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$\mathbf{F}_{\mathbf{ROM}}$ the editors

This is the last issue in the 1991-92 subscription term and we are enclosing a renewal form. In considerstion of the current economic situation we are doing our utmost to keep costs to a minimum and continue to offer the same subscription rates as in the past 2 years. Why not encourage your collegues to subscribe!

Because TCN has moved to Montreal, we now have a new address:

TEXTILE CONSERVATION NEWSLETTER P.O. Box 423 St. Lambert, Quebec J4P 3P8 CANADA Our Spring 1993 TCN Supplement promises to be most interesting, and will deal with a joint textile and painting conservation project undertaken at the Royal Ontario Museum in Toronto.

TCN Issue Number 23 includes an article on a mannequin make-over, information about a water purification system, how to make an inexpensive tapestry frame and an introduction to the Textile Museum in Krefeld, Germany as well as, the description of a 4 month internship in Germany and book and course reviews.

Many thanks must go to Genevieve Lafrance and Jhanvi Divanji of the McCord Museum for their skills at the graphic layout.

WATER PURIFICATION SYSTEM IN TEXTILES LAB AT CCI

The Textiles lab at CCI has recently purchased a new water purification system (Millipore). The complete system consists of a particulate removal prefilter, a pretreatment pack, a reverse osmosis unit (Milli-RO 10), and water polishing unit (Milli-Q Plus). It also has a custom built 500-litre nalgene reservoir for storage of the RO water.

Description of the System

The prefilter and the pretreatment pack cleans up the water from the tap before it reaches the RO unit by filtering out some of the particulates and using activated carbon to remove chlorine and organics. The pretreatment pack also contains antiscaling compounds to eliminate hardness ions that tend to accumulate on the RO membrane. The water that passes through the RO membrane is further purified. The RO membrane eliminates up to 90-95% of dissolved ions and up to 99% of particulates, organics and bacteria from the pretreated feed water. The exit water is considered as laboratory grade (ASTM Type III) and is suitable for general washing of textiles, artifacts and lab glassware. As the membrane deteriorates, the percentage of contaminants removed is decreased.

For work that requires higher accuracy and reproducibility, such as pH measurement, dyeing, reagent preparations and washing of special pieces where high purity wash water is essential (eg. for experiments), reagent grade (ASTM Type I) water is produced by passing the RO water through the Milli-Q Plus unit.

The Milli-Q Plus purification pack (QPAK) contains activated-carbon to further remove residual dissolved organics, ionexchange resins to remove residual inorganic ions and an organic scavenger mixture to remove trace organics. The water then passes through a submicron final filter (0.22 um) that removes any remaining particulates and bacteria at the point of use. Millipore claims that this system produces water that meets or exceeds all standards (such as ASTM) for water purity.

Determining Factors in Purchase

The Textiles lab considered purchasing a water purification system because it was recognized that the quality of tap water fluctuates. The presence of heavy metal ions, iron for example, is a major concern for conservation treatments. The concentrations of these and other contaminants can vary from day to day and even from tap to tap in a particular laboratory. Water purification eliminates this element of uncertainty from treatments and other operations of the lab where good quality water is required.

A number of factors determined this particular purchase:

1. Capability of the system to deliver the quality of water required.

For the Textiles lab, it is important that the system be able to produce both Type I as well as Type III water when required.

For the first step of purification, there was a choice between distillation and reverse

osmosis. Distillation is one of the oldest methods of purification and reverse osmosis is comparatively new. The quality of the water produced from both methods is generally considered to be laboratory grade, and the kind of contaminants being removed is slightly different. Reverse osmosis was chosen because of lower cost (both capital and subsequent operation) and ease of maintenance.

Getting a central water system for the whole institute (eg. RO) was also considered. The drawbacks were the cost and most important of all the problem of bacterial growth in the water lines where there is stagnant water.

For the next step of purification at the point of use, deionization, and organic removal a number of reputable manufacturers can supply systems that produce Type I water (eg. Barnstead and Millipore).

2. Ability to deliver large quantities of pure water on demand.

For washing purposes, either in a bath or with continuous flow, large quantities of water must be produced at a reasonable rate (at least 1.5 to 2 litres/min). This is particularly important for large textile pieces.

The laboratory RO units that were considered have the capability to produce water from 10-30 litres/hour depending on the temperature of the feed water. This is too slow for washing purposes. A reservoir (500 litre), elevated to the level of the sink (approximately 4 feet from the floor), that can store RO purified water solved the problem. When a large volume of water is required for washing, the reservoir can be filled in advance. An optional outlet from the reservoir allows direct access to the RO water. Alternatively the RO water is further purified by passing through a series of deionization cartridges. Most water deionization units, such as the Milli-Q Plus, have a pump which will deliver reagent grade water at 1.5-2.0 litres/minute, which is adequate for washing.

3. Cost

Initial capital and subsequent maintenance cost was a major consideration. Maintenance costs include replacement cartridges, repair and, for some systems, the price of regenerating the resins.

The complete Millipore system in 1991 cost approximately \$12,000. This includes the custom-made storage reservoir and stand, one set of pretreatment and Milli-QPlus cartridges, RO membrane, all fittings, and installation.

To maintain the system, the pretreatment cartridges are approximately \$300 each (2 per year), QPAK cartridges are \$400 each (2 per year), cleaning pills for the RO membrane \$53 for 50 pills (12 pills per year) and RO membrane \$900 (2-5 years). The average total maintenance cost for a year is between \$1,200 to \$1,700.

4. Availability and quality of service and availability of parts.

Only those systems that have local representatives were considered.

5. Ease of maintenance.

There are definite advantages with those systems where changing the cartridges and routine maintenance steps can easily be done. Otherwise the system will tend to be allowed to deteriorate much more than it should.

6. References

The sales representative should be able to supply a list of clients who have purchased similar systems. References should be contacted regarding reliability and satisfaction of the product and service. If it is possible arrange to see the system in operation.

Not all textile labs need such an elaborate and expensive water purification system. It is safe to say, however that any water purification is better than none. Renting from companies such as Culligan may be a temporary option. In the long run, getting a system that has the flexibility of further upgrade would be a better investment, even if the initial cost is slightly higher.

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Last year the Glenbow expanded its "Heritage from the Homeland" exhibit. This expansion required the addition of five mannequins to be clothed in ethnic costumes. Criteria for the mannequins included flexibility for posing, an abstract or generic appearance and durability to allow for long-term display.

A commitment to purchase five mannequins from a local manufacturer was made without any consultation with the Conservation Department regarding their suitability for use with the textile artifacts. Several features of these mannequins did not meet conservation standards and thus fairly extensive alterations were required. Many of the materials used in the construction of the mannequins are not recommended for use with artifacts by the conservators at the museum. Polyure than e foam was used to pad out the body shapes and a nonaqueous contact cement was used to adhere the foam in place. A polyester fibrefill that contained formaldehyde and an unsealed plywood was also used on the frame.

