

President's Letter

Molly Lambert

I'm back from a second trip to the Middle East -- returning home to a host of questions with a common theme. Was it dangerous there? Did you feel threatened? Was it embarrassing to be an American? So I thought I would take a few spaces here to say no. It wasn't dangerous, and I didn't feel threatened. The part about being embarrassed I will leave up to your imagination. Mind you, Egypt has been called the Italy of the Middle East and, at least at the surface, may show more interest in a nice breeze, a hot cup of tea, and some good sheesha (fruit-oil soaked tobacco smoked in a tall water-pipe). While I would not recommend one go in the hot summer months, in my opinion, I think it is good to go. Good for the soul. It is a fascinating place with people getting on with their days in a fundamentally familiar way.

Meanwhile, as you get this Newsletter, WAAC will be experiencing its annual change of guard, and the 2004 Annual Meeting in Santa Fe will be under way or behind us. Many thanks to Pam Skiles, WAAC Secretary, for all of her thoughtful and diligent work that has gone into running the organization and annual meeting this year (and for not minding the nipping dog). Thanks also go to Santa Fe conservators Emily O'Brien and Angelyn Bass Rivera for giving valuable help whenever asked -- opinions, arrangements, and firewood -- you name it. Special thanks to the staff of the conservation lab of the Museums of New Mexico who bent over backwards to help with the meeting and its many events; we all owe them a very nice round of applause. Last but not least, you need to know that credit for the success of this meeting should go to Maureen Russell, without whom I would have been in big trouble. She is better than chocolate.

Your next President is Beverly Perkins, and you will be in good hands as she puts together the 2005 meeting in Cody, Wyoming. Also come October, a few new members of the Board will be taking their WAAC vows, and a new Vice President will be in place. It's all part of the evolutionary process -- one that we hope is as seamless for the membership as possible. WAAC is a remarkable group, and I know that every outgoing President says the same thing each year, but it has truly been a pleasure to serve on this Board of Directors. We are a well-run organization and a source of pride. What could be better?

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Where we are as of 8/19/2004

Domestic members (511 total) western states in bold

California 223	Oregon 18	Ohio 7
New York 41	Arizona 15	Illinois 6
Massachusetts 28	Maryland 15	District of Columbia 5
Texas 24	New Mexico 12	Minnesota 5
Washington 22	Hawaii 12	Missouri 4
Colorado 20	Virginia 8	

3 - Connecticut, Delaware, Georgia, Maine, New Jersey, Pennsylvania, Vermont, Wisconsin
 2 - **Alaska**, Florida, **Idaho**, **Montana**, Rhode Island, Tennessee
 1 - Kansas, Louisiana, Michigan, North Carolina, Nebraska, New Hampshire, **Nevada**, South Carolina, **Utah**, West Virginia

International members (45 total):

Canada 22
 3 - Australia, Switzerland, The Netherlands
 2 - France, New Zealand, Norway, Spain
 1 - Cyprus, England, Germany, Italy, Japan, Sweden

(plus 29 publication exchanges and copies sent to training programs)

A Provisional List of Meeting Talks

Conservation and the work of the light and space artists
Mitchell Hearn Bishop

Repairs on ethnographic objects using abalone veer
Scott Carrlee

Microenvironments for pyrites and other unstable minerals
Tania Collas

Earthquake strapping for collections
Tania Collas and Vicki Gambill

Once upon a mattress: Conservation challenges presented by the treatment of a painting executed on a vinyl mattress
Paula De Cristofaro

An investigation into the tradition of applied decoration to Spanish colonial paintings
Kristy Jeffcoat and Camilla Van Vooren

Preliminary report: The conservation of Helen Lundeberg's mural *History of Transportation*
Andrea Morse, Rosa Lowinger, and Tracy Lucero

Maximum strength relief: A case study for reattaching large heavy cover boards in rare book conservation
Consuela (Chela) Metzger

Presentation on the conservation of four colonial altar screens located in the church of Nuestra Senor de Esquipulis, Chimayo, NM
Claire Munzenrider

Cultural considerations in caring for American Indian objects
Shereilyn Ogden

A team approach: Two African masks from a conservation and education perspective
Paulette Reading and Heather Nielsen

Carved in the cliffs: Conserving the cavates and removing graffiti at Bandelier National Monument
Angelyn Bass Rivera and Larry Humetewa

Healing the whole object: New age conservation in Santa Fe
New Age Conservators Group

A tale of two murals
Victoria Montana Ryan

The Volvo & Xavier Martinez: A conservation tale
Pam Skiles

Using the modular cleaning program
Chris Stavroudis

Mexican mayólica: Investigations into the Puebla blue-on-white style
Mina Thompson

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REGIONAL NEWS
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HEALTH & SAFETY
Chris Stavroudis

ARTICLES YOU MAY HAVE MISSED
Susanne Friend

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Deadline
Contributions for the *January* Newsletter should be received by the Editor before **Nov. 15, 2004**.

Western Association for Art Conservation

The **Western Association for Art Conservation** (formerly, the Western Association of Art Conservators), also known as **WAAC**, was founded in 1974 to bring together conservators practicing in the western United States to exchange ideas, information, and regional news, and to discuss national and international matters of common interest.

PRESIDENT

Molly Lambert

VICE PRESIDENT

Beverly Perkins

SECRETARY

General Information
New Memberships
Publication Orders

Pam Skiles

TREASURER

Change of Address
Payments
Tania Collas

MEMBERS AT LARGE

Nancy Odegaard
Maureen Russell
Chris Stavroudis
Donna Williams

WEB EDITOR

Walter Henry

PUBLICATIONS FULFILLMENTS

Donna Williams

Individual Membership in WAAC costs \$30 per year (\$35 Canada, \$40 overseas) and entitles the member to receive the WAAC Newsletter and the annual Membership Directory, attend the Annual Meeting, vote in elections, and stand for office. Institutional Membership costs \$35 per year (\$40 Canada, \$45 overseas) and entitles the institution to receive the WAAC Newsletter and Membership Directory. For membership or subscription, contact the Secretary.

Internet

Articles and most columns from past issues of WAAC Newsletter are available on-line at the WAAC Website, a part of CoOL (Conservation OnLine) hosted by Stanford University Libraries. WAAC's URL is: <http://palimpsest.stanford.edu/waac/>.

BECOME A FRIEND OF ICOM-CC

The **ICOM Committee for Conservation** (ICOM-CC) (<http://icom-cc.icom.museum>) connects the many and varied conservation-restoration activities dedicated to preserving the tangible and intangible, moveable and immovable cultural heritage of the world.

A membership of one of ICOM-CC's 22 Working Groups (<http://icom-cc.icom.museum/WorkingGroups>) is only possible for those individuals who are full members of the International Council of Museums (ICOM) and who have registered ICOM-CC as their International Committee.

However, now a new membership category has been inaugurated: the **FRIEND OF ICOM-CC** and the **STUDENT FRIEND OF ICOM-CC**.

FRIENDS OF ICOM-CC can connect with this international group of conservator-restorers, conservation scientists, and curators by joining a specialist ICOM-CC Working Group, gaining access to electronic newsletters and notices, and taking part in Working Group activities.

FRIENDS OF ICOM-CC can share their experience and alert the professional community to special issues in their field or region. They will keep up to date with new research and developments.

FRIENDS OF ICOM-CC can join in the debate and activity of a specialist Working Group and help support public outreach and professional education in conservation around the world.

FRIENDS OF ICOM-CC are offered reduced subscription fees for the Triennial Meetings that bring together Working Group members from around the world.

REGISTER IN 2004 AND GET THE 2005 MEMBERSHIP FOR FREE!

A FRIEND OF ICOM-CC membership normally runs over one calendar year. However, taking into account the relative proximity of the ICOM-CC 14th Triennial Meeting in The Hague, The Netherlands, September 2005 (<http://icom-cc.icom.museum/TriennialMeeting>), the ICOM-CC Directory Board has decided to provide FRIENDS full membership of the ICOM-CC network until 31 December 2005 for those who register now. It should be emphasised that membership as a FRIEND OF ICOM-CC will also entitle you to the low ICOM registration fee at the upcoming Triennial Meeting.

To register as a FRIEND OF ICOM-CC contact the ICOM-CC FUND Secretariat (secretariat@icom-cc.org) in Rome. Registration will become effective after the receipt of the registration fee.

The registration fee is:

FRIEND OF ICOM-CC: € 40.00, respectively € 20.00*

STUDENT-FRIEND OF ICOM-CC**: € 25.00, respectively € 10.00*

*The World Development Indicators Database of the World Bank lists countries liable for a reduced fee (http://icom.museum/sec-report02-03_eng.html). The lower fees are also applicable to ICOM members who have chosen another International Committee than ICOM-CC for their free membership. If these ICOM members would want to become an active member of one of ICOM-CC's Working Groups they must also register as a FRIEND OF ICOM-CC.

** To be documented with college/institute (photo) ID. A Student Membership automatically terminates after five years. After expiration the former Student Friend must either become an ICOM member or a Friend of ICOM-CC in order to preserve benefits and membership of the ICOM-CC network.

Subscriptions to Friends of ICOM-CC will support the ICOM-CC Fund, a foundation working purely for charitable purposes aimed at promoting ICOM-CC and its activities and publicising it within the international conservation and restoration community and museums in general, as well as to the public at large.

(Members in the Friends category do not receive the ICOM Museum Card.)

Regional News

WAAC sends a special thank you to **Larry Pace** who did such a fantastic job reporting the news from Hawai'i. It is with a great deal of appreciation that we greet **Laura Gorman** who has agreed to take over as Hawai'i regional reporter.

ARIZONA

Gloria Fraser-Giffords, her assistant **Meredith Milstead**, and pre-program intern **Juliette Cebellos** are working pro-bono for the State of Arizona to preserve a collection of 24 oil paintings. The paintings are from one of the few intact Merci Train state cars, stored at the Arizona Capitol building.

Gloria has encouraged a museum studies student from the University of Arizona to pursue research on the contents of the Arizona car and is currently trying to raise awareness of the conservation issues associated with the objects donated to the car by folks from all over the state. She hopes additional conservators will assist with the project.

Gloria has also been curating an exhibition of nineteenth-century Mexican and New Mexican painting and sculpture for the Museum of New Mexico Traveling Art Exhibit branch. In October her publisher will release her book *Mexican Popular Retablos* in Spain, Mexico, and Argentina. An English version of the book will later be released in the US.

Brynn Bender, of the Western Archeological and Conservation Center (WACC), continues working at the Grand Canyon on the historic river boat conservation program. She has surveyed and will begin treatment of three kayaks this summer. One of the wooden kayaks is only 18" wide! Brynn and assistants **Audrey Harrison** and **Maria Lee** are conserving a collection of 64 prehistoric pots from the Joshua Tree National Park.

