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COLLABORATIVE WORK TOWARDS THE PRESERVATION OF SPRUCE ROOT BASKETRY AS A LIVING TRADITION

MOLLY GLEESON AND SAMANTHA SPRINGER

ABSTRACT

During the summer of 2007, interns Samantha Springer and Molly Gleeson, Native Alaskan weavers Janice Criswell and Teri Roñkar, and conservator Ellen Carrlee worked to preserve Haida and Tlingit spruce root baskets in the collections of the Alaska State Museums. A major focus of this project was to encourage collaboration between the conservators and Native weavers. By focusing on a specific type of basketry the interns were able to allow this collaboration to direct the process of preserving the baskets. Additionally, their work was enhanced by collaborating with each other and other museum professionals daily about treatment solutions and techniques, as well as by interacting with Native demonstrators, the local community, and the surrounding southeastern Alaskan environment.

The interns’ major responsibility was the treatment of several Haida and Tlingit spruce root baskets. To understand the materials, technologies, and properties of these baskets more fully, they worked with Native weavers to learn gathering, processing, and weaving of the spruce roots. Besides these more concrete concepts, they also gained an understanding of the weavers’ relationship to the materials, the baskets, and the environment. The weavers made regular appearances in the lab to discuss the history of the baskets in the collection and previous and current treatment techniques and approaches. Through this interaction, the interns developed a greater responsibility and ownership of the information that they acquired and a desire to ensure that it is passed on in an accurate and respectful manner.

The interaction between weavers, conservators, other museum professionals, and the public took preservation of the baskets beyond the confines of an eight-week internship in the conservation lab and helped to bring these baskets, their traditions, and their stories into the community. Such interactions encourage preservation efforts to progress beyond project-driven collaboration towards a more organic collaborative process of conservation.

1. INTRODUCTION

The Alaska State Museums (ASM) in Juneau and Sitka contain superior examples of Native Alaskan spruce root basketry. While these types of baskets are valued worldwide, they are particularly meaningful to contemporary weavers in southeast Alaska. Native weavers have a history of working with the ASM in a variety of capacities. The ASM has continued a relationship with these weavers in an attempt to involve them in the conservation of baskets in these collections. During the summer of 2007, Ellen Carrlee, ASM conservator, offered two graduate conservation internships to work on Tlingit and Haida spruce root baskets and experience the benefits of this type of collaborative work. The authors were the fortunate students to participate in this project. Originally, the project had two main goals: to conserve Haida and Tlingit baskets in the collections and to encourage a partnership with the weavers. However, the collaborative spirit extended beyond the interns working with the weavers to learning from each other, other professional museum staff, and the local community.

The ASM consists of the Alaska State Museum in Juneau and the Sheldon Jackson Museum (SJM) in Sitka. These cities are located in southeastern Alaska, in the heart of the Tlingit and Haida cultural homeland. This area is abundant with Sitka spruce trees, whose roots have supplied the raw weaving materials for the people who have lived on this land for thousands of years.

At the Alaska State Museum in Juneau, work was carried out in the conservation lab under Ellen’s supervision. The interns also regularly interacted with other museum staff, including the curator of collections, Steve Henrikson and Scott Carrlee, a conservator and the curator of museum services at ASM. Outside the lab, the interns worked with Janice Criswell, a Haida and
Tlingit weaver (fig. 1). Jan provided instructions on how to collect, process, and weave with spruce roots. She also visited the conservation lab periodically to comment on baskets in the museum’s collection. In Sitka, the interns continued learning to weave with Teri Rofkar, a Tlingit weaver, and worked on several baskets in the Sheldon Jackson Museum (fig. 2). Teri also visited the museum to examine baskets in storage and to discuss treatments. In the museum, work was carried out under the supervision of the curator, Rosemary Carlton. To provide public outreach, the interns carried out as much of the treatments in the gallery as possible (fig. 3).
Working in a public area gave the interns an opportunity to explain conservation to visitors and also to interact on a regular basis with the Native artist demonstrators who also worked in the galleries. The small size of the museums provided opportunities to interact frequently with museum staff in addition to the weavers. The interns also spent a lot of time working side-by-side, which provided a venue to discuss treatment issues as they came up and brainstorm solutions continuously. Devoting the entire summer to a single material and type of object allowed the interns to become familiar with different aspects of the spruce root weaving technology, common features of Tlingit and Haida baskets, and common condition problems. Based on shared knowledge, experiences, and ideas, treatments were adapted for each basket.

