

Alfred Bader

Queens University

[Bursar and Scholarships]
2007

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STUDENT AWARDS

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Dr. Isabel Bader
2961 North Shepard Avenue
Milwaukee, WI 53211

February 2, 2007

Dear Dr. Bader:

Bursaries and awards that have been established through the generosity of donors represent a significant portion of the assistance available for students at Queen's University. The cost of attending University represents a sizeable financial outlay for students and their families and, in some cases, also includes taking on temporary debt and making personal sacrifices. Queen's is committed to assisting students who have strong academic qualifications but are lacking in financial means. Bursary assistance plays an integral part in helping us to achieve this objective.

I am pleased to inform you that the **Herbert and Stella Overton Award in Music** has been granted to:

Miss Justine Thompson, Bachelor Of Music, Year 3
Miss Michelle Redwood, Bachelor Of Music, Year 4
Miss Alexandra Toms, Bachelor Of Music, Year 3

On behalf of Queen's University, please accept our sincere gratitude for providing this assistance to our students.

Sincerely,

Linda Kemp
Senior Awards Officer
Student Awards

LDK/tra

1. The first part of the document discusses the importance of maintaining accurate records of all transactions.

2. It is essential to ensure that all entries are supported by appropriate evidence and are clearly documented.

3. The following table provides a summary of the key findings from the audit.

Table 1: Summary of Key Findings

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I am pleased to inform you that the **Isabel Bader Award for Costume in Drama** has been granted to:

Miss Rebecca Bridger, Faculty of Arts And Science, Year 4
Miss Anna Diemert, Faculty of Arts And Science, Year 3
Miss Ashley Westlake, Faculty of Arts And Science, Year 4

On behalf of Queen's University, please accept our sincere gratitude for providing this assistance to our students.

Sincerely,

Linda Kemp
Senior Awards Officer
Student Awards

LDK/tra



Queen's
UNIVERSITY

DEPARTMENT OF ART
ART CONSERVATION PROGRAM

Queen's University
Kingston, Ontario, Canada K7L 3N6
Tel 613 533-6166
Fax 613 533-6889

June 30th, 2008

Dr. Alfred and Mrs. Isabel Bader
Alfred Bader Fine Arts Foundation
Astor Hotel, Suite 622
924 East Juneau Street
Milwaukee, WI 53202
USA

Dear Dr. and Mrs. Bader,

I am enclosing individual reports from the award winners of the Isabel Bader Bursary for the year 2007. Three students from the Art Conservation Program received funds that enabled them to undertake internships in their areas of specialization.

Claire Neily completed an internship at the National Museum of the American Indian in Washington, DC where she worked on three challenging textile projects involving Native American garments. Taryn Webb was an intern at the Prince of Wales Northern Heritage Centre in Yellowknife, NWT. Ms. Webb treated a wide range of artifacts from an early journal written in Inuktituk to a series of Inuit carvings in antler, bone and soapstone. Sheina Barnes was based at the Gatineau Preservation Centre, Library and Archives Canada for her internship where she worked on a series of archival documents including an Aboriginal treaty, a royal proclamation and an early watercolour map

I am pleased to inform you that three award winners were selected for the summer of 2008. Jane Dosman, a student specializing in paper conservation, is interning at the Preservation Department of the Swiss National Library in Bern, Switzerland. Yu-Ling (Emily) Lin is based in the Organics Section of the British Museum where she is currently working on Chinese ethnographic objects and an Egyptian funerary boat that requires paint consolidation. The third award winner is Emily Min who is an intern in the Painting Conservation Laboratory at the Royal Ontario Museum, Toronto.

Once again, I wish to express our sincere gratitude for your support of our student internships through the Isabel Bader Bursary program. Since the year 2000, this award has permitted a total of twenty students to pursue advanced training at cultural institutions in Canada and abroad. As last year's award winners indicate in their reports, this financial assistance is extremely important and much appreciated.

Sincerely,

Krystia Spirydowicz
Director & Associate Professor
Art Conservation Program

Taryn Webb
246 Wellington Street, Apt. 3
Kingston, ON
K7L 2C4

Friday, August 31, 2007

Dear Ms. Bader,

I was the fortunate recipient of a portion of the Isabel Bader Bursary in Textile Conservation this year. Firstly, let me thank you so very much for offering such a generous donation to the Art Conservation Program. Without the support of people such as yourself, it would be difficult for many of the Conservation students to afford the usually large expenses of their required internships. Although my internship this summer did not focus on textile conservation per se, it did allow me to embrace a culture I have grown a real fondness for during my two years in the Conservation program, namely the Inuit culture. From the beginning of June until the end of August, 2007, I worked as an intern under the direction of Ms. Rosalie Scott, Head Conservator at the Prince of Wales Northern Heritage Centre (PWNHC) in Yellowknife, the Northwest Territories. The PWNHC is a moderately-sized museum with four main galleries, one mezzanine gallery, and three storage spaces in which are housed the museum's accessioned artifacts, paintings and archival material. The museum also has a fully staffed archives department, a library, collections staff to document all objects that are accessioned into the museum, an education department and children's learning gallery, and even a restaurant.

Unlike Conservators in larger museums who tend to work mostly in the background, Ms. Scott plays a large role in the daily functioning of the facility. Not only is she diligent about working with the building's Maintainer to ensure that museum-standard environmental conditions are met throughout the building, she also acts as a soundboard for other staff members with regard to proper handling procedures, exhibit set-up and display standards, and appropriate storage. Furthermore, although Ms. Scott specialized in Objects Conservation, as the sole Conservator at the museum, she is often called upon to treat both paper objects as well as paintings. She has subsequently become a more versatile Conservator in the process. I feel fortunate, therefore, to have interned with Ms. Scott, since I was able to participate in a wide variety of both theoretical and treatment-based projects, some of which I will describe below. I believe Ms. Scott provided a list of each project I was involved with in her evaluation, so I will only discuss a few of my more elaborate assignments here.

Environmental monitoring

Throughout the course of my internship, I was responsible for monitoring the museum's nine hygrothermographs. Temperature and humidity monitors were situated in each of the museum's five main gallery spaces as well as the cold storage area, the main storage room, the archives mezzanine storage room, and the archives main storage unit. I changed and read the charts each week, and consulted with Security and the building Maintainer in order to assure that environmental conditions in each of the nine spaces retained their summer standards.

During a particularly humid week in Yellowknife, the relative humidity in the museum's south gallery reached a peak of 60%. This gallery exhibited items on loan from the National



Museum of Scotland, however, and a contract had been signed by the PWNHC in which it agreed that the items would be kept at conditions between 45 and 50% RH. It was known that the museum's main environmental control system could not maintain RH levels in high humidity, and so dehumidifiers had already been installed in each of the gallery and storage rooms. The south gallery needed more help, however, and so I aided in coming up with a solution to add two more dehumidifiers to the gallery, to put them in the four corners of the room (since the original two had been placed next to each other), and to stagger the optimum humidity settings so that if one unit maxed out and shut down, the other three would continue to work. In this way, humidity was able to be lowered and controlled in the south gallery.

