

TCN

Q. A. R.

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TEXTILE CONSERVATION NEWSLETTER FALL 1989 ISSUE NUMBER 17

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TCN COVER

Detail of Curtain
Painted and dyed cotton, Coromandel Coast,
18th Century
Photo, courtesy of Royal Ontario Museum
Harry Wearne Collection, gift of
Mrs. Harry Wearne. Acc.934.4.50



the numbers corresponding to the back issues:

No. 1	September 1981
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No. 3	September 1982
No. 4	February 1983
No. 5	October 1983
No. 6	March 1984
No. 7	Fall 1984
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No. 14	Spring 1988
No. 15	Fall 1988

FROM THE EDITORS

We are pleased to announce that the index is finally completed! In the time it has taken to sort through and categorize eight years of TCN publications, we required the expert assistance of several people. We wish to thank: Alicia Prata, Head Librarian, Vicki Davis, Librarian, both of CCI; Jason Hiemstra, whose task it was of word processing, endlessly updating and correcting; Dorothy Burnham who recently moved to Ottawa, helped in the final stages. It has been our intention to see through each stage that this index would turn out as comprehensive and useful for all our TCN readers.

In order to simplify the entries in the index, a numbering system was devised for all the existing issues and will be continued with all subsequent issues. You may have noticed that the Spring 1989 issue appeared as number 16 and the Fall issue as number 17. Below is a list of

The next update of the index will be published in Issue No. 20 (Spring 1991)

The TCN Spring 1989 supplementary accompanies this issue and is called Warning! Dichlorvos Resin Strip Fumigation, written by Sharon Hammick from the Conservation Division of the Royal British Columbia Museum. It is her thesis for the completion of her Master of Science degree from the University of Alberta. She studied cultural resource management, museums studies and archaeological conservation at the University of Victoria and has an honours degree in visual art. Sharon is presently working as textile conservator at the Royal British Columbia Museum, job sharing with Colleen Willson.

Gail Niimimma has stepped down as Western editor. The original reason for having Western and Eastern editors was to spread out the workload of collecting and typing the articles for each issue. Since the word processing is now done professionally in

Ottawa, and mailing continues to be done there, it seems logical and should be less confusing to our subscribers to have only one mailing address for subscriptions and enquiries. We are pleased and grateful that Gail will continue to be involved as an advisor to TCN. We thank her for her dedication to TCN and look forward to working with her in her new role.

We would also like to thank Carol Dignard of CCI for translating Marie Masson's article and Carl Schlichting for the diagrams drawn from photographs.

Eva Burnham
Ruth Mills

MILDEW, COLLECTIONS AND THE WORK ENVIRONMENT: AN ATTACK OF ASPERGILLUS FUMIGATUS

Clean, adequate storage is often a luxury for very few museums, historic houses and historical societies. The Detroit Historical Department recently tackled this problem and as a result faced a series of unexpected problems.

The Detroit Historical Department is a municipally owned and operated urban system with a staff of 65 and a collection of approximately 125,000 objects. For many years much of our collection has been stored in 19th century buildings, constructed for the U.S. Army, that range from barracks to a former mule barn. Most of these buildings

have suffered from leaky roofs, falling plaster, and other deterioration. In addition Detroit is known for its unsavory industries including: fat rendering, salt mines and coke ovens. Except for the costume storage building none of these facilities have air conditioning or humidification systems.

In 1986 the DHD director convinced the City of Detroit to make the building of a climate controlled storage facility a Department priority. A long term project to renovate four World War II Army warehouses will become the Collections Resource Center with an eventual total of 93,000 square feet. The first warehouse to be completed will house the Social History, Costume and Woodland Indian collections. It will also include office space for eight members of the curatorial staff. The project is funded by the City of Detroit and the State of Michigan. This type of major funding must be staggered over several years and work has been divided into several contracts. This is how our problem started.

The first phase of construction ended in the spring of 1987. The contractor removed the roof monitors to close off natural sunlight, then repaired and insulated the roof. Finally, they installed sealed windows for future offices and thoroughly washed the floor to remove the last of the debris from the past 40 years. This construction finished in May but the new contracts could

not be processed until the next fiscal year. Once processed it took the normal three months before work could begin. The summer of 1987 was unusually hot and the warehouse sat there dark, damp and undisturbed. By August the mildew was visible on the wooden beams and joists and a strong musty smell was quite apparent.

During the summer the contractor noticed the mildew and became concerned that the specified paint would not adhere to the walls and ceilings covered with mildew. Since mildew is a common problem in construction projects, no one became alarmed and assumed the contractor would take care of it. Amendments could be made to the original contract to include mildew removal and the construction would continue as usual. Also, since no collections objects were stored in the building, the mildew was not considered a curatorial problem. At this time there was no one on the DHD staff who had any conservation training, nor had anyone thought to consult a conservator.

There was minor concern to identify the mildew species, on the theory that different fungicides might be used to cover up the residue. A consultant was finally called in on the project for the mildew problem.

This consultant raised the issue of mildew being a hazard to human health. Due to questions concerning responsibility and liability the contract for testing took

eight months to process. The end result was a fee of almost \$7,000 (U.S.). This compensated the consultant for the risks he took in assuming responsibility to determine the extent of the problem. It also meant that if he underestimated the problem, he would be liable for damages.

It is important to remember that at this time no one knew for sure if any hazard existed and city engineers felt the sooner the mildew was killed the better. There was no reason to halt construction and the contractor continued to install ductwork.

Chlorine bleach had been suggested as a "quick and dirty" solution to the problem. However, as this solution was researched by the DHD staff the mildew problem became even more complex. Conservators were consulted concerning the chlorine bleach treatment and the responses were quite varied. Less than half of the conservators asked if we had tested the mildew and only a few were concerned with the effect of the treatment after the staff and collections had moved into the facility. However, the chlorine bleach was soon ruled out when we realized it could be absorbed into the wooden beams and re-emit later in the presence of moisture as hydrochloric acid. This would of course deteriorate the many metal artifacts destined to be stored in the building.

The contract for testing the mold was finally let in April, 1988 - nine months after the mildew became a

concern for the architect. A preliminary verbal and written report was received but it was not until late June that the final report was given to the DHD. This report identified four species of mildew including one that is considered pathogenic: *Aspergillus Fumigatus* var. *ellipticus*. Under high concentrations this particular strain can attack the mucus membranes of the lungs, cause chronic irritation and affect the middle ear. Under certain conditions it can also be fatal. All work on the warehouse was immediately stopped.

The next step was treatment; however, this could not occur until a solution had been determined. The consultant identified the scope of the problem and now the DHD staff had to determine the solution. Two possible fungicides were identified by the consultant: Pentachlorophenol and Copper Napthanate. The Pentachlorophenol raised concerns because of the carcinogenic effect of phenol on the construction workers and the staff who would later work in the finished building. Upon further investigation we found there was no company licensed in the state of Michigan to use pentachlorophenol in an interior space. Therefore, it was eliminated as a possible treatment.

Copper napthanate had no such regulations because it is not considered a toxic chemical. It is normally used to retard mildew in tents, used as a wool preservative and in very small amounts can

be used to kill algae in fish tanks. In normal concentrations, however, it kills fish, contaminates drinking water and is harmful if swallowed, absorbed through the skin or breathed. However, given the information available this seemed to be our only available treatment.

The consultant specified in the final report that the mildew must be treated by being sprayed with the fungicide and physically removed from all the surfaces it infects. This would allow the chemical to penetrate deeply enough to thoroughly kill it. This treatment, along with the clean-up disposal of all solid and liquid waste materials in an environmentally safe manner was specified in the contract. The clean-up contractor had to provide the workers with self-contained, full face breathing apparatus operated on pressure demand, gloves, disposable clothing and goggles. The toxic fumes from the copper napthanate in the 27,000 sq. ft. warehouse would be quite strong.

Also included in the contract was the requirement that an independent lab test the air to certify the safety of the warehouse after treatment. It was suggested that the air be monitored before, immediately after the treatment and again several months later. Unfortunately, this recommendation was received too late for the contract and the only air monitoring that occurred was immediately after the treatment.

The contract for mildew removal went out in August 1988, was awarded in September and treatment was performed from October 8 - October 29. The contractor was called back twice to clean up overspray and residue. Once the building passed the air quality monitoring, the building was certified as safe for human habitation and the construction could resume.

The Moral of this story is the value of information. The project was difficult to define due to the three perspectives required. First, the architect who was concerned with the consequences of the building. Second, the consultant who raised the issue of danger to human health. Third, the curators who were concerned with the potential harmful residual effect of the treatment to the objects.