Better choices would have been a polyethylene foam, an aqueous base contact cement, a fibrefill free of formaldehyde and a sealed exterior grade plywood such as birch or beech. A pre-washed cotton blend stretch fabric for the final covering on the mannequin was also recommended.

Adjustable steel frames made up the structural core of the mannequins. These frames pivoted at the waist and neck. The shoulder width, torso, arm and leg lengths were also adjustable. A series of lock nuts and bolts tighten to hold the adjustable proportions at the desired lengths. Torsos can be displayed separately by removing the upper part of the frame at the waist. The ability to duplicate almost any human pose and lock it solidly in place is one very useful feature of this frame design. (Diagrams 1 and 2) The durable frames have the potential for reuse. Revising them from their present configurations for reuse with different costumes may require major renovations if the future costumes are different in size, shape, gender and type.

Extensive changes were made to the mannequins that were purchased for the exhibit. Due to time limitations, some of the necessary changes were not made. The alterations that were made were extremely challenging and



the entire process of revising five mannequins took approximately three months. Extensive discussions took place among the Curators, Designers and Conservators to decide on colour, hair, facial features and poses.

Delays in decisions regarding the appearance of the mannequins caused

frustrating delays given the limited time available for the renovations. Much of the end result was reached by trial and error and this, along with research of materials and the ordering thereof, required a great deal of time.

Because the costumes were very small, the shoulder width was too big at the smallest

adjustment and the metal tubing had to be cut here. Once the frames were reduced the padding



became distorted and puckered. Thus the foam had to be removed and cut down to fit the new dimensions.

Definitions for the elbow, knee and ankle bones were created by inserting shaped pieces of ethafoam between the fibrefill and the frame. This was then stitched into place. The mannequins used to support the feminine costumes were not built with female features so fibre dust mask pads and cotton bras were used to create bustlines.

The hands and feet presented us with more challenges. The metal strips that make up the feet (Diagram 1) were too long for one of the pairs of shores so they were cut down. In one case the metal strips could not be used at all to support the high-heeled dancing shoes of one costume. The foot assemblies were removed from the mannequin, reshaped, inserted into the feet from an old plaster store mannequin and plastered in place. These were then filed, sanded and shaped to fit into the very narrow dancing shoes.

The hands that came with the manne-

quin kits were not appropriate for our needs. They were difficult to put into natural poses and had a very glove-like, unnatural appearance. We produced replacement hands by using museum staff as models. They held their hands in the required positions and we cast them using pre-plastered gypsum bandages. Threaded bolts welded to large washers were plastered into the palms of the hands when they were poured. This allowed the finished hands to be threaded back onto the



arms of the mannequins. (Diagram 3)

The heads that came with the kits were also unsuitable for our purposes. Cast originally from store mannequins of the 1950"s and 60"s, the features were too pronounced for the abstract or generic look we required. The features were softened and abstracted by sanding down a number of areas and building up others with plaster fill. The heads were made from an autobody type plastic that is extremely fragile and requires an off-gassing and curing period of at least six weeks.

The general consensus regarding the hair was to achieve the appearance of hair without much detail or using additional materials. The hair was thus built up on the heads with rope, felt and cotton strips. These materials were braided, twisted, looped and piled on the head and then covered with thin layers of plaster. (Diagram 4) The result was a somewhat textured appearance suggesting the



appropriate hairstyle.

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Black cotton tights were used to cover the hands and heads. The legs of the tights were cut in sections, then pulled over the body parts. Fifteen pairs were used to cover the legs, arms, heads and hands of the five mannequins. The hands and heads were then spray-painted with black latex paint so that the light grey colour of the mannequin material did not show through the covering fabric. The black stretch fabric was adhered to the heads and hands with 3M #77 spray adhesive. Some hand-stitching was required to take up the extra fabric from the contoured shapes and give the heads and hands a smooth, finished surface. The torsos were covered snugly with a black stretch cotton fabric. Mylar barriers were then used where there was contact between the mannequins and the costumes.

The mannequins were posed in slightly

animated poses using the series of locknuts and bolts welded to the frames at the jointed areas such as the knees, ankles and elbows. (Diagrams 1 and 2) Once the pose was determined the locknuts were tightened after the mannequins were dressed; however, some had to be tightened before dressing the mannequins.

The completed mannequins were quite heavy which made them difficult to handle. They were basically free-standing but a more secure support was needed for long-term display. However we could not use the support method that came with the mannequins. This was a back support system with a rod running under the costume but because of the possibility of damage or stress to the clothing it could not be used. The other method supplied was a foot mount system but it was not considered at all because all the footwear were artifacts and holes could not be made in the soles. An alternate mounting method was created by using a six inch piece of threaded rod screwed into a nut welded to the back of the thigh. The rod ran horizontally through a piece of copper pipe that was bolted vertically to the case platform. (Diagram 1) This method was unobtrusive, very sturdy and strong.

The Glenbow is planning to use similar steel framed mannequins for future exhibits. These will be purchased without the padding. This gives the museum staff options for using safer display materials and determining the size and shape of the body parts.

Torsos in the future will be made of carved ethafoam pieces (diagram 1) which have been designed to fit onto and around the frames. Legs, arms and heads will be produced by various methods depending upon the requirements of the curators, designers and conservators. There are many criteria that have to be considered when building mannequins for exhibit especially with increasingly sophisticated exhibition techniques. Each costume exhibit, has many differing requirements and needs to be dealt with individually. When building mannequins there are no standard solutions. The mannequin builder must be creative, innovative and sensitive to all criteria for each exhibit.

The mannequins built for «Heritage from the Homeland» are just one example of a successful method of creating a costume exhibit. The finished mannequins fulfilled most of our objectives and the end product was successful and pleasing. Public response to the mannequins has been positive. Northampton Historical Society, 46 Bridge Street, Northampton, MA 01060. Soft mannequin instructions, enclose \$1 and self-addressed stamped envelope.

Wilson, C. "Body Building," <u>Textile Conser-</u> vation Newsletter - Canada. Sept. 1982, 8 - 11.

Debra Reeve Conservation Department Glenbow Museum Calgary, Alberta



"Three of the finished Mannequins"

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Harris, K. <u>Costume Display Techniques</u>. Nashville: American Association for State and Local History, 1977.

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ANINEXPENSIVE TENSIONER

The conservation lab in the Department of Clothing and Textiles at the University of Alberta recently had to complete a tapestry project. Because larger tapestries are not a frequent occurrence in the lab, we did not have a tensioner. The tensioner needed to be adjustable for the wide variety of flat textiles worked on in the lab, and it needed to be easily moved and stored, since there wasn't room in the lab for a permanent tensioner.

We consulted with Jim Corrigan, exhibition co-ordinator, Museums and Collections Services, on the development of an inexpensive and portable tensioner. A wooden device with half circles cut out was to be used as a holder for the four inch ABS pipes onto which the tapestry was rolled. Bar- or Cclamps were to be used to hold the rollers (ABS pipes) under tension.

