

September 2009

Volume 31 Number 3

President's Letter

Scott Carrlee

Dear Membership,

Now that the annual meeting in Juneau is over, I am writing my final president's letter. I am sure you will all be excited to know that Carson turned two on the first day of the conference. We had to wait until a few days afterwards to celebrate.

The conference went swimmingly. Literally! There was lots of water. The Monday that people started arriving from the ferry ride and for the angels' project set a record for rainfall on that day. As ten WAAC members gathered at the St. Nicholas Russian Orthodox Church to start the angels' project, I got a call that the state archives' building had flooded. The plastic bubble that was protecting the roof during repairs failed and over one thousand

cubic feet of documents were wet. Fortunately the conservators who had arrived early pitched right in. Paper conservators Karen Zukor and Janice Schopfer were the first on the scene but many would follow.

As more WAAC members arrived and became aware of the situation their first question was "how can we help?" Throughout the critical 48 hour period following the disaster, conservators regardless of specialty lent their hands and their expertise to the process. People just kept showing up and pitching in to help. Some gave up their vacation time and their tours, and some even worked during some of the talks. All in all about half of the conference attendees participated in the disaster mitigation in some way. The risk management officer for the state was quoted in the local paper as saying "it was like having a heart attack at a cardiologists' convention." The lasting impression that the conservators left on Juneau was of hardworking, competent, can-do professionals. It made the profession look good that so many were so generous with their time and expertise, and it made me look good that I had planned a meeting of conservators to coincide with the worst disaster in the state archives' history. For that I am grateful to everyone who helped out.

Despite all the activity surrounding the flooded archives, we still managed to pull off a very successful angels' project. We had three teams working on different church materials. There was a metals team headed up by Dave Harvey that polished the brass candelabras; a paintings team led by Carmen Bria that surveyed and did some light surface cleanings; and a banners' team guided by Dana Senge that wrote condition reports and re-housed several beautiful old textile banners. Hays Shoop, Carmilla VanVoren, Catalina Fernandez, Ellen Carrlee, Yoonjo Lee, Anne Turner Gunnison were all part of the team who often rotated through the various projects during the two days. The small, mostly Native Alaskan congregation was grateful for the work of the conservators and thanked the group with a delicious salmon dinner and a traditional Tlingit dance group in full regalia. It was very impressive.

The conference itself went off pretty much without a hitch. We had a lovely opening reception at the Alaska State Museum followed by a public lecture by Yosi Pozeilov on his pinhole camera work. The papers given reflected the wonderful diversity of our profession. There were talks about waterlogged stuff, and frozen stuff, and things that go bump the night. There were talks about mounts that wouldn't cooperate and epoxy fills that would. There were talks about painting treatments that benefit from a rich debate and about paper treatments that could not be discussed at all. Photo conservation, dry ice blasting, inventing snow, you know, the typical eclectic mix of our meetings. For those of you who could not attend the meeting I encourage you to visit Ellen Carrlee's conservation blog to read her thoughts about the meeting and the talks. A second reception at the Juneau Douglas City Museum provided another opportunity to enjoy traditional dancing. The conference was capped off by a salmon bake at the Thane Ore house with a wonderful bluegrass band and a chance to witness the mysterious lifecycle of the salmon who were spawning in a stream nearby. With the conference over, I too have ended my five year journey with the WAAC board. It has been a good run, and I encourage all of you to test these waters before you finish your conservation journey.

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President's letter, continued

I wish our incoming president Maria Laibinis Craft all the best. WAAC can look forward to a great meeting in Portland next fall. Congratulations also, to our new vice president Dana Senge, and new Members at Large Bev Perkins and Ria German Carter. And welcome back to continuing MALs Albrecht Gumlich and Marie Svoboda.

As this letter comes to a close, I struggle to find some way to mention cheese. Finding none, I turn to Carson who says "the cheese stands alone."

Scott

Regional News

Marie Labinis-Craft
column editor

ALASKA

Monica Shah has been working on the Arctic Studies Center exhibit, a loan of almost 600 objects, and preparing for the first shipment of objects. She attended the WAAC conference and presented a paper on treating archaeological wood sled runners in a PEG-extravaganza session that included papers by **Ellen Carrlee** and **Susanne Grieves**.

Scott Carrlee is recovering from hosting the WAAC conference in Juneau and heading out to Dutch Harbor for the Museums Alaska Meeting. He recently finished a CAP assessment at the Cordova Museum.

