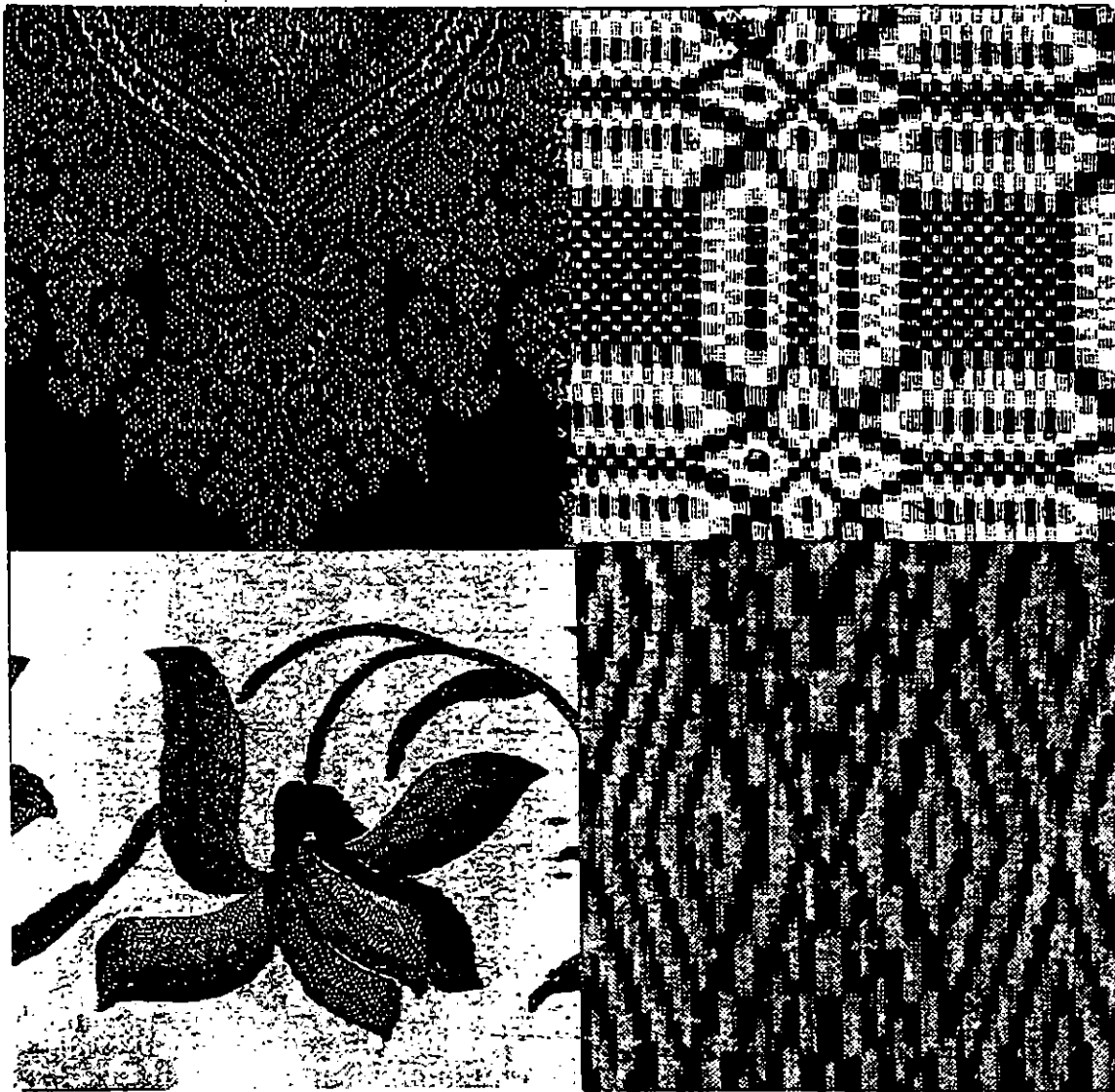


**TCN**

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**TEXTILE  
CONSERVATION  
NEWSLETTER**

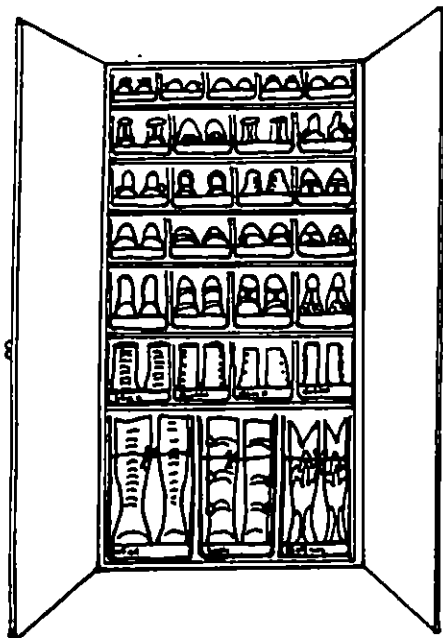


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## FROM THE EDITORS

Welcome to the Spring 1993 issue of the **TEXTILE CONSERVATION NEWSLETTER** and to a new subscription term. TCN is fortunate to have such dedicated subscribers and readers; a special mention must go to all those who contribute so freely and professionally because without them, TCN would not exist.

TCN Spring 93, as has become a tradition, is accompanied by a Supplement. This year, a report on the conservation of an Egyptian painted mummy shroud comes to us from the Royal Ontario Museum in Toronto.

Three articles are devoted to the topic of storage - an ongoing concern for the curator and collections manager as well as the conservator. Two of these chronicle the moves of the collections at the Royal British Columbia Museum in Victoria and the third examines the advantages and limitations of

visible storage at the University of British Columbia's Museum of Anthropology in Vancouver.

The results of a textile conservation laboratory planning study by the conservator at the Colonial Williamsburg in Virginia, U.S.A. will be a very useful tool for planning a new laboratory and/or expansion or upgrading of an existing facility.

An interesting study on threads has come to us from the St. Louis Art Museum in Missouri, U.S.A. It looks at various brands and types of commercial sewing and needlework threads and tests them for colourfastness, strength and lists their properties.

Please take note that the **TEXTILE CONSERVATION NEWSLETTER** has moved to St.Lambert, which is a suburb of Montreal. Our new address for all submissions, subscription renewal and correspondence is on the back page of this issue.

## **I**MPROVEMENTS TO STORAGE THE TEXTILES IN THE HISTORY COLLECTION, ROYAL BRITISH COLUMBIA MUSEUM

In the Spring 1991 issue of the TCN the news from the RBCM was that the collections were being packed to move. A year and a half later, everything has been moved once, though few artifacts have returned to their permanent homes. This means that while everything has been packed, the efficacy of the packing has not been seen. As the textiles in the Ethnology Collection were very well stored, work with that collection focussed on preparations for the actual transportation. Once the move is complete an article on Moving a Collection, complete with details about ethnographic textiles will appear immediately.

The textiles in the History Collection have not had a tradition of good care. Here our mandate was to pack, not merely for a move, but also for permanent storage. Rather than spend money on disposable packing materials, and time on wrapping and unwrapping, we wanted to employ this once-in-a-lifetime windfall of money and contractors to the long-term benefit of the collections. Permanent storage containers were redesigned for long term stability and also for transportation by movers. Our grandiose plans, however, were tempered by two things. An inventory was going on simultaneously with the packing, ordering of supplies, and allotment of space, so it was difficult to have an overall view of what exactly we were dealing with. A more serious drawback is that the collection is to return to

the same amount of space. The fact that the artifacts would require more space had to be balanced by either a more efficient use of space, or a jettisoning of part of the collection.

The collection of historic textiles at the RBCM consists of 10,000 artifacts, with a strong concentration on women's clothing. To the list of high standards that every conservator hopes to implement (full support for each artifact, no crowding, inert materials, location files), we added two ideals. We wanted to be able to move any artifact out of the collection without disturbing any others, and we wanted to be able to examine any artifact without handling it.

### Flat Storage

Large fragile pieces that cannot be rolled are in shallow drawers. These are of sealed wood veneer in a metal framework (the wood for lightness and the metal for strength). They are identical to the drawers designed for Chilkat blankets and measure approximately 8' X 5'. These drawers are excellent for the storage and examination of large fragile pieces, as pulled out they form a sizeable work surface. In the past there have been problems because stacking of the items within the drawers. While this stacking has provided a quick solution to the question of where to put (yet another) bias cut dress, it has its drawbacks. Not only are the pieces underneath somewhat crushed, but they cannot be examined without the removal of the top artifact. This means not only potential damage from handling, but in an absolutely jammed storage room with all space efficiently used, there is nowhere to put the fragile top pieces, while examining the lower ones. Careful examination of the artifacts in

these drawers revealed that many were strong enough to be hung and others would fit into smaller drawers.

