

President's Letter

Scott Carrlee

Dear Membership,

You can stop reading right here. Nobody reads the president's letter anyway. Before Susi started writing about cheese, I never read the president's letter either (sorry all). Most of the presidents' first letters thanked the membership for electing them, (thank you membership!!) and thanked the past president for the hard work in planning the annual meeting (thank you Susi!! It was a great meeting!) and the members of the board for keeping the organization running over the past year. (You are hard-working bunch without whom WAAC would not exist. Thank you, thank you!) I only know all this because I went

back and read the past 10 years of letters before I started writing this one. It is good to give thanks, and I am grateful to be serving as your president and writing this letter.

Though not as historic as the presidential election, WAAC did have a good turnout for this year's election to the board. Marie Laibinis Craft was elected our new vice president. Albrecht Gumlich was elected as a Member at Large and Marie Svoboda re-elected to a second term as Member at Large. Thanks to Dana Senge, Ria German-Carter, and Maria Sheets for their willingness to run for office. Dana will continue as a Member at Large, and Susi, as outgoing president, will fill Marie's place on the board.

Now with that done, I can turn to what I really want to write about. No, it is not cheese, it's my 15 month old son Carson. One of the things I have noticed about him is that he is naturally curious about everything. (I am pretty sure all babies exhibit this tendency but hey, he's the only one I'm watching.) In our house we call him the "baby scientist" because he will spend a considerable amount of time discovering the fundamental nature of things. For example there is an "inside" and an "outside" to things, such as with a box. You can put things in the box or you can take things out of the box. There is the "divisibility principle" such as with paper; you can tear off a piece and now you have two pieces of the same thing. And of course the "solidity of things." Some things look solid, but are not, like the stream of water from the faucet. The baby scientist takes nothing for granted and must prove over and over again that the fundamentals of nature remain true.

Watching Carson got me thinking about conservation. I believe it requires a lot of that same curiosity, maybe more so than other professions. How else could we all sit in the same room, regardless of specialties, and listen to talks ranging from Russian icons to mass fumigation of automobiles to the history of turpentine and find something interesting in all of it? Every WAAC annual meeting I have attended has been like that, and I have learned something every time. It is one of the great benefits our organization has to offer. That is why I am super excited to be planning for the next annual meeting to be held in Juneau in August of 2009. Some of you may have been to Alaska before but for many of you this will be your first trip. I have been busy planning the meeting and making sure it will be

up to the high standards of previous meetings. We have a great venue in the Juneau Arts and Culture Center which is right in the center of town, close to hotels and restaurants. The banquet will be a salmon bake at the Thane Ore House, a very Alaskan venue. We have managed to get a great rate at the designated conference hotel. Keep in mind that Juneau receives a lot of tourists during this time of year so make your plans early.



Contents	
President's Letter	1
Regional News	5
A Preliminary Review of Some Alternatives to PhillySeal R Epoxy for Conservation and Mountmaking	11
<i>by BJ Farrar, Jeff Maish, and Mara Schiro</i>	
Steamlining Condition Reporting: A new approach at the Victoria and Albert Museum	16
<i>by Helen Nodding, Victoria Oakley and Sandra Smit</i>	
Sorting Out Surfactants	18
<i>by Chris Stavroudis</i>	
Naming of Generic Hydrocarbon Solvents: an Update	21
<i>by Alan Phenix</i>	
Annual Meeting Abstracts	22
Membership	27
AYMHM	29

President's letter, continued

Many of you will want to make the most of your trip up here so I will be providing information about tours such as whale watching and day cruises. You can even dog sled on a glacier if you so desire. Juneau is in the world's largest temperate rainforest so be sure you bring a good rain coat. If every one brings their raincoat, it will surely be sunny the whole time. There are more miles of hiking trails in the rainforest than there are miles of paved road in Juneau.



I am also planning on an Angels Project to help a Russian Orthodox Church with icons, candelabras, and other items. This church serves a small Native Alaskan community. They have many needs but not many resources. You can get some additional information from their website... stnicholasjuneau.org

If you are interested in helping out, please contact me. Also contact me if you are interested in giving a paper. I already have two papers lined up but we will obviously need a lot more.

I hope to see you all in Juneau this summer!

Scott

Volume 31 Number 1 WAAC Newsletter

WAAC Newsletter (ISSN 1052-0066) is a publication of the nonprofit Western Association for Art Conservation (WAAC). It is published three times per year, in January, May, and September. WAAC Newsletter is printed on alkaline paper. Copyright 2005 Western Association for Art Conservation.

EDITOR

Carolyn Tallent

REGIONAL NEWS

Marie Labinis-Craft

TECHNICAL EXCHANGE

Albrecht Gumlich

HEALTH & SAFETY

Chris Stavroudis

ARTICLES YOU MAY HAVE MISSED

Susanne Friend

COPY EDITOR

Wendy Partridge

Photocopying

To make academic course packets that include articles from WAAC Newsletter, contact the authors of the articles directly.

Note to Authors

Authors of articles and other contributions accepted for publication in WAAC Newsletter assign to WAAC Newsletter the right to publish their work in both print and electronic form and to archive it and make it permanently retrievable electronically. Authors retain copyright, however, and may republish their work in any way they wish.

Disclaimer

The Western Association for Art Conservation does not recommend particular individuals, businesses, treatments, products, or services. WAAC Newsletter is simply a vehicle for the presentation of information from various sources. Publication of articles or reports in the Newsletter should not be construed as an endorsement of their content by WAAC. Opinions expressed in articles published in the Newsletter are those of the authors.

Deadline

Contributions for the May Newsletter should be received by the Editor before **April, 2009**.

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

Scott Carrlee

VICE PRESIDENT

Marie Laibinis-Craft

SECRETARY

General Information
New Memberships
Publication Orders

Teresa Moreno

TREASURER

Change of Address
Payments

Natasha Cochran

MEMBERSHIP SECRETARY

Chris Stavroudis

MEMBERS AT LARGE

Susanne Friend
Albrecht Gumlich
Dana Senge
Marie Svoboda

WEB EDITOR

Walter Henry

PUBLICATIONS FULFILLMENTS

Donna Williams

Individual Membership in WAAC costs \$35 per year (\$40 Canada, \$45 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 \$40 per year (\$45 Canada, \$50 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, at <http://palimpsest.stanford.edu/waac/>.

2009 WAAC Annual Meeting Juneau, Alaska (!) August 19-21, 2009

Where the Wild Things Are: Conservation in the Extreme

Come join your conservation colleagues at the northern-most WAAC meeting ever held. The theme reflects both the beauty and the wildness of the location as well as conservation work in challenging situations. There will be thought provoking sessions on disaster recovery in extreme situations, treatments that push boundaries, and the challenges of keeping conservation relevant in an ever changing world. We can learn a lot from the Alaskan environment. Juneau lies in the largest temperate rainforest in the world. So bring your raincoat and a willingness to be challenged to one of the most exciting venues for our annual meeting.

Tentative Schedule:

Wednesday August 19

Pre-conference Workshop 9-5

Evening Opening reception Alaska State Museums

Thursday August 20

Sessions 9-5

Evening Reception TBD

Friday August 21

Sessions 9-5

Annual banquet Thane Ore House

Conference Airline:

Alaska Airlines
alaskaair.com

5% discount if you use this code and book online ECCMA0973

Conference Hotel:

The Prospector Hotel

375 Whittier St.
Juneau, AK 99801

Reservations: 800-331-2711
prospectorhotel.com

Conference rate: \$129 per night

Other Hotels (within walking distance to the meeting space):

Goldbelt Hotel Juneau

A little bit nicer, a bit more expensive.

Goldbelt Hotel Juneau
51 Egan Drive

Juneau, AK 99801
907-586-6900 phone
907-463-3567 fax
888-478-6909
goldbelthotel.com

The Driftwood Lodge

Not as nice, a little cheaper.

The Driftwood Lodge
435 Willoughby Avenue
Juneau, Alaska 99801

Telephone
800-544-2239 907-586-2280
driftwoodalaska.com

The Alaskan Hotel

Funky, old, real Alaska. Rooms above bar, noisy. Really only an option for people who like to party all night.

The Alaskan Hotel
167 So. Franklin
Juneau, Ak 99801
800-327-9347 907-586-1000
alaskahotel@hotaqil.com
thealaskahotel.com

The Silverbow Inn

Funky, old, real Alaska. Rooms above a bakery, not noisy.

The Historic Silverbow Inn
120 Second St
Juneau, AK 99801
800-586-4146 907-586-4146
silverbowinn.com

More Meeting News

The Baranof

Expensive, likes to put on airs of the grand old Alaska.

Westmark Baranof Juneau
127 North Franklin Street
Juneau, Alaska 99801-1280
907-586-2660
westmarkhotels.com/juneau.php

Capital Inn B&B

Very nice
Alaska's Capital Inn Bed and Breakfast
113 West Fifth Street VP00

Juneau, Alaska 99801
Fax: (907) 586-6508
innkeeper@alaskacapitalinn.com
www.alaskacapitalinn.com

Youth Hostel

Very Cheap
Juneau Hostel
614 Harris St Juneau AK 99801
Phone: (907) 586-9559
juneauhostel@pci.net
www.juneauhostel.com

Possible Tours and activities:

Whale watching cruise
Glacier cruise
Glacier flightseeing
Sled dog run
Botanical garden tour
Kayaking
River rafting
Zipline tours
Museums

There is great travel information at:
traveljuneau.com



For the intrepid

Become a patron of the Alaska Marine Highway System. In particular, the Inside Passage Route.

The Inside Passage treats you to spectacular natural beauty, an unmatched variety of wildlife, and a rich mixture of Native, early Russian, and gold rush history. It will reveal a multitude of islands and coves along the unspoiled coastline that are perfect to explore by boat or kayak. The entire region is wrapped in the Tongass National Forest, the largest National Forest in the United States and the largest contiguous temperate rainforest in the world.

Cabins and Facilities

Cabins aboard the ferries provide basic amenities and vary in price according to size and location. Cabins are outfitted with single or double bunk bed style berths and vary in size and availability between vessels. All cabins are sold by the cabin per trip, not on a per person basis. Most cabins include private bathroom facilities, but for those that do not, public restroom and shower facilities are available. Cabins tend to sell out quickly and should be reserved well in advance of travel.

For passengers who opt to save a few dollars and travel without a cabin, the recliner lounges also serve as popular sleeping areas with space to roll out a sleeping bag. Covered solariums located on the upper decks of each vessel are also popular sleeping areas, and for those with adventurous spirit small tents are allowed on the upper decks if you prefer to sleep under the stars.

Here are the basics

The most likely travel date is Friday, August 14, leaving from Bellingham, Washington, located 2 hours north of Seattle, to Juneau. Arrival would be Monday, August 17 in the early morning, leaving a couple of days to roam around before the conference begins on Wednesday. Prices seem hefty for this one way adventure but some things are priceless, as we have been told: \$326 per adult, plus a share of a "stateroom," which tops at \$176 per person (for 2 person room).

Full information is available at: dot.state.ak.us/amhs/ or you can contact Albrecht Gumlich via email Agumlich@getty.edu. He is looking into possible arrangements for groups.

Regional News

Marie Laibinis-Craft, column editor

ALASKA

Monica Shah attended the Digital Photography for Conservators workshop and the WAAC annual meeting in L.A. She is working on exhibit projects at the Anchorage Museum, including treatments and mount designs.

Scott Carrlee has been working diligently on the meeting planning for WAAC 2009 in Juneau. Things are going smoothly, and this promises to be a very good meeting. Scott performed a CAP assessment at the American Bald Eagle Foundation in Haines, AK. Scott has also been working on a project to bring paper conservator **Grace White** up to Alaska this winter to perform assessments and minor treatments in remote Alaskan locations.

Ellen Carrlee is working on collections storage and fire suppression upgrades at the Alaska State Museum. **Dina K. Mattes** of McCrone Microscopy came to install and provide refresher training on a new Olympus BX51 polarized light microscope. The first project underway with the new PLM is compiling reference material for Alaskan fur identification. In September, Ellen had the pleasure of meeting with **Dave Harvey** of Griswold Associates to pick his brain during his stopover Juneau enroute to a conservation survey in Skagway.

Janelle Matz is working on the installation of Dena'ina objects used in ceremonial healing for Cook Inlet Tribal Council. She is also in the midst of cleaning, repair, and re-installation of a rare ink on hide painting by Wilbur Wallick for Alaska Pacific University.

Regional Reporter:
Ellen Carrlee

ARIZONA

Brynn Bender was promoted to the senior conservator position for the National Park Service, Intermountain Region Museum Services Program in Tucson. She traveled to Bighorn Canyon National Recreation Area in Wyoming and Montana to help the park strengthen its muse-

um preservation program. Brynn is also working on the identification of heavy metals on ethnographic collections using the XRF analyzer as a screening tool.

Maggie Kipling is continuing her work documenting and treating ceramics collections largely from Canyon de Chelly National Monument. She also treated objects for exhibit at Tumacacori National Monument's renovated visitors' center. This included six painted wood Santos, one of which, Jesus Nazareno, was returned to Tumacacori from the Mission San Xavier del Bac, where it had resided since about 1848. Maggie is also beginning a survey of historic textiles from Chirachau National Monument.

Audrey Harrison continues treatments to damaged quill work for the ethnographic collection of Grand Teton National Park at the NPS labs in Tucson. She is also treating ceramics in the NPS collections.

Nancy Odegaard presented a paper in October at the Productive Affinities Symposium that was co-hosted by the Art Institute of Chicago and Northwestern U. The Symposium focused on successful collaborations in conservation science between museums and academia.

Bruno Pouliot, conservator at Winterthur/UD conducted a workshop for ASM preservation staff and students on leather identification. **Rachel Freer** culminated her Samuel H. Kress Fellowship at ASM by serving as head curator for a new exhibit at the museum titled *Beyond the Naked Eye: Science, Technology Reveal Nature's Art*. It features photomicrographs from fiber analysis completed by Freer during her fellowship and other research imagery submitted by faculty and students at the University of Arizona. **Gina Watkinson** assisted Rachel in writing text for the exhibit and installing text panels.

Meghan McFarlane, Winterthur/UD, began her third year internship at the Arizona State Museum in September. She has been working on the stabilization and desalination of Southwest pottery, as well as the conservation of Native American basketry and Hopi Kachina dolls. **Esther Echenique**, art conservator from Chile, is assisting in the ASM conservation lab

with object treatments for an upcoming loan and exhibit. **Martina Dawley**, UA graduate student in Native American Studies, is completing a formal internship in collections care.

Teresa Moreno continues to advise the Arizona State Museum's architectural design and construction team on conservation issues related to the design of ASM's future facility at Tucson's Rio Nuevo Downtown Museum District. In addition she continues her work with ASM's exhibit development teams, which are busy curating and developing new exhibits for ASM and for the future ASM Rio Nuevo facility. In October, Teresa attended the annual WAAC Meeting in LA and will serve as WAAC Secretary for another year.

Gina Watkinson is working closely with ASM photography and IT staff to reorganize the Museum's digital photographs and archives. Gina continues to assist with on-going conservation of objects selected for ASM's *Journeys of Our Ancestors* exhibit.

Nancy, Teresa, and Gina hosted a tour of the ASM conservation lab for participants in this year's BACC: Focus on Collections Care workshops held at the University of Arizona in November. A number of the Museum's staff and students participated in the workshops. **Werner Zimmt** and Nancy are testing a new pesticide removal technique, researching gum identification and iron stabilization.

