ABSTRACT—This article examines mount challenges and solutions for more than 500 Alaska Native objects on loan from the Smithsonian Institution’s National Museum of Natural History and the National Museum of the American Indian to the Anchorage Museum for the exhibit “Living our Cultures, Sharing our Knowledge.” Housed within the Anchorage Museum’s new addition, the exhibit’s unique case design and object mounting system make the objects accessible for study, research, cultural consultation, and education in collaboration with Alaska Native elders, scholars, researchers, artists, and educators. By describing specific examples from these two collections, the article focuses on the unique challenges these objects presented in safely mounting study collection objects, many with multiple and moving parts, that will travel on their mounts to Alaska and from the display case to a study area within the center, all housed within an earthquake zone. Considerations explored are choice of suitable materials, mount design and fabrication, aesthetics of mount design vs. safety and stability of the object, and the collaborative approach that evolved among a revolving team of seven to nine mountmakers attempting to satisfy the unique goals set forth by the curatorial, conservation, and design teams.

TITULO—Soluciones y retos de montaje de objetos Nativos de Alaska para una colección de estudio en una zona sísmica

RESUMEN—Este artículo examina soluciones a retos de montaje para más de 500 objetos nativos de Alaska prestados por el National Museum of Natural History (Museo Nacional de Historia Natural) del Smithsonian Institute (Instituto Smithsonian) y National Museum of the American Indian (el Museo Nacional del Indio Americano al Museo de Anchorage) para la exposición “Viviendo nuestras culturas, compartiendo nuestro conocimiento”. La exposición alojada en la nueva ampliación del Anchorage Museum (Museo de Anchorage), cuenta con un diseño de vitrinas y sistema de montaje único que hace que los objetos estén disponibles para el estudio, investigación, consulta cultural y educación, en colaboración con los ancianos nativos de Alaska, eruditos, investigadores, artistas y educadores. Al describir ejemplos específicos de estas dos colecciones, el artículo se enfoca en los retos únicos que estos objetos presentaron en el montaje seguro de objetos de colección de estudio, muchos con partes múltiples y movibles, que viajarán en sus montajes a Alaska, y se trasladarán de la vitrina a un área de estudio dentro del centro del museo, todo alojado en una zona sísmica. Entre las
consideraciones que se tomaron están: la elección de materiales apropiados, diseño y fabricación del montaje, estética del montaje vs. seguridad y estabilidad del objeto y una propuesta en colaboración que se desarrolló de un equipo rotatorio de siete a nueve fabricantes de monturas que intentaban satisfacer las metas únicas en su género expuestas por los equipos curatoriales, de conservación y de diseño.

TÍTULO—Desafíos e soluciones de montaje de objetos nativos del Alasca en colección de estudio en un área de terremoto
RESUMO—Este artículo examina los desafíos y soluciones de montaje de más de 500 objetos nativos del Alasca emprestados pelo National Museum of Natural History do Smithsonian Institute e pelo National Museum of the American Indian para o Anchorage Museum para a exposição “Vivendo nossas Culturas, Compartilhando nosso Conhecimento”. Armazenados dentro do novo anexo do Anchorage Museum, o diseño exclusivo das vitrines de exposición y del sistema de montaje de objetos os tornam acessíveis para estudio, pesquisa, consulta cultural, e ensino em colaboração com os Nativos mais velhos do Alasca, estudantes, pesquisadores, artistas e educadores. Ao descrever exemplos específicos dessas duas coleções, o artigo enfoca os desafios únicos que esses objetos apresentam para a montagem segura de objetos em coleções de estudo, muitos com partes múltiplas e móveis, que viajarão para o Alasca em suas montagens e da vitrine para a área de estudo dentro do centro, todos guardados em área de terremoto. As consideraciones exploradas são: a escolha de materiais adecuados, diseño y fabricación de la montaje, estética del diseño de montaje versus estabilidad y seguridad del objeto, y a abordagem colaborativa desenvolvida pela equipe rotativa de sete a nove montadores tentando resolver as metas específicas definidas pelas equipes de curadores, conservadores e designers.

