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# THE ANCHORAGE PROJECT: GUT DECISIONS IN CULTURAL AND MUSEUM CONTEXTS

LANDIS SMITH, KELLY MCHUGH,  
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## ABSTRACT

The Smithsonian Institution's National Museum of Natural History and the National Museum of the American Indian are presently involved in a joint loan of approximately 600 objects to the Anchorage Museum of History and Culture. These objects are part of a project entitled, "Living Our Cultures," created by the Smithsonian Institution's Arctic Studies Center, which will be housed in the new wing of the Anchorage Museum. The premise behind this loan is to increase Alaskan access, knowledge, and use of the Smithsonian Institution collection, primarily by Native Alaskans. The loan for these objects is slated for a 12-year duration; however, there will be continual Smithsonian Institution object rotation well into the future.

The regional focus of this project provides a distinct opportunity for Smithsonian Institution conservators to concentrate, for an extended period of time, on the diverse materials, technologies and histories offered by these artifacts. Eleven cultural groups located throughout Alaska are represented in the exhibit. Currently, we are working on the treatment and preparation of selected objects from the Bering Sea cultures. The dependency on marine mammals for survival is illustrated in the number of artifacts made from the inner and outer skins of whales, seals, walruses, and sea lions. While there is a significant amount of information regarding outer skins, the conservation literature on inner skins is limited.

The unusual properties of gutskin can be somewhat intimidating to conservators working outside the Arctic region, who do not treat it on a regular basis. The opportunity to utilize two large comparative institutional collections, while having access to curators working with Arctic collections, marine mammal biologists, Native Alaskan consultants, contemporary gutskin artists, and conservation scientists prompted us to undertake a comprehensive study of this material in order to increase our understanding and inform our treatment decisions. This paper will report on results of our investigation and will hopefully stimulate a cooperative and expanded study with other conservators and artists working with this amazing material.

## 1. AN OVERVIEW: THE ANCHORAGE PROJECT AND CONSERVATION APPROACH

In the spring of 2010, the National Museum of Natural History's (NMNH) Arctic Studies Center (ASC) will open a permanent home in the new wing of the Anchorage Museum. Representing eleven major Alaska Native culture groups, approximately 600 Smithsonian (SI) objects - 400 from NMNH and 200 from the National Museum of the American Indian (NMAI) - will be included in the inaugural exhibit, *Sharing Our Cultures, Sharing Our Heritage: The First Peoples of Alaska*. From its inception, increased access to collections for Native people and the inclusion of Native voice have been organizing principles of the entire project. Further, an unprecedented level of access will be implemented in the ASC where requested objects may be removed from exhibit and brought to a specially designated study room for close study, consultation or other purposes. For conservators working on this project, the value of access is constantly weighed against the physical risk to the objects, acknowledging that it is only through access to the conservation and curation process that a fuller understanding of the objects is possible. Through collaborative and comprehensive work with collections, both the tangible and intangible aspects of objects are identified and preserved. Our work in Washington DC is seen as a foundation for the real work that will occur once the objects are in Alaska, in proximity to Alaska Native communities.



Fig. 1. Map of Alaska with the Alaska Native cultures included in the exhibit (Image courtesy of [www.alaska.si.edu](http://www.alaska.si.edu))

The conservation phase of the Anchorage Project has been a three-year period of intensive work with a wide range of Alaska Native objects. From Sugpiaq walrus ivory game pieces to Yup'ik painted driftwood boxes and Inupiaq skin garments, the objects present a great diversity of materials, technologies, histories, aesthetics, and conditions. The challenge has been to contextualize the objects as much as possible in terms of their cultural and museum histories, and to ground conservation decisions and documentation in a holistic understanding of the objects. Developed primarily for documented anthropology collections, the conservation process was designed by Landis Smith to methodically incorporate and synthesize information from multiple sources, the objects considered from several different perspectives at once.

Along with a basic familiarity with culture and landscape, the conservation process begins with curatorial consultations and museum records such as catalogue and accession notes, 19<sup>th</sup> century ledger book entries and drawings, conservation records, early images, and background information on the collecting practices of the early NMNH ethnographers in Alaska. Investigations regarding the cultural use of objects, whether an object was made for trade or sale, the exhibit history of the objects, materials and technologies and the cultural meanings of objects all inform the conservator's examination and assessment of the condition of the object. Further, the deep collections of the NMNH Anthropology Department offer a reference for object types and conditions.