A mock-up of the wooden device was made by cutting half-circles out of a Xerox box in order to determine height and shape. We discovered that the Xerox box was strong enough on its own to function as the holder for the rollers. Four empty Xerox boxes were obtained from the department storeroom and modifications made for additional strength, making the main cost for the tensioner the purchase of four clamps.

Illustrations below show the method of turning the boxes into holders, and the completed tensioner system:

The Xerox box is cut in half lengthwise, and one side is cut in half widthwise as in the illustration below. We then cut the box to the



desired height for our working situation. (see Figure 1)

The cut side of the box was overlapped just enough to fit inside the full side. We cut away the underlap at the bottom of the box to allow the cut side to fit flat, but left the overlap on the side of the box for extra strength. Hot



melt glue was used to hold the pieces of the box together. (see Figure 2)

We cut half circles in each side of the box to hold the rollers. Placement of the holes was determined by the length of the clamp. For the clamp to hold the roller in place, it has to be braced against the other side of the box. The half circles were dropped into the box below, and glued, in order to reinforce the area that would hold the weight of the roller. (see Figure 3) Additional support was added to the area that would hold the roller by gluing a two inch



piece of rigid polyethylene foam (Ethafoam) between the holes for the rollers.





The finished tensioner system is illustrated above.

This system provided adequate tension during the 5 week period while we were consolidating the tapestry. After that period of use, the Xerox boxes show very little wear and will remain in the lab for future use.

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CONSERVATION AT THE GERMAN TEXTILE MUSEUM KREFELD

In May 1991 I had the great opportunity to come to Canada and to give a lecture at the IIC-Conference in Vancouver and at the Canadian Conservation Institute in Ottawa. The following article is a shortened version of this lecture.

The German Textile Museum is a museum of art that collects, exhibits and conserves textiles from all over the world. The textile industry in Krefeld has a long tradition. The production of velvets and silks was responsible for the growth and wealth of the town during the 18th and 19th century. Even today «Velvet and Silk Town» is still its slogan. The German Textile Museum grew out of this tradition, at the end of the 19th century the Krefeld textile manufacturers put together a study collection of textile art which was to serve in training their skilled workers. In 1880 the Royal Textile Collection was founded, being part of the technical school for weavers and textile designers. The collection was given to the town in 1936.

After the Second World War the "Central Research Institute for the Restoration of Historic Fabrics" was founded. Its task was, above all, the safeguarding and protection of the endangered ecclesiastical textiles in the surrounding district. Since 1975 the collection and the institute have been combined to form the German Textile Museum. In 1981 the museum received a new accommodation. After collecting for over a hundred years the collection today comprises of about 22,000 objects. It has thus become one of the most comprehensive textile collections in Germany.

An attempt was made in the new building to provide the best possible conditions for storing and exhibiting historic textiles. The idea of a permanent exhibition lasting for several years was dropped at the very beginning because of the quantity of the objects and the fragility of textiles. It was decided to use a principle of rotation, with temporary exhibitions lasting 1 to 3 months. Both objects from the museum's own collection and borrowed objects are shown. This is often disappointing for the visitor who comes expecting to see a great number and variety of textiles. This principle has, however, proved to be the best for the conservation of the objects. The visitor can only see, at any one time, a small part of the collection, shown in special open storage drawer cabinets.

An important factor in preventive conservation is to use the best possible storage for the textile objects. Many of the storage methods in this museum are very good. The one big disadvantage of our storage space is that it is already too small after just ten years. There are various cabinets and drawer systems to accomodate textiles of various shapes and sizes. The objects are thus organized first according to size and shape, then according to origin and date. Large shaped pieces are placed flat in drawers. Smaller pieces such as woven fragments, printed textiles, and embroideries are on removeable shelves in a compact mobile system. Long lengths of fabrics, covers and hangings are rolled and hung in drawers on cardboard rollers. Because of shortage of space many costumes have to hang whereas flat storage would be better for their preservation. Such a comprehensive collection demands

constant checking and care which for lack of time and staff is limited to the basic preventative conservation measures. At the present time it is not possible to systematically conserve all objects, only items which are to be exhibited are treated.

The conservation workshop of the German Textile Museum is staffed by four conservators and one apprentice. The conservators have educational backgrounds in weaving, dressmaking or embroidery and have also taken a training course of several years in a conservation workshop. Two years ago a textile conservation course was established at the University in Cologne which requires over three years practice in a conservation workshop, before a student is accepted to the course.

The scientific aspect of the preservation and restoration of historic cultural property is continually gaining in importance. The condition of the objects is determined by the chemical and physical characteristics of the fibres. Thus the advice of a scientist would often be a great help for us. Usually, however, we are on our own in such questions and decisions. Since we do not have a scientist on staff when there are special problems we refer to the few institutes or chemists in Germany which specialize in conservation.

The assessment of the value of the objects is not only based on their material worth, the inherent value of the materials used or their artistic importance. Their value is also based on the historic evidence they provide as a witness of their period. It is our aim to preserve the artifact by treatment without changing the character of the object. It is to maintain the artifact in its present appearance instead of restoring it and refurbishing its beauty. So we are repeatedly faced with this question: Is it possible to leave historic influences as they are because they are evidence? Or is it necessary to remove them in order to conserve the artifact for the future?

We always try to retain all parts of an object. If possible seams are left stitched, dismantling is avoided as is the removal of original parts or later additions. We can not always adhere to this principle, however. Often enough we have to make compromises for the sake of stabilizing the complete structure, but all changes are carefully recorded in the treatment repeat.

A comprehensive treatment report is made on every conservation project. An analysis of material and techniques is made, and alterations and state of preservation are established. Only when the object has been assessed in all aspects can a decision as to the necessary and appropriate treatment be taken, as well as notes about the materials to be used in the treatment.

The conservation workshop at Krefeld is the only museum's workshop in Germany which is self supporting and charges for treatments carried out for other institutions. So there is less time for the care of the museum's own collection. We are given many contracts by other museums, churches, private collectors and societies. We work on all types of textile artifacts such as costumes, vestments, embroideries, hangings and banners. We are not specialized in working with tapestries and archaeological finds.

A proposal is made before each treatment and the necessary working hours calculated. This estimate is normally binding for the account rendered later. It is, however, not always possible to keep this plan exactly. Often new aspects and problems appear during the treatment and demand different or more extensive inervention than planned. It is also clear that given completion dates are to be adhered to for these contracts. Yet the treatment must on no account suffer under pressure of time.

Most of the objects come from outside of Krefeld. After conservation they leave our hands. We can only check on them at infrequent intervals. Thus from the outset the conditions for their storage, exhibition and possible use must be taken into consideration in treatment and mounting. Many questions are put to the owner or decided on in a visit to the place itself, by one of the conservators. Questions such as, where will the object be kept? how are light and air conditions to be regulated? how is it possible to protect the piece from dust, touchingand handling? and who is going to be responsible for putting this into practice and checking on it? We have to make it clear to the owner that the future preservation of the textile object, will depend on the careful and correct display and storage.

