NEWS

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A M E R I C A N INSTITUTE P CONSERVATION of Historic and Artistic Works

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AIC's 39th Annual Meeting

Early registration is available now for AIC's 2011 Annual Meeting in Pittsburgh, PA, May 17-20, 2011



Ethical Principles and Critical Thinking in Conservation

More information and online registration are available at www.conservation-us.org/meetings

The Hidden Hazards of Fire Soot

By Dawn Bolstad-Johnson, MPH, CIH, CSP

The documented hazards of fire soot date back to 1775 when Percivall Pott, an English surgeon, discovered an association between exposure to soot and a high incidence of scrotal cancer in chimney sweeps. This was the first occupational link to cancer, which ultimately led to the science of epidemiology and the Chimney Sweeper's Act of 1788.

Exposure to soot may not be an obvious health hazard to conservators who are exposed to soot during the treatment of fire-damaged materials. However, the term "fire soot" refers to smoke residue on surfaces, a complex mixture of substances that is often representative of what was in the fire smoke. Fire soot should not be treated simply as "dirt."

What is in Fire Smoke?

Smoke is a complex mixture of different gases and particles, which results from the various materials that burn during a fire event. A typical structure fire (residential home or business) may involve the destruction of plastics, foams, fabrics, carpets, wood products, synthetic fabrics, wool, and asbestos-containing materials. Respiratory hazards connected with exposures when working in an environment that has been sullied by a fire event differ from those from the past, because the materials that our belongings are made from have changed over the years. For example, plastics and other synthetics are much more prevalent in our homes and studios today. It is important to recognize that these materials undergo pyrolysis during a fire and become the deposits that are identified as soot.

What is Soot?

Smoke is the result of incomplete combustion, which produces tiny particles of carbon in the air. When deposited, these particulates are identified as soot. Put simply, the particle size of smoke residue on a surface can present a respiratory hazard.

The particle size of soot is approximately 2.5 microns, a size that is associated with deep lung penetration. Particles that are approximately 10 microns or larger get trapped in the upper respiratory tract. Particles that are 5 microns or smaller can make it down to the lower lung where the gas exchange occurs in the alveoli. In order to offer some perspective on the size of these particles, the dust you see flying in the light coming through a window is about 40 microns in size. Airborne soot present within the breathing zone of workers is too small to be seen with the naked eye and can easily be inhaled.

Soot will usually adhere to a wall or any other surface that is cooler than the heart of the fire. In fire investigations, a wall free from soot may be an indicator of where the fire began because the fire would burn at a higher temperature in this area. As a fire dies down, the smoke it has caused will disperse leaving behind a residue of quickly cooling particles which is generally referred to as soot.

AIC NEWS

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Deadline for November editorial submissions (mgilpatrick@conservation-us.org): October 1,2010.

We reserve the right to edit for brevity and clarity.

ADVERTISING

AIC accepts position-available ads only from equal opportunity employers. All position ads must conform to the standards for equal opportunity employment. The cost of Internships and Fellowships, Positions Available, and Classified Ads are: \$1.05 per word for members and \$2.15 per word for nonmembers; the minimum charge is \$75. The cost of display ads is: 1/6 page \$215; 1/3 page \$360; 1/2 page \$445; 2/3 page \$570; full page \$695. Deadlines for advertising copy are: February 10, April 10, June 10, August 10, October 10, and December 10. All ads should be submitted to Ruth Seyler at rseyler@conservation-us.org.

AIC NEWS STAFF

Lisa Goldberg, Editor

James Martin, Editor, New Materials & Research

Eryl P.Wentworth, Managing Editor

Morgan Gilpatrick, Production Editor

Ruth Seyler, Marketing Director

Eric Pourchot, Institutional Advancement Director

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From the Executive Director



We are pleased to be in partnership with the Smithsonian Institution and U.S. Committee of the Blue Shield (USCBS) to assist in the preservation of Haiti's artistic and cultural heritage. This collaboration with organizations that have experience working with other international responding organizations and specific experience in Haiti has made it possible for AIC-CERT members to be assured of the on-the-ground support necessary for them to apply their expertise.

The Smithsonian has rented a building in Port-au-Prince that is being established and managed as the Cultural Recovery Center. It includes offices, conserva-

tion labs, storage, and classroom space. With funding from National Endowment for the Humanities (NEH), National Endowment for the Arts (NEA), and Institute of Museum and Library Services (IMLS), FAIC is vetting AIC volunteers, providing information and updates to volunteers, making travel arrangements, and purchasing supplies for the project. FAIC will also supply regular reports on the project to our partners, which will be used to assess the work plan and the results of activities.

Cori Wegener, president of the USCBS, has made sure that our members travel safely within Haiti, and have access to approved accommodations. She also helps coordinate with other responding organizations. The Smithsonian has contracted with Stephanie Hornbeck, who is familiar with Haitian art and speaks French, to serve as the lead conservator and coordinator. Stephanie provides ongoing guidance on what specialties and supplies are needed at particular time periods and coordinates efforts with the owners of collections coming to the Center and with the Haitian project manager.

Circumstances are difficult on Haiti and our members must be aware of this before committing to assist. While everyone involved is doing all they can to provide a safe and productive environment, being adaptable and patient is a necessity. Please read the project update in FAIC News on page 8. Contact FAIC AIC-CERT Coordinator Aimée Primeaux (aprimeaux@gmail.com) or Institutional Advancement Director Eric Pourchot (epourchot@conservation-us.org) for additional information about the project and volunteering to preserve Haiti's unique art and culture.

Our work in Haiti has not weakened our readiness to assist U.S. institutions in the event of a disaster. In fact, the lessons we have learned from the Haiti deployments will enable us to react faster and support AIC-CERT volunteers more effectively. FAIC works with the Heritage Emergency National Task Force (HENTF) to help ensure that prompt help will be available, especially as we enter peak Atlantic hurricane season.

-Eryl P. Wentworth

continues from front cover

What is in the Smoke Residue/Soot?

All materials involved in a fire cause odors. Typically, soot is representative of what has burned, but may include byproducts that at first seem unrelated to the original material. For example, hydrogen cyanide is a byproduct of burning wool. When wood burns it can produce manganese and benzene. As many products as there are in the world, there are an equal number of byproducts produced in a fire. Each fire is different based on the contents of what has burned during the event.

Organic and inorganic materials produce different types of smoke residue or soot. These residues may be present on surfaces that conservators may be tasked with treating. Burnt organic material produces soot that is hard to see and often has a very pungent odor. This is known as protein smoke. It can discolor paints and varnishes. Protein smoke can disperse over large areas and attach itself to everything.

How the fire burns and how much moisture is in the air while the fire burns, plays a role in soot deposition on articles. The amount of moisture in the air is a key component in whether the smoke that is produced is wet or dry.

There are several types of smoke or soot, which may be present on a surface that conservators might be tasked with treating:

Wet Smoke—can present as a sticky residue or soot, and is often associated with a smoldering type of fire and often will have a strong odor.

Dry Smoke—associated with a fast-burning fire and occurs at high temperatures.

Protein—often present in soot, usually invisible, it can discolor paints and varnishes and often has a very pungent odor. Protein odors could be caused by food on the stove burning slowly or other sources. The slow burn allows the protein to disperse and attach itself to everything, producing a strong odor.

Potential Exposures

Soot is in the general category of airborne particulate matter. While we would not expect most volatile organic compounds (VOC) to survive a fire and still be present on the soot, there may be metals present as well as some chlorinated compounds. There are not many studies that address what compounds could be associated with soot particles, essentially using the particles as a "magic carpet" to get into the lungs. The Phoenix Fire Department examined this phenomenon during a study focused on firefighter exposures after the fire was extinguished and their findings indicated that some chlorinated products become attached to airborne particulate matter. This is an important study because it points to the fact that exposure to airborne vapors and residues during a post-event time frame is much more complex than our current understanding allows. However, the important point to glean from this is that soot may be more than just a particulate hazard; it can potentially carry other chemical residues that are potentially harmful to the respiratory system. More research is clearly needed in this area.

Currently, the main health hazards potentially associated with soot would be irritant hazards. Soot can be both irritating to your lung tissue and to your skin.

Case History: Studio Precautions When Treating Smoke Damaged Paintings



Outside the Harold Golen Gallery after the fire. Photo courtesy of the Harold Golen Gallery.

In the early hours of December 13, 2007, fire erupted in the Harold Golen Gallery in Miami, Florida. The fire was believed to have started when an advertising balloon attached to the gallery for Art Basel week came in contact with electrical wires overhead. Despite the intensity of the fire and the collapse of the ceiling, 178 Pop-Surrealist paintings were rescued from the building. Some of the works were charred beyond redemption, but 108 of the works were deemed potentially salvageable and were transported to the Florida branch of the Rustin Levenson Art Conservation Studio.

Fortunately the warm, dry winter weather allowed the initial treatment of the works to be undertaken outdoors. The frames and the backing boards were removed from the paintings and discarded. The paintings were then vacuumed several times with a vacuum cleaner that was equipped with a HEPA filter. The reverse of the works, tacking margins, and the stretchers were cleaned with vulcanized rubber sponges. During this part of the operation, conservators wore air

purifying (cartridge) respirators, nitrile gloves, and disposable cover-alls.

Rather than risk contamination of the studio, two rooms in a separate building were isolated for these paintings. One room was set up for storage, with tarps covering all surfaces and cardboard to interleave the paintings. Tables were set up in an adjacent room where the treatments took place. Both rooms had individual wall air conditioning units. Portable HEPA air purifying units were installed, one in the storage area, and two in the work room. Filters on all units were changed regularly. Once the loose particulate matter was removed from the paintings outdoors, they were moved into the prepared spaces for further treatment. Weather permitting, folding tables and easels were used so paintings could be treated outdoors. Conservators wore latex gloves and air purifying respirators (3M N-95 particulate) during this part of the process.

—Rustin Levenson rustinfl@aol.com or artcarenyc.com

Some Observations: Removing Soot Residue from Contemporary Paintings

Soot removal treatments on the 108 paintings that were in the fire at the Harold Golen Gallery met with varying results. Ultimately, 85 of the painting were successfully cleaned. The treatments and research were presented in a paper with my associates Veronica Romero and Kelly O'Neill at the Paintings Specialty Group session at the 2010 AIC meeting in Milwaukee.

We found that working with Groomstik or with vulcanized rubber sponges on the face of the paintings was unsatisfactory. Any pressure on the paint surface drove the soot into the paint layer, with little hope of removal. The exceptions to this were the handful of varnished paintings where dry methods successfully removed some soot without affecting the paint layer. Additionally, we observed that the presence of accretions from the collapsed ceiling on the face of the paintings could have caused scratching if the sponges were rubbed across the paint surface.

Traditional wet cleaning mixtures for soot removal, dibasic ammonium citrate in water and naphtha emulsions, were the first solutions tested. Combinations of these solutions were successful on 24 oil paintings.

Other solvents were also tested. For one acrylic painting, soot was released by a solution of mineral spirits and trimethlypentane followed by an application of VM&P Naphtha. A xylene emulsion was successful with another work.

Ultimately, there were a number of paintings that did not respond to traditional conservation treatments. Although the insurance company would have discarded these paintings, they offered a unique opportunity for research. Solvents and commercial products were tested. Further success was realized with stronger chelating agents such as EDTA(ethene, diamine, tetra acidic acid) and Versenol. Soot was removed from some works with the addition of detergents such as Vulpex to the conservation solutions. The soot solvent, ethylene glycol monobutyl ether, was found to be a useful component in cleaning some of the acrylic paintings.

In summary, if a conservator is confronted with soot damaged paintings we can offer the following advice.

- Wear appropriate personal protective equipment (PPE). Consult with an industrial hygienist or health professional about what type of filtration is needed for respirator use.
- Vacuum the reverse and clean it with a vulcanized rubber sponge.
- Vacuum, without pressure, near the paint surface. Forego the vulcanized rubber sponge on the paint surface except in cases of very light soot or heavily varnished paintings.



Detail, during cleaning, *Best Party in Palm Springs*, by Shag. Photo courtesy of Rustin Levenson Art Conservation.

- Try traditional solutions of chelating agents such as ammonium citrate in distilled water and naphtha emulsions.
- Other solutions to test could include other petroleum distillates, alone or in emulsions, xylene emulsions, ethanol, or mixtures of Versenol, VM&P Naphtha, and distilled water.
- Detergent mixtures such as Vulpex in distilled water or VM&P Naphtha could also be tested.
- The use of carbon solvents/degreasers such as ethylene glycol monobutyl ether, diluted, alone, or combined with detergents such as Vulpex could also increase success in removing these residues.
- Careful rinsing of all solutions is also recommended, blotting or using a PVOH sponge for the final rinse so that no residue is left on the surface.

