

## MCI Weekly Highlight (May 7, 2010)

MCI's umbrella theme "**Healthy Environments, Healthy Practices, Healthy Collections,**" includes a focus on conservation protocols, procedures and products that are as safe as possible for the staff, the collections and the global environment. This requires testing and optimizing conservation products and methods that reduce the use of solvents and the release of volatile organic compounds (VOCs), and that are as "green" as possible in manufacturing and production.

### *Aqueous cleaning methods*

Aqueous systems and aqueous/organic solvent hybrids provide great flexibility to the conservator in formulating appropriate methods for cleaning, and are safer for the environment than VOC containing products. In the case of the **Roosevelt Globe for the White House**, recently conserved at MCI, the accretions and contaminants resulting from an electrical fire were removed with aqueous solutions while leaving untouched the historic surface underneath.

- Aqueous technology was a vital component of a workshop on the **Modular Cleaning Program (MCP)**, hosted at MCI April 26-29, 2010, and coordinated by Jia-sun Tsang (Senior Paintings Conservator). The workshop, taught by Chris Stavroudis (creator of the MCP) and Tiarna Doherty (Paintings Conservator, J. Paul Getty Museum), introduced new approaches to cleaning artwork that reduce the usage of solvents through gelling, selection of solvents that have the least health risks, and exploration of the potential of water-based emulsion cleaning as a substitute for solvent cleaning. Co-sponsored by MCI and the National Gallery of Art (NGA), the workshop lectures were attended by sixty-five conservators from thirteen SI museums and NGA, the hands-on laboratory sessions by twenty-five. The response from participants was overwhelmingly positive, with enthusiastic support for follow-up sessions.

### *Aqueous coatings*

Much of the development in coatings technology in recent years has revolved around the use of aqueous delivery systems for film-forming materials as a means of reducing the use of VOCs. In a museum context, understanding and developing water-based coatings systems is an increasingly critical component of conservation practice.

- An archival emulsion furniture polish, developed by MCI Senior Furniture Conservators Mel Wachowiak and Don Williams, and subsequently patented, is routinely employed in conservation treatments at the Smithsonian.
- Recent research carried out by Senior Objects Conservator Carol Grissom on protective coatings for silver, for use in museum settings, produced promising results for the acrylic dispersion Acrysol WS24. Further testing of application methods is necessary, however, in order to achieve satisfactory coatings from an aesthetic standpoint.