes. All were willing to fill out a treatment report and all, reassuringly, recognized that there were problems beyond their scope, items that they would be unwilling to handle. However, they were all used to being the experts in the matter - they usually deal with people with no understanding of the process, and were inclined to treat questions regarding modification of the treatment with some degree of patronization. They are also, even those with experience in cleaning old fragile items, most accustomed to cleaning modern articles in everyday use. Their acceptable levels of soil has been set by a public that demands pristine garments. The museum ethos of soil as historic evidence, stains as potential research material, was news to them - at the drycleaner, the blood on Lincoln's assassination garments is just another problem for the "spotter".

The drycleaner cannot be considered a panacea for those problems beyond the scope of the wash tank. Any item being considered for cleaning should

be at least as carefully examined and its condition researched as if it were going to be treated in the lab. There are finishes that may not be visible that may react adversely to part of the cleaning process (e.g. sugar water has been used to stiffen laces and gauzes. The high temperatures in the tumble dryer can caramelize the sugar, leaving a brown discoloration that even the "spotter" cannot remove). Any information regarding finishes, possible soils, sources of stains should be discussed with the cleaner. Every concern should be explained. Rather than cover the buttons or decorations with muslin it might be advisable to discuss them with the cleaner - if they are of an early plastic, the solvent may affect them. They may still benefit from being covered, but perhaps they should be tested first. If you will be satisfied with something less than pristine, this also should be discussed. The drycleaner makes a living getting things clean. If you would rather see signs of use, let the cleaner know.

The most important issue to consider however, is why. Drycleaning will do nothing to prolong the life of a textile. Few soils are actually damaging to textile fibres: gritty, abrasive soils are as effectively removed by vacuuming; acidic soils will not be neutralized by solvents and there are few instances when solvent cleaning is the only means of disinfecting an insect-ridden textile.

Drycleaning is a cosmetic treatment only. While it is certainly worthwhile to understand the working of a drycleaning establishment, it is much more important to establish, not who is the most suitable cleaner, but why a museum artifact should be treated to make it appear fresh and new.

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Colleen Wilson  
Conservation Division



Questionnaire for Drycleaners  
(final version)

Loading

1. Do you process loads of delicate articles?
2. Would you be willing to process a single item?
3. Do you have facilities for cleaning large or heavy articles (e.g. rugs, curtains)?

Solvent

4. What solvent is used?
  - Chemical name
  - Manufactured/distributed by
5. Is a detergent charge used?
  - a) What percent?
  - b) Is there a rinse?
6. Is a sizing charge used?
  - a) What percent?
  - b) Can it be omitted?
7. Is there an additive to prevent static build-up?
  - a) Can it be omitted?
8. Does the solvent undergo continuous filtering?
9. Is the solvent distilled?
  - a) How often?

Equipment

10. Can the cleaning machine be put on a gentle cycle?
11. Can the cleaning machine be put on a short cycle?

12. Can the centrifuge be run on a short cycle?
13. At what temperature are articles dried?
14. Can the tumble dryer operate on a gentle cycle?
15. Are there alternatives to the tumble dryer?
  - a) What are they?

General

16. Have you any experience cleaning old and delicate articles?
17. Have you facilities for testing the fastness of colours in possibly complicated artifacts?
18. Would you be willing to complete a report for each article detailing the treatment it received?
19. Are there any conditions you would stipulate for handling fragile articles?
20. Have you any professional applications (e.g. Fabricare Institute)?
21. Would you be willing to show your operation to a museum representative?

## MUSEUM OF ANTHROPOLOGY

Recent Work with the Textile Collections of the U.B.C. Museum of Anthropology.

The MOA at UBC has a growing collection of approximately 4000 pieces of ethnographic clothing and textiles, most of which are 2-dimensional. Our collections are particularly strong in the areas of East Asia, Peru, Indonesia, and the NWC.

Most of the MOA's ethnographic collections are on display in our visible storage galleries, together with their catalogue records. The textiles, because of their vulnerability to light damage, have had to be kept out of sight in conventional museum standard storage. Over the past several years, we have been researching semi-accessible storage systems for textiles, through a grant from the MAP of the NMC. We have now developed plans for a satisfactory system, and built and tested prototype storage and display units. In the storage units, textiles would be stored flat on lightweight screening trays. Some units would have glass tops so that the textiles on the uppermost tray, which could be rotated with others in the unit, would be visible. Plans for the unit, and for a vertical unit for the display of complete costumes, are available upon request.

Our goal is to have an entire public gallery devoted to the

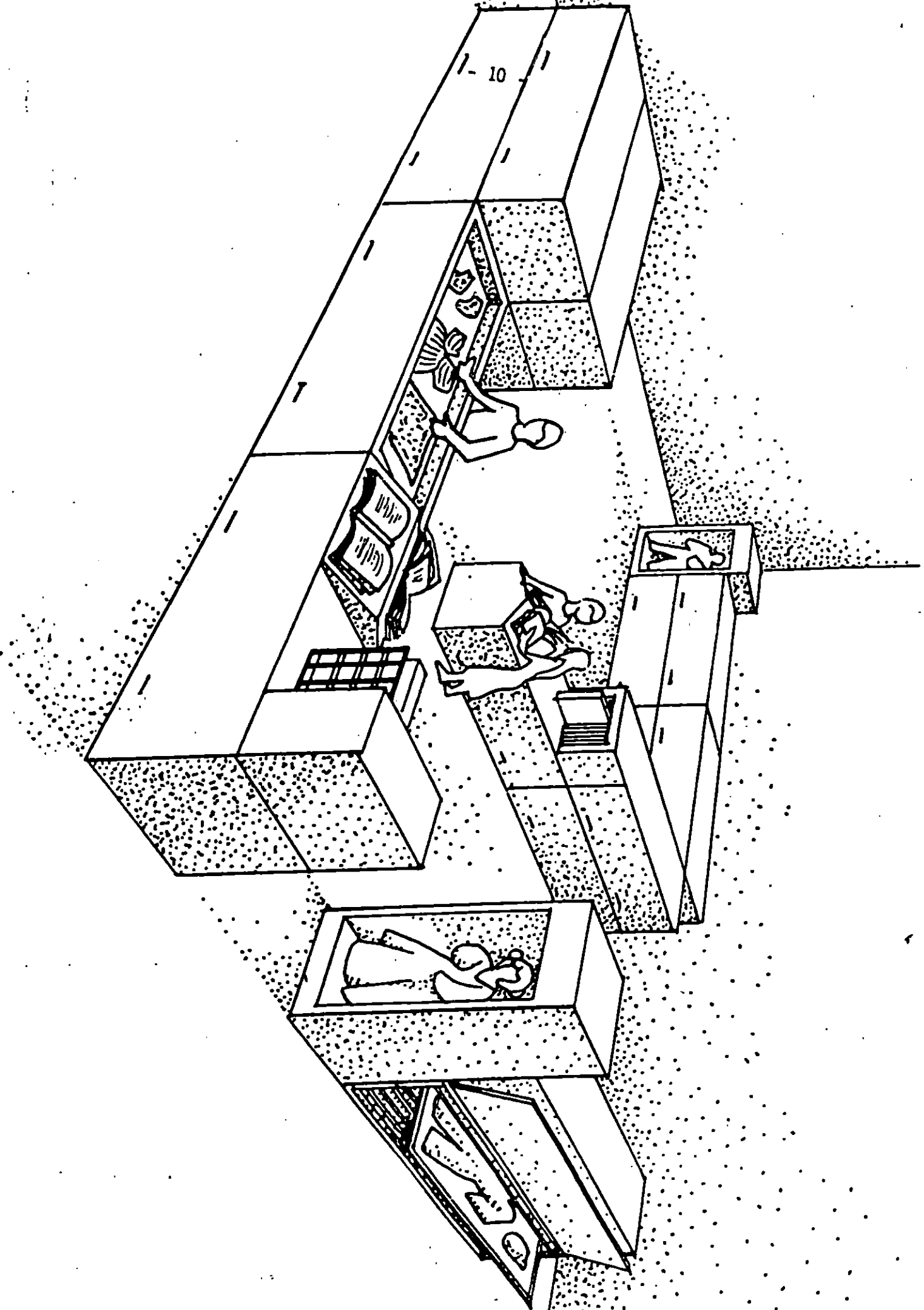
display and storage of textiles (see illustration). Our present constraints of money, time and space allow us only occasional exhibits in one of the Museum's two temporary exhibit galleries (see Nicole Hyatt's article). These displays, and much of the other work with textiles, are done almost entirely by volunteers and student interns, as I am the only staff member working with textiles, and I have many other responsibilities.

Financial constraints from the time the MOA was built have meant that our textiles are presently stored under less than ideal conditions. Funds have never been available to build a proper system, so our collection is presently stored in a room with good environmental conditions but improvised facilities and severely limited space.