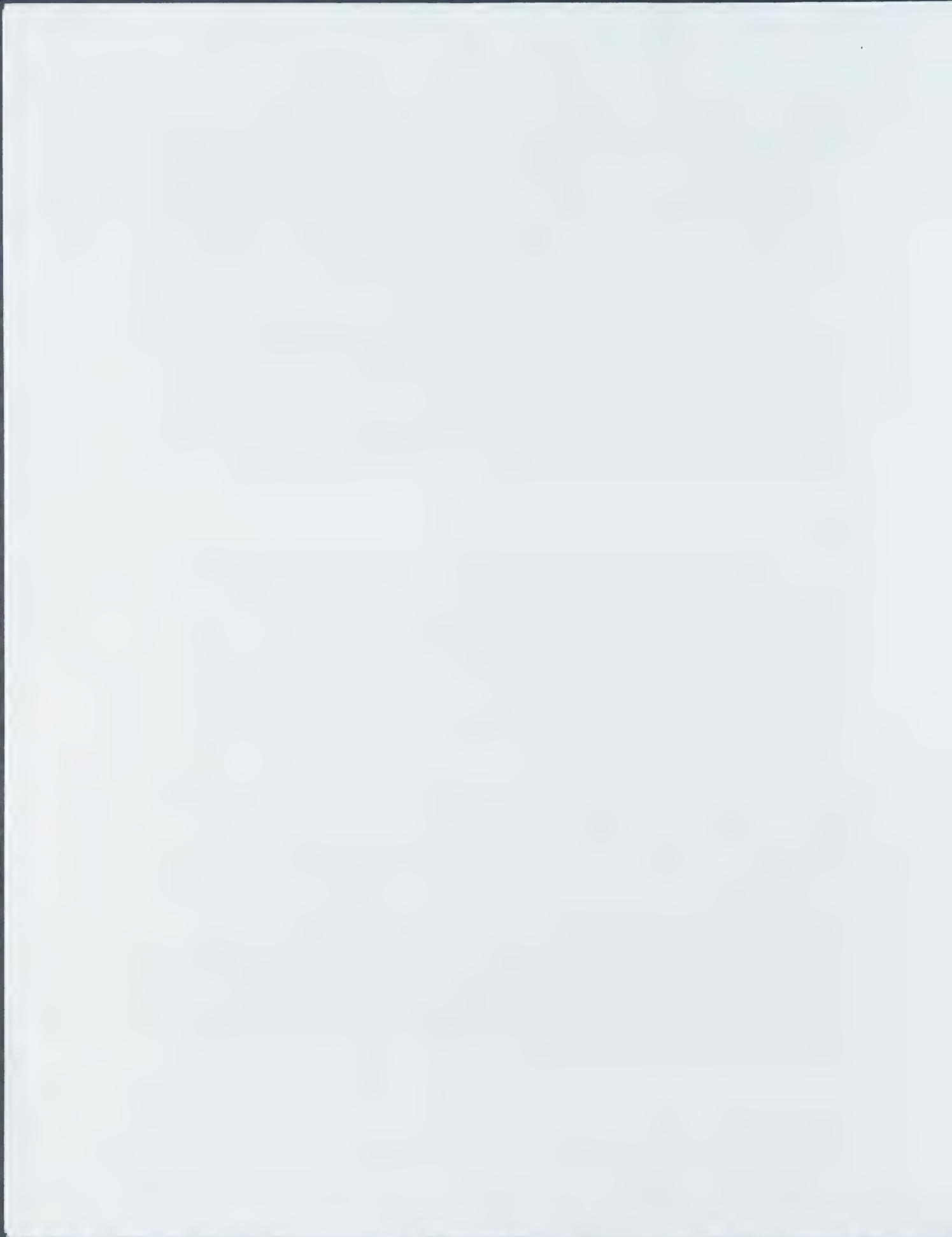
From time to time I also monitored light and UV levels in front of a number of paintings on exhibit in the museum. One set of paintings, hung in the museum's mezzanine gallery, was exposed to a number of large windows that had been covered with UV film, and also shaded with UV filtering blinds. The environmental conditions in front of the majority of the paintings were well below both museum light intensity (200 lux) and UV (75 Watts/lumen) standards. Five of the paintings, however, were being hit with direct light from a set of small windows that were neither filtered nor shaded. Light intensity and UV were subsequently extremely high in front of these paintings, more than double the standard in fact, and it was decided that they should be taken down until actions were taken to filter the small windows.

Storage

Prior to the split between the Northwest Territories and Nunavut in 1999, the Prince of Wales Northern Heritage Centre acted as the repository for all archaeologically excavated and privately accessioned artifacts in what was then known only as the Northwest Territories. Following the split, however, the government of Nunavut proposed the construction of its own museum in which to house its objects, but this museum is not expected to be built until at least 2010. Unfortunately for the PWNHC, objects and artwork from Nunavut take up at approximately 80% of the storage space in the museum. This situation has left the museum with the problem of finding space for newly accessioned objects, as well as organic items, like fur garments, many of which should ideally be housed in the museum's cold storage unit. The problem, however, was that the unit had only limited space available.

One of my projects while at the museum, therefore, was to reorganize the cold storage unit in order to make room for a series of fur garments that were being stored in coroplast boxes on 4x4s on the floor of the main storage room. For garments that had to remain flat in boxes (due to weight), this reorganization involved making smaller boxes, since many were too large for the items they housed. The reorganization also involved hanging some of the garments on heavily padded hangers, subsequently eliminating the space-occupying boxes in which they were originally stored.

There were also a few items in the museum's storage facility that were in need of new support mounts. One piece in particular, a reconstructed low fired pottery vessel from a 19th century Inuit site near Inuvik, had been mounted on a piece of foam that was severely yellowed, giving off a potent odour, and was crumbly to the touch. I tested the foam in accordance with the Beilstein burn testing procedure. There was no PVC present, so it is not certain why the foam had degraded to such an extent. Needless to say, the foam had to be replaced, so I constructed a new storage mount out of conservation grade ethafoam, supporting the 'bowl' of the pot with tubigrip stuffed with foam peanuts and cotton batting.



Database Updating

Over the course of the years at the PWNHC, the writing of conservation reports by hand has been gradually replaced with computer documentation in a museum-wide database called ReDiscovery. Unfortunately, given Ms. Scott's extremely full schedule as sole Conservator at the museum, she had not found the time to update the majority of her files. Subsequently, another of my duties at the museum was to make sure that all written files in the conservation lab were represented in full detail in the ReDiscovery system. This was a great learning experience for two reasons. Firstly, I was able to see a progression. Secondly, it was to compare and contrast the benefits and disadvantages of using a system like ReDiscovery, with fields in which to type and boxes to check, as opposed to simply typing condition and treatment reports in a program like Word. I found that there far too many fields to fill out in the ReDiscovery system, and that Ms. Scott rarely used more than three or four. The ease with which other staff members can access these files and draw up certain reports based on key words, however, is a positive aspect.