The smaller drawers are metal, in metal cabinets. Some of these are recycled government equipment. Drawers that once held maps or blueprints have made excellent homes for knitwear, slips and chemises with narrow straps, and lace garments. The artifacts are padded where necessary and the drawers lined with Reemay. The Reemay extends as a cover that tucks in at the front of the drawer to prevent the contents from flapping up. These units sit on pallets so they can be easily moved by a forklift. It is hoped that anyone doing research will be able to examine them well enough, even photograph them, without removing them from the drawer.

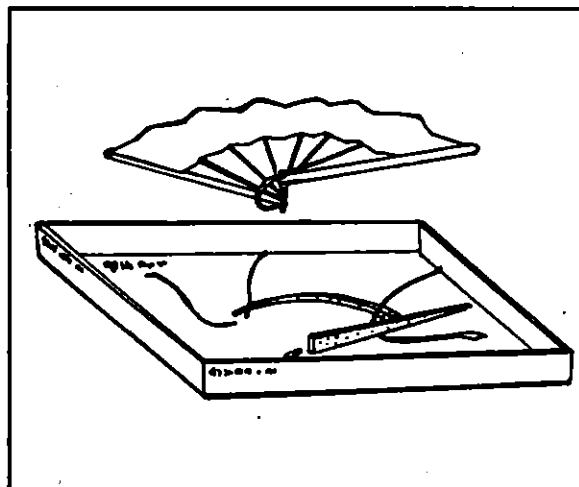
Many robust items are not much larger. Capes and shaped stoles, mantles and tippets have been packed (folded, with appropriate padding) in foam-core trays within the drawers. They can then safely be taken to an examination area to be laid out in their entirety.

### Fans

The fan collection consists of approximately 100 fans, many in less than perfect condition. We wanted to store them open and provide some support for the ribs and sticks. The inventory revealed that although ranging in size from 4.5" x 4.5" to 17" x 20" all would fit into a 2" deep drawer. Juggling the sizes and placement, it was determined that 90% of the fans would fit into four sizes of boxes that could be arranged in twelve drawers. (The oversized fans took another two drawers.) The fans are

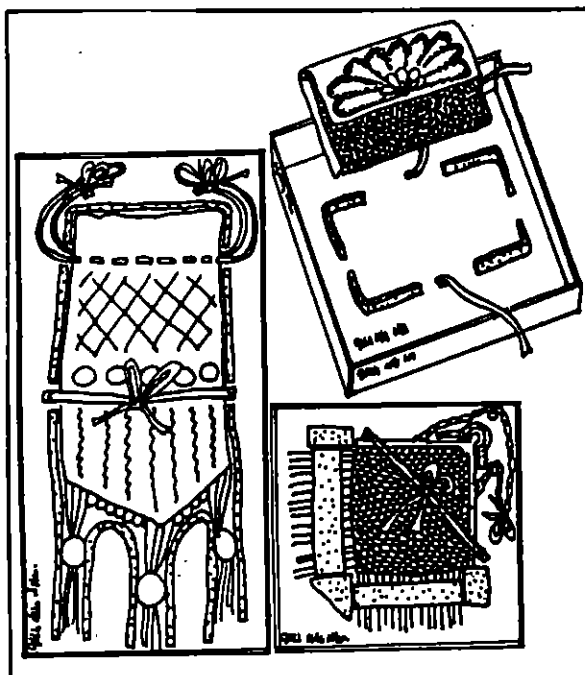
housed in foam-core boxes assembled with hot-melt glue. The sides prevent the box from bouncing up within the drawer and enable the boxes to be stacked if they are removed for study. To prevent the feather fans from being disturbed by the motion of the drawer, a reemay cover was added to those boxes.

Laying the fan out in its appropriate box, the position of the hinge pin and angle of the sticks was lightly marked with pencil. Measurements were taken of the length of the upper stick and its height at the hinge, and the height of the stick between one third to one half the way along its length and the curved distance to the same point on the opposite stick. Removing the fan, the location of the hinge pin was recessed in the foam-core. Wedges were cut of 1/4" ethafoam to support the length of the upper stick and the mid-point of the ribs. The ethafoam was glued in place with hot-melt glue and narrow ribbon ties were threaded through the foam-core to secure the two sticks. Additional ties were added if it was necessary to immobilize a tassel or ribbon. The accession number was marked on all sides of the box and a label was attached in the drawer to mark the location. (Fig. 1)



## Purses

Most of the purses also proved shallow enough to fit into 2" drawers. Five sizes of boxes were designed that would make maximum use of the drawers. To some extent the sizes were incremental, so eight tiny boxes will take the same space as two medium-sized boxes which take the same space as one large box. Like the fan boxes, the purse boxes are of foam-core with sides. Because of the great variety of purse shapes and materials, a variety of means of securing them was used. Purses were stuffed gently with tissue, or, in the case of metal mesh bags, were fitted with a 1/4" ethofoam insert. 3/4" strips of 1/4" ethofoam were cut to appropriate lengths and glued around the outline of the purse as fences to prevent shifting. Cotton twill tape ties were used for further security. Those purses too large for the 2" drawers are stored in deeper boxes in 4", 6" and 8" deep drawers. (Fig. 2)

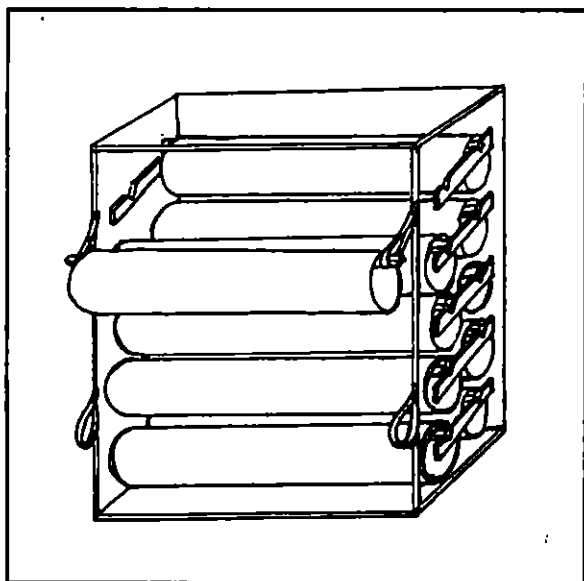


## Flat Textiles

These include quilts, tablecloths, sugar sacks, samplers, and handkerchiefs. Once the inventory was complete, the numbers of items of similar sizes became apparent. Polyethylene tubing in 3" diameter was purchased and cut into 8', 4' and 2' lengths. Painted plywood "fill boxes" were constructed to fit inside the rolling storage units. (For moving, the fill boxes were removed from the rolling storage and strapped face to face for protection and cleanliness.) As the fill boxes are built to accommodate 8', 4', or 2' rolls, we no longer have the problem of trying to unroll a single scarf off an 8" roll housing four scarves, or sliding a middle short tube off a lengthy dowelaccommodating three or four rolls of different lengths. The tubes are wrapped in tissue, and either tissue, Reemay, or washed cotton covers the rolled textiles. Because of the depth of the rolling storage units, and our need to fill all available space efficiently, the rolls are two deep making it difficult to reach the ones behind. To lessen this problem loops of heavy strap are attached to the outside of the fill boxes. A front roll can be lifted out and hung out of the way temporarily while access is gained to the one behind. Tyvek labels are tied to the exterior of the roll with the accession number and a brief description. (Fig. 3)

For samplers and other examples of needlework, acid-free card folders were constructed. The needlework sits on a piece of card fenced by strips of card glued in place with hot melt glue. A mylar cover is attached to one edge of the fence with double-sided tape used for encapsulating documents. A cover of the same card is attached to the same edge with linen tape.

The front of the needlework can now be examined, pointed at and measured with some protection and by closing the folder, turning it over and opening it from the back, the reverse can be examined without having to handle the piece at all. To secure the closed folder without adding to its bulk, a belt of mylar secured with slot ends, was slipped over the open edge.



Plain, flat artifacts such as napkins and handkerchiefs did not merit individual folders, nor did stacking or encapsulation seem the answer. A plan was conceived to roll the handkerchiefs on either solid ethafoam rounds, or lengths of poethylene pipe insulation to sit in racks within 2" deep drawers. Unfortunately time ran out before this was implemented.

Colleen Wilson  
Textile Conservator  
Royal British Columbia Museum  
Victoria, BC

## THE ETHNOLOGY COLLECTION TEXTILES

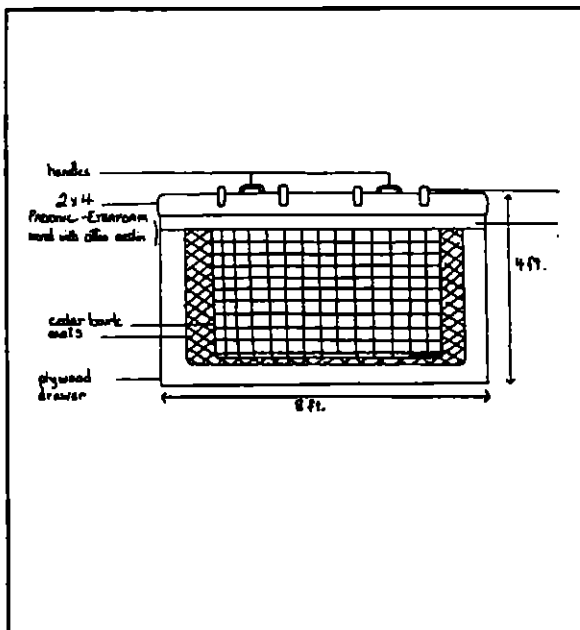
The Ethnology collection had very different problems from those encountered by the History collection. Very few of the textiles required upgraded storage. On the contrary we were faced with taking a well stored collection and downgrading the storage conditions for the duration of the move.

