The year has been very busy for our group! As you know, we are now focusing on the organization of our session at the 17th Triennial Conference in Melbourne (15th-19th September 2014). The Editorial Committee has already concluded its selection of abstracts that will be invited for presentation as final papers in the next phase of the 2014 Preprints process, and all authors have been contacted.

Our group received a high number of excellent submissions. This is, of course, very welcome as it is evidence of the high professionalization of our discipline; but it made the process very competitive! If your paper submission did not make it to the next stage you should consider reworking it as a poster. Please contact us to discuss your ideas. We will be delighted to help!

Final papers and abstracts for posters will be evaluated and ranked by the CO, ACOs and a Peer Reviewer assigned to our group. An Editorial Committee (composed of current and past Directory Board members plus the Managing Editor) will review the rankings made by us and then make the final selection of contributions.


Update on the Name Change Consultation

I attended the Directory Board/Coordinators meeting in New York City at the end of October 2012 with the firm intent of discussing the Name Change Consultation with the Directory Board (DB). Unfortunately, the meeting coincided with the arrival of Hurricane Sandy in NYC and due to precarious conditions in the city, the discussion around the Name Change Consultation did not take place. In May 2013 the DB informed Carole Dignard (former ACO and coordinator of the Name Change Consultation) and me of their views of the results of the consultation (as many of you may recall this has already been discussed online). Although the DB members were very impressed by the breadth and depth of our consultation they did not authorize a name change for the following reasons:

- There are still very polarized views about the name change among our membership.
- Other ICOM entities, such as the International Committee for Museums of Ethnography (ICME), should be involved in the discussion.
- The chosen name is long and difficult to memorize.

We were also informed that this is not a final decision, discussions are ongoing. In view of these developments, I suggest scheduling a meeting with representatives of the DB at the 17th Triennial Conference in Melbourne. This should be open to all our membership so that all of those present in the conference can contribute to the debate and hopefully reach a final decision. Please do get in touch if you have ideas on how to conduct this meeting.

Many thanks,
Renata Peters
Investigating the Materials and Construction of a Songye Power Figure

In the fall of this year the René and Odette Delenne collection of African Art, primarily sculpture from the Congo (Petridis 2011), will be on display for the first time in the US at the Cleveland Museum of Art (CMA). This recent acquisition, a collection of 34 works, will be highlighted in a special exhibition and accompanying catalogue titled, *Fragments of the Invisible: The René and Odette Delenne Collection of Congo Sculpture*. The exhibition will address the fragmentary nature of African works of art in Western collections and explore how a large number of the pieces connect with the invisible world of deities or spirits in their original setting. *Fragments of the Invisible* will also discuss the history of the Delenne collection as it relates to the history of African art collecting in Belgium, reflecting on issues of provenance, cultural heritage, and patrimony.

Figure 1: (left) Songye nkishi figure, after treatment, composed of a carved wooden body accessorized with decorations that enforce an image of power; (right) from the side view, prominent attributes, such as the curved horn, bulging eyes, and protruding stomach are better seen. Photo: © The Cleveland Museum of Art, René and Odette Delenne Collection, Leonard C. Hanna, Jr. Fund 2010.451

One of the most objects in the Delenne collection is a Songye nkishi figure (Figure 1). X-radiography of similar figures, by conservator Richard McCoy and Dr. Dunja Hersak had confirmed the presence of channels within these figures (Indianapolis 2010; McCoy 2011). These and other similar figures are often referred to by scholars as power objects because they receive ingredients and materials of importance, sometimes inserted into openings, in order to remedy an ailment or problem (Hersak 2013). The figures range in size depending on their intended use, with smaller figures created for individuals and more heavily ornamented larger figures for community use. The Delenne figure measures about 64 cm tall and 24 cm wide, a size that is between individual and community figures. As such, scholars believe it may have been meant for an extended family. The carved wooden body is accessorized with “the essential indicators of chiefship,” which include a woven raffia skirt, raffia bracelets and belts, a blue and white bead necklace, and a metal headdress (Hersak 2013). Further enforcing an image of power are the long curved horn in the top of the head, the bulging eyes, and open mouth.

McCoy and Hersak’s investigations prompted Constantine Petridis, curator of *Fragments of the Invisible*, to seek out the conservators at the CMA for a deeper exploration of the Songye nkishi figure, which could be highlighted in the exhibition. The goals of the examination were to establish a foundation for future analysis of other similar Songye figures and to answer the following questions: What materials and manufacturing techniques were used to create the figure? Does it have internal cavities or channels, and do these cavities contain any substances? If internal substances are present, can they be identified? Are any repairs to the figure not visible from the exterior? We limited the investigation to visual and ultraviolet examination, and several nondestructive techniques that were readily available, such as: computerized tomography (CT) scanning; a hand-held x-ray fluorescence (XRF) unit; and consultations with other conservators and materials experts, including those nearby at the Cleveland Museum of Natural History (CMNH). The study, titled “Inside Out: Materials Identification and CT Imaging of a Songye Figure” was published in the exhibit catalogue. The story of our investigation follows below.

Our visual survey under both low and high powered magnification revealed a composite object carved from a single piece of wood decorated with a multitude of materials (Figure 2): brass and iron sheet metal, brass tacks, iron nails, an animal horn, teeth, glass beads, raw hide, bits of animal hair, woven and twisted plant fibers, and a soil-like embedded matrix. Long- and shortwave ultraviolet light examination confirmed the initial assessment
of an absence of applied coatings or adhesive repairs. We saw openings at the mouth and ears, but could not determine from the exterior whether these extended further into the sculpture. In addition, the embedded soil-like mixture, ranging in color from mauve to dark grey appeared to be applied to recesses carved into the wood in the abdomen, hands, and feet. This suggested the possibility of interior channels extending behind the embedded matrices and provided us enough evidence to prompt further exploration.

While x-radiography at the CMA labs could have been used to determine the presence of channels within the figure, we were eager to image and identify materials that we suspected might have been inserted into the object. Recent studies using CT analysis on African objects revealed animal parts, such as teeth and bones, embedded within seemingly mundane and obscuring matrices (Colleyn 2009). In addition, a CT scan allowed us to examine tool marks and other features on the interior that could not be discerned through standard radiography.

We packed the box horizontally to center the object within the scanner and optimize imaging. The detachable coiffure was removed to minimize damage and was not scanned. To minimize potential damage to the artwork the travel box was constructed to fit within the circular opening of the x-ray source and detectors and the object stayed inside during the entire process.

The scan was amazingly fast and we watched each slice appear on the screen as the scanner laser traveled down the length of the figure; the head, mouth, neck, arms, stomach, legs, and feet materialized one-by-one as over 800 images were compiled by the computer.

Immediately we saw that the figure contained a network of internal channels that were partially filled with a matrix similar to that in the stomach. A review of the full scan revealed that a vertical channel extended from the top of the head down to a stomach cavity, with horizontal openings that connected at the mouth, stomach, and ears (Figure 3). Further examination of the images revealed other hidden areas filled with materials of varying density and heterogeneity; these materials were embedded in the horn, two woven belts, and other external cavities hidden under the textile components and between the feet. The material in the horn appeared to be of similar density and homogeneity to that in the stomach, while the belts contained heterogeneous material with sections of less density. In addition, the scans exposed metal rod repairs in the legs. The rods’ conical shape and...
uneven surface indicate they were not machine made, unlike the more recent screws that hold the figure to the base. This called for a secondary, closer inspection of the legs, where we noted horizontal breaks in the wood hidden beneath the fragile skirt.

The initial scan helped us determine what was on the interior of the figure, however metal components, particularly around the head of the figure created light streaks or “artifacts” in the scanned data inhibiting the creation of 3-dimensional images of the head. Running the scans again at higher kV and mAs settings resulted in a clearer image.