Cleaning:

One of the first considerations in the conservation concerns the cleaning. The method of cleaning depends on the existing condition of the object. We only clean when damage can be excluded and a certain cleaning effect can be expected. It is not our aim to remove every form of soiling.

Many types of soiling have no direct negative effect on the fibres. Their removal is thus a question of aesthetics. However, dirt can increase mould growth, it can provide a breeding ground for bacteria and attract feeding insects. Nevertheless, wet-cleaning is only possible for fabrics in good condition where a swelling of the fibres and the movements won't lead to a loss of substance or a change in the surface structure. We do not wash when the fabric is too brittle, when the surface would be changed too much as with velvets or embroideries, when dyes would bleed or when a specific drying would be hindered by the presence of several layers, for example interfacings and linings. In a wet-cleaning process we work with de-mineralized water, usually cold or lukewarm, and with an anionic and nonionic detergent.¹ We wash and rinse in as short a time as possible in order to limit the swelling of the fibres.

A great problem is the treatment of aggressive types of soiling such as rust stains alkaline or acid soiling, they can cause damage when in connection with moisture. But in these cases as well, a specific treatment of a stain is, however, only possible when the structure and dyes won't be damaged. We often feel that it would be extremely helpful to have a vacuum table for these cleaning problems.

I would like to discuss the cleaning question with the following examples:

We are at the moment occupied with costumes from a museum in South Germany. There are costumes, men's clothing, and uniforms from the 18th and 19th century. In about 1910 the costumes were exhibited in the museum, mounted on contemporary tailor's mannequins which considerably distorted the shape of the costumes. All the costumes were faded and dirty after years of being exhibited without protection from light and dust. They were first cleaned of a dust layer by a brush and a low suction vacuum cleaner. After that the cleaning methods were used as follows:

A woman's dress from 1860 made of silk moiré, with the fabric intact, faded in a few places and slightly soiled. Washing would have been a risk because of the composite nature of the costume including silk moiré gauze lining and linen. Dabbing with a sponge which was moisted with a mixture of ethanol and water was successful to freshen the shine of the silk in this case. Only the discoloration of the silk caused by perspiration and moisture couldn't be changed.

An 18th-century man's waistcoat of white linen with fine embroidery on the front had become brown because of oxidation of the cellulosic fibres. It was not bleached, since we were concerned about the fibre damage. The waistcoat was washed only, and in order to dry and smooth it, it was placed over a fitting shape. It was possible to shape areas by hand and pinning it out while blow-drying with low heat.

Another dress from 1820 made of striped cotton and silk was yellowed and had brown stains. A detailed analysis of the stains was not possible. However, we decided that the dress could be washed. Here too, the stains were not removed with an additional treatments considering the aged material. Fitting shapes prepared in advance from polyester fleece, molded in foil were pushed into the wet dress. They served to shape and smooth the pieces during the blow-drying.

A great cleaning problem is posed by a lot of silk costumes and uniforms. The brittleness of the silk fabric and the combination of wool and linen material often with metallic embroidery makes washing impossible. Drycleaning by professional firms is something we don't like to use on historic objects because of the amount of movement in the machine which often runs unchecked. We did an experiment with a silk dress from 1820 that was in really good condition but very soiled, was cleaned in tetrachloroethylene ("Per"). The dress was padded with polyester fleece and muslin and folded once, and then placed in the drum. The cautious slow movement yielded good cleaning result. The silk was bright and soft but crumpled. It was smoothed by pinning and stearning.

Methods of supporting and consolidation:

The following applies to our stitching techniques in general. We underlay a damaged fabric with the same type of material and similar physical properties to help avoid differences in tension. Structure and colour of the support material are matched to the object. In this way the original impression of the whole can be regained while missing pieces and damaged parts remain recognizable. The new material and artifact lie flat on the table during the sewning process. We use running and couching stitches with thin hair silk and curved needles. We don't use frames to attach the damaged textile to its support.

A hooded cape-like cloak of silk rep with brocaded flower patterns dated from about 1740 had been used as a christening robe by a North German family. The stiff silk was heavily damaged by use and improper folding. It had completely lost its stability with the tears and holes. Washing to remove the water stains was not possible. For this reason the silk was only smoothed by partially moistening with a mixture of water and ethanol (in a ratio of 1:1). Then the question arose as to whether an adhesive method should be used. In the end we decided the cloak should be backed with silk taffeta and the damaged parts were very carefully stitched down with couching stitches. Because of its fragility and stiffness sewing up and down over a narrow opening in the table with fine beading needles enabled us to make only very small punctures without breaking the silk. The historic repairs such as the darned patches were retained, and missing areas were closed. After the conservation was completed a properly shaped support that prevents folding of the hood and provides additional stability was made.

Adhesives:

In general I prefer stitching to using adhesives. Adhesives are only used when the brittle material would be damaged even more by stitches and no other consolidation method is possible.

This was the case with a painted (oil) silk taffeta banner. First the extremely brittle silk was smoothed. The treatment in the humidity chamber lasted about 10 hours at a relative humidity of 90% making the fibres so supple that creases and folds could be smoothed out by weighting with glass plates. Because sewing the brittle silk was not possible it was secured by adhesives. The banner is supported by silk crepeline coated with an adhesive on both sides. To prepare the crepeline the acrylic resin² was first painted with a brush on one side of the fabric, then dried and repeated on the other side. In addition silk taffeta served as a stable backing. Then the three layers of banner, crepeline and backing were joined by using a heat spatula at a temperature of about 40°C. Using this method of crepeline coated on both sides was new for us and time will show if it

works.

We used a different adhesive method on a "Toile de Gène", a late 18th-century printed cotton, from Genoa. Its condition was poor, the material had turned brown and brittle, and the brown printing had rotted the fibres. Many parts of the cotton had already broken away and were lost in spite of having been sewn and darned to a lining. The lining and the darning were removed. After smoothing the textile with the help of steam and glass plates the cotton "Toile" was secured by an adhesive. A backing cloth of cotton was dyed and sprayed with an acrylic resin adhesive using a high pressure spray gun. The "Toile de Gène" was attached to the backing by ironing. The adhesive adhered well to the relatively rough surface of the cotton.

Dealing with former restorations:

Various Coptic fragments came to the conservation lab for treatment. A coverlet worked in wool, from the 6th century had been put together from pieces of a tunic. The part around the hern, front and back had been cut off and put together as a square. Numerous small fragments had been fitted together like a puzzle, however, it was combined where pattern and structure didn't match. The impression of the whole was of a unit although at closer examination, the mistakes were distracting. Removing all these repairs and alterations would have meant facing new fragments. We could only have managed minor visual improvements even after time-consuming work. So we decided only to secure the worst damaged parts with couching stitches and mount the whole on a sloping panel.