This information is shared in the hopes that other conservators and conservation scientists will undertake further testing and research into these materials.

> —Rustin Levenson rustinfl@aol.com or artcarenyc.com

The most common route of exposure during the conservation and restoration process is inhalation due to the proximity of your breathing zone to your work area. This is assuming that the work is not occurring under a hood or with some other form of capture exhaust ventilation.

The second most common route of exposure is self-inoculation. Consider this scenario, you are working on a piece, the piece is covered in soot, wearing gloves will protect your skin but what happens when you get an itch in around your eyes or nose? How clean is the back of your hand or the second knuckle on your finger?

How Can You Protect Yourself?

Protecting yourself from the potential hazards associated with working soot-contaminated items is simple:

- Do not eat or drink in the area where the soot contaminated items are stored or being restored.
- Wear an air purifying respirator.
 - CBRN (chemical, biologica,l radiological, and nuclear) canisters will provide the most protection against chemical vapors and particulates.
 - An N95 respirator is appropriate where particulates are the only concern.
 - (Note both types of respirators require annual fit testing.)
- Wear nitrile gloves.
- Do notbring your hands to your face while your gloves are on.
- Wear safety glasses.
- If possible, do all conservation work using a local exhaust or fume extractor such as a chemical hood.
- Use a HEPA/UPLA vacuum to remove the residue from the article.
- Wash your hands thoroughly after removing gloves.

Perspective

Most of this article addressed soot hazards under the assumption that the fire soot contaminated article has been brought to you for conservation treatment. If you are asked to enter a fire damaged building to conduct an assessment, or commence with conservation work on fire-damaged materials or other articles in the building that may be too large to move, the situation is completely different with regards to what is considered the best protection for you. Consultation with a health and safety professional is always recommended in these circumstances.

The presence of debris piles that may contain many other materials will probably present other chemical hazards. For example, formaldehyde, a known human carcinogen, is found in the glues that comprise plywood and oriented strand board (OSB), as well as many plastics, carpets, textiles, and other materials commonly found in typical structure fires. The geometry of the debris pile can often trap toxic chemicals like formaldehyde for days. The recommended personal protective equipment for working in a fire damaged building, includes the following:

• Wear a full-face, air purifying cartridge respirator,

equipped with CBRN canisters. These are the only canister cartridges that offer some protection from formaldehyde. Formaldehyde is one of the most pervasive toxic chemicals and is found at nearly every fire due to the content load. Note that organic vapor cartridges will not work for formaldehyde.

- Wear breathable disposable clothing.
- Wear nitrile gloves.
- Wear safety glasses.

Conclusion

It is important to note that soot is not simply a form of dirt that needs to be removed from an article. Soot can be a respiratory or skin irritant, and there may be chemicals or metals riding on the soot particles that are small enough to enter into your lungs. Be respectful of what chemical constituents can be represented in fire soot and take the time to wear personal protective gear.

Be Safe!

Dawn Bolstad-Johnson, MPH, CIH, CSP is a member of the AIC Health & Safety Committee, dbolstad@fdsoltionz.net.

Are you concerned about the health and safety of yourself and others?

Do you want to be part of a great team?

AIC's Health & Safety Committee is seeking one member for a 4-year term, with the possibility of renewal for a second term. Health & Safety is one of the most active AIC committees, with members contributing articles and guides to the AIC Newsletter, hosting an informational booth and workshops at the Annual Meeting, and regularly addressing questions and issues related to health and safety in our field. The ideal candidate will have a strong interest in these issues, and a desire to participate and learn. If you are interested, please contact Jane Klinger at jklinger@ushmm.org or Joanne Klaar Walker at jklaar22@hotmail.com.

AIC News



Staff Transitions

Morgan Gilpatrick joined AIC as the new communications director on July 16. Morgan holds a BFA in painting and is currently working on a MFA in integrated design at the University of Baltimore. Before coming to AIC she served as creative services manager for the in-house graphic design studios of The George Washington University and Prince George's Community College. Morgan's background also includes technical writing in the field of historic preservation. She is excited about being able to share her professional skills in advancing the goals of AIC and FAIC.

Adam Allen now holds the position of meetings associate. Adam has a BBA in marketing from Howard University. He served most recently as special events and conferences manager at Terracom, a DC-based public relations firm. He has a broad range of experience in event management and will work with Ruth Seyler, membership and meeting director, to make our 2011 annual meeting a success.





Abigail Choudhury as AIC

membership assistant. Abigail has a BA in art history and archaeology from the University of Maryland. Over the past two years, she served as museum supervisor at The Phillips Collection, assisting the security operations manager in managing and training 80 museum assistants. She has also been a summer museum assistant at the Augustus Saint Gaudens National Historic Site.

We are sad to bid farewell to **Phillip Lynch**, membership and marketing associate, who worked tirelessly with the AIC during the past three years. Phil's dedication to our members was clearly evident in his work and creativity in improving our service to AIC members. We wish Phil the best as he begins law school this fall.

Haley Smit, former meetings assistant has recently left AIC to pursue other interests. We wish her well in her future endevors.

FAIC staff member **Kelsey Ray** has taken on additional responsibilities in professional development, while continuing to assist in development and outreach activities. In recognition of her new duties, her title has been changed to FAIC Education and Development Associate.

Please be sure to introduce yourself to our new staff members, all of whom are here to help you, and to apply their skills and knowledge to achieving the strategic goals of AIC and FAIC.

AIC Website and Wiki Update

Since the launch of the new AIC website (www.conservationus.org) in 2009 and the AIC wiki site (www.conservation-wiki. com/), an increasing amount of content is being placed on our web platforms that serve both our membership and the wider preservation community. In addition to reading about new content in *AIC News* and the new AIC e-newsletter, updates are sent out on Facebook and Twitter—"like" or "follow" us! You can also sign up for syndication on the AIC Blog, and posts on new developments will be sent directly to your inbox. Anyone requiring assistance with mastering these platforms can contact AIC E-editor Rachael Arenstein at Rachael@ AMArtConservation.com.

AIC Wiki Projects

In addition to the specialty group catalogues that were placed on the AIC wiki site at its inception in 2009, new groups have been formed and are in the process of adding and developing content.

- *The Health and Safety Guides* produced by AIC's Health & Safety committee are now on the wiki site. The guides will be updated by committee members in the near future. Check back for progress.
- The Committee for Sustainable Conservation Practice (formerly the AIC Green Task Force) is working on expanding its webpage offerings with information on the wiki in the Sustainable Practices section.
- Based on an active OSG listserv thread discussion about material testing, Jim Druzik and the RATS SG have offered to take on a wiki that focuses on materials for conservation, storage and display. This project will address content that is of wide interest to our membership, including all specialty groups. If you or others in your laboratory perform material testing and would consider participating in building this collaborative knowledge base, please get involved. Indicate your interest by contacting AIC E-Editor Rachael Perkins Arenstein at rachael@amartconservation.com.
- The OSG, which never had a printed catalog, has started putting content directly onto the wiki. See the July 2010 newsletter for a more complete description of this project. To learn more, contact Katie Holbrow at kholbrow@ asian-art.org.

If you are interested in becoming involved in one of the SG Catalog wikis please contact the chair of the appropriate specialty group. If you would like to be involved in one of the cross-specialty group wikis or have an idea for a new project, please contact the AIC E-editor Rachael Arenstein at Rachael@ AMArtConservation.com.

AIC RESOURCES ON THE WEB

In an effort to make content available from the AIC 2010 annual meeting, two resources are now available and will be part of our offerings at future meetings. Posters exhibited at the conference are now available online www.conservation-us.org/pastmeetings.

In the Milwaukee meeting section click on "Show more info" > "posters" to navigate to the page with abstracts and links to PDF files.

Summaries on annual meeting talks were posted by attendees on the AIC blog www.conservation-us.org/ news and can be accessed by clicking on the annual meeting category link on the left side of the page.

Congratulations to New Professional Associates and Fellows!

Below are listed the 30 Professional Associates and two Fellows who have been approved by the Membership Committee so far in 2010. Please join us in congratulating our newest Professional Associates and Fellows! We would also like to thank everyone who applied for Professional Associate or Fellow status in 2010, as well as their sponsors. Professional Associates and Fellows play an important role in AIC and, by being included "Find a Conservator," enable us to provide a valuable service to the public.

If you qualify for Professional Associate or Fellow status, please consider applying. If you are not sure you meet the requirements, you may review them online at www.conservation-us.org/peerreview.

If you are already a Professional Associate or Fellow and would like to volunteer to sponsor applicants, log into our website, go to "Manage Your Profile" and check the appropriate box under "Interests," or send an email to: rwinfield@ conservation-us.org.

NEW PROFESSIONAL ASSOCIATES

Erik AndersonKiDennis BaltuskonisAnJustine BelloAnLane BurrittRaJohn CarrRaClaudia ChemelloEllAmy CristKaSuzanne DavisSt

Kim Dong-Eun Amanda Edwards Andrew Fearon Rachel Freer Rowan Geiger Ellen Hanspach Kazuko Hioki Stephanie Hornbeck Adam Jenkins Domenico Mattozzi Allison McCloskey Kelly McHugh Christopher Mills Alfonso Narvaez Todd Pattison Kathleen Reeder Heather Smith Moyna Stanton Dee Stubbs-Lee Steven Weintraub Patty West Annie Wilker

NEW FELLOWS

Mary Jablonski Cecile Mear

New Initiative: Conservators Compile K-12 Curricula

A K-12 Educational Curricula working group has been formed after interest was generated on several specialty group listservs. Content is being compiled in four areas:

- A list of websites with lesson plans on chemistry, conservation, and art history that can be used for K-12 programming to advance knowledge of preservation.
- Resources developed by AIC members for educational outreach.
- Information on how conservators can help with outreach efforts to schools by working with professional organizations that develop K-12 curricula in the arts and sciences.
- Contact information for individuals willing to participate in educational projects such as visiting schools, giving lab tours, offering workshops or classes.

Suggestions, content, and offers of assistance are being accepted via **K-12**@ **conservation-us.org**.

Awards Committee: Recognize Your Colleagues

At some point in every career the guidance, support, or encouragement of a peer makes a world of difference. It is impossible to succeed without the benefit of others' work, or colleagues who serve as examples of excellence to which we can aspire. Every year, AIC gives out five different awards to exemplary conservators and other professionals for outstanding and distinguished contributions to the field of conservation. AIC members nominate the candidates for each award, and the winners are selected by the AIC Awards Committee. The Awards are:

The Sheldon and Caroline Keck Award for excellence in the education and training of conservation professionals

The Rutherford John Gettens Merit Award for outstanding service to the American Institute for Conservation

Honorary Membership for outstanding contributions to the field of conservation

The **AIC Advocacy Award** for accomplishments and contributions of conservation professionals who, through substantial efforts in outreach and advocacy, have advanced the field of conservation

Allied Professionals Special Recognition for contributions by professionals in other fields in the advancement of the conservation profession

There is also an award for supporting institutions and a joint award presented by AIC and Heritage Preservation that recognizes an organization whose commitment to conservation has been sustained and exemplary.

AIC awards are truly special and meaningful to their recipients, especially because they represent peer recognition and distinction. Please take a few minutes to let us know about the colleagues and institutions that deserve recognition for making significant contributions to our field. For more information and application forms, please visit the AIC website.

The nomination deadline for all awards is **December 15, 2010**.

Call for Nominations

The AIC Nominating Committee encourages members to submit nominations for qualified individuals as candidates for the 2011 AIC Board elections as well as candidates for the Nominating Committee itself.

The Nominating Committee will be pleased to discuss any aspect of the nominating and election process with potential candidates and anyone interested in nominating candidates. Please contact Mary Striegel (striegelm@nsula.edu), Vicki Cassman (vcassman@udel.edu), or Paul Messier (pm@paulmessier.com).

Call for Nominations for AIC Board Elections

The positions open for election are:

President Vice President Director of Committees and Task Forces Director of Specialty Groups Director of Professional Education

AIC President Meg Craft, Vice President Pam Hatchfield, and Director of Specialty Groups Ralph Wiegandt can each stand for a second term, while Director of Committee and Task Forces Cathy Hawks and Director of Professional Education Karen Pavelka have completed their second terms. The Nominating Committee must receive completed nominations by February 18, 2011, three months prior to the May Member Business Meeting in Pittsburgh, PA. The AIC Bylaws require that candidates be Fellows or Professional Associates. Nominees must be members in good standing of AIC and should have prior experience with the functioning of the organization through service on committees, task forces, specialty groups, or in other capacities.

AIC Nominating Committee

The Nominating Committee is seeking nominations of qualified members as candidates for the Nominating Committee election to be held at the 2011 AIC Member Business Meeting. The committee, composed of three members serving a three-year term each, has one vacant position each year. The 2011 candidate must be a Fellow of AIC. Nominations may be made in writing to Meg Craft, AIC Board president no later than February 18, 2011, or from the floor at the Business Meeting.

