

National Park Service Conference

The National Park Service, Harpers Ferry Center Conservation has been awarded a 2002 Preservation Technology and Training Grant by the National Center for Preservation Technology and Training (NCPTT). The funds will support a conference entitled, "The Development of a Web-Accessible Reference Library of Deteriorated Fibers Using Digital Imaging and Image Analysis," to be held April 3-6, 2003, at the National Conservation Training Center in Shepherdstown, West Virginia.

Textile conservator Jane Merritt and conservation scientist Dr. Judy Bischoff will host 20 invited participants from the fields of conservation, conservation science, curation, data management, systems integration, and image analysis to discuss the topic. Attendees working with fibers and fiber databases will discuss how to develop: (1) standards for sample acquisition and microscopic digital imaging, (2) a web-accessible fiber database, and (3) a standard vocabulary for defining levels of fiber deterioration linked directly to artifacts.

In addition to supporting the conference, the PTTGrant will support a publication of conference proceedings. Information: Jane Merritt, jane_merritt@nps.gov, or Judy Bischoff, judith_bischoff@nps.gov.

Health and Safety

A Summary of Two OSHA Inspections in Museums

Two museums were recently inspected and cited by the Occupational Safety and Health Administration (OSHA) for health concerns related to the handling of museum collections. The basis of the inspection and citations is related to institutions being responsible for staff health and safety under the OSHA regulations. The background, findings, and results were reported in the November 2002 issue of *Applied Occupational and Environmental Hygiene* (17/11, pp.741-743). Barbara Smith is an industrial hygienist with the Calumet City Area Office for OSHA. William Coulehan is the Compliance Assistance Specialist for the office.

The article, entitled, "Potential Exposure Issues to

Qualifications Task Force Report

The Qualifications Task Force has been working diligently to incorporate comments from the membership into a new draft document that describes entry-level qualifications of a conservator. The draft is now available for your review on the AIC website at <http://aic.stanford.edu/geninfo/qtfreport.pdf> or under "What's New."

Please take a moment to review the draft and send in your comments. Several specialty group chairs have volunteered to help compile reviewer comments. So please feel free to forward your comments directly to your specialty group chair as this would be a tremendous help to us. Or you may send your comments to info@aic-faic.org, but be sure to put "QTF Draft Review" in the subject heading.

The deadline for comments is **March 30, 2003**. Any comments received before the deadline will be considered. Thank you in advance for your help in creating this important document.

Arsenic and Other Highly Toxic Chemicals when Handling Museum Artifacts," outlines basic safety and health concerns of the museum environment and then describes some of the findings and lessons learned from the two inspections. Relying heavily on previous work by C. Hawks and K. Makos, the authors briefly describe sources for potentially hazardous exposures, especially from chemical hazards, from modern application and treatment procedures, as well as preservation and pesticide treatments done many years ago.

The inspections were initiated following a complaint of exposure to arsenic at one facility, and a physician's referral for a possible exposure to heavy metals at the other facility. The OSHA inspections were conducted and citations and recommendations were issued.

At one facility OSHA identified that workers were handling many artifacts that were treated with arsenic. Generally the workers used cotton gloves and dust masks for protection. However, the institution had not provided employee training on the required personal protective equipment assess-

Want a long and healthy career in conservation? Join the Health & Safety Committee as a student member! The Health & Safety Committee of AIC is seeking a student member to serve a two-year term. Ideally, the student will be completing his/her first year and have an interest and/or background in laboratory safety, industrial hygiene, or toxicology, but no experience in these fields is necessary. The successful applicant will participate in Health & Safety Committee activities, including the weekend annual meeting in Washington, D.C., in the fall. For further information, contact Mary Ballard, chair, Health & Safety Committee; ballardm@scmre.si.edu, or call (301) 238-3700, x145.

SPECIAL WORKSHOP: INTRODUCTION TO SPOT TESTING

Nancy Odegaard and Scott Carrlee will be teaching a special one-day workshop in conjunction with the 2003 AIC Annual Meeting. The hands-on, laboratory-based course will introduce you to representative spot tests for a variety of organic and inorganic materials. For those who have been interested in learning about accurate, inexpensive, and minimally intrusive spot testing protocols but have not had the time to take the five-day course, this workshop gives you the opportunity to try out a special selection of methods. Although two sessions have been scheduled (June 5 and June 10), early registration is recommended since the workshops are expected to fill up quickly. CIPP is co-sponsoring the event, so CIPP members will receive a special discount—this might be an excellent time to join! See the Annual Meeting registration brochure or the AIC website (<http://aic.stanford.edu>) for details.

ment and employee training on the proper use and limitations of personal protective equipment. Also not completed were the required elements of a respiratory protection program for employees using half mask respirators. In addition, OSHA also identified that Hazard Communications (HAZCOM) training was not adequate, and there were no written program or procedures for HAZCOM. The standard requires that all employers with hazardous chemicals in their workplaces prepare and implement a HAZCOM program. This includes ensuring that all chemical containers are labeled, employees are provided access to Material Safety Data Sheets (MSDSs), and an effective training program is conducted for all potentially exposed employees.