Treatments

During my internship at the museum, I was given the opportunity to treat a wide range of artifacts. Some of the treatments were familiar, in that I had performed similar ones in the past. A few were entirely new to me, however, and involved material to which I had not previously been exposed, namely flattening the pages of a 60 year old journal documenting the daily activities of Mr. William Nasogaluak, the patriarch of a well-known family in the NWT, and consolidating flaking gouache paint on a 20th century propaganda poster from North Korea.

The Nasogaluak journal is part of a collection of similar diaries written in Inuvialuktun that are in the process of being prepared (photocopied) for translation. This particular journal, documenting the daily routine of Mr. Nasogaluak from 1949 to 1951, had many dog-eared and creased pages, making them difficult to be copied (Figs. 1 and 2). The journal was also held together with two large metal staples that were beginning to corrode and to stain the pages.

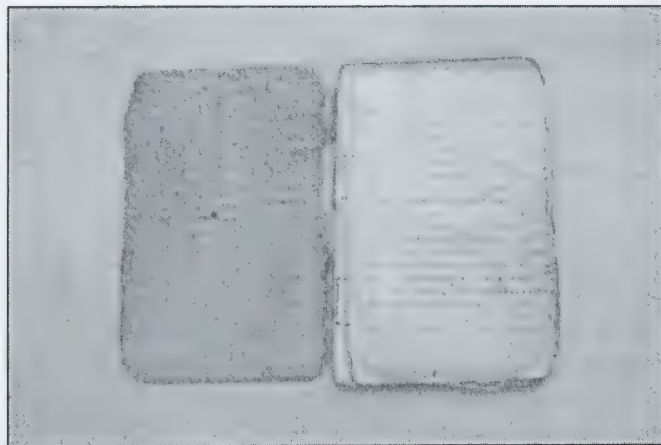


Fig. 1 Nasogaluak journal, before treatment.

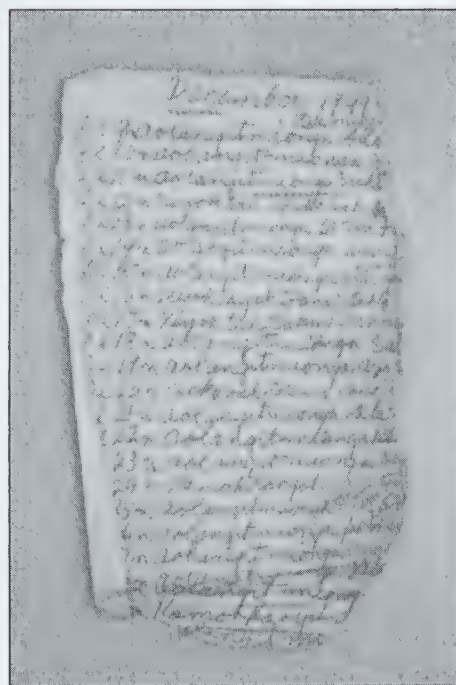


Fig. 2 Example of dog-eared and creased pages, before treatment.



Since I had never worked with paper before, I did research on the most appropriate technique to flatten these pages, consulting the CCI notes, the JAIC online journal, and numerous books on archival conservation found in the museum's library. Since Mr. Nasogaluak had used pencil to write in the journal, and the entries were subsequently not at risk of running with moisture, I decided to create a water-based humidity chamber. The humidity chamber was constructed of a shallow plastic tray in which was placed a sheet of blotting paper that had been dampened with deionized water. A sheet of gortex was set on top of the moist blotting paper, shiny side up, and the chamber was completed by wrapping the tray with polyethylene. A digital hygrothermograph was placed inside the unit to monitor temperature and humidity. Before beginning the humidification procedure, the staples holding the journal together were removed. The pages from the journal were inserted six at a time, and left to relax for approximately ten minutes (Fig. 3).



Fig. 3 Pages from journal in humidity chamber.

Once sufficiently relaxed, the pages were removed one at a time, and cotton swabs were used to gently roll out the creases and dog-eared edges. The pages were then re-inserted into the chamber, this time facing down, for another five to ten minutes. After this second round of humidification, I removed the pages, placed them atop two pieces of dry blotting paper, put two more pieces directly on top, and weighted the sandwich with a glass sheet and lead shot. As you can see from the photographs, this treatment was quite successful (Figs. 4 and 5).



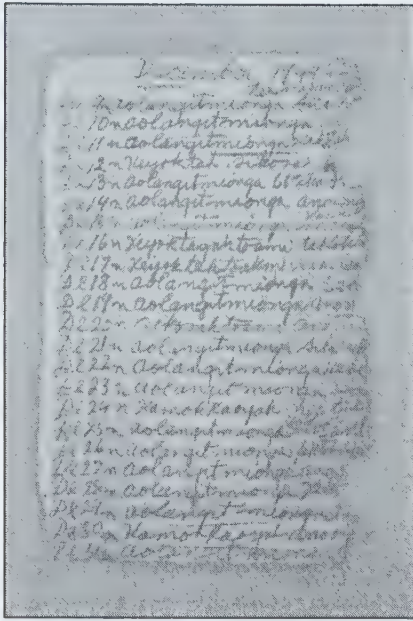


Fig. 4 Page from Fig. 2, after treatment.

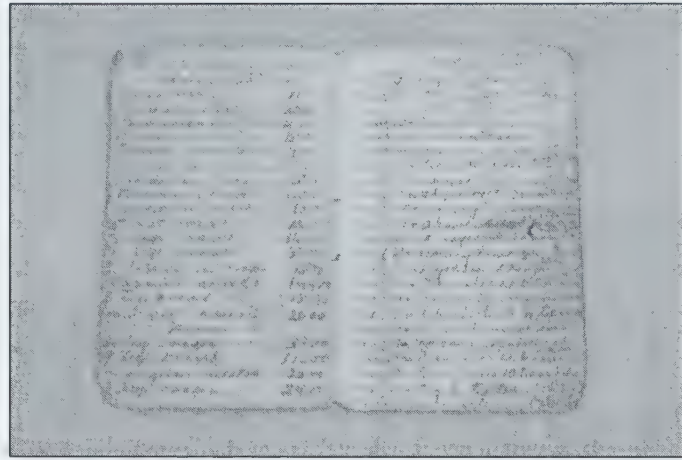


Fig. 5 Flattened pages, after treatment.