Lauren Horelick from the UCLA/Getty program is interning with **Ellen Carrlee** at the Alaska State Mus., working on treatments for Aleut skin boots and artifacts from the Torrent shipwreck, and helping to develop imaging, scale casting, and cross section parameters for the Alaskan Fur ID project. Ellen has blogged the Juneau WAAC conference and is working on a posting about step-by-step brass polishing with Dave Harvey.

Regional Reporter:
Ellen Carrlee
Alaska State Museum

ARIZONA

Linda Morris is conducting a condition assessment of the paintings and paper artifacts for the Amerind Foundation in Dragoon, Arizona.

Martha Winslow Grimm taught a graduate level textile conservation class during the month of July at the International Quilt Study Center and Museum located at the University of Nebraska-Lincoln. She is now working with the conservation staff of the Musical Instrument Museum to prepare costumes and textiles for the inaugural exhibition at the museum. The Musical Instrument Museum is under construction in north Phoenix, AZ and plans to open in April 2010.

Brynn Bender visited Little Bighorn Battlefield in Montana to assess needs and develop conservation projects. She assisted Tonto with exhibit conservation issues while planning as well as other long term museum plans. She also presented a workshop on the care of collections to a group of museums based around Palo Alto Battlefield in Brownsville, Texas. In addition, Brynn visited San Antonio Missions to work on a museum management plan.

Maggie Kipling and **Audrey Harrison** are treating ceramics from Casa Grande Ruins NM with pre-program intern and volunteer **Kevin Wohlgenuth**.

Nancy Odegaard was a participant and speaker at the NSF funded Chemistry and Art Workshop in Millersville PA. Nancy, **Christina Bisulca**, and **Esther Echineque** combined extensive collection surveys and various object treatments for a busy week in July at the U. of Utah Museum Of Natural History. Nancy and **Teresa Moreno** presented a workshop on safe materials for display, storage, and packing at the Museum Association of Arizona Meeting. Nancy and **Werner Zimmt**, conservation scientist,

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Carolyn Tallent

REGIONAL NEWS
Marie Labinis-Craft
MLC Objects Conservation

TECHNICAL EXCHANGE
Albrecht Gumlich

HEALTH & SAFETY
Chris Stavroudis

ARTICLES YOU MAY HAVE MISSED
Susanne Friend

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Deadline
Contributions for the January Newsletter should be received by the Editor before **December 1, 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
Alaska State Museum

VICE PRESIDENT

Marie Laibinis-Craft

SECRETARY

General Information
New Memberships
Publication Orders

Teresa Moreno
Arizona State Museum
University of Arizona

TREASURER

Change of Address
Payments

Natasha Cochran

MEMBERSHIP SECRETARY

Chris Stavroudis

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Susanne Friend
Albrecht Gumlich
Dana Senge
Marie Svoboda

WEB EDITOR

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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/>.

Regional News, continued

and **Patricia Hill**, chemist, are working on the use of salt test papers during desalinization treatments.

Gina Watkinson, conservation assistant, presented a storage support system for heavy objects at the Museum Association of Arizona Meeting. Teresa Moreno, associate conservator, spent the summer at the Mt. Lykaion site in Greece.

Meghan McFarlane, conservator, completed her 3rd year internship and graduated from WUDPAC, worked at the Tel-kedesh site in Israel, and is joining the Musical Instrument Museum in Scottsdale, AZ in September.

Molly McGath, conservation science research assistant, is working on the application of calcium hydroxide nanoparticles to stabilize cordage fibers with NCPTT funding.

Esther Echineque, visiting scholar conservator, is working on basketry stabilization techniques. Conservators, **Marilen Pool**, **Chris White**, and **Noreen Carroll**, are finishing an updated desalinization procedure for pottery.

Christina Bisulca, conservation science research assistant, is working on stabilization of fossilized bone including mammoth bones from a Clovis kill site. **Lesley Frame**, conservation science intern, is working on metal stabilization and with Nancy on the treatment of cartridges.

Regional Reporter:

Brynn Bender
National Park Service, Intermountain
Region Museum Services Program
Western Arch. & Conservation Center

HAWAII

Regional Reporter:

Lynn Ann Davis
Hamilton Library
University of Hawai'i

GREATER LOS ANGELES

Tania Collas and **Liz Homberger** of the Natural History Museum of Los Angeles County have been preparing artifacts and specimens for a new exhibit tentatively entitled, *What on Earth?* showcasing "mystery" objects from the museum's diverse collections. This new exhibit will open in the museum's 1913 Rotunda in May of 2010. This project has given the two conservators the chance to work on some interesting marine invertebrate specimens, including a four-foot long gorgonian, also known as a sea whip, as well as several fossilized marine invertebrates.

