AMERICAN ASSOCIATION OF MUSEUMS

Information Center Fact Sheet
Hazards in Collections

Some objects in museum collections can pose hazards to people who come into contact with them. Museum staff should document, evaluate, and have mitigation plans for the dangers posed by these materials. These hazards include:

- Asbestos: naturally occurring in some mineral specimens; may be present in cement, tile, and insulating material; in "fire-proofed" clothing, curtains, blankets, and ironing board covers; and in appliances such as toasters, stoves, hair driers, and ovens.

- Biological hazards: viruses, molds, or bacteria harbored in artifacts or specimens (e.g., plague in rodent specimens from the Southwest). Some artwork, ethnographic artifacts, and biological specimens may include human hair, feces, blood, or other bodily fluids that may contain infective pathogens. Old preserved foodstuffs may contain botulism.

- Corrosive chemicals: can be present in old batteries or in collections that contain medical or chemistry supplies.

- Explosive hazards: Ordinance and firearms may not have been rendered safe before entering the collections. Some preservatives used in fluid collections (e.g., Bouin's solution) form a contact explosive when dried. Cellulose nitrate film becomes both flammable and explosive as it ages.

- Physically injurious objects: objects that are hazardous because they are particularly heavy or sharp, or may injure a person trying to use them (e.g., operable machinery).

- Radioactive materials: Paints, dyes, and ceramic glazes may contain radioactive minerals as part of their pigmentation. Some military equipment and timepieces use radium in their luminous dials. Certain minerals, ores, and fossils have naturally high levels of radioactivity.

- Toxicants: applied as a pest control method (e.g., mercuric chloride, arsenic, DDT), as part of the artifact's function as a weapon (e.g., curare), or inherently present in objects (e.g., mercury amalgams on mirrors or metallic mercury in scientific instruments). Toxic plant material may be preserved as herbarium specimens or may be incorporated into other artifacts.

Additional Resources

"Contaminated Cultural Materials in Museum Collections: Reflections and Recommendations for a NAGPRA Issue," Nancy Odegaard and Alyce Sadongei, *WAAC Newsletter*, May 2000, vol. 22, no. 2 (http://palimpsest.stanford.edu/waac/wn/wn22/wn22-2/wn22-207.html)

Hazardous Materials in Museum Collections, Megan Hicks, (Museum and Galleries Foundation of New South Wales, 2002) (www.mgfnsw.org.au/resources/Research/HazardousMaterials_Museum.pdf)

"Hazardous Materials in Your Collections," *Conserv O Gram*, August 1998, no. 2/10 (www.cr.nps.gov/museum/publications/conserveogram/02-10.pdf)

"Historical Survey of the Sources of Contamination of Ethnographic Materials in Museum Collections," Catharine Hawks, *Collections Forum*, 2001, vol. 16, no. 1-2 (www.spnhc.org/documents/CF16/hawks.pdf)

"Inherent and Acquired Hazards in Museum Collections: Implications for Care and Use of Collections," Catharine Hawks and Kathryn Makos, *Cultural Resource Management*, 2000, no. 5 (http://crm.cr.nps.gov/archive/23-05/23-05-10.pdf)