Leslie Frame and **Dave Smith**, UA graduate students in Heritage Conservation Science, are working on x-ray methods and stabilization of gun cartridges in the museum collections.

Regional Reporter:
Brynn Bender

HAWAII

Regional Reporter:
Lynn Ann Davis

Regional News, continued

GREATER LOS ANGELES

Lily Doan is volunteering one day a week in **Victoria Blyth Hill's** paper conservation studio as a pre-program intern. Lily has a BA in Anthropology from Cal State Long Beach and has previously interned with **Tania Collas** at the Natural History Museum. She is currently a library assistant at UCLA and will be applying to the fall 2009 conservation graduate programs.

In November, Victoria presented the conservation treatment of a large 17th-century Tibetan thangka *Yama and Yami* which was on display in the LACMA galleries. The presentation was to the South Asian Art Council and in the galleries with the thangka.

This past fall, the Academy of Motion Picture Arts and Sciences' Margaret Herrick Library reluctantly bid adieu to **Lucia Bay** who has moved to Chicago. Currently, Lucia is busy working on ethnographic materials that were damaged during the Iowa floods at the Chicago Conservation Center and assisting **Kristin Lister** with research on a Matisse painting at the Chicago Art Institute. **Jennifer Kim** has taken a position as the Margaret Herrick Library's new conservator. Jennifer graduated from the NYU Conservation Center this past May and is excited to have a chance to settle down in her hometown.

The J. Paul Getty Museum at the Villa will be presenting three unique exhibitions focused on the conservation, examination, and scholarly research of artworks. The exhibitions will be on view from through June 1, 2009, each focusing on projects that have been carried out at the Getty.

Reconstructing Identity: A Statue of a God from Dresden. This exhibition examines the restoration history of a Roman statue from the Dresden State Art Collections. Since its discovery in the 1600s, the figure has been successively restored as Alexander the Great, Bacchus, and Antinous in the guise of the wine god. Damaged in World War II, the sculpture was recently reassembled by Getty and Dresden conservators.

The Getty Commodus: Roman Portraits

and Modern Copies. The Getty's marble bust of the Roman emperor Commodus was acquired in 1992 as an Italian work of the 1500s, but specialists later proposed that it may be from the second century A.D. Putting the object in context with Roman portraits and modern copies from the Mannerist and Neoclassical periods, this exhibition shows how curators and conservators have determined the sculpture's date.

Fragment to Vase: Approaches to Ceramic Restoration. Exploring contemporary issues in vase restoration, this exhibition provides a behind-the-scenes look at how Getty conservators assemble ancient pottery fragments into understandable forms. It illustrates how technical innovations, scholarly contributions, and aesthetic choices combine to reveal the original design and iconography of ceramic masterpieces.

Andrea Sartorius is the new postgraduate intern in the Paintings Conservation Department at the J. Paul Getty Museum. For the past academic year she interned at the Hamilton Kerr Institute in Cambridge, England after completing her diploma thesis at the Academy of Fine Arts in Dresden in July 2007. Before entering the Academy of Fine Arts she completed three years of required internships. Two years were spent at the New National Gallery in Berlin and one year was spent at the Old Masters Picture Gallery in Dresden.

In Decorative Arts and Sculpture Conservation at the Getty Museum, the staff is busy with the reinstallation of the North Pavilion sculpture galleries, to reopen in the spring of 2009. **Claire Neily** from the Queen's University Art Conservation Graduate Program has joined the staff as the department's 2009-2010 graduate intern. There is lots of news from the department mountmakers. **Adrienne Pamp** is taking a leave from the Getty to work for 6 months at the Bishop Museum in Honolulu. Adrienne will work with Bishop staff and previous Dec Arts mountmaker **George Johnson** to reinstall historic Bishop Hall. Back in LA, **Rick Hards** has been contracted to replace Adrienne during her leave, and **Stephen Bell** has accepted a permanent staff position.

Jane Bassett's book *The Craftsman Revealed: Adriaen de Vries, Sculptor in Bronze* is now available through Getty publications. The volume presents the results of the technical study of twenty-five bronzes by the Dutch mannerist sculptor Adriaen de Vries, ranging in size from table-top to near life-size multi-figure compositions. The publication includes a description of indirect and direct lost wax casting, as well as sand casting, a history of the technical study of Renaissance bronzes, and an illustrated glossary.

Arlen Heginbotham has been working in close collaboration with **Michael Schilling** of the GCI on the study of Asian lacquer in the Getty Museum's collections. He traveled to New Delhi in September to deliver a paper at the ICOM-CC conference entitled "New evidence for the use of south-east Asian raw materials in 17th-c Japanese export lacquer."

On February 17, an exhibition titled *La Roldana's Royal Commission: the Making of a Polychrome Sculpture* will open at the Getty Center. Co-curated by **Maite Alvarez** and Jane Bassett, the exhibition focuses on the materials and techniques used to create the Getty's life-sized Spanish sculpture of St. Ginés de la Jara.

Soko Furuhashi presented talk entitled "What is Washi?" at the WAAC annual meeting held at the Getty Villa in October 2008. Not only was the presentation exceptionally insightful about Japanese papermaking and the people that continue the craft, but it also served as a travel log of the second Washi tour organized by Hiromi of Hiromi Paper International and Betty Fisk in April 2008.

Erin Jue, 2008 Andrew Mellon Fellow in paper conservation, is continuing her post-graduate training by working on exhibition-related and permanent collection objects. She is currently participating in a research project with the former conservation technician, **Lucia Bay**, and the new collection conservator, **Jennifer Kim**, at the Academy of Motion Pictures Margaret Herrick Library. The three are researching conservation treatment options and mounting systems for new industrial support materials for large-format movie posters.

Regional News, continued

Aisha Wahab, pre-program intern in paper conservation, finished her organic chemistry in October and is preparing her graduate program applications. She continues to be enthusiastic and interested in the field despite the difficult treatments she has been asked to perform. In December, this California girl moved to Michigan to be with her husband.

Chail Norton presented the paper handling portion of the "Art and Artifact Handling: Basic Training Guidelines" seminar and workshop held at the Japanese American National Museum, last November 14th. **Joe Fronck** presented the painting handling portion.

After almost 2 years as Head of Paper Conservation at LACMA **Janice Schopfer** continues to organize and revamp the studio and has been instrumental in creating a dedicated matting and framing department, head by **Dale Daniels**.

Terry Schaeffer gave a talk at the WAAC meeting last October entitled "Evaluation of Fiber Samples from Early Victorian Dyed Woolen Yarns."

Charlotte Eng and **Frank D. Preusser** presented a paper, "Portable Digital Microscopy: A Valuable Aid in Non-Destructive Examination of Art Objects," at the annual Eastern Analytical Symposium in New Jersey last November.

Jen Porter is a Mellon Fellow in the conservation research laboratory at LACMA this year.

Yosi Pozeilov gave a two-day workshop on digital photography at the annual WAAC conference at the Getty Center/Villa last November. Later in the conference, he also presented a paper, "Ultraviolet-excited Fluorescence Photography and Reflectance UV Photography in Art Conservation." For people that did not attend the conference, Yosi is making available his workshop handout as a publication via Lulu.com. Just search for publication: 4002004.

The Sculpture Conservation Studio has just finished stripping and re-painting a monumental painted steel sculpture *Uptown Rocker* for the Community Re-development Agency. SCS worked with

the artist Lloyd Hamrol and the CRA on this project located on the 4th street exit off the 110 freeway. SCS is in the final stages of installing and conserving a mosaic mural in the community center room of the new Hollenbeck Police Station. The mosaic mural is 23' long and had to be re-configured to accommodate two doors in north wall of the room. **Andrea Morse** gave a talk at IIC in London in September on the LA Conservancy award project for *History of Transportation*. (the 240' petrachrome WPA mural). SCS has also just finished applying for a "Preserve America" award for this project.

Regional Reporter:
Virginia Rasmussen

NEW MEXICO

Joe Sembrat and his company, Conservation Solutions, Inc (CSI), are beginning work on several projects that include the assessment, conservation, and relocation of the Glen Rose Dinosaur Tracks at the Texas Memorial Museum in Austin; the conservation of the Flagler Memorial Monument located in Biscayne Bay, Miami, Florida; a conservation study and treatment recommendations for the Coral Cables Museum in Florida; the reassembly of the Karl Bitter Pulpit located at the Metropolitan Museum of Art; and the conservation and quality control oversight of the Carnes Playhouse located at the Arkansas Post Museum in Gillett, Arkansas.

Additionally, CSI has just completed the conservation of several hundred artifacts from the RMS Titanic which are due to go on a ten-year exhibit at the Luxor Hotel in Las Vegas, Nevada. There was also a short article about Conservation Solutions and their cleaning and waxing of various sculptures on the Columbia University campus in *Columbia: The Magazine of Columbia University*.

Patricia Morris is working on a group of the fifteen highest priority works on paper for the Chavez History Library, which will be in the opening exhibit of the new Palace of the Governors wing.

With the close of the show, *Diebenkorn in New Mexico*, at the Phillips Gallery in Washington, DC, **M. Susan Barger** has

completed her courier duties for the Harwood Museum in Taos. This year-long adventure included two cross country trips in a semi-truck with a husband-wife team of truckers and their dogs. Next February, Susan and Museum Development Associates will be starting an on-line certification program, Small Museum Pro!, with their partners Eastern New Mexico State U. Distance Education Department. This certificate program is for workers in community museums who need practical training in museum and collections management. A certificate involves the completion of five classes or 15 continuing education units.

Jo Anne Martinez-Kilgore of Cariño Conservation continues to crawl out of an enormous backlog of treatment work and is happy to say that the work continues to come through the door. She was lucky enough to wear a respirator to work for about six weeks while completing mold and mouse dropping remediation on 80+ boxes of records needed for litigation and review by federal attorneys. She is presently working on contracts with the University of New Mexico Law School Library and the Museum of Printing History [funded by Heritage Preservation] to develop disaster management programs for collection materials.

Regional Reporter:
M. Susan Barger

PACIFIC NORTHWEST

The Royal BC Museum conservators bid farewell to **Jennifer Barsby** and wished her all the best after a very busy and successful internship in the Textiles Lab. Fortunately the textiles conservators have two skilled and eager volunteers, **Erin Alexander** and **Beth Boyce**, to take on some of the workload. This fall the archives lab is fortunate to host the new intern, **Carly Wemyss** from Sir Sandford Fleming College, working her to the bone preparing war posters for Remembrance Day. The objects lab continues to benefit from the expertise and dedicated service of volunteer **Marie-Ange Fall**.

A plan for the Museum's outdoor spaces is coming together, with particular emphasis on totem pole maintenance. The complexities of caring for artifacts that

Regional News, continued

are sure to deteriorate, are extremely expensive to replace, and which have ties to local communities make the process a thoughtful one.

The RBCM is actively testing First Nations collections for pesticide residues using XRF technology, looking at options for cold storage of AV and History collections, and embarking on improvements to data logger networking and reporting.

The fall Pacific Conservation Group meeting was organized by RBCM conservators, and attracted some excellent presentations at the beautiful site of Ross Bay Villa in Victoria.

RBCM conservators are already anticipating the flurry of work to dismantle the *Free Spirit* temporary exhibition in January and prepare to install the spring blockbuster, *Treasures: The World's Cultures from the British Museum*. As with any museum and archives, new acquisitions, loans, temporary displays, exhibit maintenance, publications, care and handling training, and pest control all continue to keep them on their toes.

In October, **Susie Lunas** attended the "Conservation of Iron-Gall Ink on Paper" workshop at NEDCC. She found it quite useful and would be glad to share the information that she learned with other paper/textile conservators. Anyone interested should contact her.

Sandra Troon of the Oregon Textile Workshop has been working on several projects with museums throughout the Western states including treatment of a dress for the Nevada State Museum in Carson City, NV, surveying a textile collection for the Bush House Museum in Salem, OR, and collaborating with **Tom Fuller**, of Northwest Objects Conservation, to reinstall the main altar at the Kam Wah Chung Museum in John Day, OR.

Dana Senge has been working with the Snoqualmie Valley Historical Museum to address general preservation issues and develop strategies to improve storage conditions for the collection. This past October she attended the Washington State Connecting to Collections Conference held in Tacoma, WA and is

looking forward to working with other members of the heritage community to improving preservation on a state-wide level.

J. Claire Dean continues to assist with projects at the Natural History Museum of Los Angeles County. She presented a short paper at the WAAC meeting in Los Angeles on a nifty method for cleaning hand soiling from stone surfaces using a small hand-held steam cleaner.

During the past month, **Marie Laibinis-Craft** has been working on a condition survey of the outdoor sculpture collection for the Portland Art Museum. She also completed treatments on two of the museum's sculptures, *Brushstroke* by Roy Lichtenstein and a 19th-century plaster cast of the fallen warrior sculpture (from the Greek Temple of Aphaia).

Marie has been continuing her work on the conservation of a collection of outdoor sculptures located in downtown Portland's transit mall. The sculptures were commissioned in the later 1970's by Tri-met, Portland's public transportation agency, and were removed temporarily in 2007 until construction to the mall is complete in 2009. Four sculptures have been treated and reinstalled. Two of the four sculptures by artists John Killmaster and Ivan Morrison, were treated with the assistance of **Robert Krueger** and **Erin Stephenson**, students from the Buffalo Art Conservation Program.

The Jordan Schnitzer Museum of Art at the University of Oregon in Eugene held a public symposium, "Preserve or Let Perish: Some Challenges for Contemporary Art Conservation" in November. The program was well attended and considered quite successful. The preservation community in the Pacific Northwest hopes to develop more educational programs and meeting opportunities in the future. After the formal symposium, the conservators in attendance met to discuss pro's and con's of building a guild or professional group to strengthen the community and advocacy for conservation issues in our region. They are continuing this discussion as an informal group with an online social network. Please contact the regional reporter if you would like to join the conversation!

Regional Reporter:
Dana K. Senge

ROCKY MOUNTAIN REGION

Beverly Perkins joined the staff of the Buffalo Bill Historical Center as Conservator. **Allison Holcomb** started as a BBHC conservation fellow this summer and has been hired as the conservation technician. **Rachel Freer**, **Jennifer McGlinchey**, **Suzanne Morris**, and **Nora Frankel** completed many treatments during their internships this summer. **Marianne** and **Bob Marti** spent two weeks working on the outdoor sculpture and training staff in basic maintenance. **Carmen Bria** de-installed and rolled two monumental Harry Jackson paintings.

Paper conservator **Heather Tudhope** and her husband Roby Sherman are happily expecting a baby this spring. Due to an extensive backlog Tudhope Conservation Studio will not be taking on any new private clients with the intention of completing all current and future projects before Heather's "extended vacation."

News from the conservation staff of the **Denver Art Museum** is all about getting a large collection of Western American art ready to go on exhibit in January. The project has consumed most of the laboratory time for several months and includes the treatment of paper, bronzes, paintings, frames, and two chairs made of antler. The end result should be a stunning addition to the museum. The refurbished galleries will include great views of Denver and the Rocky Mountains and an outdoor sculpture deck.

The entire conservation staff will be team-teaching a conservation course for an MA in museum studies at the U. of Denver. Each conservator will address his/her specialty treatment area. Director of Conservation **Carl Patterson** will lead the team and provide the continuity necessary.