The resources of other NMNH science departments have been brought to bear in the conservation process as well; in particular, the Ornithology Department and Division of Mammals offer conservators the opportunity to view whole animals to identify and understand their parts, and why and how those parts were used. In addition, conservation scientists at the Museum Conservation Institute (MCI) have helped answer questions with, for example, x-radiography to reveal construction techniques, x-ray fluorescence to distinguish between Native and museum-applied coatings, and the rate of light fading on organic objects using the microfadeometer.

This background work, examination and analysis are critical to understand the objects with which we are working; however, consultations with Native advisors offer perspectives and knowledge otherwise unavailable. In keeping with the curatorial work for this project, Alaska Native consultants have been central to the conservation treatment decision-making and documentation process. Consultations are carefully planned and designed to allow for Native consultant-led discussion and focus. Consultations can offer invaluable insights into aesthetic and cultural preferences for the presentation of objects, as well as information about materials, technology and use. Native consultants help ensure the preservation of cultural meanings of these objects.

At the same time, consultations are ideally exchanges that flow both ways. In particular, old objects inspire the work of visiting artists, the telling of stories and recounting of memories. Objects and the materials from which they were made are discussed and named in Native languages, the collections' preservation inextricably tied to the preservation of language and the traditions the objects embody.

Over the three years of the Anchorage Project, conservators have been engaged in a dynamic process of examination and analysis, study of the museum record, early ethnographic accounts and field notes, Native consultations, and curatorial and other expert consultations. Yet, this work is only a beginning; a solid foundation of information and documentation on which to base continued work once the objects are in Alaska. There, the relative proximity of Alaska Native communities will allow for more conversation and consultations with more people, increasing our understanding of these objects, their preservation and conservation.



Fig. 2a. Sources of background information: Edward W. Nelson's book (Photo by Edward W. Nelson; courtesy of the National Anthropological Archives, Smithsonian Institution) 01425800

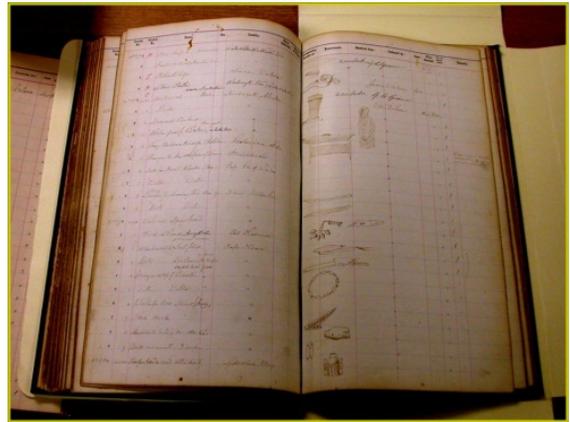


Fig. 2b. NMNH ledger book of accessions



Fig. 3. Julio del'Hoyo, Fellow at the Museum Conservation Institute using the microfadeometer.  
(Photographs by Kim Cullen Cobb)



Fig. 4. Project conservators working with the National Museum of Natural History's Vertebrate Zoology Department  
(Photograph by Kim Cullen Cobb)



Fig. 5. Chuna McIntyre (Yup'ik) and Vernon Chemegalria (Yup'ik) consult object history, provenance and background records  
(Photograph by Molly Gleeson)



Fig. 6. Carver, George Bennett (Tlingit), examines surface of bentwood box (Photograph by Kim Cullen Cobb)



Fig. 7. Discussion with carver David Boxley (Tsimshian) (Photograph by Kim Cullen Cobb)

## 2. A FOCUS ON GUTSKIN

The interdisciplinary approach adopted for this project inspired a broad inquiry into how to best conserve objects constructed from the inner organs of Arctic sea mammals. These mammals, the whale, walrus, and seal, have provided the raw material for the manufacture of finely made utilitarian objects now in SI collections. The renewed focus on and interest in this material is based on the significant and recurring problems found with gutskin materials from both the NMAI and NMNH collections. Common problems include weak, embrittled skins, many with tears and distortions. Old museum treatments using various adhesives have stiffened the skin and failed attempts to lubricate the dry gutskin with humectants have left the skins discolored and oily. The goal of this project is to integrate the information from many sources to gain a more complete understanding of this complex material and develop an informed conservation approach.