Carrying out this work in Juneau and Sitka gave the interns the opportunity to witness the commitment and determination of the community to preserve the local cultural traditions. It was a privilege to be included in these vital communities, and to be a part of this project that was about more than just conserving baskets, but preserving a cultural tradition and bringing conservation beyond the museum environment.

Fig. 3. The interns at work and chatting with visitors in the gallery of the Sheldon Jackson Museum (Photograph by Germán Parra)

2. WORKING WITH THE WEAVERS

The possibility of working with Native weavers, not only learning traditional weaving methods, but also consulting on treatments, was one of the major draws for the interns to go to Alaska. Their first interaction with the weavers was going out to collect roots with Jan and her root-digging partner Mary Lou King. Mary Lou is a noted environmental activist and active member of the local weaving community.

Traditionally, roots were harvested in the spring after the ground thaws, but before the summer sap runs through the roots. One reason for this practice is that the bark is more easily
removed during this time. In addition, roots must be harvested from trees of a certain age to produce the types and sizes of roots used for weaving. Trees that grow in sandy soil produce long, straight runners close to the surface making the roots easier to find and collect. In this instance, the interns had the opportunity to go digging on a sandy island behind Mary Lou’s home.

After finding a good spot, roots are found by pulling surface moss away to reveal the distinct orange color of the spruce roots’ bark. Once a root is found that is of desired size and close to the surface, one lifts the moss from above the root (fig. 4). The root is then loosened from the sandy soil with a hooked tool. Long, straight roots are best, as they are the easiest to weave. When the root forks into two, has a kink, or starts to change drastically in diameter, it is cut from the ground and wound into a coil. Before finishing for the day, Jan said it was important to thank the trees for their generosity. The time spent collecting roots that day was determined by the tide, as it was only possible to get to the island while the water was low. It was this type of constriction that revealed the importance of being familiar with the environment.

The next step is processing, which includes roasting, peeling off the bark, and rinsing in water. To roast the roots, they are coiled, placed directly in an open fire, and rotated with a stick to heat them evenly (fig. 5). The steam created from the natural moisture within the roots bursts open the bark making it easier to remove. The reasons behind roasting are not completely understood. The weavers suggested that roasting is used to prevent discoloration and premature aging or to ‘sterilize’ the roots from fungus and insects, and that it has been part of the process for generations. In addition, Ellen recalled that some weavers believe the roasting makes the wood denser and stronger. After roasting, to remove the charred bark, the root is pulled through an eena, or a wooden stick with a slit (fig. 6).

The two sides of the stick can be squeezed together with one hand to get the right pressure while the root is pulled through the opening with the other. Afterwards, the roots are rinsed in Alaskan rainwater, which contains little contaminants or chemicals that might discolor the roots.

The last step before weaving is splitting the roots. Spruce roots have a slightly hourglass shaped cross section with opposing root hairs on either side of the narrow section (fig. 7). First, the root is split in half down the middle of the narrowest diameter and through the root hairs (depending on one’s skill, of course). Then, each half is split again and again until the desired thickness is achieved, somewhere between 1-2 mm. The outer side of the root with the smooth epidermis is used for the wefts and the inner sections for the warps. To split the root, an initial incision is made with a small knife. One split end is held in the mouth, the other split end is held in the right hand, and the unsplit root is held in the left hand. This arrangement allows tension to be created so that the root can be split evenly down the center. It was evident that this part of the root preparation process took years of practice to perfect.

Once the roots are split and ready to be woven, they are coiled and dried. When they are needed for a basket, they are soaked in water until they are flexible enough for weaving. During the interns’ five weeks in Juneau, they worked with Jan and Mary Lou to each weave a small basket. While many of the spruce root collection, preparation and weaving techniques are well documented in Sharon Busby’s *Spruce root basketry of the Haida and Tlingit* (2003), these experiences were a critical aspect of understanding the materials and techniques of spruce root baskets.
Fig. 4. Pulling away the moss to reveal the spruce roots. Here the roots appear in an ‘x’ shape. The top root has an undesirable kink. (Photograph by authors)

Fig. 5. Roasting the roots over an open fire (Photograph by Seth Pauley)
Fig. 6. Removing bark from the root by pulling through an eena. The purple gloves are cotton gardening gloves, NOT nitrile (Photograph by Seth Pauley)