FAIC News

FAIC Continues Haiti Cultural Recovery Work

FAIC has supported eleven conservators for work at the Haiti Cultural Recovery Center in Port-au-Prince since April. Volunteers have performed assessments, helped to set up conservation labs, and performed treatments ranging from basic stabilization to more complete aesthetic reintegration.

The following AIC and AIC-CERT members have volunteered their time and talents in Haiti (through mid-August):

Susan S. Blakney Viviana Dominguez Nicholas Dorman David Goist Hitoshi Kimura Vicki Lee (2 deployments) Rosa Lowinger Karen Pavelka Beverly Perkins Sylvia Schweri Karen Zukor The work has been frustrating at times, given the huge need and the limited resources available in a country still struggling to provide basic services to its population. Rosa Lowinger wrote about her experience working on the wall murals at the Cathedral of Sainte Trinité in Port-au-Prince:

"As we crawled around the site. measuring and testing, I could not help but wonder if it is right to be spending money and energy on murals in light of other pressing demands. Every drive I took through Port-au-Prince was a study in human need and the urgency of action: collapsed houses, tent cities, open trench latrines, roads blocked by piles of debris, hospitals and schools that list precariously, shored by makeshift scaffolding. This, along with infinite unseen calamities (like the exorbitant price of everything, from rice to fuel) made our job of rescuing artwork seem like a luxury. It was an issue that nagged at me during my entire stay in the country."

"So, one afternoon, in the rubblestrewn courtyard of Ste. Trinité, I asked architect Magdalena Carmelita Douby, the project's registrar, about local attitudes towards our somewhat unusual rescue effort. Her answer came without hesitation, 'We have lost everything except our culture," she said calmly. 'We have to protect what is left.' "

The Haiti Cultural Recovery Center is operated by the Smithsonian Institution and its partners in Haiti. FAIC helps to supply volunteers to work in cooperation with the Smithsonian and the U.S. Committee of the Blue Shield. FAIC's funding comes from grants provided by the Institute for Museum and Library Services, National Endowment for the Arts, and National Endowment for the Humanities. ICCROM will begin a training program in late August for Haiti museum workers, who will also work with conservators at the Center.

Volunteer conservators— especially paintings specialists— are sought for continued work at the Center through November of 2011. A minimum 14-day commitment is sought. Preference is for Professional Associates or Fellows, or conservators with at least five years experience who come highly recommended from colleagues. Volunteers must be flexible and open to difficult conditions. If you are interested, please fill out the volunteer information form at: www.surveymonkey. com/s/8HRSWQZ.

Conservation OnLine Update

CoOL survey results now available A summary of results from a survey of over 2000 users of Conservation OnLine (CoOL) and the Conservation DistList is now available in the Resources section of the AIC website (www.conservation-us. org/surveys). The international survey indicated that current users of the DistList are mostly satisfied with its format and frequency. Suggestions for improvements to the CoOL website included improved navigation and search features.

WAAC Supports CoOL

The Western Association for Art Conservation (WAAC) recently voted to donate \$5 per member to FAIC for the support of CoOL and the Cons DistList for 2010. The reasoning of the WAAC's Board was published in the May 2010 WAAC Newsletter: "It's a tiny amount of money for a year of connection and information. As far as we know, WAAC is the first organization to take this step. We encourage other organizations to look into the possibility of making the same commitment on behalf of their members."

FAIC and the Hermitage

FAIC's Hermitage Initiative in Photographic Conservation reached a milestone this summer by conducting the first in what will be a series of workshops and practica held in the U.S., and designed to help train staff from the State Hermitage Museum of Saint Petersburg, Russia in photograph conservation.

Tatiana Sayatina and Natalia Laytar (conservators), and Natalia Avetyan (curator) of the State Hermitage Museum received intensive training in characterization and causes of deterioration in nineteenth century photographic materials at the Winterthur/University of Delaware Program in Art Conservation, under the guidance of Debra Hess Norris and Jennifer Jae Gutierrez. The group then went to the Center for Conservation of Art and Historic Artifacts (CCAHA) in Philadelphia, where Barbara Lemmen and the CCAHA staff introduced the Russian group to the documentation and workflow procedures used for photograph conservation in a busy laboratory. Finally, the group went to New York City, where Nora Kennedy and the staff of the Metropolitan Museum introduced them to special issues involving daguerreotypes.

At the Hermitage, conservators and curators work closely together to plan conservation work on collections. It is therefore important to ensure that curators of photograph collections have a strong understanding of photographic materials and treatment alternatives.

The next activity under the project will be a workshop on chemistry and materials testing, to be taught by Bernard Lavédrine at the Centre de Recherche sur la Conservation des Collections in Paris.

The Hermitage initiative is a four-year



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FAIC NEWS

project funded by a grant from The Andrew W. Mellon Foundation. It is designed to create a photographic conservation program at the State Hermitage Museum. The project is directed by conservator Paul Messier, assisted by Karina Beeman. An advisory committee and FAIC staff support the project.

FAIC Grants and Scholarships Awarded

Tru Vue Grants

The Foundation of the American Institute for Conservation of Historic and Artistic Works (FAIC) announces two grants made under the Tru Vue Optium[®] Conservation Grant program.

Monetary awards and donations of Tru Vue Optium[®] Museum Acrylic[™] were made to The Phillips Collection and The Fairbanks House for projects that will help conserve their collections.

The Phillips Collection of Washington, D.C., received an award to support the glazing of three Morris Louis (American, 1912–1962) paintings in their permanent collection. Known for their fragile surfaces of unprimed canvas, Louis's paintings are susceptible to discoloration of the support fabric, which significantly alters the appearance of the paintings. Following treatment, new frames will be constructed in order to further the preservation of the paintings and enhance their aesthetic appearance. Conservator Jay Krueger will conduct treatments to the paintings on contract at his studio in Alexandria, Virginia.

The Fairbanks House, located in Dedham, Massachusetts, received an award to help conserve six textile "samplers" that are in need of immediate conservation. The funds will be used to unframe, surface clean, photograph, and reframe nearly half of the samplers. These samplers are important to the Fairbanks House collection because they provide a direct relationship to the lives of the women in the Fairbanks family. Due to the lack of environmental controls in the house, many of the textiles are in need of conservation. For this project, anti-reflective, UV-filtering Optium[®] Museum Acrylic[™] will replace the glass currently covering the samplers, which is in poor condition and no longer provides adequate care for the samplers. Conservator Camille Myers Breeze of Museum Textile Services will perform the treatments to the samplers.

Tru Vue, Inc. has partnered with FAIC to offer grants and donated Optium Acrylic[®] glazing products to support projects in glazing applications for preservation of museum and library collections. Eight Tru Vue Optium[®] Conservation Grants have been awarded since November 2008. The goals of this grant program include increasing knowledge of glazing applications, promoting Optium Acrylic[®] glazing products, and encouraging the involvement of conservators in museum and library collection projects.

Not-for-profit collecting institutions (museums or libraries) with active exhibition programs and located in the U.S. are eligible to apply. Projects must involve a staff or contract conservator. The deadlines for applications are May 1 and November 1 of each year. Guidelines and forms are available on both the AIC/FAIC website (www.conservation-us.org) and Tru Vue (www. tru-vue.com), or by calling the AIC office at 202–452–9545.

NEH Scholarships Recipients

The following individuals received FAIC/NEH Individual Professional Development Scholarships in the May awards cycle. These awards are made possible through a grant from the National Endowment for the Humanities, and help to support travel and other costs for conservators attending NEH-supported FAIC workshops.

Karen Dabney, Digital Imaging

Jonathan Fisher, Conservation of Outdoor Sculpture Steven Pickman, Conservation of Outdoor Sculpture Mary Schobert, Characterization of Silver Gelatin Photographs David Gallagher, Conservation of Outdoor Sculpture

Two individuals received scholarships to attend the FAIC Collaborative Workshop on Photograph Conservation, "Characterizations of Silver Gelatin Photographs." These international scholarships are made possible through a grant from The Andrew W. Mellon Foundation.

Maria Estibaliz Guzman Solano Diana Lorena Diaz Cañas

Fall Grant and Scholarship Deadlines

September 15: Deadline for receipt of applications for the following FAIC grants and scholarships:

- Small Meeting Support Grants
- Individual Professional Development Scholarships
- Workshop Development Grants
- Regional Angels Grants
- Lecture Grants

November 1: Deadline for receipt of applications for:

- FAIC Samuel H. Kress Conservation Publication Fellowships
- Tru Vue Optium® Conservation Grants
- December 15: Deadline for receipt of applications for:
 - FAIC George Stout Memorial Awards

February 1: Deadline for receipt of applications for the following FAIC grants and scholarships:

- Christa Gaehde Scholarships
- Carolyn Horton Scholarships
- Carolyn Rose "Take A Chance" Grants

February 15: Deadline for receipt of applications for:

- Individual Professional Development Scholarships
- Workshop Development Grants
- Lecture Grants

Guidelines and application forms are available at www. conservation-us.org/grants or from the AIC office. All materials must be received by the published deadlines for consideration.

Electronic submissions are encouraged, if prepared according to the guidelines published with each grant category. Letters of support may now be sent electronically, but only if signature is included. Text-only emails and faxed materials will not be accepted. For more information, contact Kelsey Ray at kray@ conservation-us.org or 202-452-9545, ext. 9.

Workshop Ideas and Proposals Sought

Ideas for workshops to be offered in 2011 are currently being sought. From a simple title, to a fully-developed proposal, we want to hear from you!

FAIC presents a wide variety of workshops around the country and online on conservation topics, and AIC presents short workshops in conjunction with its Annual Meeting. Suggestions are always welcomed, but October 1 is the deadline for most 2011 events. Please contact Eric Pourchot at epourchot@conservationus.org or 202-452-0595, ext. 5.

Annual Meeting

Spotlight on Pittsburgh



Aerial view of Pittsburgh. Photo courtesy of Visit Pittsburgh.

AIC will be holding its 39th annual meeting at the Hilton Pittsburgh in the heart of the downtown area. The AIC 39th Annual Meeting is prepared to show you the vibrancy of Pittsburgh PA, with its rich culture, art, and proud history.

Along with the amenities of the conference hotel, attendees will find many wonderful things to keep them occupied. Pittsburgh's Cultural District is known for its numerous theatres and performance spaces. It is home to over 70 art galleries, such as the Mattress Factory and the Silver Eye Center for Photography. The Wood Street Galleries, a project of the Pittsburgh Cultural Trust, features the work of artists from around the world. Pittsburgh is also known for its great museums, such as the Carnegie Museum of Natural History, the Senator John Heinz History Center, the August Wilson Center for African American Culture, and the Andy Warhol Museum. If you'd like to just walk around the city and soak it all in, Pittsburgh offers a number of city walking tours in which you can admire public art, historical sites, and amazing architecture. For those willing to travel a bit, you can tour Frank Lloyd Wright's architectural masterpiece, Fallingwater. Join us in Pittsburgh, May 17-20 for the 39th AIC Annual Meeting.

Register for the 2011 AIC Annual Meeting

Register today at the low preview rate and you will have the opportunity to add tours, workshops and special events to your registration when they become available in November. Register online via the AIC website

www. conservation-us.org

Preview (Valid to 12/31/2010) \$299 AIC Member \$395 Non-Member \$125 Student Member

Early Rate (From 1/1/2011 to 2/28/2011)

\$335 AIC Member \$425 Non-Member \$145 Student Member

Advanced Rate (From 3/1/2011 to 4/10/2011)

\$355 Member \$435 Non-Member \$155 Non-member

2011 Annual Meeting— Call for Papers Closes September 20, 2010

The theme for the 39th Annual Meeting, to be held in Pittsburgh, PA, May 17–20, 2011, is titled *Ethos, Logos, Pathos: Ethical Principles and Critical Thinking in Conservation*.

The goal of this year's meeting is to examine how ethics, logic, and perception guide conservation decisions. Possible subjects for presentations include increased accessibility and use of built heritage, the effects of changing environmental standards on lending practices, the treatment of contemporary and ephemeral works, artists' and owners' rights; the evolution of ethical codes of conduct.