In June, Liz attended a workshop on the conservation of plastic and rubber artifacts, hosted by the Gerald R. Ford Conservation Center in Omaha, NE. She will soon get to put her knowledge into practice when she begins treatment on a velociraptor model from the 1993 film *Jurassic Park*, slated for the museum's new dinosaur hall, opening in July of 2011.

Tania and Liz were pleased to host summer conservation intern **Lauren Horelick** of the UCLA/Getty conservation program. As her main project, Lauren treated a leather dress worn by Judy Garland before she was "let go" from the cast of the 1950 film *Annie Get Your Gun*; the dress was later worn by actress Betty Hutton, who played the starring role as Annie Oakley. This Hollywood costume is planned for display in another new permanent exhibit entitled *Under the Sun*, a cultural and environmental history of Southern California, which will open in 2012.

Claire Dean, senior consulting conservator at NHMLAC, returns to her post in mid-September to continue her work on large scale objects and other projects in preparation for the *Under the Sun* exhibit.

Rosa Lowinger has just returned from her year as the Booth Family Fellow at the American Academy in Rome, where she completed a research project titled: *Art Vandalism-- A Comprehensive Study, With an Emphasis on Public Art Conservation*. The results of that research will be published this fall as a 6-part series on the award winning Art + Culture blog, c-monstr.net. Under Ro-

Regional News, continued

sa's guidance, c-Monster will also begin publication of a conservation tips column directed at artists and galleries. If you are interested in lending your expertise to Ask the Art Nurse, please go to: c-monster.net/blog1/2009/08/17/ask-the-art-nurse/.

After 20 years as founder and then senior conservator at Sculpture Conservation Studio, Rosa has also decided to open a new private practice with offices in Los Angeles and Miami. Rosa Lowinger and Associates will offer a full range of conservation services for modern and contemporary sculpture, architecture, and new media in the United States, Latin America, and the Caribbean. Please contact her at either rosalowinger@gmail.com or rosa@rosalowinger.com for more information or to apply for a position.

Sculpture Conservation Studio just completed a complete conservation treatment of a pigmented Anis Kapoor sculpture. It was a one year project that included permission from the Kapoor studios (**Andrea Morse** had to go to London to discuss the treatment) and pigment matching. SCS has been enjoying Southern California, conserving sculptures in San Diego, Rancho Santa Fe, and La Jolla. The last phase of the conservation of the Will Rogers ranch and guesthouse was finally completed in August, after a release of the frozen state funds. SCS was very excited to find out that our Japanese stone lantern restoration project on Kapa'a Park, Hawaii was selected as a 2009 Award of Merit winner by the AASLLH.

Samantha Coagan is volunteering four days a week with **Jo Q. Hill** at the Fowler Museum of UCLA as a pre-program intern. Samantha received a BA in cultural anthropology with an emphasis in archaeology from San Francisco State University in 2006 and had been working at archaeological sites in Spain and France before returning to Los Angeles this June. Samantha hopes to apply to the Fall 2011 conservation graduate programs. **Modje Taavon** is interning two days a week with Jo. Modje will graduate from UCLA in June receiving a BA in anthropology with a concentration in archaeology and a minor in art history, she hopes to spend the following year interning at the Smithsonian and/or the British Museum before applying to museum studies graduate programs.

In October, **Bianca May** will join the paintings conservation section at LACMA to begin a year-long Mellon Fellowship. Bianca graduated in 2007 from the Cologne University of Applied Science, the Institute for Art Conservation in Germany and has recently held a two year postgraduate position as an assistant conservator at the Kunsthau Zurich in Switzerland. She will be working on a variety of projects related to the permanent collection and exhibitions in 2009-10.

Joe Fronck and **Elma O'Donoghue** are working on a technical study of LACMA's collection of Dutch and Flemish paintings, including the Hannah and Edward Carter collection of 17th-c. Dutch landscapes, which will be included in a forthcoming catalogue. Highlights about the project will be periodically posted on LACMA's blog Unframed, which can be found on the museum's website. Paintings conservators at LACMA have also been busy preparing paintings for the reinstallation of the newly renovated European galleries, scheduled to begin later this year.

Laleña Vellanoweth just finished her third year at NYU and completed a Frost Summer Internship at LACMA. In September, she will begin a 4th year internship at the Costume Institute at the Met with **Chris Paulocik**.