1. INTRODUCTION

In 2010 the National Museum of Natural History (NMNH) and the National Museum of the American Indian (NMAI) completed collaboration among Smithsonian Institution, Anchorage Museum, and Alaska Native advisers with the installation of the exhibit “Living our Cultures, Sharing our Knowledge.” The project, developed by the Smithsonian’s Arctic Studies Center (ASC), provides an unprecedented level of access and interaction between Smithsonian collections and indigenous communities. The gallery, located in the new wing of the Anchorage Museum, includes exhibition and research spaces. Floor-to-ceiling glass cases display more than 500 Alaska Native heritage objects from the Smithsonian collections, making the objects available for hands-on examination and discussion by Alaska Native elders, artists, and scholars.

The objects in the exhibit, on a 7-year loan from the NMNH and NMAI, required portability for their unique dual function of display and accessibility for study, cultural consultation, and education. Meeting this requirement involved working closely with exhibition designers, curators, fabricators, and mountmakers. Other concerns were the need for display cases that use a tensioned rod system to support fragile objects in an active seismic environment and the design of object mounts that properly support objects inside the display case, visual accessibility of the objects for study, and a means of conveyance to bring objects from exhibit cases to the study center. This article summarizes the mountmaking challenges of working with a unique exhibition case design in which objects will be routinely removed from exhibition for study and museum programs.

The expansion wing of the Anchorage Museum holds the 10,000-sq. ft. ASC gallery and adjacent rooms and spaces for the objects to be studied. Ten Alaskan cultural groups are represented in the ASC gallery’s seven community cases. The objects are grouped within each case by the three major themes of home and community; land, seas, and rivers; and ceremony and celebration. The objects are placed at “use” level with boots on the floor level deck and hats at head height. In addition, there is a large thematic case with cross-cultural groupings of objects types, including boat models, baskets, pipes, goggles, and masks.

The massive floor-to-ceiling community cases are constructed of double-sided metal and tied into the gallery floor and ceiling, with floor-to-ceiling glass panels. The large glass panels of the cases are also the case doors and open with actuators; the doors slide laterally to allow access to the case interiors.

Objects are displayed in these cases cantilevered from steel rods with attached hardware designed to
MOUNT CHALLENGES AND SOLUTIONS FOR NATIVE ALASKAN OBJECTS FOR A STUDY COLLECTION IN AN EARTHQUAKE ZONE

allow objects to be removed for study and reinstalled for exhibition multiple times during the length of the loan. This case hardware consists of spring-tensioned vertical steel rods attached to the ceiling and screwed into the deck, all engineered to meet seismic requirements. Collared, hollow steel bracket arms are attached at a 90° angle to the steel rods. The collars of the bracket arms are tightened on the vertical rods with Allen screws and can be infinitely adjusted along the vertical rods. Steel mount stems attached to the object mount slide into the bracket arms and are secured with thumb screws. Both the bracket arms and mount stems are square stock to prevent any rotation of the mounted object (figs. 1, 2).

Object mounts are primarily fabricated from brass, with a pin extending from the back that drops into a hole in the mount stem. This pin is tightened to the mount stem with a small Allen set screw. If required, the mounted object can be removed from the system via the pin. The pin also allows some adjustment of the object position in the case (fig. 3).

Objects are transferred from the case to carts for study. The object remains in its mount and is detached from the bracket arm via the mount stem. Removal of an object requires the thumb screw on the bracket arm to be loosened so the mounted object and attached mount stem slides out as one assembly. Carts, constructed with the same case hardware, have bracket arms to receive the mount stems of the objects. Each cart is designed to hold multiple objects, depending on their size. Carts are moved to a consultation room or an area in the gallery designed for groups, such as schoolchildren. The access plan is designed so objects will remain on the carts for study.