The second stage of this project proved to be even harder: to find information about possible and acceptable solutions and the consequences of different choices. This area fell in the middle of several expertises: microbiologists (like our consultant) know about mildew and chemicals but are not knowledgeable about the real world consequences of such treatment. Conservators are more familiar with preventive techniques than with more intensive chemical solutions. Rarely are conservators faced with objects the size of our warehouse for treatment. Curators are prepared for none of these problems. Yet it was the responsibility of the DHD curatorial staff to

assimilate, evaluate and critique all the information into understandable language for our own staff and the city engineers. We also had to learn how to write elaborate detailed bid specifications that would ensure whatever company received the public bid, would provide the treatment in a safe manner.

The questions we faced were numerous. When you are working through a municipal bureaucracy with limited funds for a project, how can you get second opinions? How much information do you need to make the decisions concerning health and safety? How do you locate qualified consultants? By short cutting or eliminating any of the steps taken, we ran the risk of placing the workers and our own staff in danger from the mildew problem and from the treatment.

We now understand city contracts better and in the future would phase contracts differently. We also now know to give our full attention to such problems immediately and not assume they can be written into an established contract. There may have been better solutions to our problem, however, at the time we had to make our decisions this seemed the best solution.

The construction on the warehouse is now back in progress. The work is expected to be completed this fall, temperature and humidity will be monitored through the winter and the move of curators and collections will begin in the spring. We hope the knowledge we have learned

from this project will help us with any future complications in the completion of the Collections Resource Center.

Vicky Kruckeberg, Costume Curator, Detroit Historical Department, Detroit, Michigan.

This article has been rewritten from a paper given at the American Institute for Conservation, Cincinnati, Ohio, 1989, prepared by Maud Margaret Lyon and Vicky Kruckeberg.

A PROPOS DE COSTUMES

C'est des costumes et surtout de leur présentation dont j'aimerais parler. Ce problème s'est en effet posé au Musée Historique des Tissus de Lyon depuis la création de l'atelier de restauration, celle des nouvelles réserves et depuis le réaménagement des salles d'exposition.

I Le Musée Historique des Tissus de Lyon est doté depuis 1985 d'un atelier de conservation, restauration des tissus anciens et de nouvelles réserves.

a) L'atelier est installé dans un espace lumineux d'environ 100 m². Il est composé d'une zone sèche et d'une humide.

b) Les réserves sont aménagées sur 4 étages et couvrent environ 400 m². Les meubles de rangement des tissus anciens comme la plupart des meubles de l'atelier ont été

dessinés par l'architecte d'intérieur Monsieur Rolf Lemberg, spécialiste dans ce domaine. Ils sont réalisés dans des matériaux adaptés à la conservation (bois neutre). Je ne parlerai pas plus ici de ce sujet qui pourrait faire l'objet d'un autre article plus développé.

II Les mannequins de présentation des costumes anciens au Musée Historique des Tissus de Lyon

Il est étonnant de voir que peu de gens encore attachent de l'importance à la façon dont se portait un costume. Une robe de 1750 ne se portait pas de la même manière qu'une robe de 1900 pour ne citer que 2 exemples. Il est donc impossible de présenter des costumes d'époques différentes sur des mêmes mannequins standards de notre époque. C'est pourquoi nous pratiquons un système simple et variable que nous allons vous exposer.

a) le mannequin adaptable:

Les mesures et le patron du costume à exposer sont pris très précisément. Un mannequin ordinaire de support et guide est prévu si possible de taille inférieure au costume, le nouveau mannequin va être formé à l'aide d'un grand nombre de bandes de papier "Kraft" adhésif d'environ 2 à 4 cm de large et de longueurs variables. Le support est protégé auparavant par une feuille de "mélinox" ou polyester ou d'un matériau imperméable de ce genre. Les bandes de papier s'amincissent et se raccourcissent lorsque les arrondis et les creux se



MUSEE HISTORIQUE DES TISSUS - LYON

The dress and its support: an English-styled silk taffeta dress with embroidery and printed appliques. France, end of the XVIIIth century. Altered three times.

La robe et son support.
Robe à l'anglaise, Taffetas de soie brodé, avec gravures appliquées. France, fin du XVIIIe siècle. Transformée à trois reprises.

précisent. Ces bandes sont collées en superposition jusqu'à obtenir environ 2 à 3 mm d'épaisseur sur l'ensemble de la forme; lorsque cette forme est encore humide, elle est découpée en 4 parties selon 2 axes de symétrie. Les 4 parties sont recollées lorsqu'elles ont complètement séchées en rétrécissant ou élargissant certaines zones selon les besoins du costume. La base du nouveau mannequin est alors posée sur un pied en forme de T en bois ou en métal. Ce pied donnera la bonne hauteur au mannequin. Grâce à cette opération, il est possible d'avoir un corps dont les principaux éléments sont placés aux bons endroits. Mais il convient encore d'affiner les rondeurs et surtout d'isoler l'acidité du papier "Kraft" encollé. Une gaze de coton décati est découpée en bandes et recouvre toute la surface du mannequin. Il est ensuite possible de recouvrir la gaze d'un tissu de décor ou visible, au décolleté et aux bras.

b) Les sous-vêtements appropriés:

Afin de donner la rigidité du maintien des premières années du XVIIIe siècle par exemple et de donner l'ampleur nécessaire aux hanches, il convient de faire les sous-vêtements adaptés. Ils sont exécutés également en coton décati. Le corset est baleiné de carton sans acide et les coussinets des hanches sont bourrés de ouate légère en polyester (voir les photos). Le jupon donne ensuite le tombé de la robe et la supporte

légèrement. Il peut être suffisamment rigide et gonflé pour donner un plan de maintien à une étoffe fragile. Le mannequin et les sous-vêtements constituent aussi un support de conservation et non plus une source de tensions diverses, contribuant à l'affaiblissement du costume.

III Le mannequinage du costume ancien

La mise en place du costume sur le mannequin préparé avec les sous-vêtements est la tâche la plus délicate. Elle devrait être faite en une fois et sans retouche. Aussi faut-il prévoir un certain nombre de mesures avant la pose. L'ordre de mise en place des bras est important. Ils peuvent être moulés de la même façon que le corps. Ils sont ensuite cousus aux épaules. La difficulté réside souvent à la pose du 2er bras, lorsque le décolleté est presque en place. Pour cette opération il faut la présence de deux personnes.

Conclusion

L'avantage de cette méthode dont la base m'a été communiquée par Madame Ursula Strate, responsable de l'atelier de conservation du "Kunst und Gewerbe Museum" de Hamburg, réside en la modulation des formes possibles.

En effet cette méthode peut s'adapter non seulement aux costumes féminins, comme je l'ai exposé ici, mais aussi aux formes masculines et enfantines.

Il est possible de faire de ces mannequins de conservation de longue durée, sans acide ni éléments instables chimiquement. Cette méthode est également très bon marché. Bien entendu, il est évident qu'une protection est nécessaire pour l'ensemble, costume et mannequin. Une vitrine ou une armoire aux conditions climatiques et lumineuses adéquates serait la protection indispensable.

Marie Masson Schoefer
Responsable de l'Atelier
Musée Historique des Tissus
de Lyon
Lyon, France

O N COSTUMES

I would like to talk about costumes and in particular, how they are displayed. The Musée Historique des Tissus de Lyon has been faced with this issue since the construction of its conservation laboratory and new storage areas and the renovation of its display areas.

I Le Musée Historique des Tissus de Lyon has since 1985 a textile conservation and restoration laboratory and new storage facilities.

a) The laboratory: it consists of a well-lit area measuring 100 m², divided in a wet and a dry section.

b) The storage areas: these are located on four floors and cover a total of 400 m². The cabinets and storage units along with most of the

laboratory furnishings have been designed by the interior architect, Rolf Lemberg, a specialist in this field. They are constructed of materials well-suited for conservation areas (i.e. neutral wood); this subject, which may be discussed more thoroughly by the author in another article, will not be dealt with here.

II The mannequins used for the display of historic costumes at the Musée Historique des Tissus de Lyon

It is still surprising that few people consider how a costume was worn as important. A 1750's dress was not worn as a 1900's dress, two of many examples. It is thus impossible to exhibit costumes of different periods of history on the same standard mannequins of today. For this reason, our museum has developed the simple, all-purpose system described below:

a) The adaptable mannequin

The pattern and measurements of a costume to be exhibited are taken very accurately. A common dressmaker's mannequin and stand is chosen if possible of a smaller size than that of the costume; a new mannequin will be shaped from it using Kraft paper adhesive strips 2 to 4 cm wide and of variable length. The base support must first be protected by a polyester sheeting such as Melinex, or any other similar waterproof material. To form the curves and contours more precisely, the paper strips become narrower and shorter.