Lynn Ellen Bathke received a one month contract in September to work on the European fashion exhibition at LACMA which opens in 2010. Lynn is also finishing her dissertation for the Textile Conservation Center Program in Winchester, UK, which is closing in October 2009. LACMA Conservation Research welcomed **Rebecca Broyer** as a three year Mellon Post-Doctoral Research Fellow this past July. Rebecca received her PhD in Organic Chemistry from UCLA, where her research was focused on polymer chemistry and materials science. Her research at LACMA will focus on the deterioration and preservation of objects containing or made of plastics. Also, **Colleen Boye** is volunteering in the Conservation Research lab for several months. Colleen is currently investigating UV-blocking window films.

The staff of Objects conservation at LACMA have all been working on various exhibitions: *Art of the Two Germa-*

nys; selections from LACMA's holdings in California design, *Phantom Sightings*, which is traveling around the country; Beuys installation in BCAM; and the reinstallation of the permanent collection of Korean art. **Siska Genbrugge**, a graduate student in the UCLA conservation program has just completed a summer internship in the lab working on Pacific Islands objects for an upcoming installation of the Arts of the Pacific. The lab will now be turning their attention to the reinstallation of the European galleries.

Erin Jue is currently working on the Kelly Project, which focuses on the conservation of modern and contemporary artworks and is funded by the Ellsworth Kelly Foundation. She also posted a blog on LACMA's website, lacma.wordpress.com/, detailing her treatment of a Japanese print on July 17th, 2009. **Chail Norton** took a brief break from preparing fall exhibitions at LACMA to attend the 2009 WAAC Annual meeting in Juneau, Alaska. The week was spent cold and wet filled with glacier hikes, whale watching, a salmon swim up stream, assisting in the recovery efforts for the Alaska state archive flood, good food and friends as well as the awe inspiring talks.

After seven years in the making, *Degas in the Norton Simon Museum: Nineteenth-Century Art, Volume II* has been published by Yale University Press. Edited by Sara Campbell, the catalog entries on the paintings, pastels, drawings, and prints are by Richard Kendall, and entries on the sculptures were written by National Gallery objects conservators **Daphne Barbour** and **Shelley Sturman**. Technical Notes for the paintings and works on paper were written by Joseph Fronck, **Rosamund Westmoreland**, and **Susan Sayre Batton**. At 596 pages, this comprehensive collections catalog of the artworks by Edgar Degas in the Norton Simon Museum details the history of Simon's collecting as well as important new scholarship on the Norton Simon Degas sculptures -- unique foundry models cast directly from Degas' wax originals -- the casts used to reproduce all subsequent editions.

Regional Reporter:
Virginia Rasmussen
Conservation Center
Los Angeles County Museum of Art

Regional News, continued

NEW MEXICO

Bettina Raphael received a research fellowship from the office of the state historian to pursue her work in New Mexico archives on the life and art of Olive Rush, an independent woman and painter in Santa Fe during the early 20th century.

Joe Sembrat and Conservation Solutions, Inc. have been fortunate enough to stay busy through the economic downturn of 2009. Among other projects, they conserved the first shipboard radar for the Historical Electronics Museum in Linthicum, MD, provided conservation oversight to the treatment of the Baltimore city hall lanterns, conserved the Fort Griffin and Family Fort monuments in Fort Griffin, TX, provided conservation treatment to the Coral Gables Museum exterior in FL, conducted a metal finish investigation at the New York State Theater in Lincoln Center, New York City, and provided a conservation assessment report for two Colorado River Survey Boats *Marble* and *Boulder*. Currently, they are teaming with Hord, Coplan, and Macht on the restoration of the DC War Memorial in Washington, DC. Last but not least, CSI is pleased to announce that they have just been awarded a two-year contract for the conservation of outdoor statuary at the Vizcaya Museum and Gardens in Miami, Florida.

Seth Irwin, a recent graduate from the Queens Art Con. Program, spent the summer working at the Georgia O'Keeffe Museum in Santa Fe. He has now moved on to work with **Sonja Jordan Mowery** at Johns Hopkins University's Heritage Science for Conservation Project.

Rebecca Tinkham was featured in an article in the June 2009 issue of *New Mexico Magazine*, for her work on the conservation of the Oñate Medallion in anticipation of the opening of the New Mexico History Museum in Santa Fe.

David Walker opened Walker Textile Conservation in Santa Fe approximately two years ago. He still has Talisman Restoration, Inc. in Santa Cruz, California.

Regional Reporter:
M. Susan Barger

PACIFIC NORTHWEST

Susie Lunas has been busy re-backing two atlases that house Civil War maps and line drawings of Civil War transportation, tools, and the like; binding two volumes of a journal for a local institution; and analyzing the best way to unbind an important bound collection.