Advanced intern **Tara Hornung** from NYU is currently researching bronzes from India and plans to develop an analytical project in conjunction with the

Regional News, continued

Colorado School of Mines (CSM). She is helping the lab construct a proposal for a long-term relationship with CSM in which students and staff would share projects and equipment.

Preprogram intern **Tessa de Alarcon** has been an excellent source of help in a wide variety of treatments for the Western American art installation and in preparing a number of Native American objects for publication.

David Turnbull has created a viable paintings lab out of minimal space and with few resources. In addition to taking care of the contemporary art on exhibition, David has treated a several paintings for the upcoming installation. The museum continues to plan for an enlarged space and laboratory.

Paper conservator **Sarah Melching** has been catching up on a number of projects. The next few months will see her at work on posters for *Cowboys, Indians, and Rock and Roll*, a collection of 1967-1974 psychedelic posters from San Francisco. She has recently taught a workshop (on care of photographic materials and emergency recovery of same) as part of the Balboa Art Conservation Center's "Focus on Collections Care Workshops," funded by NEH. The workshop was given at the U. of Arizona.

Gina Laurin presented a paper on unstable and hazardous collections at the Mountain-Plains Museum Association in Kansas City, MO. She is currently working on a protocol for handling collections suspected of containing toxic materials and testing for them. Volunteers, working under her supervision, have been mounting textiles for exhibition in one of the museum galleries and interacting with members of the public.

Regional Reporter:
Paulette Reading
paulette.reading@gmail.com

SAN DIEGO

Regional Reporter:
Frances Prichett

SAN FRANCISCO BAY AREA

Architectural Resources Group (ARG) welcomes new employee **Lacey Bubnash**, an architectural conservator with a degree from the Historic Preservation Program at Columbia University.

Architectural conservators **Mary Slater**, **Kelly Wong**, and Lacey Bubnash, as well as construction specialist **Nina Saltman** are part of an on-going effort to survey the exterior conditions of nine original buildings (c. 1910) at San Francisco General Hospital.

Architectural designer **Jason Wright**, Kelly Wong, and Lacey Bubnash recently completed an exterior conditions assessment and window survey of Oregon State Hospital's Kirkbride Building in Salem, Oregon where the infamous *One Flew Over the Cuckoo's Nest* was filmed. Constructed in 1884, the restoration of Kirkbride Building's six wards is part of a larger hospital revitalization project to modernize Oregon's mental health care system.

ARG Conservation Services (ARG/CS) welcomes new employee **Ted Dunn**, a preservationist with a degree from the Historic Preservation Program at the Art Institute of Chicago. Ted's previous experience involved production of construction documents and consulting on historic preservation issues in historic homes.

Senior conservator **Katharine Untch**, architectural conservator **Mersedeh Jorjani**, and conservation technician **Collin Eaton** completed the second phase of cemetery conservation at the Shasta Catholic Cemetery in Shasta, California.

Katharine Untch and Collin Eaton completed conservation efforts on *Peace*, a sculpture by Beniamino Bufano in San Francisco. Work included repointing cracked or open masonry joints at the base and resealing opening metal joints, and stabilization of the mosaic elements of the sculpture.

Preservation masonry specialist **Devlin McDonald** and Mary Slater completed oversight of exterior renovations at One

Beach Street in San Francisco. The 1920s building is listed on the National Register of Historic Places.

ARG/CS also worked collaboratively with mural conservator **Anne Rosenthal** for the recently completed conservation of the murals in the lobby of the Maritime Museum in San Francisco. The WPA era murals are an expressionist vision of Atlantis by Hilaire Hiller.

The Asian Art Museum of San Francisco welcomes **Katie Holbrow** as the head of conservation. Through a grant, the lab was able to purchase a large suction table for use on the museum's Thai paintings collection. The lab is looking forward to having XRF capabilities in the near future and is in the process of going digital with documentation.

The de Young Museum in San Francisco is hosting an Yves Saint Laurent retrospective on view until April 5th, 2009. Head textile conservator **Sarah Gates** and associate conservator **Beth Szuhay** led the installation team, which included help from contract conservator **Yadin Larochette**. The show highlights 129 accessorized ensembles belonging to the Fondation Pierre Berge -Yves Saint Laurent in Paris.

Regional Reporter:
Beth Szuhay

TEXAS

Recent news from the Amon Carter Museum: **Sylvie Pénichon** was a guest scholar of the J. Paul Getty Museum from July through September 2008; she worked on a book project on the care and identification of 20th-century color photographs. In October, Sylvie co-hosted a one-day workshop on the care and handling of photographs with **Barbara Brown** and **John Rohrbach** for the Texas Assoc. of Museums/CMC members. She also taught at the Collaborative Mellon workshop in photograph conservation on 20th-century color photography hosted at MoMA, NY.

In October, **Bruce Kaiser** of Bruker AXS visited the Amon Carter Museum for two days of training on their portable XRF

Regional News, continued

unit. Conservators from local museums including the Carter, the Kimbell Museum of Art, the Dallas Museum of Art, and the Nasher Sculpture Center attended the training sessions.

Jodie Utter, paper conservator at the Carter, is currently conducting research on Charles Russell's watercolor technique and materials. The Bruker Tracer III-V hand held XRF instrument and a polarizing light microscope are being used to analyze watercolor paintings and pigment samples. The resulting research will be written up and included in an exhibition catalogue for *Romance Maker: The Watercolors of Charles Russell*. As part of the project, she attended a week long course: Polarizing Light Microscopy for Conservators, at the McCrone Research Institute in Chicago, IL.

In July, Jodie and **Claire Barry**, paintings conservator for the Amon Carter and Kimbell Museums, traveled to Montana and Wyoming to conduct primary research on Charles Russell. They visited the CM Russell Museum in Great Falls, Montana, the State Historical Society in Helena, and the Buffalo Bill Historical Center in Cody, Wyoming.

In April 2008, **Stephanie Watkins**, head of paper conservation at the Harry Ransom Center at the University of Texas at Austin, participated in the Hiromi Washi 2008 tour of the Kansai region of Japan. The trip was supported by AIC's Carolyn Horton Fund. **Laura Bedford**, currently a second year student at the Kilgarlin graduate studies program at the University of Texas at Austin, recently completed treatment on the close to 1000 page manuscript, "Guignol's Band" by Louis Ferdinand Celine while working with Stephanie.

Nita Maria Greene of Oregon, currently studying at Northumbria University in UK, spent July and August 2008 interning with Stephanie. **Desi Peters**, an undergraduate at the University of Texas at Austin, spent her summer (2008) volunteering in the conservation department of the Menil Collection in Houston, working with paper conservator **Jan Burandt**. In the autumn, Desi returned to university, volunteering with Stephanie in paper conservation. **Nani**

Lew, paintings conservator, continues to volunteer in paper and book conservation at the Harry Ransom Center.

On November 21st, **Mark Van Gelder** gave a talk on conservation principles to about 40 members of the Antiques Club of Greater Lakeway, TX. He was also interviewed recently by a 6th grade student who was doing a special project report on art conservation. She used some of his treatment documentation images in the PowerPoint presentation she gave to her class, (and received an "A" on her project).

Regional Reporter:
Ken Grant

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: \$8.85

(\$6.60 copy for orders >10 copies)

Back Issues of WAAC Newsletter

Back numbers of the *Newsletter* are available. Issues Vol.1 - Vol.14, #3 (Sept. 1992) are \$5/copy. Issues Vol.15 - Vol.29, #3 (Sept. 1997) are \$10/copy. Issues Vol.30 (Jan. 2008) and after are \$15/copy. A 20% discount will be given to libraries seeking to obtain back issues to complete a "run" and for purchases of ten copies or more of an issue.

Prices include shipping and handling. Make checks payable to WAAC drawn in US dollars on a US bank.

For information please contact the WAAC Secretary:

Teresa Moreno

Send prepaid orders to:

Donna Williams

A Preliminary Review of Some Alternatives to PhillySeal R Epoxy for Conservation and Mountmaking

by BJ Farrar, Jeff Maish, Mara Schiro

Introduction

Loss compensation in some object conservation treatments may require the addition of structural components. Additionally, the handling and display of art objects may entail the addition of temporary supports for movement or more permanent mounts for display. Epoxy putties have played an important role in these applications, and since the 1980s conservators and mountmakers have extensively used one product in particular, PhillySeal R produced by Philadelphia Resins. In 2007 Philadelphia Resins announced that the market for the product had diminished, and it would no longer produce the material.

The Material

PhillySeal was developed as a marine filling compound for the repair of metal walls but was also known as a "rat-seal;" applied over openings it prevented the migration of rodents through small gaps present within ships. The two-part material, known initially as Pliacre, was available in the 1980s as a tan-colored putty and transitioned to a new name with its now familiar grey color (from the black hardener and white resin) in the late 1980s. In general the epoxy was mixed by eyeballing the volumes of the two components and hand mixing. Its ease of use and relative low cost made it a popular choice for many applications in the conservation field.

General Properties

PhillySeal epoxy had many properties which made it useful to conservation. Beneficial working properties included hand mixing, water smoothing, good working time, low heat on setting, high compressive strength (15,000 PSI), and very hard once cured (Barcol 25 ASTM D-2583). It was also relatively inexpensive and available in bulk. It passed Oddy testing repeatedly (silver, copper, and lead coupons) and was considered inert. However, to produce the putty consistency, PhillySeal was heavily loaded with fillers such as free silica. These materials could be released on grinding and could also dull cutting and lathe tools. PhillySeal had a pot life of 45 minutes, set time of 6 hours, and a 16 hour cure time.

Applications

PhillySeal resin has been used to create fills in the restoration of ceramics, stone, and metal but has also been used in treatments of skeletal materials in natural history collections (1, 2). For the repair of ceramic losses, the catalyzed epoxy putty was rolled out into thin sheets and laid over a protected plastic-covered area of the vase. The sheet would slump over the vase assuming its contours. Once set, or when rubber hard, the sheet could be aligned with the area of loss and trimmed to shape. Once the correct shape was achieved, the replacement sherd would be adhered in place usually with an acrylic resin. For structural purposes this was sufficient although the epoxy "sherd" could be finished further with acrylic fillers and paint (fig. 1).



figure 1

Similarly the putty could be used for filling losses in marble ranging from small losses to larger more modeled sections (fig 2).



figure 2

Perhaps one of the largest applications of PhillySeal was for mountmaking, where it was integrated into mounts or used as an interface layer. The putty was pressed and contoured to uneven sections of objects (covered in a suitable barrier), providing intimate contact between the object and mount.

A Preliminary Review of Some Alternatives to PhillySeal R Epoxy for Conservation and Mountmaking, continued

This keying into the overall surface provided for excellent capture and support of an object (fig. 3a, 3b).

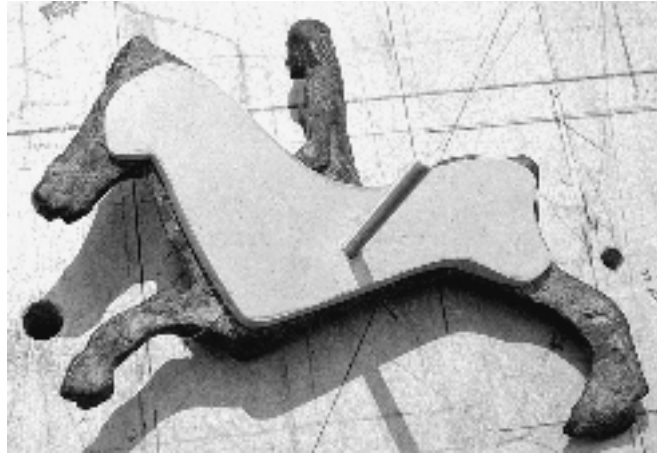


figure 3a



figure 3b



figure 4

Cast interfaces under an object eliminate any rocking or point-loading caused by an uneven surface and often provide an opportunity to achieve a specific display orientation (fig. 4).

Finally, because of its high compressive strength, PhillySeal was also used in crating and for lifting rigs. Targeted areas on a sculpture could be sandwiched between wood supports, cut with the approximate contours of the object, and interfaced with PhillySeal epoxy. Once cured, the interfaced supports would prevent the sculpture from moving during transport. With difficultly shaped objects, the interfaced supports become lifting rigs when placed opposing each other and put into compression around the sculpture, for example, with a thread-rod. This would allow the object to be lifted from the rigs, versus complicated rigging with straps on the object (fig. 5a, 5b).

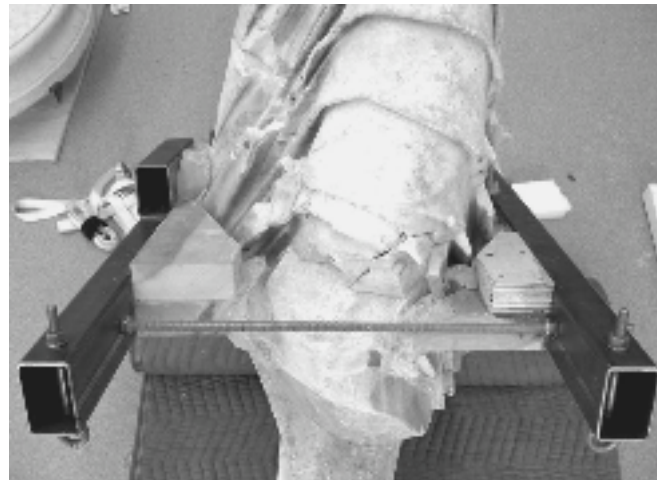


figure 5a



figure 5b

A Preliminary Review of Some Alternatives to PhillySeal R Epoxy for Conservation and Mountmaking, continued

Replacement Parameters

Several factors were considered in selecting a suitable replacement product. Again, these included ease of mixing, consistency, working and set time, and availability in larger, more economical quantities. As with PhillySeal, all potential replacements had to pass a non-contact Oddy testing using silver, copper, and lead coupons.

Philadelphia Resins was initially consulted regarding replacements but only limited recommendations and no direct replacement products were offered. Several epoxy suppliers and distributors were also contacted with similar outcomes. Because of the specific requirements and "niche" market of the material type, the search eventually turned to on-line suppliers and word-of-mouth recommen-

dations from conservators and mountmakers.

