

PREVENTIVE MEASURES FOR OBJECTS ON DISPLAY SUPPORTS AND MOUNTS



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Peabody Museum of Archaeology and Ethnology
Presentation for Preservation Primer: Exhibition Preparation
May 1, 2012

INTRODUCTION

- ❑ This presentation was developed as part of a set of talks on Exhibit Preparation.
- ❑ This presentation focuses specifically on the physical aspects of internal and external support for three-dimensional objects.
- ❑ Object images featured in this presentation are from the Harvard Peabody Museum (unless otherwise noted).



COLLECTIONS AT THE PEABODY MUSEUM

The Peabody Museum of Archaeology and Ethnology is one of six FAS museums. The Museum is integral to University education, public interest, heritage interests of indigenous communities, and scholarly interests of researchers internationally.

Most recent statistics on the collections are:

- ▣ 85% archaeological; 11% historic/ethnographic; 3% human osteology
- ▣ 50% North America; 20% Central America and 20% Asia
- ▣ 10% South America, Pacific Islands, Africa and Europe

- ▣ 600,000 museum catalog numbers representing 1.2 million objects
- ▣ 6 million ceramic fragments and 12 million stone flakes.
- ▣ 1500 works of art on paper and paintings
- ▣ 300,000 individual photographic images
- ▣ 7,000 oversized maps and archaeological field drawings
- ▣ Hundreds of linear feet of paper-based archive documents

TYPES OF EXHIBITS AT UNIVERSITY LIBRARIES AND MUSEUMS

- ▣ Short-term displays for course teaching
- ▣ Student co-curated exhibits
- ▣ Special in-house public exhibits with focused themes
- ▣ Collection-sharing between museums and libraries
(Several examples: Tozzer Library; Gutman Library; MCZ; HUAM)



Detail of a teaching display case featuring summer intern projects: beaded band positioned on a fabric-covered panel and a hide cap on a custom-cut polyethylene foam inner support

PURPOSE OF OBJECT MOUNTS

- ▣ Ensure object safety
- ▣ Facilitate safe object handling
- ▣ Achieve curatorial goals
- ▣ Provide appropriate context/visual interpretation of the object
- ▣ Fulfill exhibit design concepts
- ▣ Animate object for the viewer



Goals: Object physical safety with quality interpretation and presentation

EXHIBIT DESIGN PARAMETERS: SUPPORTS AND MOUNTS

- ▣ Time
- ▣ Funding
- ▣ Physical space
- ▣ Exhibit materials
- ▣ Current condition of object



FUNCTION OF SUPPORT OR MOUNT

- ▣ Provides physical support at critical points to prevent stress.
- ▣ Limits object movement, shaking and/or vibration.
- ▣ Restrains object safely to prevent slippage and tipping.
- ▣ Not 'permanently' attached to object in most cases.
- ▣ Is fit to object and not object being fit into a mount.



The Swartz Run produced painted bowls and jars, as well as more utilitarian unpainted vessels [1]. Stone axes [2] and jewelry made of turquoise and stone [3 and 4] were rare. Shell traded from Baja California was made into beads, pendants, and "ticklers" [5, 6, and 7], which produced a tinkling sound when worn during dancing. Bone hairpins, sometimes with the ends carved to represent sheep horns, were worn by men [8].

Perishable objects did not survive in the moist soil Swartz Run for a thousand years. But the Conger also excavated in dry caves where the preservation is better and where they found baskets and textiles. A sandal was recovered that was made for adults [9] and children [10]. These types of items would have been used at the Swartz Run.

PLANS AND DESIGNS: SUPPORTS AND MOUNTS

- ▣ Planning for object supports and mounts begin at time of exhibit conception and object selection
- ▣ Mounts of safe, inert materials
- ▣ Materials that can be appropriately finished
- ▣ Materials with appropriate stiffness for intended purpose
- ▣ Mount contact points with object that are protectively barriered and/or cushioned
- ▣ Mounts that facilitate both installation and later subsequent removal from object

OBJECT CONSIDERATIONS

- ▣ Size and weight of object
- ▣ Flexibility or rigidity of object
- ▣ Object's gravity center
- ▣ Object's construction and potential areas of weakness
- ▣ Object's display orientation capability: flat, slanted, vertical or suspended
- ▣ Safe contact points on object for selected display orientation

PHYSICAL FACTOR: GRAVITY AND OBJECTS

Elastic Deformation:

Under stress, the object changes and yet returns to prior shape when stress is released.

Inelastic Deformation:

Object does not return to previous shape. Permanent deformation.