Layers of strips are adhered to obtain a thickness of up to 2 to 3 mm over the whole support. When the support is still damp, it is cut vertically along both axes of symmetry into 4 sections; these 4 pieces are trimmed or enlarged where necessary to reproduce the shape of the costume and glued back together when completely dry. The lower part of the new mannequin is then placed over a T-shaped wood or metal stand of appropriate height. This system of mannequin construction allows for a body shape with the principal elements placed in exactly the right places for the costume. However, at this stage it is still necessary to round the curves of the mannequin and especially, to isolate the acidic kraft paper. A desized cotton cheesecloth is cut in bands and wound around the whole surface of the mannequin; the gauze can later be covered with suitable display fabric at the areas which will be visible, such as the neck and arms.

b) Appropriate undergarments

In order to have the rigid posture as was common at the beginning of the XVIIIth century and to obtain the fullness around the hips, it is necessary to custom-make the undergarments. These are made again using desized cotton. The boning for the corset is made of acid-free matboard and the padding for the hips consists of polyester batting (see photographs). The petticoat then lightly supports the dress and gives it the correct drape. It may be sufficiently stiff and

shaped to properly support a weak and fragile fabric. Such mannequins and undergarments are also excellent conservation supports, reducing the stresses and tensions which lead to the weakening of the costume.

III Dressing the mannequin

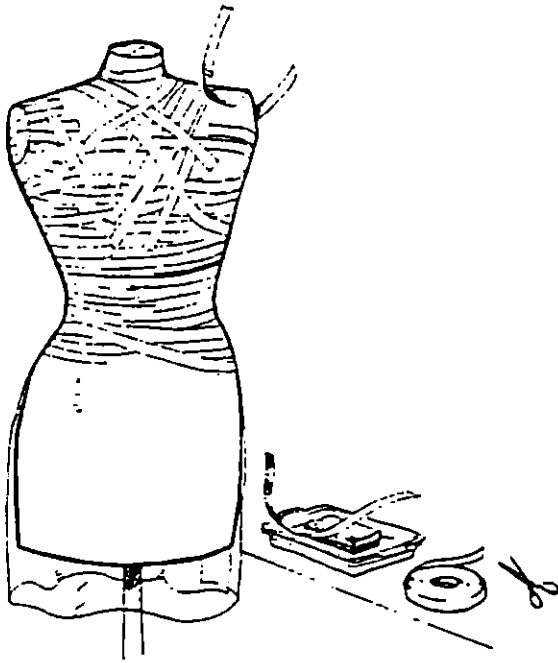
Putting the undergarments and the costume on the mannequin is the most delicate operation of all. It should be done in one step without the need of further alterations to the support; consequently, certain steps should be planned in advance. Attaching the arms, for example, requires certain steps to be followed in order. The arms can be cast in the same way as the rest of the mannequin, and later sewn onto the shoulders. The most difficult step often occurs when the second arm is being attached and the bodice is almost in place: for this step two people are required.

Conclusion

The advantage of this method, described to me by Madame Ursula Strate, head of the conservation laboratory of Hamburg's "Kunst und Gewerbe Museum", is that a variety of shapes and contours can easily be created. The mannequins can be adapted not only to women's dress, as described above, but also to men's and children's costumes. They can be made of chemically stable and acid-free materials for the long-term preservation of the costumes. They are also very inexpensive. Of course, additional protection is

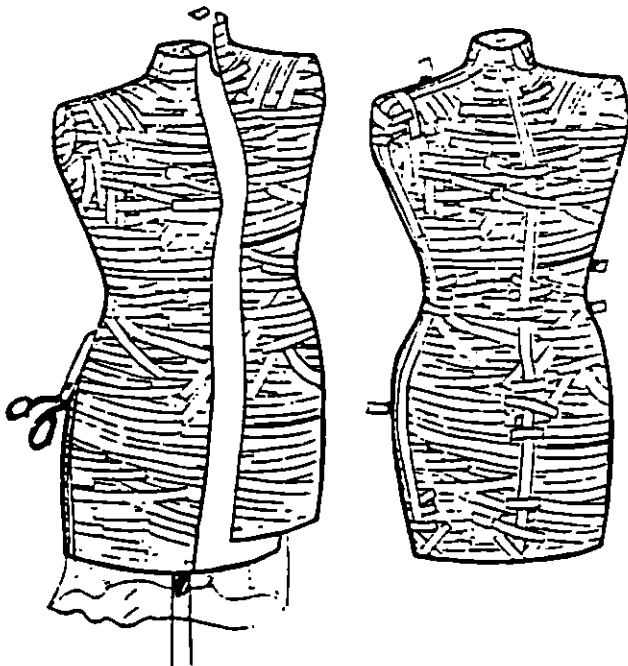
necessary for the costume once on the mannequin: a cabinet or a display case with suitable environmental and light conditions would be vital for its protection.

Marie Masson-Schoefer
Head of Textile Conservation
Musée Historique
des Tissus de Lyon
Lyon, France



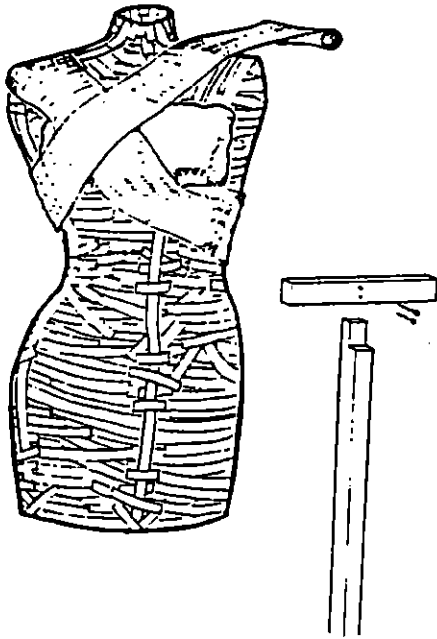
Le mannequin de support recouvert d'un film protecteur va être envelopper de bandes de papier "Kraft".

A support mannequin covered with a water-proof protective sheeting; it is ready to be shaped with the Kraft paper strips.



When the support is still damp, it is cut vertically along both axes of symmetry into 4 sections; these 4 pieces are trimmed or enlarged where necessary to reproduce the shape of the costume and glued back together when completely dry.

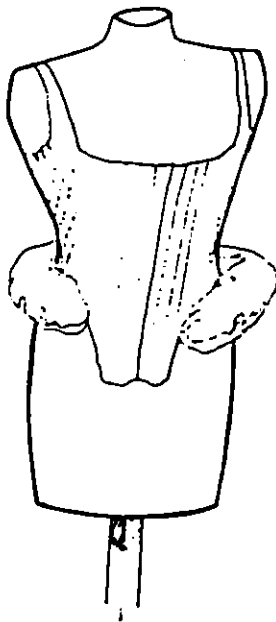
Lorsque la forme est encore humide, elle est découpée en 4 parties selon 2 axes de symétrie. Les 4 parties sont recollées lorsqu'elles ont complètement séchées en rétrécissant ou élargissant certaines zones selon les besoins du costume.



The Kraft paper strips are covered with desized cotton bands.

The lower part of the new mannequin is then placed over a T-shaped wood or metal stand of appropriate height.

Le papier Kraft est recouvert de bandes de coton décatés.



A display fabric covers the cotton bands. The corset and the crescent-shaped padding are then put in place to support the dress. A petticoat (not shown on this photograph) is added later.

Un tissu de décor recouvre les bandes de coton. Le corset: les demi-lunes sont alors mis en place pour recevoir la robe. Un jupon a été ajouté, non photographié ici.



SHOE CONSERVATION

I was concerned to see the article on Support Padding of Textile Shoes at the Bata Shoe Museum, in TCN, Spring 1988. As a student over the last forty years of the history of footwear (Keeper of the Boot & Shoe Collection, Northampton Museum, 1955-88), I am well aware of the information needed for cataloguing a shoe, and assessing its date and history. In order to do this as accurately as possible, it is essential to be able to see not only all of the outside (including the sole which many displays obscure), but also the inside. Here are revealed not only technical details: construction, care or shoddiness of lining, but frequently the maker's label or stamp survives, with details of his address and business, invaluable for dating when checked with street directories. There may also be numbers, hand-written or stamped, indicating styles or sizes, helpful in deciding country of manufacture and for providing evidence of the size

of the population at any given date, and there may be other names inscribed. In the 17th-early 18th centuries, the customer's name, size and other detail were written in ink by the shoemaker on the vamp lining, unfortunately for us, frequently close to the toe, where it would not be immediately visible once the shoe was made. I am slowly building up evidence that this information includes not only the length of the shoe (size 3 and 4 are the most common for Englishwomen's shoes), but other figures or letters, M, W (for medium, wide) are beginning to suggest that some shoemakers may have had a system of widths long before it became common in this century.