The same problem was posed by a Coptic hanging from the 8th century. The pattern is

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made of 63 repeated sqaures. In an earlier treatment numerous pieces of a much larger hanging had been put together and in so doing even the smallest pieces placed quite arbitrarily. The very brittle fragments were insufficiently attached to a soft underlay-material by a few large stitches. All we could do was to remove them and place them on a new support. In doing this we rearranged the fragments in order to improve the whole impression of the pattern. The fragments were sewn to a new wool fabric using a close couching stitch system. It didn't seem to make sense for us to underlay each pattern unit with its dominant colour.

Another fragment of a tunic from the 6th century had been stitched on a backing. We removed this soft backing because it was not sufficient support. Here, we decided to back the differently coloured areas of the tunic with matching wool materials. The new backing stabilizes the woven parts and serves, at the same time, as a substitute for the missing parts. The impression of a tunic is conveyed with the help of a stand.

Contemporary reuse of historical textiles:

The Roman Catholic tradition is still very much alive in the German Rhineland and most churches still possess quantities of all sorts of Ecclesiastical vestments: church banners and canopies which are carried in processions, altar hangings and above all priest's vestments such as chasubles, dalmatics, and copes from the 18th, 19th and 20th centuries. In spite of existent damage to the vestments from the end of the 19th and beginning of the 20th centuries they are still worn with pleasure because of their beautiful colours and patterns. Our protests are of little use when the wearing of a robe is traditionally connected with a certain celebration of the mass. It must be respected that the objects have not only art-historical importance but still fulfil a function. They would be robbed of this function were they to be torn from their traditional circumstances and seen from a purely museological, point of view. In these cases all concerned must compromise.

I should like to describe the following treatment briefly as an example. It concerns a cope from a small chapel near Cologne. The cope was made about 1900, from an ecclesiastical viscose fabric probably woven in Krefeld. The pattern imitates an Italian silk damask from the end of the 15th century. The embroidery is also done in the style of the 15th century, and is of high quality The cope had been kept in unsuitable conditions and worn for the celebration of the mass several times a year. The shoulder parts and the front fastening were very stretched and torn because of hanging it on a improperly shaped hanger. For lack of room the cope can in the future only be kept



hanging instead of flat. Apart from this, it is still to be worn once a year for the mass of the patron saint. Thus during the treatment the fabric of the upper part in particular had to be stabilized. After undoing the lining on the upper edge an interfacing of silk was inserted and fastened by running stitches. Tears in the fabric were secured by couching stitches in reeled silk. A further interfacing of fine linen covers the chest and back and extends to the fastening in order to spread the tensile force. A correctly shaped stand supplies the proper support for the upper part.

Each object demands an individual treatment and we always try to do the best possible. But what is the best? There are certainly various opinions on this. But many ideas and a lively exchange of thoughts stimulate and lead to new solutions.

Annotations:

¹ Hostapon/Hoechst AG (anionic detergent), Tinovetin/Ciba-Geigy (nonionic detergent)

² Acrylharz 360HV:498HV (1:2), Lascaux, Switzerland, diluted in water (1:8)

Brigitte Dreyspring Deutsches Textilmuseum Andreasmarkt 8 D-4150 Krefeld

NEWS FROM CANADIAN MUSEUM OF CIVILIZATION

TEXTILES CONSERVATION LABORATORY

During the past months we worked on the preparation of 32 lingerie items for an exhibit entitled «Labour of Love» that opened in March 1992, and continue until 1994, in the Mezzanine of our History Hall.

These garments comprise the trousseau of Madeleine Stuart Cassels, of Ottawa, 1891-1984, who was expecting to go out to India to join her fiancé, circa 1910. Alas, while he was there, he met and married someone else.

The pieces are all white cotton, trimmed with lace (mostly hand-made bobbin lace) and monogrammed in fine satin-stitch embroidery. The quality of the handwork and the time it would have taken, are remarkable.

Numerous pieces were given stainremoval treatment using sodium dithionite. All were washed, and the lace components were carefully blocked out. Ribbons, which were inserted in the yokes, sleeves, etc., were treated separately.

A Kilim (flat woven rug), donated to the museum by Lennie Vassil, was also prepared for exhibit in our Arts & Traditions Gallery. The borders were fraying badly, otherwise it was in quite sound structural condition.

According to curatorial wishes, the damaged areas were rewoven (see photos 1,2, and 3). Missing tassels were also replaced with appropriate yarns. No wet or dry cleaning was done owing to fugitive dyes. Owing to time limitations, only one end of the kilim was treated. The textile is displayed with the first quarter of the opposite end rolled onto an acidfree tube. The rewoven border was given additional support with a backing of black stabiltex (chosen for its transparency and light weight quality). A cotton-polyester lining was also provided for the entire textile.

Treatment of several Salish Blankets

probably adapted from the patterns seen on patchwork quilts brought into the Salish area during the colonization period of the Pacific Northwest Coast (1850-1900). They have a central focus, surrounded by repeated geometric patterns.¹ This textile, which has been used as a robe, blanket, floor and bed cover, is constructed of commercial woollen yarn (wefts) and hemp (warp).

The blanket has been washed. The selvedges, which were bound with a fine



also progresses. A twill-weave blanket of mountain goat hair, with twined borders, once worn by Chief Capilano Joe, circa 1911, has been washed and is now being backed with linen in preparation for installation in the Salish House in CMC's Grand Hall. The blanket will be displayed on a 15° angle in a display case.

A Colonial-style Salish blanket, woven circa 1860 near Spuzzum B.C., is also being conserved. The design of these blankets was brownish-green wool, now badly deteriorated, are being covered with a protective overlay of brown silk crêpeline. The badly frayed portion of one of the borders will be secured by stitching to a backing of appropriate fabric. No reweaving will be done. The blanket will be secured in an overall fashion to a backing of black cotton-polyester fabric, with one window provided to re-assure the researcher that the blanket is reversible.

This blanket is to be included in the



«Native Clothing Exhibit» scheduled in our Special Exhibitions Hall for December 1993, to August 28, 1994. 1 All details re. construction, except from Salish Weaving, Paula Gustafson, Douglas & McIntyre, Vancouver, 1980.

Julie Hughes Anna Jakobiec Museum of civilization, Hull, Quebec



T_{EXTILE} CONSERVATION</sub> AND HISTORIC TEXTILES AT THE UNIVERSITY OF RHODE ISLAND

Textile conservation and historic textiles and costume are two areas of study available for students seeking a Master of Science degree at the University of Rhode Island.

Students in the textile conservation and historic textiles and costume area take required courses covering historic research methods, introduction to textile conservation, social/ psychological aspects of textiles and clothing, plus an internship and a thesis. Electives related to history within the department are historic textiles, historic furniture, historic costume, and ethnic costume. Textile courses that are frequently taken include dyeing and finishing of textiles, detergency, and special topics in textile conservation.