Example of ongoing stress:

Lack of proper support for heavy beadwork. Elongation and deformation and breakage of cotton cord.



Detail of two of the four beadwork panels of a horse saddle



OBJECT SUPPORT OR MOUNT

- ❑ Not all objects require mounts.
- ❑ Many objects can rest on a simple support panel.
- ❑ Many supports can be easily fabricated with available materials. Good choices: paper-based, textile, or inert plastic and foam materials.
- ❑ Mounts of metal, wood and acrylic require services of a mount-maker who has technical skills and workshop for welding, soldering, tapping, cutting, gluing and finishing.



Hopi wool sash positioned on acrylic sheet on top of painted display case deck.

COLLABORATIVE DECISION-MAKING

Good planning, longer lead time, ongoing consultation with curator, conservator, exhibit designer, mount-maker and/or art installer.

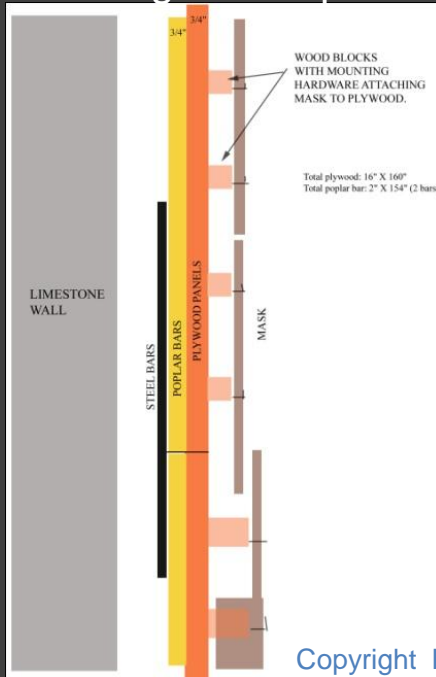
Object Installed



Mount attachment



Planning/ Conceptual



Copyright President and Fellows of Harvard College

Wall installation



14ft long African Dogon mask of the Harvard's School of Public Health Library collection

EXHIBIT DESIGN FOR OBJECT CONDITION



1898 print from a glass plate negative of a Marquesan man wearing a *uhikana*



As stored 2008 and before



As displayed for 2010 Loan

Late 19th century *Uhikana* stitched to support panel

Loan Exhibit Request:

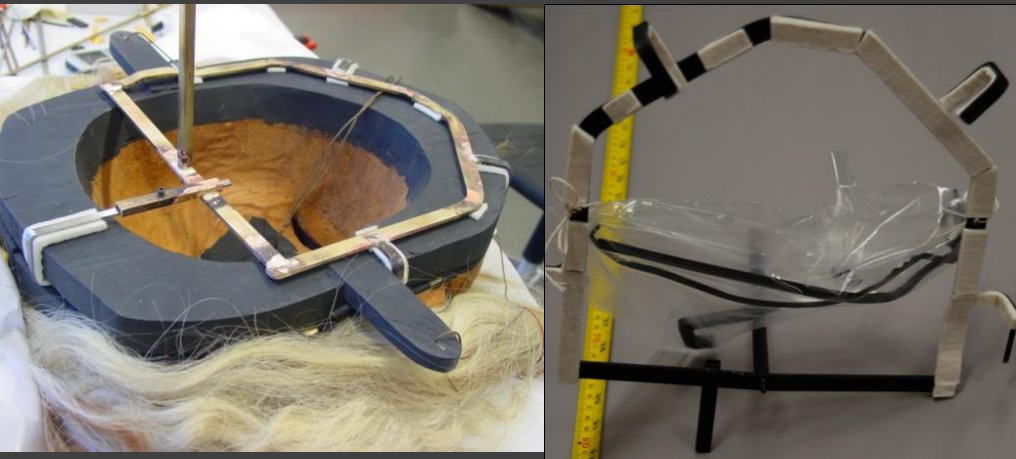
To display *uhikana* “as worn.”

Object Condition: dry inflexible plant fiber required flat presentation.