Fig. 7. Cross-section of a Sitka spruce root (Drawing by Teri Rofkar)
The interns each learned to weave in a different style, one Tlingit and the other Haida. Learning both styles helped them to understand the subtle differences between the twined structures (figs. 8, 9). For example, Tlingit baskets are woven right side up in a clockwise direction. This creates a “jog down” from left to right when there is a transition in design elements, while Haida baskets are woven upside down in a counterclockwise direction creating a “jog up” between design elements. In addition, Haida weavers often used a form to help keep the warps of the basket straight during weaving. A difference in decoration is that Tlingit baskets have false embroidery or wrapped weft decoration, while Haida baskets do not. Traditionally, maidenhair fern stem and grasses were used for these decorative elements. Learning from two different weavers revealed that even within the Tlingit weaving style there are differences in each weaver’s method, such as how to add new warps or wefts and whether one uses single or double warps.

Spending time with Jan and Teri and learning from them not only taught the interns about the materials, but it also instilled a sense of responsibility to fully include them in the preservation of their culture. This motivated the interns to write a paper together with the weavers for the 2008 15th Triennial ICOM-CC meeting in New Delhi, not just as a translation, but as a true collaboration. The process was challenging for everyone. For the interns, as the main editors of the paper, it was a delicate balance between taking control and allowing the weavers’ voices to come through. In the end they did very little to change the weavers’ words, but more to guide them to elaborate on topics that the conservation community would be interested in, as well as to suggest places to cut back to keep within our strict word count. An unexpected outcome of having the weavers express themselves on paper was that it clarified certain ideas that were particularly important to them. They both spoke at length about the connection they felt to several 4-5,000 year-old archaeological baskets found in the area. They expressed concern about the baskets’ stabilization so that others could also see them.

The interns were anxious to share their experiences from that summer with the conservation community, but were also sensitive to the fact that much of this information was traditional knowledge that has been passed down within the weaving community, and may not have been theirs to share. Writing the paper with the weavers was a way for the interns to ensure they had been given permission to pass this information along to others. This experience also allowed the interns to learn what they might be able to offer to the weaving community. Both Teri and Peter Corey, the previous curator at the Sheldon Jackson Museum, expressed how difficult it was to distinguish different types of plant materials from one another on old baskets by visual examination alone. For example, there is concern that horsetail root might be routinely mistaken for maidenhair fern stem. The interns explained microscopy techniques to them that can be used to characterize these materials and it was encouraging to think that conservators could help to give information back to the weavers about their past.

Weaving baskets together created a fertile space for the transmission of knowledge, one that only exists when people sit together with their hands busy and their minds wandering. It was then that the weavers shared their feelings and thoughts about baskets, weaving, and the past. Jan talked about how even the baskets they made that summer have a history. Their history started with the creation of the island and the growth of the spruce trees. The history of the baskets will continue on in these women and through collaboration with them.
Fig. 8. Tlingit start (Photograph by authors)

Fig. 9. Haida start (Photograph by authors)
3. WORKING IN THE MUSEUMS

At both museums, the interns examined baskets with Jan and Teri and with the curators Steve Henrikson and Rosemary Carlton. Spending time with these experts familiarized the interns with the baskets, their cultural significance, and their significance to the museum collections. In addition to looking at baskets in these collections, baskets were examined at the Sitka National Historical Park with curator Sue Thorson.

Looking at these baskets, discussions ensued about their traditional uses and how this might be related to their current condition. In these conversations, Jan always cautioned against jumping to conclusions. For example, baskets with irregularities in their weave at first suggested the work of an inexperienced weaver. But Jan offered other ideas; reminding the interns of all of the irregular roots that they found when they were out gathering with her, and how a basket might look if those twisted roots were the only ones that could be found that season.

Looking at baskets in museum storage revealed a range of repairs, both traditional and non-traditional. Traditional Native repairs generally consisted of making the basket functional again. Later, as baskets were sold for tourist trade, repairs were carried out to maintain aesthetic integrity. The later museum repairs ranged from losses filled with sections cut from other baskets, mechanical repairs with thread, and various types of paper and adhesive repairs. Some looked similar to the types of repairs that are commonly used to mend baskets in conservation labs today. Looking at these older repairs allowed the interns to think more critically about how to approach treatments. As they examined the baskets with Jan and Teri, they asked the weavers how they felt about the repairs overall, the materials used, and the final aesthetic. Generally, while the weavers appreciated the visual integration of conservation treatments, for them, stabilization was enough, a preference seemingly prompted by a desire to not lose any more of their past. The weavers seemed most concerned about the stabilization of the archaeological basketry fragments. These “old ones” as Teri liked to call them, were an inspiration for their own work and really linked Jan and Teri to their ancestors. The weavers also seemed hesitant to touch and handle the damaged baskets. The interns realized that stabilization is not only beneficial to preservation, but also accessibility.

