



PRESERVATION IN STORAGE & DISPLAY

Workshop Part A

Utah Field Services

Utah Division of Arts and Museums

April 7, 2022: Uintah County Heritage Museum

10 am - 5 pm



NATIONAL
ENDOWMENT
FOR THE
HUMANITIES



UTAHHUMANITIES
Ideas in Action



Utah Division of
Arts & Museums

PROGRAM OVERVIEW: Year at a Glance

~~1. ACCESS AND ARTIFACT HANDLING~~

JANUARY
FEBRUARY
MARCH

Workshop
(pt A & B)
1. Webinar
2. Webinar
3. Webinar

2. PRESERVATION IN STORAGE AND DISPLAY

APRIL
MAY
JUNE

Workshop
(pt A & B)
1. Webinar
2. Webinar
3. Webinar



3. ENVIRONMENT AND BUILDING SYSTEMS

JULY
AUGUST
SEPTEMBER

Workshop
(pt A & B)
1. Webinar
2. Webinar
3. Webinar

4. RISK MANAGEMENT, EMERGENCY PREPAREDNESS & DISASTER RESPONSE

OCTOBER
NOVEMBER
DECEMBER

Workshop
(pt A & B)
1. Webinar
2. Webinar
3. Webinar

GOALS

Gain a better
understanding of
Key Themes...



Key Themes

- Increase understanding of how to incorporate preservation practice into exhibition design
- Understand strategies for preserving collections on display
- Increase understanding of how to choose suitable exhibition materials for preservation
- Learn to make simple mounts for a variety of objects on exhibition

AGENDA

Handout



Preservation in Storage and Display

Workshop Part A Agenda

Uintah County Heritage Museum, Vernal

April 7, 2022

Learning Goals for Workshop pt A

1. Increase understanding of how to incorporate preservation practice into exhibition design
2. Understand strategies for preserving collections on display
3. Increase understanding of how to choose suitable exhibition materials for preservation
4. Learn to make simple mounts for a variety of objects on exhibition

Agenda

| | |
|-------------|--|
| 10:00-10:40 | Introductions, Updates from the Field (recent site visits) |
| 10:40-10:50 | Exhibitions: Big Picture, Access, Mission |
| 10:50-11:15 | Ethics and Exhibiting Culturally Sensitive Objects |
| 11:15-11:30 | Preservation Concerns for Objects on Display |
| 11:30-11:40 | BREAK |
| 11:40-12:00 | Exhibition Planning: Timelines and Understanding your Objects <ul style="list-style-type: none">A. Exhibition Design and Preparations |
| 12:00-12:20 | Exhibition Standards and Maintenance <ul style="list-style-type: none">A. Common Exhibition Display Methods and MaterialsB. Monitoring and Maintenance of Exhibitions |
| 12:20-12:30 | Case Intervention and Mount Making at Uintah County Heritage Museum |
| 12:30-1:30 | LUNCH |
| 1:30-2:45 | Group 1: Mount Making Activity |

Split into two groups, working simultaneously

UPDATES FROM THE FIELD

Spring Site Visits:

Annie Bommer

Heritage Museum of Layton

Liz Nagengast-Stevens

Utah State Parks - Fremont Indian State Park, Sevier

Emily Bentley

City of Kanab / Kanab Museum

Jaleesa Buchwitz

St. George Dinosaur Discovery Site

Hannah Barrett

Springville Museum of Art

Elayne Hinsch

John Wesley Powell River History Museum, Green River

Tara Beresh

Moab Museum

Sharon Johnson

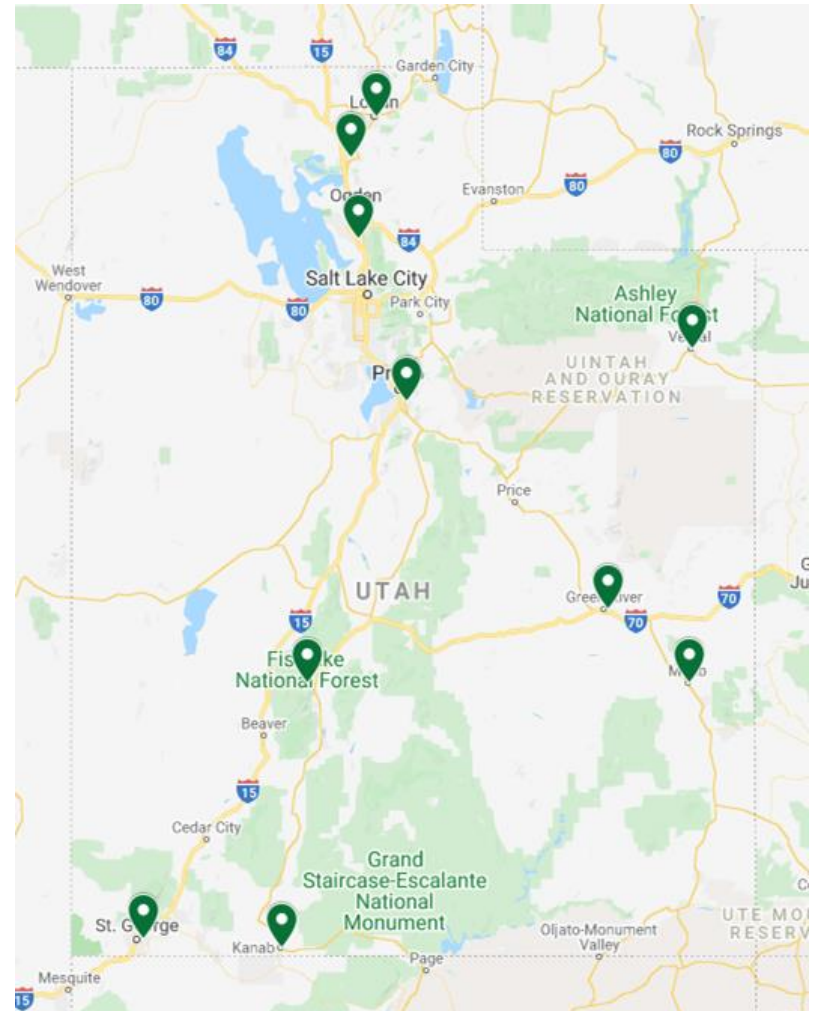
Cache Pioneer Museum, Daughters of Utah Pioneers, Logan

