

## Archive Conservators Discussion Group 2001: Mold Remediation in Archives

The Archives Conservators Discussion Group (ACDG) focused on issues relating to the topic of cleaning mold, which was first addressed by the ACDG at the 1999 St. Louis meeting. In St. Louis, conservators shared information on the mechanisms by which mold damages paper, methods of removal, and appropriate personal protective equipment (PPE). Participants expressed a desire to continue discussing the topic the following year, but due to the 2000 AIC post-conference workshop, "Practical Aspects of Mold Remediation for Cultural Property," the topic was deferred to 2001.

This year's discussion began with a brief summary of the 2000 workshop conducted by Elliot Horner, Ph.D., and Philip Morey, Ph.D., CIH. The workshop examined different types of mold and their life cycles; the effects of mold on cultural artifacts; methods to control mold growth; methods to sample; and issues related to handling, cleaning, and protection. Salient points for archival conservators included:

- moisture drives all mold growth;
- toxins remain in dead mold;
- one cannot remove all mold from porous materials; and
- there are no current standards for cleaning protocols.

Conservators must work diligently to establish guidelines for effective and safe practice.

Mary Lynn Ritzenthaler, supervisory conservator for the National Archives and Records Administration (NARA), Washington, D.C., shared findings from a National Institute for Occupational Safety and Health (NIOSH) health hazard evaluation performed at NARA

in July 1999. The evaluation measured the level of mold particulate exposure when a conservator carried out cleaning procedures with a Nilfisk HEPA (high efficiency particulate air filter) vacuum in a fume hood. Data were collected with real-time measurements of airborne particulates inside and outside of the hood and within the breathing zone of the conservator. Air and bulk samples were also collected for SEM (scanning electron microscopy) analysis. The entire process was videotaped to relate working dynamics to changes in particulate concentration. Findings were reported, as were recommendations made by NIOSH for minimizing exposure and contamination relative to the specific set-up. The study precipitated a draft of procedures for NARA conservation staff to follow when handling mold-damaged records. A series of slides were used to illustrate current protocols for handling and transport of mold affected records; cleaning techniques; related supplies; equipment maintenance; PPE; and clean up and waste disposal.

The discussion then focused on products and procedures used as fungicides. Participants suggested the use of chlorine dioxide, ethanol in water, and formaldehyde as effective fungicide treatments. The desire to use fungicides was justified by some for health concerns and by others who believe their mold-damaged artifacts will not go back to controlled environments. Issues and observations relating to enzyme and resizing treatments were also discussed.

The topic for the 2002 discussion will focus on issues and techniques relating to the humidification and flattening of archival records.

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This standing discussion group met for open discussion on June 1, 2001, during the AIC 29th Annual Meeting, May 30–June 5, 2001, Dallas, Texas. The chair organized and led the discussion and recorded notes. Readers are reminded that discussion group chairs do not necessarily endorse all comments recorded and that although every effort is made to record proceedings accurately, further evaluation or research is advised before putting treatment observations into practice.