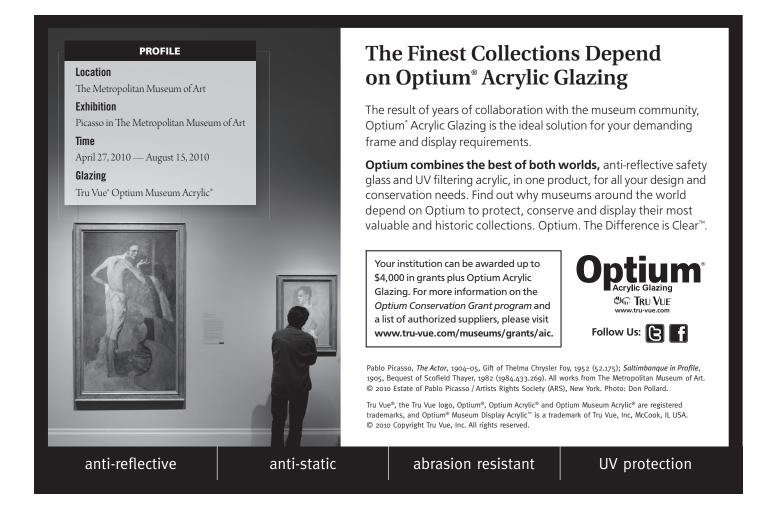
For more information and to submit an abstract please visit our website Abstracts for consideration, are due by Sept. 20, 2010 and should be no more than 500 words.

November IAG Meeting

The 2010 meeting of the Internal Advisory Group (IAG) is taking place in Washington, DC on Saturday, November 13. The meeting will be held at the Doubletree Hotel, located at 1525 Rhode Island Avenue, NW. Participants will be contacted by AIC Meetings Associate Adam Allen regarding hotel room reservations. An agenda and additional meeting information will be sent in advance of the meeting date.

Please contact the chair of your specialty group if there are any topics that you wish to have raised at the meeting.

ALLIED ORGANIZATIONS



Allied Organizations

INTERNATIONAL INSTITUTE FOR CONSERVATION OF ARTISTIC AND HISTORIC (IIC) WORKS

IIC Round Table: Between Home and History

In 2008, IIC launched the initiative *Dialogues for the New Century*, a series of events that explore emerging issues in the modern world and the relationship of those issues to the preservation of cultural heritage (www.iiconservation.org/dialogues). In May, as the third in the series, IIC collaborated with AIC to offer "The Plus/Minus Dilemma: The Way Forward in Environmental Guidelines" at the AIC Annual Meeting in Milwaukee.

The next Round Table in the series will be part of the IIC's Istanbul Congress, 20–24, with a theme of "Between Home and History."

This Round Table discussion will explore our complex desires to improve and expand our surroundings while also recognizing our essential need to remember and to preserve. When a neighborhood, district, or region of historic significance is preserved, what are we preserving? Is our concern solely with the material remains that serve as a memory prompt, as evidence of some event, some moment, or is there more? And when such a place is populated, either by the very people who are part of its significance or who settled there after a historic event, how can these people, their community, and its way of life, be incorporated into a preservation approach? As pressures of development, gentrification, or regeneration whether from outside the community or from within—begin to challenge more established versions of how and what will be preserved, dilemmas will emerge. Any compromises and their impact must be explored since decisions made now are linked to the future of heritage.

Panelists

Stephen Bond, principal in a consultancy firm that recently conducted a training workshop on site management for UNESCO in the World Heritage city of Galle in Sri Lanka.

Ayfer Bartu Candan, an anthropology professor from Bogazici University, Istanbul.

Asli Kiyak Ingin, an architect, designer, and activist with a specific interest in how state intervention in the urban fabric of a city affects some of the poorest residents.

David Lowenthal, a renowned author, historian, and Professor Emeritus in the Department of Geography at University College London. **Leyla Nezi**, an anthropologist, oral historian, and associate professor in the Faculty of Arts and Social Sciences, Sabanci University, Istanbul.

Francesco Siravo, an Italian architect, planner, and author, specializing in town planning and historic preservation.

The Round Table will also include an exclusive video interview with the Nobel Prize winning author **Orhan Pamuk**.

HERITAGE PRESERVATION (HP)

Heritage Emergency National Task Force Prepares for Hurricanes

Heritage Preservation and the Federal Emergency Management Agency (FEMA) convened members of the Heritage Emergency National Task Force for a hurricane preparedness conference call on July 29, 2010. Six to eight hurricanes are expected before the 2010 Atlantic hurricane season ends November 30, and several factors make any response more complicated this year.

Representatives from FEMA and the Department of the Interior described steps their agencies are taking to prepare, and state historic preservation officers from several Gulf states participated in the call. Dr. Mary Striegel from the National Center for Preservation Technology and Training gave an overview of issues involved in protecting historic sites and cultural heritage materials from storm contaminants, including crude oil. Heritage Preservation has prepared a resource list with links to information on cultural heritage and oil at www.heritageemergency.org.

Founded in 1995, the Heritage Emergency National Task Force is a partnership of 41 national service organizations and federal agencies co-sponsored by Heritage Preservation and FEMA. AIC is a founding member. During region-wide presidentially-declared disasters, the task force serves as a clearinghouse for information on damage to cultural heritage materials.

New Information Resource for the Public

Heritage Preservation has introduced a new online resource for the general public on how to stabilize and salvage cherished books damaged by water. "How to Save Wet Books" is a webpage with basic tips and short video clips adapted from Heritage Preservation's award-winning book Field Guide to Emergency Response and the reference tool Emergency Response and Salvage Wheel. "How to Save Wet Books" makes sound preservation advice easily accessible (www.heritagepreservation.org/savewetbooks/index.html).

Emergency Response and Salvage Wheel now in Arabic

After more than a decade in print, *Emergency Response and Salvage Wheel* remains the gold standard for concise, professional advice on protecting collections from water damage. English-language versions are in use worldwide, and translations are available in Chinese, Dutch, French, Italian, Japanese, and Spanish. Heritage Preservation is pleased to announce that this resource is now produced in Arabic by the Arab Image Foundation (AIF) in Beirut, Lebanon. The Getty Foundation supported the AIF project.

Deadline: December for Joint AIC-Heritage Preservation Award Nominations

The AIC and Heritage Preservation seek nominations for the 2011 joint Award for Outstanding Commitment to the Preservation and Care of Collections. Presented annually to an organization in North America that has been exemplary in the importance and priority it has given to conservation concerns and in the commitment it has shown to the preservation and care of its cultural property, the deadline for nominations is December 15, 2010. Anyone may submit a nomination, and selfnominations are welcome. Nominees should be not-for-profit organizations of any size responsible for cultural property that may include collections, historic sites and structures. For more information on the award, go to: www.heritagepreservation.org/ awards/aic.htm.

AMERICAN ASSOCIATION OF MUSEUMS (AAM)

AAM PD and MAP Launch Museum Essentials 2010 Webinar Series

Responding directly to the expressed needs of the field, AAM Professional Development announced a new four-part series of live webinars rooted in the basics of institutional planning, collections management, governance, and the public dimension of museums. Entitled *Museum Essentials 2010*, the series began in July 2010. Each webinar is led by subject matter experts from across the museum field and is scheduled for 90 minutes. The four webinars are:

- Museum Standards and Best Practices Primer (July 7)
- 21st Century Museum and School Partnerships (July 21)
- Step-by-Step Collections Acquisition (Sept. 22)
- Understanding the Three Dimensions of Your Board (Oct. 20)

For registration and additional information, please visit the AAM website.

Museum Essentials 2010 is based on the Museum Assessment Program (MAP), which is designed to ensure the highest museum performance in governance, administration, collections management, audiences, and operations. Administered by AAM in cooperation with the Institute of Museum and Library Services (IMLS), MAP has for 28 years empowered museums to excel in all aspects of museum operations.

Reprinted in part from AVISO, July 7, 2010, Volume 36, no. 7

New Materials & Research Using Risk Assessment Tools to Evaluate the Use of LEDs for the Illumination of Light-Sensitive Collections

Light Emitting Diodes (LEDs) have been gaining a great deal of attention over the last few years. This interest has been fueled by the need to find an energy efficient replacement for the incandescent lamp, a technology that has been around in various forms since the time of Edison. The rapid emergence of LEDs as a potential source for general lighting applications has also led to a great deal of confusion and concern about the appropriateness of the current generation of LEDs. These concerns fall into three categories:

- Risk to light sensitive artifacts
- Color rendering characteristics
- Reliability and cost-benefit of LEDs compared with alternative sources of illumination

This article focuses specifically on risk because it is of primary concern in considering the use of LEDs in a display setting.

Development of a Metric to Evaluate Risk from Light Sources

In order to evaluate the relative risk of different light sources, it is necessary to have an appropriate damage metric. This is the problem that confronted researchers from the National Bureau of Standards (NBS), now known as the National Institute of Standards and Technology (NIST) when they did a pioneering study on light damage in the early 1950s to protect the Charters of Freedom at the National Archives. At that time, they determined that the metric had to focus on the inherent spectral differences between light sources, not on the unique properties of any specific museum object:

The materials of museum objects are varied... it is all the more impossible to assign to a light source a rate of damage applying simultaneously to all museum objects. The best that can be hoped for is an evaluation of the radiation hazard associated with each light source, that is, the probable rate of damage to the average museum object associated with unit areal density of incident luminous flux from the source. (National Bureau of Standards Report #2254 cited in Harrison 1953)

Scientists understood that for equal amounts of radiant power, shorter wavelengths of light (UV-blue region) should have more potential to cause damage than longer wavelengths (red-IR region) since longer wavelengths of light have less energy. The NBS team exposed low-grade paper to a full range of wavelengths in the UV and visible region, and measured damage to determine the relative damage potential of each wavelength.

In order to assess and compare the damage potential of different types of light sources, the NBS calculated an illuminant's "relative damage factor" as follows:

• Multiply the amount of power per wavelength for a light source by the NBS derived damage potential for that

wavelength. This value describes the relative contribution to damage for each wavelength for a specific light source.

- Multiply this result by the relative visual intensity within the visible spectrum for each wavelength, defined as the photopic luminosity function $V(\lambda)$. This value describes the relative contribution to overall illuminance of each wavelength in proportion to its power and damage potential.
- Total up the values calculated in the previous step. This sum is the total damage potential for the source.
- Finally, by knowing the total illuminance (lux or foot candles) of the source, divide the sum by its luminous intensity to determine the relative damage per lux or foot candle for the source.

In the early 1950s, with the rapid growth of fluorescent lamps as a general light source, a great deal of concern was raised about potential damage to light sensitive museum collections from fluorescent lamps as compared to incandescent lamps or UV filtered daylight, not unlike today's concern about LEDs. In 1953, the Metropolitan Museum of Art hired a lighting engineer, Lawrence Harrison, to study this issue. He analyzed the potential hazard of different types of light sources, building on data and the method of analysis developed by the NBS.

Harrison's results were fascinating. It turned out that a high color temperature source like daylight, filtered to remove all UV radiation, had three to four times the damage potential of an incandescent lamp based on the NBS relative damage function per wavelength.

Revisiting the Relative Damage Factor

In the 1970s–1980s, a group led by Krochmann reassessed the NBS work. They used a large range of light sensitive materials, over 50 in total. Their results reconfirmed the NBS work for lowgrade paper. For more photochemically stable materials, including rag paper, oil on canvas, textiles, and watercolors on rag paper, damage per radiant unit of light exposure increased with a decrease in wavelength, but at a slower rate compared to low-grade paper. Follow-up work by Saunders and Kirby in the 1990s reconfirmed that shorter wavelengths have more damage potential than long wavelengths. They also observed that damage is reduced in the wavelengths where the object has the highest reflectance value, since less radiant energy is absorbed in this region. All of these studies were assimilated and published by Cuttle in 1996 and were embodied within the Commission Internationale de l'Eclairage (CIE) Museum Report entitled Control of Damage to Museum Objects by Optical Radiation (CIE 157:2004).

In sum, the damage curves described in the CIE report provide the most universal method for assessing relative damage based on the spectral distribution of any light source. Because the probable rate of damage per wavelength is based on results from a broad range of materials, it avoids the inevitable problem of making general assumptions about damage based on unique photochemical sensitivity of a particular material. For now, these values provide the most useful means for calculating wavelength specific damage since they take into account the higher damage potential of shorter wavelengths. Although future research may result in modifications of current damage values, the general procedure for comparing relative risk from different light sources, first described by the NBS in the early 1950s, is correct.

Alternative damage metrics such as the British Blue Wool Standards and Light Check are useful and important tools when used as dosimeters for measuring cumulative damage over time. These tools have their own unique photochemical sensitivities, which is not a problem for their intended application, but are not appropriate for comparing the spectral damage potential of light sources.

Comparison of Relative Damage Potential of Full Spectrum Light Sources

Table 1: Relative Damage Potential for Different Color Temperatures				
Color Temperature of Source	Relative Damage Potential	Example of Lamp Type		
3000°K	1.04	Tungsten halogen		
4000°K	1.37	Cool white fluorescent		
5000°K	1.71	Sun + Daylight		
6000°K	2.01	Daylight fluorescent		

According to this data, a museum collection illuminated with daylight at 6000°K will sustain almost twice the damage compared to a tungsten halogen source at the same level of luminous intensity.