Shelving units of dexion steel components with polyethylene-covered plywood shelves hold those pieces in need of flat storage, while garments hang on permanent and rolling racks. Rolled textiles are accommodated on wall racks built by the Museum's technician, Len McFarlane, and other pieces are in trunks, carefully wrapped, with folds padded.

This storage is continually being improved through our collective efforts, in order better to house our existing collections and allow for expansion. We hope that it will eventually be possible to transfer the collection to a public gallery where it will be better housed and more accessible to the public, in keeping with the philosophy of the MOA.

Elizabeth Lominska Johnson  
Curator: Collections



### Preliminary Conservation of Ancient Peruvian Textiles

An important part of the State University College at Buffalo's Art Conservation Program is the Summer Work Project. I was fortunate to be able to spend mine at the Museum of Anthropology, working under the supervision of Curator Elizabeth Johnson and Conservator Miriam Clavir. This project was supported in part by a grant from the National Endowment of the Arts.

Most of the Project was spent working with the Museum's collection of pre-Columbian Peruvian textiles. A large part of this collection is in safe storage and stable condition, but certain pieces require treatment and several were to be moved to a new storage unit. In all, eighteen condition reports and treatment proposals, with photo-documentation, were completed and four treatments finished. Possible storage mounts for inconveniently shaped textiles were also considered. Long fragile belts are especially problematic and it would be interesting to hear from those who have developed successful storage methods for this type of textile.

The provenance of the textiles is largely unknown and, it was decided that cleaning might remove evidence of their part use and history. Foreign matter was therefore left in place except in cases where it might be dislodged and lost

during treatment. A Chimu style loincloth yielded one feather fragment, a seed pod, hundreds of loose particles of insect frass which contains dyestuffs and two very interesting insect casings. The casings are covered with tiny, colored fibers arranged in color discreet concentric ovals. The order of color arrangement is reversed from one casing to the other. This must be a natural phenomenon resulting from the insects' environment in, and diet of, dyed fibers and it is most peculiar. What factors (sticky secretions?) could cause the separation of colors, and by what mechanism is the order of their arrangement reversed?

The textiles will not be displayed in the near future and for most the only treatment required is straightening and flattening, using humidity and weights. Dyes were spot-tested for water sensitivity and in nearly all cases were found to be partially water soluble. Brown dyed cotton was the worst offender. In many cases solubility increased with pH, indicating that they are acid dyes. Because of the problem with water sensitivity, three of the four textiles treated were humidified indirectly using damp blotters covered with Mylar. An interleaf of Reemay (spun-bonded polyester) was placed between the textile and the blotters to prevent contact. In most cases prehumidification allowed the textile to be fingerblocked and flattened using Reemay, dry blotters, Plexiglas squares and

and weights. Recalcitrant creases were, when possible, reduced by using slightly damp blotters while weighting.

Treated textiles were placed on acid-free matboard, covered with acid-free tissue and moved to their new storage unit. Treatment reports were written in some detail as a reference for future workers.

Rebecca Billings  
Student Intern  
B.C. Museum of Anthropology

### Creative Storage Solutions

Through lack of space and lack of funds, many museums are forced to adopt creative storage solutions, and the work done this summer in the University of British Columbia Museum of Anthropology's textile storage area was no exception. We set out to solve a number of problems. Most of the clothing was hanging on wire hangers covered with bubble pack, or on large curved black plastic hangers which took up a lot of room, had sharpish edges and tended to crush the other garments when the rack was crowded. Some of the racks were covered with heavy black plastic curtains. Occasional pieces of clothing were folded over a wire hanger on a piece of bubble pack.

A particular problem was posed by a number of Chinese opera costumes, long robes heavily ornamented with metal mirrors on the body and sleeves. Ideally these robes

would be stored flat, or hung with horizontal rods through the sleeves to support the weight. But the sleeves of these costumes are extremely long; in some cases the total width of the costume was as much as 284 cm. and there simply wasn't room to set up a wide enough rack.

We replaced the hard black plastic hangers and the bubblepack covered wire ones. In every case the hangers that had bubblepack taped to them were rusty underneath the plastic, and had to be discarded. Instead we covered wire hangers with a simple cotton polyester quilted cover with an extra layer of polyester fibrefill between the wire and the cover.

We were able to make use of some of the plastic hangers by extending them by attaching cardboard tubes, 80 cm in length, which had been donated by Jones Tent and Awning. The tubes were covered with polyethylene sheeting and spun-bonded polyester (Reemay), and pushed on to the ends of the hangers. The top of the hanger, including the point where it joined the tubes, was covered with polyester fibrefill (doubled in front to compensate for the curve of the hanger) and a layer of Reemay. Thus prepared, these giant hangers were used to hold the opera costumes. In order to put the garment on the hanger, one tube was removed, and slipped on again through the sleeve. Alternate costumes were covered with Reemay, so

the ornamentation did not abrade the next costume. The heavy sleeves were well supported, but because the tubes fell at a 45 degree angle, the racks did not take up an unmanageable amount of space.

Special preparations were also made for items such as skirt panels which had to be draped over hangers. Cardboard tubes (like the type out of wax paper) were slit along one side and put over the bottom of a wire hanger. The tubes were then covered with polyethylene and the quilted fabric. This way items could be hung over the hanger without creating the stress of a fold.

We also needed an inexpensive source of fabric to make curtains and covers for the textile racks. By contacting the housekeeping departments of major hotels we managed to purchase a number of their discarded bedsheets at one dollar each. It is no longer possible to obtain pure cotton sheets in this way, but a cotton polyester blend was satisfactory for our purposes. Unfortunately the hotel which was our main source used sheets of a striking mustard yellow color, but they were certainly suitable for curtains which do not touch the actual textiles, and a definite improvement over the black plastic drapes.

Sima Elizabeth Shefrin  
Student Intern  
B.C. Museum of Anthropology

### Low-Budget Displays of Museum Textiles

Since January of this year, the Museum of Anthropology has had the opportunity to put many of its textiles on display. As gallery space was available, we decided to take advantage of the chance to show important textiles from our collection to the public. Textiles have been exhibited on a rotating basis for four periods of at least six weeks each.

The first to be mounted were a group of newly-acquired Tibetan robes made of Chinese and Russian brocades. These were followed by ikat textiles and garments from Turkistan, and then by traditional clothing from Korea. We have just mounted a display of Japanese folk clothing, emphasizing dyeing and surface design techniques.

The gallery used was specifically arranged to accommodate these exhibits. In it are nine temporary vertical cases and one horizontal display cabinet that also doubles as a storage unit, as described by Elizabeth Shefrin in this issue. The size of the vertical cases has allowed us to use more than one mounting technique. The Tibetan robes were mounted on rods which were padded with pure polyester air filter and wrapped in spun-bonded polyester. They were hung from the tops of the cases with monofilament. All the robes were in good

condition, despite the fact that some of the fabrics are nearly 300 years old, so there were no conservation problems. Light levels were kept to 50 lux.

The same system was used for the textiles from Turkistan. The majority of the pieces were hangings, but four were robes. Three were suspended on rods while the fourth, which has no sleeves, had to be mounted on a mannequin. We also used simple, abstract mannequins for the Korean garments, as it was impossible to use rods except in the case of long coats.

Most of the mannequins were constructed from large cardboard cylinders, weighted at the bottom, with metal rods in the centre so that shaped plastic hangers could be mounted on top. These were carefully padded and then covered with washed white cotton T shirts, with a piece of washed dark cotton jersey at the neck. Arms made of cardboard cylinders were secured to the hanger. These were covered with polyethylene sheeting and then Reemay. They added the extra support needed so that no tension was put on the shoulders of the garments. For those garments with trousers, the adjustable mannequin frame of chrome-plated tubing developed at the MOA was used, with the upper body fully padded. These require little time to put together, and are adaptable to men's, women's and children's clothing.

All these exhibits have been put up almost entirely by student interns and Museum volunteers, as both staff time and funds are limited. The work was overseen by the Curator of Collections. We have learned that it is possible to do simple but attractive textile exhibits in this way, despite a minimal budget. Through these exhibits we have been able to give public exposure to significant portions of the MOA textile collection, as well as gaining experience in researching, mounting, and exhibiting textiles.

Nicole Hyatt  
Student Intern  
B.C. Museum of Anthropology

UNIVERSITY OF ALBERTA

Textile Analysis Service

In recent months, several projects have been completed for various museums in Alberta. They include: a 1906 quilt from Redwater and District Museum, a Hudson Bay blanket coat "capote style" for the Whyte Museum of the Canadian Rockies in Banff, and the original regimental colour for the Princess Patricia Canadian Light Infantry.

For 1984-85, a textile conservation internship was established at the Textile Analysis Service.