Kristen Kern is presenting three Western States and Territories Preservation Assistance Service (WESTPAS) workshops this summer and fall: "Protecting Library and Archive Collections: Disaster Preparedness, Response, and Recovery." The workshop is held during two sessions separated by several weeks that are taking place in Medford, Oregon, Boise, Idaho, and Henderson, Nevada. NEH funded, the free workshops result in completed plans for the participating institutions.

RBCM conservators dismantled our huge *Free Spirit: Stories of You, Me and BC* exhibition in record time this spring, to make way for *Treasures: The World's Cultures from the British Museum* exhibition. In order to create special microclimates in eleven display cases of the latter exhibition, including an extremely large case that runs twenty-five feet long, over 1200 pounds of silica gel were conditioned to four different RH ranges. It was no small feat, requiring ingenuity ranging from poly tents to mechanical blowers, and even the loading dock turned into a wading pool at one point.

Three RBCM conservators attended the CAC conference and workshops in Vancouver, enjoying the wonderful weather and opportunity to catch up with colleagues. The workshops were especially wonderful. Many thanks to the organizing committee. Coming up this fall, we have one conservator attending CCI's "Caring for Totem Poles" workshop in Alert Bay, BC and another attending the NATCC conference and workshops in Quebec City. Also this fall, we are also pleased to host a Sir Sandford Fleming College intern, **Jaclynn Bacon**.

Isabel Blue from Whitman College has interned with **Alice Bear** Conservation of Works of Art on Paper over the summer. She has been assisting on a postcard album from the early 1900s.

The Seattle Art Museum is hosting an afternoon of talks entitled: *Art Conservation in the Pacific Northwest*, on October 23rd 2009. This is a public event focusing on the conservation of artwork and historical material in the region. Scheduled speakers include: **Nick Dorman, Tiffany Hedrick, Nina Olsson, Peter Malarkey, J. Claire Dean, and Gudrun Aurand**.

Corine Landrieu has been working increasingly with ethnographic objects from SE Asia and the Austral seas and continues to lead the ongoing conservation of an Ursula Von Rydingsvard sculpture on the Microsoft campus in Redmond.

Marie Laibinis-Craft is close to completing the treatment of a group of William Morris glass sculptures, primarily skeleton parts from his Hunter series, and two Chihuly vases. She recently finished a conservation assessment of Lee Kelly's Cor-ten sculpture, *Leland One*, for the Regional Arts & Culture Council who are applying for an NEA grant to treat the sculpture. Marie was awarded a five year contract with the city of Portland's Water Bureau as an on-call objects conservator for the treatment and maintenance of the city's fountains. **Morgan Hayes** recently began working with Marie as a pre-program intern.

Regional Reporter:
Dana K. Senge

ROCKY MOUNTAIN REGION

This summer has been a busy one at the Western Center for the Conservation of Fine Arts WCCFA in Denver. WCCFA hosted Winterthur summer intern, **Emily MacDonald-Korth**, for 4 weeks. Emily assisted WCCFA conservators, **Carmen Bria** and **Hays Shoop**, in the conservation of a 1927 mural by George Gibb at the Philbrook Museum in Tulsa, Oklahoma. She then worked with WCCFA conservator, **Camilla Van Vooren**, and visiting conservator, Blanka Kielb in the excavation of an original decorative wall painting in an historic building in Las Animas, CO. It is now part of the Pioneer Historical Society of Bent County but

Regional News, continued

formerly belonged to the International Order of the Odd Fellows. Emily also participated in the treatment of 3 contemporary murals located in the Denver International Airport Terminal. She was supervised on this project by WC-CFA conservators, **Cynthia Lawrence** and Camilla Van Vooren, and assisted by WCCFA technicians, **Hope Fry** and **Len Evans**.

WCCFA recently completed the treatment of nine paintings by Allen Tupper True in preparation for the exhibit, *Allen True's West* organized jointly by Denver Art Museum, the Denver Public Library, and the Colorado History Museum.

Carmen lectured at several locations this summer including the University of Montana, the University of Utah, the Bradford Brinton Memorial Museum (Wyoming), and the Lander Art Center (Wyoming).

Paper conservator **Heather Tudhope** and husband Roby Sherman are pleased to announce the birth of their daughter Olivia Anne Sherman, 8 lbs 5 oz on May 7th, 2009. Olivia is healthy, happy, and such a pleasure to have in the family! Conservation work has resumed due to demand but on a limited basis...crying baby still gets the top priority!