With the help of J.P. Brown and his team of interns at The Field Museum, three-dimensional reconstructions created from the newer CT scans assisted in revealing the location and depth of nails and tacks within the wood (Figures 4 and 5). With additional color coding, the variation between the densities of the embedded materials became more evident and the volume of the embedded material and extent of the repairs could be better understood. According to Richard McCoy the cavities appeared to have a rough surface, possibly indicating that they were carved out by hand (personal communication, November 2012). Regrettably the CT scan and reconstructions did not help us identify specific materials within the embedded matrix as had been hoped. David Saja, CMNH mineralogist, best characterized the embedded materials through visual examination under magnification as an ashy matrix with black carbonaceous material and smooth white quartz-like particles.

The most prominent identifiable component on the figure was the horn at the top of the head. CMA’s librarian, Christine Edmonson, was able to narrow its possible source down to a small antelope known as a reedbuck. Roberta Muehlheim, CMNH assistant curator of vertebrate zoology, confirmed that the horn is most likely from a species of reedbuck (*Redunca arundinum*) using their study collection. The raw hide, hair/fur, and wood have not been identified at this point, since the removal of original material would be necessary for further characterization. The second-most identifiable elements were the teeth embedded in the head. These looked to us like human teeth and we were curious to know more. Yohannes Haile-Selassie, curator of physical anthropology at CMNH, was kind enough to come across the street and verify their human source. He was even able to narrow down the tooth in the center of the forehead to a left upper molar, M1 or M2. The tooth on the right side of the forehead has chipped enamel and deposited material on the surface, and while it was positively identified as a human molar, it was not possible to determine or obtain more information.
To confirm identification of the metal components and glean additional information from the object for characterization we used our handheld Bruker Tracer III-SD XRF spectrometer. We initially identified the metal components as copper and iron alloys by their color, surface corrosion, and magnetic properties. XRF analysis confirmed this. No quantitative results were calculated, but we noted the copper-alloy components had a high copper content. The strands of blue and white cylindrical beads were identified as glass by characteristic conchoidal fractures, and the blue colorant was identified as cobalt with XRF. Finally, the embedded material could be further characterized as iron-rich particulate material.

A skirt, bracelets, two belts above the stomach, and hair are made from plant materials. All plant materials and textile components were examined in collaboration with Christine Giuntini, textile conservator in the Department of the Arts of Africa, Oceania, and the Americas at the Metropolitan Museum of Art. The plain-weave textiles used for the skirt, bracelets, and belts are made from a palm leaf, most likely raffia, with the warps running vertically, wefts horizontally, and unfinished edges. The skirt is gathered at the front and secured around the waist with a braided belt; one of its top edges is finished so that the folds face outward in a decorative and purposeful manner. The hair also appears to be made from raffia, in this case twisted cordage. The cordage is twisted in the s-direction and plied into a z-twist three-strand braid. Each length of cordage is secured with a lark’s-head knot to create the coiffure on a doubled carrying cord around the horn. To find raffia skirts on these figures is rare due to their fragility. In fact, the skirt on this figure has many fractures and separations with dangling fragments. We discussed possible ways to stabilize the textile, particularly for travel to the CT imaging site. Rather than adding material, such as a backing, adhesives, or thread that would create other areas of weakness we decided to leave the textile alone and support it during transit with soft and smooth custom pillows to minimize vibration.

While various nondestructive analyses provided important information about the material and manufacture of the Songye figure, most notably the interior channels and location of embedded material, as with most involved studies, we were left with more questions. For example: How were the channels created and is this consistent from artist to artist? What animal(s) did the hide and fur come from? Are there any organic materials present in the embedded material? And if so, what are they? Future research, including analytical techniques requiring the removal of original material and comparable analysis of other Songye objects, may provide the information necessary to understand the consistency of materials used throughout the culture and over time.

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References

The US Exploring Expedition (Wilkes) Tapa Project

Introduction
Barkcloth, or tapa, manufactured over 150 years ago on islands in the South Pacific is the subject of a large-scale project currently underway at the Smithsonian National Museum of Natural History (NMNH), Anthropology Conservation Lab (ACL). Tapa is the name given to a fibrous cloth made by indigenous island communities in the South Pacific from the inner bark or bast of plants available in the area. Thanks to a generous grant from the Smithsonian Institution’s Collections Care and Preservation Fund, Greta Hansen, ACL Conservation Manager, was able to assemble a small team of part-time contract conservators, interns and volunteers, to study, survey and conserve this extensive...
collection, guided by Dr. Adrienne Kaeppler, NMNH Curator for Oceania who located experienced tapa makers and sources of plant material. The project benefited immensely from collaboration with community scholars including Hawaiian tapa makers Bernice Akamine and Moana Eisele, Regina (Reggie) Meredith from Samoa, Nancy Nooanga Moearui and Jean Chapman Mason from the Cook Islands and Mereia Luvunakoro from Fiji. Sagale Buadromo, Director of the Fiji Museum joined the project as a consultant. All have made significant contributions to the project and joined in the study, discussing material and dye choices, condition issues, and their own experiences working with tapa. This is the story of the project, which has been in progress for the last two and a half years.

History

On Tahiti, Samoa, Hawaii, Fiji, and other islands in the South Pacific, the inner bark (bast) of a select group of plants, primarily paper mulberry (Broussonetia papyrifera), was beaten out into sheets with wooden beaters and frequently embellished with mineral and plant colorants. The resulting fibrous cloth, which we know as tapa was used for clothing, bedding, and ceremonial functions.

In 1838 the United States government sponsored a naval expedition known as the United States Exploring Expedition, under the command of Lt. Charles Wilkes. Naturalists and sailors aboard the expedition vessels were charged with the collecting the material culture of indigenous communities in the South Pacific. Tapa along with many other artifacts and specimens of flora and fauna journeyed back to the United States packed into holds in wooden boxes, tin boxes, whiskey barrels, kegs, canvas bags and baskets. The shipboard trip across the oceans was rough and many of the boxes and crates arrived damaged with collections in need of attention (Stanton 1975, 291-2). The vast array and sheer number of objects overwhelmed the United States government’s ability to provide care and storage. The bulk of the collection would eventually find a permanent home in the newly founded Smithsonian Institution.

Tapa from the expedition was given to other institutions in exchanges or as part of ‘museum starter kits’. NMNH Researcher Jane Walsh notes that one tapa was cut up to make kits for several institutions (Walsh). As the Smithsonian Institution expanded the tapa became part of the research collections of the NMNH Anthropology Department, and in the 1980s were transferred to the new, relatively spacious accommodations of the purpose-built Smithsonian Museum Support Center (MSC) in Suitland, Maryland.

The project

While we know when and generally where the tapa was collected, the circumstances of collection were not well documented. As Dr. Kaeppler notes, “...most of the objects were collected primarily as curios and as evidence for the prevailing evolutionary view of culture. Detailed information about where the objects were collected or how they were made or used was often not recorded” (1985, 120). We have tried, within the scope of the project, to decipher the history of the tapa and develop a more complete understanding of its manufacture and cultural use. While some of the tapa has deliberate knots, burn holes and wear patterns, it is sometimes difficult to separate possible evidence of cultural use, such as crease lines, from damage that may have occurred after collection.

The project began with a survey of the approximately 150 US Exploring Expedition tapa that remain in the SI holdings. The survey indicated that half of the collection was stable - mostly as a result of earlier conservation treatment - while the remainder was in need of some form of conservation intervention.

The working goals of the tapa conservation project, which developed out of the survey results, are: to understand the agents of deterioration for a subset of very fragile tapa and mitigate where possible; to use a well-established and successful treatment protocol to treat the majority of tapa; and to document and re-house the collection safely within
the constraints of existing storage options while making the collection accessible to researchers.

The Anthropology Conservation Laboratory, in the MSC, is an ideal location for the survey and subsequent work as the large, modern laboratory easily accommodates opening the expansive and fragile tapa.