Gretchen Voeks and conservation interns **Maggie Kipling** and **Caitlin O'Grady** have been working on the conservation of a collection of 24 tinplated mirrors from Bandelier National Monument. Maggie is also conserving a saddle from Faraway Ranch in the Chiricahua National Monument. Caitlin is conserving a small collection of prehistoric vessels from Casas

Grandes Ruins National Monument and organic objects from Joshua Tree.

Gretchen will return to Kalaupapa National Historic Park this summer to complete a survey of 1300 gravemarkers and write a conservation/maintenance plan for the 20 cemeteries on-site.

Nancy Odegaard has received final approval from the Arizona Board of Regents for the construction of a new conservation laboratory, expected in fall 2005. The lab is busy with the Southwest Pottery Project and is preparing for a large Navajo textile exhibit.

Melissa Huber and Nancy presented a session about the Save America's Treasures projects in Arizona at the Statewide Preservation Conference. **Teresa Moreno** presented a paper about the University of Arizona Emergency Preparedness Plan at the annual meeting of the Society for the Preservation of Natural History Collections and presented her research on the laser cleaning of wax objects at the annual AIC meeting.

Teresa, Nancy, **Julie Unruh**, and others from the lab worked at the Homol'ovi Research Project excavations near Winslow Arizona over a five-week summer period. Summer interns at ASM include: **Sandra Chavez** under the Summer Research Institute program who is working on collections of miniature pottery and **Jaе Anderson** under the NSF Research Experience for Undergraduates program who is working on XRF calibrations for arsenic contamination on various substrate materials.

Dave Smith and Nancy are teaching a semester-long class of spot-testing at the University of Arizona. **Pamela Vandiver** joined the University of Arizona faculty in January. She and Nancy are working on a new Conservation Science doctoral program in the Department of Materials Science and Engineering.

Regional Reporter:
Gretchen Voeks

HAWAII

In April **Rie** and **Larry Pace** gave talks at Musashino Art University in Tokyo. Rie's talk covered a basic introduction to conservation with an emphasis on painting conservation and Larry's covered environmental hazards.

Shortly after returning from Tokyo they flew to the Hawaii Museums Association annual meeting being held this year at Volcano National Park on the Big Island. Larry gave a talk on various treatment problems especially those which seem to be associated with the local environment and fauna.

In June Larry gave a talk to Professor Snowden Hodge's Atelier class at the Windward UH Campus. The class was a summer intensive made up mostly of active painters. Painting materials, techniques, and related conservation topics were covered by Larry in the talk. The original schedule called for 45 minutes of lecture and 15 minutes of questions. The first part worked as planned, but the questions continued for more than 2 hours.

In August, **Alice Tate-Harte** will spend a 6 week internship working with Rie and Larry. Alice has just completed her first year of study in painting conservation at the Courtauld Institute in London.

Laura Gorman and Curator **Sharon Littlefield** hosted a symposium at Shangri La, the estate of Doris Duke in Honolulu, entitled "History and Conservation of Interiors from Ottoman Damascus."

Presenters were **Mecka Baumeister**, who has been working on the Metropolitan Museum of Art's Nur al-Din room; **Stephen Bonadies**, whose Cincinnati Art Museum has recently completed work on their room; **Richard Wolbers**, who presented results of analysis on samples from Shangri La; and **Thomas Tunsch** and **Jutta Maria Schwed**, curator and conservator, respectively, at the Islamic Museum, Berlin, and **Anke Scharrahs**,

private conservator, who are collaborating on the Aleppo Room in Berlin. The symposium will help in planning the treatment of the Damascus and Turkish rooms at Shangri La, which can be seen at the new web site, along with some conservation reports on objects and textiles in the collection, at www.shangrilahawaii.org.

Regional Reporter:
Laura Gorman

GREATER LOS ANGELES

The Sculpture Conservation Studio has been busy working on the *History of Transportation* state grant project. They are about 1/3 of the way finished restoring the 60 panel petrachrome mural. They have had lots of people come to tour the studio and see the conservation work in progress. They welcome anyone to call and would be happy to show the panels in all stages of conservation work. They are also about to start working with the Antelope Valley Indian Museum on a collections protection, movement, and storage plan.

LACMA was well represented at AIC in Portland, Oregon. Nine staff members attended the conference and four presented papers or conducted workshops. **Terry Schaeffer** presented two talks. One talk was delivered to the Book and Paper Group on the experimental use of Microchamber board in passepartout. The paper was co-authored by **Chail Norton** and **Jim Druzik**.

The other talk was presented to the RATS session, an overview of the multiparticipant Lighting for Old Masters Drawings project coordinated by the Getty Conservation Institute.

Yosi Pozeilov, Conservation Photographer, presented a one day workshop, "Digital Photography 101," which was attended by 20 conservators, both from private practices and institutions. The workshop focused mostly on theory but also included hands-on demonstrations. It was very well received, and Yosi is considering future workshops.

Yadin Larochette gave a paper at the Textile Specialty Group on the application of cyclododecane as a temporary barrier during the reduction bleaching of an 18th-century silk-embroidered linen napkin.

Grace Jan, first year student at NYU, worked in Paper Conservation from mid-May to mid-July, with a grant from the Camilla Chandler Frost Summer Internship Program. Her projects included examination of a Tibetan Thangka and treatment of several prints from the Japanese Collection.

Camilla Chandler Frost Intern, **Michael Alan Miller**, spent August and September with Paintings Conservators at LACMA, surveying paintings from the Bernard and Edith Lewin Collection of Mexican art. Alan, a first year postgraduate student at the Courtauld Institute, examined works by Rafael Coronel, Horia Popp, and Jorge Ochoa.

LACMA welcomes three Mellon Fellows this fall. **Chie Ito** starts in Paper Conservation October 1st as Mellon Fellow, working with the new head of Paper, Associate Conservator **Jennifer Koerner**. Chie is from the University of Northumbria conservation program, in Newcastle, England.

The lab is delighted that Yadin Larochette continues her stay at LACMA in Textile Conservation as Mellon Fellow, after completing her third year internship in August. She will be working on a variety of exhibit-oriented projects, including helping install the upcoming *Arts and Crafts Movement in Europe and America* exhibition when it travels to the Delaware Art Museum.

Also, **Natasha Cochran**, finishing her 3rd year internship from Buffalo, starts as a Mellon Fellow in Objects Conservation at the end of September. Natasha spent the month of June in Stymphalos, Greece, working with previously excavated 1st c. bronze and ceramic objects. In August LACMA also welcomed **Ashley Johnson** as a Fellow in Conservation Research, working with Associate Scientist and acting head, **Marc Walton**.

Victoria Blyth Hill, Director of the Conservation Center, traveled to the

People's Republic of China (Tibet) in August, to perform a survey of a private collection.

Sabrina Carli and **Elma O'Donoghue** were both promoted to Associate positions at LACMA in July. Congratulations!

Denise Domergue has closed Conservation of Paintings, Ltd. after 28 years in business. Denise is progressing from conservation to reinvention (of herself). She will devote herself to writing (an ongoing endeavor), and countless other pleasurable pursuits. She knows she will have pangs now and then regarding letting go of conservation, but it's now or never for the NEXT BIG THING. Besides, her son has started college, and her dog needs exercise. So there you have it. She will remain a member of WAAC, of course, so she can keep up with things. To contact Denise: 310-305-3211.

Susan Sayre Batton was the supervising conservator for the exhibition *Painted Poems: Rajput Paintings from the Ramesh and Urmil Kapoor Collection* which opened at the Norton Simon Museum on April 2nd. In conjunction with the exhibition, she gave a lecture at the museum in June illustrating artists' materials and techniques in the creation and conservation of the paintings. There was also a question and answer session with Susan and **Pratapaditya Pal**, the exhibition curator.

The UCLA Fowler Museum of Cultural History has three new conservation interns **Rose Rachal**, **Suzanne Morris**, and **Teresa Duff**. Rose Rachal has completed a B.A. degree in art history at UCLA and is currently working at the Getty Museum in Visitor Services. She plans to enter a master's program in the near future and pursue a career in art conservation.

Suzanne Morris has a B.F.A from Ohio University and has completed 80 hours of painting restoration at Ore e Colore, Florence. She hopes to pursue a career in art conservation and enter a master's program.

Teresa Duff completed a B.A. in art history from UC Berkeley in 2000. After working in Education as a gallery teacher

Regional News, continued

at the Getty Center, she traveled and worked abroad for two years, including one year of teaching in China. Now, back in Los Angeles, she plans on pursuing a career in conservation starting with the internship at the UCLA Fowler Museum.

The Department of Decorative Arts and Sculpture Conservation at the J. Paul Getty Museum initiated and co-organized a four-day workshop on techniques of fabrication and examination of marquetry furniture. The workshop was held in collaboration with the Metropolitan Museum of Art, the Frick Collection, the Institute of Fine Arts (NYU), and the American Institute for Conservation and took place in New York City, March 19-22, 2004.

The instructor was **Yannick Chastang**, formerly of the Wallace Collection in London and now in private practice. The workshop included slide lectures on the history and conservation of marquetry, practical cutting exercises, and one and a half days of connoisseurship study in the collections of the Metropolitan and the Frick.

Arlen Heginbotham and **Didier Pousset**, a dendrochronologist in Sheffield, England, gave a talk at the Getty Museum entitled "A reinterpretation of the J. Paul Getty Museum's Renaissance Burgundian cabinet based on dendrochronology and other methods of technical analysis." Long thought to be a 19th-century pastiche of a Renaissance piece, the presentation outlined the recent technical study of the cabinet that has shown that it is actually an extremely important authentic work dating to 1580 and that it was probably made by one of the most celebrated craftsmen of the period, Hugues Sambin.

Julie Wolfe is researching the properties of fillers for B-72 based stone fills for indoor applications. A student from UCLA, **Talitha O'Connor**, is assisting with the project during her summer internship. The properties of a variety of materials such as fumed silicas, marble powders, cellulose powder, and micro-balloons are being analyzed in resin for color, translucency, hardness, and slump. The goal is to chart these properties in a way that conservators can reference and

apply fillers in a controlled manner for specific applications.

For the second time, during the first three weeks of May, a group of American and Canadian conservators and curators, accompanied by one conservation student and one furniture maker toured French museums, private collections, conservation centers, private workshops, training programs, and suppliers to the field. The trip was organized by **Brian Considine**, **David Bayne** of the N.Y. State Parks and Recreation Department's Conservation Center at Peeble's Island, and **Paul Miller**, Curator of the Preservation Society of Newport (R.I.) under the auspices of the Wooden Artifacts Group of the AIC.

