

Leadership of NPS in Dealing with Contaminated Natural History and Cultural Collections

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Background

At a spring 1999 meeting of the Museum Management Program Council (MMPC), one of the members, Virginia Salazar-Halfmoon, regional curator from the Intermountain Region of the National Park Service (NPS), asked if the Harpers Ferry Center tested NPS museum collections for contaminants. As head of the scientific research and analytical support laboratory at the Harpers Ferry Center, the question was addressed specifically to me. My answer was “no.” In fact, at that time my lab had only been in existence for less than a year and our analytical capabilities were very limited. Indeed, I had only been vaguely aware that a problem even existed. I was soon to learn that many museum collections had been treated with arsenic, mercury, and/or organic pesticides in order to preserve them against insect infestation. It became evident in discussions with my conservator colleagues that the issues surrounding contaminated collections, motivated in part by the Native American Graves Protection and Repatriation Act (NAGPRA), were complex, hot topics, and ones in need of much discussion. Unfortunately, the pesticide literature is scattered and relatively inaccessible to professionals dealing with treatment or handling of contaminated collections.

The Symposium—Contaminated Collections: Preservation, Access, and Use

It was imperative that something be done to solve the problems related to contaminated collections. To that end, I authored—with help from Scott Carroll, curator at the Alaska State Museum; Catharine Hawks, a conservator in private practice; Jim Pepper Henry, NAGPRA manager at the National Museum of the American Indian (NMAI), Smithsonian Institution; Jessica Johnson, senior conservator in the NPS Museum Management Program (MMP); and Stephen Williams, assistant professor of museum studies, Baylor University—a successful grant proposal under the auspices of the Society for the Preservation of Natural History Collections (SPNHC) to organize a symposium to discuss the issues. The National Center for Preservation Technology and Training (NCPTT) funded the project, and I, in collaboration with the aforementioned colleagues, coordinated the symposium. We brought together about thirty conservators, scientists, attorneys, public health/safety officials, Native Americans, and other preservation professionals to discuss current scholarship and to

map future plans of action related to these issues.

The specific goals of this symposium were to:

- Identify current scholarship on collection surveys, development of testing methods, risk assessment, and treatment of contaminated collections;
- Determine research and training needs for safe use of collections;
- Help develop conservation strategies for the safe handling, storage, and treatment of contaminated objects;
- Encourage communication among various stakeholders;
- Create working groups to carry out the plans; and
- Disseminate information.

The symposium was held in April 2001 at the U.S. Fish and Wildlife Service’s National Conservation Training Center in Shepherdstown, West Virginia. In addition to funding from NCPTT, it was supported by SPNHC, NPS, and NMAI, with additional support from the American Institute for Conservation of Historic and Artistic Works and its Objects Specialty Group and Research

and Technical Studies Group, and from the Repatriation Office, of the Department of Anthropology, National Museum of Natural History, Smithsonian Institution.

The format of the symposium was a retreat with facilitated sessions. The primary focus of the symposium was on repatriation of museum objects to tribal communities, and because of this focus, more than half of the invited participants were Native Americans. Although many natural history collections may also be contaminated with hazardous materials such as arsenic, mercury, and/or organic pesticides, we felt that if we addressed the more complex issues of collections being repatriated, we would also be addressing those issues pertaining to collections care managers and the care of natural history collections.

In honoring the traditions of and respecting our Native American participants, the meeting commenced with an opening blessing by G. Peter Jemison (Seneca), NAGPRA representative of the Seneca Nation of Indians, and a keynote address by James D. Nason (Comanche), professor/curator of American and Pacific ethnology at the Thomas Burke Memorial Washington State Museum, University of Washington. Each set of speakers presented an overview of current knowledge on the following topics:

- Sampling and testing;
- Communication and training;
- Legal, ethical, and regulatory issues;
- Exposure and risk assessment; and
- Mitigation and decontamination.

Six groups, representing a variety of interests and expertise, discussed the presentations and cross-cutting themes were identified. Based on these, an action plan was developed that included cost and funds procurement, policy and planning, historical perspectives and basic principles, technical communication and training, testing protocols/research and development, and legal and ethical issues.