Elizabeth Tait, a 1985 Clothing and Textiles graduate from the University of Alberta, began the 10 month internship in May under the supervision of Professors E. Richards, N. Kerr, A. Lambert, and textile technologist J. Good. The internship is designed to provide a variety of experiences in both conservation treatments, and in working with a collection. A number of interesting items including several flags have been conserved by Elizabeth.

A recent project involved the dyeing of repair fabric to use as backing fabric for the torn areas of a flag. Several samples of fine white wool fabric were dyed with CIBA acid dyes, varying the amount of red, blue, and yellow dye used, in order to produce a dull red-orange colour. The depth of shade and levelness of the initial samples were not

satisfactory. To improve the levelness of the dye, the undyed wool was soaked in drycleaning solvent, then washed with a neutral detergent before dyeing. This pretreatment appeared to remove processing oils and other agents that hindered the dyeing process. In addition, the liquor to fabric ratio was increased from 40:1 to 80:1. The dyed samples finally showed very good depth of shade and levelness. Before dyeing the final repair fabric, dyed swatches were subjected to standard textile test methods to establish the lightfastness and washfastness of the dyes.

Historic Costume and Textile Study Collection

An exhibition, Art Nouveau in Fashion, opened at the University Ring House Gallery and was on display until December 1, 1985. This exhibit, curated by Anne Lambert, was the focus of several training events. The exhibition was used as a case study in two preventive textile conservation classes and a senior art and design class. Conservation students produced mannequins with the appropriate S-curve stances, and also helped with the installation of the exhibit. Senior students in Art and Design studied museum exhibit methods with university faculty and guest instructors from museums, galleries and commercial exhibit companies. Teams of students submitted design proposals from which one was selected for further



development. Heather Prince, a textile conservation graduate student and Neil Lazaruk, an art and design student were hired to work on the project during the summer.

The garments in the exhibition included two day dresses and a jacket from Russia, a walking suit from the United States and two wedding dresses from Canada. Heather Prince did much of the conservation work for the exhibit. Several of the costumes required some form of stabilization so that they could be safely displayed on the mannequins. The jacket of the walking suit contained a lining of weighted silk which had split badly. It was decided to reline the jacket, however, the original lining was left in place, but straightened so that it would not fold and wrinkle underneath the new lining. A pattern was drafted, and a new, matching silk lining was attached inside the jacket. The skirt of this suit was spot cleaned with a neutral detergent solution, using a vacuum table, so that water rings would not form.

A workshop on making disk mannequins was held November 8-10 in conjunction with the exhibit (see "Workshop Report" by Julie Hughes, this issue), and a public lecture was held November 25 and 26. The exhibit process was facilitated and documented by the University Collections designer, Bernd Hildebrandt who will use this case study along with several others for an

upcoming workshop on exhibition design. Funds for the project were provided by the University of Alberta, the Department of Advanced Education, and the Alberta Museums Association.

The Cold Weather Clothing Project has been underway for the past two years under the direction of Anne Lambert. The project involves research, exhibition and publication for the Winter Cities Conference Corporation, which is hosting two international conferences in Edmonton in February 1986 and 1988. The exhibit will illustrate winter-wear in the Edmonton area from around 1880 to the present. Seventeen summer staff members worked on the project this past summer, including some textile conservation students. Both preventive and treatment work were completed for a variety of artifacts which will be included in the February 1986 exhibition.

Students in the Preventive Conservation class are preparing the small display cases, as well as some of the display mounts for the exhibit. Heather Prince has also done much of the conservation treatment on the garments; for example, the jacket of a woman's mohair suit, c. 1898, from the Provincial Museum of Alberta, required stabilization. The original lining was made of wool and silk, however, the silk fibers had degraded, and the remaining wool fibers were badly tangled. A colour-matching fabric was found and inserted between the

jacket fabric and the lining. The tangled yarns were then straightened and couched onto the repair fabric.

This year's Preventive Conservation class, under the direction of Elizabeth Richards, will also be planning the storage for the Aviation Hall of Fame in Edmonton.



LACE-MAKING. (After Matthijs de Vos.)

## GLENBOW MUSEUM

Doreen Rockliff has joined the Glenbow Museum on a temporary six month assignment, sharing the position with Gail Sundstrom Niinimaa. She will be working Mondays to Thursdays until the end of March, 1986.

There are no in-house textile exhibitions scheduled for the immediate future so the main emphasis for the textile lab is on collections management. Some of the work being done includes wet cleaning of recent donations and backing of textiles in preparation for storage or future exhibition.

Two wool treaty flags were recently washed and will be backed using a wool fabric and stitching technique. Julie Hughes, N.M.M., was of great help in providing formulas for the red, blue and beige colours needed for the dyeing of the backing fabric.

Doreen Rockliff is working on adhesive techniques using Vinnapas Dispersion EP1 10% (V/V) on silk crepe line. She has done some small fragile silk textiles which needed backing and will be determining the feasibility of consolidating the King's and Regimental colours, 82nd Infantry Battalion, Canadian Expeditionary Force, by inserting treated crepe line between the two faces of the textile.

Marijke Kerkhoven joined the Glenbow Museum on

July 15, 1985, as a Curatorial Assistant in Textiles, in the Cultural History, working three days a week.

Marijke has been working on a series of small exhibitions on social aspects of recreational and occupational clothing which will highlight the costumes in the Glenbow's collection. She is defining gaps in the costume and textile collection which can be used when determining in what areas active collecting needs to begin. On November 9, 1985 she is presenting a paper at the CHACMOOL Conference in Calgary on Textile Crafts Agricultural Fairs in Alberta and Saskatchewan, 1880-1915.

Gail Sundstrom-Niinimaa

#### Prairie Costume Society

Prairie Costume Society had its second meeting in Calgary in August. A total of 30 people attended a session which included a lecture by Robin Etherington, Assistant Curator, Glenbow Museum, on Mexican costume; a fashion show of native inspired clothing by Cathy Shirt, Edmonton Fashion Designer; and a tour of the Metis exhibit with an informal discussion on the Conservation concerns by Gail Sundstrom Niinimaa.

The third symposium took place at the Ukrainian Museum of Canada, in Saskatoon, Saskatchewan, November 16, 1985. The topics included:

The Ukrainian Museum of Canada Collection: "How it Began", Mary Tkachuk, Past President, Board of Trustees, Ukrainian Museums of Canada.

"Costume Designing for the Theatre", Marie Louise Wittlin, Costume Designer.

"Ukrainian Costume Pattern Project", Marie Kischuk, Research Officer, Special Projects, Ukrainian Museum of Canada.

"Historical Costume Collection at the University of Saskatchewan", Rose Fedoruk, Associate Professor, Faculty of Home Economics, University of Saskatchewan.

Membership to the Society is \$15.00 per year. Anyone interested in further information should contact Gladys Serafino, Prairie Costume Society, C/O PMA 12845 - 102nd Street, Edmonton, T5M 0M6. The Society is planning to have another symposium in February in Edmonton.



*La sous-jupe à la fin  
du XIX<sup>e</sup> siècle.*

available other funds to assist in the cataloguing and care of the collections. The museum is also supported by a strong membership which includes craftspeople, other institutions, and individuals interested in the cultures of the third world. Publication sales and travelling exhibitions also contribute to its annual revenues.

To celebrate the museum's anniversary, a party, including a walk around tour and show and tell was held on Sunday, October 20, 1985. Many of the museum's members were in attendance as well as many of those who have donated items to the collection.

Recently the museum has undergone a significant change. With the support of the Canadian government, the hours have been extended so that the museum is now open seven days a week. It is also expected that the museum will move from its present cramped quarters to a new spacious location within the next year and a half.

The Museum is located at 585 Bloor Street West in the city of Toronto. It has, most unusually, no telephone, so visitors should remember the address.

Simon Waegemaekers

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ROYAL ONTARIO MUSEUM

Textile Department

Research Query on Indian Trade Blankets

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The Textile Department at the Royal Ontario Museum recently acquired a blue and white "point" blanket, a gift of Mrs. Katharine B. Brett. A survey of the (very small) literature on the subject, and a review of the specifications on the documented Hudson's Bay point blankets revealed that the ROM's blanket did not resemble any of these.

The blanket is white with a series of three indigo bands on both ends and  $4\frac{1}{2}$  bars or "points" on one side. Woven in two widths of approximately 77 cms (30.8 in), it is seamed up the center with linen thread in an overhand stitch and is 215 cms (86 in) long. The weave structure is 2/2 twill and the blue points are woven in. Each point is approximately 1.25 cms ( $\frac{1}{2}$  in) wide and 12.5 cms (5 in) long, with the half point 7 cms (3.75 in) long. The bands are approximately 2 cms ( $\frac{3}{4}$  in), 8.5 cms ( $3\frac{1}{2}$  in), and 2 cms ( $\frac{3}{4}$  in) wide respectively. Both ends of the blanket are finished in a blanket stitch of fine, 2 ply red worsted.