Products Tested

An initial search showed a range of products available with similar but somewhat different working properties. Testing was expanded to include less viscous pastes epoxies as well as the thicker putties (3). All the resins were tested for workability as well as for stability in a museum environment. Over thirty samples were prepared for Oddy testing by casting strips, mixed by weight, into small rectangular molds. Once set, the strips were cut into cubes, approximately 1 cm on edge. In general samples were 4-6 weeks old at the initiation of the Oddy testing (4). Non-contact Oddy testing was conducted with copper, silver, and lead coupons (5) with results outlined below:

Manufacturer	Product	Silver fail	Copper fail	Lead fail
PC	Crete			
PC	Plumbing			
PC	Metal			
PC	Marine			
PC	Lumber			
Aves Studio	Apoxie Sculpt			
Aves Studio	Fixit Putty			
Aves Studio	Fixit Paste			
The Compleat Sculptor	Magic Smooth			
Wood and Stone Co.	Akabond 621 KG			
Procreate	Terrain		t	
The Complete Sculptor	Magic Sculpt		t	
PC	Farenheit		t	
Fiber Resin, Inc.	Gapoxio		t	
PC	Fast-N-EZ	X		
PC	Concrete EZ		X	
Kraftmark	Fab Epoxy		X	
Procreate	Professional Sculptors		X	
POR 15, Inc.	POR 15		X	
Milliput	Yellow Gray		X	
Milliput	Terracotta		X	
Devcon	Magic Bond		X	
Paleo-Bond	Paleo Sculpt PB121		X	
PC	7		X	
Epoxy Technology	Epotek 731		X	
PC	Superepoxy			X
PC	11		X	X
Cir-Cut Corp.	All Game/All Fix		X	X
X - Fail	t - Temporary use			

A Preliminary Review of Some Alternatives to PhillySeal R Epoxy for Conservation and Mountmaking, continued

Discussion

The Oddy results were variable with a high percentage copper coupon fails. This prompted an initial review of the epoxy constituents to determine if there was a common epoxy component in the copper coupon fails. The MSDS sheets were of some assistance in identifying components although listings were not complete. As often encountered, manufacturer contacts were of limited help. The reluctance to reveal proprietary information was especially the case with many epoxy putty manufacturers since the epoxy products were often formulated for very specific application and formed a major product line within small companies.

To help better understand the copper coupon failures, a copper coupon Oddy test was conducted on one particular epoxy, using the resin and catalyst separately and then the catalyzed resin (fig.6).

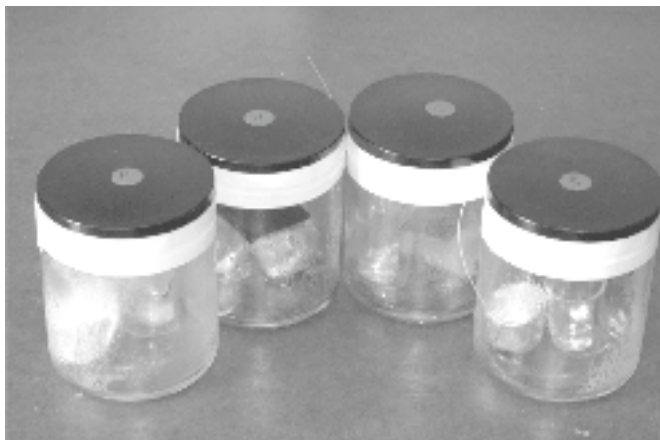


figure 6

The results show the resin itself had no effect on the copper coupon, the catalyzed resin had slight corrosion, but the catalyst alone was found to be highly corrosive. A noticeable effect on the copper coupon was noted after only a few days. This suggested that the presence of some components could lead to greater corrosion during Oddy testing. A brief survey hints at the chemical variability possible in epoxy manufacture:

Epoxy resin types

Glycidyl

- GEBRA (diglycidylether of bisphenol A)
- TGMDA (tetraglycidylmethylenedianiline)

Non-Glycidyl

- Phenol cresol novolac
- Cycloaliphatic epoxies (CA)

Curing agents

- Polyamine/amine (most common and durable)
- Tetramine (tetraamine)

- Hexamethylene EDA, DTA, TETA
- Polyamide/amide
- Phenolic
- Acid Anhydrides
 - Phthalic Anhydride
 - Pyromellitic dianhydride.
- Isocyanates (aromatic/aliphatic)
- Polymercaptans

Comparison to available product descriptions show no clear correlation between chemical listings (curing agents) and Oddy fails even though the functional groups may appear to be chemically similar:

PaleoBond (Phenol 4,4' 1-methylethylidene)	Fail
Magic Smooth (1-methylethylidene)	Pass
PC Marine (polymeric phenolic amine)	Pass
PhillySeal (triethylene tetramine)	Pass
Gapoxio (triethylene pentamine)	Fail

In order to establish some correlations conservation professionals should continue to gather information on epoxy components. For example, if polymeric phenolic amines continue to pass, this may be a good indicator of a future Oddy pass. Conversely, the failure of a pentamine vs. tetramine may indicate some other as yet unidentified component influencing the Oddy test. At this point we would suggest mixing epoxy putty components well, since they are typically harder to mix. Mixing by weight is encouraged to ensure that no component is present in excess, particularly catalyst (fig. 7), and MSDS's and manufacturers should be consulted for listed components such as catalyst type.



figure 7

A Preliminary Review of Some Alternatives to PhillySeal R Epoxy for Conservation and Mountmaking, continued

Mixing Characteristics

Pastes and putties have slightly different working properties and applications. Pastes are generally fluid enough to mix in a cup and cannot be hand-mixed. They are more easily compressed and may be more suited to the capture of fine detail with minimal load applied to the object. However, their lower viscosity leads to slumping in thicker applications, especially if applied on vertical surfaces. Pastes mixed in large volumes may also generate more heat on setting, and therefore accelerate set time.

Putties can be hand mixed but differ somewhat in consistency and workability. Some putties are easily mixed while some are slightly tacky during handling. Putties are ideally suited for compression as they tend to extrude into larger voids such as the underside of marble sculpture bases. Putties can also retain a defined or modeled shape with minimal slumping. Putties and pastes may also be used in conjunction with one another. The general orientation of a sculpture, for example, may be obtained with ribbons of epoxy putty under its base. Epoxy paste can then be used to fill and capture fine detail between these strips.

Results

Evaluation of cost, working properties, and Oddy test passes suggested several promising products, each with their own unique characteristics. Although no direct replacement for PhillySeal was found, a few have similar working properties and favorable results could be achievable (6). These are the products that passed our non-contact Oddy tests with positive results, grouped by similar working properties:

The focus of the investigation was for material used on mounts and objects in collections; further testing would be required to make recommendations for outdoor use. The authors will continue to investigate possibilities and welcome any suggestions for similar products.

Notes

1. Landry, Helene. Remontage d'un Squelette de Beluga, *Proceedings of the 14th annual IIC-CG conference*. Well-heiser, Johanna ed. IIC Canadian Group, 1989, pp.168-171.
2. Levinson, Judith, Nieuwenhuizen, Linda. Chiefly Feasts: A Collaborative Effort, *Objects Specialty Group Postprints*, 1994, pp. 9-21.
3. The authors would like to thank Erik Risser, Jerry Podany, and McKenzie Lowry (JPGM) for their product recommendations.
4. Samples were prepared for Oddy testing by Juliette Jacqmin, Antiquities Conservation Intern 2007-2008.
5. Oddy testing conducted by Mara Schiro and David Carson according to: Bamberger, J.A., Howe, E.G., Wheeler, G. A variant Oddy test procedure for evaluating materials used in storage and display cases, *Studies in Conservation*, 1999, 44 (2), pp. 86-90.
6. Because of the variability of material types and treatment options for art objects, the authors recommend that any of these epoxies be evaluated further prior to use for a specific application.

Product	Manufacturer	Contact
Fast curing paste 5-30 min. set time, 6-8 hr. cure		
Akabond 621 KG	Wood and Stone Co.	axson-na.com/axna-ws-epoxy
Slow curing pastes 2-4 hr. set time, 24 hr. cure		
Fixit Paste	Aves Studio	avesstudio.com
Magic Smooth	The Compleat Sculptor	sculpt.com
Fast curing stick putties 5-30 min. set time, 30-60 min. cure		
Crete	PC Products	pcepoxy.com
Plumbing	PC Products	pcepoxy.com
Metal	PC Products	pcepoxy.com
Marine	PC Products	pcepoxy.com
Slow curing putties 2-4 hr. set time, 24 hr. cure		
Apoxie Sculpt	Aves Studio	avesstudio.com
Fixit Putty (White)	Aves Studio	avesstudio.com

STREAMLINING CONDITION REPORTING

A new approach at the Victoria and Albert Museum

The creation of a new role within the Conservation Department of the Victoria and Albert Museum (V&A), that of Condition Reporting Administrator, has resulted in dramatic improvements to the condition reporting process. Government Indemnity requires the condition of an object to be recorded before, during, and upon return from loan or touring. Last year a total of 152 short loans (involving 1,224 objects) and over 40 international and national touring exhibitions (involving 1852 objects) left the V&A. The Conservation Department has traditionally been responsible for producing condition statements to accompany each object. These can take between fifteen minutes to complete for simple two-dimensional prints and drawings to two hours for more complex three-dimensional costumes. The completion of over 3000 condition statements requires 1.25 full time equivalent conservation staff.

Loans and touring exhibitions are just one of the object-focussed priorities for the Department; preparing objects for exhibitions, gallery refurbishment, and catalogues also requires considerable input. The Department has become increasingly effective in delivering these objectives and, in doing so, has challenged traditional attitudes and practice by undertaking systematic reviews of roles and process and embracing electronic systems.

The unique importance of the role of conservator as assessor of an object's condition was highlighted during a review of the loans process. However, it was realised that the preparation of a condition statement with accompanying photographs could be undertaken by non-conservators with the appropriate skills and training, thereby releasing more conservation time for other activities. It was anticipated that increased efficiencies could

be achieved by moving away from traditional handwritten descriptions, drawings, and acetate overlays, towards electronic condition statements based on high quality digital photographs.

In August 2007 a pilot post of "Condition Reporting Administrator" (CRA) was created. Centrally located in the Administration Section, but line-managed by a conservator (Victoria Oakley) with departmental liaison responsibility for the Exhibitions and Loans departments, this post supported both the Conservation and the Exhibition departments. The job description included coordination, administration, and scheduling of condition reporting for outgoing loans and exhibitions; creation of clear high resolution digital images to record current condition; downloading images into the required format, filing, and archiving; producing condition statements (involving compiling and entering descriptive and administrative details and adding the images); undertaking condition checking of objects on loan to the V&A and training and development.

The role also involved liaison between the Conservation Department, Registrars, and Exhibitions teams, overseeing the schedules of colleagues and working with external couriers. The post holder needed good organisational, time management, and team working skills as well as technical proficiency in producing high quality digital images of objects and Adobe Photoshop™ skills. Training was provided by conservators, in-house photographers, and exhibitions staff in order to familiarise the post holder with internal systems.

Helen Nodding was appointed to the post in August 2007. Her previous work in the Technical Services Depart-

ment, combined with a good understanding of museum processes and experience in the use of electronic systems, helped her to rapidly develop within this role. Within four months, savings and efficiencies had been identified to such a level that a successful business case was made to make this post permanent. The CRA has now been in post for 12 months and has been in a unique position to view the condition reporting process holistically. With no precedent for the position, the role of CRA has evolved in response to the needs of conservators and exhibitions staff and the condition reporting process has been streamlined, saving time (and money) for both departments.

Efficiencies resulting from the CRA post

- Creation of standardised condition statements

The lack of consistency in condition statements across the different studios of the Conservation Department made object assessment unnecessarily complex for couriers on multi-media touring exhibitions. By working alongside conservators, exhibitions staff, and couriers, as well as drawing upon her own experiences and reviewing practice in other establishments, Helen has been able to identify best practice and so develop a more "user friendly" version of the condition statement. A template has been created which includes standardised fonts, colours, layout, and the inclusion of a thumbnail image on the front of the statement to act as a quick reference guide. She has also contributed to the training workshops for couriers, highlighting aspects of checking objects which might be confusing for non-conservators.

- Use of digital images

Several members of the staff may be involved as couriers in the installation and de-installation of objects during multi-venue exhibition tours. In the past, they have often found it difficult to distinguish between old and new damage using statements with written descriptions. At the end of a long tour, the statements were often so heavily annotated that they became difficult to read making it difficult to assess the final condition of the object. The CRA has developed excellent skills in digital photography, photo-editing software (Adobe Photoshop™), and Microsoft® Office, and now creates condition statements based on high quality digital images that highlight areas of damage and reduce the need for annotation. A hard paper copy of the statement is printed out to accompany the objects during the loan or exhibition. The improved format saves time during the assessment and condition checking stages. If necessary, the electronic files of condition statements can be re-used to form the basis of future condition statements more quickly and efficiently than old paper versions.

- Simplifying and clarifying the process

Traditionally, at the start and end of an exhibition, all objects were condition checked by conservators. Exhibitions staff would coordinate appointments for the different materials specialists to view objects as they were unpacked or de-installed. This process was disruptive and inefficient

by Helen Nodding, Victoria Oakley, and Sandra Smith

with each conservator often having to make several trips to the preparation area. The CRA, having undertaken training in condition checking now applies this skill to a wide range of materials, reducing the involvement of conservators. The lead conservator for the exhibition *China Design Now* estimated that Helen has saved her equivalent to a month's work over the installation period.

- Resource usage and financial saving

A review of the work undertaken by the CRA in the first full year of the post has shown that 69% of her time is spent on Conservation Department-focussed activities, 24% on work in the Exhibitions Department with the remaining 7% being spent on training and developing skills necessary for the post and passing on those skills to other members of staff.

Job evaluation grading support (JEGS) confirmed that the CRA's roles and main duties correspond to a salary grade two bands below that of a conservator and one below exhibitions staff. Introducing the CRA post therefore is not only more efficient for the Museum in terms of releasing professional conservation expertise, but has also reduced the costs of delivering loans, exhibitions, and their subsequent tours. A saving of at least £6.82 per hour is made on employing the CRA to undertake the work. The approximate total time saving during the last 12 months for Exhibitions and Conservation amounts to 1,456 hours (380 and 1076 respectively) which represents a saving of £9,257 (£1,919 and £7,338 respectively) for the museum.

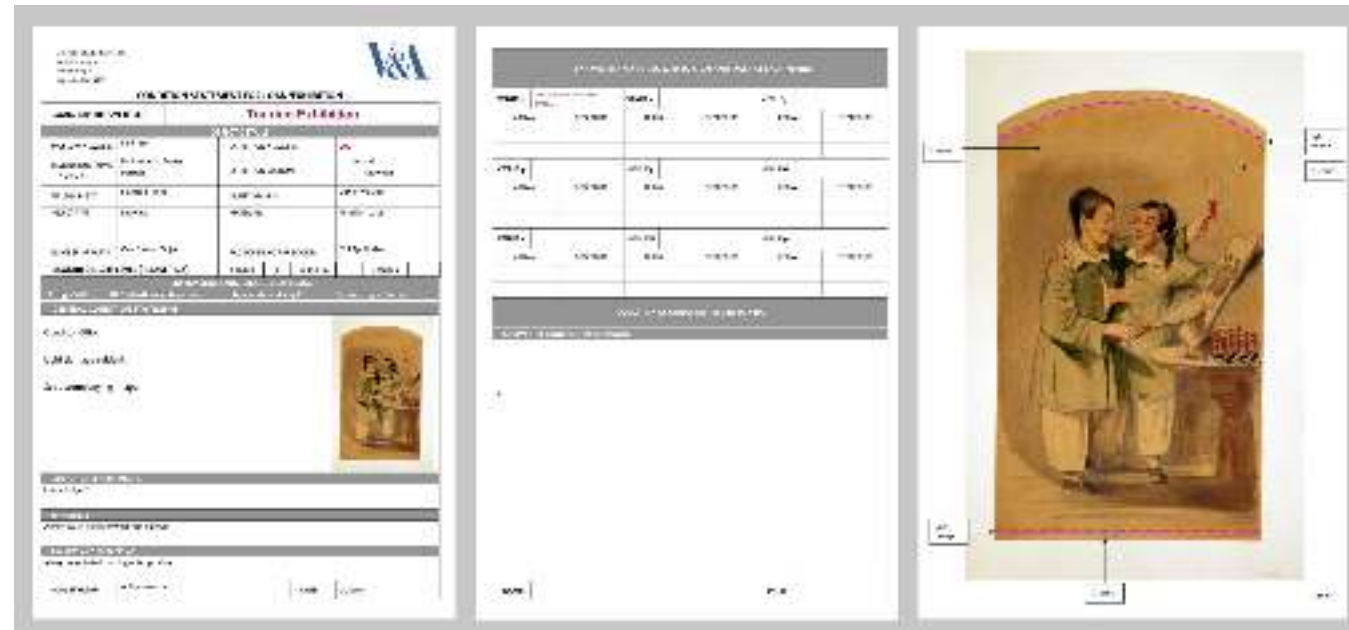
Conclusion

Through the development of a specialist post, it has been possible to improve long standing practice and to rapidly implement museum-wide improvements to the loans and exhibition process. Separating out administrative functions from professional conservation expertise has made the process increasingly efficient as the CRA has developed skills in digital imaging, processing, and associated systems that exceed the abilities of conservators, who would otherwise undertake this role, but on a less frequent basis. Whilst conservators remain an essential part of the loans process, their involvement has been noticeably reduced and the Department has recovered almost half a year of professional conservation time to focus on other object-based activities.