Alana Blumenthal

Brigham City Museums

Lana Fulbright

Uintah County Heritage Museum, Vernal



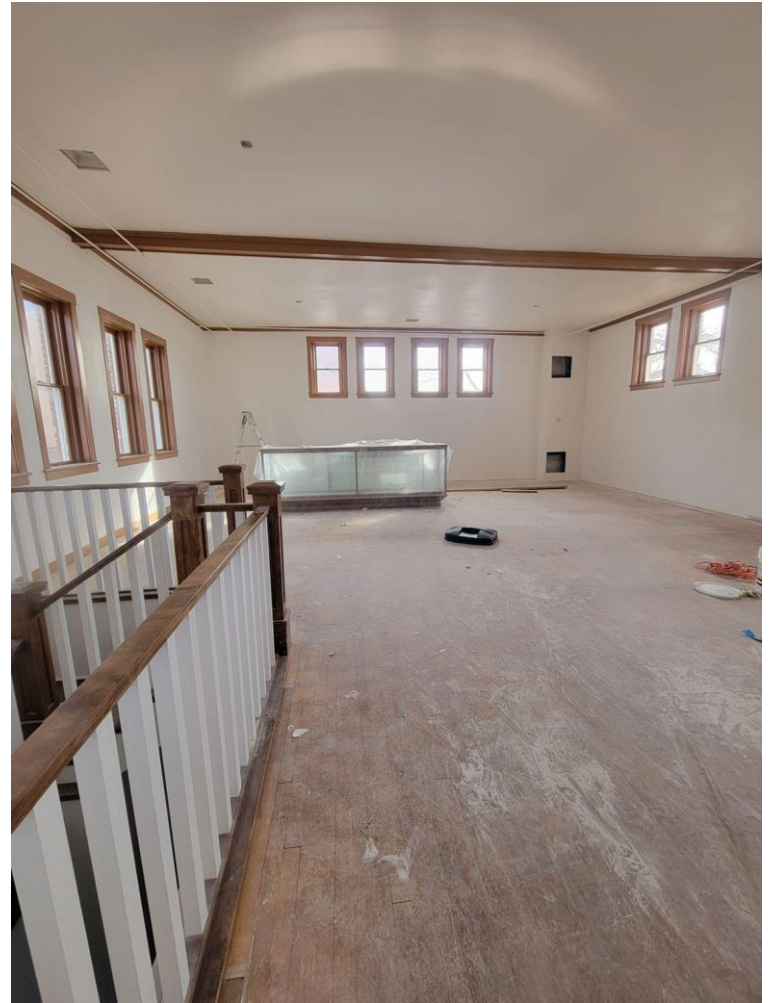
UPDATES FROM THE FIELD



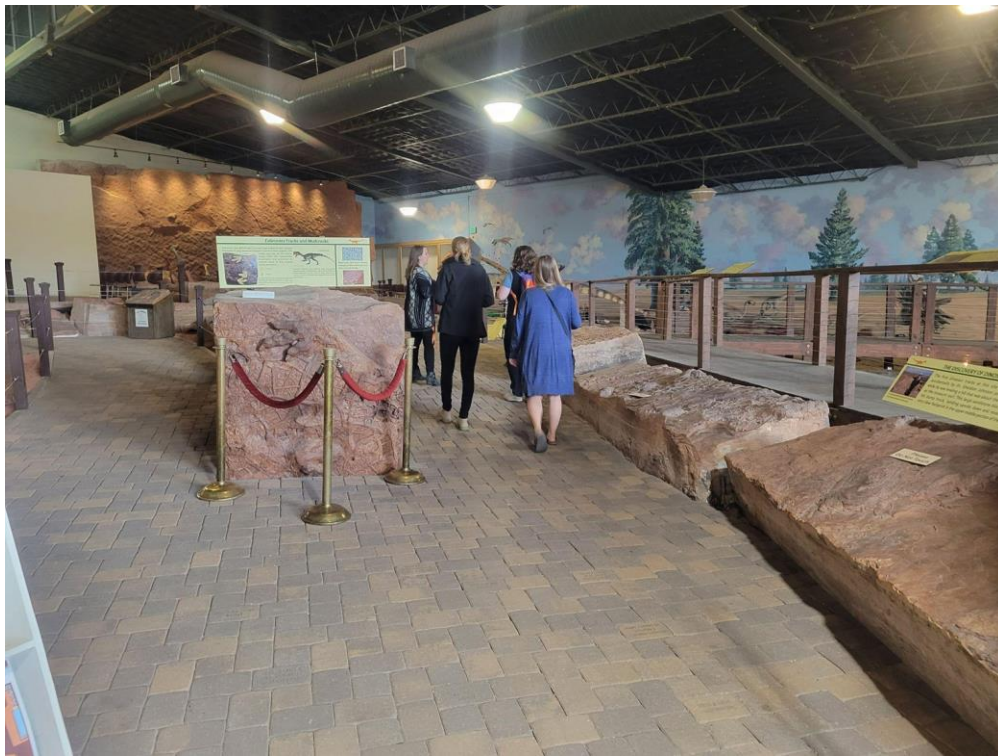
UPDATES FROM THE FIELD



UPDATES FROM THE FIELD



UPDATES FROM THE FIELD



UPDATES FROM THE FIELD



UPDATES FROM THE FIELD



UPDATES FROM THE FIELD



UPDATES FROM THE FIELD



UPDATES FROM THE FIELD



INTRODUCTIONS

Please share the following:

1. Your name
2. Where you work: institution, location, your role, and how long you have worked there
3. How is preservation factored into your current exhibition practices? Share one example



MISSION OF MUSEUMS: big picture

Museums are expected to:

1. plan strategically and act ethically with respect to collections stewardship
2. legally, ethically, and responsibly acquire, manage and dispose of collection items as well as know what collections are in their custody, where they came from, why they have them, and their current condition and location
3. provide regular and reasonable access to, and use of, the collections in their custody



“SIMPLY PUT”...

1. Know what stuff you have
2. Know what stuff you need
3. Know where it is
4. Take good care of it
5. Make sure someone gets some good out of it
6. Especially people you care about
7. And your neighbors



EXHIBITIONS: Interpretation and Significance

(StEPs **INT** Standards:) The institution's interpretive content is based on appropriate research which is conducted according to scholarly standards.



(StEPs **COLL** Standards:) The institution's collections-related research is conducted according to appropriate scholarly standards.



(StEPs **MGMT** Standards:) The institution engages in ongoing and reflective institutional planning that includes involvement of its audiences and community, and other stakeholders.

EXHIBITIONS: Interpretation and Significance

Assessing significance determines decisions regarding interpretation, conservation, and can provide well-reasoned arguments for declining a donation or deaccessioning an object.

- Allows better understanding and communication of an object's meaning
- Enhances access to and use of collections
- Ensures provenance and associations are fully recorded
- Provides a reference point for making conservation and collection management decisions



EXHIBITIONS: What Do They Do?



... forge emotional and intellectual connections between the interests of the audience and the meanings inherent in [your collections].

... help visitors make broader emotional and intellectual connections with the objects, images, processes, structures, landscapes, and other features they encounter at that site.



Translation: Exhibits help people care about and understand the stories your museum collections can tell

ETHICS OF MUSEUM EXHIBITIONS

Firstly, exhibitions are ... about **objects**, and museum objects are imbued with different **values**... they may be **aesthetic, symbolic, educational, scholarly, cultural, political, or economic**. When objects are put on public display some of [those values] are opted for over others...

Secondly, exhibitions are very powerful representations and ... are responsible for **shaping the public's perception** in many, often unintended, ways.



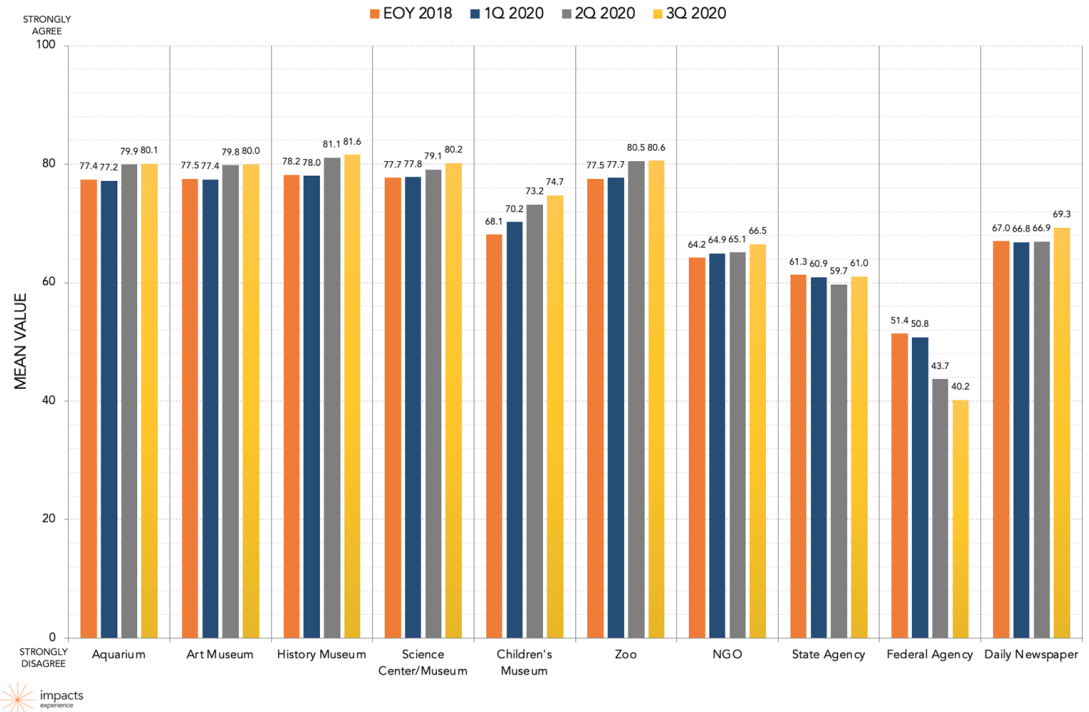
Gazi, A., 2014. Exhibition Ethics - An Overview of Major Issues. Journal of Conservation and Museum Studies, 12(1), p.Art. 4. DOI: <http://doi.org/10.5334/jcms.1021213>

EXHIBITIONS: Trust and Credibility

Museums consistently rank amongst the most trusted institutions in American society. As such, it is critical that information presented in exhibitions... is **accurate** and **truthful**.



... is a highly credible source of information.
Mean response by organization type



EXHIBITIONS: Unacceptable Practices



- Using outdated, inappropriate, or inaccurate materials as sources, evidence, or examples.
- Giving false or fabricated information to visitors.



EXHIBITIONS: Unacceptable Practices



- Telling a group's history and stories without consulting with or sharing authority with them around the development of interpretive materials, narratives, and presentations



“SIMPLY PUT”...