The trip was supported by grants from the F.A.I.C. and the Florence Gould Foundation. The group was based principally in Paris, but made trips to Lyon, Grenoble, Nancy, Bordeaux, La Rochelle, and Rennes. As with the first trip in 2001, participants had the opportunity to see a great deal of 18th-century furniture and decorative arts and the professional world that surrounds these collections. It was an excellent opportunity for both the participants and hosts to make connections as there was a reception for all of the hosts near the end of the trip. A report on the trip will be available shortly through the Wooden Artifacts Group.

Regional Reporter:
Virginia Rasmussen

NEW MEXICO

The Conservation Lab of the Museum of New Mexico has had a busy spring and summer. Under the direction of MNM's Chief Conservator, **Claire Munzenrieder**, and **Marina Ochoa** of the Catholic Archdiocese of Santa Fe and with the assistance of five New Mexican Santeros, the lab completed a seven-month long conservation project of the Santuario de Chimayo. The church, built in 1815, is one of the most popular visitor sites in the state of New Mexico.

Maureen Russell, Senior Conservator has been busy teaching workshops on courier training, marking and labeling 3-dimensional objects, and a handling of artifacts workshop. She has also been advising on several current exhibitions including *Beauty Within: Masterpieces from the Museum of Indian Arts and Culture* and *Nicholas and Alexandra, At Home with the Russian Tsar and His Family* at the Museum of Fine Arts and of the demolition of the Armory building behind the Palace of the Governors. Maureen is the local program chair for the upcoming WAAC annual meeting in Santa Fe at the beginning of October.

Associate Conservator, **Mina Thompson** returned from maternity leave after the birth of her son, Miles. She has been advising on the construction of the new conservation lab in the NM History Museum. She is consulting on several exhibitions including the *Fiesta de Santa Fe*, a traveling exhibit on the history of the retablo, and the opening exhibits of the new state monument El Camino Real. Mina will travel to Tucson in August to install the first venue of the traveling exhibit, *Cerámica y Cultura: The Story of Spanish and Mexican Mayólica*.

Assistant Conservator, **Larry Humetewa** and 3rd year Intern, **Conor McMahon** treated approximately 100 artifacts for the *Beauty Within* exhibition at MIAC including Native American beaded leathers, ceramics, silver jewelry, and basketry.

Larry is spending his fourth summer working at the Bandelier National Monument with the University of Pennsylvania Field School and Vanishing Treasures Program. Larry is performing graffiti mitigation on cave walls. Conor will join Larry on the project later this summer. He recently completed an architectural conservation course titled, "Preservation Technologies and Adaptive Re-Use" at the U. of New Mexico School of Architecture in Albuquerque. We are pleased that Conor has accepted a Fellowship with the Museum of New Mexico next year.

The Conservation Lab is pleased to welcome both **Paula Hobart** and **Angela Elliott** of the Buffalo State College Art Conservation program for their third-year internships.

Contract objects conservator, **Emily O'Brien** is awaiting the birth of her first child.

The Conservation Lab was sad to say good-bye to **Teresa Myers** who had been part of the lab for the last 3 years. She began as a third-year intern and continued on contract. Teresa has returned to her home state of Maine to set up private practice.

As of mid-August, **Laura Downey Staneff** will devote herself full-time to her private business, Silverpoint Art Conservation LLC. Laura had been at the UNM Art Museum since the fall of 2001, most recently as part-time staff. Laura has welcomed **Camille Moore**, a student at the NYU conservation program, for a summer internship. Camille has worked on a number of treatments in the University of New Mexico Art Museum collection.

Bettina Raphael has been working with the Heard Museum in Phoenix, AZ, preparing items from their ethnographic and archaeological collections for the re-installation of the Heard's permanent exhibition scheduled to open May 2005. An interesting aspect of this project has involved the collaboration with a Hopi kachina carver, **Delbridge Honani**, in determining the appropriate appearance, stabilization, and care of the Heard's extensive collection of kachina dolls, including the replacement of some missing parts by the carver. She is also working on a project to treat the most unstable kachinas from the collection of the School of American Research through grants from the IMLS and the Getty Grant Program.

Susan Barger has been elected to serve as the Vice Chair of the AIC's Conservators in Private Practice. She is also the local arrangements person for the first off-year meeting of the CIPP, which will be held in Santa Fe on September 30, immediately preceding the WAAC annual meeting in October.

Regional Reporter:
M. Susan Barger

PACIFIC NORTHWEST

Betty Walsh writes that **Kasey Brewer** will start work as the new Chief of Conservation Services at the Royal British Columbia Museum on July 12, 2004. Kasey was formerly the Conservator at the Royal Saskatchewan Museum in Regina.

Monica Shah spent several days in Eagle, Alaska working on a 1909 paper mache relief map of that area. The map is quite large, which presented a challenge for the conservation treatment.

Emily Ramos is a new addition to the conservation scene in Anchorage. Her specialty is paper and archives, and she is presently working part time at the archives of the Anchorage Museum of History and Art. She will be coming to Juneau in July to do a conservation assessment of the State Archive collection.

Sean Charrette at the Museum of the Aleutians is busy adding collections information into their new Past Perfect database. He is also gearing up for a collection survey to update the conservation priorities.

Ellen Carrlee has been working on outdoor sculpture this spring. She has taken advantage of an amazing streak of nice weather in Juneau to clean and coat a bronze statue of a bear and a small totem pole.

Scott Carrlee spent the month of April on a climbing expedition in Nepal.

Ellen, Scott, Emily, and Monica all attended the AIC meeting in Portland. This must have been the most Alaskan representation ever at an AIC meeting.

Linda Roundhill has been busier than ever with new private clients, completing the treatment of a set of lead garden sculptures, conserving items for a new exhibition at the Museum of Flight in Seattle, and having the honor of doing some work for the Samish Indian Nation. In her function as Conservation Tech for the Seattle Mayor's Office of Arts & Cultural Affairs, **Corine Landrieu** will be working this summer on a Haida totem pole, located at Seattle's Montlake Cut,

as well as on the Pioneer Square pole on 1st and Yesler in Downtown Seattle. She will also be investigating the treatment options for a 17' x 60' Venetian glass mosaic outdoor mural located at the Seattle Center, which has been severely affected by salts leaching from its concrete support.

The AIC Local Organizing Committee and **J. Claire Dean** (Chair) are recovering from a very successful AIC annual meeting in Portland. Claire would like to thank all WAAC members who volunteered their time to help with this meeting and were crucial in making it a success. She will now be spending much of the summer carrying out field work for the Confederated Tribes of the Umatilla Indian Reservation before heading to Africa in October.

Susie Lunas lectured at **Jan Cavanaugh's** course in the history of conservation at the University of Oregon on July 13. The topic was the contrasting nature of painting and book conservation, focusing on differing object function, object-based treatment criteria, and funding logistics.

Regional Reporter:
Peter Malarkey

ROCKY MOUNTAIN REGION

Judy Greenfield, Camilla Van Vooren, and **Eileen Clancy** surveyed the facility and collections of the National Cowboy Museum and Western Heritage Center in Oklahoma City the week of June 21st.

Barbara Johnson reports that she offered conservation services during a seven week stay in India. She assessed storage and display conditions, performed an object-specific condition survey, and provided care and handling trainings for the sculptures, pictures, and various sacred, yoga, and meditation artifacts at Gurudev Siddha Peeth ashram. Her recommendations initiated renovations to create a new storage space, a freezing program for insect eradication, and a greater awareness of preventative conservation for all the collections.

Carl Patterson reports that although nearly two years remain until the museum opens to the public, conservators at the Denver Art Museum continue to prepare collections for the new galleries in the museum's addition. Designed by **Daniel Lebiskind**, new spaces present more than the usual challenges for conservation as designers push all recognized limits.

Staff have managed to find time for other professional pursuits. **Jessica Fletcher** and Carl Patterson continue providing articles for the regional museum newsletters on conservation and collections care and doing the occasional CAP survey.

Carl continues to serve on the boards of the Denver Fire Fighters Museum, Colorado-Wyoming Association of Museums, and the Mountain-Plains Museums Association. Jessica's work has her concentrating on Pueblo ceramics of all dates, but with a concentration on contemporary pieces.

Summer interns at the DAM included **Karin Quissell**, pre-program conservation student from Carnegie Mellon U., and **Megan Emery** who just completed a 20-day option for a 3rd year internship from the State University of New York at Buffalo. DAM 3rd year Buffalo intern, **Paulette Reading**, is currently at the National Museum of the American Indian for her 20-day option.

Barbara Johnson is helping the museum complete a complicated treatment on the ten-piece *Plunge* by Robert Smithson. It is due to travel to several venues this year. Surfaces are ultra matte black and show every fingerprint and mark.

Summer is a time for weddings at the DAM conservation lab. Paulette Reading and **Devon Cox** were married on June 19th on a ranch in southern Colorado. **Kristy Jeffcoat**, our Kress Fellow, will marry **Dan Sterns** in Taos, New Mexico on August 13th.

Regional Reporter:
Eileen Clancy

SAN DIEGO

Paintings Conservator **Nora Jean Smith** attended the 32nd Annual Meeting of the AIC in Portland, Oregon. She had high praise for the meeting and especially for the Paintings Specialty Group reception at Gamblin Artists Colors Company.

Betsy Court, Alexis Miller, Judy Dion, and **Beverly Perkins** attended the AIC meeting in Portland. They all had a great time. Bev attended the inaugural meeting of the AIC Emergency Education Committee (EEC!). This committee is working on ways to advance the training of AIC members who might be called upon to respond to an emergency.

Bev visited the Buffalo Bill Historical Center in Cody, Wyoming. The staff of the BBHC is very enthusiastic about the prospect of the WAAC meeting coming to Cody in 2005.

Regional Reporter:
Frances Prichett

SAN FRANCISCO BAY AREA

In May **Debra Evans** and **Jim Bernstein** taught a 4-day AIC sponsored workshop, "Mastering Inpainting for Works on Paper," at the paper conservation lab at the Legion of Honor.

Also in May, **Roy Perkinson** delivered a Docent Council lecture, entitled "What you see is not what you get: Deceptive restorations and alterations in old master prints" at the Legion of Honor.

Bonnie Baskin will be working through June 2005 in Cambodia, where she'll finish a three-year project to establish a ceramics conservation lab, train three conservators, and, with these assistants, teach archaeology undergraduates and international staff at Angkor how to care properly for excavated pottery. The project has been sponsored by the Honolulu Academy of Arts (through a Carpenter Foundation grant) and by the Global Heritage Fund.