This inquiry, still in the early stages, involves multiple avenues including a rich historical record, the wealth of knowledge held in source communities where gutskin objects are still made, techniques of contemporary artists creating with this material, and the work of research scientists, anthropologists, and conservators. During this investigation, NMAI was able to invite an expert Native Alaskan gutskin sewer to SI to work on a Saint Lawrence Island ceremonial parka that would be returning to Alaska with this loan. A summary of her treatment approach and philosophy, which prompted many lively discussions, is included.

### 2.1 MATERIALS AND THE LANDSCAPE

The circumpolar world has one of the more formidable climates on earth, and encompasses regions that are both remote and climatically harsh. It is home to indigenous peoples who have relied on hunting as the chief mode of survival. In the coastal regions of the arctic, much of the food supply has historically come from hunting aquatic mammals. Hunting takes place on open water during summer, and on or through the ice during winter. Inhabitants of the northern Bering Sea and Bering Strait, particularly of the islands, have lived and hunted astride one of the richest and most concentrated marine mammal migration routes in the world, with animals passing through this funnel twice annually. Communities base their hunting on

these brief but predictable migrations. The seasonal movement of ice largely determines these migration routes (Stoker 1993).

This reliance on sea mammals produced a very distinctive material culture that can be seen repeated through many areas of the arctic; a material culture characterized by resourcefulness, adaptability, technological creativity, innovation, and ingenuity. Ceremonies and rituals imbued with this close relationship with aquatic animals reflect the importance of these animals as a major source of raw materials, used for clothing, footwear, containers, and many other objects.

The specific marine mammal resources available to Native Alaskan communities through hunting or trade differed along the long Alaskan coast. This in turn influenced how materials would be used culturally. Some understanding of this landscape and what was likely to be used and why informs the conservation approach.



Fig. 8. Walrus (left) and bearded seal (right) (Images from internet sources)

## 2.2 HISTORICAL RESEARCH

Similarly, the historic record offers information, largely through the prism of naturalists, anthropologists, and collectors writing about Alaskan communities and their material culture. Some of the most comprehensive records come from nineteenth century Smithsonian field naturalists working in Alaska. For example, when stationed at Point Barrow in northern Alaska in the late nineteenth century, Smithsonian collector and naturalist, John Murdoch, noted that the local communities made gutskin garments from seal and walrus, relying predominately on the abundant ringed seal population (Murdoch 1899). In addition, late nineteenth century naturalist and collector, Edward Nelson, who traveled extensively in Alaska, wrote of the qualities of his gutskin parka commenting that it was strong and could usually withstand the pressure of the water even when one was submerged beneath the combing sea, but failed in the surf where the weight of the water striking heavily from above would tear them and permit water to enter the boat (Nelson 1892).

There is limited conservation literature that explores the treatment of gutskin. One important 1987 publication brings the writings of contemporary Native skin sewers, biologists, and conservator together. This is fiber artist Pat Hickman's book, *Innerskin Outerskin: Gut and Fishskin*. This small volume has served as an important guide for our work.



Fig. 9. Smithsonian scientist, Edward Nelson (From Nelson 1899)

### 2.3 CONSULTATIONS

There are many contemporary artists who use gutskin as their medium. Fran Reed, well-respected fiber artist and scholar, became a friend and mentor during her visit to the Smithsonian. She worked with us on developing methods for visual species identification, and provided the opportunity to gain a greater understanding of the working properties of gut by offering a place in the workshop she taught in June of 2007. This collaboration led to ideas for skin repairs that utilized the properties of the membrane. For example, using a technique of wet, raw gutskin layered together with pressure but without adhesive as a binding.

Specialists in the field of marine mammal biology and anthropology acknowledge that the greatest repository of information on gutskin resides in the Native communities. The consultations for this project have enriched our understanding of the working properties of gutskin (the material), the various uses and differences of available animals, and how the material was traditionally cared for and repaired.