According to the literature, Hudson's Bay blankets, woven by the Witney companies on broad looms even before the introduction of the power loom, never had a seam in the center. Also, the maximum number of points seems to have been 4 and

## MUSEUM FOR TEXTILES

Toronto's Museum for Textiles has just completed the celebration of its tenth anniversary. The centre of the celebrations comprised two exhibitions drawn from the museum's holdings covering highlights of the collections.

The Museum for Textiles was founded in June of 1975 by Max Allen and Simon Waegemaekers. Its first exhibition was a celebration of the textile products of women in nineteenth century Canada called "Hooked Rugs a Canadian Tradition" beginning from this modest effort the museum has expanded to include more than 15,000 items, primarily drawn from traditional societies around the world. The Museum does not concentrate its efforts on the display and acquisition of western European costume.

The current exhibition and its accompanying catalogue describe the formation of the collection and provide an insight into where and how many of the pieces were acquired. There are stories about lucky finds in junk stores and about other ways in which some very important textiles have come into the museum's collection. As well it includes a detailed listing of all of the museum's exhibitions, publications and other activities since its inception.

The museum's holdings are particularly strong in the areas of South East Asian

textiles - it has the largest collection of these in North America; as well as West African weavings, Central Asian textiles, and Bolivian post conquest textiles. Shows at the museum change every two months; in addition to the two sections of the tenth anniversary show, called Ten Years with the Rag Trade, this years exhibitions have included new acquisitions from the west African collection, textiles from the Indonesian island group of East Nusatenggara, and textiles from the Indian subcontinent.

Much of the Museum for Textiles' philosophy distinguishes it from other institutions. No pieces are displayed behind glass, or in cases. The objects are accessible to the public, and all of the museum's holdings are easily accessible. In spite of this open policy, there has been no damage to items on display.

The Museum for Textiles is supported by grants from all three levels of government in Canada, with annual grants from the Province of Ontario's Ministry of Culture and from the city of Toronto. The federal government has made funds available for the last three years to employ summer students. The students have come from Textile studies programmes at several Canadian colleges, and from the Museum's study programme of the University of British Columbia in Vancouver. The federal government has also made

these were put into the blanket after it was woven. A comparison between documented 19th-century blankets and that belonging to the ROM shows that besides having 4½ points and a center seam, the latter is more heavily fulled and the points are wider.

All of this suggests several possibilities: a) the blanket is a reproduction (if so, an early one) of traditional trade blankets, b) there were other companies, using different equipment, manufacturing trade blankets besides those which have been documented in England, c) there were manufacturers weaving trade blankets in Canada or the U.S. on narrow looms and d) there were companies other than the Hudson's Bay Company using similar blankets for the same reasons.

The acquisition of a "problem" piece such as this can act as a catalyst to provoke research in a variety of areas. At present the Textile and Ethnology Departments at the ROM are conducting a joint project on this blanket. We would be grateful if anyone who might have a similar artifact or further information on trade blankets would contact Adrienne Hood at the ROM Textile Department.

## Point Blanket Bibliography

### Books

Plummer, Alfred and Richard Early. The Blanket Makers, 1660-1969: A History of Charles Early and Marriott. London: Routledge and Kegan Paul, 1969.

Plummer, Alfred ed. and intro. The Witney Blanket Industry, the Records of the Witney Blanket Weavers. London: George Routledge and Sons, Ltd., 1934.

### Articles

Dodman, A.E. "Hudson's Bay 'Point' Blankets," The Beaver, December 1926, pp. 22-24.

"H.B.C. 'Point' Blankets in 1801", The Beaver, (Hudson's Bay Company), September 1928, p. 70.

Mackay, Douglas. "Blanket Coverage", The Beaver, June 1935, pp. 45-53.

Adrienne D. Hood  
Textile Department  
Royal Ontario Museum

NATIONAL MUSEUM OF MAN

Conservation Services Division

The conservation laboratory, located in the building where the most of the collection belonging to the History Division of the NMM is housed (1523 Laperriere Avenue in Ottawa), has been used over the years for the treatment of various types of artifacts. Since my transfer to NMM on October 1st, the lab has been designated for the conservation of textiles uniquely. I spent most of October organizing the laboratory, ordering supplies, and visiting the various locations throughout Ottawa where textiles belonging to the History, Ethnology and Folk Culture Divisions are stored, to become familiar with the collection and with NMM staff.

Other activities have included the treatment of two linen tablecloths which had been water-damaged; the presentation of a ½ day seminar on the care of historic textiles to NMM Technical Services staff and work on the storage of textiles in the Ethnology collection. A work plan is currently being established for the new year with a view to the opening of exhibits at the new National Museum of Man at the Parc Laurier site.

Two students from Algonquin College, Donna Butler and Kieran Shepherd, have also spent field placement time in the NMM Textiles Laboratory, learning techniques for the

cleaning and mounting of light flat textiles, and assisting with the Ethnology textiles storage project.

Julie Hughes

The Rebellion of 1885

A small exhibit, mounted by the Canadian War Museum, illustrates the role the Canadian Militia has played in quelling the North West Rebellion of 1885.

It was the final confrontation of a series of conflicts between white settlers and the Metis descendents of mainly French and Scottish Hudson Bay employees and their native wives. It took place in the Red River district of what is now Manitoba.

The C.W.M. asked the Conservation Division of the National Museum of Man to prepare a number of uniforms for the exhibit. As is usual in uniforms of this age moth had done their damage and silk linings had deteriorated considerably.

Time did not allow extensive treatment, such as backing the linings with dyed to match silk. Under the guidance of Ela Keyserlingk, of the Textile Division of the Canadian Conservation Institute, a quick and simple treatment was given.

The uniforms were cleaned by vacuuming and supervised commercial drycleaning (short and intermittent cycles). The linings were partially or completely covered with Stabiltex, which was secured along the quilting lines. The losses in the wool were underlaid or filled with matching wool fabric. Buttons were polished, inside leather waistbands which were broken were backed with fishskin and treated with leather dressing. Although the patches in the lining were not aesthetically ideal, the uniforms were now stabilized to such extent that they could be safely handled for dressing the mannequins.

The exhibit is open until December 31, 1985.

Han Jongejan

### Research

Barbara Dexter is currently working at the Museum of Man with the Canadian Centre for Folk Culture Studies, under Dora Borowyk, Textile Custodian. For the past 10 months she has been doing research and analysis on the Museum's collection of Doukhobor rugs. Each rug is examined according to size, warp and weft (fibre, spin and ply), dyes, structure, edges, ends, colour, pattern and equipment utilized.

Barbara is eager to share/exchange information with anyone who is interested in this particular area of Doukhobor textiles. Please write to her c/o Mrs. Dora Borowyk, Textile Custodian, CCFCS, National Museum of Man, Ottawa, Ontario K1A 0M8.

**S**ubscribers to the Textile Conservation Newsletter will receive "T.C.N. News Bulletins" supplying details on positions available, seminars scheduled, calls for papers, and other such urgent announcements, on an "as-required" basis. Readers are urged to forward details of any pertinent items to the co-editor in their region.

**TCN**  
SUBMISSION  
DEADLINE  
**APRIL 30**



CANADIAN CONSERVATION INSTITUTE

Textiles Division

Care of Collections Seminars -  
Textiles

Each year the Canadian Conservation Institute offers a series of basic level, care of collections seminars in each of the provinces and territories. The seminars are 2 days in length and treat a variety of topics pertaining to collections care. They are designed primarily for museum staff who have had no formal training in conservation and are therefore basic in nature with lots of practical suggestions and "hands-on" participation.

During 1985/86, Textile Division was particularly active having given their seminar; The Care of Textiles and Historic Costumes, in Manitoba, P.E.I., Ontario and Newfoundland. In this seminar participants learned proper handling, display and storage techniques for textiles. They also had a chance to practice stitches used in textile conservation and learned about basic fibre identification techniques. Also everyone had the opportunity to mount a small, flat textile onto a fabric backing.

Next year the Textiles Division will be offering this same seminar in Saskatchewan. In addition, they will also be giving a new seminar, Constructing Mannequins for Historic Costumes, in P.E.I.

For information on seminars available in your province or territory contact your Museum Association Training Coordinator or write to the Training and Information Division, CCI.

Environmental and Deterioration Research

A Reminder

The Environment and Deterioration Research Division (EDR) of the Canadian Conservation Institute has been actively involved in the area of pest control in museums - carrying out identification of pests, providing information on control methods and carrying out pertinent research projects. When the need has arisen, EDR has carried out pest control surveys and made presentations to institutions who have requested this assistance.