Will Shank has spent the summer preparing for a conservation-based exhibition, *A Hidden Picasso*, which will premiere at the Guggenheim Museum in Bilbao during the September I.I.C. conference. Will is the curator of the exhibition, which explains the hidden image in a twice-painted painting from 1900, SFMOMA's *Rue de Montmartre*. He has worked with SFMOMA's conservation, registration, and education staff in order to study the painting and to produce a color version of the radiograph, which suggests the presence of a complete composition, unseen since 1900, beneath the painting.

Staff conservators at the Asian Art Museum of San Francisco **Donna Strahan, Mark Fenn, Debra Fox,** and **Margaret Geiss-Mooney** have created a special exhibition entitled: *Fakes, Copies and Question Marks: Forensic Investigations of Asian Art*. It opens September 25 and will run through March 27, 2005. This summer they have had the excellent assistance of **Sarah Freeman** (Buffalo State College), **Sonya Issaeva, Grace Jan** (New York University), **Erin Jue** (New York University), and **Allison Lewis** on a variety of projects.

At the Oakland Museum of California Conservation Center, **Milada Machova** and **Pam Skiles** have been working on several 18th-century paintings from Mission Santa Clara in the collection of the DeSaisset Museum and have applied for an additional grant to treat eight more this coming year. Milada and Pam have also been working on paintings in the Museum of California collections by Sam Francis, Arthur Mathews, Mel Ramos, Alfred Rodriguez, and Toby Rosenthal.

After 18 years as Professor in the John F. Kennedy Museum Studies Graduate Program, **John Burke** has "retired," and passed the reins to **Alina Remba**, who has taught the paintings portion of the Preventive Conservation course for several years now. John has been working on the repair and installation of several outdoor sculptures from the collection, including a new acquisition by Fletcher Benton, and some complex multimedia works by David Ireland John for a recent exhibition. John also recently conducted a survey of selected objects in the collection of Hoover Dam, in Boulder City,

NV, and is preparing for a CAP survey of non-living collections at the Lindsay Wildlife Museum in Walnut Creek, CA.

Julie Trosper is currently attending the two week course "Ancient and Historic Metals: Technology, Microstructure, and Corrosion" at the UCLA Summer Institute. Julie has also been working on some Native American baskets for Marshall Gold Discovery SGP, a turn of the century model of Oakland's City Hall, and a series of artifacts for the museum's upcoming exhibition on Vietnam, including some oversized political puppets from the S.F. Mime Troupe.

The OMCC lab has been awarded two State of California contracts: one to treat a large portrait of General Bidwell, which hangs in the Bidwell Mansion in Chico, CA, and the other to work on an objects at Jack London State Historic Park in Glen Ellen, CA. The OMCC conservator team, in collaboration with architectural conservator **Molly Lambert**, have been chosen to conduct an assessment and present recommendations for maintenance of outdoor sculpture belonging to the City of Emeryville.

Regional Reporter:
Charlotte S. Ameringer

TEXAS

Cheryl Carrabba of Carrabba Conservation Inc. announces the addition of **Lauren Morales**, paper conservator from Mexico City for a one year internship. Her prior experience at Mexico's National Conservation Center and as a private conservator brings timely assistance to CCI. And congratulations to CCI's previous intern, **Franziska Butze**, on her appointment to an 18 month internship with **Dag Ernst-Peterson** at the Herzog August Bibliothek in Wolfenbuettel, Germany. She will be truly missed. She also notes that her email address has changed: conservation@austin.rr.com.

Helen Houp reports that she has upgraded to DSL and adopted a domain name for her practice. She can now be reached at helen@pixfix.org.

In April, **Mark van Gelder** opened his studio for an evening adult education program hosted by ArtView of Austin and spoke with the participants about paintings conservation. Mark also participated in a panel presentation conducted by the Fine Arts Career Services department of the University of Texas at Austin. The presentation to about 50 students was entitled "Careers in the for-profit art sector."

Stephanie Watkins reports that **Jane Boyd** has been hired to work part-time in paper conservation at the Harry Ransom Humanities Research Center. Jane was one of the first hired trainees to the conservation department in the early 1980's and has previous experience at Book Lab in Austin and in private practice. We are pleased she has returned to her roots.

Sandra R. Blackard, Art Conservation Consultant, completed two general conservation assessments for Texas institutions earlier this year. In March, she traveled to Fort Worth for an independently contracted assessment of the library of the Botanical Research Institute of Texas. In July, she traveled to the **Allan Shivers** Library and Memorial Museum in Woodville for a Conservation Assessment Program (CAP) on-site visit with Architectural Assessor **Rick Wright** of Dallas. Written assessment reports followed each visit.

Chela Metzger reports the following items from the University of Texas School of Information Preservation and Conservation Studies Program: Recent graduates of the PCS program are: **Maria Esteva**, **Sara Cunningham**, **Victoria Naipavel-Heiduschke**, **Jay Koenig** in Preservation Administration and **Melissa Bradshaw** in Conservation. New PCS students starting Fall 2004 in Preservation Administration are: **Vivian Spolanski**, **Ben Bahlmann**, **Holly Ovalle**, **Bryce Spencer**, **Debra Reynolds**. New students in Conservation are: **Tish Brewer**, **Erin Hammeke**, **Cara L. Johnson**, **Katherine Kelly**, **Alison Kilman**, **Andrea Knowlton**, **Carie McGinnis**, **Ann Wilker**.

Chela also notes that the following students have begun their practicums/internships: **Brandon Burke** - Library of Congress, practicum in Audio preservation; **Lauren Streusand**, National

Archives of the US, College Park, MD; **Abby Haywood**, Newberry Library, Chicago, IL; **Wendy Kraemer**, Harvard University Libraries, Boston, MA; **Linda Barone**, American Museum of Natural History, NYC.

Regional Reporter:
Ken Grant

=====

This issue, 26/3, is the 31st *Newsletter* I have produced as editor, marking the beginning of my 11th year in the job. As a bit of celebratory self-indulgence, I am including here one of my favorite jokes.

Carolyn

A man is walking by a farm and sees in the farmyard a pig with a wooden leg. Intrigued, he goes over to talk to the farmer.

"I'm really curious sir, what's the story of the pig with the wooden leg?"

"Well now mister, that pig there is no ordinary pig. You see, one day my daughter was playing by the pond and fell in. She can't swim, and she was in trouble. That pig jumped in the pond, swam over, and pulled her out. If it weren't for that pig, my daughter would have drowned."

"Wow, that's amazing."

"Not only that, but the barn caught on fire one day, and my son was trapped inside, couldn't get out. That pig stuck its snout against the door and pushed just enough so that my son could squeeze through. If it weren't for that pig, my son would have been trapped, wouldn't have made it"

"O.K., I think I understand. So when the pig got hurt, as thanks for what it had done, you made it a wooden leg."

"Well, no.... it's just a pig like that you don't eat all at once."

Technical Exchange

Here are a couple of items seen at vendors booths during the annual AIC conference in Portland.

Albrecht Gumlich, column editor

Water Sprayer

Hand held bottle set under pressure by manual pump creating adjustable fine and consistent mist. Used in paper and textile conservation, woodwork, and more.

The plastic sprayer is an alternative to the top notch *Kuramata Sprayer* or *Dahlia Sprayer* at less than half of the price.

Advantages:

- The empty plastic sprayer is lighter than a metal sprayer of similar size.
- Large fill capacity: 1 liter.
- Bottle is translucent, which allows you to check the water level.
- Mist is adjustable. If you screw the nozzle tight, it will give a very fine mist and spread widely. If you loosen the nozzle, the mist will be coarse and the spread narrow.

Disadvantages:

- The sprayer is not recommended for alkalis, acids, agricultural chemicals, detergents, creosote, or cresol.
- Also, the plastic sprayer does not come with any replacement parts.

Price: \$71.50

Hiromi Paper International offers a price reduction of 22% for the first 20 orders of the plastic spray bottle. (~\$56, add ~\$18 for tax and shipping.) Please ask for the discount referring to the *WAAC Newsletter*. You can order by telephone (310) 998-0098, fax, (310) 998-0028, or online: www.hiromipaper.com.



Health and Safety

Cooking and Nerts

I recently visited a friend. Shall we say she is cuisine-ially challenged? Perhaps not so much challenged as uninterested. Certainly, she can differentiate a better meal from a plain meal, but preparing the former is neither a forte nor even an interest of hers.

On this recent visit, I offered to cook dinner. Not for reasons of self-preservation. No one leaves her table ill or hungry or even not sated; one just doesn't leave with that feeling of having enjoyed the calories, the fats, the carbs.

I knew where the kitchen was. It was clean. It had all the parts: sink, stove, refrigerator, pots, pans, plates. But it was horrid. A frying pan with a base so thin that I could practically see the electric burner below. A knife so wonky (and I wouldn't have believed it possible if I hadn't seen it myself) that it couldn't make a straight slice of a tomato, zucchini, or onion. No one could cook under those conditions.

By now, you are probably wondering: What has this to do with health and safety?

Without the proper tools, you simply can't do what you need to do. Sure, I muddled through preparing the dinner without my beloved All-Clad saucier or a good, true, chef's knife, but I couldn't cook under conditions like those day in and day out.

And then it hit me. My friend simply can't cook. Let me rephrase that. Even if she were inclined to cook, or needed to cook, and knew how to cook, she could not. Even if her spirit were willing, her kitchen is weak.

The same holds true for health and safety. If you don't have a HEPA vacuum, how can you safely clean-up? What if you don't have a disposal container in which to dump your yucky used swabs? If you don't have a separate stash of cotton and swabs exclusively for spit cleaning, how can you know what you are putting in your mouth?

Paste Stirrer

The following gadget may not be an acquire-once-in-a-lifetime-quality tool, but it is an interesting and cheap alternative to the heavy-duty (heavy-price) *Cook 'N' Stir* Paste Cooker.

This saucepan stirrer, *StirChef* operates cordlessly. It runs on batteries in continuous or intermittent mode.

Create starch paste in your own saucepan or double-boiler. Place starch and water in a saucepan, choose paddle size, and place stirrer over pan with paddle in mixture. Heat mixture to desired temperature as stirrer automatically stirs. You may want to continue stirring as it cools to avoid lumps. Arms adjust to fit 6–8 1/2" diameter saucepans holding 1 1/2–4 1/2 quarts.

Includes stainless steel shaft, 3 heat-resistant paddles (5 1/2"W, 6 3/4"W, 7 1/2"W), silicon splashguard, booklet with in-

structions (and recipes). Operates for 3 1/2–5 hours on 4 AA batteries. (For the sake of the environment use rechargeable batteries whenever you can.) Folds for easy storage.