A variety of places have been chosen for internships. These include the Textile Conservation Centre at the Museum of American Textile History, Sturbridge Village, the St. Louis Art Museum, the National Museum of American History, the Rhode Island School of Design Museum of Art, and the Isabella Stewart Gardner Museum. The students worked under curators and/or conservators to learn about collections management or textile conservation.

The thesis that students have recently completed or are now finishing are quite varied. One included both historic research and experimental conservation techniques while others have been either historic research or a scientific study related to problems in conservation. Subjects have varied from archeological textiles to nineteenth-century woven straw bonnets to post-World War II printed textiles.

The Department Chair is Dr. Linda Welters, who teaches courses in the historic area, and whose interests include folk costume, 20th century American dress, and the material culture of New England. Dr. Margaret Ordonez teaches textile conservation, and has been involved in the field for almost 20 years. Her research interests include wetcleaning, detergency, and other current issues in conservation. Dr. Martin Bide is a textile scientist whose research interests stem from his background as a dyestuff chemist, and include dye analysis, colour science, pollution prevention in the dyestuff industry, and dyeing technology in biomedical applications.

The U.R.I. Historic Costume and Textile Collection is housed in the department and is available for study by students. It is used in both historic and conservation courses. The collection includes textiles, clothing, equipment, and publications that reflect the history of Rhode Island and New England, as well as others of international origin.

The textile science laboratories have a wide range of equipment for testing the physical properties and colourfastness of textile materials. Two computer colour matching systems are used for the analysis of colouring materials and the prediction of recipes to match colours on textiles. Lab-scale dyeing equipment is also available.

Further information can be obtained by writing

the Department of Textiles, Merchandising and Design, at 303 Quinn Hall, University of Rhode Island, Kingston, RI, U.S.A., 02881-0809 or calling (401) 792-4574.

Margaret Ordonez University of Rhode Island Kingston, RI

Reports on courses and

INTERNSHIPS Ancient Andean Textile Workshop

From May 25 to 28, 1992, the Textile Section of the CCI hosted a workshop on ancient Andean textiles. The workshop was designed for those professionally involved in the care of ancient Peruvian textiles and was taught by Mary Frame, a well known specialist in this field living in Vancouver, British Columbia. Due to the course's intensive nature, enrolment was restricted to 15 participants. Textile conservators representing conservation labs or institutions housing ancient Peruvian textiles from across the country attended, as well as CCI Textile Section staff and interns.

By means of slide lectures, demonstrations and hands-on sessions, participants were introduced to a wide variety of yarn and fabric making techniques. These included spinning using sticks and drop spindles, cord twisting and knotting Quipus, making a continuous warp without tying knots at each colour change, weaving headbands, cross knit looping (needleknitting), sprang, sling braiding, and larkshead knotting as used in Andean four-cornered hats. In addition to learning the basics of these various techniques, participants were shown how some patterns in ancient Peruvian textiles reflect (or are derived from) the structure of the fabric itself.

A selection of ancient Peruvian textiles on loan from the collection of the Canadian Museum of Civilization's Archaeological Survey of Canada, and several ancient Peruvian textiles from the Department of Anthropology, University of Montreal which were being treated in the Textile Section, provided examples of many of the techniques discussed and were a very valuable addition to the workshop.

Course materials included copies of pertinent articles and numerous wonderfully clear diagrams of the various techniques drawn by Mary Frame.

The purpose of hosting this workshop was to provide textile conservators with more first hand knowledge of ancient Peruvian textiles. By understanding more fully how these textiles were made and used, conservators will be better equipped to make decisions regarding the suitability of conservation treatments and the conditions and techniques used to display and store them. In a session devoted to conservation concerns, Mary Frame presented the researcher's point of view and described how critical construction details can be to the researcher. She also emphasized the need for the entire textile, front and back to be accessible for study. For example, if only a short length of a rolled textile or only the front face of a flat textile is exposed, the researcher may be prevented from seeing if any anomaly in pattern or structure is present. Another concern

was the possibility that the three-dimensional texture created by overtwisted yarns may be altered by an aqueous treatment. With the aid of slides, Mary Frame described methods for tion.

Ms. Frame's knowledge and obvious love of ancient Peruvian textiles combined



mounting and storing ancient Peruvian textiles that she had encountered in various institutions. Examples of archaeological textile mounts used in the Archaeology and Textile Sections were also examined and discussed.

In addition to the course material, participants had the opportunity to share their experiences working with this type of collecwith her organized and relaxed teaching manner made the workshop a thoroughly enjoyable experience. Having attempted to recreate some of the techniques used in these textiles, one can only marvel all the more at the skills of their original makers.

Jan Vuori Conservator, Textiles Canadian Conservation Institute Ottawa, Ontario

A Work Tour in Germany

In December 1991, I was invited to work for 4 months in 3 textile conservation workshops in Germany. The opportunity was too good to refuse, and the fact that I knew no German was, only slightly daunting! The experience has proven to be highly worthwhile. Although this summary can only be a brief overview, I hope to give some insight into the scope of projects, which can be undertaken in Germany, and the value in a work tour. This type of placement, combined with the opportunity of living in some unique locations, has been a rich and thought-provoking experience.

My first stop, for 2 months, was the Deutsches Textilmuseum, Krefeld, Considered one of the largest collections of its kind in Germany, the museum initially grew from a private textile collection used as a technical and stylistic resource for the workers in the regional silk and velvet weaving industry. European silk fragments make up the bulk of the collection. Also noteworthy are the Asian, African and South American textiles. A permanent exhibit and one new exhibit per year is generated from their own collections, and the rest are as varied as what is available. Today, the small, purpose-built museum faces the tiny market square of an immaculately kept historic village, complete with a moated medieval castle across the street, and intensively planted gardens and farms surrounding.

My arrival was particularly welcomed, as the staff were glad to have any extra help with the museum's largest exhibition to date, on 19th and 20thC sportswear. Displays covered

the whole museum. Large temporary showcases were built, and over 200 mannequins were made by the conservation workshop in a few months. This workshop is always very busy, since aside from mounting in-house exhibitions, they aim to base 2/3 of their work on private commissions. Lately, this has ranged from conservation of flat decorative fragments, silk flags, to liturgical vestments. Currently, they are involved in treating 20 costumes from the Speyer Museum collection. Many of these require elaborate custom mannequins, which are creative challenges in themselves! I was quite impressed with the highly constructed and sensitively shaped types of mannequins that had been devised here and the ease with which they were being made. My two month stay gave me almost enough time to fully treat one of these silk costumes and start a mannequin. I was also fortunate to partake in their CIETA weave analysis technique tutorials, for which we had much fun translating key terms into the four languages being spoken by the department!

The most appealing aspect of my experience at the Germanisches National museum, Nürnberg, was becoming familiar with their folk collection. Three large floors comprise this museum within a museum, displaying domestic furniture, religious relics and regional costume collected from German speaking peoples since the 19thC. Most intriguing was the floor of highly decorative and layered folk costumes, complete with beaded bridal crowns, black-printed cottons, intricate knitting and substantial studded and cut leather accessories. The conservation challenges posed by this multi-materialed collection are further complicated by their display on original turn of the century plaster and wire mannequins. These are charming and unique artifacts in themselves, having been moulded and painted to show the facial features of each regional group. I was able to treat an 18thC folk carpet, involving a lot of dyeing and support stitching.