Several large storage cabinets contained artifacts such as cedar bark mats and capes, dance aprons, button blankets, and fragile tunics in permanent flat storage. Due to the large size of the cabinets, it was decided that the frames would remain in situ during Asbestos removal and would be sealed in polyethylene. The artifacts obviously had to be moved out and this was accomplished in one of two ways. Artifacts having enough physical stability (cedar bark mats) were strapped into their drawers and moved drawer by drawer into temporary shelving in the swing space. Artifacts having no inherent vertical stability (blankets, rugs, costume elements) had to be packed for the move and the drawers moved separately.

All 48 cedar bark mats were packed and moved in their drawers. It was impossible to roll or fold them. Four C-clamps, a padded piece of 2x4 and layers of 1/8 inch Ethafoam were used to hold the mats in place during vertical transportation from the cramped storage area to the work area (see Figure A and Figure A1). There they were interleaved with 1/8 inch sheets of Ethafoam and acid-free tissue paper, then covered with a top layer of poly fiberfill. A

sheet of cardboard was placed on top and all layers strapped with nylon fruit box tape and metal clamps. The layers of Ethafoam and fiberfill provided cushioning between layers of mats and the top layer of cardboard. The pressure of the straps around the drawers prevented slippage during the move. Two to four mats were packed in any one drawer depending on thickness of the mats.

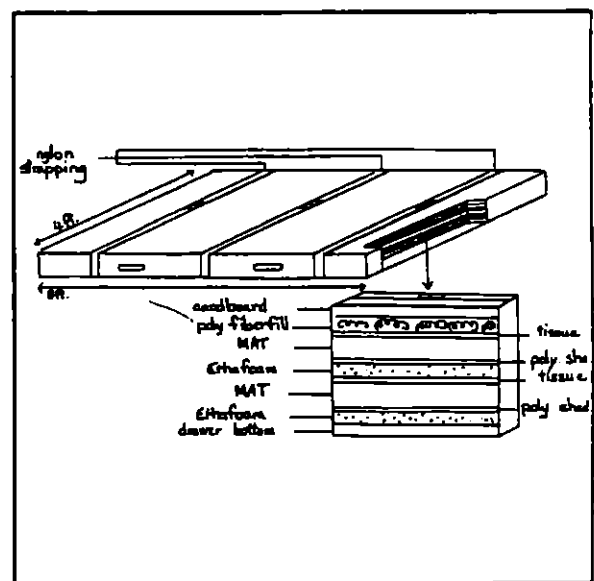
Figure A  
VERTICAL TRANSPORTATION OF CEDAR BARK MATS



At some time in their past, many of the mats had been stored folded, and subsequently unfolded. Some of the mats were heavily creased or split along the fold lines. Because of the technique used to transport these objects, the creases had to be flattened or they would have cracked further under pressure. Prior to packing, these mats were humidified using a cold poultice technique. This was done according to the

technique described by Frances Lennard in *The Conservator*, (No 13, 1989:3-7)\*. A mat was laid on a poultice consisting of a damp cloth covered by a dry cloth. A layer of acid free tissue was placed on the mat, and the whole package covered in a sheet of polyethelene. After several hours at room temperature, the previously brittle mats were pliable. The damp cloth was removed and weights placed on top of strips of mylar covering the creases. The polyethelene was replaced but the edges left unsealed overnight to allow the mat to dry out. The resulting mat was dry and flat, and able to be packed using the pressure technique without risk of further splitting. During the move, the individual drawers were carried onto the large elevator in a vertical position. The mats so far unpacked have travelled extremely well with no apparent damage resulting from the treatment, packing or move.

Figure A-1  
PACKING OF CEDAR BARK MATS IN DRAWERS





The small cedar bark capes were packed in their drawers, similarly to the mats, but with the addition of ethafoam "fences" which prevented slippage and received the pressure from the strapping. These also appear to have survived the move intact.

The button blankets, Chilkat blankets, salish blankets, and other similar objects, previously very well stored in their oversized flat drawers, had to be rolled for moving. Cardboard tubes, obtained from carpet supply stores, were padded with polyester fiberfill and were covered with Reemay. The blankets lay on a layer of Reemay, and were covered with another layer of Reemay or acid free tissue. Acid free tissue was used instead of Reemay on objects containing friable cedar bark elements, to prevent fragments of cedar bark being pulled off by static electricity generated by friction of the Reemay. A pad consisting of polyester fiberfill to take the differentiating pressures of applied decorations and uneven weaves was then laid on top of the Reemay. All layers were rolled around the prepared tubes, and tied with twill tape, and the accession number tied on the outside of the roll. Button Blankets were rolled "buttons in" to minimize strain on the button stitching threads, and along the warp direction of the blanket. Chilkat blankets were rolled along the direction of the twined weft to minimize strain on the fragile cedar bark warps. The tubes were suspended on Ethafoam "plank brackets" inside cardboard cremation cartons (See figure B). The cremation cartons were stacked 2 high when moved on carpeted dollies. On unpacking these various blankets, we were extremely pleased to see that they are apparently none the worse after their months in temporary storage. Some slight creasing appeared on top of the button blankets, but we feel these will

flatten themselves out over time. The fragile Chilkat blankets are entirely unblemished.

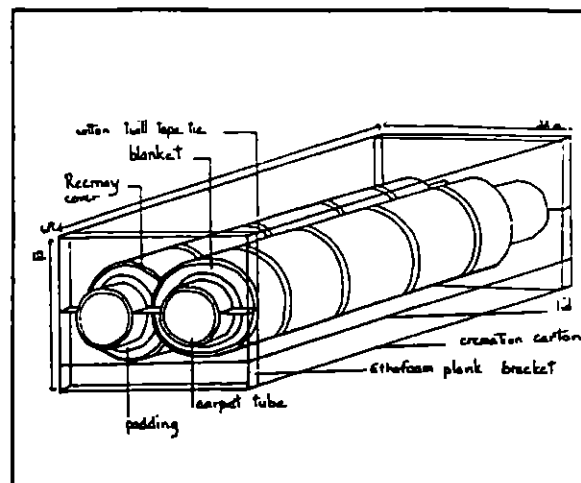


Figure B  
TEMPORARY ROLLED STORAGE

Some blankets had particular needs, such as those decorated with carved wooden skulls (almost life size), or hundreds of fragile and valuable dentalia shells, or stiffer painted skin robes. These were folded in three around a large pad of polyester fiberfill, and stored one to a box in the cremation cartons. Additional padding and Reemay was used to provide a barrier and padding inside the cartons.

Methods for moving the tunics and jackets were determined by their condition and manner of permanent storage. The stable garments such as beaded leather jackets and fur tunics, had been stored on hangers in their own cabinet. The cabinet was moved in its entirety with the hanging jackets inside. As part of storage upgrading, padded hangers (similar to those in the Historical collection) and garment bags were made (See figure C). None of these garments have been unpacked yet. The fragile garments such as dentalia-

decorated tunics that had been stored flat in plywood cabinet drawers, were packed in acid-free textile boxes and cardboard cremation cartons. Polyester fibrefill and acid-free tissue were used for padding (See figure D). Other fragile garments such as feather capes, dance aprons, and decorated leather dresses were packed in archival textile boxes and cardboard cartons. The cartons and boxes were moved on dollies, trolleys and carts.