The establishment of this post is also enabling the museum to look for further improvements to the loans and exhibition process. By the end of the 2008, with the help of training from the CRA, it is proposed that the Department will have changed to using completely electronic-based condition statements. The potential for having a central, digital administration point for condition statements is also being assessed in view of the level of success achieved so far.

This article first appeared in *Icon News* 18, September 2008, published by the Institute of Conservation.

Courtesy of the Victoria and Albert Museum London



Sorting Out Surfactants

The Modular Cleaning Program (MCP) incorporates a number of surfactants that can be used in the aqueous cleaning of painted surfaces. There are both major and subtle differences in the properties and behaviors of these surfactants. The following are my thoughts/insights on these surfactants.

But first, a bit of background. A surfactant is a chemical entity that has both polar (hydrophilic) and non-polar (hydrophobic) areas on the same molecule. The polar, hydrophilic end dissolves in water while the non-polar, hydrophobic end dislikes water and does its best to get away from the aqueous environment. As these dual personality molecules are added to water, the hydrophobic ends, repelled by the water molecules, pull the rest of the molecule to the surface of the water. (Hence the term surface active agent or surfactant for short.)

The polar, hydrophilic end of the molecule can be created via an acid or base group which can disassociate in water (anionic and cationic surfactants) or by having a group with sufficient polar quality in the molecule that it is soluble in water through hydrogen bonding and/or dipole interactions. The hydrophobic end of the molecule can be anything that is not soluble in water. In fact the nature of the hydrophobic end of the molecule determines the specificity of the attraction of the surfactant to the “dirt.”

This specificity of the surfactant’s interaction with the “dirt” is key to the exploitation of surfactants in conservation. Just as “like dissolves like” in the world of solvents, “like attracts like” when considering how a surfactant’s hydrophobic end interacts with “dirt.”

We can exploit this “like attracts like” idea by matching our hydrophobic end of the surfactant to that which we wish to pull up into an aqueous cleaning system. The most obvious use of this approach is soap. If we want to get something greasy off of our hands, we take fat, react it with a base to saponify the fat (adding the hydrophilic end onto the molecule), and use the resulting soap to clean our hands. If we want to remove aged natural resin, we take an acidic resin, react it with a base, and use the resulting resin soap to assist pulling the aged resin coating into our aqueous cleaning system. Properly, when a surfactant is used this way, it is referred to as an affinity surfactant, which is the term Richard Wolbers, uses in his presentations and publications.

As surfactant is added to water, the molecules first are pushed to the surfaces by the repulsion of the hydrophobic ends by the water. The surfactant molecules will collect at the surfaces of the water (air/water interface, water/glass interface, etc) until all of the surface space is taken. At this point, additional surfactant must go somewhere, so it forms little spherical blobs with the hydrophobic parts of the molecule towards the inside of the sphere and the hydrophilic parts on the outside of the sphere, a micelle. This point where micelles begin to form as more surfactant is added is called the critical micelle concentration or cmc for short.

Prior to the formation of micelles, the surfactant only reduces the surface tension of the water. When micelles begin to form, the solution can begin acting as a detergent. A detergent “cleans” by incorporating dirt into the micelles that allows the dirt to be suspended in the water and float away.

If we wish to exploit surfactants to “clean” something, we need to have sufficient surfactant in solution to not only exceed the cmc but to form sufficient micelles to allow the “dirt” to be suspended in our cleaning system. However, we want to avoid having a huge excess of surfactant in solution to reduce the effort in removing (rinsing) the excess surfactant from the surface. Typically, we use a surfactant at 5 to as much as 10 times its cmc. (See the graphs, Figures 4.2 and 4.3, on pages 59 and 60 in Wolbers*.)

Consider the micelle. These form into spherical blobs with the hydrophobic ends of the surfactant in the middle, surrounded by a skin of hydrophilic groups. On average, a certain number of surfactant molecules will make a micelle. This number is called the Aggregation Number. If the aggregation number is known, we can calculate the concentration of the actual micelles in our cleaning solution. The micelle concentration would be the concentration of surfactant in the cleaning solution, less the cmc, all divided by the Aggregation Number. If the Aggregation Number is low, we would use our surfactant at closer to 5 times the cmc, while if it were very large, we might work at closer to 10 times the cmc.

Perhaps the most common metric for the “cleaning power” of surfactants is the HLB or Hydrophile Lipophile Balance number. (Lipophilic is the same as hydrophobic ... unless one is discussing rabies.) The HLB system is an empirical method of evaluating the comparative strength of surfactants. It was developed for classifying nonionic surfactants by William C. Griffin of the Atlas Powder Company nearly 60 years ago.

The original definition was 20 x molecular weight of the hydrophilic end of the molecule divided by the total molecular weight of the surfactant giving an HLB range of 0-20. Since that initial proposition, the HLB has been redefined and extended numerous times and now includes anionic and cationic surfactants as well. There is even an elaborate experimental HLB measurement based on how quickly a mixture of mineral oil, water, and the surfactant will separate after shaking. When cationic and anionic surfactants are added, the HLB scale is extended from 0 to 40. Perhaps the best summary of the HLB system is a quote from an unnamed tech director at a major consumer products company: “We’re disappointed by the lack of science behind the HLB System, we just use it because it works.” †

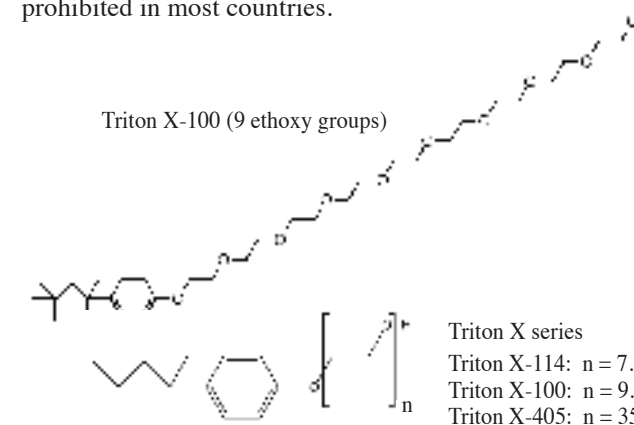
The table on page 13 summarizes the various properties of the surfactants. I’ve also written a bit about each surfactant as a guide as to when and under what circumstances it might be found to be effective.

by Chris Stavroudis

Nonionic Surfactants (These can be used at any pH.)

Triton X-100

Triton X-100 was once our favorite surfactant. Its structure incorporates a linear carbon chain and a benzene ring on the hydrophobic side and a long chain of polyoxyethylene (POE) for the hydrophilic side of the molecule. While it is of moderate HLB, the molecular diversity of the hydrophobic portion of the molecule allows it to snuggle up to a wide variety of dirt. Unfortunately, the hydrophobic component, octylphenol, is an estrogen mimic and plays havoc with fishes reproductive systems (and likely peoples’ too). Octylphenol and nonylphenol cause feminization of male fish rendering them nearly sterile. (Coincidentally, the most common spermicide nonoxynol-9 is polyethoxylated nonylphenol.) So the long and short of it is, these products are on their way out. Their discharge into the ecosystem is, or is going to be, prohibited in most countries.

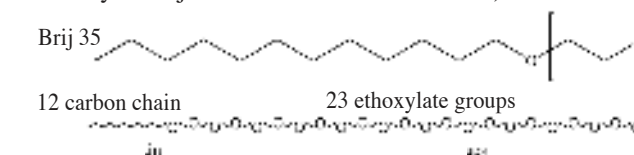


Triton XL-80N or Surfonic JL-80X

Triton XL-80N was originally formulated to work as a replacement for Triton X-100 when the environmental concerns about X-100 became clear. XL-80N has been discontinued, but the Surfonic JL-80X is chemically very similar and appears to have comparable properties to XL-80N and, so by extension, to X-100. Many of the physical properties of the JL-80X are not known (or I haven’t been able to find them) so I’ve used those of XL-80N in the MCP.

Brij 35

Brij 35 is a polyethoxylated lauryl alcohol (yielding a lauryl ether). Lauryl is code for a fatty mess obtained from coconut oil consisting of mostly a 12 carbon, straight chain, primary alcohol, dodecanol. The ethoxylate chain averages 23 repeating units. In my practice, I’ve been using Brij 700 which is similar but has both a longer hydrophobic chain and a longer hydrophilic chain. I also found that the bottle of Brij 35, while a nonionic, had a very low pH (although this may have just been the batch I received).



Brij 700

Brij 700 is a polyethoxylated stearyl alcohol, stearyl being largely an 18 carbon linear chain predominant in animal fat. The polyethoxylate chain is a whopping 100 repeating units. This yields a very large molecule with one of the highest HLBs for a nonionic surfactant. Both Brij 35 and 700 are good at solubilizing straight chain fats and oils, making them very effective detergents. Again, using the “like attracts like” these would be good candidates for greasy surface dirt. You might also want to avoid detergents with long, linear carbon chains if you are working with very young oil.



Ethofat 242/25

This Ethofat is an ethoxylated tall oil. Tall oil, it turns out, is some sort of yuck derived from processing of trees into paper and consists in large part of rosin. So, Ethofat 242/25 is sort of a nonionic resin soap. It is certainly not as effective as anionic resin soaps (abietates and deoxycholates) but because it is nonionic, it can be used at any pH.

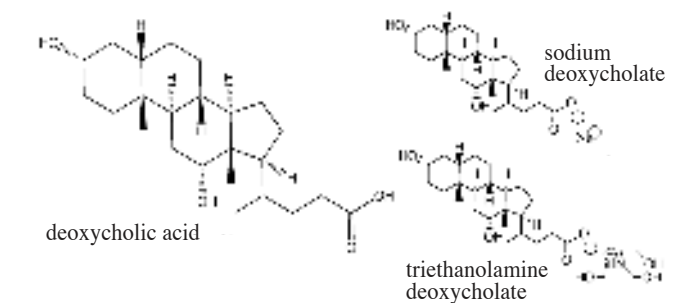
Anionic Surfactants

The solubility of anionic surfactants relies on the acid group on the hydrophilic end of the molecule to be disassociated when in solution. Therefore, there is a pH below which any anionic surfactant will separate into a greasy oil floating on top of the water or a precipitate in the water.

The “resin soaps”

Deoxycholic acid

Deoxycholic acid is a bile acid. It has a structure that is similar to the structure of dammar’s major component. Different soaps can be made using sodium hydroxide, ammonium hydroxide, or triethanolamine to deprotonate the deoxycholic acid. Deoxycholic acid is virtually insoluble in water. That and its high pKa mean that a deoxycholate solution will not be stable below a pH of 8.0 to 8.3. The choice of the counter ion has some bearing on the solubility of the resin soap, too. Also, since ammonium hydroxide is volatile, ammonium deoxycholate solutions’ pH can drop over time, which can cause the deoxycholate to begin to precipitate. Another odd quirk of deoxycholate is that at a certain pH it can form dimers and self emulsify the free acid, at this point the solution becomes a mucous-like slimy mess. Increasing the pH slightly will bring the deoxycholate into complete solution.

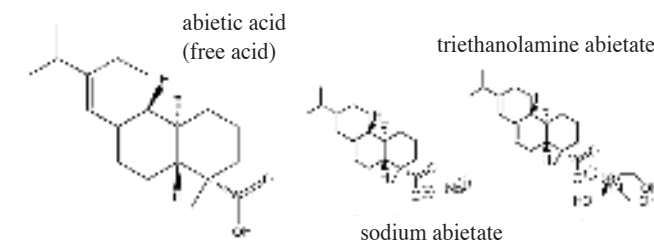


Common name	Surfactant type	Other names	Chemical Abstracts Service (CAS) number	Active percent	Physical form	Molecular weight	Aggregation number	CMC (mM)	CMC (%)	Density	HLB
Triton X-100	nonionic	octylphenol ethoxylate polyoxyethylene 9,5-octiphenol	9036-19-5	100	liquid	628	140	0.24	0.015	1.07	13.4
Triton XL-80N	nonionic	alkyl-oxy-polyethylene-oxy-polypropylene-oxy-ethanol		100	liquid	442		0.19	0.0086	0.985	12.5
Surfonic JL-80X	nonionic	C10-C12 alcohols, ethoxylatedpropoxylated	68154-97-2	100	liquid	603		?		1.007	13.1
Brij® 35	nonionic	polyoxyethylene 23-lauryl ether	9002-92-0	100	solid	1225	40	0.068	0.01		16.9
Brij® 700	nonionic	polyoxyethylene 100 stearyl ether	9005-00-9	100	solid	4670		0.02	0.01	1.100	18.8
Ethofat 242/25	nonionic	ethoxylated tall oil	65071-95-6	100	liquid	945		4	0.4	1.081	12.2
Pluronic L64		poloxamer 184	9003-11-6	100	liquid	2900					15
deoxycholic acid	anionic	cholan-24-oic acid, 3,12-dihydroxy	302-95-4	100	solid	392.6	22	5	0.20		17.6
sodium deoxycholate	anionic	sodium salt	302-95-4	100	solid	414.6	22	5	0.21		17.6
triethanolamine deoxycholate	anionic	triethanolammonium salt	302-95-4	100	solid		22	5			17.6
abietic acid	anionic	decahydrophenanthrene-1-carboxylic acid	514-10-3	100	solid	302.5		2	0.061		8.2
sodium abietate	anionic	sodium salt		100	solid	324.4		2	0.07		8.2
triethanolamine abietate	anionic	triethanolammonium salt		100	solid	433.6		2	0.87		8.2
sodium lauryl sulfate	anionic	sodium dodecyl sulfate, SDS, SLS, Orvus WA	151-21-3	100	solid	288.4	62	7.1			40
Maypon 4C	anionic	potassium cocoyl hydrolyzed collagen	689920-65-0	35	solution	?				1.06	

Sorting Out Surfactants, continued

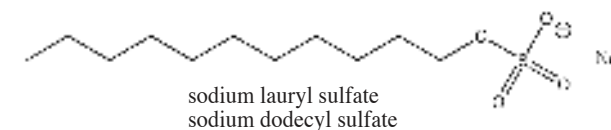
Abietic acid

Abietic acid is another material that has a structure similar to dammar. It is a component of rosin. As with deoxycholic acid, abietic acid can be made into resin soaps with sodium, ammonium, or triethanolammonium counter ions. It also can only be used at a high pH. For a time, finding commercial abietic acid that was indeed abietic acid was a bit of a challenge. However commercial triethanolammonium abietate is available. This material looks something like earwax and requires additional triethanolamine to bring it into solution.