With respect for our tribal participants, the symposium concluded with a closing blessing by Billy Cypress, executive director, Ah-Tah-Thi-Ki Museum, Seminole Tribe of Florida.

Post-Symposium Activities

Products from the meeting to date include several publications: (1) a compilation of the papers presented at the Shepherdstown symposium, the executive summary, and the list of participants (SPNHC 2001); (2) three *Conserve O Grams* (NPS 2001a, 2001b, 2002); (3) an article for *ICOM-Ethnographic Conservation Newsletter* (Johnson 2001); and (4) an article in the *ICOM-CC-Ethnographic Group Preprints and Triennial Conference* (Johnson and Henry 2002). In addition to the publications, there have been numerous presentations at professional meetings, including a panel discussion at the 2001 annual meeting of the AIC, a presentation at the 2001 annual meeting of SPNHC, and several presentations at the annual meeting of the Society for Environmental and Occupational Health.

The remarkable level of consensus among the participants on ways to address the problems associated with contaminated collections led to several important outcomes in addition to the publications, including a firm commitment to carry out the action plan. As with many meetings and symposia of this type, participants often profess commitment to an action plan, but when faced with day-to-day job responsibilities and other realities, momentum is lost and the problems stagnate. This has not been the case with this group.

This symposium led to the creation of a core network of people familiar with the issues associated with contaminated collections. This network has eagerly assisted others less familiar with preservation, access, and use of contaminated collections. Since the April 2001 symposium, a number of individuals and groups both nationally and internationally have been working diligently to expand our knowledge and resources in the area of contaminated collections. Examples of these efforts include:

- P. Jane Sirois, conservation scientist, Canadian Conservation Institute: continuation of research to develop testing methods for contaminants;
- Timberley Roane (Lumbee/Cherokee), assistant professor of microbiology,

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University of Colorado at Denver, Department of Biology: initiation of research on the use of microorganisms for the decontamination of objects;

- SPNHC: creation of Material Safety Data Sheets for contaminated ethnographic/botanical objects;
- Museum of New Mexico's Museum of International Folk Art: development of testing methods for organic pesticide residues on museum artifacts;
- Catherine Hawks, private conservator, and Kathryn Makos, senior industrial hygienist, Smithsonian Institution, Office of Environmental Management and Safety: continuation of research to develop tests for mercury;
- Nancy Odegaard, conservator/associate professor, Arizona State Museum/University of Arizona: development of testing protocols for x-ray fluorescence analysis;
- Several museums: mining of their records to identify pesticides used on their collections; and
- National Institute of Occupational Safety and Health and Occupational Safety and Health Administration: study of exposure levels on museum workers.

Leadership Role of DOI and NPS

In addition to the above efforts, the Department of the Interior (DOI) and NPS have taken a broad leadership role in a variety of ways. For example, the MMPC asked Ann Hitchcock, NPS chief curator, to meet with John Robbins, NPS assistant director for cultural resources stewardship and partnerships, and Ronald C. Wilson, museum policy manager for the DOI, about coordinating a department-wide effort to address contaminated collections issues. MMP Senior Conservator Sara Wolf also participated in the discussion. As a result, Wilson established the Contaminated Collections Working Group (CCW) and serves as its chair. During its monthly meetings, the group has developed a draft disclosure statement for anyone who might be handling contaminated objects in DOI or NPS collections, including

researchers, conservators, curators, collections care managers, and/or tribal representatives. More recently, the group has developed a set of FAQs (frequently asked questions) that will be posted on the DOI and NPS intranets, as well as appropriate internet sites.

Ann Hitchcock is also a member of the CCW. She has actively solicited authors for Conserve O Grams related to contaminated collections. As a result of her efforts and those of Sara Wolf, there are now three new ones devoted to contaminated collections issues (NPS 2001a, 2001b, 2002).

Through the efforts of Paula Molloy, head of the national NAGPRA grant program, the program has expanded its grant topics to include those related to testing of collections. Molloy, who is also a member of the CCW, will host the contaminated collections web site, which is currently under construction.