1. Know what stuff you have
2. Know what stuff you need
3. Know where it is
4. Take good care of it
5. Make sure someone gets some good out of it
6. Especially people you care about
7. And your neighbors



EXHIBITIONS & COMMUNITY COLLABORATION

True **collaboration** does not happen immediately—it is process driven and takes **time and commitment**... Do not confuse collaboration with a single invitation to view or comment on collections, or to rubber-stamp exhibition content. Collaboration is about **sharing both authority and decision-making** and includes cooperative planning, definition of outcomes and roles, task accountability, transparent budget discussions, and a clear structure for communication.



Indian Arts Research Center. 2019. Guidelines for Collaboration (website).
Facilitated by Landis Smith, Cynthia Chavez Lamar, and Brian Vallo. Santa Fe,
NM: School for Advanced Research. <https://guidelinesforcollaboration.info/>.

EXHIBITIONS & COMMUNITY COLLABORATION

Some key questions to consider when developing collaborative relationships with communities include:

- What need or problem exists to prompt a collaboration?
- Does your museum have the time and resources to support a collaboration?
- How will the collaboration be of benefit to both your museum and the community?



Indian Arts Research Center. 2019. Guidelines for Collaboration (website).
Facilitated by Landis Smith, Cynthia Chavez Lamar, and Brian Vallo. Santa Fe,
NM: School for Advanced Research. <https://guidelinesforcollaboration.info/>.

EXHIBITIONS & TRIBAL CONSULTATION

“There has been—and continues to be—**tension** between Native peoples and museums in the United States due to past collecting practices and **exhibitions that strive to interpret their culture and history without their involvement**... Exhibitions developed in **collaboration** with Native peoples, with **shared curatorial authority**, decidedly help ease the historic tension between the two, and they are much more **vibrant and accurate** than when collaboration is lacking.”



Collaborating Beyond Collections: Engaging Tribes in Museum Exhibits.
Sheila Goff, Betsy Chapoose, Elizabeth Cook, and Shannon Voirol

EXHIBITIONS & TRIBAL CONSULTATION - Best Practices

Plan Well and Early

- Understand sovereignty and nation-to-nation consultation
- Get to know the laws, treaties, and who is involved
- Be open to project adjustments

Broad Engagement and Open Lines of Communication

- Language matters: choose your words carefully
- Listen and hear
- Be transparent in information sharing



106 Group: Anne Ketz with Paul Backhouse, PhD, RPA (Seminole Tribe of Florida), “Best Practices for Partnering and Collaborating with Tribes”

EXHIBITIONS & TRIBAL CONSULTATION - Best Practices

Commitment and Follow Through

- Be invested in tribal engagement: it's not a checkbox exercise
- Care and try
- Be invested beyond the life of a single project



Cultural Awareness and Competence

- Seek cross-cultural learning and understanding
- Understand how to treat the information that is being shared
- Understand and be sensitive to other world views about cultural and natural resources

Ibid: "Best Practices for Partnering and Collaborating with Tribes"

PRESERVATION CONCERNS FOR OBJECTS ON DISPLAY

EXHIBITIONS & PRESERVATION

1. Physical Forces
2. Fire
3. Pests
4. Water
5. Light
6. Incorrect Relative Humidity
7. Incorrect Temperature
8. Thieves and Vandals
9. Pollution
10. Dissociation/Custodial Neglect



EXHIBITIONS & PRESERVATION

1. Physical Forces

2. Fire

3. Pests

4. Water

5. Light

6. Incorrect Relative Humidity

7. Incorrect Temperature

8. Thieves and Vandals

9. Pollution

10. Dissociation/Custodial Neglect



OBJECTS ON EXHIBITION ARE 'WORKING'



Brigham City Museum exhibition of costumes in 2019

OBJECTS ON EXHIBITION ARE ‘WORKING’

- Museum objects, although mounted, secured, and not moving, are changing and responding to their environment whenever on exhibition.
- An object in a cool, dark, dry place, with a proper storage mount, will last the longest
- All stages of exhibition: from planning to preparing to display invites the impacts of deterioration
- Because we want to both maximize preservation and access through exhibition, we carefully plan and maintain objects on exhibition



PHYSICAL FORCES



Edinburgh public art: Greyfriars Bobby's nose is getting very shiny from all the rubbing.

This is the result of human interaction with a public art piece.



LIGHT



Image courtesy of the Winterthur Museum, Garden and Library

Decades of light exposure from exhibition caused the dramatic fading in the fabric above



THIEVES AND VANDALS



To prevent opportunity for theft, these small objects were tied with fishing line to their slant board.

POLLUTION



National Museum of American History

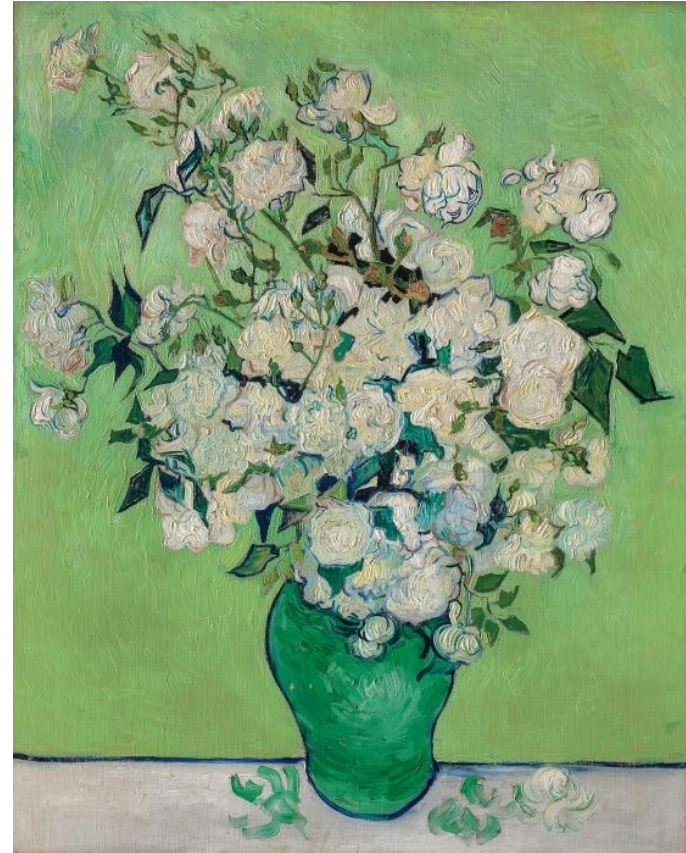


Cellulose nitrate coating on the sequins readily deteriorates at room temperature because of its chemically unstable nature. It off-gasses pollutants including nitric and acetic acid that accelerate deterioration further.

DISSOCIATION/CUSTODIAL NEGLECT

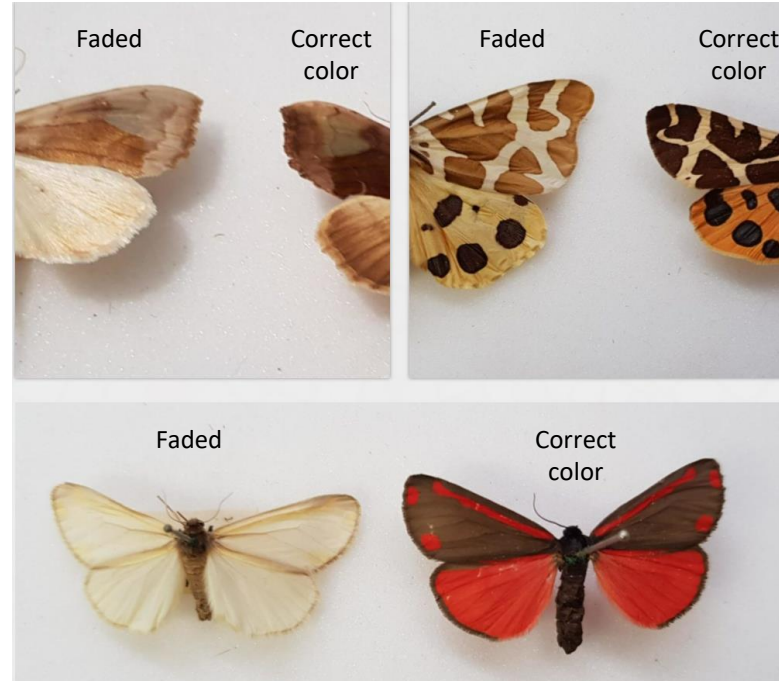
- We can think of some change, and the information that is lost, as **dissociation**
- We can also think of some kinds of deterioration, or dramatic changes, as **custodial neglect**

The roses in this van Gogh painting were once pink, but the red lake paint used is highly light sensitive. Many years of light exposure from display led to this change. Only recent years of historical and scientific research has revealed the artist's real work.