A pest control survey is normally geared to the particular needs of the institution. It might involve an overall survey of the museum or a specific assessment of problem areas such as storage rooms or display halls. Wherever possible, preventive and non-chemical control methods are considered as these procedures can be safely carried out by the institution itself.

The aim of a presentation to museum staff is to create an awareness for biological deterioration problems and to

provide a better background for dealing with pest problems in a museum situation. It may cover such topics as a description of museum pests - what they are and what to look for; preventive steps - what to do to prevent the problem; control steps - non-chemical and chemical approaches; and problems with the use of chemicals. The actual content of the presentation is determined by the allotted time and specific concerns of the museum.

This service is offered to all museums across Canada. However, because of resource limitations, requests for surveys and/or presentations will be treated on an individual basis.

John E. Dawson



**CENTRE DE CONSERVATION ET DE  
RESTAURATION DU QUÉBEC**

**Removal of Dark Yellow Adhesive  
Stains by Steam-Cleaning**

A small off-white silk souvenir flag circa 1837-38 from the Musée Pierre Boucher, Trois-Rivières had been previously mounted to a cardboard mount, with an abundant amount of adhesive. This adhesive, over the years has aged to leave unsightly dark-yellow blotch-like stains, on the silk fabric, composed of a satin ribbon-like texture.

The initial part of the treatment involved the removal of a paper stamp from the centre of the flag ("Drapeau à l'effigie de Papineau ou les piquant dans les gâteaux aux diners des "Fils de la Liberté"). With the assistance of Susanne-Marie Holm of the Paper Conservation Laboratory of the C.C.Q., the stamp and flag were steamed, with a Sussman Steamer. The steaming helped in dissolving part of the adhesive, while swelling the remainder, thus permitting the delicate mechanical removal of the stamp from the flag. This removal was further complicated by the presence of glue encrusted cotton sewing threads, used originally to attach the stamp to the flag.

Upon removal of the paper stamp (to be treated in the Paper Conservation Laboratory) and similarly the small paper-covered wooden flag pole, the flag was washed twice in a solution of Orvus detergent and

water. This permitted the delicate mechanical removal of the remaining swollen glue. However, the unsightly dark-yellow stains, although somewhat lightened in colour, were still very prevalent.

Based on the initial effectiveness of the Sussman steamer, steam-cleaning was considered as a last resort in the removal of the remaining stains. First a sheet of chromatography paper was placed under the flag. Second, and almost simultaneously a 5% solution of Orvus detergent and water was placed over the proper surface of the flag and the nozzle of the steamer was held approximately 7.0 cm from the surface of the flag. Almost immediately, the glue stains and remaining general surface grime, disappeared from the silk fabric, to be absorbed into the underlying chromatography paper. The flag was then rinsed in deionized water and blocked-out to air dry.

Upon drying, it was evident that this type of steam-cleaning had not only been effective in removing the glue stains but also permitted the removal of the surface grime (so commonly visible on silk ribbon and similarly difficult to impossible to remove) to assist in restoring, to a great extent, the original lustre of the silk fabric.

Treatment has been completed for the only existing collection of archaeological textile fragments from the Place Royale in Quebec City. A total of 92 fragments required lengthy mechanical and/or wet cleaning. Following treatment, all fragments were stored in individually constructed acid-free card mounts, all of which were in turn stored in Solander boxes. Susanne Holm and Denise Allard of the Paper Conservation Laboratory collaborated in the development of the initial prototype of these card mounts.

A large Flemish tapestry, "Oiseaux et Feuillage", style Audenaude, recently needed cosmetic treatment in preparation for the exhibition "l'Art européen au Musée du Québec". The tapestry was superficially cleaned and many old unsightly repairs were removed, followed by the reinforcement of many damages using stitching and/or weaving techniques. The old and inadequate mounting system was removed, followed by the application of a cotton lining and velcro band to the reverse side of the tapestry for installation purposes.

Under the supervision of Sharon Little-Ragusich, Valerie Laforge, Diane Perron and Claire Bouchard have completed the initial phase of improving the textile storage conditions for the Robert-Lionel Seguin Collection of the University of Quebec, Trois-Rivières. The costumes have been stored, lightly cleaned and hung in

specially ordered metal cabinets. Pending contract renewal, padded hangers and protective cotton clothing bags shall be fabricated for costumes. In view of upgrading the condition of the textile collection, Diane Perron is planning an internship in the Textile Conservation Laboratory at the CCQ.

Sharon Little-Ragusich



**CONSERVATION ANALYTICAL  
LABORATORY - WASHINGTON, D.C.**

The most remarkable project undertaken in 1985 was the condition report on the cotton "muslin" used on the Wright Flyer at the National Air and Space Museum. Despite water marks, direct sunlight, and previous storage in a (Welsh?) mine during World War II, the fabric was in remarkably good condition. Vacuuming with a Rexair Rainbow vacuum cleaner and subsequent wet cleaning tests showed excellent prospects of improvement. The durability of the fabric may have well been due to the intelligence of the Wright Brothers' sister who designed the fabric cover to lie on the bias, thereby providing tension (a smooth fabric) with excess stress/strain. The museum's policy of air plane maintenance led to the replacement of the fabric by NASM staff but CAL has been asked to clean and preserve that removed from the plane.

Four summer interns worked on two projects with CAL/Textiles this summer. First, in conjunction with the move of 2 million objects by the Natinal Museum of Natural History, Julia Burke and Terri Colamatteo examined (catalogued), treated, and re-storaged in acid-free storage a portion of the pre-columbian Peruvian and Chilean textile collection. In addition, Julia Burke did archival research on the acquisition methods and provenance of these early

archaeological finds; Terri Colamatteo reviewed NMNH textile pests control methods and techniques. They may be hired by NMNH to continue their work.

Second, Lynn Kennedy and Lana Poffenroth worked on a collection of Union Army wool buntings for the National Museum of American History. Again, examination and re-storage were at issue. Because of the large size of the textiles, photography could not be easily done. A new method for large, light weight textiles was devised: to the bottom of the velcro practice slat in the laboratory, two 6 foot spans of galvanized steel 2" high were nailed with flat-head roofing nails. This created a twelve foot span of metal. Flexible magnetic strips with additional reinforcing magnets were used to hold the top of the bunting in place. In order to obtain a working height, the mobile work tables were used as a working platform while suspending the flags with magnets. Once assured the flags were secure, the table was pulled away and the flag was photographed. Over two hundred flags were safely documented in this manner.

Mary W. Ballard  
Senior Textile Conservator, CAL  
Museum Support Center  
Smithsonian Institution

REPORTS ON SEMINARS,  
CONFERENCES AND COURSES

ICCCROM

The International Centre for the Study of the Preservation and the Restoration of Cultural Property (ICCCROM) was founded by UNESCO in 1959 as an autonomous scientific intergovernmental organization. In addition to ICCROM's participation in other areas of conservation the Scientific Principles of Conservation Course (SPCC) is one of four courses offered at ICCROM headquarters in Rome. The hypothesis underlying this four month course is that it can be taught to anyone of a sufficient education level, and particularly that it can be taught to everyone together, when assembled in the same classroom or laboratory.

The participants in the course come from diverse backgrounds and all undergo the same training. The effects of this training vary from participant to participant; the material retained varies both qualitatively and quantitatively. It is assumed that each participant will have their particular field of interest illuminated by the approach to the basic principles underlying deterioration processes, conservation techniques and methodology. A deeper knowledge of the structure of matter and of the behaviour of materials as affected by the environment allows conservation problems to be dealt with in

the light of general scientific principles. The course is divided into four sections: Basic Science I, Basic Science II, Inorganic Materials and Organic Materials. Each course topic is covered during a week of teaching, demonstration and practical exercises in the laboratory. The lecturer for each week is a specialist of international standing in the subject being taught. In addition to the lectures and laboratory work, visits are arranged to conservation laboratories, craft workshops and archaeological sites in and around Rome and elsewhere in Italy.

The primary reason I applied to this particular course was because it offered an opportunity to strengthen my scientific knowledge and expertise within a concentrated format. As a working conservator I could not afford an extended career interruption. I feel that my goal was more than adequately met. The step-by-step presentation of esoteric scientific concepts starting with the most fundamental and building in complexity allowed for immediate application to empirical knowledge. Overall this course served to highlight the importance of the relationship between scientist and conservator.

The teaching body at ICCROM presented an extraordinary opportunity. We students were encouraged to question and socialize with our teachers resulting in relaxed, informal

discussions. Another set of circumstances that would allow access to that body of expertise on such a personal level would be very difficult to duplicate. The student body of the 1985 course represented thirteen countries. Over the four months we became quite familiar with each other and spent many hours discussing professional and cultural differences. One insight gained through these discussions is that the concept of "minimal intervention" is internationally recognized in theory if not in practice.