At both museums, the interns examined and treated several baskets. The treatments included cleaning, reshaping, stabilization, loss compensation, and toning fills. The treatment proposals and ultimate treatment decisions were determined collaboratively with Ellen, the curators, weavers, and other museum staff. Several of the baskets required reshaping to facilitate further examination, study and interpretation, as well as preparation for further repairs and loss compensation. For example, one Tlingit basket had upside-down, Y-shaped creases which were evidence of the traditional method of folding and storing baskets, indicating the basket was made for use rather than the tourist trade. In this case, it was important to restore the original shape of the basket, but maintain the evidence of use (figs. 10, 11). Reshaping also allowed for proper cleaning and adequate stabilization. However, before reshaping could be carried out, it was important to understand how the basket was traditionally folded and then decide how this information should be preserved.
Fig. 10. Tlingit basket (ASM 2008-18-1) before treatment with upside down Y-shaped crease emphasized with white lines (Photograph by authors)

Fig. 11. Tlingit basket (ASM 2008-18-1) after treatment (Photograph by authors)
A Tlingit oval lidded basket at the Sheldon Jackson Museum required extensive reshaping. It was significantly distorted from its original shape – the rim and side walls were deformed into an oval shape 90 degrees to the original axis (fig. 12). Due to this deformation, the lid of the basket sits on the rim perpendicular to its original orientation. The two-part rim of the body was also significantly altered, almost completely obscuring the false embroidery on the exterior of the basket in this area. Peter Corey, the previous SJM curator and an expert in spruce root basketry, revealed during a consultation that he felt the basket had several puzzling features, and believed that an initial reshaping would facilitate future study by curators, weavers and researchers. Teri felt certain that the false embroidery design around the rim of the basket should match the design along the bottom edge. Due to the misshapen condition, however, the basket was difficult to understand. It was agreed that an initial reshaping and documentation of the obscured false embroidery design would help make this basket more comprehensible to the weavers and other researchers (fig. 13).

All reshaping treatments were carried out using a humidification chamber with a mixture of water and ethanol. The ethanol was added to inhibit mold growth. Afterwards, if necessary, further reshaping was carried out using local humidification with Gore-Tex, a waterproof, breathable material made from polytetrafluoroethylene (PTFE), damp blotter paper, and Mylar polyester film. The treatments were completed by creating internal forms for the baskets made of materials including soft-structure Tyvek, a spun-bonded, high-density polyethylene non-woven fabric, and Ethafoam polyethylene foam (fig. 14).

After reshaping, many baskets required extensive repairs and loss compensation. Many of the repairs were carried out using twisted strands of Japanese tissue paper fibers and wheat starch paste, a technique described in the publication, *The Conservation of Artifacts Made from Plant Materials* (Florian et al. 1990) (fig. 15).

Several baskets also required loss compensation, for both stabilization and aesthetic reasons. The interns found that they had more room for creativity in developing techniques for loss compensation than they did for tear repair, and each experimented with different materials and techniques. By the end of the internship period, they developed several fill methods, which could be applied to many baskets, with modifications depending on the needs of each individual basket. For example, one Tlingit basket had a loss on the rim (fig. 16). A technique was developed for filling the loss to imitate the surrounding spruce root elements, as well as to provide strength and maintain flexibility. The fill was made by creating a plaited structure using blotter paper wrapped with Japanese tissue paper for the warps, and folded Japanese tissue paper for the wefts (fig. 17). This plaited structure was then attached to the basket using wheat starch paste. Twisted strands of Japanese tissue paper were used to strengthen the connection. Small wads of Japanese tissue paper and wheat starch paste were then applied to replicate the twined texture (fig. 18). A thinner strip of folded Japanese tissue paper was used to imitate the false embroidery along the rim. All of the repairs were toned using watercolor paints (fig. 19).
Fig. 12. Tlingit oval lidded basket (SJM I-A-631) before treatment (Photograph by authors)

Fig. 13. Tlingit oval lidded basket (SJM I-A-631) after treatment (Photograph by authors)
Fig. 14. SJM I-A-631 after treatment with internal form made from Ethafoam and Tyvek (Photograph by authors)