FROM SIMPLE SUPPORTS TO MULTI-COMPONENT RIGID MOUNTS



Small objects rest directly on the fabric-covered 'sand' bag



Loan Exhibit: Specially-fabricated metal mount with cushioning/barrier at contact points. Mount made at the borrowing institution under consultation with the Peabody Museum conservator



North West Coast transformation mask installed in exhibit case on its metal mount

SUPPORT AND MOUNT MATERIALS

- ▣ Base Material
- ▣ Cushioning/Barrier
- ▣ Fastening Mechanism



Inner support of soft foam



Rigid mounts and clips



Silicone padding to prevent slippage on smooth acrylic



Heavy stone object supported by a metal mount on wood base



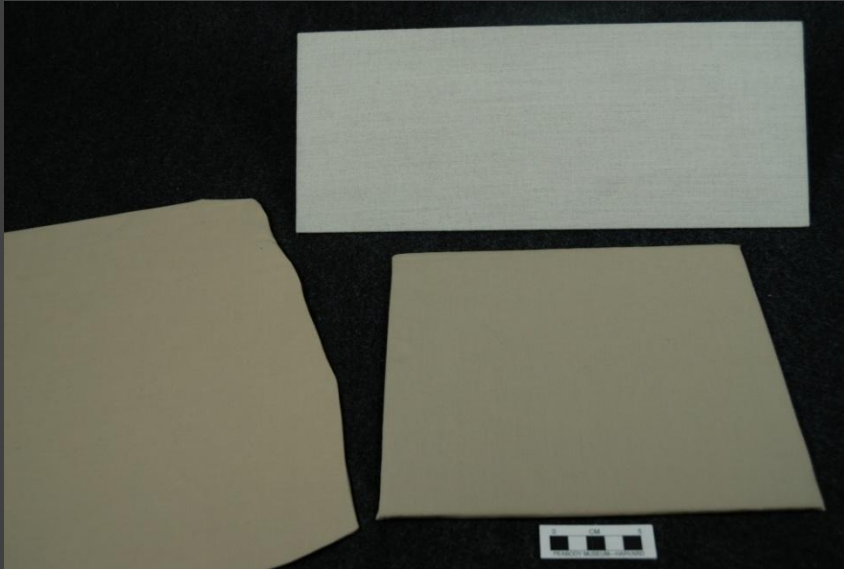
Polyethylene foam cushioning over acrylic

TYPES OF SIMPLE SUPPORTS: CLOTH-COVERED BAGS AND RINGS

Cloth-covered 'sand' bags with sand, polypropylene beads, or other inert material



SUPPORT PANEL



Face side



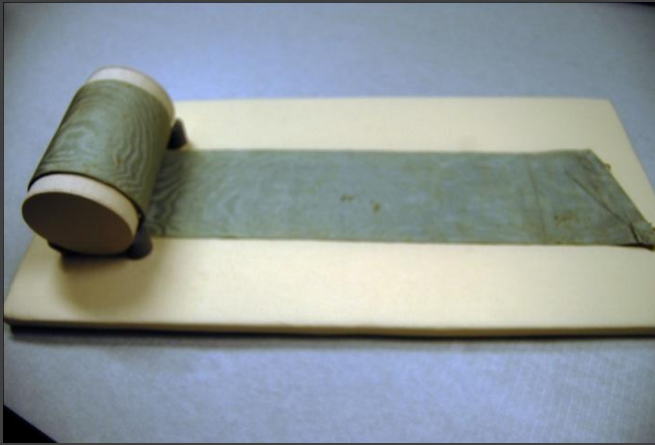
Rear side

Support panels of blue-gray cardboard, corrugated plastic board (*Coroplast*), acrylic or 8ply mat-board or aluminum or 1/2 inch paper honeycomb.

Panels are covered with fabric (cotton; linen or cotton/linen or cotton/polyester).

Prior to fabric-wrapping, panels can be cushioned with low-profile materials (1/8" polyethylene foam sheeting or polyester batting).

FLAT DISPLAY: SUPPORT PANEL



Late 18th century silk sash rolled on tube and set on panel with four small foam stops affixed to panel.

Support panels can be custom-cut to the object's dimensions or cut with wider perimeters for ease in handling and installation. Objects simply rest unattached on the fabric-covered support panel for flat display. Some may require additional restraining mechanisms.



Early 20th century beaded band from Schlesinger Library on exhibit on a support panel at the Peabody Museum



Archaeological textile fragment from Peru on custom-cut fabric-covered support panel

FLAT DISPLAY: PHYSICAL SPACE LIMITATIONS OR OBJECT FRAGILITY



During curatorial review at Schlesinger



Inner support of polyester batting and polyethylene foam covered with cotton knit fabric. Inner support provides visual depth and means to display beads on the dress in horizontal orientation.



Schlesinger Library dress on display in low profile/flat case at Peabody Museum as part of the 2010 University *Tangible Things* exhibit.

OBJECT SUPPORTS SERVING DISPLAY, TRAVEL AND/OR STORAGE



Red cap from Peabody Museum on foam mount attached to support panel in travel box ready for display at Harvard's Collection of Historical Scientific Instruments (CHSI)

Display panel serves for long-term storage.