Since there are no other Conservators in the city of Yellowknife, Ms. Scott is often approached by members of the public who seek treatment advice for private artwork. From time to time, a more complicated piece will cross her path, and she asks that the object be brought into the museum so that she can have a closer look. A case in point was a 20th century propaganda poster from North Korea that had been painted with gouache, but that was flaking as a result of being rolled for transit back to Canada (Fig. 6). The major portions of the poster appear to have been glued atop an under painting, and some sections of these top portions were also peeling away from the paper support. Ms. Scott thought that the poster would be a fun project for me, so we decided to work on it at the museum.



Fig. 6 Propaganda poster, before treatment.



To secure the peeling sections back to the paper support, I prepared a solution of methyl cellulose in ethanol, put it into a syringe, gently lifted the peeling sections with the needle of the syringe, and injected a small amount of the solution underneath. I then rolled the sections with a cotton swab and wiped up any excess solution that seeped out from underneath, and weighted the sections with Reemay, blotting paper, and lead shot.

Since the flakes of gouache were far too small to re-adhere to the poster, they were brushed away with a soft paintbrush. Ms. Scott and I researched a treatment that had been published by the AIC entitled, "The Use of the Ultrasonic Mister for the Consolidation of a Flaking Gouache Painting on Paper," whereby 0.5% Klucel G in ethanol had been successfully used as a consolidant in a similar situation to ours. Since the owner wanted the poster to be returned to her relatively quickly, however, we did not have time to prepare the elaborate ultrasonic misting device used by the authors of the article, and so we tested the effectiveness of spritzing the Klucel G solution onto the poster from a spray bottle. This method worked extremely well, and we are in the process of completing the treatment.

Approximately one year ago, Ms. Scott was approached by the Office of the Commissioner here in Yellowknife to treat a series of eight soapstone, antler and bone carvings that had all been damaged in one way or another during a transition between office buildings. Ms. Scott herself had not had the time to begin work on these sculptures, however, and when I initially contacted her about interning at the PWNHC, she mentioned that this might be a good project for me. Some of the sculptures had been previously repaired and needed to be taken apart, cleaned of poor adhesive, and conserved, while others needed more advanced intervention such as filling, inpainting, and even complete reconstruction of some elements of the object. One piece in particular, a bear carved from green soapstone, had its nose broken during the move (Fig. 7 and 8). I consolidated the edge of the break with 5% Paraloid B-72 in acetone, then added plaster in layers to bulk out the missing section of the bear's nose. Once dry, I sanded the plaster down and smoothed it out, then tinted the plaster with water colours to match the pigmentation of the soapstone. Since the soapstone itself had a slight sheen, I coated the plaster with a few layers of 5% B-72 to give it a polished appearance (Fig. 9).



Fig. 7 Soapstone bear, before treatment.



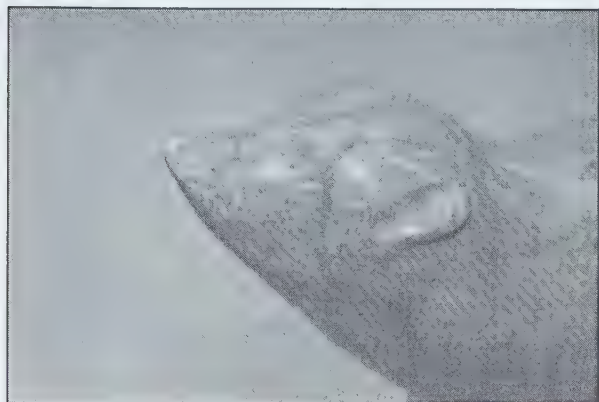


Fig. 8 Nose of bear, before treatment.

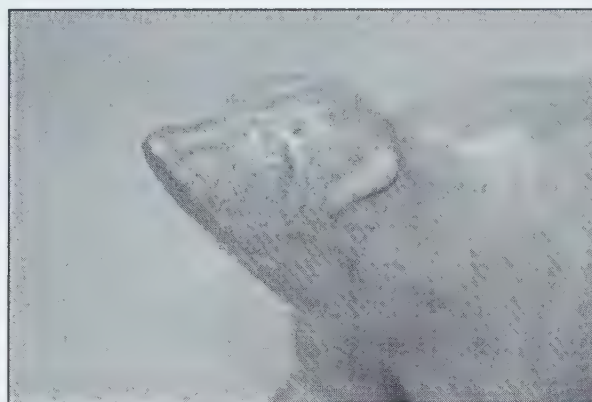


Fig. 9 Nose of bear, after treatment.

Another of the sculptures consisted of four birds (made of antler) resting on pegs that had been inserted into a curved base (also made of antler) (Fig. 10). One of the pegs had been broken in half, however, and one of the halves had been lost, while another of the pegs was missing entirely. I therefore constructed new pegs out of pine dowels, sculpting them with a chisel, smoothing them with sand paper, and painting them with water colours to match the original, existing pegs (Fig. 11).



Fig. 10 Bird sculpture, before treatment (notice half peg on second bird, and missing peg on third).



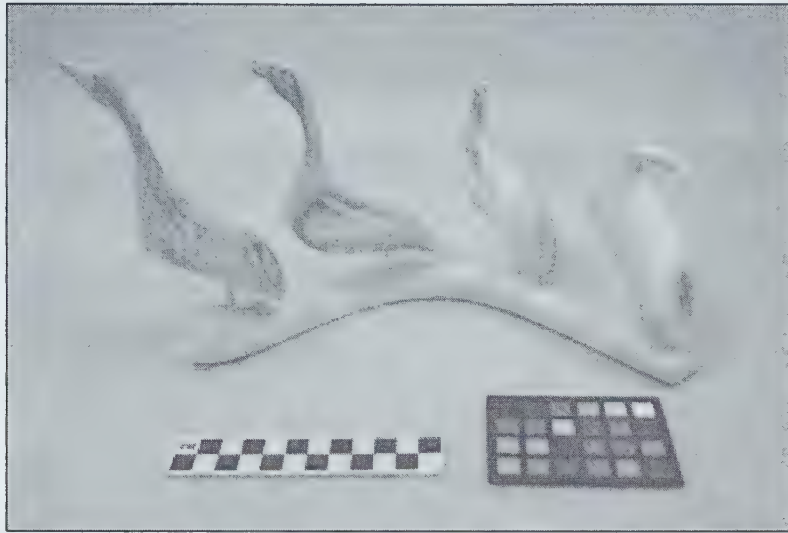
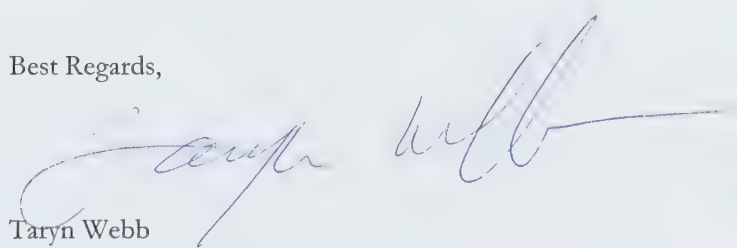


Fig. 11 Bird sculpture, after treatment (with newly constructed pegs).