**Condition**

Many of the large tapa sheets requiring treatment had previously been folded into small rectangular bundles, which, at the time may have seemed a practical method of storage. It is unclear whether the tapa was folded before or during collection, although many remained folded for decades prior to treatment. As would be expected there was significant planar distortion, fading and breakage along the fold lines and on exposed surfaces. Most retain a faded rectangular imprint that identifies their long history as folded bundles.

Many also have large stains and losses that penetrate through the folded layers and appear in regular patterns when the tapa is opened. One of the worst cases of this type of damage is a multi-layered Hawaiian skirt (pa’u) damaged by rodents, probably aboard ship, leaving large crescent shaped losses across the skirt through all ten layers. And, as mentioned previously, researchers have cut away portions of the tapa for samples, made obvious by small to large rectangular losses with scissor cut edges.

Surprising connections with the tapa makers of long ago are occasionally retained in the material, including an occasional strand of human hair beaten into the surface or fingerprints and marks where dye was wiped from fingers. Sometimes small dried leaves, feathers and cordage fragments can be found inside the folds; or thick layers of dried mud that correlate with the rectangular area exposed to the ground when the tapa was folded in a bundle.

The visible evidence of cultural use varies, some tapa have been deliberately knotted while others
exhibit burn holes and wear patterns. Attributing stain patterns to evidence of use is problematic as some staining may be the result of post collection damage, arising as a result of transport, storage and handling.

Remarkably, many of the tapa remain strong and flexible with intact surfaces embellished with colorants. For example, in Fijian and Samoan cultures, where tapa is pasted together to form very large sheets, the original starch adhesive is intact and flexible and the adhesive seams are stable - a testament to the tapa maker’s knowledge of materials.

Some disparities in condition of similarly constructed tapa are difficult to interpret; many of the large Fijian tapa sheets are quite strong while other similarly constructed Fijian pieces are weak and tear easily making it difficult to understand the disparity in condition or relate it to fabrication materials and methods. The pH of stable and unstable tapa was compared, however no consistent trend emerged; the results for both groups ranged between pH 4.5 and 6. Tests of stained areas show no change in pH compared to unstained areas and the stained areas are generally not more brittle or weaker than the unstained areas. Stains are also not significantly water soluble when wetted with a dampened blotter.

Some of the Hawaiian tapa has been impregnated with nut oil as a medium for colorants, either over the entire surface or in a more localized application; many of these tapa sheets are structurally weak, which is likely a result of cross-linking of the drying oil.

Another subset of tapa with condition issues is believed to be made from mamaki (Pipturus albidus), an endemic Hawaiian plant. Mamaki tapa is visually identified in collections by specific physical characteristics of color and design. These tapa sheets, some with a high iron content likely from an applied colorant, are often brittle; a small number are in very poor condition. We are currently working to determine if the deterioration is solely based on the high iron content or if the source plant used to make the tapa is playing a role in the relative lack of stability. With the help of experienced botanists we are also attempting to determine if plant species of beaten and dyed tapa can be determined using a variety of analytical techniques (see Research Questions section).

Most of the tapa do not show evidence of insect damage. Sometimes the good condition of materials that might typically be vulnerable to insects is a marker of previous pesticide application. Department of Anthropology collections have a history of largely undocumented pesticide use at the museum, which included mercury and arsenic compounds (Goldberg, 1996). We tested for the presence of heavy metals before conservation started using portable XRF equipment. Readings to date indicate that pesticides containing heavy metals were not used on the tapa. Testing for residues of organic pesticides, also used by the museum on its collections, is outside the scope of this project due to a lack of in-situ-testing capabilities.

Treatment protocols
Treatment protocols for this project, which include humidification and repair using wheat starch paste and Japanese Kozo tissue, have a long conservation history. We were guided in our treatment approach by project conservator Natalie Firnhaber who has years of experience working with tapa, initially at the Bishop Museum in Hawaii and subsequently at the ACL.

The preliminary survey and close review of some earlier treatment interventions gave the team the opportunity to evaluate the stability of the same type of conservation treatment applied thirty years earlier. These older repairs appear stable and intact. A few had failed but without damaging the surrounding tapa. We did spot tests to determine the difficulty of repair reversibility and found that the repairs were only difficult to remove where the tapa was very thin and fragile.

Conservation treatments
The conservators working on the project included object, book and paper specialists so the reviews of earlier treatments prompted intense discussions about the necessary type and weight of tissue, how much overlap is necessary, what size mends are

Figure 9: Natalie humidifying with nonwoven polyester between tapa and dampened blotter, which will be covered in plastic to create a localized humidification chamber. National Museum of Natural History, Smithsonian Institution. Photo credit: Austin-Dennehy 2012.
optimal, as well as the pros and cons of tinting the repair tissue. In the end we agreed upon both a six and nine gram kozo, direct dyed, machine made tissue with good wet strength from Bookmakers Inc. The most critical discussion regarded the preparation of wheat starch paste and the necessary viscosity and tack needed to ensure adhesion without causing tension or stiffening of the underlying and surrounding tapa. Based on those discussions adhesive mixtures and strengths were adjusted based on the needs of each tapa.

The only tapa that were problematic to repair using wheat starch paste were the Hawaiian oiled tapa. Natalie Firnhaber found that adding acrylic emulsions and soluble cellulose derivatives to the wheat starch paste allowed better adhesion and reversibility on oiled surfaces (Erhardt and Firnhaber 1987, 223-7.) Adhesive tests performed by Anne-Claire de Poulpiquet, a visiting conservator from Paris, indicated that a mixture of two Lascaux acrylic emulsions (360/498 in a 50%/50% volumetric proportion) with wheat starch paste, in a one to one volumetric proportion, slightly diluted in distilled water, was effective for adhering oiled tapa surfaces.

Storage and access
Tapa can be fragile, large and unwieldy. These attributes, coupled with limited collections staff, create difficulties for those wishing to view and study the tapa, and for the staff attempting to make these collections available. A focus of the project was to develop ways to simplify access while minimizing handling, which was achieved through photography and accessible housing. Thanks to digital photographs taken by Don Hurlbert, the senior science photographer at NMNH, the entire surface of a twenty-foot long tapa can now be viewed through high-resolution images that retain design details even when the tapa is viewed at 60% of actual size. For very large or long tapa that could not be imaged in a single frame Don and his staff used Photoshop to stitch the images together to create a single image of extra large, and in some cases, room-sized tapa. Lower-resolution images are now available to the public via the NMNH Anthropology Collections database. High-resolution images are available by request at http://anthropology.si.edu/cm/photos.html.

Figure 10: Bob Muens repairing tapa. National Museum of Natural History, Smithsonian Institution. Photo credit: Austin-Dennehy 2012.

Figure 11: Spanish conservator and project volunteer, Cristina Morilla, performing repairing tears with Japanese tissue. National Museum of Natural History, Smithsonian Institution. Photo credit: Austin-Dennehy 2013.

Figure 12: Visiting French paper conservator and project volunteer Anne-Claire de Poulpiquet conserving a Hawaiian tapa. National Museum of Natural History, Smithsonian Institution. Photo credit: Austin-Dennehy 2013.

Figure 13: Photography with community scholars. National Museum of Natural History, Smithsonian Institution. Photo credit: Austin-Dennehy 2012.
The existing options for long-term housing of the tapa in the research collection included rolling on textile tubes, flat drawers for small objects, or folding on large, rectangular light weight screens (four feet by eight feet), or on narrow two foot wide cantilevered shelf storage that accommodates very long objects (such as tapa rolled on oversized textile tubes). We found that overall the screens provide the best access for close examination without the need for manipulation. Tapa larger than the screen could still be safely and more visibly stored if they were folded over padded inserts and oriented to allow greater visibility of design borders and fringed edges.