The inspection at the other facility focused on workers that were handling prints most likely treated with arsenic and mercury. The staff handling these prints was reportedly provided with respirators and gloves upon request. At this facility it was noted that hygiene practices such as hand washing and procedures for decontamination of clothing following the handling of these materials were inconsistent. The employer was cited for minor deficiencies in the HAZCOM and personal protective equipment training. A citation for an incomplete personal protective equipment assessment was also issued.

The resulting citations concentrated on the lack of established or documented programs required by OSHA, such as that required by the HAZCOM Standard. The authors point out that any employer, including museums and conservators, needs to evaluate the potential hazards in the workplace and implement the appropriate programs. These programs include HAZCOM, personal protective equipment (including respirators), a chemical hygiene plan (per the OSHA Laboratory standard), or programs required by OSHA for specific chemical hazards such as asbestos, arsenic, cadmium, and lead.

The inspectors provided guidance in the form of recommendations for hazard reduction, and co-sponsored a seminar, titled *Hazards in the Arts*. The authors also recognized the efforts of groups such as the Health in the Arts Program at the University of Illinois at Chicago, the Smithsonian Institution, and the National Park Service's "Conserve-O-Gram," for providing health and safety information

to the museum community.

—Dennis Ertel, AIC Health and Safety Committee, Sandler Occupational Medicine Associates, Inc. (SOMA); (301) 519-6880, denny@somaonline.com; [REDACTED]

NEW COMMITTEE

Members are being sought for the new **Emergency Preparedness, Response, and Recovery Committee**. The main charge is to further develop and increase awareness of emergency preparedness, response, and recovery techniques for cultural heritage. Each member serves a three-year term. By joining now, you will have the opportunity to develop new initiatives in this important field.

If you are interested in becoming a member of the Committee, contact the chair, Sharon Bennett, via e-mail at sbennett@charlestonmuseum.org, or via phone at (843) 722-2996, ext. 243.

New Materials and Research

The Health and Safety Committee thanks David Wolff, MPH, industrial hygienist with the Hennepin County Government, Minnesota, for permission to print his mold resource list. It was originally posted (January 3, 2003) on the e-mail list of the American Industrial Hygiene Association. Mr. Wolff has requested that additional mold resource sites or texts that members have found useful, be passed along to him at david.wolff@co.hennepin.mn.us. Disclaimer (from David Wolff): Please note that I do not control, nor am I responsible for the accuracy, relevance, timeliness, or completeness of any information provided via these resources. The inclusion of particular resources is not intended to reflect their importance nor to endorse any views expressed or products or services offered by the author, the referenced material, or organization.

—David Wolff, Industrial Hygienist, Environmental Health & Safety Program, Hennepin County Government, A-700 Government Center (MC-070), 300 South Sixth St., Minneapolis, Minn. 55487; (612) 348-8492

Web Resources

General Information

Aerotech Labs—Resources

<http://www.aerotechlabs.com/reso/resrc.asp>

AIHA

Mold Resources

<http://www.aiha.org/GovernmentAffairs-PR/html/prmoldsources.htm>

California Indoor Air Quality Program

<http://www.cal-iaq.org/iaqsheets.htm#Mold>

Canadian Center for Occupational Health and Safety

http://www.ccohs.ca/oshanswers/biol_hazards/iaq_mold.html#_1_6

Centers for Disease Control and Prevention

Mold, General

<http://www.cdc.gov/nceh/airpollution/mold/>

Education Safety Association of Ontario—IAQ

<http://www.esao.on.ca/scriptcontent/index.cfm>

Environmental Microbiology Laboratory, Inc.

<http://www.emlab.com>

Environmental Protection Agency, United States

Sources of Indoor Air Pollution—Biological Pollutants

<http://www.epa.gov/iaq/biologic.html>

Indoor Air Quality Building Education and Assessment Model (I-BEAM) Software

http://www.epa.gov/iaq/largebldgs/ibeam_page.htm

Federal Emergency Management Agency (FEMA)

<http://www.fema.gov/>

Georgetown University

Mold Medicine & Mold Science: Its Practical Applications for Patient Care, Remediation & Claims
May 13–14, 2002, Georgetown University Convention Center, Washington, D.C.