PREVENTING LOSS OF INFORMATION WITH ROTATIONS

- **Object Rotations** are a way to prevent dramatic changes in condition over time. Rotation requires a second, comparable object to be put on exhibition to preserve the other
- They are usually determined and planned for during exhibition design
- Object Rotations are necessary for preservation of collections on long-term display (years)
- They are not always practical, but they are an important tool for long-term preservation



<https://brightonmuseums.org.uk/discover/2020/02/21/faded-specimens-and-the-importance-of-object-rotation/>

Specimens faded after many decades of display, presenting visitors with incorrect examples of species at the Booth Museum in England

DO NOT UNDERESTIMATE THE IMPACT OF LIGHT



Light can dramatically alter most types of objects over time, especially unfiltered outdoor light (Ultraviolet light). This kind of damage is totally irreversible.



Kitagawa Utamaro, (1754–1806), two impressions of *A mother feeding her infant in front of a mirror*. Colour woodblock, c. 1797.

BREAK (10 Minutes)



EXHIBITION PLANNING: TIMELINES & OBJECT SELECTION

Courtney Miller | Sabrina Sanders

EXHIBITION PLANNING: TIMELINES & OBJECT SELECTION



Object with highlighted stability concerns- not fit for display.



This particular buckskin doll is too unstable for display, fortunately there are alternate buckskin dolls that can still share the same interpretive goal.

EXHIBITION PLANNING: TIMELINES

Specific, purpose built,
display mounts that
require no construction.



EXHIBITION PLANNING: TIMELINES

Display
mount for
saddlebags



Slant board mount
for Hawaiian
Leiomano

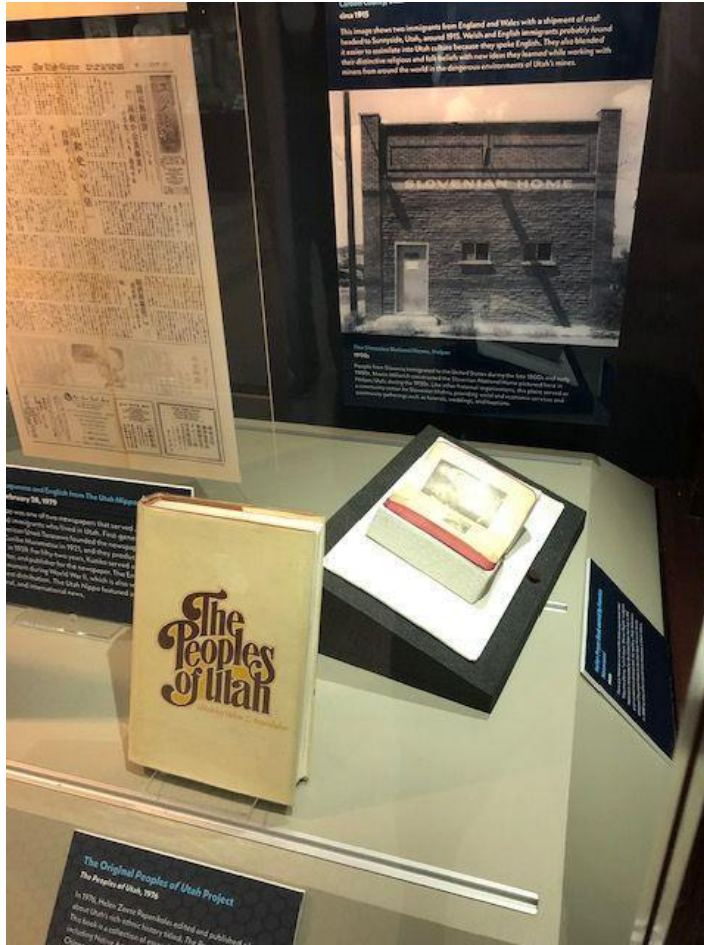


EXHIBITION PLANNING: EXHIBIT AT STATE CAPITOL



Exhibit case by State History at the Utah Capitol

MOUNT MAKING



Examples of custom-made, simple mounts for objects in the exhibition case

PLANNING A SPACE

Understanding the limitations of your space, budget, and timeline can influence which objects can safely be exhibited

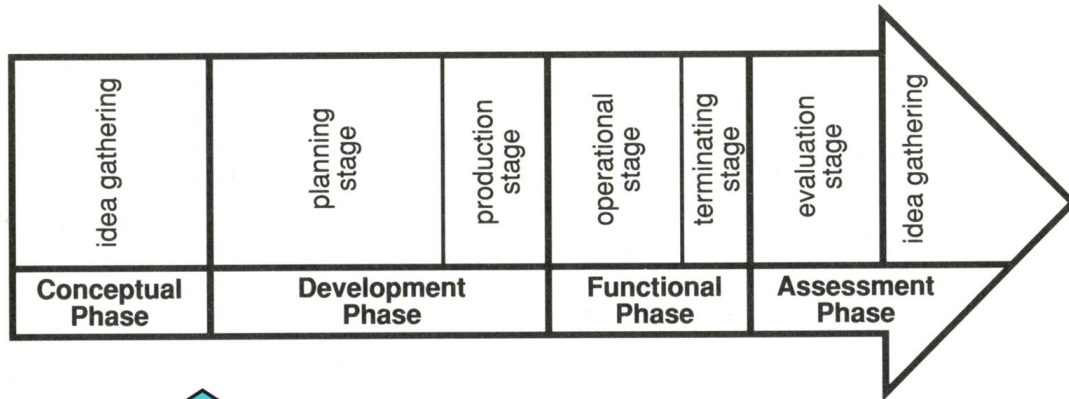


EXHIBITION STANDARDS & MAINTENANCE

Marie Desrochers

EXHIBITION STANDARDS AND MAINTENANCE

- A. Common Exhibition Display Methods and Materials
- B. Monitoring and Maintenance of Exhibitions



From David K. Dean who authored the textbook
Museum Exhibition: Theory and Practice (1996)

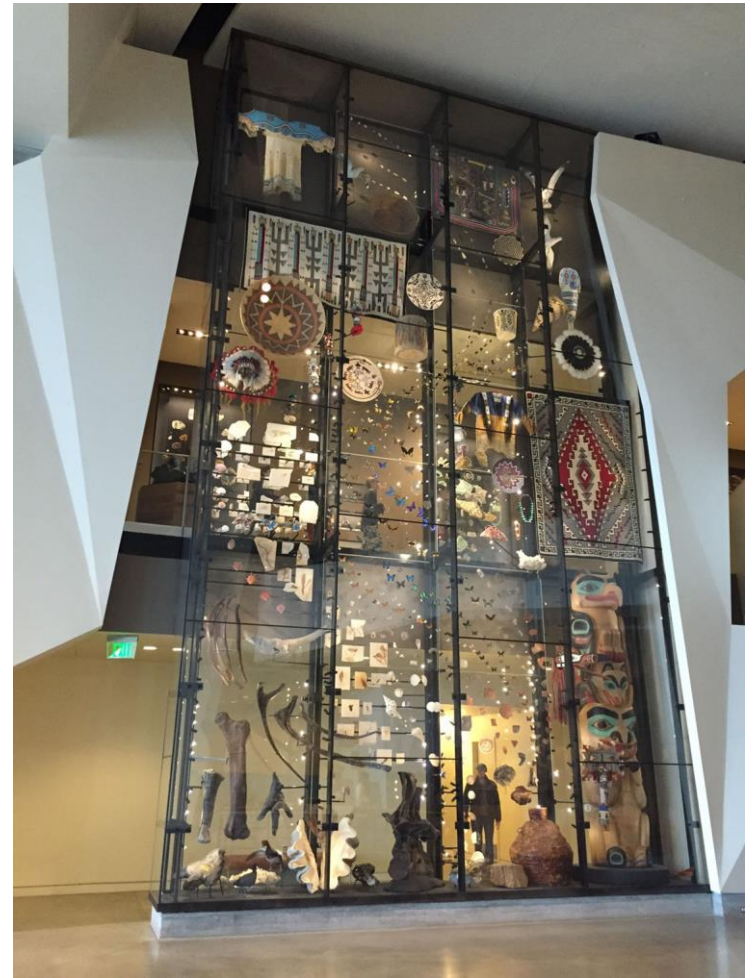


<https://taylorstudios.com/blog/how-to-create-a-museum-exhibit-a-12-step-program>

COMMON EXHIBITION DISPLAY METHODS: Mounts



Object Mounts at the Natural History Museum of Utah



<https://svpow.com/2015/07/08/natural-history-museum-of-utah-wall-of-ceratopsians/>

COMMON EXHIBITION DISPLAY METHODS: Mounts



<https://archive.slttrib.com/article.php?id=17837676&itype=storyID>



<https://www.artdisplay.com/custom-mounting.aspx>

These kinds of mounts are metal, and require skills and workspace for metal brazing and soldering. They are supportive of the object at key, stable points, and are custom built. The metal usually has a plastic cover where it comes into contact with the object.