The exhibit case design, mounting system, and handling requirements posed new challenges for the project participants. When first asked to review the design for object access, the project participants realized that mount fabrication would be the most complex part of the project. The exhibit case design of vertical rods, the access component of the exhibit, and the fact that Anchorage is in an earthquake zone necessitated complex mounts. The mountmakers had to create mounts to allow the objects to hang suspended from vertical rods, meet seismic criteria, protect vulnerable parts, hold the object immobile when handled, and serve as a means of conveyance from case to cart and back. Finally, the mountmakers were asked to make a mount that allowed maximum visibility for study, such as the backs of masks and interiors of baskets.

The objects chosen for this loan are primarily ethnographic and are made from a wide variety of mostly organic materials, including soft woods, hide, gut skin, and other vulnerable materials. They are also often constructed with many protruding and dangling parts and are difficult to mount for a standard display. In addition, even after conservation, some of these objects remain inherently weak, thus requiring the mount to take on a supportive role because of handling. Extensive object handling was necessary to create brass mounts to meet the design and access requirements. Therefore, the resulting mounts were heavier and more visually obtrusive, which is not the normal approach of the mount maker, who works to make mounts minimal and invisible. Adding to the complexity was the need to achieve a balance between tightening the brass clips to make the object immobile and simultaneously not pressing into or marring soft or friable surfaces.

The exhibition mounting system was new to the conservators and mountmakers. Both groups experienced a learning curve and some early frustration until conservators could clearly articulate the mounting requirements. For example, the conservators requested that objects be locked on their mounts. To mountmakers this meant the objects could not be removed, whereas to conservators this meant that they could not be removed and also could not twist or rotate when handled. Good communication among conservators from two museums, mountmakers, and curators was critical to the success of this project (Austin-Dennehy and Cobb 2010).
2. WORKING AMONG THE TWO COLLECTIONS, NMNH AND NMAI

The objects for this exhibition were housed in two facilities: the NMNH collection at the Museum Support Center (MSC) and the NMAI collection at the Cultural Resources Center (CRC), both in Suitland, Maryland. Mount fabrication for objects from both collections took place in the NMNH Anthropology Conservation Department at the MSC. Objects from the NMAI CRC were periodically transferred to the MSC.

ELY Inc. (Eubanks, Lee, & Yamada), an exhibit firm based in Maryland, was contracted for the mount fabrication and object installation phase of the project. A revolving team of mountmakers collaborated with ELY on mount fabrication for an approximately 11-month period. ELY staff members primed, padded, and painted mounts, created photographic documentation for mount notes, and performed preinstallation of objects in a case mockup that was built on site at MSC.

A full-scale mockup of one of the cases (fig. 4) was built in one of the rooms in the NMNH Anthropology Conservation Laboratory, adjacent to the mountmaking room. This mockup was used to test the mounted objects on the steel rod system and to compare object orientation to the design drawings, in hopes of testing ease of access for removal and streamlining installation.

3. SELECTED MOUNT EXAMPLES

3.1 HAIDA WAR KNIFE

The Haida war knife is displayed next to its sheath in the vertical position (fig. 5). The knife is mounted with two individual mounts joined together by a connecting strap that also holds the mount rod that slides into the square steel mount stem on the case interior mounting system (fig. 6). The main part of the mount for the knife has a central strap on the back that runs down its length, with the strap ending in tabs that wrap around to the front at the top and bottom. These tabs lock the knife into the mount.
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Fig. 3. Close-up detail of a brass pin being tightened with a set screw into a mount stem. Courtesy of Michele Austin-Dennelly.

Fig. 4. Full-scale case mockup with objects installed. Courtesy of ELY Inc.
Fig. 5. (above) Full view of a Haida war knife (NMAI 0/1817) mounted in display orientation. Fig. 6. (top right) Close-up of back of a Haida war knife showing mounts with a connecting strap and mount stem. Fig. 7. (bottom right) Close-up detail of back of a Haida war knife showing the bottom of the sheath with bottom tab and side straps. All images courtesy of ELY Inc.
and prevent both and left-to-right movement. The sheath, which is made of flexible hide, is of similar construction, with the addition of a tab at the bottom to arrest any downward movement and a screwed-on side strap, which facilitates loading the sheath into its mount (fig. 7).