Curatorial consultations with various communities beginning in 2003 resulted in content direction for the exhibit, as well as a reference website titled *Sharing Knowledge* ([www.alaska.si.edu](http://www.alaska.si.edu)). An interview with Saint Lawrence Island elder and skin sewer Estelle Oozevaseuk regarding a ceremonial gutskin parka (NMAI 123404.000) is available on this site. As with most consultations, Estelle Oozevaseuk begins by first identifying the source of the materials. She identifies the gut as *maklak* (bearded seal) intestine, then discusses the time-consuming process of preparing the intestine for use:

It took a lot of work to do that. We just cleaned the inside out - pour some water in and take it out so many times. And we use our thumb fingernail to take the outer part off. Then, when it is done, we turn it inside out. It took a lot of work. And then we scraped the inside very gently. When done, we put them in water to try and swell them up - my grandma taught me to fill them up with water and go like this [lightly tip bowl back and forth]. And they get water logged. Then we would wring them, and the water turned red. And we changed it [water] so many times, so many times, until the water turns clear.

Further she notes, “Ones that had not been cleaned in the water [enough] turn out to be a kind of yellow or reddish color. Walrus is not good for this kind [ceremonial parka]; only the bearded seal intestine is good for dress-up because they’re thinner. Walrus intestine is tougher and thicker than these and wider. Female walrus intestine is thinner, better. Bull walrus is hard.”



Fig. 10. Gutskin workshop with fiber artist Fran Reed, June 2007 (Photographs by Lucie Charbeneau)



Fig. 11. Estelle Oozevaseuk (Courtesy of [www.alaska.si.edu](http://www.alaska.si.edu))

These consultations help us understand not only what materials are preferred because of their physical characteristics but also how the materials are traditionally prepared. Discussions of problems in preparation such as insufficient rinsing may account for some of the discolored objects we see in our collections. Additionally, we have observed at least two types of processed

gutskin, the whiter “winter gut” and the more transparent “summer gut.” Estelle Oozevaseuk describes the processing of winter gut stating, “She took them out in wintertime and blew it up. And when they freeze she held them like that [wrapped around outstretched arms], tied them up and tied them up on the meat rack. And they stayed there for a long time. The coldness turned them white.” We would like to understand more about what happens to the physical properties of gut during this process.

A well-sewn and waterproof parka was a life or death matter in an environment as brutal as the Arctic. These women, the skin sewers, were vital to survival. Thomas Tungwenuk, an Inupiaq advisor, notes that the skin sewers are traditionally treated with great reverence. In the past, when conflict arose from outside invaders, these women were hidden in secret caves so they would not be harmed. It is critical that the parka not only be sewn with extraordinary skill, but if it requires repair, it has to be done with the same effectiveness. Patches must prevent water from chilling the wearer and have usually been stitched using the same materials and techniques used to fabricate the garment. There are countless examples of native patch repairs on gutskin garments in the Smithsonian collections.



Fig. 12. Frances Usugan, Yup'ik woman holding inflated, dry guts (From Riordan 2007, 151)



Fig. 13a. "Summer" gutskin parka (NMNH E424209) (Photograph by authors)



Fig. 13b. "Winter" gutskin parka (NMAI 123404.000) (Photograph by authors)

## 2.4 REPAIR OF A SAINT LAWRENCE ISLAND CEREMONIAL GUTSKIN PARKA

The ceremonial parka discussed by Ms. Ooszevaseuk and selected for inclusion in this loan will be displayed along with other ceremonial objects from Saint Lawrence Island. The parka, torn in two locations, on the back of the hood and on the back, was also missing numerous auklet curls from its decorated front. The tears required stabilization prior to its return to Alaska. NMAI conservator Kelly McHugh, responsible for treating the parka, thought that a consultation with an expert skin sewer could help her work through proposed treatment choices. Elaine Kingeekuk, a skin sewer and doll maker from Saint Lawrence Island was willing to work with NMAI. Ms. Kingeekuk talked with staff by phone about the parka and discussed the traditional repairs of sewing a gutskin patch with sinew and why she felt it was the appropriate approach for this parka. Like the conservators on this project, she has seen failed adhesive repairs on museum objects and believes the adhesive will only stiffen the gut, making it more brittle and prone to further tearing in the future.