Price: \$29.95/each (plus tax and shipping). Find *StirChef* (No.: GF-SC200) at www.gaylord.com or contact Christine Allen from Gaylord Bros., Inc. directly - Tel: (315) 634-8258.



Chris Stavroudis, column editor

On another topic: Nerts.

The conservator with whom I apprenticed often talked about nerts - those things that do things - the opposite of inerts. Well, according to an article in *Scientific American* ("Secret ingredients: "inert" compounds may be chemically active - and toxic" August 2003, pp. 22-23), the inerts are starting to look pretty nerty. The article by David J. Epstein discussed what are allowed to pass for inert ingredients in pesticide formulations.

Just how inert do you consider toluene? Well, under present rules it is not required to be listed as an ingredient in a pesticide formulation. This is because the Federal Insecticide, Fungicide, and Rodenticide Act only considers an ingredient active only if it is present to kill the pest. Toluene may be present to dissolve the active ingredient, so it doesn't have to be disclosed.

Here is an example that sounds like lots of the stories on xenoestrogens I discussed in this column a few years ago: Researchers at Texas Tech found that the ubiquitous Round-Up herbicide caused a 90% decrease in the production of certain reproductive hormones in mice exposed to it. However when they exposed mice to the "active" ingredient in Round-Up, there was no decrease in hormone production. The cause? It was the inerts.

As usual, industry says they cannot disclose the composition of the inerts because they are trade secrets. Since 1987 the US Environmental Protection Agency (EPA) has required pesticide manufacturers to register all ingredients with them. The EPA has classified the ingredients into four groups (the full listing of the inerts can be found at <http://www.epa.gov/opprd001/inerts/lists.html>):

List 1 ("of toxicological concern"): There are eight ingredients on the list. Those familiar to conservators include: hexane, Cellosolve, phenol, and chlorobenzene. The presence of any of these inerts are flagged by the warning phrase: "This product contains the toxic inert ingredient (name of inert)" on the label.

List 2 ("potentially toxic"): This list contains over 90 compounds including many solvents we use (toluene, xylene, and all manner of petroleum distillates), benzotriazole, and nonylphenol (of estrogen mimic fame).

List 3 ("of unknown toxicity"): This list of approximately 2000 chemicals includes sodium abietate (one of our "resin soaps"), acetone, the amines we use in Carbopol gels, benzyl alcohol, and naphthalene. And lest you get too concerned, it also includes aloe vera gel, avocado oil, and burnt umber. (It's an odd list, but really shows how little is known about so many ingredients.)

List 4 ("of minimal concern"): A list of over 1000 compounds and a humorous review of potential inerts that include most of the natural oils (e.g., linseed), paprika, thumbtacks, sugar, wait, did I say thumbtacks?

The "List 1" shrank dramatically when manufacturers were required to disclose those ingredients on labels. Many ingredients were formulated out of the pesticide rather than be fully tested and/or disclose their presence.

The Northwest Coalition for Alternatives to Pesticides (NCAP) has petitioned the EPA to require full disclosure of all inerts by pesticide manufacturers and has gone to court to force the EPA to recognize the petition. Personally, I think this would be a very good thing.

So, what do you suppose the MSDS for thumbtacks would look like? The LD50 (lethal dose, 50% kill) must be frightening.

Chris Stavroudis is a conservator in private practice.

WAAC Publications

Handling Guide for Anthropology Collections

Straightforward text is paired with humorous illustrations in 41 pages of "do's and don'ts" of collection handling. A Guide to Handling Anthropological Museum Collections was written by Arizona State Museum conservator Nancy Odegaard and illustrated by conservation technician Grace Katterman. This manual was designed to be used by researchers, docents, volunteers, visitors, students, staff or others who have not received formal training in the handling of museum artifacts. Paper-bound and printed on acid-free stock.

Price, postpaid:
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Nancy Odegaard

Loss Compensation Symposium Postprints

A compilation of the talks comprising the Loss Compensation panel from the 1993 meeting at the Marconi Conference Center, enhanced by a detailed introduction into the history of loss compensation theory written by Patricia Leavengood.

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Moisture Isotherms of Acrylic Emulsion Paints

Introduction

The physical and chemical behavior of modern artists' materials needs to be determined to insure a proper understanding of how paintings made from these materials will behave under different environmental conditions and conservation treatments. Reviews of the subject show changes in dimension and physical and mechanical behavior with moisture content by either changes in relative humidity (RH) or immersion in water (1,2). A previous article described the weight losses encountered in artists' acrylic emulsion paints as they initially dried (3). The data developed in that article indicated that the weight loss process was not complete even after 4 years, but the majority of weight loss had at least occurred within the first year. Since the majority of weight change had occurred in this time, the samples were then considered to be mature with weight changes due only to the loss of less volatile components than water. These four year old acrylic paints were then used to determine the moisture isotherm of 25 different paints with five different pigments.

There is data that demonstrate changes in acrylic emulsion paints with the addition of atmospheric moisture alone. These include increased turbidity, swelling, changes in glass transition temperature, and changes in mechanical properties (1,4,5). The magnitude of these changes can be assessed by the amount of water bound with changes in RH. These changes due to atmospheric moisture should be understood before evaluating the effects of solvent or aqueous conservation treatments.

Materials and Methods

Acrylic emulsion paints were purchased from Golden Acrylics, Winsor & Newton Finitary Artists' acrylic color, Grumbacher Academy acrylics, Liquitex Basics acrylic color, and Dick Blick Artists' acrylic. The paints tested were those described as titanium white, ultramarine blue, burnt sienna, burnt umber, and yellow ochre.

The acrylic emulsion paints were first cast on to mylar strips, and some specimens were also spread on smaller strips with a spatula. These paints were weighed over 4 years until weight losses were minimal. These specimens were then desiccated to an RH of 26% from ambient RH (~45%). The moisture isotherm was then determined. A plexiglas environmental chamber was used to hold the specimens, and equilibrated silica gel was used to control the RH for the ascending and descending values. The ambient temperature was at 21°C. Specimens were weighed after equilibration for 10 days at each RH value. The final moisture isotherm plots were between 16% and 92% RH. Weight measurements were made to 0.1 mg using a Mettler AT 01 balance.

Results

The moisture content of an acrylic paint depends upon the ability of both the pigment and the binding medium to hold water. Earth colors such as yellow ochre, burnt sienna, and burnt umber may contain clays that have the capacity to bind a considerable amount of water while pigments such as titanium white and ultramarine blue bond less water. To ensure that the paints are at equilibrium, 10 days were allowed for moisture diffusion to occur. Figure 1 shows a plot of weight loss versus time for two different burnt umber acrylic paints on changing the RH from 70% to 52%. The plots show that the weight changes are complete within 10 days.

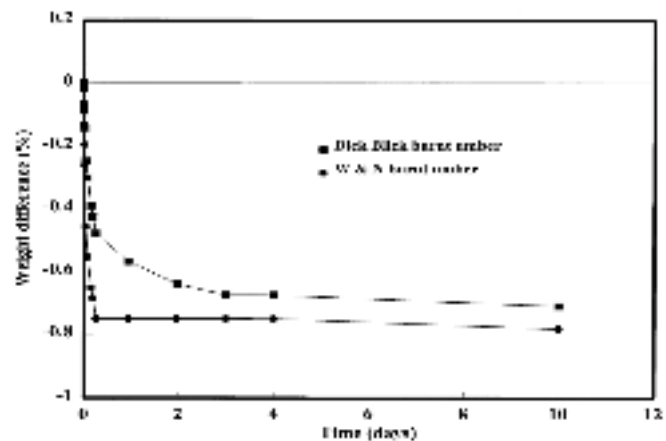


Figure 1 shows a plot of weight loss versus time for two burnt umber acrylic emulsion paints during a change in RH from 70% RH to 52% RH. The plots level off by 10 days.

Figure 2 shows the moisture isotherm plots for 5 different titanium dioxide acrylic emulsion paints. The plots cluster into two groups indicating similar responses to changes in RH. From an environmental point of view there is less than a 1% change in weight between 35% and 60% RH for all paints. The greatest change from 16% to 92% RH was a 4% increase in weight.

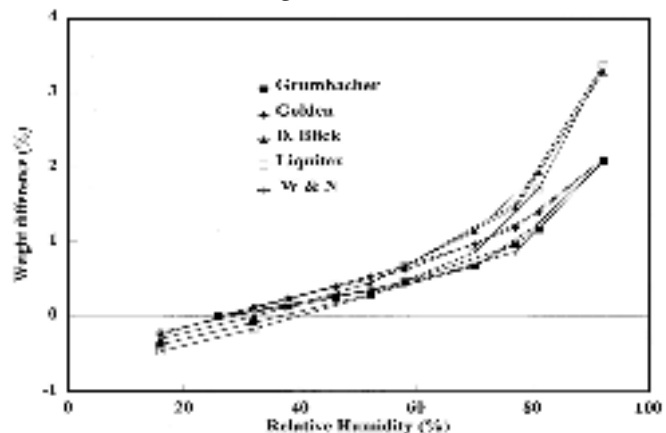


Figure 2 shows moisture isotherm plots for five titanium dioxide acrylic emulsion paints between 16% and 92% RH.

Figure 3 shows similar plots for 5 different ultramarine blue paints with a less clustered grouping of behavior. Again the change in weight between 35% and 60% RH is less than 1%. The greatest change from 16% to 92% RH was also a 4% increase in weight.

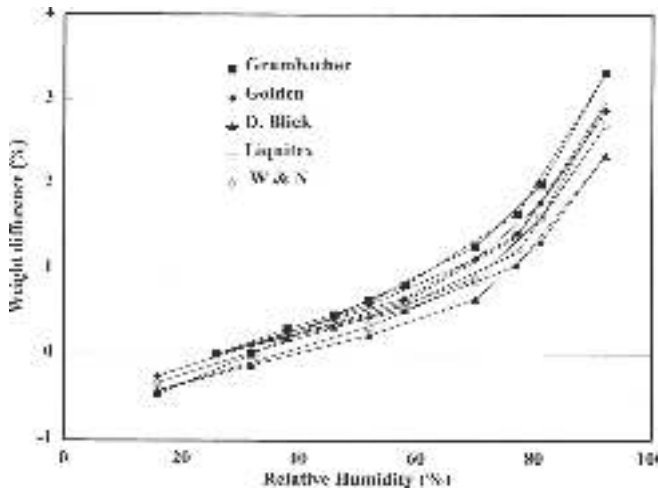


Figure 3 shows moisture isotherm plots for five ultramarine blue acrylic emulsion paints between 16% and 92% RH.