As mass production developed in the 18th century and more shoes were made for sale shops, it became necessary to be able to see at a glance which were bespoke for a special customer. So from the 1760's the customer's name is written instead on the quarter lining, and is of course invaluable for checking against a shoe's reputed history. The sizes are then often put here too.

So obviously it is essential to show such detail when a shoe is displayed. And when stored, if the shoe is to survive handling, it is preferable to have stuffing which can easily be removed and replaced. Another problem with the Bata (TCN Spring 1988) method of stuffing with a ring of fiberfill is that it is continually trying to unroll, and thus creates pressure on the upper, rather

than just provide support. It is also very difficult to mould to the shape of the shoe, which can better be done with acid-free tissue: a small piece in a narrow toe, and then one piece for the rest of the vamp satisfies both support and student. So many old shoes retain the shape, the character of the wearer, it is much more interesting to retain this, rather than force the moulded shoe to look like new.

Inspired by Jeanne Brako's paper on Wear Patterns on Navajo Textiles at Costume Society of America's Ethnic Dress Symposium, May 1989, where she showed how well-meaning conservation had obscured wear on one edge which proved where the textile was worn at the neck, or holes where elbows rubbed (evidence which differentiated the early textiles from those used as blankets or wall-hangings etc.), may I put forward a similar plea for not destroying evidence of wear on shoes. We are all aware that display assistants prefer objects in pristine condition, but they must be educated not to request the destruction of the history of the object. It is essential if the study of the history of footwear is to progress beyond a brief summary of what styles were worn in what year, to be able to tell, for example, which are worn indoors and which out. So please do not remove street dirt. One of Northampton Museum's most useful 1740's shoes, with dark grey wool upper, are mud-bespattered all over, which helps convince our modern world that such flimsy shoes

were indeed worn outdoors, and tells us a lot about life in the 1740's in the process. It is even more enlightening when there is horse-muck on the sole of a very expensive silk brocade shoe. The young are no longer familiar with such problems, which only ceased in English towns after the last War. The manure may create conservation problems in the centuries to come, but please leave it to be recorded.

Most shoes were made as straights (not shaped right and left) between 1600 and 1800, and some women's, especially the French, continued straight to the end of the 19th century. To keep them smart longer, and indeed to make them last, it was customary to wear the shoes on alternate feet on alternate days. As a consequence, a hole was often worn where the big toe joint rubbed on both sides of the shoe. Northampton Museum has some shoes of the 1720's with contemporary patches here, which doubtless matched reasonably well when first done, but are more conspicuous now. Please do not remove such evidence of a thrifty way of life, which has temporarily passed. Babies, before they walk, have the habit of crawling, and as a result scuff holes across the upper over their toes, instead of wearing the corner of the heel like the rest of us. I recently found some tiny baby's shoes dated 1837, which had been labelled "Statues", as the holes had been carefully disguised until no longer visible on the black silk. Surely they would be more appealing in their worn

condition. Incidentally, straight shoes swopped daily end up with even wear right across the back of the heel top piece -again a feature we are not familiar with.

But we are all familiar with clothes being altered, as the wearer changed, grew fatter or thinner, or fashions changed. What few costume students realize is that the same applies to footwear, and many have as complex a history of two or three modifications as any dress. So please beware of "tidying up" and destroying this evidence. One custom we no longer practice is the complete recovery of a shoe upper, for mourning purposes or to cover wear. This was done on many of the textile shoes of the 18th century, and especially on the flimsy ballet-type styles of the 1830's-40's. The clue is a neat row of stitches close to the sole, because it was not economical to remove it and re-last, work only a shoemaker could do. Later trims, to modernize, too are not lasted in, nor edge binding when it failed. In the later 19th century, shoes were altered for fancy dress, frequently with the narrow vamps cut to enlarge, and then disguised with a trim over it. This is all part of the history of the shoe, and I would prefer no attempt be made to put it back to the original. Most needlewomen would not attempt to alter the heel. So if required for mourning, it was painted black.

As well as home repairs and alterations, the practice of "translating" shoes was

also carried on up to about the First World War at the lowest level in the shoe trade: old shoes were bought up, the good bits salvaged, and "new" shoes made from them. (We call it recycling today, though no one in the developed world appears to have rediscovered it for shoes yet). Some very curious combinations can result, and it is easier to work out the history if not complicated by conservation stitching. I do not envy conservators the awesome responsibility they have, but can only commend to them the International Council of Museums Guidelines for Costume: remove pests, and as for anything else, if in doubt, leave it alone.

June Swann, M.B.E.
Consultant
History of Shoes and
Shoemaking
Northampton
United Kingdom

TREATMENT OF AN EXTENSIVELY CORROSION STAINED UNIFORM JACKET USING A VACUUM SUCTION TECHNIQUE

The Government History program of the PMA recently acquired a World War II summer uniform jacket for its collection. It is an important acquisition because of the relative scarcity of this type of jacket and because of its significance to Alberta history. The jacket formed part of the tropical uniform worn by Captain Victor Sims, an officer in the

Edmonton Fusiliers, a militia regiment disbanded after World War II. The Sims family had a long history of association with the regiment.

The light khaki, twill weave, cotton jacket arrived at the museum crumpled and heavily stained with iron corrosion products. Its condition was consistent with having been totally wet at some point and then slowly drying out. It was obvious that a major culprit in the damage was a wire coat hanger because the encrustations on one stain carried a clear impression of the curved end of a hanger. In addition, several metal rings for holding on buttons were heavily corroded and stains transferred to many parts of the garment because of its crumpled condition. Many of the stains were heavily encrusted. Also marking the garment were the tan stains of oxidized cellulose formed at the air/water interface as the jacket dried out. Apart from edge abrasion at the collar and cuffs the fabric was in a sound condition.

All buttons and insignia capable of removal were taken off and cleaned separately. Before attempting any stain removal samples of stained fabric were prepared for testing. A search on CIN proved disappointing, providing only two references. A further literature search suggested oxalic acid or sodium hydrosulfite as treatments. Preliminary testing showed that sodium hydrosulfite would be unsuccessful as a treatment for this situation while

oxalic acid was likely to be successful. Oxalic acid is a mild reducing agent which forms soluble complex salts with many metals including iron. A 1.0% solution has a pH of 0-1 therefore it is important to minimize the time in contact with the fibres to limit potential damage. Fabric must be thoroughly rinsed, not only to neutralize the pH but also to remove all residual oxalic acid since it crystallizes to form needle-like crystals which can pierce fibres leading to further weakening. Rinsing in warm water is necessary due to the low solubility of oxalic acid in cold water. Testing was done firstly on prepared samples and secondly on seam allowances and facings inside the jacket.

Prior to stain removal the encrustations were removed from the surface mechanically and the jacket was wet cleaned. With the fabric wet out the stains were positioned over a localized vacuum for treatment. This was created with a funnel attached to a water vacuum apparatus. Testing had indicated that 3% and 5% solutions of oxalic acid heated to 80C were necessary to remove the stains, the 5% solution being used only on the heaviest stains. A few drops of the solution were dropped into the centre of the stain and allowed to act for up to 5 minutes with the suction running continuously. The fabric was then rinsed, again with the vacuum on, until a neutral pH was reached using indicator strips. After treating all stains individually the whole garment

was rinsed thoroughly for 10 minutes and a neutral pH reading was obtained. Some stains were impossible to remove totally but were considerably lightened. There was no loss of colour from the fabric and no apparent weakening of the fibres.

References:

Rice, J.W. "Principles of Fragile Textile Cleaning", in Textile Conservation, Leone, J.E. Ed. Washington, D.C. Smithsonian Institution Press. 1972.

Fulton, George F. "Applied Science for Drycleaners", Maryland: National Institute of Cleaning and Drying, 1951.

Doreen Rockliff
Elizabeth Tait
Provincial Museum of Alberta

CANADIAN MUSEUM OF CIVILIZATION

The pace of activities in the Textiles Lab at C.M.C. has barely slackened since the opening of the new building. As well as the usual work - preparing for upcoming exhibits, working on loan materials, doing moth checks, etc., - we are also going regularly to Parc Laurier to do "housekeeping".