I too have been very involved in a wide array of projects related to contaminated collections. As a member of the CCW, I have been involved in all of the group's activities. More recently, I have been actively involved in helping to develop the FAQs and write answers to some of the questions. On my own, I designed and created the contaminated collections web pages, which will soon be hosted by Molloy at the NAGPRA web site.

To raise the awareness and keep the issues alive, I was on the AIC's contaminated collections panel where we presented a synopsis of the symposium to our professional colleagues. Along with Hawks and David Goldsmith, associate research professor, Department of Environmental and Occupational Health, The George Washington University, I was one of the presenters at a session on pesticides and indigenous peoples at the annual meeting of the Society of Occupational and Environmental Health. I also serve as a technical advisor to Peter Reuben (Tonawanda Band of Senecas), a young chemist from the Seneca Nation of Indians who is the research coordinator on a NAGPRA grant.

Perhaps the person to whom we at NPS are most indebted is Virginia Salazar-Halfmoon, curator at the NPS Santa Fe Support Office. Salazar-Halfmoon had long

recognized the need for DOI and NPS to take a leadership role in tackling the issues of contaminated collections and it was she who initiated this long and complex process with her ostensibly simple question to the Harpers Ferry Center about testing of collections. Her continued commitment in this arena led to a job hazard analysis and safety audits of the collections at her site and region. Based on these assessments, she has developed a safety plan for dealing with hazards in her collections.

Through the contaminated collections symposium and the efforts of other knowledgeable individuals and institutions, DOI and NPS have identified a number of resources for anyone dealing with contaminated collections, whether they be objects for repatriation or natural history collections:

- Conserve O Grams: www.cr.nps.gov/museum/publications/consveogram/cons_toc.html
- Society for the Preservation of Natural History Collections: www.spnhc.org/documents/CF17-1_2.htm
- Environmental Protection Agency: www.epa.gov/pesticides/
- Center for Disease Control/National Institute for Occupational Safety and Health: www.cdc.gov/niosh/pestsuv/default.html

The Future

DOI and NPS will continue their efforts to provide accurate and relevant resources for use by persons both within and outside of the federal government. The contaminated collections web site will soon be available. As part of an assignment from the CCW, Molloy and I will be creating an annotated bibliography, or literature review of all relevant literature, and make this available through the web site. Once the FAQs have been reviewed, they too will be added to the growing body of valuable resources available to federal employees working with contaminated collections, non-federal museum workers, and tribal groups.

The CCW plans to seek funding to develop training for people who must deal with contaminated collections. As one of only a few

conservation scientists in the entire NPS, perhaps the most exciting developments for me personally and professionally are two projects: (1) the development of a research project on a new method for non-invasive analysis of organic pesticide residues, and (2) organizing an all-day session on object contamination testing methods and health exposure monitoring for the 2004 Eastern Analytical Symposium, the second-largest analytical chemistry conference in the United States.

The problems are critical and complex and will require long-term commitment on the part of many institutions and individuals in order to find creative solutions. DOI and NPS have accepted the challenge to ensure that the preservation of, access to, and use of cultural and natural history collections can be done safely and in a manner agreeable to tribal communities to whom collections are being repatriated, and to researchers, museum workers, and collection care managers. The continued involvement of DOI and NPS in furthering the efforts on behalf of contaminated collections is a demonstration of their leadership in this arena.

Acknowledgments

I would like to thank the symposium presenters, participants, organizers, and facilitators for sharing their knowledge at the symposium. Their hard work and commitment have laid the foundation for the current efforts to deal with issues of contaminated collections. DOI and NPS would not have come as far as we have but for foresight of Virginia Salazar-Halfmoon and Catharine Hawks; the unflagging efforts of Ron Wilson, museum policy manager, and his CCW; and Ann Hitchcock, chief curator, NPS. None of this would have been possible without the financial support of the National Center for Preservation Technology and Training, the Society for the Preservation of Natural History Collections, the American Institute for Conservation of Historic and Artistic Works, and the Smithsonian Institution's National Museum of Natural History and National Museum of the American Indian.

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