Nebraska STATE HISTORICAL SOCIETY

2017

Caring for Organic Materials

Gerald R. Ford Conservation Center

About Organic Materials

Organic materials are made from things that were once living. This includes animal materials such as leather, bone, ivory, antler, feathers, tortoise shell, baleen, horn, hoof, teeth, and plant materials like wood, basketry, bark, nuts, and seeds. Baskets, scrimshaw carvings, and buckskin moccasins are all commonly collected objects that are composed mainly of organic materials. There are many factors to consider before attempting to clean an object made of organic materials. These procedures should **not** be used on any objects that have:

- feathers as decorative or structural materials,
- loose or friable media or supports,
- the potential of having been treated with a toxic pest control chemical (**like arsenic)**,
- the potential of having indigenous or historic deposits that should be protected, or
- damage or extensive repairs

Objects exhibiting any of the above conditions should **only be cleaned by a conservator.**

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Handling

Because organic objects may have hidden weaknesses, it is important to handle them very carefully. Wear disposable nitrile gloves in case the object has been treated with pesticides in the past. Prepare a clean, clear space to receive the object. Remove any dangling necklaces, sharp rings, protruding belt buckles, and pens and pencils from shirt pockets that may scratch or damage your object. Examine your object carefully to find any weak areas,

and decide on the safest way to handle it. Use both hands when picking the object up, and ask for assistance if the object is heavy or unwieldy. Never eat, smoke, or drink in the vicinity of an object.

If an organic object is damaged during handling, do not panic. Take a photograph to document the accident. Retain all pieces, however small, and place them in labeled zip top bags. If you notice insects or evidence of recent insect activity when you examine your object, you may have an insect infestation. Isolate your object in a sealed bag composed of inert plastic, such as polyethylene or polyester. **Contact a conservator to learn the best way to proceed.**

Materials to have on Hand:

- nitrile gloves (disposable, powder-free)
- a clean towel and a clean white sheet (to create a padded work surface)
- clean, small, **very soft**, natural bristle brushes, such as a Japanese Haké brush
- a vacuum with variable speed motor for control of suction, and micro tool attachments, such as a very soft brush
- nylon window screen or cheesecloth to secure over your vacuum nozzle with elastic

Cleaning

If your organic object is determined to be stable and does not exhibit any of the characteristics listed above, it should be safe for careful cleaning. A variable speed vacuum set to very low suction should be used. Extreme care is needed to avoid doing more harm than good. The materials and techniques listed below are safe and effective when used in a careful and sensitive manner.

A clean, well-ventilated work area should be provided for the cleaning process, including a large, padded work table with adequate light. It is recommended that disposable nitrile gloves be used, to protect against possible pesticides on the surface.

Procedure

1. Prepare a clean work area. Create a padded surface by laying a towel down, followed by a clean sheet.

2. Place the object on the work surface. If the object is a three-dimensional, constructed object, leave it **closed** until the exterior surfaces can be cleaned.

3. Cover the vacuum nozzle with a piece of screening or a few layers of cheesecloth to prevent loose parts from being sucked into the vacuum where they can be crushed or difficult

to remove. The screen also allows you to see what, if anything, the suction from the vacuum is pulling off. The vacuum should be set to the **lowest** effective power. **Do not touch the nozzle to the surface of the object.**

4. Begin cleaning by **slowly and gently** brushing the surface of the object to remove loose surface dust and debris. Angle the nozzle so that it catches the dust and dirt from your brushstrokes. Strokes of the brush should begin at the top of the object and move towards the edges and the bottom of the object. A very light touch is most effective. Check your screen to see what is being removed from the object. If there are any signs of loose media or material stop the cleaning immediately and contact a conservator for further instructions.

5. If the dust, dirt, or debris on the object is too tenacious to be easily vacuumed off, it is fine to release the surface dust or dirt with a natural bristle brush that is stiffer. **Do not be tempted to use any liquid cleaning solutions.** These will cause permanent staining and may remove or damage part of the material of the object. Some materials can be cleaned with liquid solutions, but only after they have been tested by a conservator and specific instructions have been provided.