What was rewarding about this project in particular was that the Commissioner arranged for a reporter from the local paper to be present when I returned the sculptures to his office. He was thrilled to have the pieces back, and was very impressed with the quality of work. The article appeared in the Wednesday, August 1 edition of the *Yellowknifer*, and I will bring a copy for the program to keep when I return to Kingston at the end of August.

To conclude, Ms. Bader, I would like to thank you once again for your generosity. I hope you've enjoyed this brief snippet of my summer in Yellowknife. If you have any questions or comments, please feel free to contact me at 613-328-6052, or by email at tarynwebb@yahoo.ca.

Best Regards,



Taryn Webb



**Sheina Barnes' Internship Report
Master of Art Conservation Program
Queen's University, 2007**

1. Introduction

My internship at the Library and Archives Canada was an excellent opportunity to learn and refine my current treatment methods for paper artifacts. The internship included very challenging treatments and complimented the excellent laboratory instruction provided by Professor John O'Neill at Queen's University. The preservation centre environment afforded me the opportunity to consult with numerous skilled paper conservators on a daily basis and participate in their treatments as well as mine. As a 2007 recipient of the Isabel Bader Bursary, I was able to complete a volunteer internship that was tailored to broaden my understanding of treatment techniques.

2. Institutional Overview

The Library and Archives Canada (LAC) Preservation Centre houses the preservation laboratories in Gatineau, QC. The conservation laboratories are located in an open-concept village-like setting on top of the records storage vaults. The facility was opened in 1997 and it continues to remain one of the best, if not the best, paper conservation laboratory in terms of equipment and facilities in Canada.

The equipment and expertise at LAC was phenomenal. The facility has a leaf caster, edge caster, eclipse mat cutter, book keeper spray booth, etc. As expected the staff are mostly familiar with Canadian artifacts as part of the mandate of LAC is to collect and preserve artifacts of importance to our country. There is also a strong relationship between the Canadian Conservation Institute and the LAC due to their proximity, furthering one's learning opportunities.

3. Internship Overview

As an intern, I was invited to complete treatments and re-housing projects under the supervision of Judith Farladeau, Mary Murphy, and Maria Bedynski. As requested in my initial letter of interest, the internship was limited mainly to bench work. My laboratory practice included doing conservation assessments for artifacts that were



selected for display in the upcoming Aboriginal Treaties exhibit and creating housings for artifacts. I maintained a conservation log and treatment documentation for my treatments, as well as the objects that I assessed but did not treat. Prior to treating the objects I was required to do a condition report and photography, and after treating the objects I was able to make recommendations on their display.

3.a. Maps and Manuscripts Treatment

The objects that I assessed and treated in Maps and Manuscripts had been previously treated with no accessible documentation. This provided me with the challenge of assessing another conservator's work and deciding whether or not I should reverse extensive treatments such as lining, infilling, and lamination. The objects that I treated included: a laminated Aboriginal treaty with totems, a small watercolor map, and a Proclamation by the King that had been previously treated. I assisted in numerous leaf-casting treatments, localized bleaching using NaBH_4 on a watercoloured map, other reversals of lamination, etc. I also assessed, but did not treat, another treaty and a laminated document with wax seals.

The laminated treaty afforded me the opportunity to review Rebecca Craigue's research project (Queen's MAC 2006), complete solubility tests using Teas charts on salvage edges, and consult with Scott Williams from CCI using Fourier Transform Infrared Spectroscopy on the lamination polymer. I reversed the cellulose acetate lamination using an acetone bath, followed by a water bath. The object was also tested for iron II and iron III ions with bathophenanthroline papers and had tear repairs and flattening done to it. The designer requested that this double-sided document with text to the edges on both sides be presented in a floating format creating a definite challenge in finding a method to display this document. I prepared numerous mock-ups including mylar encapsulations, two French inlay mounting techniques for albumin prints using remoistenable RK-O tissue with Klucel-G adhesive, and false margins with Japanese tissue that were sympathetic to the text at the edges of the document.

The small watercoloured map was a basic treatment. It required surface cleaning, suction table washing, tear repair, infilling, and flattening. The treatment was straight forward and Judith demonstrated her infill paper selection method and infilling techniques.



The proclamation that I worked on had been previously lined with a thick paste and heavy paper, as well as infilled and the infills had been toned with graphite. I reversed the previous repairs with Judith and then washed the document. I also light-bleached the document to improve its appearance. I learned how to dye conservation papers to the colour of the artifact using Liquitex acrylic paints. I worked with another conservator for 8 hours to complete the tear repairs and infilling in the centre of the document while keeping the document damp on a light table. We also reinforced the major tears with Japanese tissue and re-lined the document by spraying it with dilute wheat starch paste and lining it by placing a piece of lightweight RK-O on the verso.

3.b. Prints and Drawings Treatments

As an intern in the prints and drawings laboratory I completed 12 condition reports on objects including a handcoloured engraving with some etching, several hand-coloured lithographs, a drawing in graphite, and seven portrait miniatures on ivory. I did surface cleaning, suction table washing, and used laponite poultices on several of the documents. I participated in cumulative condition reporting for exhibitions and developed a condition report for incoming miniatures for the Portrait Miniature Workshop in October 2007. I also worked on a comprehensive re-housing project for 24 chalk and pastel drawings and I made adhesive-free spacers for other items traveling to exhibitions. I completed an iron gall ink experiment on items from Maria's study collection using six different combinations of calcium phytate and calcium bicarbonate and measured the iron content of the samples with bathophenanthroline papers. Maria gave me lectures on William Hind's artwork, problematic bleaching treatments from the 1970s, reversing blackened lead white, print identification, and she demonstrated the technique of drying a document on a karibari board.