Research questions
During the course of our investigation we came to the realization that physical and tactile attributes frequently used to identify the tapa plant source do not necessarily uniquely confirm the source plant species. Plant species, other than paper mulberry, culturally identified as possible tapa source plants include mamaki, breadfruit and banyan; in Hawaii, numerous other species may also be candidates. Our research is principally focused on determining if the root cause of deterioration is species dependent.

For example, tapa in the SI collection identified as Hawaiian mamaki is in particularly bad condition. We want to determine if the plant source has been correctly identified and whether the degradation is a result of fabrication methods, applied colorants, or endemic to Hawaii mamaki. To do this we will need to create comparative samples. Our Hawaiian collaborators have not previously used mamaki (Pipturus albidus) and our combined attempts to fabricate tapa from Hawaiian mamaki using contemporary methods have thus far proved unsuccessful so the team is working to replicate manufacturing methods noted in the historic record, which includes wrapping the mamaki bast with a fern and burying it in an emu (traditional underground hot rock oven).

We have also initiated an investigation into various tools for species identification focused on a simple method that could be used in the conservation lab and more elaborate tools available through our scientific collaborators: botanists are helping with the evaluation of light microscopy; SI Museum Conservation Institute (MCI) scientists are evaluating the efficacy of Scanning Electron Microscopy (SEM); and scientists, inside and outside the SI are investigating DNA sequencing methods and stable isotope analyses.
While the use of a variety of vegetal and mineral dyes is reported in the literature no analysis has yet been done to identify and distinguish dyes used on the tapa. To aid in understanding of dye materials Bernice Akamine has prepared tapa samples using known traditional dyes. These will be analyzed by MCI scientists who will create a comparative library of spectra that will aid in the identification of dyes and colorants applied to tapa in the SI collections. Bernice’s samples will also be tested at MCI using a Weatherometer to determine rates of dye fading.

We continue to accumulate documentary source materials, which we have digitally scanned. Working with our colleagues we hope to develop a digital resource that will be useful to the community working with tapa.

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The remarkable story of the US Exploring Expedition of 1838 to 1842 is not widely known but is well worth a read. A good place to start is William Stanton’s The Great United Expedition or the Smithsonian exhibition catalog, Magnificent Voyagers. C-SPAN also has overviews of the expedition with NMNH Botany Collections Manager Russell Rusty at http://www.c-spanvideo.org/program/SEXpl and Adrienne Kaeppler at www.c-spanvideo.org/program/300321-1

An Examination of a Pair of Hollow Rubber Game Balls from Bolivia.

Introduction
Surprising discoveries were made during the examination of a pair of natural rubber balls (Figure 1), selected for exhibit in the “Windows on Collections; Children’s Toys Games and Clothing”, at the National Museum of the American Indian (NMAI) in Washington DC. NMAI records indicate that they were collected from an unknown source in 1937, with a cultural attribution of the Moxo (or Mojo) of Bolivia.

Hollow rubber balls appear to be somewhat rare. Most of the literature describes small, solid core rubber balls produced by rolling threads of rubber or kneading rubber into a ball and leaving it to dry (Filloy et all. 2000, Barid 1982, and Whittington 2001). The lack of published information about hollow rubber balls inspired the present research questions focused on: 1) how the balls made; 2) what is on the inside; and 3) can the physical evidence of construction be linked back to ethnographic published accounts of hollow ball manufacture.

Figure 1: MOXO Rubber Balls (NMAI 194977.000) before treatment documentation. National Museum of the American Indian, Smithsonian Institution. Photo credit: Horelick 2011.
How are they made?
The balls are fabricated from natural rubber, an amorphous hydrocarbon belonging to the polyterpene group of plant resins, and a product of carbohydrate metabolism in plant cells. As it is produced microscopic particles of rubber form a constituent of latex, a white or yellow, slightly viscous fluid containing a colloidal solution of water, starch, fat globules, and other materials. Only certain families of plants produce latex, and among these only some produce latex that contains rubber (Baker: 125-6).

There are five distinct families of rubber trees, all dicotyledons, each with a variety of genus, distributed widely within the Amazon (Baker 1965:125-6). One of the more common, discussed in Amazonian literature, is the Para rubber tree, Hevea brasiliensis (family Euphorbiaceae). It grows to about 60 feet in height, with a trunk up to six feet in circumference (Baker 1965:126). The latex is collected by making shallow slits into the corky outer layers of the tree with a sharp tool, and capturing the oozing liquid in a gourd, leaf, cup or other form of container. Once obtained, the latex is cured by coagulating and drying to remove excess water (Kaminitz 1988).

The manufacture of hollow balls by the Tupari, a tribe from Western Brazil linguistically related to the Moxo, was described by German ethnographer Franz Caspar (1975). Caspar states that boys, usually between ages 12 to 15, created a ball by inserting a hollow stick into a small round clump of dirt, cutting the bark of the rubber tree (Hevea brasiliensis) and stretching the milky sap (latex) around the dirt clump and part of the stick until they are thickly covered. The latex covered dirt mass is then held over over a smoky fire built nearby (Caspar 1975). According to Baker (1965) smoking or heating the latex introduces pyroligneous acids, which cause the rubber to darken and become translucent.

Stern (1950:15) describes the Moxoian’s method of hollow ball manufacture, which involves dipping the ball into water to dissolve the clay, which is then expelled through a cut made in the rubber. The resulting hollow sphere is inflated and additional coats of latex are applied.

Caspar (1975) describes a slight modification whereby the boy pulls out the stick and expels the dirt by repeatedly introducing his saliva through the opening to loosen the dirt, which is then easily pressed out. A rubber ‘bladder’ or ‘balloon’ with a long opening remains. The ball is inflated and the opening is closed by twisting and pressing the edges together. The boys then paint wet latex on their bellies and, when suitably dry, peel it away and carefully roll the resulting rubber onto the inflated ball. The rubber is still somewhat sticky, with a rough under surface produced by pulling the strip from the boy’s body: the combination of stickiness and texture allow the strip to adhere to the surface of the ball. This process is repeated until the ball membrane is sufficiently thick. The boys must carefully twist and stretch the latex strips to make the ball round and evenly thick. The ball is not put over smoke again; it is now ready for use (Caspar 1975).

An interesting similarity exists between the Moxo rubber balls and a type of hollow rubber ball filled with grains reportedly made by the Caviña of east Bolivia. Mele and Renson (1992:32) note that when the Caviña ball was tossed into the air and passed on among players it would rattle. In Caviña mythology the wind is a little boy who throws a rubber ball in the air causing thunder. Sadly, there is no information concerning the manufacture of these grain-filled balls, which leads to the next logical question...

What is on the inside?
Direct observation, and descriptions of rubber ball manufacture from the literature provided a good starting point for understanding the construction of the balls. These methods of observations were enhanced by the use of X-Ray computed tomography (CT scanning) at the National Museum of Natural History (NMNH). CT scanning was undertaken to identify the substance rattling around the inside of the ball, and to help elucidate construction methods and determine the thickness of the rubber walls (Figure 2).

Tomograms, which look like traditional X-rays, with the aid of a computer to generate cross-sectional views (between 0.5 and 5 mm thick), were made through the side then from the top of the balls. The resulting images, rendered in light gray with small white inclusions dispersed throughout, shows that the ball is round and of uniform thickness with two small globular shaped objects clearly resting on the bottom interior of the ball. The density of the...
inclusions were measured and determined to be approximately the same density as a small stone (Figure 3). While attaining density information an interesting discovery was made about material of similar density distributed throughout the rubber layers. Note the many small white specks arranged in a circle in figure 4. These small white specks have the density of dirt, which likely became lodged within the layers of the rubber during manufacture; whether this is intentional or accidental is a curious detail.

The tomogram could also be used to determine the thickness of the rubber strips. Results from the CT scan yield thickness measurements ranging from 4 to 6 mm, giving an average thickness of 4.88 mm for each rubber strip.