Victoria Montana Ryan joined several colleagues in the recovery efforts of water damaged documents of the Alaska state archives while at the WAAC conference in Juneau. After enjoying the sites, sounds, and feasts of the conference, she is now back hard at work and finishing up the contract project for Conservators in Private Practice.

Regional Reporter:
Paulette Reading

SAN DIEGO

No news

Regional Reporter:
Frances Prichett

SAN FRANCISCO BAY AREA

SFMOMA received an IMLS Conservation Project Support Grant for the survey of three-dimensional objects in the Architecture and Design collection. New methodologies for assessing the preservation needs of objects in this collection were developed, and six customized survey templates (furniture, architectural models, lighting, textiles, installations, and design objects) will be available through the museum's website at the end of the project.

Barbara Schertel, fellow in the conservation of contemporary art, is teaming up with **Rowan Geiger**, contract conservator, to survey the collection over the two year grant period. The project is supervised by **Michelle Barger**, and will incorporate interviews with designers and consultations from experts in the conservation field. Barbara joined international speakers with her presentation of the survey project - "Meeting the needs of contemporary design: A new survey methodology" - in *Future Talks 2009* conference in Munich this September.

In the objects conservation lab of the Fine Arts Museums of San Francisco (FAMSF), project conservator **Rowan Geiger** has recently finished an extensive examination and documentation project of major pieces of European furniture in the Fine Arts Museums collection, a project funded by the Getty Grant Program. Rowan is currently performing extensive treatment of an 18th-century English lacquer commode by Langlois. Also, Rowan is working with another project conservator, **Alisa Eagleston**, on numerous airport exhibition projects, especially a Mediterranean ceramics exhibit, as part of the lab's consulting services to the San Francisco Airport Museum.

Conservator **Elisabeth Cornu** and Alisa Eagleston are preparing objects for an upcoming mummy exhibit at the Fine Arts Museums, and have recently collaborated with Stanford University's radiologists from the Richard M. Lucas Center for Imaging in a new Siemens high resolution CT scan of one of the mummies dating to approx. 500 B.C. from the Akhmim burial site. Elisabeth Cornu also has recently returned from

a consultancy to the National Museum of the Republic of Congo in Brazzaville where she helped with preventive and exhibit conservation work.

The paintings conservation department at FAMSF welcomes **Megan Berkey** for her 3rd year internship from the Buffalo program. They are also proud and somewhat saddened to bid farewell to **Katie Patton**, off to a fellowship at the Met, and **Kristin Bradley**, on to begin her graduate studies at NYU.

The textile conservation lab at FAMSF welcomes **Nora Carey** as a pre-program intern. Nora's projects include storage mounts for hats and a technical analysis of a pair of leather breeches. **Sarah Gates** is embarking on a site visit to the Textile Conservation Centre in Southampton, UK, before its closure later this year.

Regional Reporter:
Beth Szuhay
Fine Arts Museums of San Francisco
Golden Gate Park

TEXAS

Cheryl Carrabba and **Mark van Gelder** were guest speakers at the annual symposium of the Center for the Advancement and Study of Early Texas Art, (CASETA). The Symposium took place from May 1st - 3rd this year, on the campus of the University of Texas at Austin.

Laura Bedford, a University of Texas at Austin Kilgarlin conservation student, and **Nani ("Nancy") Lew**, paintings conservator, spent early summer helping Stephanie Watkins, head of paper conservation at the Harry Ransom Center, treat an oversized French *E'Clair* poster in the Houdini Collection of the Performing Arts Department.

During part of the summer, Laura also attended Rare Book School in London, before moving to the Los Angeles area to begin, in September, her third-year internship in the conservation department

Regional News, continued

at the Huntington Library.

During spring and summer, Nani and Stephanie also treated a Boydell Shakespeare print dry mounted to a poor quality board. In August, Nani, returned to Seoul, Korea to work for her former employer, the Samsung Museum, as a paintings conservator.

Desi Peters, a senior University of Texas at Austin undergraduate in art history and Spanish/Hispanic studies, spent spring in Madrid, Spain where she was fortunate to take an art history class at the Prado Museum. Upon returning, she spent part of her summer volunteering with **Jan Burandt** in paper conservation at the Menil in Houston. This fall, she returned to volunteer in paper conservation with Stephanie Watkins at the Harry Ransom Center.

Also volunteering in paper conservation under Stephanie's supervision, is **Alex Bero**, a second year conservation student at UT-A's Kilgarlin program who spent his summer working at the George Eastman House in Rochester, NY absorbing as much as he could, and **Lauren Morales**, a paper conservator in private practice in Austin, TX. All are primarily working on broadside advertisements from the Performing Arts Circus collection.