<http://phys4.harvard.edu/~wilson/soundscience/mold/mold.html>

Health Departments, State and Local

http://www.apha.org/public_health/state.htm

New York Committee for Occupational Safety and Health

<http://www.nycosh.org/moldfacts.html>
<http://www.nycosh.org/linktopics/indoorair.html>

Occupational Health and Safety Administration

<http://www.osha-slc.gov/SLTC/indoorairquality/>

University of Minnesota

<http://www.dehs.umn.edu/iaq/>

Antimicrobials

Antimicrobial Pesticides, U.S. EPA

<http://www.epa.gov/oppad001/>

Construction and Renovation

American Society of Heating, Refrigerating and Air Conditioning Engineers

<http://www.ashrae.org>

<http://membership.ashrae.org/template/JournalLanding>

Maintaining Indoor Air Quality During Construction and Renovation Projects

http://www.bc.edu/bc_org/fvp/ehs/airquality.htm

Duct Cleaning

“Should You Have the Air Ducts in Your Home Cleaned?”

<http://www.epa.gov/iaq/pubs/airduct.html>

National Air Duct Cleaners Association

<http://www.nadca.com>

“General Specifications for the Cleaning of Commercial Heating, Ventilating and Air Conditioning Systems”

<http://www.nadca.com/standards/standards.asp>

Guidelines

American College of Occupational and Environmental Medicine (ACOEM)

<http://www.acoem.org/guidelines/article.asp?ID=52>

New York City Department of Health

<http://www.ci.nyc.ny.us/html/doh/html/epi/moldrpt1.html>

Insurance

Mold and Minnesota homeowner insurance: Statement of MN Commerce Commissioner Jim Bernstein

<http://www.commerce.state.mn.us/pages/NewsReleases/Releases2002/News020719.htm>

Laboratories
AIHA Accredited Labs
<http://www.aiha.org/LaboratoryServices/html/accred.htm>

Aerotech Labs
<http://www.aerotechlabs.com/index.asp>

Environmental Microbiology Laboratory, Inc.
<http://www.emlab.com>

Forensic Analytical
<http://www.forensica.com>

Legal
See Georgetown University listing

Poole & Shaffery, LLP
<http://www.pooleshaffery.com>

Legislation
United States Toxic Mold Safety and Protection Act
http://www.house.gov/conyers/Mold_Bill.pdf

[California] Toxic Mold Protection Act of 2001
<http://www.leginfo.ca.gov/cgi-bin/waisgate?WAISdocID=30983410154+2+0+0&WAISaction=retrieve>
<http://www.cal-iaq.org/SB732update.htm>

Medical
American Academy of Allergy Asthma and Immunology
<http://www.aaaai.org>

American Lung Association
<http://www.lungusa.org/air/envindoorap.html>

DoctorFungus
<http://www.doctorfungus.com>

Mayo Clinic
<http://www.mayoclinic.com>

Medline
<http://www.nlm.nih.gov/medlineplus/meds.html>

Institute of Medicine, National Academy of Sciences (<http://www.iom.edu/>)
“Clearing the Air: Asthma and Indoor Air Exposures”
<http://books.nap.edu/books/0309064961/html/index.html>

National Institute of Allergy and Infectious Diseases, National Institutes of Health
<http://www.niaid.nih.gov/default.htm>

Miscellaneous
California Department of Health Services
“Bioaerosols and Green-Waste Composting in California”
<http://www.dhs.cahwnet.gov/org/ps/odc/ehib/EHIB2/topics/compost-bioaerosols.doc>

“Stachybotrys chartarum: The Toxic Indoor Mold” See also links at this page:
<http://www.apsnet.org/online/feature/stachybotrys/>

Remediation
“Fact Sheet: Flood Cleanup—Avoiding Indoor Air Quality Problems”
<http://www.epa.gov/iaq/pubs/flood.html>

“Mold Remediation in Schools and Commercial Buildings”
http://www.epa.gov/iaq/molds/mold_remediation.html

Residential
“A Brief Guide to Mold, Moisture, and

Your Home”
<http://www.epa.gov/iaq/pubs/mol-dresources.html>

“Combating Mold & Mildew,” The Family Handyman Magazine
http://www.familyhandyman.com/200003/how_a_house_works/page2.html

Wood Products
Forest Products Laboratory, U.S. Department of Agriculture
<http://www.fpl.fs.fed.us/documnts/FPLGTR/fplgtr113/fplgtr113.htm>

Western Wood Products Association
http://www.wwpa.org/index_lumberandmold.htm

Monographs

Bioaerosols: Assessment and Control. Janet Macher, Editor. ACGIH. 1999.

Report of the Microbial Growth Task Force. AIHA Press. 2001.

Articles

Agriculturally Important Fungal Toxins. *Chemical Health & Safety*. July/August 2000. Elsevier Science, Inc.

Doctors Rethinking Treatments for Sick Sinuses. *New York Times*. December 17, 2002.

Investigating & Diagnosing Moisture Problems. Joseph Lstiburek, Ph.D., P. Eng., *ASHRAE Journal*. December 2002.

The Role of Stachybotrys Mycotoxins in Building-Related Illness. *AIHA Journal*. 62:644–648 (2001).

Serial Publications

ASHRAE IAQ Applications Issues