Dust monitoring has continued and the environment of the new building has improved to acceptable levels. However, a regular vacuuming program has to be maintained

for textiles on open display. Most textiles get vacuumed about once every two weeks. This work is done before opening hours (Mondays the Museum is closed all day), using either the Hoover Portapower and hand-brushing, or the Mini-Vacs. The latter are great in that they are only the size of a small flashlight, have interchangeable, small brush attachments, and are battery-operated so there are no cords to contend with. However, they are only designed for very lightweight work (photo equipment, computers, etc.), so the motors burn out relatively quickly. (They are available from Efston Science Inc., 3350 Dufferin Street, Toronto, Ontario, M6A 3A4, 416-787-4581; \$26.95.) Anyone have any suggestions for other suitable equipment?

The following are items of interest regarding current display techniques for textiles at Parc Laurier.

a) "Shall We Dance? Special Exhibitions Gallery; June 29 - October 1989.

For this exhibit, featuring dance costumes from many countries, "Bendie" mannequins were selected (530 Edouard, Granby, Quebec, J2G 3Z6).

Advantages:

- extremely flexible (essential for this exhibit)
- lightweight
- small proportions
- easy to attach accessories (can stitch through head, etc.)

- relatively inexpensive (\$400.00)

Disadvantages:

- flock fabric finish (very difficult to mount costume; holds dust; fibrils adhere to inside of costumes). Note: A prototype silk bodystocking was made to protect the costumes and to make mounting easier, but funds did not allow for this project to continue.
- polyurethane foam interior degrades fairly quickly, volatile emissions can be harmful to artifacts (Note: This was a four-month exhibit only.)
- mannequin is mounted onto base by a rod inserted through the heel. (Note: Prop shoes were used, with holes drilled through the heels, where appropriate. Where accessioned shoes were to be used, a leg-brace was devised to secure the leg to a rod mounted through the exhibit floor.)
- attaching the arms to the shoulders was awkward owing to the design of the socket.

b) "Beyond the Golden Mountain: Chinese Cultural Traditions in Canada". Arts and Traditions Gallery; June 29, 1989 - May 26, 1991.

Plush-covered, padded aluminum rods (inserted through tubing) formed the suspension mechanism for the largely square-cut garments shown in this exhibit. Large,

flat, silk hangings were sewn around three sides to (50-50 cotton-polyester) fabric-covered stretchers.

c) "Masters of the Crafts: Recipients of the Saidye Bronfman Award for Excellence in the Crafts, 1977-86" Arts and Traditions Gallery, June 29, 1989 - October 8, 1990. Velcro mounts for quilts; custom mounts for unique textile sculptures.

d) "In the Shadow of the Sun: Contemporary Canadian Indian and Inuit Art". Indian and Inuit Art Gallery; June 29, 1989 - August 31, 1991. Velcro mounts exclusively, for hanging textiles.

e) Millinery Shop History Hall (Permanent Installation)

A variety of standard techniques were used - padded and covered Ethafoam mounts, acid-free mat board covered with fabric and textile stitched to front, etc. Custom-made stands were crafted on contract for the fans in this display.

f) "Treasures" History Hall Mezzanine

The 1884 wedding dress on display is mounted on an Ethafoam disc mannequin (previously made for this garment when it was photographed for the C.M.C. publication on which this show is based). Two-dimensional silhouette forms were padded and covered for the Paisley shawls also included in this exhibit.

Present Work

We are now preparing thirty-seven flags for the "Maple Leaf Forever New" exhibit (Special Exhibitions, December 15, 1989 - March 11, 1990). This exhibit will celebrate the 25th anniversary of Canada's Maple Leaf flag. Many of the flags are modern nylon flags (phew!). Several are extremely large woollen flags, but generally are in good condition. A few are in more fragile shape. With few exceptions, the flags are all loan pieces. Vacuum-cleaning only will be done. Where necessary, as a 'first-aid' measure, weak areas will be backed with crepeline, and couched minimally to secure them. The flags will all be mounted by stitching onto rigid supports. (These are Gatorboard, padded with fibrefill and covered with 100% cotton canvas. Larger flags have a basswood framework in addition to the Gatorboard.) All the flags have Plexiglas covers.

Besides the flags, the "Maple Leaf Dress" worn by Queen Elizabeth II to a reception at Rideau Hall (residence of the Governor General), in October of 1957, will be on exhibit. An Ethafoam disc mannequin covered with silk jersey, has been made for the dress, as well as an underskirt to give the dress its intended shape (as per directions from the Queen's Dresser, on file).

Towards Christmas, we will be starting work on textiles for "A Coat of Many Colours: Two Centuries of

Jewish Life in Canada" (Special Exhibitions Gallery, April 5, 1990 - September 23, 1990).

A final note (the best news!) - Anna Jakobiec became a permanent member of the Textiles Lab in August. (Anna received her conservation training in Poland and France.) Eva Kaczkowski and Donna Butler continue on contract.

We're all keeping our fingers crossed that our submission for the Spring 1990 issue of TCN will include a report of our move to our new lab in Parc Laurier.

Julie Hughes
Textile Conservation Lab
Canadian Museum of
Civilization
Ottawa

GLENBOW MUSEUM NEWS FROM THE TEXTILE CONSERVATION LAB

The past year in Glenbow's Textile Lab has been a busy one. Work has been done on twelve exhibits, there has been an ambitious loans programme, several presentations for college and university students, and Care and Handling Sessions for staff and Special Projects. Treatments have included a late 18th Century Jain Mandala, Wedding Dresses, Costumes from Papua New Guinea and an Austro-Hungarian Man's Court Dress.

Special Exhibits

Two exhibits were particularly challenging as there were special curatorial requirements. Brava! Brava! The opera costumes of Norma Piper Pocatererra had costumes which varied in styles, silhouettes, sizes, ages and characterizations. The request was to modify the theatrical license of the gowns so that viewers could easily perceive that these costumes belonged to one individual. The requisite of "Modesty and Safety", an exhibit on side saddle riding costumes, was to present the costumes in a manner which was evocative of their use yet meet the requirements of conservation dictated by the garments. Both exhibits were curated by Marijke Kerkhoven.

Exhibit Projects:

The Textile Lab has developed some forms to make

life simpler, one of which is the "Test List for Exhibition/Decorative Fabrics". Its purpose is to serve as a checklist and record of evaluation of fabrics used for exhibition cases and panels. The intention is for the Test List to be used early in the design process, checking it against the exhibit artifact list to note possible problems while the design plan is on paper. If the Textile Conservator is involved in exhibits during the early stages, problems can be avoided or minimized. Comments or suggested additions to this list would be welcomed.

Maintenance on the permanent galleries is being done by Debra Reeve, whose efforts with the textiles are very noticeable and appreciated.

Tests For Case "Decorative" Fabrics	

Each bolt of fabric used even if they appear to be the same material and colour, may in actual fact be different, and each should be examined individually.	
Checklist	
Wet-fastness	_____
Crocking (rub-off)	_____
pH level	_____
Fiber ID	_____
warp	_____
weft	_____
Rough/abrasive surface	_____
Particle/dust shedding	_____
Nap or direction	_____
Other (such as permanent press finish and the presence of formaldehyde)	_____
Sample:	
Summary:	_____

JH/1988	

GORE-TEX^C Humidification

The exhibit Art in the Religions and Myths of Mankind: The Bumper Development Corporation Ltd. Gallery, featured a Jain Mandala from Gujart, India, which posed problems for mounting and exhibition. The late 18th to early 19th century Mandala is composed of water soluble pigments on cloth. It had been repeatedly folded as part of its ritual use and is very weak along the fold lines. As well, the ridges of the foldlines are very pronounced when the Mandala is laid flat, making it very difficult to read the symbols and imagery.

As the fibers are quite brittle, the paint very water sensitive, the planes of the surface numerous and uneven, it was necessary to use a method which would gently humidify and relax the fibers over a period of time. Utilizing the properties of GORE-TEX^C, which involve one side which sheds moisture and one which encourages moisture transfer, one can achieve a slow, gentle and controlled moisture exchange rate. In this instance, a layer of wet towelling was laid on the washtable with a layer of GORE-TEX^C placed above it, so that the GORE-TEX^C would release moisture upwards. The back of the Mandala was placed on top of the GORE-TEX^C and closely monitored for any movement of the paint layer. The GORE-TEX^C worked well in this case as the Mandala is 42" square and the GORE-TEX^C was 60", so a smooth even underlayer was achieved. This

process was repeated over several days and by the time the backing support was ready the Mandala was relaxed on a more uniform plane. The Mandala was attached to the backing mount with a series of laid silk stitches and the whole unit was encased in a plexi-mount case. The GORE-TEX^C "method" has been used in paper conservation for some time, but its special features will be helpful for many textile treatments.