My participation in this course has provided benefits on both personal and professional levels. I highly recommend the Scientific Principles of Conservation Course to all persons working in a museum and museum related environment.

Helen Holt is a Freelance Conservator in Merrickville

Helen Holt  
P.O. Box 278  
Merrickville, Ontario  
K0G 109

Identification of Dyes on  
Historic Textiles

Jane Douglas, attended a seminar on Identification of Dyes on Historic Textiles given by Dr. Helmut Schweppe (BASF, West Germany) at the Conservation Analytical Laboratory, Smithsonian Institution.

Dr. Schweppe lectured on the theory of dyestuff chemistry and the types of analysis processes as related to dye classifications. Demonstrations of the analysis processes and specific reactions on common historical dyes from Oriental, Near Eastern, European and "New World" sources were intended to give the participants a practical working knowledge. Each team of two (usually a conservator with a chemist), was given a number of unknown textile samples to analyze. Any participants who brought samples of collection material were given the opportunity to do their own analysis.

The Winnipeg Art Gallery has a collection of sixteenth century tapestries, attributed to Flemish tapestry designer, Bernard Van Orley (1492-1541/2). The tapestries are known as the Bisham Abbey Tapestries as they hung for centuries in the bedchamber of Bisham Abbey, Buckinghamshire and documentation denotes their once having been in the collection of King Henry VIII when the Abbey was used by him as a hunting lodge. The collection of five components

depicting The Life of Tobias were given to the Winnipeg Art Gallery in 1973 by Viscount and Lady Gort who acquired them from the collection of Sir Henry Vansittart-Neale, once family owners of Bisham Abbey.

One of the components, (Tobias Bidding Farewell to ...) is presently undergoing treatment at the Textile Division of the Canadian Conservation Institute.

Analysis has revealed the dyes to be European in origin (European via the Orient). It was hoped that cochineal or other New World dyes would be present, as the Spanish trade routes of New World dyes began in the early sixteenth century. Nevertheless, the presence of indigo, orchil, madder, hydroxyflavone yellows and walnut shells, as single dyes or in combination, and on iron tannate mordant give an interesting curatorial insight for the period.

The analysis of old dyestuffs is made considerably more complicated by the ravages of time. Several of the fiber samples did not yield enough dyestuff to make a successful analysis, because of chemical deterioration from light, oxidation or air pollutants.

Dr. Schweppe's lifetime of experience and expertise in the field of dye chemistry is a marvellous resource to conservator and scientist alike. His extremely organized teaching methods, well-prepared sample reference material and a

wonderful sense of humour made this learning experience a real pleasure. Hopefully, the Smithsonian will invite Dr. Schweppe to repeat this seminar so that other conservators and conservation scientists can benefit from his wealth of knowledge.

Jane L. Douglas  
Conservator  
The Winnipeg Art Gallery

### Making Disc Mannequins

During the weekend of November 9th and 10th, the Department of Clothing and Textiles at the University of Alberta in Edmonton, sponsored a workshop on "Making Disc Mannequins". (See Colleen Wilson's article on "Body-Building" in TCN issue September 1982 for full description of technique.) This workshop, run by Anne Lambert, Associate Professor/ Curator, and Heather Prince, Curatorial Assistant, provided the opportunity for participants, working in small groups, to get hands-on practice at constructing styrofoam disc mannequins for upright stance costume displays, using costumes from the University of Alberta Costume Collection. General information on mannequin production for museums was also presented in the form of a slide lecture, and kits were provided containing instructions for mannequins, supplies list, and information on fashion silhouettes and body shapes.

As we were clearly informed during the seminar, there are a number of pro's and con's to using this technique. My personal impression is that this very adaptable method gives a satisfying sense of solidity and security in terms of costume support, as was apparent in the display of costumes in the Art Nouveau In Fashion exhibition which we saw at the University Ring House Gallery. I would comment on considering the alternative, presented during the workshop, of using ethafoam rather than styrofoam whenever possible (in view of the additional expense), owing to the inconvenience caused by the static nature of styrofoam during the cutting and carving process. During the weekend, the opportunity was also provided to see the facilities of the Costume and Textile Study Collection, and the Textile Analysis Service. Needless to say, the seventeen participants also took advantage of free periods during the weekend to meet and discuss all the latest news.

Julie Hughes





CONFERENCES & SEMINARS

"International Conference on  
Central Asian Carpets"

Leningrad, USSR  
March 16-23, 1986  
for information write to:  
Robert Pinner  
Hali Publication Ltd.  
Kingsgate House, Kingsgate  
Place, London, NW6 4TA  
England

"Symposium on French Textiles"

Wadsworth Athenum  
Hartford, Connecticut  
April 5, 1986  
for more information write to:  
Esther Grisham  
Wadsworth Athenum  
Education Department  
600 Main Street  
Hartford, Connecticut  
06103

"Historic Objects in Historic  
Buildings: Conflicting  
Conservation Requirements"

Hotel Fort Garry  
Winnipeg, Manitoba  
May 11-15, 1986  
for more information write to:  
Kathryn Hnatiuk  
Training Seminar Coordinator  
IIC-CG Winnipeg '86  
Parks Canada Prairie Region  
457 Main Street  
Winnipeg, Manitoba, Canada  
R3B 3E8

"Costume Society of America,  
12th Annual Symposium on 20th  
Century Fashion Design"

May 7-9, 1986  
Indianapolis, Indiana  
for more information write to:  
Peggy Gilfoy  
Curator of Textiles  
Indianapolis Museum of Art  
1200 West 38th Street  
Indianapolis, Indiana  
46208

Convergence '86

A Panorama of Canada - A Fibre  
Spectrum

July 17-20, 1986, Toronto  
Sponsored by the Handweavers  
Guild of America, co-hosted by  
the Ontario Crafts Council and  
Ontario Handweavers and  
Spinners  
Explores historical, ethnic,  
contemporary and future  
approaches to fibres in Canada.  
Workshops, seminars, fashion  
shows, exhibitions. Keynote  
address by Dorothy Burnham.  
Registration (limited to 2300  
delegates)  
January 1 to February 10, 1986.  
Cost: HGA Members \$185,  
Non-Members \$210 (fee for  
non-members includes HGA  
membership).

Contact: Sandra Dunn  
Ontario Crafts  
Council  
346 Dundas Street W.  
Toronto, Ontario  
M5T 1G5  
(416) 977-3551

"International Conference on  
Oriental Carpets"

Vienna/Budapest  
September 17-21, 1986  
for more information write to:  
Conference Secretariat, ICOC  
Wollzeile 29  
A-1010 Vienna, Austria

"Textile Treatments Revisited"  
(Things Done and Undone)

The Harpers Ferry Regional  
Textile Group, November 6-7,  
1986

Smithsonian Institution,  
Washington, D.C.  
If you are interested in the  
requirements for making a  
presentation on "revisited"  
textile treatments, storage,  
display, or transportation  
techniques, contact:

Katherine Dirks  
Division of Textiles  
Room 4131  
Smithsonian Institution NMAH  
Washington, D.C.  
20560

(202) 357-1889  
Final abstracts for proposed  
talks must be submitted by  
January 15, 1986.  
A tentative schedule and  
information will be announced  
in the spring of 1986.

"Care and Preservation of  
Ethnological Materials -  
Symposium '86"

Canadian Conservation Institute  
Ottawa, Canada  
September 28 - October 3, 1986  
Papers relating to conservation  
and curatorial aspects of the  
care and preservation of  
ethnological material are  
invited. These can include  
case studies, material science  
and technology, curatorial and  
ethical problems relevant to  
the material cultures of  
Africa, Oceania, Australia and  
the Americas. Abstracts of  
approximately 200 words should  
be submitted together with  
audio-visual needs.  
Presentations should be 20  
minutes and in either English  
or French. Submissions for  
posters will also be accepted  
at this time.  
Deadline for submission is  
June 30, 1986.  
Information and registration  
forms are available from:  
Symposium '86  
Canadian Conservation Institute,  
1030 Innes Road  
Ottawa, Ontario  
K1A 0M8  
Canada

FINANCIAL REPORT

For bookkeeping purposes, the  
TCN membership year has been  
established as October 1st and  
September 30th, which includes  
the publication of two issues  
(in the fall of one year, and  
the spring of the next). Total  
receipts, from subscriptions  
for 1984/85 were in the amount  
of \$1,480.00 (i.e. 148  
members), sales of back issues  
totalled \$154.85, and  
disbursements for the year  
totalled \$1,232.04. This  
leaves a balance of \$402.81.