Construction data was gained with 2D and 3D reconstructions based on the computed tomography data and images. These images allow us to visualize the distribution of rubber, dirt, stones, and air pockets in the walls (Figure 5), the interior of the ball, (Figure 6), and density maps showing where the rubber is thickest throughout (Figure 7).

![Figure 3: Single slice tomogram shows regular wall thickness and two small inclusions on interior. National Museum of Natural History, Smithsonian Institution. Photo credit: Frohlich 2011.](image3)

![Figure 4: Density map of inclusion (circled in green). Smaller dots are material of similar density in rubber layers. National Museum of Natural History, Smithsonian Institution. Photo credit: Frohlich 2011.](image4)

![Figure 5: 3D reconstruction of material density and distribution - red is rubber, dirt is yellow, air pockets are green. National Museum of Natural History, Smithsonian Institution. Photo credit: Frohlich 2011.](image5)

![Figure 6: 3D reconstruction revealing interior, wall thickness, texture, air pockets and dirt in rubber layers (note variation throughout cross section). National Museum of Natural History, Smithsonian Institution. Photo credit: Frohlich 2011.](image6)

![Figure 7: 3D reconstruction showing variation in thickness of rubber wall, white areas represent increasing density. National Museum of Natural History, Smithsonian Institution. Photo credit: Frohlich 2011.](image7)
Linking evidence back to ethnographic literature
Though there is a paucity of information describing the Moxo’s rubber ball manufacture, general observations, such as size and weight do exist. Van Mele and Renson (1992:32) state that the Moxo played a ballgame, using the head and feet, with rubber balls weighing 12 kg. This is an interesting point of comparison as the NMAI rubber ball weighs less than 1kg. The literature and the evidence line up a little bit better with the observed presence of dirt within the ball. The presence of tiny dirt inclusions and small air pockets between the very thin rubber strips suggests manufacture in an outdoor environment, which is entirely consistent with Caspar’s account of rubber ball manufacture. It seems possible that just such a dirt clump could have been used on the NMAI balls. Caspar (1975) also noted a small round clump of dirt used to construct of the initial ball. One could speculate that small stones found in the NMAI balls were part of this original dirt matrix, and were not expelled when the dirt was removed.

Conclusions
Integrating the ethnographic literature with the CT scanning and density mapping provided a comprehensive look at these hollow rubber balls. The diagnostic imaging provided valuable information about the construction of the objects; in particular the thickness of the individual rubber strips, the contents of the interior and the nature of the particles distributed throughout the layers of rubber. While the collected information provided useful facts about the object, there was not sufficient evidence to assign or refute the cultural attribution of the Moxo.

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References

Glass Disease on Ethnographic Beadwork: Changes over Time, Cleaning, and Composition

Introduction
Has the condition of deteriorating glass beads stored at stable relative humidity and temperature for fourteen years changed? Are there long term differences in the effectiveness of different cleaning techniques for beads with glass disease? The author’s research project as an Andrew W. Mellon Fellow at the National Museum of the American Indian (NMAI) will focus on continuing research on glass disease on ethnographic beadwork. The first step in the project includes an evaluation of possible condition changes for a targeted group of objects identified as having glass disease fourteen years ago, but were untreated. A second stage of the project will compare the current condition of blue and red beads on a different group of objects with a history of glass disease that were previously cleaned with water, ethanol, and 1:1 water: ethanol mixtures. Objects with blue and red beads were chosen because those colors had the most recorded instances of glass disease. The blue and red glass beads will also be analyzed with handheld x-ray fluorescence spectroscopy to gather information about the glass composition for comparison with the treatment data.

Brief history of glass beads
Glass beads were introduced to the Americas by the first European explorers in the late fifteenth century and continued to be used as gifts and trade items (Dubin 1987). Most of the glass beads brought to North America were made in Venice, however additional centers of glass production existed in the Czech Republic, France, Russia, China, and other locations. The shapes and colors of glass beads change over time as different manufacturing techniques become available. While the dates for
initial use of new bead types vary geographically, some significant developments include the introduction of pony beads in 1675, the beginning of seed beads in 1840, and the switch from a translucent green centered white heart to an opaque white heart bead (also known as red-on-white bead or Cornaline d’Aleppo) in 1830-1840 (Dubin 1987, 274; Billeck 2008). The published literature on glass beads was searched for other surveys of deteriorating glass beads (Lord 2001; Lovell 2006) and references to additional published and unpublished examples would be appreciated.

Glass Beads: Deterioration and conservation
Glass is made from approximately 70% silica (SiO$_2$), 20% alkali component (either soda, Na$_2$O, or potash, K$_2$CO$_3$), 10% calcium oxide as a stabilizer, and a colorant. A variety of different colorants were developed over time, therefore colorant information can sometimes provide date information. Dark blue beads tend to be colored by cobalt whereas light blue and turquoise beads are copper-colored (Hancock, Chafe, and Kenyon 1994). Copper, in the form of cuprous oxide or as finely dispersed elemental copper, cadmium, and selenium can color beads red (Sempowski et al. 2001; Weyl 1959).

Glass disease begins when moisture is attracted to the surface of the glass. Water leaches the hygroscopic alkali component to the surface, where it then forms a salt. Removing the alkali component from the silica matrix can cause minor cracks, a depleted surface crust, and fracturing of the bead (Figure 1). The deterioration of glass beads occurs as a result of the chemical composition of the glass, the use-history of the object on which they are attached, and the environmental history of the object (Kunicki-Goldfinger 2008) (Figure 3). It can also be influenced by the substrate and may be facilitated by the material with which they are strung (Carroll and McHugh 2001; Fenn 1987).

The literature recommends several different options for cleaning glass beads: swabbing with water, with ethanol, or with 1:1 water: ethanol. Several authors (Lougheed 1988; Lord 2001; Sirois and Tennant 1999) recommend cleaning with ethanol, not water, because moisture can facilitate deterioration. Ryan (1996), however, recommends against using ethanol on deteriorated glass because it can displace the moisture in the glass and cause crizzling. For cleaning vessel glass, Koob (2006) recommends washing with tap water, followed by deionized or distilled water and then drying the glass with a paper towel. Conservation records at NMAI indicate that deteriorating glass beads have also been cleaned mechanically with a brush and vacuum or with a cosmetic sponge (non-latex polyurethane foam).
Research part 1: Re-examining surveyed objects
Kelly McHugh and Scott Carlee (née Carroll) surveyed NMAI’s collection in 1999 in preparation for the museum’s move from New York City to Washington D.C. (Carroll and McHugh 2001). They identified 187 objects with glass disease and focused analysis on approximately 20 objects. These objects were not cleaned during the survey and have not received treatment since. Now that the objects have been in stable climate for 14 years, they will be re-surveyed to better document the glass disease and evaluate whether their condition has change (Figure 3). The objects have been stored in the main collections storage area, where the relative humidity (45% ± 8 RH) has been slightly higher than what is recommended for deteriorating glass (40% ± 1-2 RH) (Koob 2006). A survey form was developed that includes bead color (using Munsell Color standards), manufacturing technique, size, shape (Kidd and Kidd 1970; Karklins 1985), condition, pH and standardized terminology for glass disease. I began with a survey of objects on which McHugh and Carroll focused additional analysis. Initial results based on six surveyed objects indicate that only five of 68 types of beads on the objects have more glass disease present on them than was recorded in 1999.

Research part 2: Treatment effects
Should glass beads with salts on the surface be cleaned with water, ethanol, 1:1 water: ethanol, or mechanically? As discussed above, the literature recommends different approaches. In order to research the long term effect of treatment, objects that have a history of glass disease on blue and red beads, and documented conservation treatments from each technique will be surveyed to assess their current condition. The composition of the blue and red glass beads will be analyzed with portable x-ray fluorescence spectroscopy (pXRF) to look for correlations between composition, cleaning, and glass deterioration. While pXRF has its own challenges for compositional analysis of glass beads, the instrument’s availability and the elemental information it does provide may be valuable for comparative analysis. Revisiting objects previously identified as having glass disease will provide insight into the progression of this deterioration and the long term efficacy of treatment techniques, contributing to the development of long term treatment strategies.