Polarizing Microscope

The Conservation Department has obtained a polarizing microscope which has already helped in the identification of a wide range of fibers from mink to pineapple. A project has been started in the textile lab to establish a reference set of slides consisting of known degraded fibers from different time periods and in various conditions. Maura Hamill who is working with the textile collection in Cultural History has aided this project by securing samples.

Products

The Canadian Rights for the Rowenta Steamer, a product which was first introduced to me by the Textile Conservation Workshop in New York, has been purchased by Sunbeam Canada Inc. It is now in production and available under their name for Canadian sales. For those not familiar with the steamer, it is hand-held, works well at all angles and can give a variety of pressures and volumes of steam. There are fewer problems from water

spotting with this model than others that have been on the market.

"RIGILENE R", a polyester boning material that is rigid, yet flexible and durable, can be joined to form various support structures using a hot glue gun or stitches. Scot Bullick, our Collection Maintenance Technician, has realized this potential and the material has been used quite successfully for inner Mounts on a variety of objects. "RIGILENE R" is available from most fabric stores.

Seminar Attendance

The U.S. Institute of Theatrical Technology's conference, held in Calgary, had several sessions on costumes which overlapped the fields of conservation and research. I found the presentations to be informative. Extremely interesting and thought provoking was an Alberta Museums Association sponsored seminar - "Canada's Native Communities and Museums: A New Dialogue and New Initiatives" which was attended by many Tribal Elders and members of several museums. New insights and an understanding of differences in concepts towards material culture within the two groups were gained. Ideas were presented which asked for a reassessment of the work of museums and conservators.

The staff of the Glenbow labs have been very involved organizing the newly formed Alberta Conservators Association. This group will

meet twice a year to discuss issues of common concern to Conservators of the Region. At our third meeting, held on October 3rd, we had a group of approximately forty.

Jan Mulhall
Textile Conservator
Glenbow Museum
Calgary, Alberta

UNIVERSITY OF ALBERTA

The Faculty of Home Economics at the University of Alberta is in the fourth year of operating the Textile Conservation Service. The purpose of the Service is to assist local museums and the public with the cleaning, repair, mounting, and storage of textiles, whether they be historic, or ethnographic in nature, or contemporary works of art.

Some of the work presently being done in the lab includes the cleaning of a theatre costume donation given to the Historic Costume Collection. This consists of hats, a variety of clothing, and a parasol c. 1900. The parasol presents the most interesting conservation problem. Made from a light weight, plain weave, silk fabric trimmed with a loosely woven silk gauze the object presents a challenge due to its poor condition. Some of the damage contributing to the deterioration of the silk are: several tears throughout the textile, some of which have previously been repaired

crudely with heavy cotton thread, and gauze which has a majority of its warps and wefts distorted and large portions missing. The parasol has heavy soil deposits giving it a dark grey appearance rather than the original off-white colour. Many of the silk areas which had previously been attached to the ribs of the umbrella have separated. The textile also had a relatively low pH of 4.6, however, upon completion of the washing procedure the pH level was 6.8.

The conservation treatment, still in progress, consists of removing the textile from the skeleton of the umbrella, leaving only the wooden point attached to the top of the fabric. Any attempt made to detach the point would have caused the silk to tear due to its fragile nature. This point was wrapped in mylar and batting and secured in a clamp stand to prevent it from becoming wet during the washing procedure. The Umbrella was soaked in distilled water after which it was washed in a 0.02% Shurgain Solution and rinsed several times. The textile was still very grey so the procedure was repeated. Eventually the majority of the soil was removed. (The reason for the slow release of soil was the fact that an oily residue had thinly coated the silk.) The textile was then removed from the wash by its net support, placed on a net rack and dried quickly with fans. Repairs are presently being done by lining the tears with silk crepe-line and couching the silk in place. The warps and

wefts of the gauze are being realigned and the holes in the gauze will be replaced with a similar fabric. After completion of the repairs and reattachment to the skeleton, long mylar cones will be made and arranged between the ribs and the fabric to eliminate any sharp creasing of the silk. The closed umbrella will be supported around the outside with loosely tied twill tape, and stored point down in an ethafoam stand.

Other treatments that have and are being worked on are the mounting and repair of several Burmese embroideries from Mandalay, the mounting of a painted Indian textile and a Guatemalan textile, and the cleaning and repair of an 1898, bisque and leather doll. The cleaning and repair of several Asia-minor carpets, and the conservation of an extremely brittle sampler c. 1880 are future projects awaiting treatment in the laboratory.

Karen Myrholm
Faculty of Home Economics
University of Alberta

QUEEN'S UNIVERSITY

In recent years, the Art Conservation Program at Queen's University has increased its involvement in the area of textile conservation. Through a combination of lectures, workshops and practical laboratory work, students become familiar with

techniques as diverse as fibre identification and pattern drafting in addition to standard textile conservation procedures. Projects completed during the past year include washing of laces and stain removal, cleaning and application of fabric supports to linen samplers and Oriental embroideries and the construction of an Ethafoam display mount for a 19th century military helmet. In addition several students had the privilege of working on late Victorian and Edwardian women's costumes from the Queen's Costume Collection.

Further specialization is possible within the Program if students select topics for their second-year research projects which will have direct application to textile conservation. Some recent research projects have addressed the problems of stain removal from woollen textiles and the influence of relative humidity cycles on backing fabrics.

Special events this year included a one-week visit by Dr. Nancy Kerr from the Department of Clothing and Textiles, University of Alberta. As Scholar-in-Residence, Dr. Kerr presented a workshop on the identification of historic textile fibres to all of the students in the Program as well as a public lecture concerning her work on the burial textiles from Franklin's last Arctic expedition. Later in the term, Eva Burnham, Senior Conservator of Textiles at CCI, delivered a guest lecture on the topic of the

conservation of Lucy Maude Montgomery's wedding dress and a hand spinning workshop was conducted by Chris Adams, a recent graduate of the Program.

Queen's University is fortunate to possess one of the most significant costume collections in Canada. Compiled through the generous donations of many prominent Kingston families, the collection is a unique record of fashion and lifestyles in 19th century Upper Canada. The Art Conservation Program has utilized the Costume Collection as a teaching resource for a number of years. It has importance as a study collection as well as functioning as a source of challenging textile conservation projects. Future plans include an increasing involvement with the Costume Collection, particularly in the area of preventive conservation.

Krysia Spirydowicz
Assistant Professor of
Artifact Conservation

CONFERENCE REPORT

Joseph V. Columbus Tapestry Symposium

A tapestry symposium honoring Joseph V. Columbus was held at the National Gallery of Art on October 9 and 10 in Washington, D.C. Over 200 persons, conservators and curators, attended the seminar. Eight papers were presented. Abstracts for the papers were made available to registrants and a book of papers from the seminar is to be published next year. Three papers were curatorial in content: Madame de Pompadour's Gobelins Tapestries (Edith Standen), Charles de La Fosse's Ovid Fables - a Tapestry Series Designed for the Leyniers-Reydams Workshop in Brussels (Candace Adelson), and Marks and Signatures on Ancient Flemish Tapestries - A Preliminary Methodological Enquiry. I found the last paper by Isabelle Van Tichelen particularly interesting. Beginning in 1981 the Musea Kunst en Geschiedenis undertook a drafting of a lexicon of marks, monograms and signatures related to Flemish tapestries. The goals of the project were to analyze existing archives on tapestries, study the evolution and location of marks from different centers and to interpret the problems of the marks themselves.

Two conservation papers were presented: Study and Treatment of Tapestries at Institut Royal du Patrimoine Artistique and Conservation of the Courtiers in a Rose Garden: a Fifteenth-Century

Tapestry Series. Dr. Liliane Masschelain-Klerner commented on the continuing work at the state laboratory in Brussels on analysis of historic dyestuffs. Their laboratory wet cleans tapestries using a small amount of non-ionic detergent and rarely reweaves. Fragile areas are relined with thin linen fabrics which are secured with silk threads. When asked privately about the change in philosophy of techniques in their treatments, from reweaving in the early 1980's to stitching at the present time, she answered that as their knowledge of dyeing and tapestry conservation has increased, their approach had changed. Ms. Nobuko Kajitani's paper showed how previous repairs on The Courtiers in a Rose Garden tapestry had distorted the textile. Rationale for dyeing of yarns and partial reweaving were given. It was very obvious to the audience that Ms. Kajitani's knowledge and experience were important factors in the treatment chosen.

Two papers were general in nature: Textiles as Documents of History and Those Who Care for Them (Karen Finch) and Curator and Conservator: Their Relationship as Seen by a Curator (Wendy Hefford). The latter paper was especially interesting because of Ms. Hefford's knowledge and obvious love for her work. In light of proposed reorganization at the Victoria and Albert Museum all conservators should be concerned that people of Ms. Hefford's experience may

become divorced from working closely with both the collections and those who care for the collections.