Three earth colors were tested as well. Figure 4 shows the moisture isotherm plots for 5 different burnt umber paints. The plot for the Grumbacher paint only shows the ascending curve because of damage to the specimen when the desorption curve was run. The maximum change in weight between 35% and 60% RH was approximately 1.5%. The maximum weight gain was, however, over 6% for the 16% to 92% isotherm.

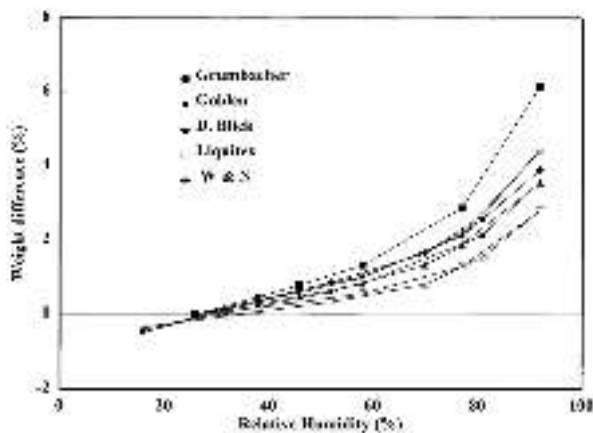


Figure 4 shows moisture isotherm plots for five burnt umber acrylic emulsion paints between 16% and 92% RH.

Figure 5 shows a similar plot for 5 burnt sienna paints. Four of the five plots are very similar but one shows a considerable difference in having a much greater response to moisture. The maximum change in weight between 35% and 60% is about 1%. The maximum weight gain was, however, over 6% for the 16% to 92% isotherm.

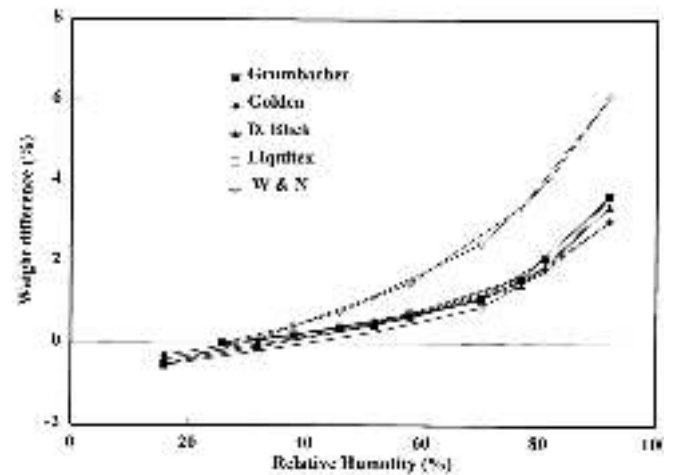


Figure 5 shows moisture isotherm plots for five burnt sienna acrylic emulsion paints between 16% and 92% RH.

Figure 6 shows the final set of isotherm plots for yellow ochre paints. There is less than a 1% change in weight between 35% and 60% RH for each of the paints. The maximum change in weight over the whole isotherm is about 4.5%.

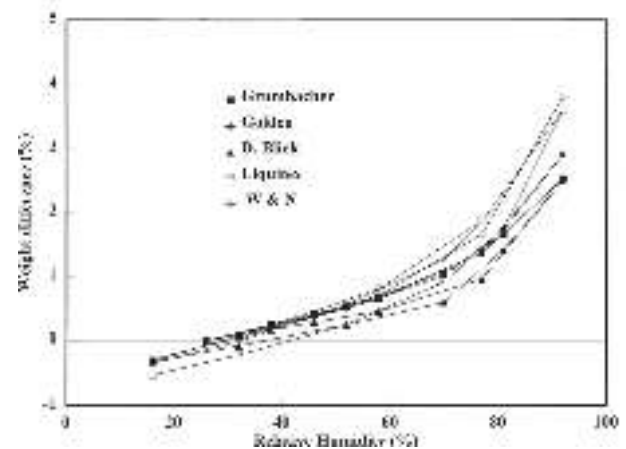


Figure 6 shows moisture isotherm plots for five yellow ochre acrylic emulsion paints between 16% and 92% RH.

Conclusions

Different pigments show different responses to changes in RH with the earth pigments absorbing more moisture. Pigment concentration and/or different sources of pigments may also change this response to moisture.

The moisture isotherms for the acrylic emulsion paints show varying responses to water particularly at high RH, but this response is not as dramatic within the general environmental region of 35% to 60% RH where storage and exhibition take place. Equilibration at high RH can lead to considerable moisture uptake, up to several percent, and this will certainly alter the physical properties of the paint film by swelling or plasticization.

Hysteresis, i.e. different plots for increasing and decreasing moisture content with RH, within the 16% to 92% region seems to be minimal, indicating that the process is reversible within this region. This also indicates that the 10 day equilibrium time was adequate since a non-equilibrated system should show unequal plots.

Experiments at RH above 92% generally showed the formation of mold although this seemed to vary from pigment to pigment and manufacturer to manufacturer.

While our data was collected for a mature acrylic film, the moisture uptake of immature films may interfere with the process of coalescence to form the final continuous film.

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Review: Research & Technical Studies

One of the main messages from the recent AIC annual meeting in Portland, Oregon is that conservation science is alive and strong, with new tools and procedures promising innovative solutions for old problems and questions. For those of us working to support science applications and research, this is every year's message, but it is often diluted by being sprinkled over many specialty group sessions.

This year was no exception. However, the Research and Technical Studies (RATS) session was certainly a place to revel in conservation science's robust health. No doubt the credit belongs to the RATS officers/organizers, Alison Murray, Ellen Chase, and Joseph Swider who provided a focused theme on lighting and drew an impressive international contingent of participants. They also assembled an excellent CD-ROM containing seven of the presentations. Still, a clear vision needs clear content, and the impressive line-up of speakers clearly delivered it.

First there are the new tools. The central theme of the session revolved around lighting practices and light damage and management. There were two papers presenting overviews of current tools - indoor light stability testing by Jeffrey Quill of Q-Panel Lab Products and Mark Gottsegen's paper on using ASTM standards. There are several important organizations that produce only standards such as ANSI, ISO, and ASTM as well as professional organizations that recognize their own unique standard needs such as ASHRAE (American Society of Heating, Refrigerating, and Air Conditioning Engineers). ANSI standards are better known to those who follow photography conservation, and ISO is familiar from its omnipresent attachment to the ISO Blue Wool standards.

But an ASTM resource of considerable value is the subcommittee ASTM D01.57, Artists' Paints and Related Materials. This group, like all ASTM committees, represents a collaboration between users, manufacturers, and scientists, and is the principle voice for quality and safety in traditional media products and accurate labeling of their contents. Conservators often participate in its twice annual meetings but in this reviewer's opinion the attention from the conservation community is not always proportionate to the value we derive from their work.

For fading evaluations ASTM D01.57 provides several standardized test methods. Mark Gottsegen's paper addressed particularly ASTM D 4303 and the strengths and limitations of using the ISO blue wools. Over the last 25 years that the ISO Blue Wools have been used in museum light exposure testing there have been some difficulties with their correlations from exposure condition to exposure condition. Also, two different types of standards have been made and sold that use different dye sets, and wool yellows as it is exposed to light. This makes some visual comparisons more difficult. Nevertheless, the author concludes that the standards are a valid and valuable methods for light

monitoring although more rigorous methods should be used for scientific study and reporting.

A new tool on an old foundation is the next generation light damage calculator being developed by Stefan Michalski at the Canadian Conservation Institute. The venerable plastic slide rule has now been transmogrified to a user-friendly Microsoft Access database with the graphic capabilities we've grown to expect from slick computer applications. This was not the program's debut – rather, an opportunity to catch a glimpse of its mid-development “look and feel” and to offer RATS attendees a chance to input into its final design.

This program will do several clever things but conservators will be lightening quick to demonstrate to their curators the degree of fading of a colorant, as they select from drop-down menus, the colorant, light intensity, and duration of exposure. It then shows you the total number of lux hours of exposure and a simulated color patch of “faded” colorant within a larger patch of the original color. (For the aggressive exhibition curator there will be no joy on that day, I assure you.)

Of course such a tool succeeds or fails on the strength of the database of fading data that powers it. If you hit the button labeled “Detailed Information,” the program serves up a window with images, literature references on the fading specifics for that material, and comments. Potentially anything can be placed here, making not just a gussied-up calculator but the embryo of a full-fledged decision-assisting tool. Such an engine is not a trivial thing to assemble. But innovative design, clever mathematics, and extrapolation from the literature are the hallmarks of Michalski projects, so this will eventually succeed and be popular. It will be very interesting to see how well data produced with methods like Paul Whitmore's micro-fading tester can ever be integrated with more traditional accelerated light fading test results. If they can, the calculator may just be the right vehicle for distributing those results.

Closer to current availability are two light monitors that extend the range much lower than the ISO Blue Wool dosimeters. LightCheck Sensitive™ (LCS) and LightCheck Ultra™ (LCU) were described by Anne-Laurence Dupont. The Centre de Recherches sur la Conservation des Documents Graphique headed by Bertrand Lavédrine has been working on these fading cards for a long time, and they are now practically ready.

Recall, that the most sensitive ISO blue wool #1 produces a “just perceptible fading” at approximately 300,000 lux hours of total exposure. That's good but an even more sensitive dosimeter would be a benefit. LCS operates between 60,000 and 340,000 lux hours while LCU will show you the range between 5,000 and 100,000 lux hours. Suddenly, the conservator is faced with the possibility of having an army of inexpensive dosimeters that

produce meaningful results in hours, days, and weeks rather than months and years. They can even travel with works of art on loan.

The potential for monitoring loans is easy to imagine. If you specified 50 lux for 10 hours per day, 6 exhibition days per week for a six week exhibition, the total dose would be 18000 lux hours of exposure which easily falls into the range for LCU to validate. If instead, the illumination was actually set to 100 lux, or ambient light from elsewhere raised that 50 lux to 100 lux for significant periods of time, the difference would be picked up by LCU and perhaps next time you would be less inclined to loan to that institution. At the time this newsletter goes to press, at least one of these products should be available on the American market.

The last group of new tools, still on the horizon, are light filters and sources for gallery illumination that offer the possibility of acceptable color rendition with less photochemical damage at the same (or even higher) levels of illumination that have been recommended for decades. Since this work, presented by Terry Schaeffer and James Druzik, has been described in Volume 19, Number 1, 2004 of the Getty Conservation Institute's *Conservation Newsletter*, “Illuminating Alternatives,” I won't take up any further space in this review, and the reader is asked to seek out the newsletter for more details.

Assessing photochemical change (1) in new ways, and (2) encompassing more parameters in fade testing were covered in excellent papers presented by Jaap Boon and David Saunders. Jaap Boon has been the driving force behind the Dutch Molecular Aspects of Aging in Painted Works of Art (MOLART) project. MOLART has applied very powerful analytical tools to the study of paint aging, frequently for the first time.