Sodium lauryl sulfate

Sodium lauryl sulfate (SLS) or sodium dodecyl sulfate (SDS) is a very widely used anionic surfactant. It is the basis for many shampoos and soap systems and is used in textile conservation. (Orvus is a brand name for a 35% solution of SLS.) It has as high an HLB as is possible. It is a very powerful surfactant and again, in terms of "like attracts like" it is very good at bringing fatty materials into solution. Its main disadvantage in cleaning paint surfaces is that it is very prone to foaming. It has a very low pKa and can be used at pHs as low as 4. At a pH of about 3.6, a greasy layer of lauryl sulfonic acid will float to the surface.



Maypon 4C

Maypon is an anionic surfactant that is based on hydrolyzed collagen. It is used in shampoo to help remove proteinaceous yuck from our hair and scalp. Again, applying the idea of "like attracts like" this is a good candidate for trying to solubilize a coating with a component of protein or a very degraded animal glue. While it is certainly no where near as effective as an enzyme at removing animal glue, it can sometimes be just enough to coax a material partly bound with glue to yield or even a very thin or degraded glue film to go into solution. Maypon can be used down to a pH of about 5. At a pH of 4.6, it separates.

There are literally hundreds of thousands of other surfactants available. Plus many surfactants from different manufacturers have the same or very similar composition.

*Wolbers, Richard. *Cleaning Painted Surfaces: Aqueous Methods*. Archetype Publications: 2000.

† "The HLB System," a PDF of a Power Point presentation ©2005 by Uniqema Ltd. at croda.com/download.aspx?133&doc&id=267.

Naming of Generic Hydrocarbon Solvents: an Update

by Alan Phenix

In a previous article, "Generic Hydrocarbon Solvents: a guide to nomenclature" (Vol. 29, No. 2, May 2007), I attempted to unravel some of the web of confusion that surrounds this particular subject. I've recently come across a publication which brings the situation a bit more up-to-date, at least from the European perspective, and I thought to offer this information as a kind of addendum.

In the 2007 article, I tried to explain some of the difficulties that occurred when using CAS Registry or European EINECS numbers for describing hydrocarbon solvents. Within the regulatory bodies of the European Community, the inconsistent and inaccurate description of hydrocarbon solvent products using CAS and EINECS registry conventions was recognized as a special problem, particularly in relation to environmental hazard classifications. In the late 1990s the European Chemicals Board invited the Hydrocarbon Solvents Producers Association (HSPA) – which is the solvents industry representative of the European Chemical Industry Council – to provide a rationale for the classification of these products, primarily with regard to their environmental, especially aquatic, toxicity. The first report by HSPA was published in 2000.

In 2008 HSPA published a further document on the subject entitled "Substance identification and naming convention for hydrocarbon solvents under REACH," available online and well worth a look. In all probability, the naming convention established by HSPA will become the descriptive framework for hydrocarbon solvents in years to come under the Europe-wide REACH initiative. The document gives some nice examples of how the new naming convention works, such as:

Common name	HSPA convention name
Hexane, technical	Hydrocarbons, C6, n-alkanes/isoalkanes/cyclics, n-hexane (5-80%)
Regular white spirit	Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)
De-aromatized white spirit	Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics

"Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, aromatics 2 – 25%" may not roll off the tongue as smoothly as white spirits, but it's a bit more precise in terms of describing what it actually is.

Notes and References

The Classification of petroleum solvent streams and related complex hydrocarbon solvents for aquatic environmental effects and the EU Dangerous Substances Directive. Report prepared by the Hydrocarbon Solvent Producers Association, August 2000. CEFIC – SPA Brussels, Belgium. Ref.: ECBI/73/95 Add. 10.rev. 1. See: esig.org/uploads/documents/121-560-hspa_substance_identification.pdf.

REACH is the EC Regulation for Registration, Evaluation, Authorization, and Restriction of Chemicals. It entered into force on 1st June 2007 to streamline and improve the former legislative framework on chemicals of the European Union. REACH places greater responsibility on industry to manage the risks that chemicals may pose to the health and the environment. For further information, see: reach.jrc.it/.

Annual Meeting Abstracts

The 2008 WAAC Annual Meeting was held October 24-26 in Los Angeles, California. The papers from the meeting are listed below along with summaries prepared by the speakers.

Evaluation of Fiber Samples from Early Victorian Dyed Woolen Yarns

Terry Schaeffer and Charlotte Eng

LACMA recently received a gift of an early Victorian yarn sample book in which the majority of the samples are accompanied by recipes. The dyed woolen yarns represent a very wide color palette created completely, according to the recipes, from colorants and dyeing assistants that were available before the advent of coal tar dyes. More than one person contributed samples and recipes to the book, which appears to have been a personal reference work rather than a sample book for perusal by customers. The yarns were intended for carpet manufacture in England.

Many of the large number of color groups in the book are represented by several yarns with a range of hues and depths of shade. The recipes often indicate that the relative amounts of ingredients were varied in a systematic way, suggesting that the makers of the samples were experimenting to broaden the range of their color palette. The majority of the colors do not appear to be significantly faded.

The availability of this large collection of samples provides an unusual opportunity to apply noninvasive and nondestructive analytical techniques to the yarns and fiber samples. These results can then be compared to data obtained from microchemical analyses performed on very small fiber samples. Our goals have been to confirm the presence of ingredients in the samples with recipes and to identify ingredients in yarns without recipes, while consuming as little fiber as possible.

One method we have used is reflectance spectroscopy of small clusters of fibers from the yarns, using a Cary 50 spectrophotometer with a Barreline accessory. Although the reflectance spectra tend to be relatively featureless and the reflectance of the fiber samples placed on a white background is high, we were able to deduce specific information from the Kubelka-Munk transforms and derivatives of the transforms of the spectra. Interpretation of these results has been aided by comparison of the data to spectra of some of Helmut Schweppe's dyed woolen yarns in the reference collection at the Getty Conservation Institute.

Fourier-Transform Infrared, Raman and x-ray fluorescence spectroscopy, and x-ray diffractometry, have also been applied to selected samples from the Victorian yarn collection. Results have indicated that a few of the samples were not dyed according to their accompanying recipes.

Ten Years of Treating Russian Icons from the Aleut and Pribilof Islands

Cynthia Lawrence

This paper discusses an ongoing conservation project involving icons from the Aleutian and Pribilof Islands. The conservation project is coordinated, organized, and overseen by the Aleutian Pribilof Heritage Group, a non-profit entity created by an amendment to the Aleutian Islands Restitution Act passed by congress in 1988, to be responsible for the restoration of six Russian Orthodox churches, which were pilfered and damaged during World War II. Once the church buildings had been restored, the Heritage Group began the icon conservation project.

The majority of these icons are of 19th-century Russian origin; however, they range considerably in terms of style, materials and construction, and condition. Prior to World War II, the icons were exposed to relatively extreme environmental conditions typical of Alaskan islands, where churches were generally heated only for services.

During the war, environmental conditions worsened for paintings left behind in the churches when residents were evacuated to internment camps, while others were buried in barrels or "boxes" in the ground nearby for three years, and still others were carried to the internment camps in the hopes of being placed in chapels in the camps.

Having been part of the conservation efforts of a large collection of closely related objects over a period of time has allowed for an opportunity to continually re-evaluate the needs of the objects, necessary ethical considerations, and the treatment approaches chosen, and to gain a better understanding of their relation to each other and to the needs of the communities of which they are a part. How the uniqueness of these works of art has helped form a general conservation approach and guided specific treatment choices is examined in this presentation.

I have been conserving icons from the Aleutian and Pribilof Islands for approximately 10 years, after having first been approached by Vera Espinola, an icon conservation specialist, in 1997. She had completed a survey of churches, icons, and religious objects earlier, as part of a restoration effort begun by the Aleutian Pribilof Heritage Group. With monies paid by the US government as restitution to the Aleut people, along with grants from the National Park Service, and American Express, the Heritage Group has overseen the restoration of six churches and rebuilding of one chapel, and continues to administer to the conservation of their numerous icons.

This on-going project has been a collaboration among Vera, members of the Heritage Group, the Aleut and Pribilof people - priest and lay - who have devoted themselves to caring for these icons, colleagues in both objects and paintings conservation, and myself. The experience has caused me to truly appreciate the uniqueness and integrity of each artwork I treat; has given me a greater respect for the significance an artwork may hold for its owner, steward, or community; and continues to challenge my skills, perspectives, and creativity as a conservator.

x

Annual Meeting Abstracts, continued

Addressing Previous Repairs of a Konaig-Style Baidarka

Dana K. Senge

The Kodiak Island Historical Society in Kodiak, AK owns and exhibits one of the five known remaining Koniag-Style three hole Baidarkas (Kayaks) in the world. This historical artifact was extensively examined and treated in 1978 by graduate students of the George Washington University Conservation Program. While this was a sound conservation treatment, the piece is on permanent exhibit in an historic structure with little climate control, causing this wood and skin artifact to continue to change shape with time. By the early 2000s the 20+ year old repairs had separated from the skin shell in several locations, and a new course of treatment was desired by the museum staff. The treatment of this piece in the fall of 2007 became a major project for this small historical society and museum and included several educational opportunities for the conservator, staff, and community in the structure, history, and preservation of the watercraft.

The Saites in San Diego

David A. Scott

A coffin from the collections of the San Diego Museum of Man is described and examined in this talk. The coffin is one of a group of six donated to the Museum of Man in 2001. None of the group has yet been published, and this is the first account of one of these coffins. Three of them are suffering from insect infestation and will later have to be treated by anoxia fumigation using humidified nitrogen, but at present the pigments, grounds, previous restoration, binding media, wood identification, and aspects of the hieroglyphic inscriptions on the coffin will be discussed.

This study forms part of the technical art historical investigation of ancient Egyptian pigments, particularly green pigments, which have often proved to be difficult to characterize, and which forms part of an on-going research

project. In the coffin described here, the pigments and binding media used are quite conservative, reflecting the continuation of earlier traditions in the 26-28th Dynasties. The flesh-coloured face however, contains titanium-based pigments and is probably a later restoration, which confounds some art historical interpretations of the color of the face of this coffin.

Conservation at Kaman Kalehöyük

Alice Boccia Paterakis
Director of Conservation
Kaman Kalehöyük Excavation
Japanese Institute of Anatolian Archaeology, Turkey

A summary of several projects that have been carried out in the Conservation Laboratory of the Kaman Kalehöyük excavation in Turkey since 1992 will be presented including the conservation treatment and stabilization of archaeological iron and bronze. The expansion of the site into an international center for the study of Anatolian archaeology, under the auspices of the Japanese Institute of Anatolian Archaeology, will be presented with numerous images.

Plans for the future of conservation at Kaman Kalehöyük consist of moving into the new conservation laboratory in 2009, the renewal of the annual conservation student internship program, and holding a workshop in 2010 and a conference in 2011 for archaeological conservators.

Preserving Los Angeles - SurveyLA: the Los Angeles Historic Resources Survey

Ken Bernstein

Despite its perennial image as a "city of the future" with little real history, Los Angeles boasts a diverse and fascinating architectural heritage. The city of Los Angeles is now taking a significant step to identify and protect this rich heritage by embarking on SurveyLA - its first-ever citywide historic resources survey.

SurveyLA will be a comprehensive inventory of a city that comprises 466 square miles and 880,000 legal parcels - an area larger than eight of the nation's largest cities combined. The citywide survey is partially funded by a generous \$2.5 million, five-year grant from the Getty Foundation. The survey project will make historic resource information readily accessible on the city's website to shape decisions by policy makers, developers, urban planners, and property owners.

This presentation will explain how SurveyLA marks a coming-of-age for historic preservation in Los Angeles and can serve as a model for other cities' efforts to preserve their own fragile heritage.

Melting Moments: A Technical Note on the Use of Steam to Remove Hand Soiling from Stone Surfaces

J. Claire Dean

Current renovations at the Natural History Museum of Los Angeles County have called for the rapid de-installation and redisplay (in a new location) of the museum's Ancient Latin American Hall, all in the space of three and a half months. After decades on open exhibit, many stone items are discoloured and heavily soiled, the result of thousands of hands touching exposed surfaces. The compressed exhibit schedule called for a fast, effective but safe way to remove this dirt. The use of a hand held jet steamer to help break up and remove the dirt was investigated with pleasantly surprising results.

Coordinating a Three Year Study on Federally-Compliant Protective Clear Coatings for Metals

Tami Lasseter Clare and P. Andrew Lins

The conservation and preservation professions in the US and in Europe face the real prospect that in the near future there will be no viable clear coating systems to protect outdoor monuments, sculptures,

Annual Meeting Abstracts, continued

buildings, and other significant artifacts made of copper or iron alloys against corrosion and degradation.

If regulations outlawing the use of solvents common to the formulation and application of such coatings are expanded in the next two or three years, the only options available may be short lived wax pastes that typically require reapplication every one to three years and contain some percentage of solvents that are also likely to be restricted.

The goal of this project is to develop and evaluate a new clear coating for metal that will be environmentally safe and long lasting, thus saving museums time and money, as well as reducing hazards for conservation staff. Over the course of this three-year project, a double-blind study of candidate coatings will be undertaken with participation of volunteer conservators who will evaluate the coatings based on qualitative parameters, such as ease of use, appearance, and workability.

Concurrently, accelerated and natural weathering studies of the candidate coatings on bronze and iron (both patinated and bare) samples will be undertaken. The performance of the coatings during exposure will be analyzed using electrochemical impedance spectroscopy and other scientific methods as required. In this presentation, the authors wish to share the goals of the project with the conservation community and to solicit participants in the double-blind study.

Car Trouble: The Mass Fumigation of an Infested Automotive Collection

Tania Collas

The discovery of a moth infestation within the Automotive Collection of the Natural History Museum of Los Angeles County required a broad-sweeping response. Webbing clothes moths had infested the horse-hair upholstery in several vehicles and appeared to be spreading among the 45 historic cars housed in the same storage space. Adding to the

urgency, the Automotive Collection was scheduled to move into a new storage facility within the year.

After careful consideration, museum staff determined that mass fumigation would be the safest, most effective, and most practical means of eradicating the moths before moving the cars into their new pest-free location. Because of the large number of infested and potentially infested cars, fumigation took place in two rounds; experiences from the first round led to improvements in the second round.

The fumigation process, while adding a new level of complication to an already challenging collection move, proved to be the best solution to an otherwise overwhelming problem. The lessons learned from this mass treatment may help guide decisions for the treatment of similar large-scale infestation problems.

Built Heritage Conservation Education in Southeast Asia

Kecia Fong

Heritage conservation = education + culture + relevance. Education = knowledge + skills + culture.

The Education department of the Getty Conservation Institute has recently launched a regional education and training initiative for the conservation of built heritage in Southeast Asia. This initiative takes into account that heritage conservation as both concept and act is multivalent by nature and that education is informed by culture. Consequently, the task of improving heritage conservation demands a multi-faceted approach.