The CIE Report includes a table of relative potential damage for full spectrum sources ranging from 2500°K to 7500°K in 500°K increments. It did not include any discontinuous spectral sources such as fluorescent, metal halide, or LED lamps, since the emphasis was on the overall impact of color temperature on damage, rather than the unique damage potential of specific light sources. To simplify comparison, all values were normalized based on an assignment of a value of 1.0 for Source A (2856°K) and all wavelengths below 400nm were excluded. A summary of some of the values is listed in Table 1.

LEDs and Full Spectrum Light Sources: A Comparison of Relative Damage Potential

For purposes of this communication, Art Preservation Services analyzed six different lamp/filter combinations to assess the relative potential damage of LEDs compared to tungsten halogen sources and the results are tabulated in Table 2.

According to the results in Table 2, the two warm LEDs had the lowest relative damage potential and the unfiltered 4700°K Solux tungsten halogen lamp had the highest relative damage potential. These results are not surprising.

• A typical warm LED has a peak around 445–455 nanometers (nm).

Table 2: Relative Damage Potential for Select Tungsten Halogen and LED Sources

Lamp and Filter*	Source	Color Temperature or CCT	Relative Damage Potential**
MR-16, No Filter	T-H	3000 ⁰ K	1.00
MR-16, UV filter	T-H	-	0.96
Ledtronics, No Filter	LED	3200 ⁰ K	0.86
Cree MP-L, No Filter	LED	3500 ⁰ K	0.93
Solux, No Filter	T-H	4700 ⁰ K	1.37
Solux, UV Filter	T-H	-	1.14

All measurements were done with an Ocean Optics 2000 USB spectrometer. All color temperature readings are based on manufacturer data. All calculations utilized the CIE published damage values.

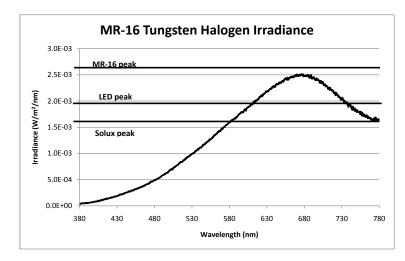
- * <u>MR-16</u> Sylvania Tru-aim MR16 35/12; <u>Ledtronics</u> PAR 30 10w; <u>Cree MP-L</u>: XLamp MP-L EasyWhite at 700mA; <u>Solux</u> 4700°K; <u>UV</u> <u>filter</u> Optium Museum Acrylic
- ** All damage values were normalized based on the assignment of a value of 1.0 for an unfiltered tungsten halogen MR-16 lamp.
 - It has very little power below 440 nm, a part of the blue region which is more damaging and provides less luminous intensity than the blue region at or above 440 nm.
 - A warm LED would be expected to do less or approximately the same damage as a conventional tungsten halogen lamp of an equivalent brightness, since neither source has a large amount of radiant energy in the blue region, especially in the most damaging portion below 440 nm.
- The Solux 4700°K tungsten halogen lamp has a relatively high proportion of short to long wavelengths compared with a normal tungsten halogen lamp, which is why it has a high color temperature.
 - The higher proportional amount of blue to red explains why this type of lamp has a higher damage potential than a warm LED or a conventional 3000⁰K tungsten halogen lamp.
 - The higher proportion of blue also results in a higher proportion of UV, which is why a UV filter has a bigger benefit for this lamp than for a 3000⁰K tungsten halogen lamp.

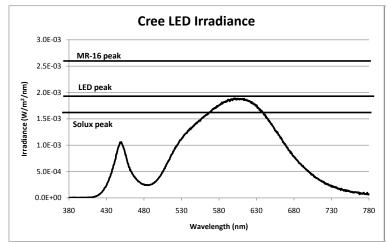
Alternative Methods for Evaluating Risk from Light Sources: Peak Power Output

An alternative metric for evaluating relative risk of light sources under recent discussion among conservators and conservation scientists compares the peak radiant output of different lamp sources, all measured at the same photopic level of intensity. This metric:

• Only takes into account the peak energy of the single wavelength with the highest output, not the overall spectral distribution of the lamp.

Diagram 1: Peak Power Output of Select Tungsten Halogen and LED Sources





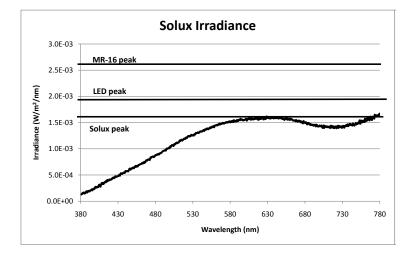


Diagram 1: Spectral power distributions of three lamps—3000°K Tungsten Halogen, 3500°K LED, 4700°K Solux. All lamps normalized to 1 Lux. Horizontal lines placed at 2.5^{-3} W/m²/nm for the MR-16 peak, 1.8^{-3} W/m²/nm for the LED peak, and 1.6^{-3} W/m²/nm for the Solux peak.

• Assumes that there is a one-to-one correlation between peak energy and damage.

The rationale for looking at peak energy rather than total energy is based on the phenomenon of "holeburning," and assumes that isolated LED output peaks will cause accelerated damage.

It would be useful to put risk into perspective by comparing the results of this metric to the CIE damage metric. Three lamps previously analyzed in Table 2, a standard tungsten halogen lamp, a Solux 4700°K lamp, and a representative warm white LED are compared in Diagram 1, all at equal illuminance. According to the damage metric based on peak power output:

- The MR-16 tungsten halogen lamp would be the most damaging of the three light sources by a significant margin. Its peak wavelength is 130% greater than the narrow blue peak of the LED and 40% greater than the LED broad band peak.
- The Solux 4700°K lamp would be the least damaging of the three light sources since it is heavily filtered to reduce energy in the peak red portion of the spectrum in order to increase its color temperature.

These results are the opposite of the *relative damage potential* values from Table 2, which were based on CIE calculations. When the damage potential of the full spectral distribution curve is taken into account, an unfiltered tungsten halogen lamp was slightly more damaging then a 3500°K white LED, and considerably less damaging then the unfiltered Solux 4700°K lamp.

What is the cause of this significant discrepancy regarding relative damage?

- *Relative damage potential* deals with the entire UV through visible spectral output of a light source.
- Total photochemical damage cannot be calculated based on the comparison of the highest peak in the spectrum.

Does the risk of "hole-burning" warrant the adoption of an alternative damage metric based on peak power output? This phenomenon occurs in the unique case where a very high energy peak from a light source closely aligns with a region of high absorption by a light-sensitive material, referred to as its action spectrum. For warm and neutral white phosphor-based LEDs where the narrow blue "peak" is actually a lower value than the broad spectral band and is much lower than the peak of a tungsten halogen lamp, the risk of "hole-burning" damage at an illumination level of 5 to 20 foot candles is very small or non-existent.

Conclusion

Shorter wavelengths of light have more energy and therefore more damage potential than longer wavelengths for equal amounts of radiant power. An appropriate metric for comparing the relative damage from light sources must account for the damage potential of individual wavelengths.

Since each light sensitive object responds somewhat differently to light exposure, it is necessary to assign a damage potential per wavelength based on the average response of a broad range of light sensitive materials. The Krochmann/CIE damage values provide information that is supported by average wavelength-specific light sensitivity response and was based on testing that was performed on a large number and wide variety of materials. Using this method, it is reasonable to conclude that low to intermediate color temperature (2700–4000°K) white phosphor-based LEDs and UV-filtered tungsten halogen lamps are safe for the illumination of light sensitive materials if used at an appropriate light level for museum applications.

Alternative damage metrics such as British Blue Wool standards and Light Check are useful as general dosimeters but are not appropriate for comparing light sources. Other metrics such as peak power output are inappropriate because they don't take into account the contribution to damage from the entire spectrum. The CIE method for calculating relative damage of light sources provides a valuable tool for making critical decisions about the impact of light on collections.

Note

A detailed description of how to calculate spectral damage is available as a downloadable document on the Art Preservation Services website (www.apsnyc.com).

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Acknowledgment

Elyse Canosa for assisting with the spectrometer readings and preparation of the graphs.

—Steven Weintraub Art Preservation Services, Inc., sw@apsnyc.org

New Publications

Les arts graphiques: restauration/recherche: Journée d'études en l'honneur de Carlo James, publishes the papers given at a colloquium held in 2005 in honor of Carlo James, conservator of prints and drawings for the Fondation Custodia. Paris: Fondation Custodia, 2008.

Conserving Outdoor Sculpture: The Stark Collection at the Getty Center, by Brian B. Considine, recounts the acquisition, treatment, installation, and maintenance of the Stark collection of outdoor sculpture from the point of view of its conservators. The project commenced in December 2005 and continued until June 2007, when the installation of all 28 sculptures was completed. Los Angeles: Getty Conservation Institute, 2010.

Issues in the Conservation of Photographs, edited by Debra Hess Norris and Jennifer Jae Gutierrez, gathers 72 texts from the nineteenth century to the present day, covering the history of photograph conservation, practical approaches to the preservation of specific photograph types, and criteria for collection management and treatment, among other topics. Los Angeles: Getty Conservation Institute, 2010.

Witnesses to History: A Compendium of Documents and Writings on the Return of Cultural Objects, edited by Lyndel V. Prott, compiles documents concerning various aspects of the repatriation of cultural objects, including their history, philosophy, and ethics; legal issues; and procedures for requests. Paris: UNESCO, 2009.

Contesting Knowledge: Museums and Indigenous Perspectives, edited by Susan Sleeper-Smith, is a collection of essays dealing with the relationships between museums and nation-states. Lincoln: University of Nebraska Press, 2009.

Installing Exhibitions: A Practical Guide, by Pete Smithson, presents practical information on how to put up an exhibition, from the initial considerations (e.g., risk assessment, health and safety) to basic construction, fixing, lighting, and other topics. It includes separate chapters on two-dimensional work and audio-visual materials. London: A & C Black, 2009.

People

Kelly Ciociola, a recent graduate of Clemson University/ College of Charleston's Historic Preservation program, is joining Kreilick Conservation LLC as Architectural and Sculptural Conservator.

Dr. Christina Cole has been named the first Andrew W. Mellon Fellow in Conservation Education at the Department of Art Conservation Department of the University of Delaware. **Robin Gerstad**, a graduate of Columbia University's Historic Preservation program, previously staff conservator for Beyer Blinder Belle Architects, is joining Kreilick Conservation LLC as Business Manager and Senior Conservator.

Stephanie Hornbeck has been contracted by the Smithsonian Institution as Chief Conservator to coordinate work at the Haiti Cultural Recovery Center as part of the Haiti Cultural Recovery Project, a partnership between the Smithsonian and the Government of Haiti.

Rachel C. Sabino has been appointed Senior Objects Conservator at the Chicago Conservation Center. For the past eight years, she was director of Sabino Conservation in Zürich, London, and Houston.

Caitlin Smith, a recent graduate of the University of Pennsylvania's Historic Preservation program, is joining Kreilick Conservation LLC as Architectural and Sculptural Conservator.

In Memoriam

James N. Wood 1941-2010

On June 11, 2010, James N. Wood, the president and CEO of the J. Paul Getty Trust—of which the Getty Conservation Institute (GCI) is a part—passed away suddenly of natural causes. He was 69.

Jim arrived at the Getty in February 2007 as an internationally recognized leader in the arts who had already experienced a distinguished career. He had spent many years at the Art Institute of Chicago where he served as director and president from 1980–2004. Prior to leading the Art Institute, he was the director of the St. Louis Art Museum (1975-1980), an adjunct professor of art history at SUNY at Buffalo, and associate director of the Albright-Knox Art Gallery in Buffalo, New York. He also held positions at the Metropolitan Museum of Art in New York. Jim sat on the boards of the Sterling and Francine Clark Art Institute. the Institute of Fine Arts at New York University, the Harvard University Art Museums, and the Museum of the Rhode Island School of Design. In addition, he was president

of the board of the Pulitzer Foundation for the Arts.

Jim was enticed out of retirement to take on the leadership of the Getty Trust. In the over three years that he held the reins of the Getty's leadership, he worked to strengthen collaboration among the Getty's four programs and to enhance the Getty's role both internationally and regionally.

Throughout his professional life, Jim was a strong advocate of museums and of the important contributions they make to civil society. During his time as the head of the Getty Trust, he was also a great admirer of the role conservation plays in preserving our artistic heritage, and of the contributions to that effort made by the GCI and by all conservation professionals at the Getty. Indeed, his appreciation of the Getty's conservation activities grew during his Getty tenure. At the last GCI general staff meeting that he attended, he spoke to the staff with heartfelt enthusiasm for the work and accomplishments of the Institute. He was also pleased in 2009 when-as a result of AIC's annual meeting being held in Los Angeles—conservation staff at the Getty shared their work directly with their AIC colleagues.