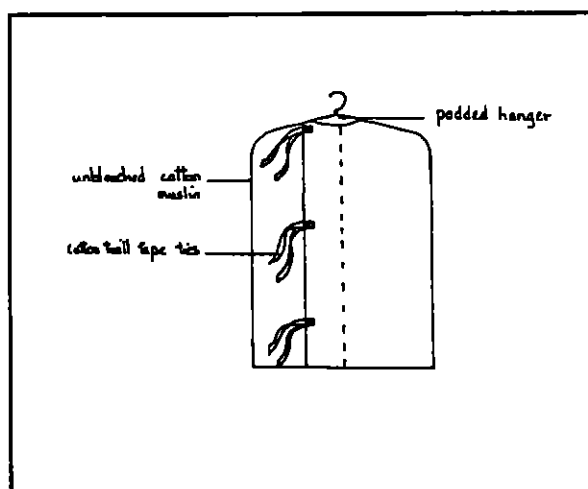


Figure C  
GARMENT BAG

The move has been completed and unpacking is underway. We feel that overall the packing methods were a success in protecting the Ethnographic textiles from harm during the move, which was the main concern. The packing up and unpacking of these items did cost a great deal in terms of staff time and use of temporary materials, but this was unavoidable. Our current problem is what to do with all the packing materials! The cremation cartons and fibrefill are being used as temporary storage for some whalebones by the biology section. The acid-

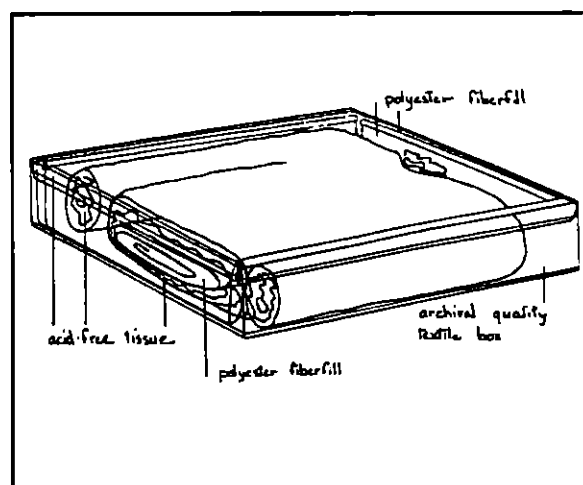


Figure D  
PACKING OF FRAGILE GARMENTS

free garment boxes will be used eventually by the history section, and we hope to make some use out of the 3km or so of reemay we have left over. The Ethnographic textiles were luckier than most other objects in the Museum in having well stored in the first place, and we are now almost back to where we started from! Come and see us sometime.

Kjestin Mackie  
Lisa Bengston  
Textile Conservators  
Royal British Columbia Museum  
Victoria, BC

\*The Conservator, published by the United Kingdom institute for Conservation

# TEXTILE CONSERVATION LABORATORY PLANNING

**Abstract:** A textile conservation laboratory planning questionnaire was developed and sent to thirty-seven conservators in the United States, Canada and England. Twenty-one responses were received along with sketches of floor plans, blue prints, two articles and one book. The results represented the opinions of four private conservators, nine museums, four regional conservation organizations, one educational institution, one historic house/museum, one national conservation organization and one international conservation organization. This data was a useful tool for planning with museum administration, architects and designers for a new textile conservation laboratory, and was used to support and justify square footage, ceiling height and equipment.

## Introduction

In July, 1990, officials of the Colonial Williamsburg Foundation (CWF) in Williamsburg, Virginia, announced the acquisition of the Bruton Heights school property for an educational center which would support visitor-oriented educational interpretations and presentations. CWF consists of 173 acres of the original town of Williamsburg, 88 original buildings, 400 reconstructed structures, over 750,000 archaeological artifacts, over 150,000 American and English antiques and over 2,000 objects of American folk art. The new property is to be developed into a campus-like complex of buildings combining existing

functions currently spread throughout the city. These include historical architecture and archaeological research, collections research and storage, conservation, development and administration of educational programs, and interpreter training into one location.

The Department of Conservation has been doing preliminary planning since 1986. On December 20, 1991 the DeWitt Wallace Fund approved a grant of 11 million dollars for construction of the DeWitt Wallace Collections and Conservation Building to house the Foundation's collections and conservation programs. Mission statements were written along with program projections and program statements for the purpose and function of the building. Each conservator was then asked to design his/her laboratories along with developing a list of equipment needs. While this article addresses the development of the Textile Lab the facility will house labs for archaeology, furniture, upholstery, scientific and musical instruments, metals, objects, paper, analytical equipment, and administrative areas in approximately 17,000 square feet.

A textile conservation questionnaire (see Chart #1) was developed and sent to leading textile conservators. In addition to the questionnaire responses, many of the respondents sent floor plans, articles, and made suggestions about places to visit or additional people to contact. One institution offered their dry cleaning equipment on a long-term loan basis. (See Chart #2)

## Description of the Questionnaire and Project

The project was intended to be a planning tool to give greater support to the

laboratory proposal, not a statistical scientific study. The questionnaire was divided into nine categories including: function of the lab, staffing, space, environmental controls/ security systems, delivery/ holding/ storage, administrative/ documentation, dry work area, wet cleaning area, dry cleaning, analytical area and new equipment/additional comments. We calculated that a staff of six would be our future goal, including conservators, interns and volunteers and therefore used this projection in the questionnaire. The responses to the questions were geared toward what each laboratory currently had and what they would like their facility to have if possible. The format of the questionnaire required a considerable amount of time to complete, but it provided an opportunity for greater in-depth information to be collected on each topic.

The questionnaire was sent to thirty-seven textile conservation organizations representing five regional laboratories, two research facilities, seven private practices, two museum houses including one national trust for many houses, and 22 museums. The facilities selected to receive a questionnaire employed colleagues known to the author professionally over the years and/or they represented diverse areas of the country or large organizations with similar types of collections to those at CWF. There was one organization in Canada, two from England, and the remainder were from the United States. States included: New York, Massachusetts, Colorado, Minnesota, California, Missouri, Washington, D.C., Indiana, North Carolina, Maryland, Illinois, and Delaware. Private conservators and research laboratories were included in the study because of specific applications to some of CWF operations.

Museums and regional conservation organizations most closely resembled Colonial Williamsburg's needs for textile conservation laboratory equipment, space, and staffing based on the current condition and use of our collections. Many of these museums are in large cities such as New York, Chicago, Boston, or Los Angeles, where the museum construction had evolved over time. The buildings were older and retrofitted, and the laboratory sizes, locations within the buildings, ceiling heights, etc. were often limited by pre-existing restrictions.

### Results of the Questionnaire

**Function:** Responses, either by telephone or in writing, were received from one museum/historic house, nine museums, one educational institution, two educational institutions/museums, four private practices, and three regional laboratories. These facilities were located in New England, the mid-Atlantic area ranging from Washington, D.C. to New York, the West Coast, the Southeast, Midwest, and Canada.

The main function of these laboratories included the care of in-house collections, outreach/training programs, research and development, exhibition surveys, and education. Also mentioned were storage preparation, conservation, grants, collections care, and the conservation of costume and textile collections for research. Most facilities treated small flat textiles, three dimensional textiles, costumes, large flat textiles such as tapestries, and costume accessories. Other types of objects listed by at least one laboratory were western culture, ethnographic, ethnic, and some archaeological artifacts. Objects listed by at least two

laboratories included rugs, furnishing textiles and upholstery.

Most respondents were performing treatments such as wet cleaning, stain removal, exhibition preparation/mounting and consolidation. Nine mentioned dry cleaning ranging from performing limited dry cleaning to working with local dry cleaners. Other activities mentioned were exhibition maintenance, examination, testing, steaming, pressing, and repairs, storage, and storage preparation. The comments about storage were informative since the Colonial Williamsburg Collection Management Policy places the responsibility for storage of the collection on the curatorial staff.

The staff size of these facilities ranged from one person to eleven, with private laboratories being the smallest and museum and regional laboratories being the largest. Museums more often relied on volunteers and interns than did regional laboratories. Educational institutions had a staff of two to three and both museums and regional laboratories utilized part-time staff. One regional laboratory mentioned a contract conservator.

**Space:** Portions of this section were found to be very useful in the early stages of the planning process with architects and administrators. Square footage of the spaces and ceiling heights were the most significant factors translating into dollars and cents in the preliminary planning of the building.

All textile conservators considered ceiling height to be a very important feature when planning a laboratory. The ceiling heights in the labs surveyed ranged from 8

1/2' to 35'. Only two labs had ceiling heights under 12'; one facility was in a basement and the other was a Historic Landmark building. The Landmark Building had, however, a hole cut into the second floor to hang objects to the first floor. Average ceiling height recommended was 17.6' because of light sources, heat, accommodation of elephant trunk exhaust, and hanging out of large textiles during treatment or mount preparation. One person recommended sky lights with a metal grid to hang objects on.

Square footage ranged from 264 for an apartment in New York City to 3,000 for a regional laboratory in the Mid-Atlantic region. The average size of the labs surveyed was 1,570 square feet. Recommendations averaged 860 square feet per person. Based on this figure, the square footage required for a staff of six would be 5,160. One of the newest laboratories recommended 3,000-5,000 square feet. The four regional laboratories were fairly consistent in size ranging from 2,000 to 3,000 square feet. Museum labs ranged in size from 800 square feet to 2,717 reflecting the result of retrofitting older buildings rather than staff size. In general, however, the questionnaire showed that it was recommended that 2,365 square feet be allotted for a staff of six.

The number of room divisions ranged from one to five. Most people suggested dividing areas into wet treatment room, dry treatment room, and an administrative area. The size of these rooms was determined by the types of objects treated, i.e., tapestries would need more room than costumes.