The Southeast Asia initiative has been designed in multiple components, each characterized by a particular activity and directed towards a specific audience. These are: field workshops for conservation professionals; practicing professionals in the field; didactic materials for conservation education; educators and trainers; convening meetings of topical interest for conservation professionals who are both directly and indi-

rectly related to heritage conservation.

Throughout these components the issues of cultural perspective and values are considered in the framing of the content and communication of the information.

Rediscovering a Danish Medieval Polychrome Altarpiece

Conny Hansen and Marcelle Andreasson Lunau
National Museum Copenhagen

In 2006–07, a large scale conservation project took place at the National Museum in Copenhagen, Denmark. A polychrome altarpiece originally dated 1470, was brought in for conservation. The altarpiece consists of 12 apostles, 4 scenes from the life of St. Andrew, and one large figure of St. Andrew. Furthermore, the doors of the altar are painted with eight scenes from the life of Christ. The quality of the woodwork as well as the paint layers that emerged is outstanding considering that the altarpiece still stands in the small village church it originally was made for, on the island of Møn.

This talk is a discussion of the treatment and the many decisions that were made throughout the project. Two layers of over-paint covered the entire altarpiece, one applied in 1859 and one applied in 1937, and it was clear that the over-paint caused tension and flaking throughout. It was of course not easy to define the state of the original paint layers. One figure had however been tested and cleaned a few years earlier and the result was promising.

A thorough scientific examination of the colors, paint layers, and original as well as conservation materials, took place before the conservation work started. The treatment consisted mainly of consolidation and structural stabilization prior to the removal of the two layers of over-paint. Some surprising scenes and facts about the altar were revealed and the age was redefined by both scientists and art-historians. The project involved 5 conservators and ended up taking close

Annual Meeting Abstracts, continued

to two years.

Still Pictures: Pictures of Stills and Other Images from the History of Turpentine

Alan Phenix

In more than one sense, turpentine is the disappearing artists' material. Demand for and use of the material has declined considerably in recent decades as a consequence mostly of economic and environmental pressures.

Despite being a "green" solvent, in the sense of being carbon-neutral, production of oil of turpentine has diminished considerably in the western world. China is now the world's leading producer of this material. Manufacture of oil of turpentine and rosin (colophony) from pine resin obtained by scarring of trees effectively ceased in August 2001, so ending America's oldest continuous export industry, older even than tobacco.

Oil of turpentine disappears in other ways too. It is the traditional thinner or diluent for artists working with oil-based paint media and resinous varnishes. But unlike pigments and binding media, the use of oil of turpentine (or any other volatile solvents, such as mineral spirits, oil of spike lavender, etc.) cannot usually be detected now in old works of art by modern techniques of instrumental analytical chemistry for the simple reason that all molecular traces have effectively disappeared from the object by evaporation.

In the absence of chemical analytical data which might indicate the history of use and manufacture of such materials, we are reliant on historical and documentary sources for understanding of this subject.

This talk will present some initial findings from casual research into the history of these volatile solvents which started when the author was a visiting research scholar at the Getty in 2005-6 and which he continues on an informal basis. The focus will be very much on pictorial evidence: selected images from the history of the distillation of volatile oils from

its beginnings in classical times through to the present day. In addition to conventional sources of technical art history, the survey takes in material from a wide range of subject areas including: naval stores; their commercial and socio-economic history; marine archaeology; the history of chemistry and alchemy; the history of medicine, surgery, and pharmacology; herbs and ethnobotany; forest products and forest management; warfare and incendiary weaponry; history of fire-fighting; perfumery, amongst others.

Particularly valuable sources of historical evidence have been found for the pine resin (naval stores) industries of the south-eastern United States and south-western France (Les Landes, Gascony), the latter dating back at least to Romano-Celtic times.

Important clues to the early development of essential oil distillation have also been found in medical and pharmaceutical treatises of the late Middle Ages, especially in herbals. Accordingly, the author believes that it can now be argued convincingly that knowledge of distilled volatile oils existed at least as early as the turn of the fourteenth century and that distilled oil of turpentine would have been available to painters through apothecaries by this date. Even if it cannot be proved that they actually used it, oil of turpentine would almost certainly have been known to the early painters in oil.

The emergence of distilled volatile oils, it will be suggested, probably follows from the discovery of the distillation of strong alcohol (aqua ardens, aqua vitae) in which the medical schools of Italy (Salerno, Bologna) played an important role.

The Modular Cleaning Program: Changes and Updates

Chris Stavroudis

In the last year, the MCP has been updated to a newer version of FileMaker Pro (a much more arduous task than it sounds). At the same time, a number of improvements were made and incor-

porated into the database. In addition, after co-teaching a 4 day workshop in Montreal with Richard Wolbers, some of Richard's more recent thoughts and concerns have been incorporated into the database. Richard's use of micro-conductivity and pH meters to measure the ionic environment of a painting surface will be discussed. How these measurements can guide a cleaning and how they have been incorporated into the MCP methodology will be discussed.

The Conservation of the *Born to the West* Movie Banner

Paulette Reading and Camilla Van Vooren

The novel *Valley of the Wild Horses* by early 20th-century Western novelist Zane Grey was adapted to film and released by Paramount Studios as *Born to the West* in 1926. Paulette Reading of Textile Conservation and Camilla Van Vooren from the Western Center for the Conservation of Fine Arts, both in Denver, Colorado, collaborated on the treatment of a fabric banner with a lithographic image advertising the silent movie, in the collection of the National Cowboy and Western Heritage Museum in Oklahoma City.

The paper outlines the testing and lining of the banner. It includes issues and choices relating to the adhesive and adhesive carrier, the choice of lining fabric, and how the fabric was altered to better integrate with the object as well as alignment, registration, handling, and compensation of the banner.

Into the Wild: WAAC'S Next Annual Meeting in Alaska

Scott Carrlee

WAAC's incoming President, Scott Carrlee, will present a short DVD highlighting the venue for next year's meeting. If you have ever thought about going "North to Alaska," here is your chance. Glaciers, mountains, eagles, and bears, there is a good chance you will see all of these and more at the meeting in Juneau as well as hear many informative talks.

The theme for next year's meeting is "Conservation in the Extreme," and the extreme landscape of Alaska will serve as a fitting backdrop. So start your planning NOW!

Light after Dark: A Second Homecoming for Louise Nevelson's *Night Presence II*

Donna Williams

In 2006 Williams Art Conservation and the San Diego Museum applied for and received an Institute for Museum and Library Services grant to restore *Night Presence II*, a sculpture by Louise Nevelson, which has been in the museum's permanent collection for 32 years. Past treatments as well as years of exposure in their outdoor sculpture garden had resulted in serious aesthetic and structural damage to the piece.

The 3000-pound structure was trucked to a facility in North Haven, CT. Working with the sculpture's original fabricators Alfred and Donald Lippincott, the conservator designed specific treatment methods to remove overpaint and repair surface pitting as well as perforations in the steel itself. Following completion of structural treatment in June 2008, the artwork was re-located to Donald Lippincott's property for "weathering" to expedite surface corrosion and color.

In December 2008, the piece is scheduled for trucking back to the San Diego Museum of Art, where it will be installed in a new location for continued public exhibition in an exterior location.

Working with Large Format Photographs at the Getty

Sarah Freeman, Marc Harnly, and Lynne Kaneshiro

With the 2007 exhibition *Recent History: Photographs by Luc Delahaye*, conservators and framers at the J. Paul Getty Museum were required to prepare photographs in excess of 4' x 5' (48 x 60") for display in the Center for Photo-

graphs. This project gave Getty staff an opportunity to challenge the new space and to learn new strategies for the display and care of contemporary art, a relatively new aspect of the museum's collection.

The experience of mounting, framing, glazing, and lighting these large photographs will be described. A review of materials currently available for use with photographs of this scale will also be presented. This will include adhesives and rigid supports for mounting, as well as glazing and other materials for framing.

A Presentation on Cast Bronze Mounts for Temporary Exhibits

Mark Mitton and Adrienne Pamp

This talk will address the challenge of making robust mounts for loan objects while faced with limitations of time and limited access to objects. Solutions discussed involve the manufacture of a large number of mounts that need to be custom fitted in a short span of time. If profiles of objects can be obtained in advance, the mounts can be produced in large numbers prior to the arrival of a loan exhibition.

The presentation will chronicle the steps taken from initial design, stages of manufacture, and final installation. This includes the final fitting of the mounts upon the arrival of objects at the Getty Museum. We will use examples from the installation of three temporary exhibitions at the Getty Center featuring stone, bronze, and ceramic sculpture.

What is Washi? Looking into Basics of Materials, Manufacture, and Terminology of Contemporary Japanese Paper

Soko Furuhashi

Although Japanese paper, known as Washi, is one of the most common materials used in the field of paper conservation, conservators often are not really aware of all materials and the details of the methods for making it.

Terminologies commonly used in association with the word Washi are quite often misused from the lack of understanding. In April 2008, a tour to Japan was organized by Hiromi Katayama of Hiromi Paper International Inc. and Betty Fiske, former Winterthur Museum Adjunct Professor of Winterthur/ University of Delaware Program in Art Conservation. Paper conservators on the trip were given an opportunity to visit several papermaking sites. Through images taken during the tour, basics of several contemporary Japanese papermaking techniques will be presented.

Searching for an Answer – Some Possible Alternatives to PhillySeal R Epoxy Putty

Jeff Maish, BJ Farrar, and Mara Schiro

An epoxy putty produced by Philadelphia Resins, PhillySeal R (formerly Pliacre), has been used widely in conservation and mountmaking for the past two decades. The epoxy product provided a useful substrate for fills as well as a mountmaking interface layer for a range of object types.

A replacement search was initiated following the cessation of PhillySeal's production in 2007. This search highlighted the difficulties of replacing proprietary products but also presented the opportunity to explore and test a broader range of epoxy pastes and putties. Preliminary review of properties and costs coupled with Oddy testing points to some possible alternative products.

Ultraviolet-Excited Fluorescence Photography and Reflectance UV Photography in Art Conservation

Yosi Pozeilov

This talk reviews traditional methods for the photography of works of art using UV radiation as a source and updates these procedures for use with current digital imaging equipment. The use of off-the-shelf cameras, lights, and filters, will be highlighted and examples provided.

"Frieze Falls Foul of the Smoking Ban as it Lights up for the Art World," *The Guardian*, 08/20/2008

An artwork intended to be a commentary on the smoking ban may never see the light of day - because of the smoking ban. US artist Norma Jeane, whose previous works include a cheese made of breast milk and an invitation to 160 people to have sex on a Roman roof terrace, wanted to create three transparent booths, each just big enough for one person to stand in and smoke.

Norma Jeane, who takes his name from the fact that he was born on the day Marilyn Monroe died, intended to highlight the fact that the once social activity of smoking has been transformed through legislation into an antisocial act.

The Straight Story, as the work is titled, was commissioned by Frieze, one of the biggest art fairs in the world. Members of the public were to be invited to smoke inside the booths, which would stand within the Frieze tents. But Westminster council has rejected an application for the "smoking booth" art installation on the grounds that it has insufficient "artistic merit."

"From the Art World to the Underworld," *The Wall Street Journal*, 08/22/2008

Shortly after 9 a.m. on June 4, three men drove to a seaside promenade near Marseilles, their van carrying paintings by Brueghel, Sisley, and Monet. The art had been stolen at gunpoint from the Mus. of Fine Arts in Nice last August.

Now a Frenchman working for an American art dealer was supposed to show up and buy four works for \$4.6 million in cash. Instead, nearly a dozen French police cars pulled up, led by a colonel for the gendarmerie who quickly took a call from Pennsylvania. "We got them!" Col. Pierre Tabel shouted into his cellphone.

The caller was Robert Wittman, an agent for the Federal Bureau of Investigation who had acted as the American "dealer" and orchestrated the sting. Mr. Wittman is one of the world's top art-crime investigators. His specialty is going undercover. The 52-year-old has spent two decades impersonating shady dealers and befriending thieves. In all, he's tracked down \$225 million in missing objects, including a Rembrandt self-portrait and an original copy of the Bill of Rights.

The US is the biggest buyer within the \$6 billion black market for art, the FBI says. Last year, 16,117 artworks in the US were listed by the London-based Art Loss Register as missing or stolen, up from 14,981 the year before.

"Scrub Sao Paulo's Graffiti? Not So Fast, London's Tate Says," *Bloomberg.com*, 08/25/2008

Sao Paulo artists Otavio and Gustavo Pandolfo obliged London's Tate Gallery by painting their distinctive yellow graffiti on outside walls of the museum. Just a month later, their hometown began rolling gray paint across one of the brothers' murals as part of clean-up efforts.

Officials did an abrupt about-face after the Pandolfos and other artists complained both to the city and in the news media. Now Sao Paulo is creating a registry of street art to be preserved, exempt from Mayor Gilberto Kassab's drive to eliminate "visual pollution."

The episode is sparking a public discussion of what constitutes art. "When this happened, we thought, 'what a mess,'" said Regina Monteiro,

who is director of Projects, Environment and Urban Landscaping and in charge of coordinating the city clean-up. "You have the English pampering our graffiti art, and we're not giving it the least bit of value?"

"Atlanta Cyclorama Needs Restoration, Maybe Much More, Some Contend," *The Atlanta Journal-Constitution*, 09/14/2008

Earlier this year a team of Atlanta movers and shakers flew to Pennsylvania to visit the newly renovated cyclorama painting at the Gettysburg Natl. Military Park. The in-the-round painting is as big as eight Sistine Chapel ceilings.

The Atlanta delegation began to rethink Atlanta's own cyclorama of the Battle of Atlanta, the only other surviving example of this gargantuan art form on display in this country. Atlanta's painting, of the July 22, 1864, clash between Union and Confederate soldiers was last renovated extensively from 1979 to 1982 by conservator Gustav Berger. Some viewers believe the 42-by-358-foot painting is overdue for an overhaul, especially with the sparkling Gettysburg restoration as a reference.

Berger's team removed the lead and arsenic coating on the back, glued a fiberglass fabric backing on the Belgian linen fabric, and sealed the painted surface with varnish. The road to hell, it's said, is paved with good intentions, and some contemporary conservators insist that good intentions have caused hellish problems for the Atlanta painting.

David Olin, of Olin Conservation Inc., who carried out the conservation of the Gettysburg painting, also completed a study of the Atlanta Cyclorama in 2006. Both cycloramas were hung incorrectly, Olin said.

Hung correctly, a cyclorama painting adopts a bowed-out, or hyperbolic shape. The surface of such a painting is convex in the vertical dimension, and concave in the horizontal, like the inside perimeter of an inner tube. That shape is maintained by a certain loose tension: the painting is hung from a ring at the top and held by a ring at the bottom.

Both the Gettysburg and Atlanta paintings were instead "hung like a shower curtain," said Olin. That lack of curvature, plus the unyielding fiberglass backing, froze the Atlanta painting in the wrong position.

“To Save and not Forget,” *Chicago Tribune*, 09/12/2008

Auschwitz, Poland — In the years since World War II, this most infamous of Nazi death camps has become a powerful symbol of the horrors of genocide, a place preserved for history as a reminder and a warning.

But Auschwitz, and its neighboring satellite camp Birkenau, were not built to last. Hastily constructed brick barracks rest on marshy soil that over the years has buckled and heaved each winter, threatening the structures.