NMAI, with support of the Mellon Foundation, invited Ms. Kingeekuk to Washington DC to repair the damaged parka using traditional methods. She repaired the tears on the parka using winterized walrus gut patches sewn with sinew she prepared in the lab. Patches were applied to both sides of the tear and carefully sewn in place. She believes the old gut requires this amount of support. The opportunity to ask her questions about the properties of the material, to see how wet she made the gut to manipulate it and execute the repairs was invaluable. The entire process was documented both with digital photography and digital video.

Elaine's visit has generated excitement, dialogue, connection and greater understanding. Her experience and ease of handling the gutskin has contributed to our understanding of the flexibility and limits of the material, which informed other treatments for the project. Our working relationship with her and her welcoming teaching method gave us the confidence to proceed with reshaping a Yup'ik gutskin/esophagus bag and an Aleutiiq gutskin parka in the traditional manner, through the direct application of water rather than our usual course of slow humidification. Ms. Kingeekuk commented that slow reshaping (as through humidification) could apply variable stress to the gutskin and could potentially cause damage. She has repeatedly reminded us that as a membrane, it wants to be wet, as it is in its natural state.



Fig. 14. Elaine Kingeekuk, Saint Lawrence Island Yup'ik, repairs NMAI parka (123404.000)  
(Photographs by Anchorage Project conservators)

## 2.5 DISCUSSION

During the course of this process, the benefits and ramifications of a conservation approach that utilizes traditional repair or reshaping methods were discussed at length, in the context of our overall, integrated approach to the objects. These discussions included comparisons regarding the efficacy of puncturing the gut fabric to sew a patch versus the application of an adhesive that might stiffen the gutskin. Both treatments can be seen as invasive. Should we be putting an adhesive repair on a garment made to withstand the elements? Are we compromising what it was meant to do by applying a repair that would fail in use? Or do we turn a corner once an object is in a museum and no longer “in use”? The answer likely stems from where you sit. Elaine believes this parka still requires the same level of treatment it would receive at home; it is still an “active” garment and a part of the Saint Lawrence Island community. A traditional museum perspective might be that the garment’s role is primarily one of education and scholarship. Each museum’s perspective is directly related to its mission.

The decision to have Ms. Kingeekuk repair the parka using traditional methods is in line with NMAI’s belief that the garment is part of a living culture and should be treated as such. The decision to repair it as if it was an active part of the community is in keeping with the Museum’s goals to recognize Native authority. Ms. Kingeekuk’s repair will last as long as the garment lasts. Can we say the same about adhesive repairs – should we?

Each treatment decision is made on a case-by-case basis, taking into consideration the museum’s mission, the requirements of the project, and most importantly, the requirement of the objects. In this case we looked at our treatment history, considered different treatment approaches, and arrived at a solution that was more compatible with the gut fabric.

## 3. CURRENT RESEARCH

Our current research efforts are focused on integrating Alaskan Native knowledge with analytical tools such as SEM and mechanical testing, i.e. stress/strain. This will include identifying the possible visual distinction between various aquatic mammal intestines, differences and similarities between winter and summer gut, looking carefully at the effects of the repeated wetting and drying on gut, and the effects of adhesives on the membrane. Former NMAI Mellon fellow Lauren Horelick, together with Kelly McHugh and Odile Madden, carried out a research project on the effectiveness and effects of adhesives commonly applied on gut skin for tear repair (Horelick et al. 2011). It is our intention to collaborate in these efforts, particularly with conservators working on material from the circumpolar region, like Amy Tjiong, Linda Liu, and Ellen Carrlee. Research will continue at the Smithsonian in the fall of 2012 with a group of visiting Yup’ik traditional garment and gutskin sewers. The women are part of a project organized by anthropologist, Ann Fienup-Riordan, with a conservation component organized by Landis Smith.

## ACKNOWLEDGEMENTS

Our dear colleague, gutskin artist Fran Reed died recently. We remember her for her open and generous spirit and for her driving curiosity and extensive knowledge of this material.

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