**Environmental Controls/Security System:** The air filtering systems in the facilities ranged from window screens to central air

conditioning units with 24-hour humidity and temperature control. Most had some form of dehumidification. Dust filtering varied from one institution to another and ranged from 85% filtration using Trane equipment to a custom-built system. Suppliers mentioned were Friedrich and "Janitron" for dust filtration and Carrier. The information supplied in this section seemed to be more vague than other specific lab related questions asked.

The chemical filtering systems in the laboratories consisted of a combination of fume hoods and elephant trunk exhaust tubes. Most of the museum laboratories, educational institutions and research facilities had some form of chemical filtering system available to them, either in their lab or in another laboratory with a system that could be utilized for work with solvents. Regional laboratories and private conservators had less access to this form of ventilation. Although one institution was very unhappy with their chemical filtering system and indicated it was the weakest part of their laboratory design, most conservators were satisfied with the way their systems worked. The fume hoods and elephant trunks were installed in various places in the labs such as over counters, in the center of the room, in the dye laboratory, in the dry area, etc. One museum indicated that their fume exhaust tubes could be moved to cover all work areas. Suppliers listed included: Can Lab, Friedrich, Eastern Scientific, Lab Con Company-Kansas City, Missouri, Rumelin Company, Nederman, and Kewaunee Scientific with Kem Metal model.

Several textile conservators indicated that they did not use solvents or chemicals in their laboratories. The need for an exhaust system appears to be directed more toward

the use of dye in the dye lab area rather than for direct treatments of the objects.

**Lighting Systems:** There appeared to be a mix of incandescent and fluorescent lighting with filters or sleeves being used. Often the incandescent light was portable and could be moved around the room as needed, often clamped to a work table. One institution mentioned having incandescent lighting to simulate gallery conditions for matching colors and another mentioned lights being on dimmer switches.

Types of lights mentioned were color balanced fluorescent for treatment, Durotest Full Spectrum, Verilux tubes in continuous rows, fluorescent C-50 in labs, warm white in office areas and cold white lights in hallways. Also mentioned was the use of Luxo magnifier lamps and fluorescent mobile light stands.

The directional orientation of the natural daylight in the laboratories varied with three stating they had north light, two south light and two east light.

Others mentioned windows but did not indicate direction or orientation of the building. Filtered windows and the use of black-out cloth was also mentioned. Natural lighting appeared to be used for matching colors rather than for treatment. It was difficult to determine if the direction of the natural daylight into the laboratory was specifically chosen or resulted from previous building construction.

Emergency lighting was available in many of the museums, educational institutions, and one regional laboratory, but none of the private conservators mentioned it. One institution differentiated between

emergency lights and an emergency electrical system.

### Delivery/Holding/Storage

**Delivery of Objects:** Most museums stored their objects in the same building as their labs. Regional laboratories and private conservators who received objects from great distances had storage facilities within their laboratories.

The majority of respondents had double doors approximately 8' x 6' at their facilities. One laboratory had doors 14' high and 20' wide and another mentioned a single door 12' x 10'. It occurred to me to question the weight and operation of these oversize doors. Most of the museums had loading docks, some with lifts. One museum indicated that they had a corridor from the loading dock to the lab that had 8' head-room which was found to be too low for some large mounted textiles.

**Holding:** Responses to this section of the questionnaire were very specific. Some of them were: "No area, bag and box as a temporary measure, very important to have"; "have holding area--shared by other labs"; "have holding area not shared with other labs but currently being used for storage"; "no area, non-accessioned objects kept in separate cupboard", "not sure it is always possible to identify infested items even if isolated"; "have holding area, shared but should be larger", "no area, keep trying to arrange for one" - "it is important; holding area not room, not shared, all pieces containerized upon arrival"; "do not have one--it is a good, prudent idea; have holding area, inspection at loading dock, shared with another lab"; "have shared holding area and freezer". Obviously, a holding area or room is of concern to most

respondents.

**Storage:** The storage of objects in the laboratory appears to be a functional issue among various types of laboratories. Both private and regional laboratories, out of necessity, have storage within their labs. Museum and educational institutions favored not having storage when possible with only the objects undergoing treatment and on worktables in the labs. One museum specifically said the lab was not designed for storage; however, even they had a large metal flat storage cabinet in the room.

A variety of storage methods in the laboratories were used including hanging storage, closet with doors, drawers and cupboards, large crates 16'-20' long, archival boxes and open shelves with foamcore, stands designed to hold carpet tubing, etc.

### Administration/Documentation

**Administration:** The majority of the labs had their own unique administrative area and in most cases provided small but adequate work spaces.

**Library:** Of those responding to the question, eight had shelves in the laboratory, one had shelves in the laboratory office, nine had a library in the building and three of the above had both a library in the lab as well as in the building.

**Photography:** It was assumed that all textile conservators photographed the objects in-situ during treatment. The results of the questionnaire also indicate that photography areas were set up as needed in some institutions and that four laboratories had a permanently established area for photography.

Photography was also divided into two categories: one for conservation documentation and the other for permanent records and publication. The latter was often done by staff photographers in a separate studio outside of the laboratory space requiring that the object be transported.

### **Drywork Area**

**Work Tables:** Responses indicated that table tops were made of the following materials: plexiglas, formica, mylar, white contact paper covering homosote set into a wooden surround, padding, removable padding, visqueen polyester, and cork. The type of table top used depended on the work undertaken. Several additional features were added to the tables including shelves for storage, light boxes, removable sections, casters and brakes, stain resistance, electrical outlet strips, and collapsible and compactable components such as trestles and tops. Heights ranged from 23-3/4" to 66" with the average being 35". The consensus of the respondents suggested that the height of the table tops be consistent so that they could be joined together to achieve a larger table or join with a tensioner.

The size of the tables appeared to be based on the available space within the facility or the type of collection to be worked on. The average number of tables recommended for a staff of six was one to two tables per person.

**Horizontal Work Spaces:** Most institutions reported that they had formica or chemical resistant built-in counters, some with under cabinet lighting, and/or light tables. Microscopes were often used in analytical areas. The landmarks building had wooden counters and built-in bins. Two specific

cautionary statements were mentioned: "try not to use pure white formica because of glare" and "formica is not solvent and stain resistant".

**Vertical Work Spaces:** Systems used in vertical work spaces consisted of velcro slats, motorized hoists, pulley systems, and a ratchet system of velcro and hangers. Two facilities indicated that they had no vertical hanging systems and that all work was done flat. Several respondents indicated that their vertical space was not high enough for their projects.

**Sewing/Ironing/Laundry Area:** Both portable and stationery cabinet sewing machines were equally favored for use and an industrial model machine was mentioned by one institution. It was also recommended that ceiling electrical outlet reels be available in the lab.

Ironing boards and ironing tables seemed to receive equal use. The ironing tables ranged in size from 4' x 8' to 2' x 5' recessed into a wall. One suggested the use of any clear padded table as they work better for lengths of fabric than an ironing board. One regional laboratory used an ironing pad and cover placed on a table that measures 7'4" x 16'.

**Laundry Area:** Placement of washer and dryer varied from institution to institution. One regional center mentioned that their laundry and ironing areas were located together in the laboratory.

**Vacuums:** Several comments referred to ceiling hook apparatus for vacuum hoses throughout the laboratory. Also various types of portable units were mentioned including wet-dry vacuums, hand-held 3.0HP Eureka



Mighty Mike, Sterident micro vacuum, "mini" type from Talas, and Sears canister models with high and low suction.

**Tensioner:** Another piece of equipment mentioned by nine institutions as a horizontal work surface was a tapestry rolling system or restoration frame. These varied widely in size.

### Wet Cleaning Area

**Water System:** The information received about water systems was varied and not consistent. It was evident that water quality standards required for textile conservation have not been established and more research needs to be conducted for the field. Most textile conservators could cite the system they are using and some of the undesirable components they were removing from their water, however they had no idea of what standard water quality they should target. Quantity of water needed depended solely on the size and type of the treatment being conducted. Suggested suppliers were: Belmont Springs, Culligan, Hydro Rre, and local water treatment service companies.

**Wash Table, Sunken Floor, and Wash Basin:** Twelve wash tables were listed as being constructed of stainless steel, two of white fiberglass with wooden frame, one of white polyvinyl chloride (PVC) with wooden frame, one cast iron with fiberglass epoxy paint, one wooden table, and one modular unit. (The last two are probably draped with polyethylene, but this information was not provided).

A recommendation regarding construction materials suggested the use of Nalgene. A warning was made by several conservators

that stainless steel tables rust with the use of ultra-pure water. The sizes of the wash tables ranged from 3' x 6' to 25' x 18'.

Several conservators mentioned building temporary wash baths to the size needed on the floor. One described a 50 x 30' "swimming pool" constructed on a slanted floor using 2"x4" boards and plastic, with a sump pump and floor drain to remove the bulk of the water. They recommended that the floor drain be located in the corner of the room, not in the middle. Another conservator described their floor unit as a collapsible tank made of 2" x 12' boards with heavy duty polyethylene, sump pumps and hoses, and another described a 12' x 9' tiled area on the floor. Other methods of wet cleaning described were counter sinks made of modified epoxy resin or stainless steel and with portable trays.