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Bibliography


SEWING SALMON SKINS

In December 2012, a five-day Material Traditions: Sewing Salmon Residency was held at the Smithsonian Arctic Studies Center (ASC) at the Anchorage Museum in Alaska. During the residency Alaska Native fish skin artists Coral Chernoff (Alutiiq/Sugpiaq), Marlene Nielsen (Yup’ik), and Audrey Armstrong (Koyukon Athabascan) gave demonstrations and documented the processes involved in creating objects made of fish skin. Workshop participants included Alaska Native artists Sonya Kelliher-Combs, Susie Bevins-Ericsen and Joel Isaak; conservators Kelly McHugh, National Museum of the American Indian (NMAI), Sarah Owens (NMAI), Ellen Promise (Harvard Peabody Museum) and Monica Shah (Anchorage Museum); anthropologists Aron Crowell (ASC), Dawn Biddison (ASC) and Ann Fienup-Riordan; and filmmaker Anna Hoover. The artists exchanged their knowledge with the Residency participants and members of the public, including groups of local school children. The Residency also provided an opportunity for the artists to share their processing and sewing methods with each other. This was a highlight for them, as sewing fish skins is an art no longer practiced by many.

The Materials Traditions: Sewing Salmon Residency began with an introduction by each of the three fish skin artists of their backgrounds and work. All three use various types of fish skin including: king salmon, silver salmon, dog salmon, sockeye salmon (winter, summer and spawned out), Dolly Varden trout, rainbow trout, and burbot. Artist Coral Chernoff is self-taught and works with a variety of skins, primarily salmon skin. Growing up, she was exposed to skin sewing and beadwork, and has always been interested in clothing. Coral studies and replicates traditional methods of processing and sewing skins, using traditional tools and sewing with sinew. Marlene Nielsen began working with fish skin in 2002. She was inspired to make something beautiful with the skins of the fish her family was catching each summer, and is currently making a fish skin parka. Audrey Armstrong grew up in a small village where going to fish camp was an important part of her life. She continues to fish with a rod and reel during the summer. Audrey is self-taught and has worked with fish skins for 10 years. In 2008, she attended a workshop with the late renowned fish skin artist Fran Reed. Fran taught Audrey to make Athabaskan style bags and Audrey now teaches Fran’s class at various craft schools throughout the country.

The artists shared their experience of each step of skin processing, sewing, and decorating fish skins. Using a whole silver salmon, they demonstrated their techniques for removal, scraping, washing, and processing the skins. The process starts with the fish skin being peeled back by sliding the fingers under the skin and pulling the skin away from the flesh. An ulu or knife can be used to help move the meat away from the fish skin. Once the skin is removed from the fish, the skin is laid out and all traces of the meat and the fat are removed. If any meat is left on, the skin will yellow and deteriorate. The salmon skins are cleaned by repeatedly washing with soap, and are rinsed until the skin feels like the oils are out and the fish smell is diminished. This is important as residual oil causes the skin to break down and deteriorate.

Figure 1: Alaska Native fish skin artists teach other artists their techniques for removal, scraping, washing, and processing the salmon skins. (left to right) Joel Isaak, Audrey Armstrong, Susie Bevins-Ericsen, Coral Chernoff, and Sonya Kelliher-Combs. National Museum of the American Indian, Smithsonian Institution. Photo credit: Owens 2012.

Figure 2: Audrey Armstrong removing silver salmon skin. National Museum of the American Indian, Smithsonian Institution. Photo credit: Owens 2012.

All of the artists are experimenting with ways to make the skin flexible. Audrey Armstrong demonstrated the wet method of processing by soaking the fish skin in 70% Isopropyl alcohol. Audrey uses this method to prevent the skin from drying out.
and becoming hardened and wrinkled. Marlene Nielsen demonstrated the dry method, in which the skins are simply air dried after the cleaning and processed through scraping. Once dry, the skin is then scraped and physically manipulated until it gets soft. The physical manipulation breaks down the collagen fibers, thus making the skin soft and flexible. The skin will go from a fleshy clear color to a white color, and if the skin gets wet it will dry again like raw hide. The dry method of processing the fish skin can be identified by the presence of scales left on the skin and a more translucent appearance. Marlene also discussed experimenting with the method of processing the skins in a solution of 1:1 glycerin/alcohol (70% alcohol or more) in order to maintain flexibility. Coral Chernoff demonstrated the technique she uses to process the fish skin into a ‘leather like’ material, with brain tanning and physical manipulation. The leathery appearance of this technique means that the skin feels thicker and softer, the fibers are fluffed up (like a tanned hide), the scales have been removed during the processing, and the skin is no longer translucent.

Stitching materials and techniques were also discussed. The misnomer of the “waterproof stitch” arose during a discussion. Coral Chernoff mentioned that the idea, often written in books or passed down orally, that grass was added to make the stitch and seam “waterproof”, is an inaccurate description of the role of the grass. The swelling may help, but it does not make the stitch waterproof. If a stitch runs only through the fish skin the thread could be pulled and ripped; this can be avoided by adding a second thread or second cloth. Coral noted that stitching with a material such as grass allows the seamstress to pull the stitch tightly and tighten up the seams, while not tearing the material (this is true in gut skin sewing as well). Added materials such as, grass, caribou throat hair, quill, root, sinew, strips of leather and strips of fish skin allow distribution of pressure at the point of the stitch, preventing the stitching from tearing the material. Coral Chernoff defines the stitch as a ‘single couched running stitch’.

The residency included time to study fish skin objects, such as mittens, boots, parkas, and bags from the collections of the Anchorage Museum and Smithsonian ASC Living Our Cultures exhibit. The time spent with the collections drew attention to issues of construction, condition, and past treatments of objects made of fish skins. We were able to apply the practical knowledge learned during the residency with the artists to condition issues related to the fish skin objects in museum collections. Prior to attending the workshop, a survey of the fish skin objects in NMAI’s collection revealed that condition problems included deformation, embrittlement, excessively oily skins, and minor tears.

Figure 3: Looking at a child’s fish skin parka (1982.48.3), circa 1900, from the Anchorage Museum. National Museum of the American Indian, Smithsonian Institution. Photo credit: Owens 2012.

It was made apparent to us during the scraping, washing, processing and sewing of the fish skins that the skins can take a great deal of physical manipulation. The properties of the skins vary from fish to fish; king salmon have thicker skins and silver salmon have thinner skins, but overall the material is incredibly strong. Understanding the strength of the fish skin explained why we do not see many tears in fish skin objects in the NMAI collections. It was observed that fish skins on many objects in museum collections had been oiled, which may lead to the observed embrittlement (possibly due to oils cross-linking). The question was put to the artists - ‘did they think oil was applied during use?’ and the answer was ‘likely yes, possibly seal oil or bear fat’. The application of oil on the surface of fish skin could be to maintain flexibility and to improve waterproof qualities. The question of whether fish skin is waterproof was of great interest to the artists. It was concluded that fish skin is not waterproof, but is water resistant/repellent. Audrey Armstrong showed a bag that had been flattened and re-shaped by hand manipulation. When the fish skin dries it gets hard but with physical manipulation the skins soften and it is possible to re-shape an object. Further investigations are required to establish if this is an appropriate technique to restore flexibility of fish skin objects in museum collections.