Bamberg, termed the Rome of the north, is built on 7 hills crowded with Baroque architecture and at least one church to each hill. Contemplative figures of saints dot these hills, and also appear in some surprising places. The reward of climbing the steep, winding roads is wonderful views and visits to the surprising beer gardens. The textile conservation workshop of the Bavarian Denkmalpflege is a 40 minute bike ride out of town and set in a beautiful country Baroque schloss in a park setting with lake and fruit trees. Frau Worch is the busy conservator here, responsible for the care of all Bavarian state and church owned textiles. Work often centres around the treatment of liturgical vestments, and sometimes grave finds. She is full of ideas and is an inventive problem solver. An example of this is her use of magnets to aid in the smoothing of the fabric of a ca. 7thC chasuble relic.

The most interesting field trip we made together involved a trip to an old Jewish synagogue where several bundles of embroidered religious textiles have been recently discovered stashed beneath the eaves.

My work took the form of treatment of a fraternity hat of leather, wool and silver wrapped threads, involving electrolytic reduction as part of the procedures.

A three-part placement in 4 months has its pros and cons. For me, the need to adjust quickly to new environments and procedures was outweighed by the opportunities offered in seeing many collections and contrasting various techniques and projects in a short space of time. My lack of German was a little more of an obstacle that I'd allowed myself to think about before my flight! But mostly I benefitted from those patient colleagues who were eager to perfect their English. As to the finances of such a venture, I was able to live quite inexpensively in Krefeld by exchanging my labour for accommodation. The museum in Nürnberg also has an inexpensive guest room for colleagues. A work tour grant awarded by the Canadian Museums Association also defrayed costs.

My sincere thanks go to all those who contributed to this memorable experience.

Gaelen Gordon Getty Intern, National Gallery of Art, Washington DC

BOOK REVIEWS

<u>To Please the Caribou: Painted Caribou-</u> <u>skin Coats worn by the Naskapi. Montagnais.</u> <u>and Cree Hunters of the Ouebec-Labrador</u> <u>Peninsula</u> (softcover \$35/hardcover \$60) by Dorothy K. Burnham was published this year by the Royal Ontario Museum. This beautifully illustrated book provides an excellent description of the production and meaning of painted caribou-skin coats. Mrs. Burnham begins with a rich historical perspective followed by a brief discussion of the caribou in relation to caribouskin coats. The author then begins her detailed analysis of painted caribou-skin coats by describing and illustrating the patterns and construction procedures. Mrs. Burnham includes a detailed explanation of how she identified temporal variations in cut and silhouette.

«Although the cut of the coats remained fairly constant during the two centuries of their use, there was subtle but continuous development. In order to document this, measurements were taken at the waist and the bottom of each coat, and the proportion of the flare of the skirts..." (Page 25).

Mrs. Burnham's attention to details is evident throughout this book. For example, although quill wrapping and beading was rarely used by the Naskapi, Montagnais, and Cree hunters in the Quebec-Labrador area, techniques which were used occasionally are described in detail. A valuable addition to this book is the section analyzing the placement of painted decorative lines. Temporal variations in the colors used to create the decorative lines are explained with references to changes in the materials and techniques used to produce each color.

A large portion of this book is devoted to a discussion of the design motifs, a topic of great interest to many readers. The motifs are divided into 17 groups, including quadrates, double curves, chevrons, circles, crosses, parallel lines, scallops, and zigzags. Each group is described, illustrated, and analyzed for temporal and regional variations. For example

"Leaves are fitted in around other motifs on most of the coats in this series. Many are completely stylized but a few are drawn with more freedom and detail and possibly represent the leaf of an actual tree or shrub.... Many of the coats from the lath 18th century on use pairs of leaves above the double-curve motif."

(page 82-83)

Mrs. Burnham's intensive examination of 60 painted Caribou-skin coats located in over 20 museums in 10 countries provides an exceptionally well documented summary of one aspect of the material culture found on the Quebec-Labrador Peninsula. Photographs, pattern illustrations, drawings of decorative detail, and other information is included for each coat in a separate reference section. Notes, references, illustration credits, and an index of all the coats used for this documentation are included. This book is a valuable reference book for a wide variety of professionals including conservators. curators. anthropologists, and historians. It contributes significantly to our understanding of caribouskin coats found on the Ouebec-Labrador Peninsula.

Dr. Jill Oakes is Assistant Professor in the Faculty of Home Economics at University of Alberta, Edmonton, Alberta

McCord Museum of Canadian History

Re-opens

Form and Fashion: Nineteenth-Century Montreal Dress

The re-opening of the McCord Museum on May 9, 1992, has long been awaited, and particularly so by those with an interest in costume and textiles. The Museum has been closed to the public for renovation and expansion since January 1989. (See TCN Fall 1991, #21, p. 27 "News from the McCord Museum of Canadian History.")

The design of the Museum and its exhibits, blends old and new carefully and harmoniously. The texts and labels throughout the galleries are informative without being ponderous or dense. Of special interest for costume enthusiasts is the Notman Gallery that makes accessible some of the marvellous dated portraits from the nineteenth-century photographer, that document Montreal life as well as society personalities and their dress.

The Museum is to be lauded for having designated a permanent gallery for its important costume and textile collection. This is especially significant in the early 1990s when costume departments and staff in North America have been decreased or eliminated, exhibition space reduced or exhibits cut altogether. This gallery is in addition to costume artifacts that are integrated in other displays within the museum.

The modern costume/textile gallery, of almost 1300 sq. ft., is minimally detailed. Its main design feature is a warm hardwood platform for the displays that runs in a curvilinear wave along each side of the gallery, leaving the end walls for text and support material. There is no casework or glass, only a low metal rail that supports labels. There is a sensor alarm system to deter over enthusiastic visitors from getting too close to the artifacts. The overall effect is one of light, space and elegance.

The opening exhibition, Form and Fashion: Nineteenth-Century Montreal Dress, looks at the evolution of the fashionable female silhouette, taking, as a case study, the cyclical rise and fall of the sleeve. This is documented not only in the costumes but also in fashion plates from the period. A small display of European and Montreal fashion plates testify to the short time span it took for European styles to reach Montreal. The actual adoption of these styles is realised in the garments on view.

Sixteen costumes are displayed dating from 1810-1898. Each is shown on a white period mannequin with white paper wigs that balance the silhouette and focus the attention on the details of dress and textile. A particularly splendid costume is a cream silk tulle evening dress with satin, lace and pearl trim dated 1860-63 donated by the Molson family. It is a delight to see such objects preserved and conserved. One criticism of the otherwise exemplary display, is that two of the costumes chosen, both from the 1890s, are original only in the bodice. Both are lovely examples of the period and nicely testify to the cyclical style theme as featured in their sleeves. However, given the scope of the collection could not one of these have been a complete ensemble, if perhaps a little less glamorous?