3.c. Additional Information

As an intern at LAC, I was able to participate in further training with multiple staff members:

We had an orientation day with the archivists and learned about their jobs, and I went on a tour of the art vault with the Portrait Gallery of Canada staff. Cathy Craig-

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Bullen took Jane Dosman and myself to Bentley off-site storage for a day to look at a massive rehousing project for thousands of newspapers and to see the downtown conservation centre at 395 Wellington Street in Ottawa. Maria Bedynski taught us the condition rating system from the Insitut Collectie Netherland for objects with iron gall ink and discussed the problems with current iron gall ink treatments. Ms. Bedynski also gave a pulp filling and dying workshop to Cher Ward (Queen's intern at the National Gallery of Canada) and myself. I was also trained on digital photo-documentation techniques, the Munsell colour chart, file naming and file storing using the Nikon Capture Software and a digital SLR by Francine Huppé. Lynn Curry provided us with a deacidification workshop during which we deacidified 10 deaccessioned artifacts (from 1631 - 1937) with magnesium bicarbonate, calcium bicarbonate, calcium hydroxide, and Bookkeeper and assessed the effects of each on adsorption, pH, and colour. We also learned how to identify lignin, iron II and III ions, and acidity. Tania Passafiume provided us with a plastics workshop for identifying polyvinyl chloride and a French Inlay workshop for albumin prints. Sherry Guild, from CCI, was present at the archives two days a week working on the Antiphonal manuscript (watercolour and ink on parchment) and I have had the opportunity to participate in numerous discussions on this large manuscript from 1550. CCI has also been working on hyper-spectral and multi-spectral imaging using infrared light and I attended a lecture on both. Chris Morrissey, an Industrial Design student from Carleton University was designing a new housing for the Canadian constitution and I have consulted with him numerous times on the materials that he should be using to house paper artifacts. Other LAC staff also gave me demonstrations on the mass digitization of books and cellulose nitrate degradation. I also had the opportunity to research wheat starch paste, Japanese brushes and tools (noribake, noribon, uwabake, mizubake, koshi, etc.) and water purification systems (including distillation, ion exchange, deionization, carbon adsorption, ultrafiltration, reverse osmosis, microporous membranes, and ultraviolet sterilization) and provide a workshop to the other two interns. Finally, the proximity of LAC to other institutions allowed me to tour the conservation laboratories at the Canadian Museum of Civilization, Parks Canada, the National Gallery of Canada, and the Canadian Conservation Institute.

[The text on this page is extremely faint and illegible. It appears to be a multi-paragraph document with several lines of text per paragraph, but the characters and words cannot be discerned.]

4. Conclusion

My internship at LAC provided me an opportunity to learn new conservation treatments and practically apply my paper conservation studies at Queen's. I feel privileged to have worked amongst such knowledgeable staff as Judith, Mary, and Maria and I found my three month internship to be invaluable. The confidence I gained by completing this internship helped me to find my current employment as an Assistant Conservator at the Art Gallery of Ontario.



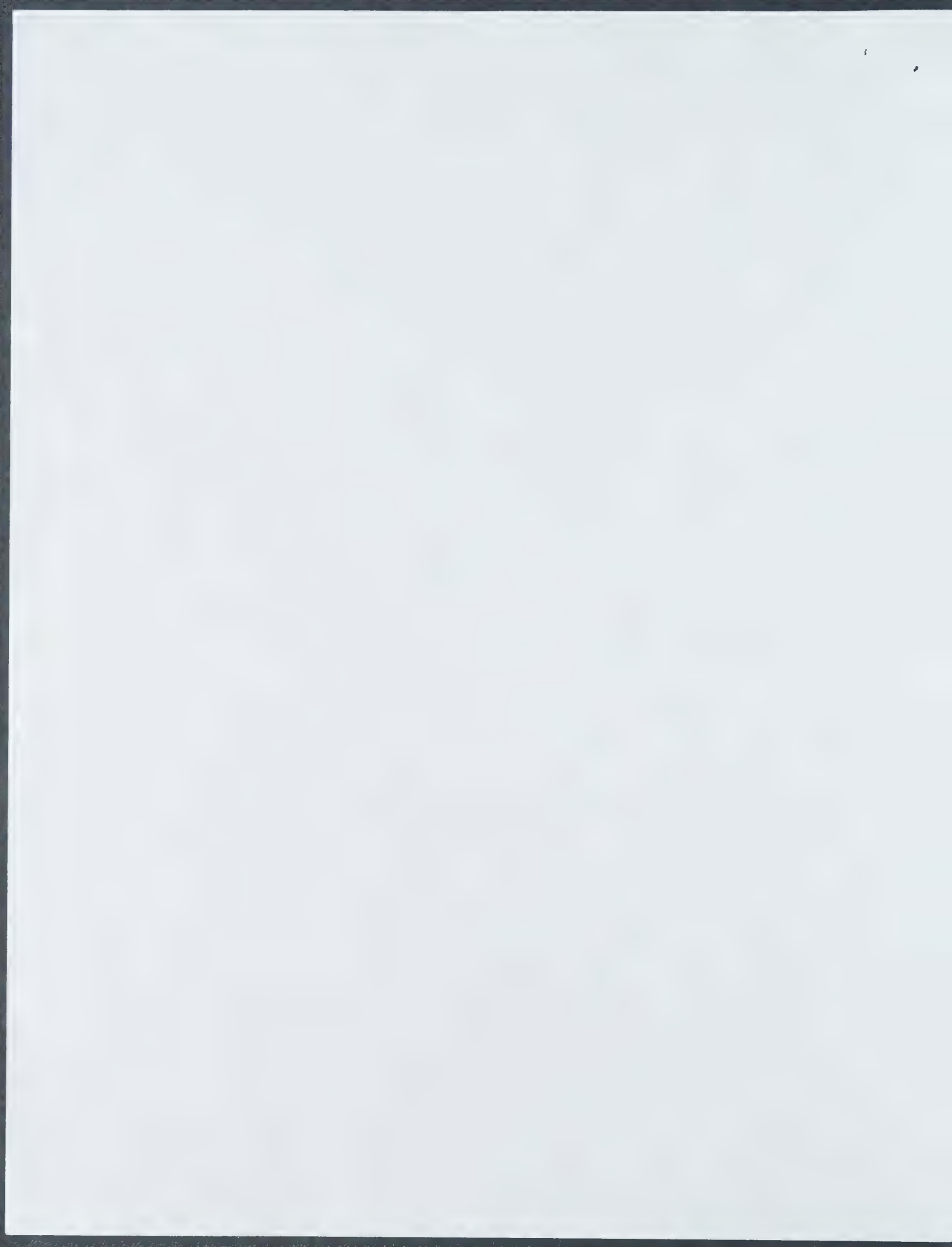
August 15, 2007

To Mrs. Bader and the Isabel Bader Foundation,

I write with sincere gratitude for the financial assistance awarded to me this summer through the Isabel Bader Bursary in Textile Conservation. During my internship at the National Museum of the American Indian, a Smithsonian institution in Washington, D.C., I undertook three unique and challenging textile treatments of Native American garments in preparation for their exhibition at the George Gustav Heye Center in New York City. These were a pair of Miami moccasins, a pair of Great Lakes Indians leggings, and a horse-hair dance belt belonging to the Shasta tribe. (Please find pictures of the treatments in the overviews attached).

Each of the pieces required that I undertake cultural research; an important and respectful first step in treatment planning. Through this research I came to understand how the pieces were made, the context of their use, and the cultural significance of the materials. The information I gathered guided me in the preservation of important evidence of use and intentional 'damage', such as abrasion or soiling, and gave justification for the removal or concealment of other damage that could be attributed to subsequent storage and handling in the museum. The treatment of the moccasins involved stabilization of the intricate beadwork by restitching through original sewing holes, the humidification and reattachment of creased and broken silk ribbons, and the protection of the edges of the moth-damaged wool cuffs with supportive underlays. The treatment of the leggings involved the humidification and backing of the creased and fragile silk ribbons, and the protection of the torn edges of the wool ties with stitching. The horse-hair belt required stabilization of the broken horse-hair braids with unobtrusive thread wrappings, and the repositioning of a loosened end covering.