The artists demonstrated their art and their processes to diverse audiences, including the museum public and to student visitors. As part of the residency program a video conference was held with other conservators at NMAI and the Museums of New Mexico, and conservation students at the Winterthur/University of Delaware Program and the UCLA-Getty Conservation Program. The video conference helped to exchange technical and
cultural information that will assist in the documentation and preservation of both contemporary and historic fish skin objects. Attending the Material Traditions: Sewing Salmon Residency was an invaluable experience. As conservators we now have a better understanding of techniques used to process and sew fish skin, condition issues, and conservation options for this type of material.

Figure 4: Video Conference with other conservators at NMAI and the Museums of New Mexico, and conservation students at the Winterthur/University of Delaware Program and the UCLA-Getty Conservation Program. National Museum of the American Indian, Smithsonian Institution. Photo credit: McHugh 2012.

For more information on the Material Traditions: Sewing Salmon Residency go to the Smithsonian Arctic Studies Center (ASC) video post http://www.youtube.com/watch?v=u38rPWITkjc&list=SP33278BF298794573&index=11 and the upcoming NMAI blog.

Special thanks to the Andrew W. Mellon Foundation for making it possible to travel to Alaska and attend the Material Traditions: Sewing Salmon Residency, and to Monica Shah (Anchorage Museum), Aron Crowell (ASC), and Dawn Biddison (ASC) for their support.

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CONFEREEW REVIEW

The Future of Ethnographic Museums
Pitt Rivers Museum, University of Oxford
UK, July 19-21, 2013

The Future of Ethnographic Museums included talks by nine museum directors, curators and/or academics that served as a review of the quandaries presented by museums of ethnography in a global and post-colonial world. This provocatively named conference was the culmination of a five year European Commission project, entitled Réseau International De Musées D’Ethnographie (RIME), involving ten European ethnography museums. One of the project goals was to establish a formal network of European ethnography museums, “...to facilitate exchanges of curators and researchers and enhance circulation of collections and knowledge” (RIME). In addition to recent workshops and more targeted scientific laboratories, two public international colloquia were planned with the recent Oxford meeting as the second and final (Bouttiaux 2010).

As a European initiative, the RIME conference included delegates from European museum and academic communities without inclusion of members from the very communities represented as ethnographic in these museums. This was difficult for this North American attendee who was anxious to hear about the “future” from local or indigenous communities who are actively engaged in their own representation in museums. However, the richness of this European Commission project was displayed most effectively through critiques by speakers such as Wayne Modest from the Tropenmuseum, Amsterdam who believes in confronting the concept of ethnographic as a haunting past, Ruth Phillips from Carleton University, Canada, who made a plea for more inclusion at the conference close, and Annie E. Coombs from Birbeck College, University College London, whose own work includes exploring the healing properties offered by museums in post-conflict Kenya.

The Oxford conference opened with an opportunity to visit the Pitt Rivers Museum exhibition of Blackfoot shirts from Alberta, Canada entitled Visiting with the Ancestors, with curator Laura Peers, a project many may remember from conservator Heather Richardson’s superb presentation at the ICOM-CC Triennial in Lisbon. The conference keynote address followed with James Clifford (University of California Santa Cruz) summing up the present situation for ethnographic museums with the ironic Chinese proverb: “May you live in interesting times”. Clifford described a
variety of initiatives, digital as well as physical, currently underway in major “ethnographic” museums and designed to address the challenging “predicament of translation” borne by all such museums. Clifford began and ended the conference by recommending that such museums continue to seduce and impress visitors with the exoticism of cultural expressions, a theme that resonated with this conservator.

Reflecting on the seduction of the exotic, I couldn’t help but think that my own colleagues working with ethnographic collections might have been drawn in by exactly that. My own visit to the British Museum immediately after the conference had me captivated by the display of a hat made from spider webs on a cane support from the San people of southern Africa (AOA 1910.-125). As part of a profession interested in materials, I experience awe when I see creative use made of a naturally occurring material we Americans sweep out of our closets, where the intelligence is in the act of observation, recognition and selection rather than that of beneficiation and synthesis. It is the same that draws me to study the cultural use of feathers. I admit I would have liked to hear more about this at the conference.

The first of the invited long papers was presented by Sharon Macdonald of the University of York, and had the unenviable task of trying to define the ethnographic museum. Macdonald asked how these museums should be distinguished from those devoted to a city, a diaspora, a migration, a folklife tradition? She made the very good point that ethnographic museums are spaces of inter-cultural dialogue, quite the opposite of museums as national glorification projects. The Quai Branly, the newest European ethnographic museum, avoids the naming quandary presented by the terms ethnographic, indigenous, world, etc. by using a street name, and adapts a fully aesthetic approach to display in order to create equivalency between cultures. This approach is also anticipated for the reinstallation of non-European collections in the Berlin Ethnologisches Museum following its transfer from the remote Dahlem section to a new historicizing building on Museum Island.

Wayne Modest of the Tropenmuseum in Amsterdam challenged ethnographic museum staff to face issues of stereotyping and social injustice, framing his discussion against the grim backdrop of politics and funding priorities in the Dutch museum sector. The Tropenmuseum has been threatened recently with funding cuts just as the Rijksmuseum reopened at a cost of 375 million Euros. Modest contends that political biases against the non-Dutch (Islamic, Turkish, African) are motivating government funding decisions, and should be grounds for the museum to specifically confront and actively curate colonial atrocities, guilt, issues surrounding human remains, and terminology like “source communities”.

Ruth Philips also addressed issues of politics and funding, this time in Canada, as she described museum reorganizations and staff attrition that she sees as targeting ethnographic collections and the staff that work with them. Philips warned that social media, ever emblematic of democratizing, is now being used not only to gain input but also by reactionary museum staff to convey the appearance of collaboration in order to conceal its absence. In a persuasive example of political manipulation, Philips described two different exhibit strategies used in 2012 to tell the story of the war of 1812. One exhibit influenced by conservative politicians and organized at the Canadian War Museum was used to mythologize Canada, and the other exhibit organized at the Woodlands Cultural Centre presented a more balanced story by including British, American, Canadian and Aboriginal perspectives on the war.

![Figure 1: Dr. Nicholas Thomas, Director, Museum of Archaeology and Ethnography, Cambridge, at podium. Photo credit: Pearlstein 2013.](image)

Nicholas Thomas, Director of the Museum of Archaeology and Ethnography at Cambridge, challenged the ability of collections to represent communities, when they are assembled through diverse networks of individuals dedicated to museum-building (fig. 1). Thomas made the interesting point that many items are already separated from their original ancestries long before they enter the museum. He maintains that “ethnographic museums are impoverished by the idea of world cultures”, a concept which perhaps distances collections even further from their communities. Thomas reminds us that discovery is always new, that each generation experiences unique rapture in collections, and that visitors now curate their own collections by digital means. Thomas advises museums to be ambitious but not limiting.
Ann Coombs returned to the political power of ethnographic museums by describing a community peace museum movement underway in the postcolonial, strife-ridden country of Kenya. Despite inter-ethnic violence resulting from a colonial legacy ending in 1964, Coombs described the proliferation of small local ethnographic museums whose activities are serving to appease stress and broker conflict resolution. These museums serve to both commemorate losses occurring as a result of massacres and to offer education about traditional forms of conflict resolution. A poignant example was found in the case of a ‘bead tree’, which was passed around between museums with additional beads added at each as a way of connecting communities.

Corinne Kratz of Emory University asked questions about genres of museum exhibition design and how these may influence interpretation. She placed exhibitions into the genres of scientific, originating in dioramas; art and culture, originating in commercial display; and historic and ethnographic. Ethnographic displays have in the past been associated with scientific displays, and share their properties, an example being mannequins used as humanized means to display functional objects. Kratz admitted that these individual genres have become increasingly blurred as well as repurposed, and that they can be manipulated specifically to influence interpretation. She described Maharaja: The Splendor of India’s Royal Courts, an exhibition held in 2012 at the Asian Art Museum in San Francisco that utilized different display genres in separate galleries with an eye toward influencing viewer comprehension. This listener thought too about the influence of conservation on display methods, and how wall bound miniatures exhibited under low light levels might be a response to conservation and not only to reinforce a strictly artful interpretation.