Wrist band affixed to padded support panel with embroidery floss stitches in travel box. Displayed at CHSI in the *Tangible Things* exhibit

VERTICAL DISPLAY: SUPPORT PANEL

Feather calumet with pipe bowl



Fine nylon cord placed inside polyethylene tubing; cord tied off at rear of fabric-covered honey-comb paper-based panel. A metal "L" pin at stone pipe bowl top affixes at rear of panel.

An undecorated section of the wood pipe stem serves as site for contact points to stabilize object on fabric-covered panel



Fabric-covered panel affixed to wall with 5-sided UV filtering acrylic bonnet for additional protection from dust, light, air movement and security.

VERTICAL DISPLAY: BASE MOUNTS

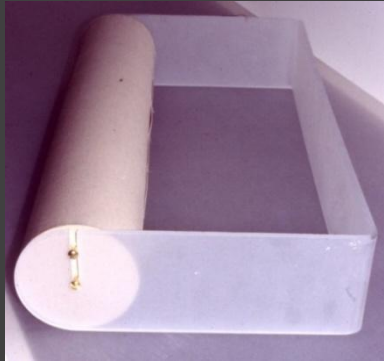


Base mounts

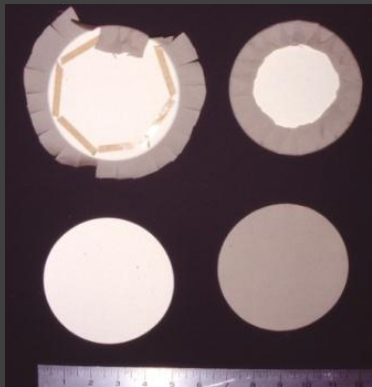
Carved polyethylene foam, polyester batting, and fabric; archival-grade cardboard tubes with fabric; *Mylar* polyester film lines exhibit case floor as barrier to paint.

Base mount (vertical rods of steel, aluminum, or painted wood) are fabricated by mount-maker.

VERTICAL DISPLAY: WALL MOUNT



Acrylic wall mount
fabricated by mount-maker



Fabric-covered
matboard cap ends
for support tubes



SLANTED DISPLAY: SUPPORT PANELS



Fabric-covered corrugated cardboard slant panel. Magnets sandwiched between two small sheets of 1/8" polyethylene foam placed inside each fiber bag. Slant panel is re-useable for future displays.



Teaching Displays: Students may have opportunity to participate in object research, object mount construction and exhibit installation.



A steel washer or second magnet is placed at underside of slant panel. Rear panel has access to position magnets.

SLANTED DISPLAY: SUPPORT PANELS



Fabric-covered museum board; archival-grade tubes; “L” brass pins of acrylic or metal affix tube to base.



Painted wood slant panel with face of fabric-covered archival grade museum board. Fabric-covered archival-grade tube affixed to top of wood panel with acrylic mount.

ACRYLIC MOUNTS FOR CERAMIC AND ROUND-BASED OBJECTS



Mounts of acrylic or metal require services of a mount-maker.

Contact points are padded or barriered



METAL AND ACRYLIC MOUNTS



Acrylic or polyester felt or polyethylene tubing as barrier/cushion at contact points to mount

MOUNT-MAKING CONSIDERATIONS IN ACTIVE EARTHQUAKE ZONES

- ❑ Distribute point-load forces with larger contact areas
 - ❑ Greater load means stronger mount material (3:1)
 - ❑ Restrain objects at 3 or 4 points
 - ❑ Reduce center of gravity
 - ❑ Make object, mount, interior case plinths and exhibit case as one unit tied to the floor and wall
-
- ❑ Consult Getty Museum 1990 and 2007; and *WAAC Newsletter* Sept 2007



Installation in
process in
southern
California



EXHIBIT CASE COMPONENTS

- Use safe inert display case materials
- Use safe inert exhibit label/text materials.
- Affix labels/photos securely to walls.
- Barrier painted wood with aluminum laminate or *Mylar* polyester film.
- Position light-sensitive objects lower in the case as one means to reduce overall exposure.
- Consider use of micro-climates with humidity-sensitive objects (i.e. metals; ivory; wood).

A series of presentations on exhibit case design, materials and construction is under consideration for the coming year and will address the above issues and many others in more detail.



1991 *Ju'Wasi: Bushmen of the Kalahari* exhibit case

Many thanks to Jane Hedberg and the team at the Weissman Preservation Center for making this collaborative learning opportunity possible for all of us.

And to all who steward, study, conserve and make safely accessible the important collections here at Harvard to the local and global communities.

An object support/mount construction workshop is under planning for Summer 2012.