COMMON EXHIBITION DISPLAY METHODS: Mounts

Examples of simple and effective mount techniques



<https://ancientglass.wordpress.com/3b-museums-glass-collections-and-exhibitions/the-metropolitan-museum-of-art-glass-in-the-american-wing/>



https://www.mfa.org/collections/conservation/feature_costumeaccessories_hatsandheadware_simple

COMMON EXHIBITION DISPLAY METHODS: Mounts

Your mount should:

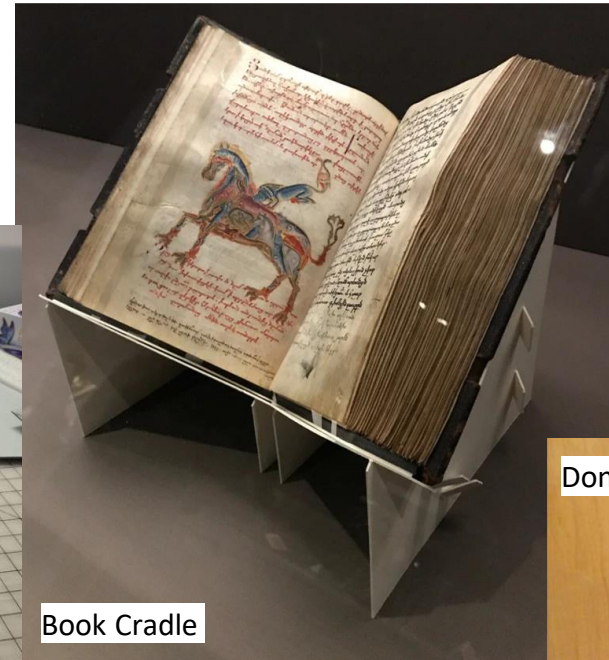
- Be supportive
- Be easy to install/deinstall
- Hold the object firmly in a well-balanced position
- Be made of inert materials
- Be unobtrusive
- Not require alterations to the object
- Not cause damage at the points of contact
- Not exert pressure on the object



COMMON EXHIBITION DISPLAY METHODS: Mounts

Your mount should:

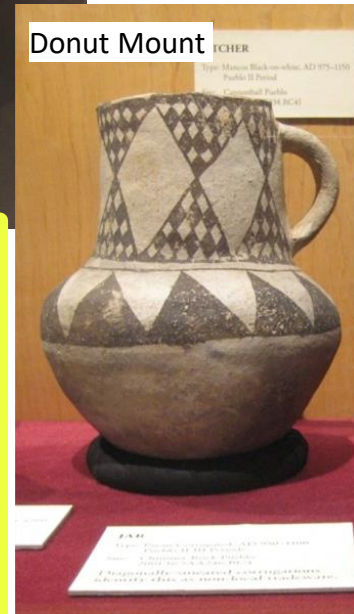
- Be supportive
- Be easy to install/deinstall
- Hold the object firmly in a well-balanced position
- Be made of inert materials
- Be unobtrusive
- Not require alterations to the object
- Not cause damage at the points of contact
- Not exert pressure on the object



COMMON EXHIBITION DISPLAY METHODS: Mounts

Your mount should:

- Be supportive
- Be easy to install/deinstall
- Hold the object firmly in a well-balanced position
- Be made of inert materials
- Be unobtrusive
- Not require alterations to the object
- Not cause damage at the points of contact
- Not exert pressure on the object




COMMON EXHIBITION DISPLAY METHODS: CHOOSING MATERIALS

We know that the materials we build boxes, cases, and mounts from can negatively chemically interact with our objects.

Conservators and conservation scientists have done testing to determine which materials are acceptable.



Conservation “wiki” from American Institute for Conservation



Wiki
*A Collaborative
Knowledge
Resource*

Search Wiki

Log in


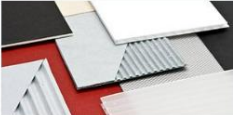


Navigation ▾Specialty Groups ▾Content Areas ▾

PageDiscussionView sourceHistory

Materials Testing Results

Main Catalogs Page > Research and Analysis > Conservation Materials > Materials Testing Results

To **Materials Testing Results Main Page**
To Contributor Oddy Testing Protocols
To About the Oddy Test

| | | | |
|--|---|--|--|
|  Fabrics |  Case Construction Materials |  Adhesives and Tapes |  Paints and Sealants |
|--|---|--|--|

Combined Materials Testing Results
Look here to search through all results from the other four tables

Disclaimer [\[edit source \]](#)

Test results are provided for informational purposes only. Neither AIC nor participating institutions endorse particular products, businesses, or services. It is recommended that all materials be re-tested before use as proprietary formulas and manufacturing processes can change without notice. Test results are not peer-reviewed or vetted. Use this information at your own discretion and assess it in conjunction with the provided protocol.

How to Use [\[edit source \]](#)

Please use the following table as a reference. The table is sortable by any of the headings with stacked double arrows.

The quickest way to find a material is by hitting **CTRL+F** to access the search or find function of the browser page.

Questions and suggestions can be directed to the [Materials Testing Results Coordinator](#).

Case Construction Materials [\[edit \]](#) [\[edit source \]](#)

This table includes construction, packing, and storage materials.

| Material Name | Manufacturer | Supplier | Test Results | Date tested yyyy/mm/dd | Tester | Test(s) Used | Description/ Composition | Comments | Material Type | Results Image or Description |
|--------------------------------------|-----------------|-------------------|---|---------------------------|--------|--------------|--------------------------|--|----------------|---|
| Wonderflex | Dazian fabrics | Dazian fabrics | pass, but no direct contact with object | 2011/03/15 | NMAI | Oddy Test | | coupons adhered to the sample, material adhered to the glass | plastic | Cu: no changes; Ag: no changes, the coupon is well adhered to the sample; Pb: darkening, comparable to control |
| Wonderflex | Dazian fabrics | Dazian fabrics | pass, but no direct contact with object | 2011/03/15 | NMAI | Oddy Test | | coupons adhered to the sample, material adhered to the glass | plastic | Cu: darkening of the copper on contact side, the coupon is well adhered to the sample; Ag: no changes, the coupon is well adhered to the sample; Pb: darkening, comparable to control |
| Aquaplast | Sammons Preston | Patterson Medical | fail | 2011/03/15 | NMAI | Oddy Test | | material melted and embedded metal coupons | plastic | Cu: green corrosion; Ag: no change; Pb: white bloom |
| Aquaplast | Sammons Preston | Patterson Medical | fail | 2011/03/15 | NMAI | Oddy Test | | material melted and embedded metal coupons | plastic | Cu: green corrosion; Ag: no change; Pb: white bloom |
| Fisherbrand* Solid Silicone Stoppers | | Fisher Scientific | pass | 2011/03/15 | NMAI | Oddy Test | | contact | silicon rubber | Cu: no change; Ag: no |

Disclaimer

Test results are provided for informational purposes only. Neither AIC nor participating institutions endorse particular products, but recommended that all materials be re-tested before use as proprietary formulas and manufacturing processes can change without peer-reviewed or vetted. Use this information at your own discretion and assess it in conjunction with the provided protocol.

How to Use

Please use the following table as a reference. The table is sortable by any of the headings with stacked double arrows.

The quickest way to find a material is by hitting **CTRL+F** to access the search or find function of the browser page.

Questions and suggestions can be directed to the Materials Testing Results Coordinator.

Test results are provided for informational purposes only. Neither AIC nor participating institutions endorse particular products, businesses, or services. It is recommended that all materials be re-tested before use as proprietary formulas and manufacturing processes can change without notice. Test results are not peer-reviewed or vetted. Use this information at your own discretion and assess it in conjunction with the provided protocol.