Since Jim's death, many of his friends in the art world have written movingly of his character—his personal kindness, his sense of civic responsibility, his adherence to principles, and his dedication to the field in which he spent his professional life. These are sentiments that we share.

The Getty board and Getty staff have extended their deepest sympathy to Jim's wife, Emese, their daughters Lenke and Rebecca, and their families.

> *— Tim Whalen, Director The Getty Conservation Institute*

Worth Noting

American Chemical Society Journal Publishes Special Issue on Advanced Techniques in Art Conservation

The June 2010 issue of *Accounts of Chemical Research* offers a group of articles that comprise a range of advanced ongoing research, while offering a broad view of research activities that focus on the development and deployment of advanced analytical methodologies and procedures, the characterization of the origin and mechanisms of material decay, and the creation and testing of new cleaning and consolidation treatments. The work reported in this special issue clearly shows how recent advances can be attributed to enormous progress made in the development of analytical technologies, as well as to the widespread and increased attention given by the public and by policy-makers to the preservation and enhancement of the historical heritage of all nations.

Accounts of Chemical Research presents short, concise, and critical articles offering easy-to-read overviews of basic research and applications in all areas of chemistry and biochemistry. In addition, since 1998 Accounts of Chemical Research has published special issues devoted to single topics of unusual activity and significance.

The publications division of the American Chemical Society (ACS) provides the scientific community with a comprehensive collection of more than 38 journals, Chemical & Engineering News, ACS Legacy Archives, and the ACS Symposium Series.

For more information on *Accounts of Chemical Research* and other ACS journals visit http://pubs.acs.org.

New Conservation Publication

Intervención, Revista Internacional de Conservación, Restauración y Museología is a new academic, international, and peerreview magazine devoted to the research and working fields of conservation, restoration, museum studies, and other related disciplines in the study and treatment of Cultural Heritage materials. One of the key education cornerstones of Instituto Nacional de Antropología e Historia (National Institute of Anthropology and History), and published biannually by the Escuela Nacional de Conservación, Restauración y Museografía, this publication aims to advance the development and dissemination of knowledge, as well as generating informed criticism about the preservation, management, and study of cultural heritage.

The Editorial Committee of Intervention invites Mexican and foreign researchers, professors, and members of the general public to present contributions for publication in this magazine. For more information visit: www.encrym.edu.mx.

Research Project on Preservation of Parchment

The collection care department at The National Archives, Kew, has been awarded a post-doctoral fellowship by the Science and Heritage Programme to investigate preservation environments for parchment documents. The award will enable the fellowship to be supported for three years from June 2010.

The interdisciplinary research project, a collaboration with Cardiff University, aims to make a significant contribution to the evidence base for managing parchment collections. The Fellow, Dr Lee Gonzalez, based at Kew, will examine the microscopic changes to the structure of parchment that occur under different storage conditions and result in visible damage. The outcome of this practice-led research will inform future collection management strategies and guidelines for the storage of historic parchment documents--a much-needed resource with wide application both within and beyond The National Archives.

The Science and Heritage Programme is jointly funded by the AHRC (Arts and Humanities Research Council) and EPSRC (Engineering and Physical Sciences Research Council).

Study: Recession Takes Toll on Museum Workers

Nearly 40 percent of nonprofit organizations—and 53 percent of museums—lack adequate staffing to deliver programs and services. According to a national survey released by the Nonprofit Listening Post Project at Johns Hopkins University, "Recession Pressures on Nonprofit Jobs," arts and culture organizations have been particularly hard hit by the nation's economic downturn. AAM is a partner in the Listening Post Project.

The survey results reflect findings from previous studies by both the Center for Civil Society Studies at Johns Hopkins and AAM. In a previous Listening Post survey, 34 percent of nonprofit organizations reported eliminating staff positions and 41 percent postponed filling new positions during the six months between September 2008 and March 2009. In a January 2010 study from AAM entitled Service Despite Stress, more than two-thirds (67.1 percent) of museums reported at least moderate financial stress in 2009. For 8.4 percent of museums the stress level was severe and for 17.8 percent the financial stress was very severe. At the same time, attendance increased at a majority of museums in 2009.

Workforce reductions are only part of the story. Nonprofits have been forced to take additional actions that impact their own workers and reduce their ability to deliver critical programs and services. Among responding organizations, over the recent six-month period covered by the new survey:

- 49 percent "refined job descriptions," often a euphemism for increasing employee workloads and assigning the responsibilities of laid-off staff to remaining employees.
- 39 percent implemented a salary freeze.
- 36 percent postponed filling new positions.

Other nonprofits in the survey increased staff hours (23 percent), cut or reduced benefits (23 percent), increased non-program work for program staff (12 percent), and reduced wages (12 percent).

Changes in employment varied significantly by field. Organizations in two of the six fields covered in the survey (elderly services and community and economic development) reported overall employment growth, the former by 0.6 percent and the latter by 5 percent. This was likely a result of continued economic recovery program spending. In contrast, nonprofit theaters reported job reductions of 6 percent. The remaining three fields that participate in the Listening Post Project also recorded reductions—museums (-1 percent), orchestras (-3 percent), and children and family service organizations (-0.7 percent).

The full report "Recession Pressures on Nonprofit Jobs" is available online. If you are interested in learning more about the Listening Post Project—or if your museum would like to participate in this initiative contact Philip M. Katz, at pkatz@aam-us.org

Reprinted in part from AVISO, August 3, 2010, volume 36 no.8

Health Care Tax Credit for Small Tax-Exempt Orgs and Businesses

Many small tax-exempt organizations and businesses that provide health insurance coverage to their employees now qualify for a special tax credit due to the passage of the Patient Protection & Affordable Care Act in March 2010. The Small Business Health Care Tax Credit is one of the first reform provisions of the new law. When filing 2010 tax returns, certain eligible taxexempt organizations and small businesses can apply for a tax credit to cover a portion of their employee health insurance coverage costs. The credit is designed to encourage small employers to offer health insurance coverage for the first time, or maintain existing coverage. Eligible tax-exempt organizations can receive a maximum credit of up to 25 percent of their premiums paid in 2010. To determine whether your tax-exempt organization is eligible for the credit see the IRS's 3 Simple Steps Fact Sheet. For more information including eligibility rules, credit amount, examples of how the credit applies to employers with different scenarios, and frequently asked questions, visit the IRS website.

Direct links to these online resources are available through the AAM Information Center under this path: Information Center > Human Resources > Personnel Policy Issues > Benefits, available to all AAM members.

Institutional museum members enjoy the added benefit of customized reference services and access to sample documents by contacting infocenter@aam-us.org.

Reprinted in part from AVISO, July 7, 2010, volume 36, no.7

ANAGPIC and Other Training Programs The University of Delaware

Global Reach

The Department of Art Conservation at the University of Delaware (UD) is an active advisor with Winterthur and the Walters Art Museum to the Iraqi Institute for the Conservation and Preservation of Antiquities and Heritage in Erbil. The Institute was established in 2009 to improve

ANAGPIC & OTHER TRAINING PROGRAMS

the professional environment within Iraqi museums, develop capacity to preserve Iraqi collections and sites of overwhelming international significance, and promote national reconciliation through increased awareness of shared cultural heritage. Vicki Cassman and Lois Price taught in Erbil in late July.

UD is engaged in a Mellon-funded project in collaboration with the FAIC to educate and train photograph conservators at the Hermitage Museum in St. Petersburg, Russia. In addition, UD is working in collaboration with Heritage Preservation and the Conservation Center for Art and Historic Artifacts to develop preventive conservation training workshops in South and Central America, in response to the pressing needs identified at the Salzburg Global Seminar on the preservation of the world's cultural heritage last fall. The work in the preservation of at-risk photographic collections in Historically Black Colleges and Universities also continues.

Funding from the UD Institute for Global Studies supported 2010 summer field work in China. Art conservation undergraduates and graduate students worked with Dr. Susan Buck and Professor Liu Chang in collaboration with students from Tsinghau University to examine and document 12th-centuury Yuan dynasty Buddhist murals in a Fengguosi Temple in the Liao Ning Province outside of Beijing. Environmental conditions were monitored, cleaning tests conducted, and samples collected for further analysis at Winterthur/ UD. Metigo Map, a new software tailored to art conservators, allowedfor rectified to-scale images and specificity of condition reporting.

Two visiting scholars from Bhutan and Croatia audited conservation courses and observed teaching approaches and methodologies in 2009–10 to enhance their understanding of preventive conservation practice and conservation education in the United States.

Winterthur/University of Delaware Program in Art Conservation (WUDPAC)

A \$250,000 grant from the National Endowment for the Humanities will support UD's master's-level teaching in objects, textile, photograph, furniture, and preventive conservation. Students in this program continue to excel, as is evidenced by their fellowship placements at outstanding institutions. Examples of their projects include the preservation of George Washington's canteen, a 2500 BCE bitumen boat (one of only 6 remaining in the world), fire-damaged murals at the Church of the Holy Cross in Brooklyn, New York, and works of art by Thomas Moran, Mark Rothko, and Christo and Jeanne-Claude.

Technical study projects for 2009-10 included the characterization and analysis of paintings by Chaim Soutine, the Turkish ceiling in the Doris Duke Foundation's Shangri-La, hand painted tintype portraits, and an Etruscan bronze vessel from the University of Pennsylvania Museum of Archeology and Anthropology.

Funding from Tru Vue Inc. will further strengthen the preventive conservation curriculum led by Dr. Joelle Wickens. Robin Hodgson, a visiting conservator from Australia generously lent a selection of terrific tools for paintings, paper, and textile conservation, such as textured tips for tacking irons.

Recent curricular reform includes new courses in digital documentation and non-destructive analysis, and seminars led by scientists and conservators aimed at strengthening critical thinking skills and the connection between theory and practice. New grant writing and public engagement workshops at UD enhance these skills, and efforts are underway with Simmons College and the Library of Congress to expand UD's curriculum beyond paper and photographs to library and archives conservation.

Preservation Studies Doctoral Program

Six students are now enrolled, and a seventh, Christina Cole, graduated in May 2010. Receiving acclaim from scientists and anthropologists, Dr. Cole's dissertation investigated dyes used in Eastern Woodlands Native American quillwork, disproving past assumptions about indigenous techniques used for this material, and devising a unique approach to the analysis of miniscule samples of organic materials.

Additional doctoral dissertation topics include: Tatiana Ausema on the techniques of Morris Louis, Amanda Norbutus on coatings for outdoor murals, Dawn Rogala on the techniques of Hans Hofmann, Richard Wolbers on issues in cleaning acrylic emulsion paint films, and two students with historic preservation focus: Melissa Blair on preservation of domestic outbuildings (spring houses, bake houses, etc.) and Marina Dobronovskaya on the reconstruction of Soviet cities following WWII.

Undergraduate Engagement

New courses in scientific illustration and chemistry in art enrich UD's undergraduate curriculum; e-portfolios will be instituted in fall 2010 to improve student reflection, teaching, and job placement. Undergraduate students assisted the Newark Historical Society with collections management and exhibition production and with the preservation of collections nationally, including in Yosemite National Park and Ossabaw Island, Georgia.

Faculty Appointments

New adjunct faculty appointments effective September 2010 include: Ellen Cunningham–Kruppa in library and archives preservation, Dr. Chris Petersen in scientific analysis especially GC-MS, and Dr. Anthony Lagalante associate professor of chemistry at Villanova University who has recently collaborated with Richard Wolbers to analyze acrylic paint samples for surfactant concentrations using LC-MS. Jennifer Jae Gutierrez has been appointed Associate Director of WUDPAC following two years of exceptional service as interim director.

With her newly awarded PhD, Dr. Cole has now been named the first Andrew W. Mellon Fellow in Department of Art at the University of Delaware. This is part of an exciting grant from the Mellon to support two-year teaching residencies at Winterthur/UD and Institute of Fine Arts, New York University in collaboration with Buffalo State College, Queen's University, and UCLA-Getty. The residencies aim to inspire and train the next generation of conservation educators.

Recent faculty scholarship includes the analysis and preservation of the Kennewick Man and works by the Wyeth family of artists, characterization of pigments in the Joy of Life by Matisse at the Barnes Foundation, preservation of architectural drawings, a study of cold plasma fluorination of acrylic paint surface

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materials, and co-editorship of Getty Conservation Institute's third volume in the Readings in Conservation series, *Issues in the Conservation of Photographs*.

Other News

The Department of Art Conservation launched a new website (www.artcons. udel.edu) in the spring of 2010 that includes current news and events about department activities as well as Facebook and Twitter pages.