Fig. 15. Twisted Japanese tissue paper repairs on a Tlingit basket (ASM 2006-18-2) during treatment (Photograph by authors)
Fig. 16. A Tlingit basket (ASM 2006-18-1) before loss compensation with detail of loss area (Photograph by authors)

Fig. 17. The loss area on basket ASM 2006-18-1 during treatment (Photograph by authors)
Fig. 18. Detail of the loss compensation on ASM 2006-18-1 after treatment, exterior view (Photograph by authors)

Fig. 19. Detail of the loss compensation on ASM 2006-18-1 after treatment, interior view (Photograph by authors)
Another technique was developed to compensate the large losses around the base of a severely damaged Haida basket that required fills strong enough to hold the weight of the basket walls without placing any more stress on the surrounding broken spruce roots (fig. 20). After initial experimentation with the technique described above, it became apparent that this solution would not provide enough support and involved too many separate pieces that would be difficult and cumbersome to work with to create such large fills. Additionally, the size and location of the losses required the use of a temporary mount during treatment that restricted access to the interior. This led to the investigation of making a mold of the basket surface or sacrificial basket fragment, and then casting a replica for the loss area, based on a technique described in the CCI Notes “A Replication Technique for Damaged Basketry” by Barclay (1989). Testing this idea involved many conversations with the ASM exhibit designer, Paul Gardiner, who suggested molding and casting materials and methods. Unfortunately, with the available materials and time, this option was not possible.

![Fig. 20. Haida basket (ASM II-B-493) before treatment (Photograph by authors)](image)

Finally, the fill was made using several materials, including twisted Japanese paper fibers, cotton gauze, Japanese tissue paper, and paper pulp made from blotter paper. To start, long, twisted strands of Japanese tissue were sandwiched and adhered between two pieces of gauze with Jade 403. The gauze was then backed by a piece of Japanese tissue paper. The gauze and Japanese tissue paper sandwich was laid into the loss, gauze-side out, and the twisted paper strands were adhered to the exterior of the basket with wheat starch paste. Then, a mixture of paper pulp in wheat starch paste and Jade 403 was applied to the exterior of the fill, which provided the final strength and bulk (fig. 21). The paper pulp mixture was textured during application, while it was still wet, to resemble the surrounding weave structure.

Once the paper pulp was dry, it was fairly strong and still had some flexibility. All of the repairs were toned using watercolor paints (fig. 22). Developing these two initial treatments served as a solid foundation for the subsequent treatments.
Fig. 21. A detail of the loss compensation with molded paper pulp before toning on ASM II-B-493 (basket is inverted for treatment) (Photograph by authors)

Fig. 22. ASM II-B-493 after treatment, with internal form made from Ethafoam and Tyvek (Photograph by authors)
4. CONCLUSION

Collaboration is not a new concept for conservators; they regularly work in tandem with curators, other conservators, registrars, mount makers, and artists. And like much conservation work, the success of this project was dependent on many interactions. The interns gained knowledge by working with each other and drawing on past experiences and varied educations. They also had the opportunity to consult with other museum professionals, Native artists, and to interpret their work to the general public. Being surrounded by the Alaskan wilderness was also a means of enriching their understanding of basketry and Native traditions.

The most prominent collaboration of the internship described in this article was that between the conservation interns and the Native weavers, Janice Criswell and Teri Rofkar. As weavers and conservators work to preserve Native American cultural heritage, they learn from each other. Native artists can gain insight through scientific examination, and conservators can improve their work by learning about materials, weaving techniques, and their history and significance. For conservators, this hands-on experience is imperative to develop a deeper understanding and feeling for the work. With such knowledge and collaborative discussions, conservators can better propose, develop, and carry out treatments in a way that safeguards the object’s inherent knowledge and significance, as well as respects the wishes of the object’s primary stakeholders – which also connect to the object’s significance. Joining weavers in the forest to gather roots, feeling the outer bark strip away leaving a slick, strong inner root, smelling the soil and the freshly cooked roots, conservators can be closer to the natural source of the baskets and begin to appreciate the strength and beauty of new roots as a weaving material. Splitting roots into warps and wefts and weaving with Alaska Native weavers, conservators enter the circle of ancient weavers. By connecting deeply with the process of making these objects, a conservator’s work becomes less about doing repairs and more about respect between and among weavers of all nations, past and present.

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FURTHER READING


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