**Drying Tables:** Surfaces used for drying wet textiles included any combination of work tables, large stainless steel screens on a frame, plastic on the floor, aluminum racks with perforated holes and open mesh, drying cabinet (now being replaced), 6' x 8' glass top table, and polypropylene screening with wooden surround.

**Suction Table:** Thirteen of the respondents indicated that they had some form of suction table. One museum responded that they had eliminated theirs. One museum and one regional laboratory indicated that they used the tables in paper conservation labs and two individuals indicated that their tables were currently being designed and built. The sizes of the tables varied and all kinds of sizes, forms, and suction disks were mentioned.

Designers/manufacturers included: transverse

and downward flow Nascor, Museum Services Corp., Anthony Rajer, Peter Carlson, Timothy Vitale, and Stephan Michalski. One regional laboratory said their table was in-house construction based on the Yale Center for British Art design.

**Dry Cleaning:** One regional laboratory indicated that they had a manually operated dry cleaning machine that used perchlorethylene and another said they did a small number of dry cleaning spotting projects. One museum indicated that small quantities of solvent were used in an enclosed fume chamber and another said they used large trays for spot cleaning. Both regional laboratories and private conservators subcontracted treatments to local dry cleaners and one private conservator worked with three local cleaners.

### Analytical Area

Thirteen respondents indicated that their microscopes were stationary on a counter or table and five indicated that their microscopes were moveable on floor stands or carts. One educational institution had a separate analytical room and had microscopes on counters and stands as well.

**Dye Lab:** A majority of the respondents answered the questions about dyeing. Four indicated they do dyeing in a separate area of the laboratory, five have separate rooms, six do dyeing within the routine work space, and two indicated that it was done in the wet treatment area. One private conservator did not do dyeing and a regional laboratory used the chemistry laboratory equipped with a fume hood at a nearby college. Equipment mentioned included: shaker bath, large

stainless steel soup kettle, two mid-sized hot plates, balance, oven and an Ahiba dye machine. Square footage for the dyeing area or room ranged from 50 to 200 square feet.

### Additional Comments/New Equipment

Suggestions were made to visit the Abegg Foundation in Riggsberg Bern Switzerland, Polly Willman at the National Museum of American History, The Smithsonian Institution, the Costume Institute at the Metropolitan Museum of Art, the Cooper Hewitt in New York, the Textile Conservation Center in Andover, Massachusetts, and the Chicago Historical Society.

New equipment wish lists included spectrophotometers, colorimeters, wet cleaning table made of material other than stainless steel, separate dye room, in-counter dye pots, dye machines, sloped tile floor for washing, lifts, lighter weight and collapsible work tables, vacuum with Hepa filter (Nilfisk Corp.), and tables with removable areas of various sizes to allow for use of straight needle sewing while keeping the majority of the textile on a flat surface.

### Summary

When reviewing the data collected it is important to put it into context based on the purpose of the lab, location, number of employees, experience in the field of the respondent, and the type of collections treated. All of these factors influenced the responses and taken out of proper context could be damaging to a potential laboratory proposal by uninformed administrators, architects or designers.

The design of the questionnaire, although lengthy, was directed more toward answering the question of what labs had in terms of equipment, space, and staffing but did not always answer the question of why. In some cases, such as the quality and/or standards for water, further research needs to be conducted to answer the "why" question.

Several trends in the field emerged when reviewing the responses. Concern seems to be directed toward the health and safety of the conservator and toward the environment. This is evident in the decreased use of solvents in treatments, especially dry cleaning. Placement of fume hoods in dye lab areas and the use of emergency lights and electrical systems also reflects this trend. Other questions raised by this data concern the use of suction tables. A leading museum has eliminated theirs and other research organizations were designing new suction tables. Others questioned the use of vacuum cleaners in textile conservation treatments. It is also apparent that more research needs to be done into the materials for wash tables since stainless steel is rusting with the use of ultra-pure water. A recommendation was made for the use of Nalgene.

New equipment being considered by the respondents were spectrophotometers, colorimeters and specially shaped adapters for suction machines with application for costume treatment. There was a consistent recommendation from all of the respondents concerning the importance of staying on top of blueprints and working closely with the contractors for best results.

It was very gratifying for me to receive responses from so many colleagues in

support of this planning project. It is through their efforts that this report could be compiled and we can all benefit from their input. I would also like to thank my colleagues at Colonial Williamsburg for their help and support in this project.

Loren Finkelstein  
Textile Conservator  
Colonial Williamsburg Foundation  
Williamsburg, Virginia

## Index to Respondents to Questionnaire (Chart #2)

### Private Conservators

1. Lane Conservation - Nan Lane Terry
2. Textile Conservation Services - Harold Mailand
3. Judith Eisenberg
4. Alice Blohm

### Educational Institutions

1. Fashion Institute of Technology (FIT) - Shirley Eng

### Museums

1. Cooper-Hewitt Museum - Lucy Commoner
2. Winterthur - Margaret A. Fikioris
3. St. Louis Art Museum - Zoe Perkins
4. Los Angeles County Museum of Art (LACMA) - Meredith Montague
5. Chicago Historical Society - Anna Kolata
6. Fine Art Museum of San Francisco - Leslie Smith
7. Museum Fine Arts Boston - Deborah Bede
8. The Art Institute of Chicago - Christa C. Thurman
9. MET (Metropolitan Museum of Art) - Catherine Gill

### Regional Conservation Organizations

1. Cathedral of Saint John the Divine - Bruce Hutchinson
2. Textile Conservation Workshop (TCW) - Marlene Jaffe, Patsy Orlofsky
3. N.Y. State Office of Parks, Recreation and Historic Preservation at Peebles Island - Deborah Trupin
4. Textile Conservation Center, Museum of American Textile History - Kathy Francis

### Museum/Historic Houses

1. Biltmore Estate - Patricia Ewer

### National Conservation Organizations

1. Conservation Analytical Laboratory (CAL), Smithsonian - Mary Ballard

### International Conservation Organizations

1. Canadian Conservation Institute (CCI) - Eva Burnham

COLONIAL WILLIAMSBURG FOUNDATION  
TEXTILE CONSERVATION LAB PLANNING SURVEY

INSTITUTION: \_\_\_\_\_ DATE: \_\_\_\_\_ CONTACT PERSON: \_\_\_\_\_ TELEPHONE: ( ) \_\_\_\_\_

I. FUNCTION

Type of lab:  Regional lab  Museum  Private practice  Educational institution  
Lab functions:  Exhibition  Surveys  Grants  Outreach  Other \_\_\_\_\_  
Types of Objects:  Small, flat textiles  Large, flat textiles  3-dimensional textiles  Costume  
 Costume accessories  Other \_\_\_\_\_  
Types of Treatments:  Wet-cleaning  Dry-cleaning  Stain removal  Consolidation  
 Exhibit preparation, mounting  Other \_\_\_\_\_  
Staff:  Number of full-time  Number of part-time \_\_\_\_\_

II. SPACE

Square footage: \_\_\_\_\_ total (If available, please supply a floor plan or rough sketch)  
Square footage per person: \_\_\_\_\_ what you currently have \_\_\_\_\_ what you would like to have  
How much square footage would you recommend for 6 people including one who is primarily in administration? \_\_\_\_\_  
Rooms: Room #1 Size \_\_\_\_\_ x \_\_\_\_\_ Function \_\_\_\_\_  
Room #2 Size \_\_\_\_\_ x \_\_\_\_\_ Function \_\_\_\_\_  
Room #3 Size \_\_\_\_\_ x \_\_\_\_\_ Function \_\_\_\_\_  
Room #4 Size \_\_\_\_\_ x \_\_\_\_\_ Function \_\_\_\_\_  
Ceiling Height: \_\_\_\_\_ and why: \_\_\_\_\_ Floor Load: \_\_\_\_\_ and why: \_\_\_\_\_  
Lab Location:  Underground  Above ground  Floor number \_\_\_\_\_  
Location within the building \_\_\_\_\_  
Other labs adjacent to the textile lab \_\_\_\_\_  
Why? \_\_\_\_\_  
Work or administrative spaces shared with other labs \_\_\_\_\_  
Equipment shared with other labs \_\_\_\_\_  
Where are the break or eating areas located with respect to the lab? \_\_\_\_\_

III. ENVIRONMENTAL CONTROLS/SECURITY SYSTEM

Air filtering (HVAC) system:  Individual units  Central  Humidification controls  Dehumidification controls  
Type: \_\_\_\_\_  
Supplier: \_\_\_\_\_  
Does the system filter for:  dust  gaseous pollutants  
Filter to what particle level or standard \_\_\_\_\_  
Chemical filtering system:  Fume hood  No. of exhaust tubes \_\_\_\_\_  
Types: \_\_\_\_\_  
Suppliers: \_\_\_\_\_  
Where are these located in relationship to the work areas? \_\_\_\_\_  
Do you feel these are adequate for your lab?  Yes  No  
Comments: \_\_\_\_\_