Case Construction Materials

This table includes construction, packing, and storage materials.

| Material Name | Manufacturer | Supplier | Test Results | Date tested yyyy/mm/dd | Tester | Test(s) Used | Description/ Composition | Comments | Material Type | Results Image or Description |
|--------------------------------------|-----------------|-------------------|---|---------------------------|--------|--------------|--------------------------|--|----------------|---|
| Wonderflex | Dazian fabrics | Dazian fabrics | pass, but no direct contact with object | 2011/03/15 | NMAI | Oddy Test | | coupons adhered to the sample, material adhered to the glass | plastic | Cu: no changes; Ag: no changes, the coupon is well adhered to the sample; Pb: darkening, comparable to control |
| Wonderflex | Dazian fabrics | Dazian fabrics | pass, but no direct contact with object | 2011/03/15 | NMAI | Oddy Test | | coupons adhered to the sample, material adhered to the glass | plastic | Cu: darkening of the copper on contact side, the coupon is well adhered to the sample; Ag: no changes, the coupon is well adhered to the sample; Pb: darkening, comparable to control |
| Aquaplast | Sammons Preston | Patterson Medical | fail | 2011/03/15 | NMAI | Oddy Test | | material melted and embedded metal coupons | plastic | Cu: green corrosion; Ag: no change; Pb: white bloom |
| Aquaplast | Sammons Preston | Patterson Medical | fail | 2011/03/15 | NMAI | Oddy Test | | material melted and embedded metal coupons | plastic | Cu: green corrosion; Ag: no change; Pb: white bloom |
| Fisherbrand* Solid Silicone Stoppers | | Fisher Scientific | pass | 2011/03/15 | NMAI | Oddy Test | | contact | silicon rubber | Cu: no change; Ag: no |

Disclaimer[\[edit source \]](#)

Test results are provided for informational purposes only. Neither AIC nor participating institutions endorse particular products, businesses, or services. It is recommended that all materials be re-tested before use as proprietary formulas and manufacturing processes can change without notice. Test results are not peer-reviewed or vetted. Use this information at your own discretion and assess it in conjunction with the provided protocol.

How to Use[\[edit source \]](#)

Please use the following table as a reference. The table is sortable by any of the headings with stacked double arrows.

The quickest way to find a material is by hitting **CTRL+F** to access the search or find function of the browser page.

Questions and suggestions can be directed to the [Materials Testing Results Coordinator](#).

Case Construction Materials[\[edit \]](#) [\[edit source \]](#)

This table includes construction, packing, and storage materials.

| Material Name | Manufacturer | Supplier | Test Results | Date tested yy/mm/dd | Tester | Test(s) Used | Description/ Composition | Comments | Material Type | Results Image or Description |
|--------------------------------------|-----------------|-------------------|---|-------------------------|--------|--------------|--------------------------|--|----------------|---|
| Wonderflex | Dazian fabrics | Dazian fabrics | pass, but no direct contact with object | 2011/03/15 | NMAI | Oddy Test | | coupons adhered to the sample, material adhered to the glass | plastic | Cu: no changes; Ag: no changes, the coupon is well adhered to the sample; Pb: darkening, comparable to control |
| Wonderflex | Dazian fabrics | Dazian fabrics | pass, but no direct contact with object | 2011/03/15 | NMAI | Oddy Test | | coupons adhered to the sample, material adhered to the glass | plastic | Cu: darkening of the copper on contact side, the coupon is well adhered to the sample; Ag: no changes, the coupon is well adhered to the sample; Pb: darkening, comparable to control |
| Aquaplast | Sammons Preston | Patterson Medical | fail | 2011/03/15 | NMAI | Oddy Test | | material melted and embedded metal coupons | plastic | Cu: green corrosion; Ag: no change; Pb: white bloom |
| Aquaplast | Sammons Preston | Patterson Medical | fail | 2011/03/15 | NMAI | Oddy Test | | material melted and embedded metal coupons | plastic | Cu: green corrosion; Ag: no change; Pb: white bloom |
| Fisherbrand* Solid Silicone Stoppers | | Fisher Scientific | pass | 2011/03/15 | NMAI | Oddy Test | | contact | silicon rubber | Cu: no change; Ag: no |

The **Oddy Test** is used as a subjective method for determining whether or not a material, such as wood, fabric, or paint, is appropriate for use in an enclosed space with artwork or other cultural heritage artifacts. In essence, it is a low-cost, non-specific accelerated aging test

Disclaimer[\[edit source \]](#)

Test results are provided for informational purposes only. Neither AIC nor participating institutions endorse particular products, businesses, or services. It is recommended that all materials be re-tested before use as proprietary formulas and manufacturing processes can change without notice. Test results are not peer-reviewed or vetted. Use this information at your own discretion and assess it in conjunction with the provided protocol.

How to Use[\[edit source \]](#)

Please use the following table as a reference. The table is sortable by any of the headings with stacked double arrows.

The quickest way to find a material is by hitting **CTRL+F** to access the search or find function of the browser page.

Questions and suggestions can be directed to the [Materials Testing Results Coordinator](#).

Case Construction Materials[\[edit \]](#) [\[edit source \]](#)

This table includes construction, packing, and storage materials.

| Material Name | Manufacturer | Supplier | Test Results | Date tested yy/mm/dd | Tester | | | | | |
|--------------------------------------|-----------------|-------------------|---|-------------------------|--------|-----------|--|--|----------------|---|
| Wonderflex | Dazian fabrics | Dazian fabrics | pass, but no direct contact with object | 2011/03/15 | NMAI | Oddy Test | | coupons adhered to the sample, material adhered to the glass | plastic | Cu: no changes; Ag: no changes, the coupon is well adhered to the sample; Pb: darkening, comparable to control |
| Wonderflex | Dazian fabrics | Dazian fabrics | pass, but no direct contact with object | 2011/03/15 | NMAI | Oddy Test | | coupons adhered to the sample, material adhered to the glass | plastic | Cu: darkening of the copper on contact side, the coupon is well adhered to the sample; Ag: no changes, the coupon is well adhered to the sample; Pb: darkening, comparable to control |
| Aquaplast | Sammons Preston | Patterson Medical | fail | 2011/03/15 | NMAI | Oddy Test | | material melted and embedded metal coupons | plastic | Cu: green corrosion; Ag: no change; Pb: white bloom |
| Aquaplast | Sammons Preston | Patterson Medical | fail | 2011/03/15 | NMAI | Oddy Test | | material melted and embedded metal coupons | plastic | Cu: green corrosion; Ag: no change; Pb: white bloom |
| Fisherbrand* Solid Silicone Stoppers | | Fisher Scientific | pass | 2011/03/15 | NMAI | Oddy Test | | contact | silicon rubber | Cu: no change; Ag: no |

More Variables:

How long is the material being used?

How close is it to an object?

What kind of object?

How is the material being used?

Is it for storage or display?

What is the environment like?

.....

SIMPLIFIED APPROACH with Utah Field Services

Rely on trusted, conservation-approved materials from archival suppliers

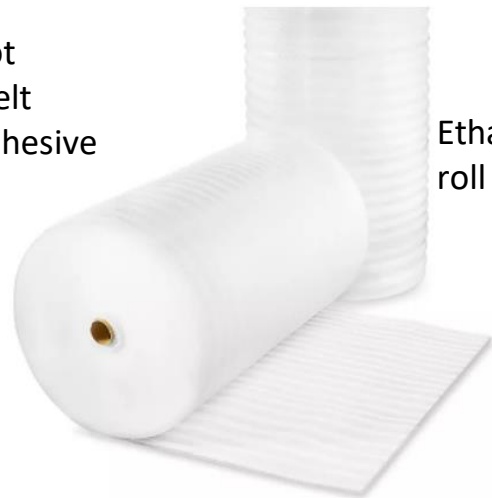


Ethafoam blocks

Stockinette



Hot
Melt
Adhesive



Ethafoam
roll



Archival
Mat
board



Unbleached
Cotton
Muslin



Linen tape



Cotton Twill Tape



Corrugated Blue Board

SIMPLIFIED APPROACH with Utah Field Services



Ethafoam = Polyethylene

- Specific plastic type, comes in many shapes and densities
- Excellent material for both display and storage mounts
- Doesn't last forever, and may lose its appealing properties over time

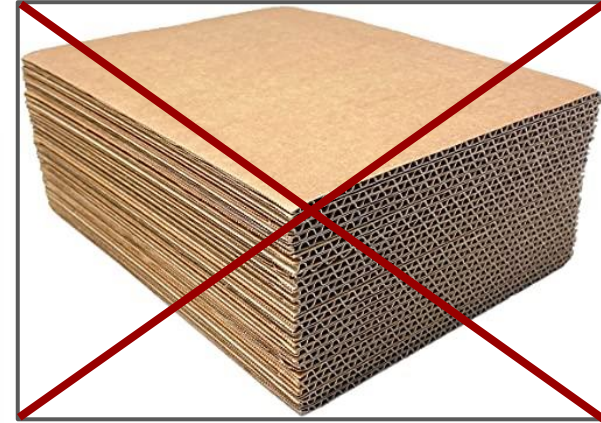
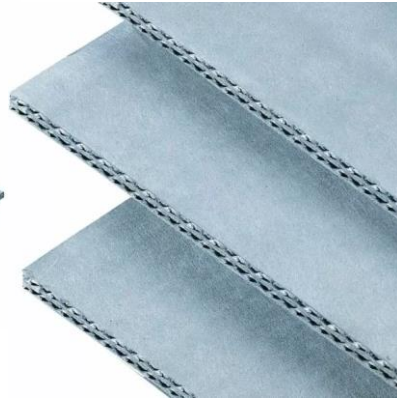