This inaugural exhibit is well marked by a bilingual catalogue that greatly expands upon the theme of the show. Form and Fashion: Nineteenth Century Montreal Dress (\$29.95) is written by Jacqueline Beaudoin-Ross, Costume and Textiles Curator, and includes 16 colour plates of the costumes on display and 57 black and white photographs from contemporary fashion plates and places Montreal fashion into a larger, international framework. The Norman photographs testify to the dissemination of fashionable nineteenthcentury dress from Europe to Montreal and only then, latterly, to America. As Ross suggests, "The Notman studio portrait photographs are an outstanding source for the observa-tion...and...the study of many aspects of nineteenth-century costume."(65) This scholarly essay sheds a great deal of light on Montreal dress, which was very "au courant" with the latest European styles. It provides an excellent foundation for further research into Canadian, and particularly Montreal dress, and its position between English, European and American influences. It is a welcome addition to the scant literature on Canadian fashion.

The administration and staff of the McCord are to be congratulated on the visual and intellectual success of the Museum and its inaugural displays. For costume afficionados we are particularly fortunate to be able to anticipate future exhibitions of this calibre in the new gallery.

Alexandra Palmer is Ph.D. candidate Brighton Politechnic, England. She lives in Toronto, Ontario, Canada.

WORKSHOP ON ADHESIVES

The symposium on "The Use of Adhesives and Consolidants in Textile Conservation," is scheduled for January 21 and 22, 1993 at the Cooper Hewitt Museum. Approximately 18 speakers will discuss the following topics:

* A classification of adhesives and consolidants used in textile conservation.

* An investigation of the circumstances under which an adhesive treatment might be appropriate.

- * The advantages adhesives may have.
- * The use of adhesives for lining textiles.
- * The use of adhesives as consolidants.

The properties of the following categories of adhesives will be reviewed by conservation

scientists and conservators who have researched and/or have had wide experience using them:

> Starch Pastes Cellulose Ethers Acrylic Emulsions PVA Emulsions EVA Emulsions PVA Resins Acrylic Resins EVA Resin-Based Adhesives

The aging characteristics of these adhesives will also be investigated. A number of conservators will present case studies involving the use of reversal of specific adhesives.

There will be panel discussions and time for questions and answers.

The registration fee will be \$80 for TCG (Textile Conservation Group Inc.)

and \$100 for non-members, after December 15, 1992 \$120. Registration fees will go towards covering the expenses of the symposium.

To receive a registration form please write to:

The Textile Conservation Group Inc. C/O Department of Anthropology American Museum of Natural History Central Park West at 79th Street New York, NY 10034-5191 USA Tel: 212 769-5893 Fax: 212 769-5334

SUPPLIES

Polyester Batting

Museum Services Corporation is reordering the Polyester Batting Material from the factory. This material is made especially to their specifications in bulk orders by the pound with a minimum weight order of 500 pounds. Unfortunately, each roll weighs approximately 8 pounds only so that a minimum order can result in many rolls. They do not have the storage space hold these rolls and therefore have to have confirmed purchased orders ready to to be shipped once it is received from the manufacturer.

It has a great many uses from storage and mounting to packing of artifacts for traveling. Brand Name

Bonded Richfab Bat Garrett.

Composition

20% Acrylic resin by weight (Methacrylate) Not twisted, needle bonded or heat bonded; Especially fabricated for textile conservation needs,

Adhesive Used

Methacrylate. Safe for museum quality use. **Dimensions.**

One ounce per square foot; one inch thick. 72 inches x 21 feet in rolls (7 yards)

Roll is approximately 2 feet in diameter.

pН

pH neutral; no chlorides detected. Colour

Natural white.

Price

65.00 \$ US per roll

To order or for more information please contact Museum Services Corporation 4216 Howard Avenue (upper Level) Kensington, Maryland 20895-2418, U.S.A. Telephone: 301-564-1225, Fax: 301-564-9583

Silk Threads and Yarns

Maggie Backman imports beautiful silk filament threads, ribbons and metallic threads from Japan. The silk is quite lustrous and so is suitable for some things in conservation but not for others. I used the three ply machine twist to couch metallic threads and to do conservation on a Cantonese opera costume that was made of a silk satin at the UBC Museum of Anthropology, in Vancouver. I used only one of the three plies for the stitching. It worked beautifully and looked well. Most of the "Tire Line Silk" threads can be used in a sewing machine. Maggie who runs her business from her home supplies tips for their use as well as lots of general information about them. She will send a brochure with a few samples and a photo colour card for \$4.00 U.S. She takes VISA and Mastercard, there is no duty on silk thread or fabric. Please write to: Things Japanese 9805 N.E. 116th Street Suite 7160 Kirkland, WA 98034 U.S.A. Telephone: 206-821-2287 Fax: 206-823-4907 Information from Joan Marshall, Canadian Conservation Institute.

Archival Products

La Papeterie Saint-Armand in Montreal stocks a fair amount of archival materials for museum use. The owner David Carruthers is very accommodating with special requests and

TCN

always has good ideas on how to solve a problem.

The products in stock include:

- *Archivart Neutral Papers
- *Archivart Library, St Armand and Rising Boards
- *Wet Repair Papers
- *Neutracor print, artefact and textile boxes
- *Archivart Textile Boxes
- *Neutracor File folders, folders for mailing or storage.
- *Lineco Products
- *Adhesives
- *Acid free tissue papers
- *Mylar
- *Marbled Papers
- *Repair Papers for Backing and Mending

For more information and a price list contact: La Papeterie St. Armand 950, rue Ottawa, Montreal, Quebec, Canada H3C 1S4 Tel: 514- 874-4089 Fax: 514- 874-4089

CORRECTION

In the article Constructing Oversized Textile Storage Trays and Boxes by Carl Schlichting (TCN Number 20 Spring 1991 pp.21-26) the product Hi-Core was incorrectly described as being made of polycarbonate. Matra Plast does produce a polycarbonate sheet called Verolite which is used primarily as glazing. Verolite can not be worked as described in the article. Hi-Core sheets are made of polypropylene.



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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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Please send all submissions in typed form or if possible produced on IBM compatible Wordperfect 4.2, 5.0 or 5.1 on 5 1/4" or 3 1/2" disk. Submissions sent by electronic mail (FAX) are welcome but if there are any illustrations that accompany the article, they will not reproduce well. We would appreciate it if the illustrations could be sent by mail or courier if time is running out. For the best production of illustrations and clear black and white photographs, copy-ready artwork is required. Your disks will be returned but we cannot return the artwork. Articles can be as short as 1 page and as long as 6 or 7. Anything longer than that will be considered for publication as a Supplementary.

Editors: Eva Burnham Ruth K. Mills Cynthia Cooper

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