NCPC 2017 Conference: Battling the Bloom Mold on Objects

Corey Riley, Objects Conservator, Riley Art Conservation
• Daniele Del Nero, “After Effects”, paper, flour, mold
• Isolated the artifact(s)
• Identified and eliminated the cause of the mold
• Deactivated the mold

Online Resource:
“Mould Prevention and Collection Recovery Guidelines for Heritage Collections”
Canadian Conservation Institute, Technical Bulletin 26
www.cci-icc.gc.ca
Tools to have on hand
Tools to have on hand
Treatment

- In the ideal world: Vacuuming of mold should take place inside a fume hood.
- Vacuum on low suction
- Softly brush in one direction then make a second pass with perpendicular strokes
Organics: Wood

What to Look For:
• Paint, gilding, veneer
• Cracks, breaks, splinters
• What type of finish does the wood have?

Treatment:
• Unfinished wood – Vacuum, sponges, groomstick
  • 70% isopropanol spray can be used after testing in a small area
• Finished wood – Vacuum, sponges, groomstick
  • Do not use solvents on finished wood
Organics: baskets and fiber material

What to Look For:
- Fragile support structure
- Painted or prepared surfaces
- Lifting elements, broken pieces

Treatment:
- Vacuum with a soft brush, follow with sponges if necessary
- Be sure to support the opposite / under side
Organics: Leather and hide

What to Look For:
• Loose fur, delaminating leather or hide
• Red rot
• Loose materials – beadwork, fringes, quillwork

Treatment:
• Gently vacuum
• Clean with sponges
• No wet cleaning
Organics: Horn and ivory

What to Look For:
• Cracking or loose pieces

Treatment:
• Gently vacuum
• Clean with sponges
Inorganic: Ceramic, Stone, glass

What to Look For:
• Ceramics and Glass – gilded, lifting paint or surface, unstable cracks

Treatment:
• Low fired ceramics –
  Vacuum only. Do not wet clean.

• High fired ceramics, stable stone and glass
  Dry cleaning – vacuum and sponge
  Wet clean – wipe down with 70% isopropanol
Inorganics: Metals

Look for:
- Lacquers or other coatings
- Organic materials on handles or inlays
- Decorative finishes:
  Bluing, browning, gilding

Treatment
- Dry Clean – Vacuum, soot sponges or cosmetic sponge can be helpful,
- 70% isopropanol can be used. Take care solvents may remove a lacquer or protective coating
Inorganic: Plastics

• Look for: Sticky surfaces, odor, brittleness.
• Dry clean only: vacuum and sponge

• Bakelite: Thermosetting phenol formaldehyde resin developed in 1907
Small outbreak – isolated artifact
Foosaner Art Museum, Florida Institute of Technology
Patient Zero
Art Storage – everything was affected
Preparing a space to clean

Novair 200 zero pressure machine and air scrubber
Stable Environment?

Continuous Run/Drain Dehumidifier
## Importance of an accurate inventory

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<th>Object:</th>
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<td>Title:</td>
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<td>Reported by:</td>
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<td>Report date:</td>
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<td>Medium:</td>
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<td>Dimensions in x y z:</td>
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<th>Condition</th>
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<th>Structure</th>
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<th>Surface</th>
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<th>Other</th>
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<tr>
<td>Visible mold</td>
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<td>Previous Repair</td>
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<th>Comments:</th>
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<th>Treatment</th>
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<tbody>
<tr>
<td>1. Vacuum with n/a</td>
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<td>2. Clean mold on the surface with:</td>
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<td>3. Further Treatment needed</td>
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<th>Photographs</th>
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<td>Before</td>
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<th>Special storage or exhibition considerations:</th>
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FOOSANER ART MUSEUM
Florida Institute of Technology
Foosaner African Sculpture Before Treatment

Foosaner African Sculpture After Treatment
Shockwave treatment: EE&G

- Quaternary ammonium chloride blend (Disinfectant and cleaner)
- (N-Aklyl Dimethyl Benzyl Ammonium Chloride)
- Fragrance <1 % weight
- Water 85 – 95%
What we learned: Objects were affected

- Paper and thin wooden artifacts cockled and warped
- Metal artifacts began to tarnish at a higher rate
- Leather gloves have water droplet spots on them
What was learned: additional thoughts

- The treatment had to be conducted twice due to poor results in the University air testing post first round of cleaning.
- There was a lingering smell from the Shockwave for a number of days.
- Any artifacts that would be affected by fog or moisture vapor will be affected... Common sense?? But don’t worry, it is safe for humans!
Canaries at the front
Thank you!

Any Questions?

Corey Smith Riley
RileyArtConservation@gmail.com
(646) 483 - 4348