Debra Hess Norris, dhnorris@udel.edu

Grants & Fellowships

Getty Conservation Institute, Conservation Guest Scholar Program

The Conservation Guest Scholar Program at the Getty Conservation Institute (GCI) supports new ideas and perspectives in the field of conservation, with an emphasis on the visual arts (including sites, buildings, and objects) and the theoretical underpinnings of the field. The program provides an opportunity for professionals to pursue scholarly research in an interdisciplinary manner. Conservation Guest Scholars are in residence at the GCI for a period of three, six, or nine months. These grants are for established conservators, scientists, and professionals who have attained distinction in conservation and allied fields.

- Applications are being accepted: July–November 1, 2010 and are welcome from researchers of all nationalities.
- Information and registration: www.getty.edu/conservation education/scholars

Gerald R. Fitzgerald Travel Grant, Society for the Preservation of Natural History Collections (SPNHC)

SPNHC now has a new travel grant program that permits emerging collections care and conservation professionals to participate in the Society's meetings.

Announced at the society's annual meeting in June 2010, this program was named in honor of Gerald R. Fitzgerald, collections care professional and past president (1992–1994) and founding member of SPNHC. Mr. Fitzgerald worked as a student for the Geological Survey of Canada and the National Museum of Natural Sciences (NMNS). In 1970, he joined the palaeontology staff of the NMNS, later renamed the Canadian Museum of Nature (CMN), and became the first director of the newly created Collections Division in 1991. During his career he produced 23 publications, and presented numerous talks and professional training workshops.

The Society for the Preservation of Natural History Collections (SPNHC) is an international multidisciplinary organization of professionals from 24 countries dedicated to the care of objects derived from the natural world.

For more information see the SPNHC website (http://140.247.98.87/).

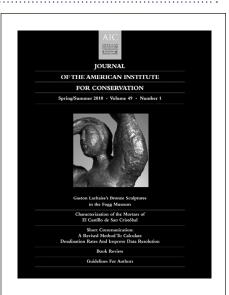
FAIC Samuel H. Kress Conservation Publication Fellowship

Applications for FAIC Samuel H. Kress Conservation Publication Fellowships are due November 1. Guidelines and applications are available at www.conservationus.org or from the AIC office.

The fellowships are designed to give conservation professionals release time from their professional responsibilities in order to complete book-length manuscripts. The maximum fellowship length is eighteen months, so candidates normally need to have all basic research completed prior to the start of the fellowship. Successful applications typically include a detailed outline of the work as well as one or more completed sample chapters. Applicants must be AIC Fellows or Professional Associates.

Thirty-six fellowships have been awarded since the program began in 1994. The projects have added greatly to the breadth and depth of published materials available in the field of conservation.

For more information about the publication fellowships, contact Eric Pourchot, Institutional Advancement Director at epourchot@conservation-us.org or 202-452-9545 ext. 5.



The Spring/Summer 2010 issue of the American Institute for Conservation (JAIC) will be sent to members in November. The Fall/Winter issue will be sent in January, 2011 to current 2010 members.

The editorial decision to produce two issues in 2010 is a reflection of the cycles of production rather than a decrease in submissions. The annual production of three issues of JAIC will resume in 2011. Thank you for your understanding and patience.

NEH Grants for Sustaining Cultural Heritage Collections

NEH grants are available to plan and implement preventive conservation projects that prolong the useful life of humanities collections. Cultural institutions are increasingly interested in sustainable preservation strategies, which balance preservation effectiveness, cost, and environmental impact. And a growing body of research suggests that institutions can develop effective, energy-efficient, and environmentally sensitive preservation measures, particularly for managing the environmental conditions under which collections are stored or exhibited. NEH therefore encourages projects that explore and implement sustainable preservation measures that are designed to mitigate the greatest risks to collections rather than to meet prescriptive targets.

The program offers two kinds of awards:

• Planning grants up to \$40,000

These grants can help institutions identify realistic approaches for mitigating risks to collections; examine passive and low-energy alternatives to conventional energy-intensive systems for managing environmental conditions; and analyze existing climate control systems and the performance characteristics of buildings and building envelopes to develop a plan for improved operation, effectiveness, and energy efficiency.

• Implementation grants up to \$400,000

These grants can support managing interior relative humidity and temperature by passive methods; installing or re-commissioning heating, ventilating, and air conditioning systems; installing storage systems and rehousing collections; improving security and the protection of collections from fire, flood, and other disasters; and upgrading lighting systems and controls to achieve levels suitable for collections that are energy efficient. The deadline is November 16, 2010 and the guidelines are on the NEH Web site: http://www.neh.gov/grants/ guidelines/SCHC.html U.S. nonprofit museums, libraries, and archives, as well as state and local governmental agencies and tribal governments with humanities collections are eligible to apply.

Please contact the division for more information by emailing preservation@ neh.gov or calling 202-606-8570.

Courses, Conferences, & Seminars

2010 PROFESSIONAL DEVELOPMENT WORKSHOPS

The following courses are presented with funds from the FAIC Endowment for Professional Development, which is supported by The Andrew W. Mellon Foundation and by contributions from members and friends of AIC. Full descriptions and registration forms are available on the AIC website (www.conservation-us.org/courses) or from the AIC Office: 202-661-8070.

FAIC WORKSHOPS

- *Characterization of Silver Gelatin Photographs** with various instructors, organized by Erin Murphy, Sept. 30–Oct.1, New York, NY
- New Dates Digital Imaging for Conservation and Museum Professionals* with Dawn Heller and Tim Vitale, Oct. 18–21, Wilmington, DE
- * With financial support from the National Endowment for the Humanities, FAIC offers scholarships up to \$1,000 to help defray registration and travel expenses for participants in the FAIC workshops supported by NEH. All current AIC members who are U.S. residents or citizens are eligible.

FAIC ONLINE

If you've found yourself with fewer funds to travel to workshops with this year, try an FAIC course online from the convenience (and low cost) of your own computer!

• *Establishing a Conservation Practice*, with Sarah Lowengard, Sept. 16–Oct. 14

2011 PROFESSIONAL DEVELOPMENT WORKSHOPS (Preliminary Schedule)

- TechFocus II: Caring for Works on Film, March, Washington, DC
- Conducting General Conservation Assessments, May 17, Pittsburgh, PA
- Hinging and Matting Oversized Works, May 17, Pittsburgh, PA
- Nineteenth Century Negatives, spring, Rochester, NY
- Hands-on Digital Imaging Workshop for Conservators and Museum Professionals, summer 2011, Wilmington, DE

FAIC CO-SPONSORED WORKSHOPS

FAIC supported the following courses—ask the presenting organization for the AIC member discount.

- Microscopy for the Identification of Pigments and Fibers in Art and Artifacts, Sept. 20–24, Campbell Center, Mount Carroll, IL
- *The Use of Bleaching Techniques in Paper Conservation*, Sept. 27–Oct.1, Campbell Center, Mount Carroll, IL
- Revealing Lost Content: Low-Tech Digital Forensics for the Bench Conservator, Sept. 30–Oct. 2, Campbell Center, Mount Carroll, IL
- *Deacidification of Paper*, Oct. 4–8, Campbell Center, Mount Carroll, IL
- *Microscopy for Art Conservators*, Dec.13–17, McCrone Research Institute, Chicago, IL
- Lichens, Lichen Ecology, and the Conservation of Gravestones, August, Steuben, ME
- Conservation of Outdoor Sculpture, East Coast, early fall
- *Removal of Pressure-Sensitive Tapes and Tape Stains from Photographs*, location and dates TBA, early fall 2011

Be on the look out for 2011 FAIC Online Courses to be announced on the AIC website www.conservation-us.org!

COURSES, CONFERENCES, & SEMINARS

CALL FOR PAPERS

Sept. 7–11, 2011. 9th Conference on Lasers in the Conservation of Artworks (LACONA), London.

Submission deadline: Jan. 14, 2011 Contact: abstracts@ lacona9.org or info@ lacona9.org

Oct. 17–22, 2011. *CCI, Symposium 2011: Adhesives and Consolidants for Conservation,* Ottawa, Canada

Submission deadline: Nov. 1, 2010 Contact: www.cci-icc.gc.ca/symposium/2011/index-eng.aspx

Nov. 26–28, 2010. Works of Art and Conservation Science Today, Thessaloniki, Greece

Submission deadline: abstracts Sept. 10, 2010, manuscripts of 4 or 6 pages for the proceedings Oct. 15, 2010. Contact: Roxani Tzimou, roxani@eng. auth.gr, +30 2310996194

Nov. 8–11, 2011. 8th Biennial North American Textile Conservation Conference (NATCC), Plying the Trades: Pulling Together in the 21st Century, Oaxaca de Juarez, Oaxaca, Mexico

Submission deadline: Sept. 10, 2010 Contact: Beth Szuhay, bszuhay@famsf.org

GENERAL

Sept. 7, 2010. *Heritage Science in Scotland*, Glasgow Science Centre Contact: +44 131 6688917, hs.cgevents@ scotland.gsi.gov.uk

Sept. 19–23, 2010. *ICOM*—*CC 16th Triennial Conference*, Lisbon, Portugal Contact: www.icom-cc2011.org

Sept. 20–24, 2010. IIC Congress 2010: Conservation and the Eastern Mediterranean, Istanbul, Turkey Contact: iic@iiconservation.org

contact. Incenconservation.org

Sept. 22–25, 2010. AASLH Annual Meeting, Oklahoma City, OK Contact: www.aaslh.org

Sept. 23–25, 2010. *The Best in Heritage Conference*, Dubrovnik, Croatia Contact: chf@thebestinheritage.com, www.TheBestinHeritage.com

Oct. 6–9, 2010. Association of Midwest Museums and Ohio Museum Association Joint 2010 Conference, Museum Making Connections, Cleveland, OH

Contact: www.midwestmuseums.org

Oct. 10–28, 2010. Saving Mosaics in Museums of the Southern and Eastern Mediterranean, Damascus, Syria Contact: www.iccrom. org/eng/01train_en/ forms_en/2010_10mosaikonSYR_en.doc

Oct. 12–13, 2010. A Space Odyssey: Storage Strategies for Cultural Collections, St. Paul, MN Presented by the Conservation Center for Art and Historic Artifacts in partnership with the Midwest Art Conservation Center, and cosponsored by the Minnesota Historical Society in St. Paul, MN.

Registration Deadline: Sept. 28, 2010 Contact: 215-545-0613, pso@ccaha.org

Oct. 19–22, 2010. ICOM-CC Photographic Materials Working Group (PMWG) Interim Meeting 2010, Benaki Museum, Athens, Greece

Registration: www.icom-cc.org/10/ documents?catId=18&subId=161 Contact: Angeletta Leggio, angeleta. leggio@metmuseum

Oct. 24–25, 2010. ICOM—CC, Polychrome Sculpture: Tool Marks and Construction Techniques Symposium, Maastricht, Germany Contact: info@sral.nl

Oct. 25–27, 2010. 2nd International Conference on Surface Metrology, Worchester Polytechnic Institute, Worchester, MA —Information: http://surfacemetrology.org

Nov. 7–13, 2010. ICOM, Triennial Meeting, Museums for Social Harmony, Shanghai, China Contact: www.icom-cc.org/52/

event/?id=76

Nov. 15–18, 2010. EAS, 2010 Conservation Science Annual at the Eastern Analytical Symposium, Somerset, NJ Contact: www.eas.org

Nov. 19–20, 2010. International Symposium on Heritage Recording and Information Management in the Digital Age (SMARTDoc Heritage), Philadelphia, PA

Contact: Suzanne Hyndman, 215-746-6441, www.smartdocheritage.org

Nov. 26–27, 2010. Painting and Polychrome Sculpture, 1100–1600: Interpretation, Material Histories and Conservation, Oslo, Norway Contact: http://kollandsrud.wordpress. com Nov. 26–28, 2010. Works of Art and Conservation Science Today, Thessaloniki, Greece

Contact: striant@auth.gr, koskina@ arch.auth.gr; +30-2310-995559; (fax) +30-2310-995483

February 3–5, 2011. Salts in Cultural Heritage—Challenge for Research and Practice, Hornemann Institut, Hildesheim, Germany Contact: www. hornemann-institut. dearchitecture

May 17–20, 2011. AIC 39th Annual Meeting, Ethos, Logos, Pathos: Ethical Principles and Critical Thinking in Conservation, Pittsburgh, PA

Contact: www.conservation-us.org

ARCHITECTURE

- Sept. 22–24, 2010. 2nd Historic Mortars Conference, Prague, Czech Republic Contact: hmc2010@itam.cas.cz, +420 283880458
- Feb. 4, 2010. *APTNE Annual Symposium*, Boston, MA