Curators have battled corrosion of the camps’ thousands of evocative concrete fence posts stitched with barbed wire, as well as the aging of tens of thousands of fragile documents and of the vast heaps of shoes, suitcases, dolls, and other belongings left behind by those herded into the gas chambers.

Exhibits at Auschwitz have been little updated since they were established in 1955, while the number of visitors has been rising since Poland’s inclusion in the European Union in 2004. With survivors of the Holocaust gradually passing away, protecting the structures of Auschwitz as a physical link to history is key but expensive, officials at the memorial say. Finding money to update the aging exhibits and to preserve the increasingly fragile buildings has proved difficult.

Museum officials are working to establish associated charities with tax-free status to accept donations in places like the United States. The memorial also has tried to mend relations with international Jewish organizations, infuriated at Soviet-era Poland’s characterization of Auschwitz as a monument to “victims of fascism” rather than primarily as a Jewish genocide site. Museum officials have since accepted that about 90 % of the people killed at Auschwitz were Jewish.

“Michelangelo’s David ‘at Risk of Collapse’ Because of Traffic and Visitors,” *The Times* (London), 09/19/2008

Antonio Borri, professor of construction engineering at Perugia University and part of the team monitoring the David’s state of conservation, said that cracks which had been repaired during a 2004 restoration marking the 500th anniversary of the statue’s creation had re-appeared.

The statue, which is kept at the Galleria dell Accademia in Florence, attracts more than a million people a year. Professor Borri said the blame lay with traffic vibrations and the pressure of thousands of daily visitors. Michelangelo’s masterpiece was also vulnerable because of its huge size and the poor quality of marble Michelangelo used, Professor Borri said.

The 2004 restoration involved removing grime and sulphate deposits using distilled water and cellulose as well as repairing cracks. This drew criticism from art lovers who feared that the statue could be damaged during cleaning.

The restoration revealed that the statue, which weighs six tons and is 16ft high, was showing signs of stress around the ankles. The statue of David was commissioned by the Florence guild of wool merchants in 1501 and spent centuries in Piazza della Signoria outside the town hall — formerly the palace of the ruling Medici family — open to the elements.

It was damaged during a riot in 1527, and in 1843 was cleaned using chloric acid. It was moved to the Galleria dell Accademia in 1873, where it was better protected, although in 1991 a deranged Italian painter smashed a toe on its left foot with a hammer.

“Mystic Seaport Announces Charles W. Morgan Restoration,” *The Day* (CT), 09/17/2008

Mystic Seaport will officially begin the restoration of the Charles W. Morgan, the world’s last wooden whale-ship, during a special celebration September 27. The event will mark the kick off to the Morgan’s three-year, \$5 million restoration project which will renew areas of the vessel from the waterline down to below the bilge, including parts that haven’t been seen since she was built 160 years ago.

A National Historic Landmark and the Museum’s signature vessel, the Morgan was built in 1841 in New Bedford, MA. During her 80-year career, she made 37 voyages across the Atlantic, Pacific and Indian Oceans. In 1941, the Morgan came to Mystic Seaport, where millions of visitors have since walked her decks. The event will conclude with the ceremonial lowering of a yard from high above the deck.

This initial phase of down-

rigging will mark the beginning of the Morgan’s restoration “voyage.” The Morgan’s “voyage” will continue October 19 when the whaling ship is moved from her berth at Chubb’s Wharf down alongside the Museum’s state-of-the-art Shiplift in the Henry B. duPont Preservation Shipyard.

“Empire State Building Rediscovered its Deco Roots,” *Urbanite* (NY), 10/10/2008

There was a time when the Empire State Building offered a view of the heavens from its grand lobby. A celestial panorama was painted in gold leaf on the ceiling of the original entryway.

In the 1960s, during renovations, the mural was covered by a drop ceiling. Soon a re-creation of the stars will shine again, as will the entire lobby, which is being restored to how it looked when the World’s Tallest Building — at the time — opened May 1, 1931, on 34th Street and Fifth Avenue.

The estimated \$600 million renovation of the 102-story Art Deco structure is being headed by Beyer Binder Belle. When it is complete, everything down to the lighting fixtures in the lobby will evoke the spirit of the 1930s.

The celestial mural — a gold-leaf-on-canvas painting — is an abstract depiction of suns, moons, and stars in motion. The original painting has been ruined by white paint from renovations in past generations and would cost too much to restore. EverGreene Painting Studios, an art conservation specialist, will recreate the scene on the ceiling of the lobby.

“Land Art: Here Today, Gone Tomorrow?” *The Art Newspaper*, 10/23/2008

Green issues are now high up the political agenda, from worries about global warming to research into sustainable fuels. One related topic that is galvanizing conservationists is the fate of a number of iconic works of Land Art which are under threat from energy and real estate development.

Artists such as Robert Smithson, Michael Heizer, and Walter De Maria sought to create works that could not be contained by a museum or placed in a collector’s home. Arguably the most iconic intervention in the US landscape is Robert Smithson’s *Spiral Jetty*, 1970, a spiral constructed from basalt rock and

earth which juts into the Great Salt Lake in Utah from its northeastern shore.

This summer, conservationists won a reprieve from the Canadian oil company Pearl Montana Exploration, which wants to conduct exploratory drilling into the lake bed. In co-operation with Smithson’s widow Nancy Holt, also a land artist, and the public policy group Friends of the Great Salt Lake, the Dia Art Foundation, which owns and has maintained Spiral Jetty since 1999, started a petition against the drilling.

Other works remain at risk. On the opposite side of the Great Salt Lake from *Spiral Jetty* is Nancy Holt’s *Sun Tunnels*, 1976. In Nevada, Michael Heizer’s *City*, a massive complex of sculptures and earthen forms built by the artist next to his ranch in Lincoln County, is not yet finished but already threatened by development. Despite the developers, the most consistent threat to Land Art is nature itself. Many early examples are eroding as exposure to the elements takes its toll. For most artists, this is part of the works’ natural evolution.

“Birds of America Restored to its Former Glory,” *Vancouver Sun*, 11/8/2008

A little-known federal agency has given new wings to a rare and valuable copy of John James Audubon’s *Birds of America*.

The four-volume set by Audubon is one of fewer than 100 known to exist. Time, and many sticky fingers, took a toll on his vividly rendered illustrations of 435 birds. In the century and a half since they went on display at the legislative library in Fredericton, many of Audubon’s plates, or pages, had developed tears and a heavy accumulation of grime.

Now, years of painstaking effort by the Canadian Conservation Institute has restored the work to its original glory. The institute had been working on it off and on since 1978, says Sherry Guild, a paper conservator who oversaw restoration of the individual pages.

The restoration -- removing the individual plates and rebinding the original four-volume set in 16 smaller volumes -- involved dozens of institute employees over the years. “Our treatment didn’t affect the colours in any way . . . The colours were very vibrant, very fresh and the treatment was really

in some aspects not an intrusive treatment. There was no washing of the paper, there were very few treatments that could impact on the colour,” Guild said.

“Conservator Works on Native Alaskan Kayaks,” *SouthCoastToday.com*, 11/2/2008

In the New Bedford Whaling Museum, working in the shadow of the Lagoda, art conservator Alexandra Allardt is cleaning and treating a trio of native Alaskan kayaks from the museum’s collection. The principal of ArtCare Resources in Newport, R.I., plans on spending many hours during the next several months working to preserve these rare 19th-century kayaks in an effort to make sure that future generations can learn more about the Native Alaskan peoples who made them.

In addition to cleaning the kayaks, two require stabilization and support in areas where shrinkage through the decades has cracked and curled the leather, creating gaps through which the interior structure of the kayaks can be seen. Ms. Allardt says that the goal of her work is not to restore the kayaks to their original state, but rather to stabilize their condition and preserve their original construction materials and methods.

“Donatello Bronze Statue of David Slaying Goliath Gets Makeover,” *Daily Telegraph*, 11/30/2008

Cutting-edge laser technology was used to clean more than a century of grime from the statue of the boy who killed Goliath, created by the artist Donatello in the 15th c. “We could only intervene now with the newest laser techniques; even the most delicate mechanical procedure would have hurt it,” said Beatrice Paolozzi Strozzi, director of the Bargello Museum that hosts the statue.

The 200,000 euro restoration also involved the polishing of a thin layer of gold that adds luster to the statue. Donatello’s David is regarded as crucial to the history of Western art because it was the first free-standing bronze nude to be created since the time of the Greeks and Romans. The bronze statue, standing just over 5ft tall, depicts the young David with his foot on Goliath’s severed head and a large sword in his hand. Apart from a pair of boots and a hat bound with

laurels, the figure is naked and almost feminine in its physique.

“British Army to Help Turn Dictator’s Palace into a Museum,” *The Art Newspaper*, 12/01/2008

The British Army is offering to help create a museum in Basra, which would be set up by the Iraqi authorities in one of Saddam Hussein’s palaces. British military planners have code-named the project Operation Bell, after Gertrude Bell, the archaeologist who helped establish the Baghdad Museum in 1926.

Assistance is also being offered by the British Museum, but all parties stress that this is an Iraqi venture. The location will be the Lakeside Palace, built by Saddam Hussein in the early 1990s. Set beside an artificial lake and overlooking the Shatt al-Arab waterway, it lies in a secure area 2km south of the city center. The opulent palace has a North African feel, with marble in the main rooms.

The Lakeside Palace would provide considerable space for antiquities. These would come from Baghdad’s National Museum, which has a huge collection in its stores (including some from Basra which survived the looting in 1991). The new museum would also show ethnography, manuscripts, and more modern historical items. Its location in one of Saddam’s palaces would help tell the story of very recent events. No one is willing to discuss the construction costs of the new museum, but they could be up to £10m. Once prime ministerial approval is granted, the Basra Museum could open in two years.

“Rock Art Restoration Plan Seen as Desecration,” *The Age* (Melbourne), 12/8/2008

A plan to restore one of Victoria’s most important rock art sites has fallen foul of the local Aboriginal group, which claims it is akin to having Picasso restored by trainees.

The Dhudhuroa Native Title Group claims the restoration project, proposed by a State Government body, would “deface and desecrate” ancient motifs at the Mudgegonga rock art complex near Myrtleford, more than 3000 years old. Co-chairman Gary Murray is furious that Aboriginal Affairs Victoria employed non-indigenous experts in rock art

conservation and representatives of other traditional owner groups on the project.

He said the Dhudhuroa Native Title Group has primacy over country in north-east Victoria, and Aboriginal Affairs Victoria failed to obtain consent for the restoration project or for inviting other groups onto Dhudhuroa territory. The book *Prehistory of Australia* says that with its hundreds of motifs, the Mudgegonga region is considered the second richest rock art site in Victoria. The paintings are of ochre and pipeclay on rock with red and white staining.

“Graffiti Study Bolsters ‘Broken Windows’ Theory,” *Los Angeles Times*, 11/21/2008

In a series of real-world experiments, people exposed to graffiti, litter and other cues of lawlessness were more likely to commit small crimes, according to a study published today that bolsters the controversial “broken windows” theory of policing.

The idea is that low-level offenses like vandalism and panhandling create an environment that breeds bigger crimes. According to the theory, authorities can help head off serious violence by keeping minor infractions in check. Dutch researchers tested the psychological underpinnings of the theory and found that signs of social disorder damped people’s impulse to act for the good of the community, allowing selfish and greedy instincts to take over. The results appear in the journal *Science*.

“Turning Back Time, Carefully, on Portraits at City Hall,” *New York Times* 12/12/2008

Kenneth Moser, chief conservator at the Brooklyn Museum for 30 years, is a painting conservator, and for two years he has restored the historical portraits that adorn the hallways, ceremonial rooms and workspaces at City Hall. In a game of hide and seek, the portraits, dulled by age and abuse, have vanished from their perches in small, scattered batches, returning months later, their dignity reinstated.

Mr. Moser’s work on the paintings is part of a campaign by Mayor Michael R. Bloomberg to refurbish much of City Hall’s unparalleled ensemble. It can cost as much as \$60,000 to renovate one painting, depending on its size — the portraits can measure up to 13 feet in height and 4 feet in width — and condition.

The Mayor’s Fund to Advance New York City, a nonprofit organization founded by Mr. Bloomberg, has raised \$1.7 million from individuals, corporations, foundations, and the National Endowment for the Arts to pay for the portraits’ conservation and the long-term care of the collection.

The last time the portraits underwent such extensive restoration was in the 1920s, said Mary Beth Betts, the resident expert on the collection. Many of the portraits were made by 18th- and 19th-century masters like Thomas Sully, Rembrandt Peale, and John Trumbull, whose “Declaration of Independence” appears on the reverse side of the \$2 bill.

“Shepard Fairey Arrested In Boston,” *Huffington Post*, 2/7/09

Boston — Police in Boston say the artist famous for his *Hope* posters of President Obama has been arrested on outstanding warrants. Shepard Fairey was in Boston on Friday for his new exhibit at the Institute of Contemporary Art.

Police Officer James Kenneally says the department had Jan. 24 warrants alleging the Los Angeles artist tagged property with graffiti.

Fairey’s Obama image has been sold on thousands of stickers and posters. It is the subject of a copyright dispute with the Associated Press. Fairey argues that his use of the AP photo is protected by “fair use,” which allows exceptions to copyright laws. A California lawyer who has represented Fairey in the copyright case didn’t immediately respond to an e-mail seeking comment on the arrest.

“Sketches behind da Vinci Painting May Be Leonardo’s,” *Reuters*, 12/18/2008

A curator at the Louvre Museum in Paris has stumbled upon some unknown drawings on the back of a painting by Leonardo da Vinci that look like they might be by the Italian master himself, the Louvre said on Thursday.

The extraordinary find was made by chance, when Louvre staff unhooked Leonardo’s *The Virgin and Child with Saint Anne* from the museum wall as part of a broad programme of study and restoration of paintings by Leonardo, including the *Mona Lisa*.

“When the work, which is painted

on wood, was unhooked, a curator noticed two barely visible drawings on the back of the painting, showing a horse’s head and half a skull,” the museum said. After the initial find, the museum conducted detailed tests on the back of the painting. Photographs taken with an infrared camera revealed that there were not two but three drawings. The third one is of a Child Jesus playing with a lamb.

“This is an exceptional discovery because drawings on the back of paintings are very rare and no example by Leonardo was previously known,” the Louvre said. “The style of the drawings recalls the style of Leonardo, but research is ongoing to clarify their authorship.”

“Promoting the Profession of Conservator-Restorers,” *Times of Malta*, 12/21/2008

Higher education training in conservation-restoration studies in Malta began in 1999 with the setting up of the Malta Centre for Restoration in Bighi. The courses offered are a four-year Bachelor’s Honours degree in Conservation, B.Cons. (Hons), with the emphasis being on hands-on conservation-restoration. The areas of study offered are conservation of paintings and polychrome sculpture, of objects made of glass, ceramics, metals and stone, of textile material and of books and works of art made of paper.

Malta is one of the few countries in Europe where the profession of the conservator-restorer has been adopted in a legislative framework with the enactment of the Maltese Cultural Heritage Act of 2002. The law recognises the fact that a high level of education and qualification is necessary to enter the profession of conservation-restoration. However, notwithstanding this requirement in the law, the warrant board has still not been officially constituted and qualified professional conservator-restorers, even in public institutions, are currently working illegally.

The water you touch in a river is the last of that which has passed and the first of that which is coming.

*from The Book of Water
by Leonardo Da Vinci*