The internship also gave me the opportunity to practice my skills in photography through the use of the conservation photo studio and the textiles slant-board (designed to provide the best angle for capturing large, flat objects). And, in addition to the treatments undertaken, I was able to observe a number of interesting testing methods that I may apply to future projects. These included: Oddy Tests for determination of safe versus unsafe conservation and exhibition materials; Shrinkage Tests to calculate the state of degradation of tanned leathers; and Heavy Metals/Pesticides Tests of contaminated objects to prevent human contact with unsafe levels of toxins.



Tours of the Freer and African Art Museum's conservation labs, as well as the Museum Support Centre, the Museum Conservation Institute, and the George Gustav Heye Center in New York City, were excellent opportunities to hear about the activities of other Smithsonian institutions. Furthermore, conservation-related brown-bag lunches and seminars (ranging from research on dyed quillwork, to new information on relative humidity and temperature) were very informative and provided opportunities to meet others in the field.

The textile treatments challenged me to learn new conservation techniques and utilize unfamiliar materials. Through the internship my knowledge and technical development as a conservator has grown immensely.

The bursary awarded to me helped greatly in offsetting the costs of living in the capital city, allowing me to accept the internship upon its offer. Thank you for offering this award to students in the MAC program – helping expand our horizons as conservators in training.

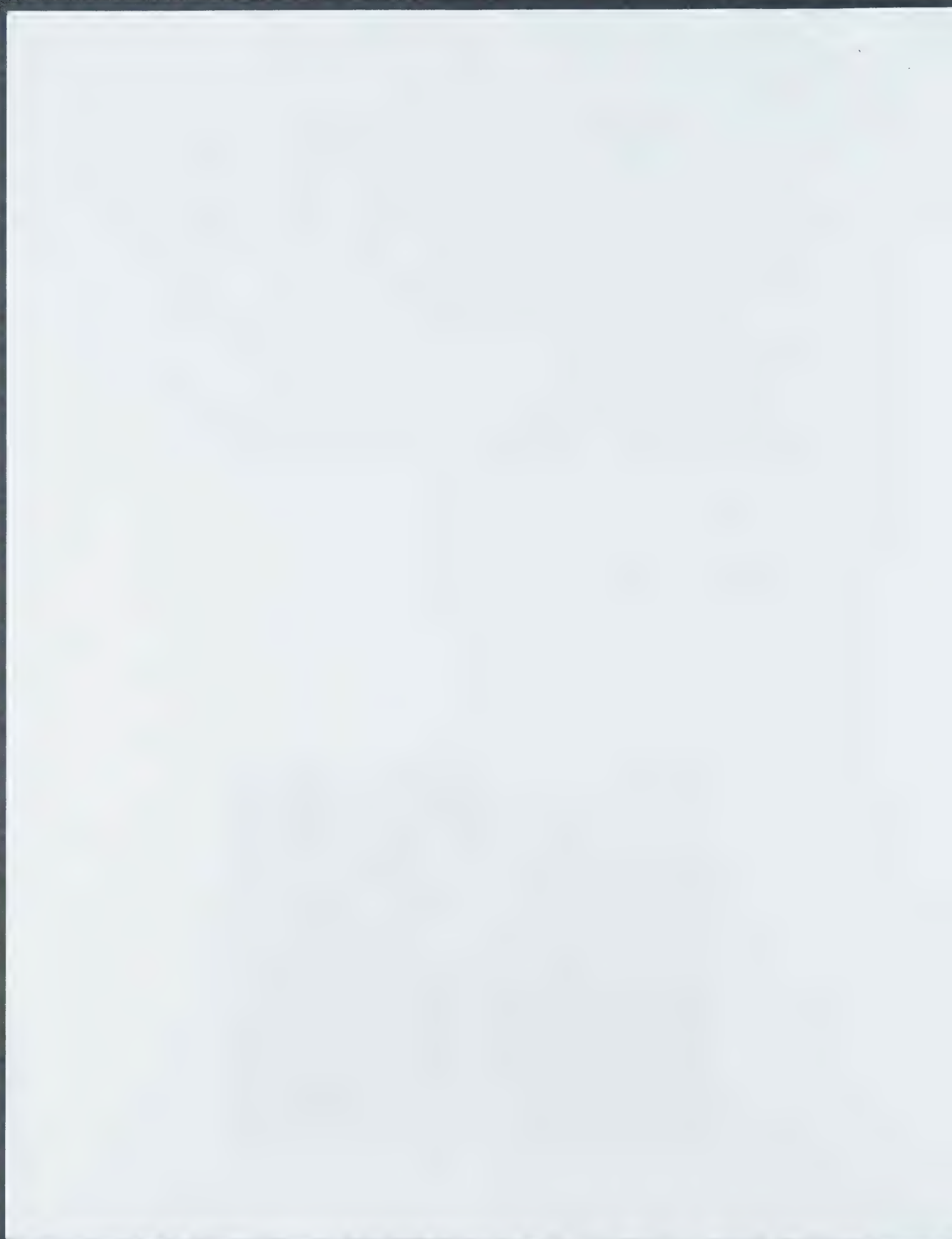
Sincerely,



Claire Neily



Smithsonian National Museum of the American Indian Cultural Resource Center



Textile Treatment Overviews

Miami Moccasins 202175.000

The treatment of the Miami moccasins was quite involved. The moccasins were composed of a hide slipper with a broad folded cuff, onto which a wool covering, silk ribbon appliqué, and glass beads were attached. The silk was fragile in some areas, and one of the ribbon ties was severed. The beading was not intact along the cuffs; the threads breaking with even slight manipulation, causing the beads to fall off. Numerous areas of the wool exhibited insect damage, and waste pellets that were found in the heel fold of one moccasin suggested the activity of a clothes moth. Additionally, the moccasins had been improperly stored in the past, resulting in creases and wrinkles that distorted their original shape.