Now Boon's Molecular Paintings Research Group is using photosensitizing agents like dichloromethane and acetone to accelerate photo-aging on varnishes and other painting materials. Using this approach, indigo has been studied in detail, and some varnish resins, “chemically aged,” have been shown to be undistinguishable from naturally aged ones on paintings. Techniques like this show a trend in conservation research to find alternate ways to study aged materials quicker, and as Boon suggests for oil paints, to study the interaction between triglycerides and additives in much more detail.

David Saunders, Principal Scientific Officer of the National Gallery, London discussed work he and Jo Kirby carried out as a series of experiments, varying relative humidity, temperature, light, and binder on selected pigment color changes. In small ways the inter-relationships of these factors can be partially pieced together from earlier research. However, there are few systematic studies, with the exception of those by Kühn in 1968 and Bailie

et al. in 1988. Saunders and Kirby were able to confirm the increased fading rates for several lake pigments and newsprint and the general increased fading with increased relative humidity. For lac lake and red lead this fading, measured at five different relative humidities between 11% and 90%, was large; for vermilion, azurite, lead-tin yellow, and verdigris it was positive but much less pronounced. Only lead white and ultramarine appeared resistant to higher relative humidity and only lead white seemed immune to color change at 60 million lux hours of exposure (the exposure used in the main study for all colorants).

The effects of binders can be both protective or not. There is evidence that azurite in oil is more photochemically vulnerable than in an aqueous medium, and conversely vermilion in oil appears to be less effected by relative humidity. However, one important caveat is that at very high humidity oil in the binder does appear to be more sensitive to hydrolysis thus influencing the overall color change.

One additional finding was the conversion of azurite to a green copper hydroxy chloride in the presence of salt. Given the large numbers of institutions in other climate zones around the world and prevalence of non-air conditioned buildings, it seems this kind of study is both long overdue and in need of a sustained effort on a significant number of pigment classes. Of particular significance to wall paintings conservation, this study underscores how much color change, even in inorganic pigments, is driven by rich combinations of environmental factors.

There were also two tool sets, gaining in significance as more people become familiar with what they can offer and are trained in newer analytical protocols – thermal analysis and gas chromatography-mass spectrometry (GC-MS). Thermal analysis is actually a suite of methods that have been around in modern scientific investigations since the eighteenth century and are front line tools in materials science and the drug industry. Yet, there are relatively few studies using them in conservation research. M. Odlyha, Director, Thermal Methods and Conservation Science Laboratory, Birkbeck College, University of London showed their utility for both parchment and tapestries-related damage assessments.

Mechanical and chemical properties change as a material becomes degraded by light, air pollution, or age. Thermomechanical analysis provides sensitive measures of transitions that measure flexibility and rigidity, such as the glass transition and melting temperatures and the coefficient of linear expansion. Thermogravimetry and differential scanning calorimetry can be used to track changes in thermal stability that, in turn, inform our predictions on ambient temperature long-term stabilities.

Odlyha's group applied these techniques to examine model tapestries of wool and silk, dyed traditionally, when exposed to light, heat, and nitrogen dioxide. She was

able to measure the differences upon aging but also the contribution each dye made to the overall rates. The work continues and shows the potential to use thermal analysis for textile environmental and treatment studies in the future. Again, materials kinetics gaged by thermogravimetry is a fast method to examine stabilizers in mixtures as well as un-stabilizing influences that may extend to artists' fabrication and conservators' cleaning.

GC-MS, once a rare technique in museum labs, is becoming popular enough to see a nascent users group evolving. To some measure this is attributed to procedures and databases developed over the last decade by Michael Schilling's GC-MS group at the Getty Conservation Institute. But it is also due to the amazing power GC-MS has to resolve complex mixtures in microsamples.

A good example was Glenn Gates et al. presentation on the analysis of John Singer Sargent's mural cycle entitled *The Triumph of Religion* at the Boston Public Library. Consisting of seventeen painted canvases and six hundred relief elements the murals were painted in England and later installed under Sargent's supervision. A conservation examination in 1999 detected a carbohydrate surface coating on one wall, and in 2003 it was confirmed to be original. Over the years this layer had become disfiguring so it was decided to reduce, but not totally remove it. Quantitative GC-MS analysis showed it to be a cellulose ether most closely matching carrageen. This contrasts with other walls in the hall that have proteinaceous surface coatings and were illuminated with electric light sources. Since Sargent was responsible for both, it was hypothesized that the carbohydrate was included as a matting agent to reduce glare on those paintings illuminated by daylight.

The last paper in this review was presented by Yunsun Choi of the British Library on issues relating to lightfastness in straw marquetry. Largely a historical review of dyed straw marquetry from the 10th to the 17th century, these artifacts were often produced by prisoners of war who lacked the same level of quality materials available to other craftsmen making similar objects. Hence they have not suffered the travails of time nearly so well.

Since I have strong opinions on these subjects, I must say that Choi's paper underscored the gaps that exist between our understanding of fading, indeed deterioration in general, on artworks versus crafts objects that are often deemed of lesser value and interest. To what extent this may or may not be valid is not for me to say as a scientist, but it is a reality I recognize and hear echoed enough. If our grasp of photochemical deterioration is sadly incomplete for famous artists' watercolors, it is virtually non-existent for most secondary media. The greater facility with which deterioration can be modeled and studied as embodied in many of these papers makes me optimistic that some of these gaps can be filled.

Articles You May Have Missed

“Halting Cultural Evolution; Along the Silk Road, China Begins To Guard Its Heritage,” *The New York Times*, July 15, 2004.

With China's economy expanding and tourism growing even faster, insiders and outsiders worry that China will not take the time and trouble, or have the resources and expertise, to preserve its rich cultural heritage. Much has already been lost.

But success in Dunhuang would help lead the way for other Chinese sites. With its comprehensive approach to managing the site -- including conservation labs, scientific and environmental research arms, fine arts and archaeology institutes, publications and exhibitions units -- “it's a model for the whole of China,” said Li Yang, deputy governor of Gansu province.

The caves -- stretching in tiers for about a mile across the light gold face of Singing Sand Mountain -- had long been abandoned and were largely unknown until about 1900, when a Daoist monk discovered a huge trove of manuscripts in what is today known as the Library Cave.

“Cleaning Of David Finished,” *Yahoo*, (AP), May 24, 2004.

The eight-month cleaning of Michelangelo's statue of David is complete, the museum which houses the Italian Renaissance masterpiece said, almost four months ahead of its 500th anniversary celebrations.

“David's New Look,” *The Guardian* (UK), May 25, 2004.

The overall effect is of a glowing colossus restored to something close to its Renaissance splendour. Visitors to Florence should not expect a dramatic transformation, such as that wrought on Michelangelo's frescoes in the Sistine Chapel in Rome in the 1990s; but, because of the greater uniformity of color, it is easier than before to appreciate the statue's exquisite detail - the vein that stands out ever so slightly on David's upper right arm, for example.

“Maybe It's Time To Switch To Photographs?” *BBC*, July 25, 2004.

Pity the poor British royals. In an era when humans featured on canvas are prone to being portrayed as twisted,

ugly shadows of themselves, royalty is still expected to go out and find an artist of considerable reputation to paint their portraits. It was Prince Philip's turn this year, and he chose portrait specialist Stuart Pearson Wright to commit his royal image to canvas.

Royal spokespersons insist that Prince Philip had seen Pearson Wright's work before selecting him, but the prince was apparently horrified at the artist's first effort. No one is yet showing off that rough draft, but Pearson Wright's signature is to stretch his subjects vertically to distort their features.

“Anyone Want To Protest This One?” *The Guardian* (UK), July 24, 2004.

The noble Rodin sculpture *The Burghers of Calais* made an ignominious exit yesterday from its home of almost a century, hauled out of the gardens beside the Palace of Westminster by a crane, and shipped off to a conservation workshop. The sculpture is being restored to celebrate the centenary of the National Art Collections Fund, which bought it from Rodin as a gift to the nation in 1911.

“Shocker: Survey Says Museum Staffs Paid Horribly,” *The Guardian* (UK), May 4, 2004.

An independent survey published today by the Museums Association reveals that museum and gallery staff earn significantly less than all equivalent professions - such as librarians, university lecturers, journalists - and many earn less in real terms than they did 15 years ago. The MA report shows that starting salaries for highly trained curators and conservators can be too small to pay for all the training the job has required.

“Rebuilding Iraq Museums,” *The Art Newspaper*, April 30, 2004.

The Iraq National Museum could be ready to open in a few months. Physically the building could be opened. The construction work is done. But they don't want to do that until the security contract for physical improvements and upgrades is done. It's up to the Iraq Museum staff to decide when the security situation permits reopening, and how much time they want to put into installing the gallery. Saddam would say, “Have the galleries installed in one month for my birthday.” Now they have time to think about the arrangement.

“The Iraq Museum - One Year Later,” *USA Today*, May 4, 2004.

One year after looters stole some of its most prized antiquities, the Iraq Museum in Baghdad is undergoing a top-to-bottom restoration that its leaders hope will make it one of the premier museums and research centers in the world. The project is being funded by donations from around the world and is not likely to be completed for at least two years.

“Mona Lisa In For Treatment,” *Pretoria News* (AP) (South Africa), May 7, 2004.

Leonardo da Vinci's 500-year-old Mona Lisa is heading for X-ray and a microscope for the first time in a half-century to determine what's causing it to warp.

“Controversial Michelangelo On Show,” *The Guardian* (UK), May 6, 2004.

A small but anatomically perfect wooden Christ on the cross is set to cause a stir in the art world this weekend as it appears in Florence for the first time, billed as a hitherto unknown masterpiece by the city's most famous artist, Michelangelo Buonarroti.

“Major Mayan City Find,” *Discovery*, May 6, 2004.

An Italian archeologist said Tuesday he had uncovered ancient objects that show an unexplored site in Guatemala's Peten region to be one of the most significant preclassic Mayan cities ever found. The city he has discovered could have been home to 10,000 Mayans at its peak, he says.

“Looting Afghanistan: Tricks Of The Trade,” *Institute For War & Peace Reporting*, May 6, 2004.

In Afghanistan, red and white stones are used to warn people where landmines are buried. But instead of protecting civilians, looters are using these symbols to prevent access to sites where they are systematically stealing the country's valuable artefacts. Three years after the world looked on in horror as the Taliban destroyed the giant Bamyán Buddhas, many of the nation's historic treasures continue to be destroyed, this time stolen by looters often aided by local gunmen.

