Choosing Materials for Museum Storage

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Storage Materials

Talas
Real vs Ideal
Improving storage
Choosing Materials for Museum Storage

We will discuss:

– specific materials and how to choose them
– ways they can be used
– stability
– why these things are important
– troubleshoot attendee challenges
Choosing Materials for Museum Storage

We won’t go into much detail on:
– choosing museum storage furniture
– museum environmental controls
– designing and fabricating storage mounts

We will not cover every possible product, but I hope you will feel like you have the tools to choose appropriate materials
Good storage is preventive conservation

Agents of deterioration

- Physical Forces
- Thieves, Vandals, Displacers
- Fire
- Water
- Pests
- Pollutants
- Light
- Incorrect Temperature
- Incorrect Relative Humidity
- Custodial Neglect & Dissociation

Storage can address ALL of these
Today we're looking at the materials which are closest to or in direct contact with the object.
Good storage is preventive conservation

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Facilities and furniture play a large role
Good storage is preventive conservation

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Individual storage choices play a role
7 Ss to think about when creating storage

Size/shape
Support
Surface
Sensitivity
Access
Special environment
Stability (of storage materials)
Size/shape

- What are the limitations of your existing storage furniture?
- IDEALLY: What size, shape, and orientation is your object?
- How do you make the object fit? What adjustments might you need to make?
Support
rigidity/ shaping/ vibration
Sensitivity, choosing culturally-appropriate storage

- This takes research, investigation, and consultation
- May change decisions about what materials are used in contact with objects, and how things are stored
- May include different types of access needs
- Whether materials are stored together or separate from other materials
Access
Ease of visible access can reduce handling
Special environments

Many potential reasons to create a special environment:

– To control humidity
– To control oxygen
– To protect the object from outside pollutants
– To contain hazardous materials
– To absorb products being generated by the collection object
– To increase air circulation
Special environments for plastics

- Mylar enclosure for PVC
- Anoxic environment for rubber
Ventilated storage for cellulose nitrate and cellulose acetate
Low humidity for metals
Stability (of storage materials)

- Commercial materials are a risk. Purchasing from an established archival, museum, or conservation supply company is more reliable (see resources list).
- If buying commercially, look for:
  - Acid-free
  - Standard photocopying/printing paper is usually fairly stable due to calcium carbonate fillers, but no guarantee if not classed as acid-free
  - Plastics: safe* plastics (may) include: #1, 2, 4, 5: polyethylene (PET, HDPE, LDPE), polypropylene and polypropylene (*these are safer, but use commercially available products with caution, plasticizers and other additives can cause problems)
  - Textiles: Cotton, linen, polyester. Undyed is safest. Wash before using.
Paper products

- Tissues, paper, folder stock/card stock, board, corrugated board
  - Can use to line less ideal materials
- Acid-free
- Buffered (can use with papers, cotton, and other plant-based fibers; do not use for photographs, silk, or wool)
- Unbuffered (Photographs, wool, silk. When in doubt, use unbuffered paper products)
- ArtCare products with microchamber technology/zeolites
Tissue and Papers
Card stock or folder stock

Talas

University Products

Hollinger Metal Edge
Boards

Talas

NPS/WACC

Hollinger Metal Edge

MasterPak
Corrugated boards +

- Talas
- University Products
- Hollinger Metal Edge
Plastics

- Plastic Boards
- Foam blocks/ planks
- Foam sheets
- Plastic sheets like Mylar, Tyvek, Teflon, polyethylene sheets
- Plastic bags
Boards and Structural Foam
Plastic sheets
Clear plastics
Textiles/non-woven sheets

- Unbleached cotton muslin
- Silk crepeline
- Polyester organza
- Reemay
- Hollytex
- Cotton twill tape
- Polyester batting
Materials for Specialized Environments

- Oxygen scavengers (RP Systems, Ageless)
- Vapor barriers:
  - Marvelseal (aluminized)
  - Escal
- Desiccants
- Polyethylene gasketed boxes
- Zeolites/ArtCare boards
- Silvercloth
Adhesives (for mounts!)

- Hot-melt adhesive
  - Lower melt for foams
  - Higher melt for boards
- Double-stick tape
- Fish glue (for use where you may want to use non-synthetics for cultural reasons)
- Or non-adhesive methods!
Tools

- Self-healing cutting mat
- Cutting tools (for board, paper, fabric, foam)
- Bone folders
- Hot melt glue gun
- Awl
- T-Square
- Mat cutter
Challenges Submitted by Webinar Attendees
Paintings temporarily removed annually from several galleries and stored leaning against walls, with cut pool noodles as padding/ separation.

Concern that there is a better solution and that the noodles are damaging fragile frame moldings
Temporary Storage of Paintings

- CCI Noes 10/2: Making Padded Blocks and 10/3: Storage and Display Guidelines for Paintings
- Raised off of floor on padded blocks
- No more than 4-5 paintings together, with rigid board between paintings
Industrial museum has large collection of large machinery. Storage in need of complete overhaul. Large objects are currently intermixed with small. Will be adding shelving and rehousing small objects. Question of how to organize and protect large objects.
Storage of Large, Heavy Collections

Large, heavy objects can be stored on pallets on the floor, or on appropriate custom shelving.

Pallet jacks/ forklifts/ hoists for object movement

Special cradles to properly support objects. Dust covers to protect.
Questions & Answers