In July, Stephanie was fortunate to attend the FAIC-NEH supported advanced training workshop, *Water and Paper*, with instructors **Gerhardt Banik** and **Irene Brückle**, held at the Kilgarlin's new facilities at UT. In addition, Stephanie, as PMCC chair, continues work on the Photographic Materials Conservation Chapter content for the new AIC-WIKI site that has recently made it's debut online. WAAC member, **Sarah Freeman** of the Getty, and **John McElhone** are also part of the PMCC committee.

Regional Reporter:

Ken Grant
Harry Ransom Center
The University of Texas at Austin

Obituary

BONNIE BASKIN, Objects Conservator from Oakland, CA, and a member of the American Institute for Conservation, Western Association of Art Conservators, and Bay Area Art Conservation Guild, passed on peacefully on July 30, 2009, after an extended battle with cancer.

Bonnie was particularly skilled as a ceramics conservator. She entered the conservation profession after an initial career as a museum educator at the Oakland Museum and the Fine Arts Museums of San Francisco where she taught many docents. After studying chemistry and several years of pre-conservation training at museum labs in the San Francisco Bay Area, she received a Certificate in Archaeological Conservation from the Institute of Archaeology of the University of London. Returning to the Bay Area in 1997, Bonnie worked at the San Francisco Airport Museum and assisted on numerous projects at the Fine Arts Museums of San Francisco and Oakland Museum, eventually establishing a private practice in objects conservation.

Between 1999 and 2007, Bonnie spent over half her time in Laos, Cambodia and elsewhere in Southeast Asia. She was instrumental in both helping conserve the artifacts housed at the Royal Palace Museum in Luangprabang, Laos, and in bringing the museum and its staff to international standards of display, signage, security, and proper handling of objects. In Cambodia, Bonnie created the Ceramics Conservation Laboratory in Phnom Penh, Cambodia, the purpose of which was not only to conserve archaeological ceramics, but also to transfer her skills in ceramics conservation and in managing a laboratory to young Cambodian conservators, so that Cambodians would have the capability to care for their country's cultural heritage. She also taught many conservation workshops in Laos, Cambodia, and Thailand. Bonnie's travel logs and conservation stories have enchanted many of us and have inspired us to share our conservation knowledge with the world.

Bonnie is survived by her beloved husband Bob Acker.

Elisabeth Cornu

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. Paperbound and printed on acid-free stock.

Price: \$8.85

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Peaking Your Interest: an introductory explanation of how to interpret XRF data

X-ray fluorescence spectroscopy (XRF) is a widely used analytical technique for the identification of the elemental composition of a sample. It works by producing a beam of X-rays which interact with the sample causing the elements present to characteristically fluoresce/emit X-rays. This fluorescence is collected and displayed in a spectrum indicating the elements present and, with proper calibration, their abundance. The technique is non-invasive and non-destructive making it an ideal analytical method for conservation. With advancement in technology, XRF has evolved from a larger stand alone unit to a handheld device which gives a conservator or scientist the ability to visit the art object for analysis rather than having the object brought to the lab. This has prompted many museums and cultural centers to invest in handheld XRF for general analytical purposes.

When initially used, a handheld XRF appears to be an easy and foolproof instrument, but this is certainly not the case. Probably the most important aspect of XRF analysis is looking critically at and interpreting the spectrum. Think of Thomas Alva Edison's saying "success is 10% inspiration and 90% perspiration." Successful XRF analysis is 10% collection and 90% inspection.

The instrument is designed in a smaller handheld package but is no simpler than a "stand alone" XRF unit. X-ray safety is of utmost importance. If you do not handle the unit properly, you run a higher risk of X-ray exposure using handheld XRFs than with their stand alone counterparts. All users should have dosimetry badges to monitor their X-ray exposure.

Like other complex analytical techniques, consultation with, or acquiring the aid of a scientist familiar with the technique will ensure that the methodology and scientific framework of the project are viable and will produce profitable results. In addition, maintaining good communication with the manufacturer to ask detailed questions about the machine and to get advice on the best ways to work towards achieving your goals for a project is crucial to success. The use of handheld XRF has increased significantly in the field of art conservation over the last few years with almost 100 units now being used in institutions related to the field around the United States alone.

This powerful analytical technique has opened new doors for conservators exploring various objects and materials that include metals, ceramics, pigments, papers, photographs, and ethnographic artifacts. Initially these machines were developed for the identification of scrap metal and soil analysis. They have been further developed to deal with diverse conservation applications but the extent of development varies amongst manufacturers. There are many variables which can influence XRF results, but discussion about several key points is especially relevant in improving analytical techniques and subsequent interpretations.