The goals of treatment were: to secure the unstable elements so that the moccasins could be handled and exhibited without further losses; to reduce the visibility of the insect damage to preserve the aesthetic integrity of the moccasins; and, to provide a more suitable insert to support the moccasins in their original shape. The fragile beadwork was stabilized with stitches through original sewing holes. Underlays of wool cloth were then secured beneath the areas of loss that had been created by insect damage. The humidification of the ribbon ties followed, and the broken ribbon was reattached with a discrete backing of color-matched Stabiltex fabric impregnated with a 1:1

mixture of Lascaux 360:498 HV adhesive, which was reactivated with acetone vapors. Tyvek pillows were positioned inside the moccasins to approximate their original shape, however time did not permit for the construction of a final insert. Numerous techniques were employed in the treatment of the moccasins and these, as well as the stability imparted to the moccasins and the concealment of non-original damage, made the treatment very worthwhile.



before treatment



during humidification of ribbons



Great Lakes Indians Leggings

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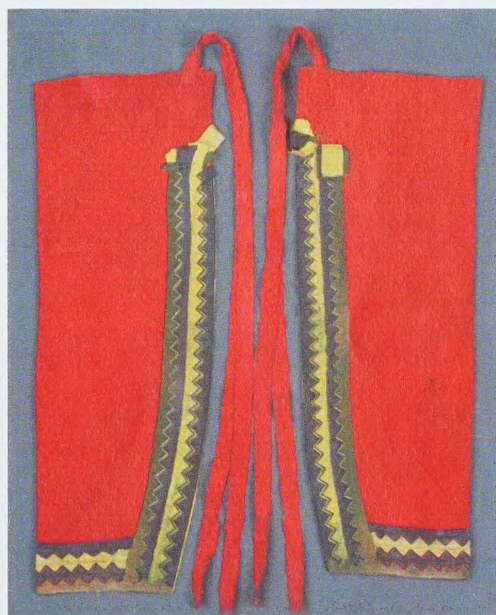
The leggings were part of an outfit that had been given to collector W.L. Foster in the late 1700s. A consultation with Aboriginal and non-Aboriginal scholars had taken place in 2006 and particular attention had been paid to the cultural significance of the silver buttons on the front side (not shown), the ribbonwork pattern, and the colour of the wool cloth and ties. Fortunately the leggings were in good condition and the proposed treatment would not disrupt these elements. Though the dye in some of the ribbons had bled, and there was a dark semi-circular stain on the reverse of one of the leggings, it was believed that neither was a result of mishandling or storage conditions but rather use. It was therefore decided not to attempt a solvent cleaning campaign of these stains. Concerns rested on the physical condition of the silk ribbon ends and the red wool ties.

The silk ribbon ends had not been sewn down but had instead been left loose, and they were now crushed and wrinkled from long-term storage. As silk is very fragile and tends to break along areas of stress, such as folds and creases, it was decided that humidification was necessary. During humidification the ribbons were realigned slightly and small, structural tears in several ribbons were discovered. It was decided to rejoin the torn edges and support the ribbons from beneath with discrete Stabiltex backings (as with the Miami moccasins).

Each pair of red wool ties had originally been sewn together along an upper edge. These

seams had, however, been stressed, resulting in broken seams and disruption of the wool weave in some areas. Fine, red-dyed hair silk was used to stabilize the edges of disrupted weave, and an appropriate thread was used to recreate the original seams.

Prior to the treatment of the leggings it was important that I read the consultation notes associated with the Foster outfit. This was a valuable experience for me, as I learned the history of the leggings and the significance of the various elements.

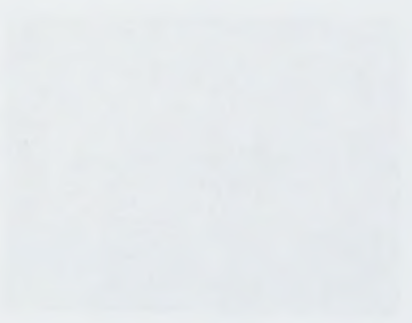


before treatment



stabilization of damaged edge of wool tie

The first part of the paper discusses the importance of the research. It highlights the need for a comprehensive understanding of the subject matter. The authors argue that this research is crucial for advancing the field and addressing the current challenges. They also mention the potential applications of the findings in various contexts.



The second part of the paper presents the methodology used in the study. The authors describe the experimental design, the data collection process, and the statistical analysis performed. They provide a detailed account of the procedures followed to ensure the validity and reliability of the results. The paper then discusses the results of the study, comparing the findings with previous research and highlighting the key observations. Finally, the authors conclude the paper by summarizing the main findings and discussing the implications for future research and practice.

Shasta Belt 039399.000

The belt was composed of many rows of braided horsehair that were held in a flat, wave position by leather thongs. Some of the braids had broken and unwound slightly, and an area at the proper left exhibited significant damage and some loss of material. When an example of how such belts were worn was found in a publication, it was noted that not only could this damage have occurred during use, from the rubbing of another object secured to the hip, but that the belt was likely worn across the back of the waist. This meant that what was the proper left side during examination would have been the proper right side during use. The ends of the belt were wrapped with red wool cloth, though the wrapping on the proper left was loose. Numerous metal, shell, and glass ornaments had been strung or sewn to the belt, and fortunately these were all stable.

Treatment began by wrapping the broken and unwound braids with a monofilament thread of similar color and texture to the horsehair. The wrappings were hidden as much as possible, and in several cases they were not required as the braids could be repositioned within the loops of leather thong. This was the most preferable option as it meant that a foreign material was not being introduced to the piece. Other Shasta belts in the collection were viewed to determine if the loose wool wrapping on the current piece was intentional. As the other belts exhibited tight wrappings of wool, the wool wrapping of this belt was therefore re-wrapped and secured with the original cordage tie.

During this process numerous holes were discovered in the wool, and a casing, probably from a casemaking clothesmoth, was uncovered. As these holes were not under strain and would be concealed once the wool was re-wrapped, it was decided not to place underlays beneath these areas of loss.

This treatment reminded me to be aware of differences between the context of use and the storage context - that the manner in which an object is laid out for storage may elude its original orientation during use. As such, consultations and photographs are invaluable.



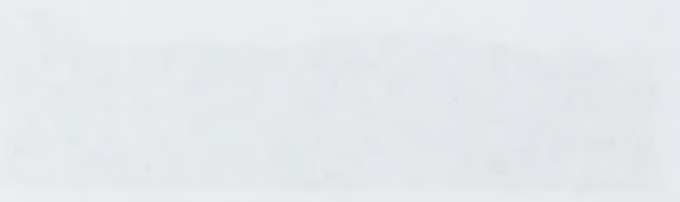
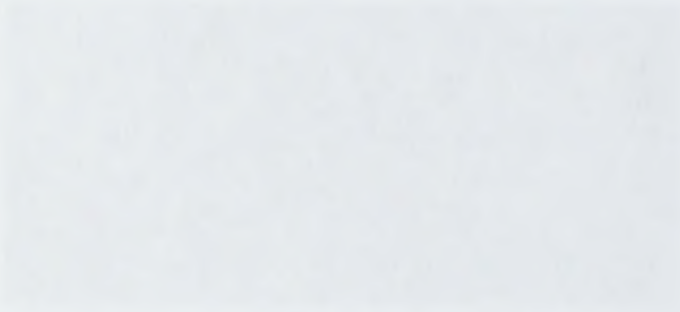
before treatment



during wrapping of loose and broken braids

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