Lighting System:  
Fluorescent: \_\_\_\_\_ Quantity of lights Where are they used? \_\_\_\_\_  
Incandescent: \_\_\_\_\_ Quantity of lights Where are they used? \_\_\_\_\_  
Natural daylight: \_\_\_\_\_ Quantity Where is it located? \_\_\_\_\_  
Other: \_\_\_\_\_

Emergency electrical system?  Yes  No

Security System: What type? \_\_\_\_\_

Fire Protection Type: Sprinkler: Dry pipe  Wet pipe  None  Smoke Detection \_\_\_\_\_

IV. DELIVERY/HOLDING/STORAGE

Delivery of Objects:  From another bldg.  From same bldg.  
How far is permanent storage of textiles from the lab? \_\_\_\_\_  
Loading dock: \_\_\_\_\_ Height \_\_\_\_\_ Width \_\_\_\_\_ Lift?  Yes  No  
Delivery doorway: \_\_\_\_\_ Height \_\_\_\_\_ Width \_\_\_\_\_ Single door  Double doors \_\_\_\_\_

Holding:  
Do you have a holding room or infested textile area for newly arrived objects?  Yes  No  
Is it shared by other labs?  Yes  No

Comments: \_\_\_\_\_

Storage:  
Storage in the lab while awaiting treatment: (please list brief description, quantity, types of objects stored, and supplier if known) \_\_\_\_\_

V. ADMINISTRATION/DOCUMENTATION

Administration: \_\_\_\_\_ No. of desks \_\_\_\_\_ No. of staff using the area \_\_\_\_\_ Square footage: \_\_\_\_\_  
Is this area shared by other labs?  Yes  No  
Comments on the use of this space: \_\_\_\_\_

Library:  Separate area in lab  Separate room in lab  Separate room in the department shared by other labs  
 No library  Other \_\_\_\_\_

Photography:  Separate area in lab for photography  Separate room for photography  
 Photographic area is disassembled after each use  Photographic area is shared by other labs  
 Objects must be transported a distance of \_\_\_\_\_ to be photographed  
 Photographic area has large, hanging facilities for objects  
 Photographic area has enough space for wide-angle photography

Comments: \_\_\_\_\_

VI. **DRYWORK AREA**

Work tables:  Specially built  Collapsible  Movable (on rollers or castors)  Compactable

Heights of tables: \_\_\_\_\_ Sizes of tables: \_\_\_\_\_

Coverings: Number of smooth: \_\_\_\_\_ Number of pedded: \_\_\_\_\_

Descriptions of tables (include special functional characteristics, list suppliers if known): \_\_\_\_\_

What would you recommend for 6 people in the lab? \_\_\_\_\_

Vertical work space:

Vertical hanging mechanisms:  Velcro slats  Pulley system  Other \_\_\_\_\_

Is the ceiling high enough to accommodate objects?  Yes  No

Any special construction to ceiling or floor? (Please describe) \_\_\_\_\_

Horizontal work space:

Built in counters (describe special characteristics): \_\_\_\_\_

Formica covering: \_\_\_\_\_

Other: \_\_\_\_\_

Built in light table: \_\_\_\_\_

Other work space: \_\_\_\_\_

Sewing/ironing/laundry area:  Sewing machine, built in to counter top  Sewing machine, portable

Sewing machine, floor cabinet  Standard ironing board

Ironing table Size \_\_\_\_\_ x \_\_\_\_\_  Washing machine  Dryer

Are these three areas:  close together  scattered throughout the lab Comments: \_\_\_\_\_

Vacuuming:  Separate area, separate table  Ceiling hook apparatus for vacuum hose  Other \_\_\_\_\_

Special needs area:  Costume  3-dimensional objects

Description of area and special equipment: \_\_\_\_\_

VII. **WET CLEANING AREA**

Water System: Distilled water system:

Type: \_\_\_\_\_

Supplier: \_\_\_\_\_

Capacity: \_\_\_\_\_

Weight of Water: \_\_\_\_\_

Recovery capability: \_\_\_\_\_

Storage/reservoir: \_\_\_\_\_

De-ionized water system:

Type: \_\_\_\_\_

Supplier: \_\_\_\_\_

Capacity: \_\_\_\_\_

Weight of Water: \_\_\_\_\_

Recovery capability: \_\_\_\_\_

Other: \_\_\_\_\_

Wash table or sunken floor washing basin:

Description/size: \_\_\_\_\_

Supplier: \_\_\_\_\_

Comments: \_\_\_\_\_

Drying table:

Description/size: \_\_\_\_\_

Supplier: \_\_\_\_\_

Comments: \_\_\_\_\_

Suction Table:

Description/size: \_\_\_\_\_

Access to a fume hood?  Yes  No

Supplier: \_\_\_\_\_

Comments: \_\_\_\_\_

Other methods of wet cleaning:

Number of counter sinks Description: \_\_\_\_\_

Portable trays  Contract wet-cleaning  All wet-cleaning is contracted

Only large or difficult items are contracted

Dry cleaning:

Description of facility: \_\_\_\_\_

VIII. ANALYTICAL AREA

Microscopy: \_\_\_\_\_ Separate, stationary table \_\_\_\_\_ Moveable table/cart/stand \_\_\_\_\_ Space on counter

Dye lab: \_\_\_\_\_ Separate room \_\_\_\_\_ Separate area from other work space \_\_\_\_\_ Contained within the routine work space

Approximately how much space (square feet) is required? \_\_\_\_\_

Do you have large pieces of equipment? (Please describe) \_\_\_\_\_

Other equipment or work areas used for analysis: \_\_\_\_\_

IX. ADDITIONAL COMMENTS/NEW EQUIPMENT

If given ideal conditions, what work spaces or major equipment items would you change? Why? \_\_\_\_\_

Is there new equipment in the field that you would consider for your lab? Do you have a supplier for it? \_\_\_\_\_

Did you encounter problems during or after the planning process that could have been avoided? \_\_\_\_\_

Other labs we should contact \_\_\_\_\_

Would you like a copy of the completed report? \_\_\_\_\_ Yes \_\_\_\_\_ No

## VISIBLE STORAGE: AN UPDATE

As many of you know, the UBC Museum of Anthropology has a system of "Visible Storage", in which most of our three-dimensional objects are stored in display cases in a public gallery. Our textiles and works of art on paper are kept in more traditional, staff-only access, dark storage. If we had more gallery space, however, we would probably institute a modified Visible Storage system for our textile collections, one in which initial public access would be through colour reproductions such as photocopies or videodiscs, in a gallery in which the majority of the pieces were stored on trays or on padded hangers in dark, locked cabinets while only a few were put on short-term rotating display. A visitor would have to make an appointment to see an item not on display, and it is hoped that the colour reproductions would satisfy most visitor needs; however, having items on trays in cabinets rather than rolled or stacked in our present crowded textile storeroom would greatly increase the ease of making them available.

Why is the Museum of Anthropology so committed to the concept of Visible Storage? In the past several years we have been reevaluating our position, looking at our current system, and making decisions on future directions. These are the results of our discussions:

Staff at the Museum overwhelmingly decided in favour of continuing Visible Storage. It makes the majority of the collections in our publicly funded institution

immediately available to the public, including special segments of that public such as the originating peoples of our collections. Unlike exhibitions, objects are presented without the intermediary of the curatorial voice and selection process. Information in Visible Storage is, however, available in the form of CHIN catalogue records. Finally, the museum of Anthropology has total permanent staff of less than twenty people, a third of whom are half-time, and an ever shrinking funding base. From a practical point of view, Visible storage increases the resources we are able to offer, whether it is to school groups, artists, researchers, or visiting curators, as well as to tourists.

On the negative side are all conservation concerns about a Visible Storage system. Light is the most obvious problem, and in addition there are concerns about our present dangerous case design (highly earthquake susceptible, in addition to features such as the lighting being accessible only through the object area), excess dust accumulation, and other environmental problems.

Concerning light, Visible Storage can never offer to collections the same protection as dark storage. Since Visible Storage is chosen (and is increasingly chosen; MOA annually receives a number of requests for information from museums planning forms of Visible Storage) to serve the non-conservation mandates of a museum, can it be made to acceptable conservation guidelines? Can conservators comfortably accept, even if they cannot embrace, less than ideal conditions? What are these conditions for a mixed ethnographic collection?

Supported by a grant from the Museums Assistance Programs, The Museum



of Anthropology has hired a design firm, D. Jensen and Assoc., to research a prototype case design which will maximize the preservation of our collections within the concept of Visible Storage. Will the prototype be able to show that acceptable conservation conditions are possible in a Visible Storage system, using current technology? For a lighting system, for example, the new case will use light pipes, a 3M product which can carry and reflect the light ( with no heat ) from a low - intensity light source over a considerable distance.