“Saving A Prehistoric Hill By Calling It A Building?” *The Guardian* (UK), May 17, 2004.

Conservationists are attempting to have Silbury Hill in Wiltshire reclassified as a building to protect one of the most enigmatic prehistoric structures in Europe. The move would reclassify the largest manmade mound in Europe.

The guardians of the 4,700-year-old hill have been trying to persuade people to keep off Silbury since 1974, when it was closed to the public, without destroying its appearance with intrusive fencing. The monument came close to destruction three years ago when torrential winter rain seeped into shafts left by earlier excavation, which collapsed. Although English Heritage has carried out repairs, the whole structure is vulnerable.

“Uffizi To Be Greatly Expanded,” *The Art Newspaper*, May 17, 2004.

Italian Prime Minister Silvio Berlusconi has decided that the Uffizi should be expanded to rival the size of the Louvre or British Museum. A proposal to enlarge the Uffizi Gallery in Florence, under discussion since the end of World War II, has been fast-tracked by the Italian government. Mr Berlusconi has announced that the \$72 million project to double the size of the available display space from 6,000 to 13,000 square metres is to be completed by 2006.

“A Badger Takes On City Hall,” *City Pages* (Minneapolis/St. Paul), May 19, 2004.

A 47-year-old, radically queer homeless man named Badger is probably not many people’s first vision of what an artist looks like.

But to the residents of New Orleans, Gainesville, Asheville, Minneapolis, and other cities which Badger has temporarily called home who have been lucky enough to come across his work - large-scale installation pieces, usually constructed of found objects, and usually functional enough to double as a temporary shelter for anyone in need - there is very little question that the man is devoted to his work.

The authorities, however, tend to take a dim view of art which they see as encouraging vagrancy, and this spring, Badger has been facing down the parks board of Minneapolis in a desperate fight to preserve what he creates.

“Picasso Stolen From Workshop,” *The Globe & Mail* (Agence France-Presse), May 20, 2004.

A small Cubist painting by Pablo Picasso has apparently been stolen from a workshop at Paris’s Pompidou Centre, where it was supposed to be restored. The disappearance was only noticed this past week, although no one has seen the painting since January 12. The still-life, entitled *Nature Morte à la Charlotte*, is valued at €2.5 million.

“What Really Happened To The Amber Room,” *The Guardian* (UK), May 22, 2004.

For two centuries, the Amber Room - a chamber entirely panelled in amber - adorned the summer palace of the tsars near St Petersburg until in 1941. When the Germans invaded, it was stolen. Since the war, thousands of treasure hunters have pursued ever wilder theories in search of “the eighth wonder of the world.” Yet it is still missing.

Now, an exhaustive three-year investigation into the fate of the Amber Room has revealed the truth: the room was indeed taken by the Nazis and stored in Germany for a time. But a fire at the castle being used for the storage destroyed the room completely in 1945.

“Police Hunt For Person Who Hung Stealth Pictures In Major Museums,” *New York Post*, June 9, 2004.

A nationwide manhunt is underway for someone who hung paintings of presidents Bush and Clinton in the Metropolitan Museum, Guggenheim, National Gallery in Washington DC, and the Philadelphia Museum of Art.

The paintings — 15 inches by 9 inches — portray the commanders-in-chief on a background of ground-up dollar bills. The wacky spree has prompted a sweeping investigation by the US Secret Service and the FBI, as well as local police in three cities.

“US Military Base Damages Babylon,” *Morning Edition* (NPR), June 6, 2004.

The US military has set up a military base right in the middle of the ancient site of Babylon - an extensive archaeological site. Originally sent to protect the site, the base has done “permanent” damage to a valuable piece of cultural heritage.

“15th-Century Fresco Discovered Behind Pigeon Hole,” *BBC*, June 25, 2004.

A 15th-century fresco has been discovered on the ceiling of the Valencia Cathedral in Spain after art restorers became intrigued with pigeons flying through a hole in what turned out to be a false ceiling. The fresco, which depicts four angels against a starry blue background, was painted by two Italians, Francesco Pagano and Paolo de San Leocadio, in the late 1400s.

“Versailles Restoration Slowed By Feud,” *The Art Newspaper*, June 25, 2004.

Restorations of the gardens around Versailles have been completed. But a feud between restoration firms competing for restoration work inside the palace has delayed work on the Hall of Mirrors. The job, which includes repairs to the paintings, 450 windows, and gold-leaf and stucco work, is scheduled to begin next month and to finish in 2007.

“Earliest Village In American Northwest?” *Seattle Post-Intelligencer*, July 14, 2004.

Workers in western Washington state unearthed one of the earliest villages ever discovered in the Pacific Northwest. Among the artifacts to surface from the grounds of Tse-whit-zen -- a likely former winter village of the Klallam peoples of the upper Olympic Peninsula that carbon dating so far shows could be as old as 1,719 years -- are remnants of a longhouse and at least two other tribal houses crafted from cedar. Discovery of such structures is significant because they may be among the oldest remnants of homes ever found in the Northwest.

“The Caveman’s Sistine Chapel,” *Discovery*, July 13, 2004.

Artwork dating back 13,000 years has been found in a cave in England. The site of the find, Church Hole Cave at Creswell Crags, is being called the *Sistine Chapel* of the Ice Age because it contains the most ornate cave art ceiling in the world. The ceiling extends the earliest rock art in Britain by approximately 8,000 years and suggests that a primary culture unified Europeans during the Ice Age.

Jobs

United States Department of the Interior National Park Service National Center for Preservation Technology and Training

MATERIALS RESEARCH PROGRAM FELLOW

The National Center for Preservation Technology and Training (NCPTT) and Northwestern State University seek an architecture or objects conservator to fill a two-year position (with option for renewal) to develop new technologies that advance historic preservation. Experience in scientific analysis and/or cemetery preservation preferred. The incumbent will develop or continue research projects under the direction of the NCPTT Materials Research Program Manager. The work will focus on developing new technologies for the preservation of houses of worship and cemeteries. Hands-on work will include developing and applying treatments to headstones within cemeteries, and laboratory testing, evaluation and monitoring of preservation treatments. A Masters degree in conservation or preservation is required. Interested applicants should submit cover letter, curriculum vitae, and references to: Mary F. Striegel, NCPTT, 645 College Avenue, Natchitoches, LA 71457. For more information e-mail: mary_striegel@nps.gov or visit our website at <http://www.ncptt.nps.gov>. AA/EOE

PROTECTING CULTURAL COLLECTIONS FROM PESTS AND MOLD. Presented by the California Preservation Program, co-sponsored with the Los Angeles Preservation Network (LAPNet), Berkeley Public Library, and Califa.

Controlling Pests: Where Eating Is Not Permitted

October 18, 2004, Los Angeles

October 21, 2004, Berkeley

This workshop is designed as an introduction to integrated pest management (IPM) for cultural institutions. The IPM approach to preventing and managing pest infestation relies on regular monitoring, documentation, and primarily non-chemical prevention. The workshop will include information on developing an IPM program and a review of pests most often found in cultural collections.

Calendar

Be Prepared: Managing a Mold Invasion

October 19, 2004, Los Angeles

October 22, 2004, Berkeley

This workshop provides an understanding of how and why mold blooms occur and gives strategies for prevention. The immediate responses to inactivate an outbreak will be reviewed in addition to follow-up procedures to prevent future outbreaks. The safety and health hazards will also be underscored. Speaker: Dr. Thomas Parker, President and Entomologist of Pest Control Services, Inc., Lansdowne, PA. Registration at 9:30. Program is 10:00 - 4:00 p.m. Attendance at both workshops is strongly recommended but not required. Registration: \$50.00 (1 workshop); \$85.00 (2 workshops). Pre-registration required; includes lunch. For registration contact Julie Page, jpage@ucsd.edu 858-534-7695

Call for Papers

5th Biennial North American Textile Conservation Conference: Recovering the Past: The Conservation of Archaeological and Ethnographic Textiles.

Nov. 9-11, 2005, Mexico City, Mexico

The fifth biennial North American Textile Conservation Conference (NATCC) will focus on the conservation, research, diffusion, and exhibition of archaeological and ethnographic textiles of every country. Conservators, curators, ethnographers, archaeologists, anthropologists, historians, conservation scientists, and other specialists working with archaeological and ethnographic textiles are invited to submit proposals for presentations on topics that may include: conservation treatments (past, present, and/or under development), analysis and/or documentation, and the curatorial, trafficking, and management issues raised by these textiles. Abstracts up to 250 words in length must be submitted by October 1, 2004. Proposals for posters should also be submitted by this date. Speakers will be notified by December 15, 2004 if their submissions are accepted. Papers will be due April 15, 2005. All submissions should consist of the speaker's name, address, e-mail, telephone and fax number, a short one paragraph biography, the title of the submission, and 250 word abstract. If possible, submit abstracts in both Spanish and English via e-mail (with abstracts attached in RTF format).

Submit abstracts to Shannon Elliott, shannon.elliott@utoronto.ca, Museum Studies Program, Rm 6003 Roberts Library, 130 George Street, University of Toronto. Toronto, ON M5S 3H1 CA.

31st Annual Conference of the Canadian Association for Conservation

2005 Jasper National Park

Papers are invited on all aspects of conservation and conservation science of artifacts, archival material, and works of art. Posters and video presentations are also welcome. This year we would like to invite papers for two specialized sessions: Education and Training, and Moving Collections. Abstracts submissions should include the following: the title of the presentation; the names of all contributors; mailing address, telephone, fax number, and e-mail of the contact person; the name of the presenting author. Abstracts should be between 300 and 500 words and will be published as part of the conference proceedings. The deadline for abstracts is December 31, 2004. Contact: Lee Churchill and Heather Dumka, Program Co-chairs, phone: (403) 268-4183/4185, fax: (403) 265-9769, leec@glenbow.org, hdumka@glenbow.org.

Pre-Conference Workshop

Fur Trade Legacy: The State of Preservation of Organic Materials

The workshop will explore the specialized area of organic materials conservation. The workshop aims to answer questions such as: What advances have been made in conservation treatment of historic furs and feathers? What are the ideal environmental conditions for fur storage? What are the chemical and structural properties of mammal hairs and bird feathers, including their pigmentation, that impact display decisions? What goes wrong with leather? Case studies on cleaning, stabilization and moth control, hands-on identification of fur and feather specimens, planning and maintaining cold storage, and research into the light-fastness of organic pigments will be presented. Submissions will be published in English and French as Preprints. The deadline for abstracts is December 31, 2004. The deadline for final papers is January 31, 2005. Contact: Margot Brunn, Workshop Program, Tel: (780) 453-9167, Fax: (780) 454-6629 Margot.Brunn@gov.ab.ca.