Contact: Mary Jablonski, mjablonski@ jbconservation.com

BOOK AND PAPER

Sept. 13–17, 2010. *Handmade Paper and Paper Covered Binding Workshop*, France Contact: Denise Troughton, +44 1234 831 201 (evenings and weekends), +44 7817 518 250 (mobile), (fax) 44 1234 852 334, d.troughton212@btinternet.com

Nov. 8–12, 2010. Wooden Book Boards: Their Conservation, Historic Construction and the Praxis of Working Wood, Huntington Library, San Marino, CA

Contact: Justin Johnson, jjohnson@huntington.org

OBJECTS

Sept. 15–19, 2010. ICON, Ethnography Group Workshop and One-Day Conference: Basketry Conservation, London, UK

Contact: basketry.reg@googlemail.com Oct. 3–6, 2010. ICOM-CC, Glass and Ceramics Interim Meeting, Corning, NY

Contact: Shana Wilson, wilsonsl@cmog.org

Oct. 6–8, 2010. *Big Stuff 2010*, Imperial War Museum, 1WM Duxford, UK Contact: Chris Knapp, cknapp@iwm.org.uk

COURSES, CONFERENCES, & SEMINARS • POSTITIONS, INTERNSHIPS, & FELLOWSHIPS

Oct. 8–9, 2010. ICOM, Specialists Meeting on Enamels Conservation, New York City, NY

Contact: Agnes Gall-Ortlik, gallortlik@ yahoo.fr, http://icom.museum/calendar. html

Oct. 11–15, 2010. Metal 2010, Interim Meeting of the ICOM-CC Metal Working Group, Charleston, SC

Contact: www.metal2010.org

Oct. 28–29, 2010. *Scientific Research in the Field of Asian Art: Topics in Ancient Metallurgy,* Freer Gallery of Art, Smithsonisan Institution, Washington, DC

Contact: dcsr@si.edu

PAINTINGS

Sept. 16–18, 2010. ICOM–CC Paintings Group Workshop, Current Practice and Recent Developments in the Structural Conservation of Paintings on Canvas Supports, Finland Contact: tannar.ruuben@metropolia.fi

Oct. 1–3, 2010. Seminar on Techniques for Mural Paintings (Fresco and Secco Fresco) (Fresco and Secco Fresco), Athens, Greece

Information: www.timeheritage.gr Contact: Dr. Afroditi Kamara, (email) info@ timeheritage.gr

Dec. 2–4, 2010. *Tudor and Jacobean Painting: Production, Influences and Patronage*, National Portrait Gallery and The Courtauld Institute of Art, London

Contact: Catherine Daunt, National Portrait Gallery, (email) cdaunt@npg.org.uk, (telephone) 020-7312-6629

PHOTOGRAPHIC MATERIALS

Oct. 19–22, 2010. ICOM-CC, Photographic Materials Group Interim Meeting, Athens, Greece

Contact: c.waldthausen@planet.nl

Feb. 2-5, 2011. 2011 Winter Meeting of the Photographic Materials Group of the American Institute for Conservation, Ottowa, Canada Information: http://cool.conservation-us. org/coolaic/sg/pmg/meetings.html

RESEARCH & TECHNICAL STUDIES

Sept. 9–10, 2010. SEM and Microanalysis in the Study of Historical Technology, Materials and Conservation, British Museum, London Contact: www.incca.org, incca@icn.nl

Nov. 29–Dec. 3, 2010. MRS, Materials Research Society Fall Meeting, Boston, MA Contact: info@mrs.org, www.mrs.org/s_ mrs/sec.asp?CID=16777&DID=216967

NEW COURSE LISTINGS

Please note, individual course listings are now listed once a year in print. A complete listing of CCS courses, institutions that offer courses of professional interest to conservation professionals, and contact information is available online at www.conservation-us.org/ccs.

Campbell Center for Historic Preservation Studies

203 East Seminary, Mount Carroll, IL 61053 815-244-1173, 815-244-1619 (fax) registrations@campbellcenter.org www.campbellcenter.org **Sept. 20–24, 2010.** *Microscopy for Pigment and Fiber Identification in Art and Artifacts*

Sept. 27–Oct. 1, 2010. *The Use of Bleaching Techniques in Paper Conservation*

Sept. 30–Oct. 2, 2010. *Revealing Lost Content: Low-Tech Digital Forensics for the Bench Conservator*

Oct. 4-8, 2010. Deacidification of Paper

McCrone Research Institute 2820 S. Michigan Avenue, Chicago, IL 60616 312-842-7100, 312-842-1078 (fax) info@mcri.org, www.mcri.org

Oct. 4–8, 2010. *Advanced Polarized Light Microscopy*

Nov. 1–5, 2010. *Hair and Fiber Microscopy* Nov. 29–Dec. 3, 2010. *Polarized Light and Forensic Microscopy*

Dec. 6–10, 2010. SEM/X-Ray Spectroscopy Dec. 13–17, 2010. Practical Infrared Microspectroscopy —FTIR Dec. 13–17, 2010. Microscopy for Art Conservators

Northeast Document Conservation Center (NEDCC)

Webinars and Workshops

Sept. 22, 2010. Storage and Handling of Collections Materials (webinar)
Sept. 28, 2010. Creating and Maintaining Digital Collections (workshop)
Sept. 30, 2010. Digitizing Vintage Photographs and Negatives (workshop)
Nov. 17, 2010. Pest Management (workshop)
Dec. 15, 2010. Collections Security

Positions, Internships, & Fellowships

THE BROOKLYN MUSEUM

Andrew W. Mellon Conservation Fellowships (2) in Object-Painting-Paper

The Brooklyn Museum announces the opening of two Fellowships in conservation supported by a permanent endowment established by the Andrew W. Mellon Foundation. The two year fellowships, with the possibility of a third year, will be offered in either object, paper, or painting conservation beginning September 2011. The Brooklyn Museum's collection and exhibition schedule offer varied and rewarding educational experiences for emerging conservators. Fellows will be immediately involved in all aspects of the department, working with a diverse professional conservation staff, and interacting with colleagues throughout the institution to preserve and present art work.

Successful candidates should be graduates of a conservation

training program or have equivalent experience. Applications should be sent hard copy and include: a letter of interest, resume, and two letters of recommendation from conservation professionals, along with two detailed conservation condition reports, accompanying treatment proposals and treatment report with full documentation, all carried out completely by the applicant. After initial review, selected applicants will be invited for an interview and portfolio review at the Museum.

The Museum should receive applications no later than December 1, 2010. Candidates will be selected for interviews in January-February 2011, and the final selection awarded in March 2011.

The starting salary is \$33,000/year with full Museum benefits, including annual leave and medical benefits, and a travel allowance of \$2,500 to support professional development. Applications should be sent to:

Conservation Fellowship, The Brooklyn Museum 200 Eastern Parkway Brooklyn, New York, 11238 All further inquiries should be sent to the above address or Conservation.Fellow@brooklynmuseum.org

Brooklyn Museum is an Equal Opportunity Employer. Applicants for positions are considered without regard to race, creed, color, country of origin, sex, age, citizenship, disability or sexual orientation. Candidates of color are strongly encouraged to apply. The Immigration and Control Act (1986) requires that all hires be in conformity with the law.

HARVARD ART MUSEUMS

STRAUS CENTER FOR CONSERVATION AND TECHNICAL STUDIES

Fellowships in Conservation, 2011–2012

The Harvard Art Museums, Straus Center for Conservation and Technical Studies offers three fellowships beginning September 1, 2011 and ending June 30, 2012. Fellowships are divided among the three laboratories: objects and sculpture conservation, paintings conservation, and paper conservation. The Fellow will conduct research and perform treatment on works of art in the Museums' collections. Please note that during this period, the Museums are undergoing renovation and the labs are located at our new off-site facility in Somerville, MA.

The current pay rate is \$1,200 bi-weekly and a modest travel/ research allowance is provided.

Fellows are eligible for Harvard University benefits, including contributory dental and health insurance and access to University resources.

Eligibility

Applicants should be graduates of a recognized conservation training program (master's degree) or have equivalent experience; have a proven record of treatment and research; and proficient English language skills (written and spoken).

Application Procedure

Applicants are responsible for submitting all of the following materials in English:

- Curriculum vitae
- A statement, not to exceed one page single-spaced, summarizing the applicant's interests and intent in the fellowship and their chosen specialization
- Transcripts of both undergraduate and graduate courses of academic study with an explanation of the evaluation system if it is not equivalent to that of the U.S.
- Three letters of recommendation in separate sealed envelopes sent directly from the recommender or included with your application materials
- All applicants must also submit their statement of interest and curriculum vitae online. Job postings can be found at www.employment.harvard.edu. Please search Administrative/Staff Jobs (External Candidates) then by keyword "conservation."

Deadline for receipt of application materials and supporting documents is January 14th, 2011. Incomplete applications will not be considered. Please send application materials and supporting documents to:

Kathleen Kennelly Harvard Art Museums Straus Center for Conservation and Technical Studies

32 Quincy Street, Cambridge, MA 02138-3383 Inquiries may be directed to kathleen_kennelly@harvard.edu (telephone - 617.495.2392; fax - 617.495.0322).

THE METROPOLITAN MUSEUM OF ART

Conservation and Scientific Research Fellowships 2011-2012

The Metropolitan Museum of Art's Conservation and Scientific Research Fellowships provide practical training and hands-on treatment of works of art to junior conservators and scientific researchers in the field. Junior fellowships are intended for those who have completed graduate-level training in conservation. The fellowships also support senior scholars carrying out independent research projects related to the Museum's collections. Senior fellowships are intended for well established professionals, with advanced training in the field and proven publication record. The fields of research for conservation candidates include paintings, paper, objects (including sculpture, metalwork, glass, ceramics, furniture, and archaeological objects), textiles, musical instruments, costumes, and scientific research.

The deadline for conservation and scientific research fellowships is December 3, 2010.

For further information about how to apply for this and other fellowships at The Metropolitan Museum of Art, please visit our website: http://metmuseum.org/education/er_fellowship.asp

Office of Grants and Fellowships The Metropolitan Museum of Art 1000 Fifth Avenue New York, New York 10028-0198 Tel. 212-650-2763 Fax 212-396-5168 Email: Education.Grants@metmuseum.org

THE MUSEUM OF FINE ARTS, HOUSTON

Position Available

Title:	Assistant Conservator, Objects and Sculpture
Reports To:	Objects and Sculpture Conservator
Date Needed:	August 2010
Pay Type:	Salaried, Exempt, Full Time, 35 hours/week
Salary:	Commensurate with Experience and Education
Benefits:	Group Medical and Dental Insurance, Life and Long Term Disability Insurance, Pension Plan, Credit Union, Flexible Compensation Plan, Paid Time Off, Reserve Time Off, and Holiday Pay
Work Schedule:	Monday - Friday, 9:00 a.m 5:00 p.m.
Work Location:	Beck Building, a non-smoking facility

The museum has an encyclopedic collection spanning the history of art from around the world, is very active in new acquisitions, with both permanent galleries including a sculpture garden, and temporary exhibits.

POSTITIONS, INTERNSHIPS, & FELLOWSHIPS

Responsibilities:

- Properly examine, document, conduct research and perform conservation treatment on a broad range of objects
- Monitor and evaluate environmental, storage, exhibition and transit standards for collections
- Examine objects/sculpture for acquisition, loans and traveling exhibitions
- Help to organize supplies and equipment for the laboratory

Skills, Knowledge, and Abilities:

- Provide support and assistance to the Objects and Sculpture Conservator
- A general knowledge of objects and sculpture in all media is required
- Strong verbal and written communication skills are required
- · Computer and imaging skills are necessary
- Able to work well independently as well as with other staff

Education and Experience:

- Must have completed a recognized conservation training program, or have equivalent experience
- A minimum of 2 years post graduate experience is preferred

How to Apply:

Please submit the following:

- Cover letter describing career goals and why this position is of particular interest to you
- Curriculum Vitae
- Contact information for three professional references (letters not necessary)
- Interview with portfolio will be required

Applications should be sent to:

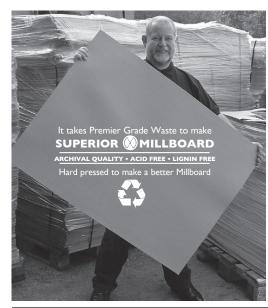
Human Resources Job 016 P.O. Box 6826 Houston, TX 77265-6826 Fax: 713-639-7508 or email: jobs@mfah.org or apply at www. mfah.org/employment.

The MFAH is an Equal Opportunity Employer dedicated to a policy of nondiscrimination in employment on any basis including race, creed, color, age, sex, religion, national origin, handicap or status as a disabled and/orVietnam Era Veteran. For more information, visit our website at www.mfah.org/employment.



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