In the evening there were receptions at The Textile Museum, Anderson House and The National Art Gallery. This gave participants an opportunity to visit with each other, to discuss mutual conservation problems and to sample marvelous food.

Although the number of conservation papers was limited, the people I talked with felt it to be a well organized, successful seminar.

Elizabeth A. Richards
University of Alberta

Attendance at this symposium was made possible through partial funding from an Individual Training Grant from the Alberta Museums Association.



Tapisserie de Haute Lisse des Gobelins

FELLOWSHIPS
INTERNSHIPS

**CANADIAN CONSERVATION
INSTITUTE FELLOWSHIPS**

The Canadian Conservation Institute (CCI) is pleased to announce the availability of Conservation Fellowships in Fine Arts, Textiles, Archaeology, Furniture, Works of Art on Paper and Conservation Research.

These fellowships are for an initial period of twelve months (April 1, 1990 to March 31, 1991), with the option of renewal for a further year at the discretion of the Institute. They are designed to give further practical experience to the recent graduate of a conservation or conservation research training programme with up to three years of experience following graduation. For the fellowship in Furniture, consideration will be given to applicants with equivalent qualifications.

Application forms, as well as further information and assistance may be obtained by contacting:

A. Dorning
Chief
Extension Services
Canadian Conservation
Institute
1030 Innes Road
Ottawa, Canada
K1A 0C8
(613) 998-3721
FAX/Telecopieur:
(613) 998-4721

**SMITHSONIAN INSTITUTION
CONSERVATION ANALYTICAL
LABORATORY**
**POSTGRADUATE CONSERVATION
INTERNSHIPS**

The Conservation Analytical Laboratory (CAL) and the Office of Fellowships and Grants announce the availability of six Smithsonian postgraduate conservation internships beginning the fall of 1990. Two internships will be in the conservation speciality laboratories of CAL. Four internships will be at Smithsonian conservation laboratories in other facilities.

The purpose of the internship is to provide advanced training in conservation. Application is open to recent graduates of recognized conservation training programs or persons with comparable training and experience.

For more information contact:

Internship Secretary
CAL/MSC
Smithsonian Institution
Washington, D.C. 20560
Tel: (301) 238-3700

**SMITHSONIAN INSTITUTION
CONSERVATION ANALYTICAL
LABORATORY CONSERVATION
INTERNSHIPS**

The Conservation Analytical Laboratory (CAL) is offering third-year, pre-

program, and summer internships in conservation for 1990-1991. Postgraduate internships are described in a separate announcement.

CAL is the Smithsonian's center for research and training in the conservation and technical study of museum objects and related materials. More than forty specialists in conservation; archaeology; art history; organic, inorganic, and analytical chemistry; materials science; and information acquisition work together in laboratories well-equipped with analytical instrumentation.

Prospective applicants must first contact the senior conservators listed below for further information on the possibility of an internship within a particular speciality. The application package must include a cover letter specifying the internship applied for, a statement of expectations for the internship, and a curriculum vitae including references.

Furniture: Donald Williams
(301) 238-3729
Objects: Carol A. Grissom
(301) 238-3732
Paintings: Roland Cunningham
(301) 238-3728
Paper: Timothy Vitale
(301) 238-3725
Paper: Dianne van der
Reyden
(301) 238-3725
Textiles: Mary W. Ballard
(301) 238-3792
Science: Marion F.
Mecklenburg
(301) 238-3722

Applications should be sent to the conservator at the following address:
Conservation Analytical
Laboratory, MSC, Smithsonian
Institution, Washington, D.C.
20560, (FAX: 301/238-3709 or
238-3667).

SMITHSONIAN COURSES

COLOR: THEORY AND PRACTICAL MEASUREMENT /CO09

Color is an important component of works of art. Twentieth century science has analysed not only how the eye perceives color but also how color - absorbed, transmitted, or reflected - can be measured. Richard Harold, head of Research and Education at Hunterlab, will review the effect of light sources on perceived color, along with color differences. Color evaluation tests for textiles, paper, and paints will be outlined. Yellowness and bleaching formulae for color measurement will be described. Students will learn about various visual and instrumental assessment methods and be expected to practice with different color measurement devices provided. The application of color measurement to art, research, and conservation works will be outlined briefly by CAL staff.

Who should attend:

Conservators from any field interested in the non-destructive evaluation of color on art work.

Dates: January 9-11, 1990
 #C009 or
 July 17-19, 1990 #C014

**DISPLAY MATERIALS WORKSHOP
 #C012**

Purpose: To review appropriate qualitative, analytical tests useful in evaluating the variety of components used in the construction and finishing of display cases in museums.

This course will be primarily a workshop for hands-on practice with standard test methods for case materials, including paint, wood and fabric. It will be open to qualified, practising museum conservators on a first come, first accepted basis. Conservators should have demonstrable need for such practical analytical work. Each participant will be responsible for evaluating a variety of samples which will demonstrate typical results.

Initial lectures on methodology and developing an approach to analysis will be given. In addition, short talks on laboratory procedures, dyes, paints, wood, plastics, laboratory safety and toxicity will be incorporated into the week long workshop. In addition, information on sources of data and previous evaluation of different materials will be reviewed.

Dates: March 12-16, 1990

DYE WORKSHOP #C008

Purpose: To build up a set of dichromatic and trichromatic dye swatch recipes for color matching in the repair of antique textiles.

This course will be primarily a workshop for hands-on practice with dyeing small skeins and swatches on wool, silk, cotton, and polyester. It will be open to qualified, practicing textile conservators on a first come, first accepted basis. Conservators should have demonstrable need for dye swatch recipe sets. Each participant will be responsible for making part of each set and the sets will then be traded, distributed to all.

Some short talks on dyeing procedures, dyes, color theory, clean laboratory practices with dyes, and toxicity will be incorporated into the week long workshop.

Dates: April 3-6, 1990

For further information on all courses, write to:

Training Secretary
 CAL/MSM Smithsonian
 Washington, D.C
 or call:
 Mary Ballard
 (301-238-3792)
 Francine Hall
 (301-238-3700).

**THE COSTUME AND TEXTILE
GALLERY OF THE NEW SAMUEL
EUROPEAN GALLERIES OPENS
OCTOBER 12, 1989, AT TORONTO'S
ROYAL ONTARIO MUSEUM**

Measure for Measure, the first exhibition in the ROM's new permanent Costume and Textile Gallery, examines traditional methods of constructing fashionable European dress from the 17th century to the present day. The pieces are selected from the 39,000 items in the ROM's permanent textile collection, which is the largest and most comprehensive in Canada and among the finest in the world. Over 50 costumes and accessories survey four basic methods of making clothes: draping; straight-cutting; tailoring; and making-to-shape. These techniques have been used, individually and in combination, to produce the wide range of silhouettes and styles that make up the history of dress.

Outstanding pieces include: a 1949 Charles James "Butterfly" ball gown of chiffon and tulle; a 1950's hot pink Chanel cocktail suit; a 1982 Alfred Sung coat commissioned by The Bay; a Bent Boys' jacket and dress ensemble from their fall 1988-1989 collection; a late 19th Charles Frederick Worth tea gown; part of a man's 18th century woven-to-shape silk jacket with gold and silver threads; a pair of 17th century Elizabethan leather gloves with cuffs heavily embroidered with metal threads, beads and seed pearls, and matching purse; and an early 17th century

English needle lace cuff showing Adam and Eve in the Garden of Eden.

The costumes are juxtaposed to illustrate the many uses and interpretations of the same technique. For example, a mid-18th century sacque dress is compared to a mid-1950's evening dress by Castillo for the House of Lanvin. The design focus of both is the draped flowing fabric from the centre back, though each is realized in a different manner to achieve a silhouette that is unique to its period. Through this device the visitor is encouraged to compare costume from various eras and to make connections between seemingly different designs.

"Measure for Measure" surveys mankind's imagination in creating coverings for the body over the centuries," said Alexandra Palmer, the exhibition's curator. "You'll learn how cloth can be used to achieve all sorts of different shapes using the four techniques that have been constantly, yet distinctly reinterpreted over time".

Most of the costumes will be mounted on headless forms so you focus on the garment. In a section entitled "European Dress," fully-costumed mannequins complete with wigs made from white ribbons are displayed with European furniture to give the whole ambience of the way things were really worn.

The new 2,048 square-foot (190-square metre) **Costume and Textile Gallery** will rotate exhibitions of the ROM's

permanent collections every few years. For the preservation of the delicate textiles, costumes within each exhibition will be rotated out periodically and replaced with similar examples.