COMMON EXHIBITION DISPLAY METHODS: Materials



Corrugated Blue Board

- Acid-free and lignin-free
- Buffered with 3% calcium carbonate

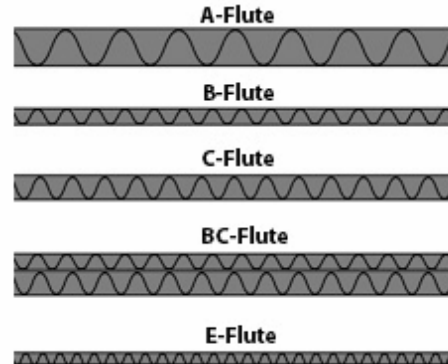


Regular cardboard-
acidic, low quality
wood pulp paper and
adhesive



Examples of blue board that come in a variety of weights and corrugation types

Different types of
corrugation



COMMON EXHIBITION DISPLAY METHODS: Materials



“Hot Melt Adhesive”

A vendor's description:

“This gentle hot-melt adhesive comes highly recommended by conservators for use around art and artifacts. Bonds most polyolefins (Ethafoam, Volara and Plastazote). Its non-corrosive properties won't affect even copper. “

“Hot melt adhesives whose main component is an ethylene vinyl acetate copolymer are generally suitable for use in constructing supports for specimen and artifact storage.”



Vs. the humble “hot glue gun”



“The most commonly used polymers in hot glue sticks include **ethylene-vinyl acetate (EVA), polyesters, polyethylene, and ethylene-methyl acrylate (EMA).**”



COMMON EXHIBITION DISPLAY METHODS: Materials

Fabric-type materials



Polyester
Stockinette

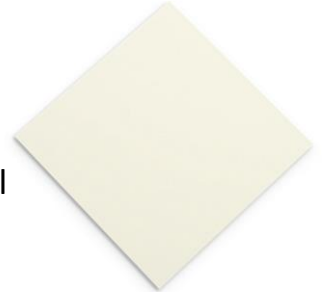


Cotton Twill Tape

- Smooth, undyed fabrics to prevent transfer of dyes to objects
- Wide variety of uses for each, and they can be fairly affordable
- Mat board, while paper, has a high fabric fiber content making it stronger and higher quality



Unbleached
Cotton
Muslin



Archival
Mat
board

EXHIBITION MONITORING AND MAINTENANCE



Objects in display cases can be locked in and become forgotten and inaccessible

Environmental monitoring is another useful tool in understanding what your object is experiencing. It is important, whether it is environmental monitoring, or simply visual monitoring, to track changes in objects over time while they are “working” on exhibition. 69



Objects on “open display” require routine dusting, and visual inspection

Dust

- Considered a pollutant and also part of “neglect” of collections
- Accumulation over time causes abrasions and irreversible damage
- Dust can absorb moisture, oils, mold spores, etc.
- A layer of dust attracts other types of danger (mold, pests, other pollutants)



Image courtesy of Museum of Chaumont, France.

CASE INTERVENTION & MOUNT MAKING @ UINTAH COUNTY HERITAGE MUSEUM

Megan van Frank | Utah Humanities

STABILIZATION OF OBJECTS ON EXHIBIT

- Uintah County Heritage Museum has a significant collection of Fremont and early Ute material (Thorne and Pickup collections) comprising hundreds of objects and even more lithics.
- In a joint project with Utah Humanities, Museum staff worked together with museum professionals to stabilize and move the collection in 2014 to a new facility.
- In 2015, the team reorganized the objects in their cases and created mounts to stabilize the collection on display.





WHAT DO YOU SEE?

UINTAH COUNTY HERITAGE MUSEUM
COLLECTION OF FREMONT & UTE MATERIAL
ON DISPLAY FOR OVER 20 YEARS AT OLD WESTERN PARK
PRIOR TO MOVE, 2014



PHASED APPROACH | Initial Scoping

Donor conditions required permanent display, posing great risks to the material. Initial scoping identified these priorities:

- Exhibit mounts to support and stabilize objects
- Separation of objects while on exhibit
- Address deterioration due to light and dust > cleaning
- Label objects to provide information (or even interpretation)





STEP 1: Get to Know Objects

1. Condition reporting
2. Identifying vulnerabilities
3. Photography
4. Basic research into existing documentation





STEP 2: Forward Planning

1. Basic mounts
2. Design to minimize handling (now and later)
3. Dual purpose for both storage and (with tweaks) display
4. Improvements achievable in the timeframe





STEP 3: Better Environment

- Archival materials
- Light dimmers
- Objects separated and organized
- But still requires stabilization measures





| Case No. | Assessment - Pre Intervention |
|----------|---|
| 24 | Put types together if they were not in a cache. Digging sticks on a board. Corn Muslin accordion tray Arrowheads stitched to a board – clear polyester Ethafoam and micro suede Trirod could work for the corn board if left on glass they will walk. |
| 62 | Cavity mount for stone balls. Mylar and micro suede hot pad between all surfaces not on boards. Nipple bowl needs a deeper cavity mount - turning straight down. Pot pieces bagged and the large pot need a grown up conservator. Priority 1. Figurines are a priority 1 project- Points on black mount need remounting. |
| 74 | Baskets Priority 1 & 2 - Gourd - ring backer rod. Gravity will hurt if not supported. Might consider a container section for interpretation. Discussion to generate - How to make baskets. Stuff our the baskets correctly. Rock lid - Priority 1 Interpret the lithic - talk about how they were found, |
| 20 | Basket Priority 1 - Snare bundle on a board and stitched - Priority 1. Starts/basket lids, on a board. Arrow shafts - composite, show how they were composed, use consistent basket cavity mounts, Sandler needs a bit more support. Place bag on a lifting board. Corrugated board for the corn. Bundle of feather secured. Bone tools (Might consider a tool kit interpretation) sewn to a board. |
| Hex | Cache - support baskets on a brass ring? Backer rod- batting pillow Priority 1 |
| 26 | Bows and Arrows Priority 1 - Staircase mount? Interpret technology. Tools - pipes different things. Hand held hoes, digging implements sticks gone. Manos. Leather on lifting board. Basket-corn on a board. |
| 70 | Mylar between layers of leather, do not stack. Storage - bags decision documented - trays for - cache. Stone technology not by cache. Net already sewn on board - the board needs stabilizing. Customize a cavity mount for the guard. Another Cavity mount for the other Guard (Pumpkin looking) Hot pads for those artifacts on mounts. May consider a footwear display. The Ax handle needs to be mounted safely. The moccasins need a conservator. Priority 1 |
| 60 | Support baskets. Mats put on a lifting board by a grown up conservator, for safe handling. Priority 1. Rattle mount needs stabilizing on a cavity mount. Priority 1. Boards for all tools. |
| none | Spoons in a cavity mount. Baskets on hot pads of Mylar and |

STEP 4: Assessment & Prioritization of Cases

1. Triage most vulnerable (organics, textiles, fragile ceramics)
2. Set priorities (high, medium, low risk) with prioritized plan for next steps
3. High priority objects plus easy fixes that can be done readily

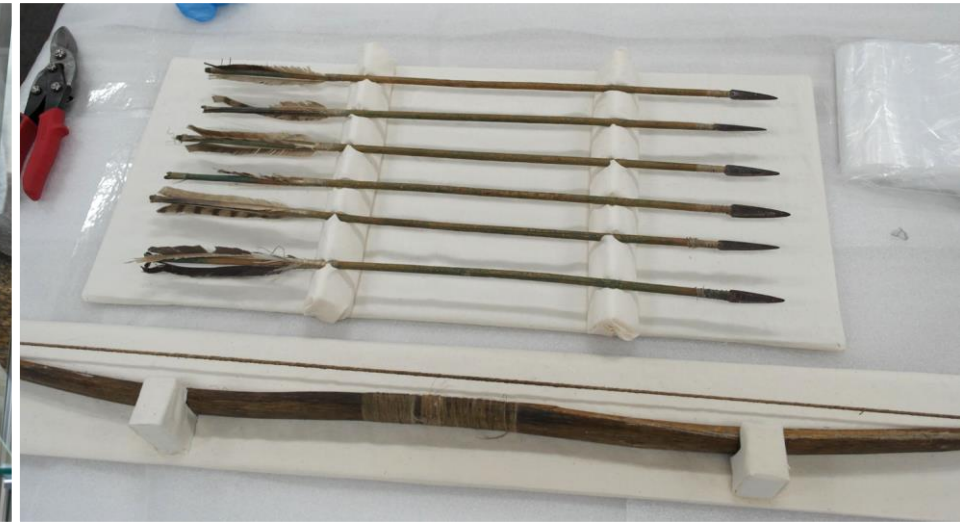




STEP 5: Basic Mounts

Stick to a few basic mount types to ease production line:

E.g., Cavity, Ring, Internal, Board





STEP 6: Specialized Mounts

1. Know your limits
2. Call for experienced help when needed



STEP 7: Build in Extra Time

1. For surprises (e.g., pest infestations)
2. To deal with damage that needs repair
3. To call for experienced help when needed



PHASED APPROACH | Accomplishments

DONE

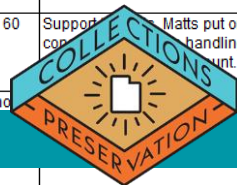
- Exhibit mounts for high risk objects
- Slip mats / mylar for easy fixes
- Separation of objects (no stacking)
- Dealt with pest infestation
- Light mitigation
- Basic organization & labeling



LEFT FOR NEXT STEPS

- Exhibit mounts for medium and low risk objects (but will address based on prioritized plan)
- Cleaning dust and other accretions
- Community consultation
- Interpretation (requires research, community consultation, and specialized help)

| Case No. | Assessment - Pre Intervention | Assessment - Post Intervention |
|----------|---|--|
| 24 | Put types together if they were not in a cache. Digging sticks on a board. Corn Muslin accordion tray Arrowheads stitched to a board – clear polyester Ethafoam and micro suede Trirod could work for the corn board if left on glass they will walk. | We have traded out most things in this case to Ute beaded artifacts. Collar could be displayed vertically at an angle with a support. Round purse needs a display solution. Priority 1 |
| 62 | Cavity mount for stone balls. Mylar and micro suede hot pad between all surfaces not on boards. Nipple bowl needs a deeper cavity mount - turning straight down. Pot pieces bagged and the large pot need a grown up conservator. Priority 1. Figurines are a priority 1 project- Points on black mount need remounting. | Points should be put on a board and stitched. The boards should hold groupings. Black mount with white points should be traded out. |
| 74 | Baskets Priority 1 & 2 - Gourd - ring backer rod. Gravity will hurt if not supported. Might consider a container section for interpretation. Discussion to generate - How to make baskets. Stuff our the baskets correctly. Rock lid - Priority 1 Interpret the lithic - talk about how they were found. | Points and Knives need to be on padded board (polyfill) or cavity mounts. Stitch the points onto the board. |
| 20 | Basket Priority 1 - Snare bundle on a board and stitched - Priority 1. Starts/basket lids, on a board. Arrow shafts - composite, show how they were composed, use consistent basket cavity mounts, Sandler needs a bit more support. Place bag on a lifting board. Corrugated board for the corn. Bundle of feather secured. Bone tools (Might consider a tool kit interpretation) sewn to a board. | Bone needs to be on a board. Cavity mount for shafts. Cavity mounts and boards according to shape. Dice is not stitched on it should be stitched or put on a cavity mount. |
| Hex | Cache - support baskets on a brass ring? Backer rod- batting - pillow Priority 1 | It pretty much finished. We could stuff the leather bags, after conservation.. Tyvek would be a good material to use. |
| 26 | Bows and Arrows Priority 1 - Staircase mount? Interpret technology. Tools - pipes different things. Hand held hoes, digging implements sticks gone. Manos. Leather on lifting board. Basket -corn on a board. | Turn corn back to faded side or move to bottom shelf. You could use a photo to show the beauty of the other side of the corn. |
| 70 | Mylar between layers of leather, do not stack. Storage - bags decision documented - trays for - cache. Stone technology not by cache. Net already sewn on board - the board needs stabilizing. Customize a cavity mount for the guard. Another Cavity mount for the other Guard (Pumpkin looking) Hot pads for those artifacts on mounts. May consider a footwear display. The Ax handle needs to be mounted safely. The moccasins need a conservator. Priority 1 | Grass moccasin needs to be on a board. The dew claw moccasins need a board. Horn on a board. Keep caches together. Fishing net turned over and tacked on the lose end. Priority 1. Note: The investigation has been treated The leather will need cleaning. If hari is coming off stop cleaning immediately. No cleaning without a grown up conservator. Leather on boards. Hoping for August help from Kim and Glenna. IPM control.Talk to Sam for scheduling and help. |
| 60 | Support Mats put on a lifting board by a grown up conservator. Rattle mount. Priority 1. Rattle mount needs a grown up conservator. Priority 1. Boards for all tools. | Divets deeper on the game pieces. Round gray mount perfect for the round start in Case 20. Bone, haffed knives, fire drills etc. need to be on boards. |
| no | Baskets on hot pads of Mylar and | Extra basket placed in case. 2nd from the right. |



PHASED APPROACH | Key Points

- Staged project over 2 years in phases: set priorities within timelines, allocated staff time, and recruited skills needed
- Aimed for better -- not perfect -- to keep moving

*“Artifacts that were dead,”
the tribal member commented,
“are now alive.”*

Lunch (1 hour)



ACTIVITY 1:

Mount Making

1.25 Hours- Hands on, create multiple simple object mounts

Slant Board

Cavity Mount

(1 hour, 15 min)

Handout



Preservation in Storage and Display Workshop

Instructions for Slant Board Mount

Materials

Cutting mat
Retractable knife (x-acto or box cutter)
Cutting mat
Ruler- Metal and greater length than 12" preferred
Felt tip pen
Hot Glue Gun
Blueboard
Ethafoam Sheet
Polyester faux suede fabric



Instructions

1. Prepare workspace- clean surface, place object in a safe spot out of the way
2. Cut board to the desired size, based on object measurements



ACTIVITY 2:

Case Intervention

30 min- Visit and Review Gallery Space in Uintah County Heritage Museum

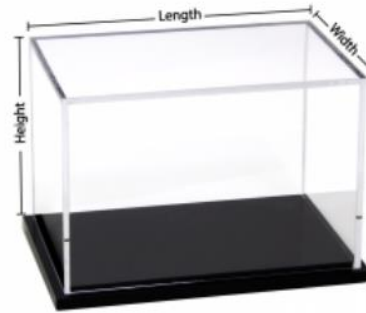
45 min- Alter and improve a pretend exhibition case with objects

Handout



Preservation in Storage and Display Workshop Case Intervention Activity

For this activity, you will be presented with a variety of objects to be exhibited together, within the finite space of a single exhibition case. Objects will be placed in one possible arrangement, but your task is to improve the design and layout according to the basic object display principles discussed today and below.



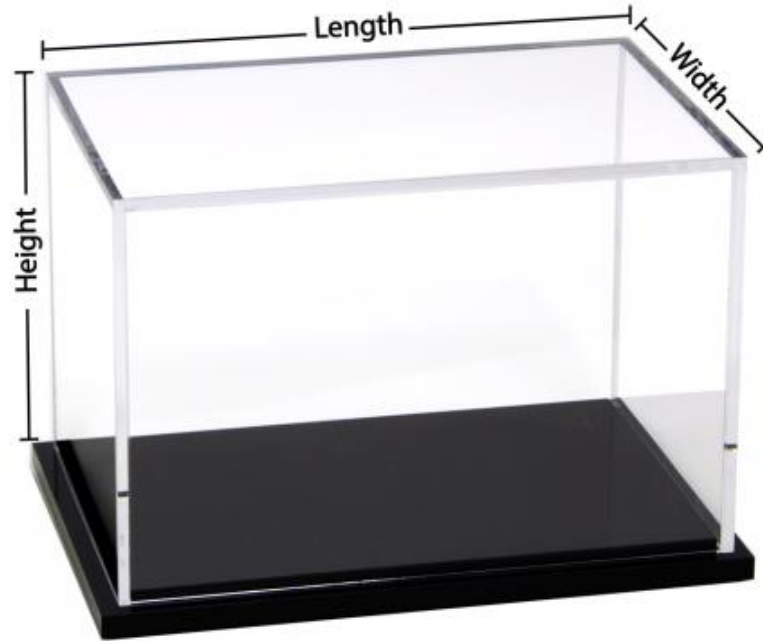
BREAK (10 Minutes)



Discussion: Reflections on Mount Making Activity



Discussion: Case Intervention Activity



Wrap-Up

- Reflections from the day
- Evaluation
- Homework

Homework

Intervention at Home:

Identify an object or group of objects at your institution that need a new mount or display method. Design such an intervention. Send images of the object/objects to Marie before our next workshop.



Thank you!

Marie Desrochers | mdesrochers@utah.gov
<https://artsandmuseums.utah.gov/utah-collections-preservation/>

This project was made possible in part by the National Endowment for the Humanities.



NATIONAL
ENDOWMENT
FOR THE
HUMANITIES



UTAHHUMANITIES
Ideas in Action



Utah Division of
Arts & Museums