The strap connecting the two mounts also incorporates two straps fastened with screws on the top of each object that stop any upward movement or downward movement if the objects were turned upside down during study. In addition, the mount for the sheath has a thin brass wire attached to the connecting strap, forming a loop to support the hide strap, which is held in place with small tabs. The objects were totally supported, no movement vertically or horizontally was possible, and any loose or dangling parts were completely supported and locked into place.

3.2 TLINGIT CREST HAT

The Tlingit crest hat, in display orientation (fig. 8), is mounted with a typical carved polyethylene foam hat mount covered in black polar fleece that follows the contours on the interior of the hat and is adhered to a round acrylic sheet disk. A brass strap is attached to the underside of the acrylic sheet, runs underneath to the outside of the hat, and turns upward, ending in the mount rod and serving as a point to secure the outer mount structure (fig. 9). The outer mount structure is composed of a rounded brass strap attached to the end of the interior strap with screws and running vertically up the back of the hat, terminating at the top of the crest (fig. 10).

There are tabs at two locations off this vertical strap to lock the mount into place. The tabs on the left are fixed, and those on the right are mechanically attached with set screws. These tabs serve two purposes. First, the bottom tabs lock the object into place, preventing movement in any orientation. Second, because the tube part of the hat had a very weak connection to the main part of the hat and tended to lean off center, the tabs at the top of the mount locked and stabilized this movement.

3.3 TLINGIT HEADDRESS

One of the Tlingit headdresses, in display orientation (fig. 11), presented several challenges for the mountmakers. The small mask at the front and the dorsal fin had weak connection points, the mask flopped front to back, the fin flopped left to right, and both had to be stabilized and locked into place.

The mount begins with the interior structure that is a circular brass strap following the inside contours of the undersides of the headdress, containing the mount rod and three small tabs going around the edge to the outside to lock it in place. The mount continues to the outside via a brass strap that travels up to the dorsal fin, where a second mount is mechanically attached with a screw to support the fin (fig. 12). From this strap, the final mask mount is screwed into place to support the small mask (fig. 13).

3.4 UNANGAN HUNTING HAT

The mount for the Unangan hunting hat (fig. 14) presented its own unique challenges. The conservator’s instructions to the mountmaker were that it was important that the interior mount be as open as possible to allow the study of its bentwood construction and joinery techniques. This requirement was accomplished with a simple brass rod that ran around the interior just under the rim, with three straps mechanically attached with screws to the rod to lock the hat to the mount (fig.
Fig. 9. Close-up detail of the Tlingit crest hat with the outer mount structure secured to interior brass strap with two screws (NMAI 9/8087). Courtesy of ELY Inc.

Fig. 10. Full view of the Tlingit crest hat overall outer mount structure (NMAI 9/8087). Courtesy of ELY Inc.

Fig. 11. Full view of the Tlingit headdress mounted in display orientation (NMAI 9/8020). Courtesy of ELY Inc.
A cross-brace made of a brass strap helps to stiffen the structure and accept the mount rod.

The carved ivory “wing-like” piece with beads and attached baleen on the side of the hat was unstable and susceptible to breaking off if inadvertently bumped during handling or transport to the study area. The piece was stabilized by extending the interior brass tab higher on the outside of the hat and mechanically attaching a small “T” mount with a screw to support the ivory piece. One side of the “T” mount is fixed and the other is a screw tab to allow the “T” mount to be attached after the main part of the hat is locked into its mount (fig. 16).