English sacque dress, 1750-1760.
On display at the new Costume
and Textile Gallery, Royal
Ontario Museum, Toronto.

NEW MUSEUM FOR TEXTILES NOW OPENED IN TORONTO

The Museum for Textiles' new \$8.2 million, 24,000 square foot state-of-the-art facility opened its doors on October 1st with shows in five of its 11 galleries. The CONTEMPORARY GALLERY is presenting DIRECTIONS: FROM HISTORICAL SOURCES featuring the work of six experimental artists working in fibre media, and BASKETRY: INTERPRETATIONS which explores the boundaries of contemporary basket making in Canada. In the ALBERT AND HILDA ALIMAN GALLERY, an exhibition of antique oriental rugs features rugs originally bought from the S.J Aliman Company and donated to the Museum by Toronto collectors. The CANADIAN GALLERY is showing 19th Century quilts, coverlets and hooked rugs. And in the WEST GALLERY, HEAVEN ON EARTH showcases antique tribal weaving from Central Asia. Located at 55 Centre Avenue in downtown Toronto, the Museum for Textiles is open six days a week. Admission is free but the Museum depends on donations and grants for its operating budget.

One of seven textile museums in the world, and the only museum of its kind in Canada, the new Museum for Textiles houses a collection of 15,000 items including pieces from Indonesia, Central Asia, India, South and Central America, Canada, China (including Tibet), Africa and eastern Europe.

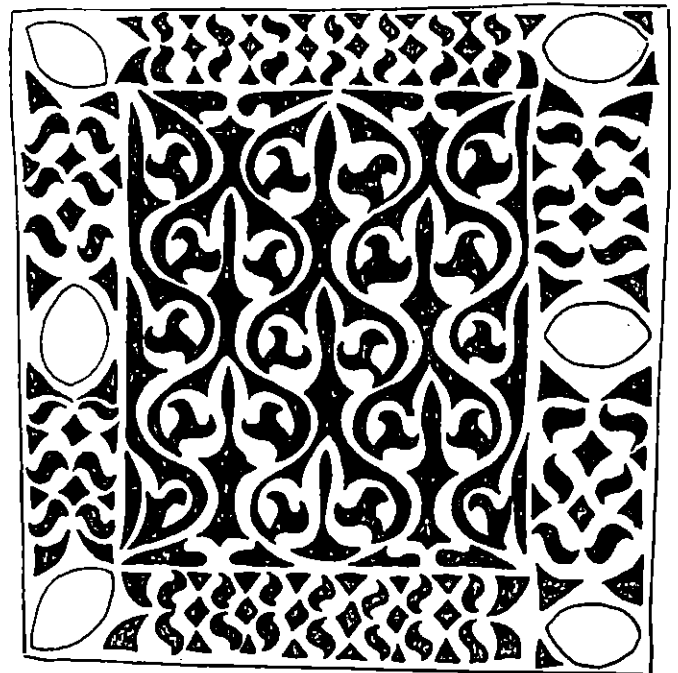
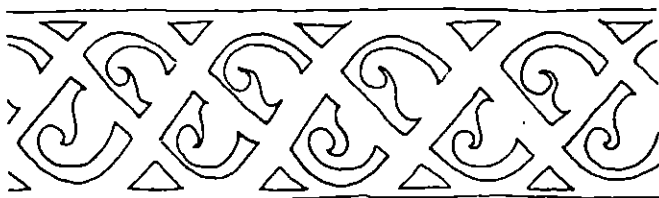
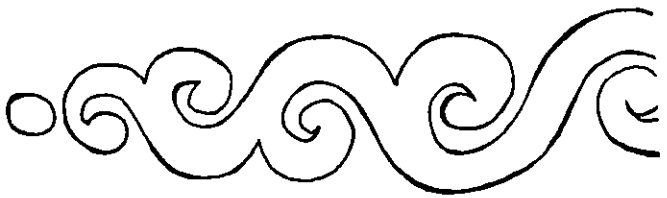
It boasts one of the largest and most accessible collections of textiles, carpets, garments, tapestries and handmade cloth in the world. Furthermore, as a recognized educational institution, the museum will continue to conduct courses and assist students in their study of textiles and the cultures which created them.

A non-profit educational institution incorporated in 1975, The Museum for Textiles formerly maintained galleries out of cramped quarters in the Bloor and Bathurst area. The new premises, scheduled to be totally completed by January 1990, will house an extensive library, auditorium, members' lounge, book store, gift shop, conservation laboratory, two terraces, offices and meeting space in addition to the eleven galleries. The facility features high-tech mobile storage, occupancy sensor-controlled incandescent lighting and a specialized environmental system designed to protect the fragile cloth that lives in the Museum.

The development of the new Museum for Textiles was made possible through the cooperative efforts of the Commissioner of Planning and Development, City Hall; Fred Braida, Chairman of Carlton International Hotel and Resorts who donated the space, and the Museum's board of

directors. The Ontario Ministry of Culture and Communications also made a significant contribution towards the completion of the museum.

Situated on the lower five floors of the 25-floor Chestnut Park Condominium Complex, and connected by an interior corridor to the 522-room Chestnut Park Hotel, The Museum for Textiles offers visitors rare opportunities to experience the work of historic and contemporary cultures from around the globe. For more information call 599-5321.



QUERY

Quilt Made from Uniform Fabrics

We have a beautiful mariner's compass quilt in our Conservation laboratory awaiting treatment. It is reportedly made of woollen uniform fabrics from the Crimean War, and was probably produced in England. If anyone has information on quilts made from uniforms or uniform fabrics we would appreciate hearing from you.

Elizabeth Richards
Karen Myrholm
301 Printing Services Building
University of Alberta,
Edmonton Alberta, Canada
T6G 2N1

NEW PRODUCTS

"Au Ver A Soie"
Hand Creams for Textile
Conservators

The "AU VER A SOIE" hand cream, made in France, undertaken by professionals in the silk business. It is particularly effective in preventing yarns from sticking to fingers. It is especially recommended for use in textile plants, but it is generally recommended for all needlework such as embroidery, hand knitting or sewing. It is greaseless, unscented, quick disappearing cream designed for silk-workers - it does not grease spot.

Available from: Needle Arts, Attention: Barbara Christie, Heritage Plaza, 1007-11th Avenue S.W., Calgary, Alberta T2R 0G1

The price for a 60 gram tube is \$19.50.

The other cream is "Acid Mantle" which is similar to "AU VER A SOIE" and is available from a pharmacist. It is almost as good and about \$10-12 a tube. It is unscented and feels just as nice to use.

EXHIBITIONS

"Amish Quilts from the Collection of the Museum of American Folk Art"

Allentown Art Museum,
Allentown, Pennsylvania until
December 31, 1989

"Textile Arts of the Caucasus"
until February 25, 1980

"Molas of the Cuna Indians"
The Textile Museum,
Washington, D.C. until January
21, 1990

"The Opulent Era: Fashions of Worth, Doucet and Pingart"
Brooklyn Museum, Brooklyn,
N.Y. until February 26, 1990

"The Age of Napoleon: Costume from Revolution to Empire"
Metropolitan Museum of Art,
Costume Institute, New York,
N.Y. opens December 13, 1989

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We welcome submissions on:

Textile Conservation
 History
 Technology
 Analysis

and information on upcoming courses, conferences and exhibitions.

Submissions, address changes and correspondence should be addressed to:

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Affiliation with the Textile Conservation Newsletter does not imply professional endorsement.

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 30 September

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TCN

TEXTILE CONSERVATION NEWSLETTER

INDEX 1-15, 1981-1988

This index covers the first 15 issues of the TEXTILE CONSERVATION NEWSLETTER, from September 1981 to Fall 1988. It is organized into two sections-Subject and Author.

In determining the categories for the Subject Index, the editors relied entirely on the contents of the newsletter to dictate the topic headings. Because the publication is a newsletter and many of the submissions are "newsey", it is not possible to cross reference all entries to specific topics. All entries are, however, listed under the institution and author (if known). Titles of articles are not generally indexed but certain exceptions occur. Only submissions that contain technical information are cross referenced. The mere mention that an artifact has been treated is not sufficient to list the artifact or treatment of the artifact. The Author Index lists both author and affiliated institution.

The format for each entry is issue number, followed by a colon and page numbers. Consecutive pages are separated by a hyphen, non-consecutive pages by a comma, entries by a semicolon.

In order to simplify the entries in the index, a numbering system was devised for all the existing issues and will be continued with all subsequent issues. The following table correlates cover date and issue number:

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Beginning with the Spring 1989 each issue is numbered consecutively.

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