A recent text on environmental concerns cites the Clore Gallery at the Tate as being guided by 500,00 lux - hours per year. (1) We hope the light pipe can lower this figure for Visible Storage.

One of the Museum of Anthropology's major considerations is that the new case system must have low cost maintenance. There is a preference for mechanical systems over electronic systems; cutting the duration of light may be achieved by something as simple as " cupboard doors", an increase in the number of our drawer units in the system, or simple switches rather than high - tech electronics. In addition, the objects must not need costly individual mounts to be able to be hung or placed on shelves. Currently we use an out - of - date commercial system which provides inadequate support for many hanging objects such as masks; one of the major challenges facing Jensen and Assoc. is the design of modular support systems which can accommodate the wide range of shapes and weights of objects in our collection.

A second challenge comes from the objects in Visible Storage needing to be easy to move, for example if new acquisitions are placed in the case, or if objects are

temporarily removed for teaching, photography, or other purposes. This means that the case walls and their modular support systems must accommodate changing configurations of any size of objects, all the while making efficient use of the space.

The prototype case is still in the process of being designed. During the coming year it will be tested on an "earthquake table" at UBC, then installed in the Museum and tested again from the points of view of visitors and staff. The new system prototype will certainly be a great improvement over our current 17 - year - old cases, but it remains to be seen if good design and new "low - technology" can overcome the inherent difficulties of achieving high standards of preventive conservation in a usable Visible Storage system.

#### References

Applebaum, Barbara, Guide to Environmental Protection of Collections, Sound View Press, 1991.

Miriam Clavir, Conservator,  
UBC Museum of Anthropology  
Vancouver, British Columbia

## **T**EXTILE CONSERVATION PROGRAM AT THE UNIVERSITY OF ALBERTA

The Department of Clothing and Textiles at the University of Alberta continues to offer textile conservation courses as it has in the past. Senior students may enroll in two consecutive courses teaching conservation - CLTX 478 - Preventive

Conservation and CLTX 578 - Textile Conservation: Theory and Practice. As well, individuals may enroll in conservation studies at the graduate level under the supervision of **Dr. Nancy Kerr**.

In August 1992, **Heather Prince** was hired to act as conservator for the department's Clothing and Textiles Collection and to assist with instruction of the two senior level courses. She taught both the lecture and the laboratory portion of the fall term and is now giving hands - on instruction in the laboratory portion of CLTX 578. She is also open to enquiries and requests from the community, and accepts textile items to be treated on a fee - for - service basis in the lab.

There are four students currently enrolled in the program's conservation courses - two fourth year undergraduates and two graduate conservation students. In their course activities, they work with artifacts in the Clothing and Textiles Collection, and with the Collection directly to improve storage conditions and management procedures.

During the fall term ( September to December 1992), the students worked to improve storage conditions for purses and sundry items in the collection. They assessed current storage methods, recommended improved methods, and then implemented and evaluated their plans.

Their final project for the course was the design and fabrication of a small exhibit of textiles from the Clothing and Textiles Collection. The assignment incorporated techniques and skills in mount preparation and display techniques the students had

learned throughout the term, and the students themselves were responsible for the title, storyline and didactics throughout the exhibit.

The students chose to display a group of six textiles that demonstrated textile techniques such as batik, embroidery, weaving and surface painting. The resulting exhibit, entitled "Tools of the Trade: Creating Design", features a fine crocheted purse of Irish cotton, a brightly colored child's hat from Thailand in reverse applique and a woven Yugoslavian tablecloth with patterns created in red and green supplementary weft. The exhibit is located in the 3rd Floor lobby of the Printing Services Building, outside the Department of Clothing and Textiles office, and will be on display until May 3, 1993.

The Department of Clothing and Textiles currently has one conservation graduate student in the final stages of her master's research. **Crystal Dawley** has looked at the effects of freezing methods of conservation ( long - term storage, etc ) on the properties of wool. Also completing her master's research in textile conservation this past year was **Joan Marshall** ( Identification of Bast Fibers)

**Heather Prince,**  
FSO / Conservator  
University of Alberta,  
Edmonton, Alberta

**A**DHESIVES SYMPOSIUM AT  
THE COOPER HEWITT MUSEUM

The Symposium on the Use of Adhesives and Consolidants in Textile Conservation was held January 21-22 1993 at the Cooper Hewitt Museum of Design in New York City. Opening remarks were given by Vuka Roussakis. She noted the controversial nature of adhesive treatments in textile conservation. She also noted a widespread lack of knowledge regarding the application and characteristics of adhesives, which makes many conservators reluctant to use them. It is a common experience, however, to encounter textiles too fragile to sustain a needle. Shattered silks are but one example.

The two intense days began with general reviews of the different types of adhesives appropriate for textile conservation. Cellulose ethers were classified by Mary Kaldany in terms of polymer class, stability and use. Cathy Baker offered practical considerations for their application to textiles and Fonda Thomsen presented case studies of her use of starch paste. Nancy Pollack characterized synthetic adhesives such as AYAA, AYAC and Beva. Harold Mailand, Michaela Keyserlingk, Deborah Bede and Paul Himmelstein discussed their methods of preparation and application of these types of adhesives. Paula Volnet, a paper conservator, presented methods of testing adhesives. She noted the importance of this testing as manufacturers can change ingredients without notice, and the evaluation of an adhesive's applicability will be affected by its chemical and physical properties. Barbara Applebaum discussed adhesive linings, describing considerations for choosing to line a textile with an adhesive. She emphasized the importance of matching the adhesive to the textile.

Jane Down described the results of her 9-year study of poly(vinyl acetate) and

acrylic resins carried out at the Canadian Conservation Institute. Discussion centred around her tables characterizing these adhesives in terms of pH, flexibility or brittleness, volatile emissions and yellowing. Attendees received copies of CCI's report on her findings. Mary Ballard and Paul Czubay discussed the theory and practice, respectively, of removing crosslinked synthetic latex from the backs of carpets. Chris Paulicok and Debbie Juchem described some adhesive treatments done at the Metropolitan Museum for the current exhibition at the Costume Institute. Marian Kaminitz discussed the use of adhesives on ethnographic objects such as basketry and bark cloth. Linda Eaton remarked on her experiences removing old adhesive treatments, especially sticky net. Finally Mary Kaldany briefly described the use of some adhesives as consolidants for textiles.

The general, but not complete consensus of the meeting seemed to be that there are textiles or costumes for which adhesives are the only viable treatment choice. In such cases it is clearly of paramount importance not only to understand the textile, but also the various adhesives from which to choose. The adhesive must be adjusted to the textile rather than vice versa. It is necessary to know the characteristics of the adhesive, and to have the appropriate technique and equipment to apply it properly. Towards this end the symposium went a long way.

Rebecca Johnson Dibb  
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## NEW PUBLICATIONS

### **Controlling Museum Fungal Problems**

by Thomas J.K. Strang and John E. Dawson  
CCI, Technical Bulletin, Number 12

Fungi can seriously damage artifacts in museums and archives. This damage can be avoided by controlling the museum environment. Nonchemical methods are most effective in eliminating fungal growth. Chemical methods (fungicides, fumigants) should only be employed as a last resort in coping with disaster.

### **Controlling Vertebrate Pests in Museums**

by Thomas J.K. Strang and John E. Dawson  
CCI, Technical Bulletin, Number 13

When vertebrate animals, particularly rodents, gain access to museum collections, they can soil or destroy artifacts. Prompt identification of the pest and the use of suitable methods to control it are essential. In most cases, nonchemical methods can be used to control vertebrate pests in museums; chemical methods are also discussed.

### **Solving Museum Insect Problems: Chemical Control**

By John E. Dawson, Revised by Thomas J.K. Strang  
CCI, Technical Bulletin, Number 15

Insect infestations can severely damage museum collections and buildings. This Technical Bulletin is intended as a guide to help museum staff understand commercial pest control operations. It describes chemical methods of controlling insects, and includes information on regulations, modes of action,

and application methods necessary for the safe use of insecticides. Insecticide safety and poisoning are also discussed, and the properties and side-effects of specific insecticides in deciding upon the appropriate chemical method of control.

Published by the:  
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The CCI Technical Bulletins are also published in French.

For more information please contact CCI Extension Services at the above address. (CCI, Technical Bulletin, Number 14 will be published at a later date)

### **Bender Jorgensen, Lise; North European Textiles until AD 1000.**

Aarhus University Press, Aarhus, Denmark, 1992. 288 pages, 200 drawings, maps, charts, and bibliography. Price \$45.00, available from Aarhus University Press, Building 170, Aarhus University, DK-8000 Aarhus C, Denmark.

A compilation of known textiles dating from Stone-Age to AD 1000, divided by countries, and within these chapters chronologically. The final chapter covers the development history of textiles by periods.

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