The average cost of  
publication, including  
stationery, typing, printing  
and postage, for 1984/85, was  
\$616.04 for one issue. In view  
of the fact that enough capital  
must be available for before an  
issue can be put out, and given  
the sporadic nature of cash  
receipts from subscriptions, we  
do urge you to send in your  
renewal fees for 1985/86 as  
soon as possible, if you have  
not already done so, in order  
that the TCN may be published  
on schedule. We will also  
continue to issue Textile  
Conservation Newsbulletins  
(providing you with urgent  
information regarding items  
with deadlines - workshops,  
calls for papers, etc.) as long  
as funds permit.

Julie Hughes

EXHIBITIONS

CANADA

"Recent Gifts, A Selection of  
Costumes and Textiles"  
until June 14, 1986  
Royal Ontario Museum  
Toronto, Ontario

"Dolls and Dollhouses"  
December 17, 1985 -  
February 28, 1986  
Provincial Museum of Alberta  
Edmonton, Alberta

"A Record for Time"  
A travelling exhibition of  
decorated family records and  
memorials produced in Nova  
Scotia prior to 1900  
until January 3, 1986  
Yarmouth County Museum  
Yarmouth, Nova Scotia

January 10 - February 21, 1986  
Des Brisay Museum, Bridgewater,  
Nova Scotia

March 20 - April 20, 1986  
Ring House Gallery, Edmonton,  
Alberta

May 5 - June 1, 1986  
Northern Life Museum, Fort  
Smith, Northwest Territories

"Silk from Malaysia and  
Sumatra"  
January and February 1986

"Textiles from North Africa"  
March and April, 1986  
Museum for Textiles, Toronto

"L'Enfant Elegant - Yesterday  
and Today"  
until March 1986  
McCord Museum  
Montreal

"A Celebration - The St.  
Andrew's Society of Montreal  
1835-1985"

until end of 1986  
McCord Museum  
Montreal

U.S.A.

"India"  
until January 5, 1986  
Metropolitan Museum of Art  
New York

"Traditional Crafts of Saudi  
Arabia"  
until January 5, 1986  
The University Museum  
Philadelphia

"Weavers, Merchants, and Kings:  
Inscribed Armenian Rugs"  
until January 5, 1986  
The Textile Museum  
Washington, D.C.

"A World of Embroidery"  
until January 26, 1986  
Denver Art Museum  
Denver, CO.

"Quilts and Coverlets"  
until April 13, 1986  
Denver Museum  
Denver, CO.

"Needles, Dye-Pots, and Looms:  
Textile Traditions of India"  
until Spring 1986  
The Cleveland Museum of Art  
Cleveland, Ohio

"The Splendor of French Style:  
Textiles from Joan of Arc to  
Napoleon III"  
March 9 - May 25, 1986  
Wadsworth Athenum  
Hartford, Con.

"Navajo Textiles: A Century of Change"

until September 1986  
The Newark Museum  
Newark, N.J.

UNITED KINGDOM

"Indian Hats"

until January 26, 1986  
The Victoria and Albert Museum  
London

"Knit One Purl One - Historic and Contemporary Knitting"

until Spring 1986  
The Victoria and Albert Museum  
London

"Costumes and Textiles from Kuwait"

until 1987  
The Royal Scottish Museum  
Edinburgh

FRANCE

"The Textiles of India"

until December 31, 1985  
Musée des Arts Decoratifs  
Paris

SWITZERLAND

"Lion Rugs from Iran"

until January 26, 1986  
Völkerkundemuseum der  
Universität Zürich  
Zürich

Exhibitions Available

"Lace as an Art"

An international competitive show of contemporary bobbin lace art is available for exhibition in the United States and Canada.

Administered by Mme Betty Boulez-Cuykx, in co-operation with the World Crafts Council - Flanders, the competition yielded a high quality exhibition whose pieces range from abstract to figurative art, executed in traditional and nontraditional bobbin lacemaking techniques. A glossy paper catalogue illustrates all but three of the exhibition pieces.

For more information contact:

Ms. Jo. A. Bidner  
Co-ordinator of exhibition dates  
559 First Street  
Brooklyn, New York  
U.S.A.  
11215  
Tel.: (718) 768-2665

Dolls and Dollhouses

The Social History Program at the Provincial Museum of Alberta is planning an exhibition of dolls and dollhouses to be on display at Christmas time. The exhibit will run from December 17, 1985 to February 28, 1986. About two-thirds of the dolls and miniatures on exhibit are from the museum's collections, with one-third being loaned by members of the Edmonton Doll Club and local miniature enthusiasts. The focus of the exhibit is on technological changes in doll manufacturing from the 1860's to the present day, as well as the cultural changes which have been reflected in dolls.

The exhibit is being curated by Sandra Morton Weizman, Curator of Social History.

Conservation on the dolls is being done by Tom Strang and Dagmar Rais, under the supervision of Lisa Mibach. An exhibition catalogue will be available, entitled "Gallery of the Dolls", through the bookstore of the Provincial Museum of Alberta. These can be ordered from the following address: PMA Bookstore, 12845 - 102 Avenue, Edmonton, Alberta T5N 0M6.

#### An Exhibition Designed for Children at the McCord Museum

Some 50 invited school children and Marie Eykel, best known as "Passe-Partout" from the popular television series, will open on December 4th. The exhibition entitled "L'Enfant Elegant - Yesterday and Today" which will be held at the McCord Museum until March 30, 1986.

This exhibition, sponsored by Absorba France and Moniteur France, is expressly designed for children. Dolls' clothes, displayed on the original dolls, reveal the characteristic styles of children's fashion from the late eighteenth to the early twentieth centuries. The dolls will be presented in settings illustrating various situations and seasons, such as summer and winter scenes, a child's bedroom and a tea party. Of special educational interest are a Detective Sheet for children and a Fact Sheet for parents and teachers.

#### The Splendor of French Style to Open at Wadsworth Atheneum

A major international exhibition of weavings, embroideries, printed textiles, and lace, produced in France from the fifteenth century to 1870, will be on view at the Wadsworth Atheneum from March 9 through May 25, 1986.

The idea for the exhibition was conceived by Marianne Carlano, Curator of Costume and Textiles at the Atheneum and organizer of the show, and Jacqueline Jacque, Chief Curator of the Musée de l'Impression sur Etoffes/Musée de Papier Peint, Mulhouse, France. Because of the extensive holdings of French textiles in the permanent collection of the Wadsworth Atheneum and the fact that no survey exhibition or publication had dealt with the development of technique and style in the textile industry from the middle ages through the Second Empire, funding was sought to pursue this important project.

The exhibition will be organized chronologically with objects grouped under thematic topics, sometimes referring to technique, such as embroideries for the church, sometimes to style, such as so-called Bizarre silks, and sometimes to function, such as dress fabrics. Extensive label copy will give the viewer information about how each item was made, how each object was

used, and how the design and technique evolved. Enlarged embroidery stitches on metal screens will enable the audience to see how the various stitches were executed. Three video tapes about lace making, the silk industry in France under Napoleon I, and textile printing, will be on continuous view in a small room adjacent to the gallery.

Woven textiles, those created and decorated on looms, represent about 40% of the objects on exhibit. From the early drawlooms which were operated by one or several "drawboys" to nineteenth century Jacquard looms which are still referred to as the first computer, machines and men produced extraordinarily beautiful and varied fabrics such as velvets or cloth woven with pile, lush satin weave silk fabrics, so-called "brocaded" cloth in which a silk weaving appears on the front of the fabric as the pattern requires, lampas, which can produce cameo-like designs; damasks, weavings with one set of warp and wefts in which the pattern is made by changes in the weave structure; and warp-printed and warp-painted textiles.

Plain woven fabrics embellished by means of printing directly onto the cloth after weaving will be represented by many fine works from the museum's permanent collection. The patterns were produced by carved wood blocks which often had metal pieces

attached to print fine lines and dots; engraved copper plates; and engraved rollers. Plain woven cloth was also decorated by embroidery, a technique worked with a needle or tambour hook. Lace, an off-loom technique in which there is no ground fabric, can be created in several ways, the two most traditional being needle lace, and bobbin lace. Other methods are knotting, looping, and a variety of machine types.

Four years of research and other planning will culminate in this show and the publication on date December 31, 1985 of the book, French Textiles. The book was edited by Marianne Carlano, and the late Larry Salmon and contains five essays on the various textile industries in France as well as a glossary and extensive bibliographies.

For more information contact:

Claudia Bell  
Public Relations  
Wadsworth, Atheneum  
600 Main Street  
Hartford, Connecticut  
06103

(203) 278-2670 ext. 362

## HEALTH AND SAFETY

### New Occupational Health and Safety Programme at the Centre de Conservation du Québec

Following recent laws adopted by the Government of Québec, new rules and regulations regarding health and safety of the work environment are being implemented, by established priority groups, under the auspices of the C.S.S.T. (Commission de la Santé et de la Sécurité du Travail du Québec). The employees of the Centre de Conservation du Québec fall into priority group 3 and are required by law to attain certain initial objectives by the end of March 1986.