Avoid applying commercial polish or oil to the surface of the object, even if it looks dry. Polishes and oils often contain ingredients that will cause more harm than good in the long-term. Their application often attracts dust or results in an undesirable darkening of the surface over time.

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Support and Storage

Organic objects often need some internal support before they are displayed or stored. This is especially true for objects made of leather, which is flexible but stiffens over time. Acid-free, lignin-free, tissue paper can be rolled into "sausages" and placed inside an object to help it maintain its original shape. Tissue paper sausages can also be placed within the folds of an object to help prevent undesirable creases from occurring over time. **Avoid using tissue paper described as "buffered" on animal-derived materials such as leather and silk, as these materials deteriorate in alkaline environments.**

Long-term Care

National Museum of Ireland - http://www.museum.ie/The-Collections/Conservation/Preventive-Conservation

The long-term preservation of your object is dependent on the environment in which it is stored and displayed. The relative humidity should be as **stable** as possible and the temperature as low as practically possible. Keep your object away from heating and air conditioning vents. Relative humidity levels in the range of 35% to 50% are thought to be best for most materials. High humidity increases the risk of mold growth, while humidity that is too low may result in the embrittlement of organic materials. Temperatures should be kept below 72° F. It is also important to protect your objects from overexposure to light, which causes irreversible damage. Objects with textile or paper components, or dyed and painted surfaces, are particularly sensitive. High energy ultraviolet light from the sun is extremely damaging to objects, but UV light is also emitted from indoor light sources, such as fluorescent bulbs. Exposure can be partially limited by using window shades and applying UV filtering films to windows, and sleeves to fluorescent lights. Remember: Light exposure is cumulative, and the surest way to protect your object is to keep it out of direct light (both natural and artificial) and limit the amount of time your object is on display.

National Folk Museum of Korea – museumpests.net

Organic objects are often a desirable food source for pests and are best stored in closed containers.

Closed storage also helps minimize the object's exposure to atmospheric pollutants and damaging changes in relative humidity. Polyethylene or polypropylene storage tubs are available at most hardware stores and can be identified by the "PE" or "PP" imprint found on their underside. Another storage option is boxes composed of acid-free, lignin-free board. Avoid storing objects in containers or on shelving composed of wood, which can off-gas harmful acidic vapors.

Consulting a Conservator

If you have any questions about how to best handle your organic object, please consult a conservator. A conservator will be able to assess issues relating to its care and long term preservation. A conservator can also carry out stabilization treatment and aesthetic compensation if necessary, in a way that will not diminish the value of the object.

Conservation Suppliers

Most of the materials mentioned in this handout can be obtained from hardware and art supply stores. The following are recommended resources that carry supplies needed for the care and long term preservation of objects.

Conservation Resources International
5532 Port Royal Road
Springfield, VA 22151
Toll free: (800) 634-6932
www.conservationresources.com
Archival housing/storage supplies, photographic supplies, general

Gaylord Archival
P. O. Box 4901
Syracuse, NY 13221-4901
Toll Free: (800) 448-6160
www.gaylord.com
General conservation supplies, housing supplies

Hollinger Metal Edge, Inc.
6340 Bandini Blvd
Commerce, CA 90040
Toll Free: (800)-862-2228
www.hollingermetaledge.com
Archival housing/storage supplies

Light Impressions
100 Carlson Road
Rochester, NY 14610
Toll Free: (800) 975-6429
www.lightimpressionsdirect.com
Photographic supplies, housing, matting and framing supplies

University Products
517 Main Street
P. O. Box 101
Holyoke, MA 01041
Toll Free: (800) 628-1912
www.universityproducts.com
General conservation supplies, housing and matting supplies

Talas
330 Morgan Ave
Brooklyn, NY 11211
Telephone: (212) 219-0770
www.talasonline.com
Conservation supplies, photographic supplies, general

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