3.5 INUPIAQ BOLAS

The Inupiaq bolas (fig. 17) is an example of a mount that met all the mount challenges required for this project. The Inupiaq bolas had to be mounted from two separate vertical steel rods because of the length of the object, approximately 1 m (40 in.); thus, the mount had two points of connection on the back left and right ends, which mitigated seismic vibration. A contour cut piece of acrylic sheet was used to protect susceptible parts and to act as a kind of handle that could be grasped without touching the object. This contour cut piece of acrylic sheet created a solid, visible barrier around the lengths of hide strings and allowed the object to be handled during study without touching any of the individual pieces. The ends of the bolas are made of individually carved pieces of ivory in the likeness of a seal, and each has its own small, individual mount (fig. 18), with a locking screw tab and a threaded rod that is attached through the acrylic sheet and secured with a lock nut. The hide strings were kept stabilized by tiny brass eyehook-like mounts, similar to those used to hold the wire on a picture frame. These mounts were screwed into the acrylic sheet at various points along the lengths of each individual hide string.

The knot at the end (fig. 19) was supported by a mount with locator tabs that keep the knot in its desired orientation and a screw strap to lock it down. A threaded rod passed through the acrylic sheet and was locked on the back with a nut.
JONATHAN PRESSLER

3.6 TLINGIT HEADDRESS

Another of the Tlingit headdresses (fig. 20) is made of a pliable leather headband with chin straps and 10 carved mountain goat horns that replicate bear claws, with abalone inlay. Running through the tips of each bear claw at the top is a string that would normally hold the bear claws in an upright position when the piece was worn. Unless the piece is actually worn, it will collapse in on itself, needing total support.

The base of the mount is a contour cut piece of acrylic sheet with a doughnut hole in the center. Attached to this is a polyethylene foam ring, padded with felt, with another brass ring made out of strap attached to the top of the foam (fig. 21) to accept the individual bear claw mounts. Each bear claw brass...
Fig. 17. Full view of Inupiaq Bolas mounted in display orientation (NMAI 23/8986). Courtesy of ELY Inc.

Fig. 18. Close-up detail of the underside of the Inupiaq Bolas mount showing individual mounts for carved ivory pieces (NMAI 23/8986). Courtesy of ELY Inc.
This article provides insights into the challenges and solutions used in the mounting of more than 500 objects in an exhibit at the Anchorage Museum. The Alaska Native objects in the exhibit, on a 7-year loan from the NMNH and NMAI, required portability for their unique dual function of display and accessibility for study, cultural consultation, and education in collaboration with Alaska Native elders, scholars, researchers, artists, and educators. The mounts designs

4. CONCLUSION

mount is composed of a central stem that runs vertically up the back of the claw to a set of tabs that captures the claw approximately two-thirds of the way up.

Once the headdress was oriented on the polyethylene foam ring, these claw mounts were individually slid down onto the claw from the top and screwed into the brass ring mounted on top of the padded polyethylene foam hat band.

To further stabilize the pieces, a small chin cradle made out of padded brass holds each claw under the chin of the carved head (fig. 22).
MOUNT CHALLENGES AND SOLUTIONS FOR NATIVE ALASKAN OBJECTS FOR A STUDY COLLECTION IN AN EARTHQUAKE ZONE

were the result of a collaborative approach that involved exhibition designers, curators, conservators, fabricators, and mountmakers. An overview of the project is presented along with specific examples for six objects, illustrating various interior and exterior support systems and their release mechanisms. All mount designs incorporated best practices to ensure the safety and support of fragile objects in an active seismic environment.

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REFERENCE


FURTHER READING AND DIGITAL RESOURCES


To see a virtual tour of the ASC exhibition “Living our Cultures, Sharing our Knowledge” go to www.youtube.com/watch?v=jL_xN66Svk0&feature=related.

SOURCES OF MATERIALS

Padding and Barriers
Plascoat Systems Limited
Farnham Trading Estate
Farnham, Surry GU9 9NY
United Kingdom
+44 (0) 1252 733777
www.plascoat.com

Sueded Polyethylene
Benchmark
PO Box 214
Rosemont, NJ 08556
609-397-1131
ask@benchmarkcatalog.com

Ethafoam 220 Brand Polyethylene Foam Plank
Sealed Air Specialty Materials
2401 Dillard St.
Grand Prairie, TX 75051
877-722-7631
www.sealedairstigmatematerials.com
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