These objectives involve the compilation of two forms. The first form compiles the toxicological information "Répertoire Toxicologique" for each chemical/product utilized at a respective "Work Station". Once completed, these forms are then sent to the C.S.S.T. where the information is analysed by computer. A computer print-out is then returned to the employee, outlining the chemical composition of the chemicals/products; possible dangers; preventative measures to follow during utilization etc.

With reference to the information received from the "Répertoire Toxicologique" the employee is then required to complete a second form "Formulaire d'Elaboration du Programme" which shall help to elaborate any possible risk factors.

It is intended, that eventually all of this information from the two forms can be submitted to the local health and safety committee; the Department of Community Health, which includes such specialists as delegated community health physicians, work hygienists, engineering hygienists etc.; APSSAP (Association Paritaire pour la Santé et la Sécurité du travail, Secteur "Administration Provincial"; etc.

Their conclusions shall outline the implementation of a continuous health and safety programme, to be adopted at the work environment. This could involve the purchase of various types of safety equipment; repairs/improvements to the existing building; work methods to be adopted; required frequency of health examinations by the delegated community health physician; required medical tests etc.

This programme is also required by law to be updated annually. Hence the addition of any new chemicals, equipment, etc. to the work environment, must be analysed as previously outlined.

Sharon Little-Ragusich

SUPPLIES

Various Textile Conservation  
Materials

For those in need of small quantities of polyester Fibrefix (adhesive free); acid-free tissue paper and boxes, etc. from Process Materials; Canpac detergent from Groulx Robertson plus a variety of other related textile conservation materials, please send your inquiries to:

Mr. David Carruthers  
La Papeterie St-Armand  
110, rue Young  
Montréal (Québec)  
H3C 2E7

Tél.: (514) 935-7526

Cotton Thread - Zwicky Brand

Now available from:

Centre de Couture Montcalm  
1758, La Canardière  
Québec (Québec)  
G1J 2I3

Tél.: (418) 661-9275  
Attention: Mr. Gilles Roy

Chiquenaude  
3923, St-Denis  
Montréal (Québec)  
H2W 2M4

Tél.: (514) 844-8705  
Attention: Pascale Germain

Sharon Little-Ragusich

COURSES

Brandeis University Summer  
School

Costume History: Field  
Research in England

July 3rd - August 7th, 1986

Professor Maureen H. Tripp is organizing the fourth Brandeis Costume Study Group, open to students and teachers in the field of costume history. The group selected will be small, no more than ten participants. Two courses will be offered.

Early registration is advised as space is limited.  
Registration deadline  
January 15, 1986.

Inquiries should be addressed promptly to:

Maureen Heneghan Tripp  
Associate Professor  
Theatre Arts Department  
Brandeis University  
Waltham, MA  
02254

University of Maryland  
Degradation of Textile Fibres

Summer 1986

- I. The Environment: Light, Heat, Humidity
- II. Reaction Kinetics
- III. Environmental Effects on: Cellulostic, Protein and Petroleum-Based Fibres

For more information contact:

Professor Ira Block  
University of Maryland  
Department of Textiles and  
Consumers Economics  
College Park, Maryland



## PUBLICATIONS

"Butterworth Publishers" will be issuing a new book in November 1985, titled "The Textile Conservators Manual" by Shelia B. Landi. It will be available from Butterworth, 80 Montvale Avenue, Stoneham, MA 02180. A price for the book will be set by mid-November. To inquire, phone (617) 438-8464.

### Visual Catalog and Index

Now any researcher, designer, or scholar at any institution can possess the complete, all color, visual catalog of the Allen Collection through the medium of a laser videodisc.

#### Visual Catalog

- 20,000 full color images of individual objects. Each image is one frame on the videodisc. Overall views, many close details, and microscopic views of selected archaeological textiles are included
- narrated video segment presents a short overview of the origin and contents of the Allen Collection
- video tour, conducted by the collection Curator, presents highlights of the recent exhibition, *Two Faces of South Asian Art: Textiles and Paintings*, co sponsored by the Allen Collection and the Elvehjem Museum of Art
- menu at beginning of each segment offers easy access using any brand disc player

#### Index

A printed index accompanies each disc. The index provides basic information about all objects pictured on the disc, is fully cross-referenced, and is divided into the following three sections.

- **Main entries:** sequential list by frame number. Each entry includes accession number, name of object, country of origin, date produced, technique, and theme.
- **Subject index:** completely cross-referenced to each topic listed under main entry, including frame number
- **Artist/designer index:** list of frame numbers in which artist's work is depicted

#### For further information contact:

Blenda Fernenas, Curator  
Helen L. Allen Textile Collection  
1300 Linden Drive  
University of Wisconsin-Madison  
Madison, WI 53706  
(608) 262-1119

## OF PEOPLE....

-Margaret Morris of Sir Sanford Fleming College in Peterborough, is working as an intern in the Textile Conservation Laboratory of the Centre de conservation du Québec.

-Dannie McKinnon and Shirley-Ann Everell, students of the consumer studies programme, Université Laval, have received credits towards their degree, for their part-time internship in textile conservation, at the Centre de conservation du Québec.

-Estelle Richard interned for a month, last summer, in textile conservation, at the Centre de conservation du Québec. She is presently enrolled in the Conservation Programme at Queen's University.

-Esther Méthé has completed a part-time internship in textile conservation at the Centre de conservation du Québec. She is presently enrolled in the Textile Conservation Programme, of the University of Alberta, in Edmonton.

-Christine Feniak has assumed the position of Textile Conservator, Headquarters Region, Conservation Division, Parks Canada, Ottawa. She was formerly with Historic Resources Conservation, Prairie Region, Parks Canada in Winnipeg.

-Chris Paulocik of the Textiles Division, Canadian Conservation Institute will be on a 6 month cultural exchange at the Instituto Centrale del Restauro in Rome, Italy.

-Julie Hughes is now working with the Conservation Services Laboratory, Museum of Man, she was formerly with the Textiles Division at C.C.I.

-Arlene Oak has joined the Alberta Art Foundation as coordinator of exhibits.

-Marijke Kerkhoven has joined the Cultural History Department of the Glenbow Museum.

-Doreen Rockliff has joined the conservation department of the Glenbow Museum.

-Teena Jennings was recruited by the Department of Defence to work in the textile analysis laboratory in Ottawa.

-Donna Fallis, Josie Loonen, and Karen Wells are on extended paid internships with Alberta Culture Historic Resources.

-Jacinthe Moquin spent the summer on a training/employment in Trois Rivières, Québec.

-Denise Donnelly has been hired by the Alberta Ballet Company to be in charge of their costumes.

## EMPLOYMENT OPPORTUNITIES



Public Service Commission  
of Canada  
Commission de la Fonction  
publique du Canada

### Conservator, Textiles/Organic

**Parks Canada  
Winnipeg, Manitoba**

**We require** a seasoned professional to restore and conserve archaeological and historical textile and organic artifacts representing the result of 16th to 20th century Euroamerican technology. Your very special knowledge and skills will be used to arrest deterioration, and to preserve scientifically and historically valuable artifacts for posterity. You will also travel to our sites throughout Western and Northern Canada as part of your responsibilities.

**You require** successful completion of secondary school combined with acceptable training and extensive experience in conserving and restoring interpretive and archeological textile and organic artifacts or post-secondary education in textile science and textile conservation combined with acceptable experience. Experience in supervision is also required, as well as a knowledge of the English language.

**We offer** a salary of \$35,354 to \$38,653 per annum.

**Forward your application  
and/or resumé, quoting  
reference number:**

S-85-51-5274-0885(Z01) to:

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Staffing Officer

Public Service Commission  
of Canada

400-391 York Avenue

Winnipeg, Manitoba R3C 4G8

Telephone: (204) 949-2486

(204) 949-6066

(Visual Ear)

**Closing date:** December 20, 1985.

*Tout renseignement est disponible en  
français en s'adressant à la personne  
ci-haut mentionnée.*

The Public Service of Canada is  
an equal opportunity employer

**Canada**

Back issues of Textile Conservation Newsletter are available for \$3.00 per issue including postage and handling.

The Textile Conservation Newsletter is published twice a year in the spring and fall.

Deadlines for 1986 are:  
30 April  
31 October

Submissions should be addressed to:

Eva Burnham, Julie Hughes  
Textile Conservation  
Newsletter  
P.O. Box 4887, Station E  
Ottawa, Ontario  
Canada K1S 5J1

or:

Colleen Wilson  
Conservation Division  
B.C. Provincial Museum  
675 Belleville Street  
Victoria, British Columbia  
Canada V8V 1X4

We welcome submissions on:

Textile Conservation  
History  
Technology  
Analysis

and information on upcoming courses, conferences and exhibitions.

**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.

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