Kavita Singh from Jawaharlal Nehru University presented what was to this reviewer a truly remarkable lecture, reflecting her thoroughly engaging presentation style and extraordinary ability to connect ethnographic with contemporary art movements prominent in the museum realm. Typical of her lectures, Singh subdivided her talk into topics, which in this case were: 1) Representing Others, 2) Ways of Showing, 3) Reclaiming Traditions, and 4) Displacing the Enlightenment. In the first category of Representing Others, Singh described how contemporary artists from ‘elsewhere’, such as El Anatsui from Ghana, Anish Kapoor from India, and Ai Weiwei from China, are forming the new ‘ethnographic’; these artists are expected to represent where they come from on the global stage of contemporary art, and are happy to ethnologize and exoticize themselves for the contemporary market. Singh made a convincing case about how artists emerge out of and interpret dark periods such as Communism in China or the World Trade Center bombing in 2011, and also emerge as representatives of new investment markets. The second subject addressed by Singh, i.e. Ways of Showing, focused on the display genre summarized as the venerable ‘white cube’, which fits neatly into Kratz’s description of an art display. This echoes Macdonald’s reference to the conscious choice of the Quai Branly Museum staff to design galleries with aesthetic display methods so as to equalize cultures. Singh raises a further point that “art” is not only held in universal esteem as intended by the Quai Branly Museum staff, but it is culturally leveling and absolved from further interpretation, as Singh suggested with a bit of irony that “art” needs no explanation.

Under the heading of Reclaiming Traditions, Singh provided an exceptional example from the Sikh Museum in Punjab where both Sikh and Muslim books were displayed disrespectfully by being exposed and open. The outcome following protests by both religious groups was for the books to be individually cloaked and concealed in textile wrappings while on display, a response taken by the Sikh Museum. The books were presented with digital surrogates in the cases, in front of the wrapped originals, raising the question of whether the actual books played any role in the display.

In her last category of Displaying the Enlightenment, Singh concluded her talk with a discussion about how museums equal arrival, how they equal a shift in power relationships, as well as a shift in the “other” in reference to who is being collected by whom. I have often thought this about the proliferation of tribal museums in North America. Examples provided by Singh of centers for new museums include China, Abu Dhabi, as well as Singapore. Singh closed with a response she received from the director of a new museum in Singapore when asked what these museums are contributing; the reply was that museums help sustain a desirable expatriate community, an unexpected response echoing how museums convey status.

The final conference presenter was Claire Harris, Asian Curator at the Pitt Rivers Museum, University of Oxford, also one of the conference organizers. Harris focused her talk on museum digital projects, centering on her own intimate involvement with The Tibet Album, an interactive digital archive drawn from collections of photographs and documents in the Pitt Rivers and British Museums. Harris reminded us that in the UK, more museum visits are virtual than physical, fueling ever more digitization of museum collections. Harris discussed terminology
for describing digital images of physical objects. Rejecting terms such as surrogate and replica, she embraced the term “avatar” for its ability to not just replace the physical museum object but to still extend the affect of the original. As a conservator intimately aware of what is missing from the digital and remains embedded in the original, I appreciate Harris’s acknowledging the importance of the physical and wonder how digital avatars might convey technological invention and evidence of use.

Harris made the case that the future of ethnographic museums in Europe needs digital distribution to achieve trans-nationality and reach non-European communities. Through presenting various emotionally powerful examples, she demonstrated how The Tibet Album connected families with images of relatives taken before the Chinese annexation of Tibet, and how image manipulation has been used to support opposing movements for Tibetan freedom and for Chinese domination.

The conference ended with a panel discussion on the central theme, with curators from the National Museum of Ethnology in Leiden, the Museum of Ethnography in Stockholm (part of the National Museums of World Cultures), the Weltmuseum Wien (Vienna), and the Royal Museum for Central Africa, Tervuren. Panelists agreed that no one answered the question “what is the future of the ethnographic museum?”, and this delegate agrees. The conference served instead to provide a nuanced review of many of the challenges confronting ethnographic museums, and the political and social roles these museums play. Questions raised were reviewed by the final panel, while slides were projected (Figures 2-3). The conference provided a discussion of strategies for exhibitions that are more neutral, more contemporary, more trans-national, more confrontational, or more playful. While there is no consensus about the future of ethnographic museums, I was heartened to hear distinguished colleagues make a plea for museums to foster cultural citizenship through more inclusion, more self-definition and self-representation, and to maintain the excitement and enrichment of cultural interactions museum make possible. How else would I experience the spider web as a cultural material?

Ellen Pearlstein
UCLA/ Getty Program in Archaeological and Ethnographic Conservation

Reference

NOTICES

The Pacific Ethnographic Collection of the Musée-Museum des Hautes-Alpes (France)

On the occasion of the first decennial proofing the French museums are searching into their reserves and are rediscovering part of their collections. This is the case for the Musée-Museum des Hautes-Alpes, which, since 2009 and the retrospective inventory missions, have brought to light a collection of ethnographic objects from the Pacific. These items come from New Caledonia, the Marquesas Islands, Papua New Guinea

Figure 1: Stilt Step. Marquesas Islands, late nineteenth, early twentieth century.

Figure 2: Graphic reconstruction of slide shown during final conference panel discussion.

Figure 3: Graphic recreation of slide shown during final conference panel discussion.
and Vanuatu. They have been collected by French travelers and senior administrative officials and date from late nineteenth century to the mid-twentieth century. The set includes ritual objects and everyday objects. Despite incomplete archives, the museum hopes to expand the knowledge related to the history of this collection by making these new data available to researchers and the public.

The interest in establishing new collaborations is multiple. While seeking to optimize the conditions for conservation and restoration of important artifacts, the museum wishes to participate, as much as possible, in collaborations to better understand traditional native heritage by valorizing it through various communication forms, such as publications, conferences or exhibitions.

Therefore, it is with great enthusiasm that the Museum will meet all requests from researchers, curators and conservators, interested in these artifacts.

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**Update of the Biocide Bibliography**

**Your help is needed!**

As you may recall, we launched the “Bibliography on the Use of Biocides in Museum Collections” at ICOM-CC in Delhi 2008. The bibliography is accessible on the ICOM-CC website to members and non-members alike, and has been a valuable resource for many: HYPERLINK http://www.icom-cc.org/54/document/bibliography-on-use-of-biocides-in-museum-collections/?id=581#.UazqE-CmcUV” http://www.icom-cc.org/54/document/bibliography-on-use-of-biocides-in-museum-collections/?id=581#.UazqE-CmcUV. We know that during the past six years further research has been carried out on this subject, and now aim to update the bibliography in time for the ICOM-CC conference in Melbourne. In order to make this a fairly straightforward process we are asking for your assistance. If you have published on biocides in museum collections, or if you know of such publications with a publication date later than 2007/early 2008, please send us the relevant references. This does not have to be a publication written in English. In the previous version we included French and German papers, and we are happy to include them in other languages as well.

Please send references to Farideh Fekrsanati (HYPERLINK "mailto:farideh@volkenkunde.nl" farideh@volkenkunde.nl), Monika Harter (HYPERLINK “mailto:MHarter@thebritishmuseum.ac.uk” MHarter@thebritishmuseum.ac.uk) or Emily Kaplan (HYPERLINK “mailto:KaplanE@si.edu” KaplanE@si.edu).

We will be very grateful for your help!

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**FROM THE EDITOR**

Thank you to the authors who contributed to this 2013 issue, you continue to make these newsletters a rewarding reading experience!

This Newsletter strives to provide individuals and institutions in our international community with a forum for sharing thoughts and ideas, debating questions important to our profession and discussing concerns of mutual interest. If you would like to make a submission to a future issue of the Newsletter please contact:

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