With Edison's quote in mind, I will briefly mention some important aspects concerning the collection of spectra and then focus attention on the interpretation of spectra and related issues.

Before beginning any project that uses XRF, a good understanding of the material being investigated is crucial. For example, what elements do you expect to find and what potential problems do you expect to encounter? These answers will help you determine the ideal machine settings to ensure the best results.

Excitation energy and accelerating voltage should be set according to the material you are analyzing so that 'deadtime' is kept below 40% (ideally between 20-30%).

- Whenever possible, the correct voltage, current, and filter should be set according to the region of the spectrum you are most interested in.
- A set of standardized collection conditions should be considered whenever comparing data between a group of similar objects.
- Sample preparation, including orientation to the beam, is an important consideration to reduce effects of contamination (both within and outside the sample). Without a little time spent to set-up properly, analyses and results can be severely skewed, resulting in misinterpretation. A tripod should be considered when gentle contact is not possible and long collection times are required so as to avoid arm fatigue and slight shifting of beam location.

Although the beam can penetrate quite deep into or even through many objects (depending upon their density/absorption properties, an issue of concern for X-ray safety), the majority of return signal derives from near the surface of the object, particularly for dense materials like metals. This effect was clearly seen in an analysis of Roman silver coins (Tyrian shekels) that were poorly cleaned (Notis *et al* 2008). High levels of iron (over 3 wt%) were detected from surface dirt. After cleaning, the iron levels virtually disappeared. In addition, high zinc values found on these same coins were identified as resulting from a remnant adhesive of early labeling. If you do not have a proper understanding of the material prior to analysis, X-ray physics and the resulting data could easily cause improper results – leading to false data in publications – due to questionable scientific methods.

Once a spectrum is collected it is important, nay, imperative to recognize that there are many factors which affect it during analysis. Each element in the periodic table has characteristic fluoresced X-ray photon emission energies relating to their periodic number, as designated by Bohr's model of the atom. These energies are unique to each element and are the key feature allowing identification of the elemental composition. For example, Cu has two main characteristic emission energies from the K shell, Cu K α and Cu K β at 8,047.78 and 8,905.29 electron volts (eV) respectively. It is the presence of both these emission energies that signifies the presence of copper in an object. However, in some cases there can be spectral emission line overlap where the emission lines from one element can overlap another element creating some difficulty in interpreting the spectrum.

These spectral emission line overlaps cause the majority of problems for accurate qualitative interpretation. An excellent guide discussing all aspects of X-ray theory is

published by Lawrence Berkeley National Laboratory. The booklet has two key tables which provide the emission energies for each element (downloadable in PDF format from X-ray Data Booklet at xdb.lbl.gov/). These tables are an invaluable tool for identifying element peaks and potential alternative or interference peaks within a spectrum. There are also several other on-line tables and programs for checking X-ray emission energies and potential interferences (e.g. Spectral Emission Line Overlap Checker at ucl.ac.uk/arch-mat/tools/emission.php).

An excellent example of the potential difficulties in interpreting spectra with spectral emission line overlap can be seen in a small section of a relatively complicated spectrum of an ethnographic artifact treated with heavy metal pesticides (figure 1). Note that the Pb L α (10.55 KeV) and the As K α (10.54 KeV) emission lines overlap. Are both elements present in this sample? Pb L β (12.61 KeV) is a fairly isolated emission line, indicating the presence of lead in this sample. What about arsenic? At the As K β line (11.72 KeV) there is an emission line overlap with two additional elements, Hg L β (11.82 KeV) and BrK α (11.92 KeV). Both slightly overlap As K β , confusing the situation considerably. The L α peak for Hg (9.99 KeV) and the K β peak for Br (13.29 KeV) are both isolated and indicate their presence in the sample, leaving the question as to whether or not arsenic is present. The answer can be found through more complicated XRF theory and comparing peak height ratios, which is beyond the scope of this paper. A very basic explanation is that α peaks tend to have a higher intensity than β peaks at a known ratio (approximately 5:1). If we measure these peak height ratios, it becomes clearer that arsenic is present in the sample.

There are additional spectral interferences that create peaks in the spectrum which are not associated with the elemental composition of the analyzed sample. These include Rayleigh scattering, Compton scattering, sum peaks, and escape peaks.

Rayleigh scattering is the scattering of electromagnetic radiation and is an elastic effect. Simply put, the emitted X-rays from the XRF tube source anode (can be from various

sources but typically W, Rh, Mo, Ag, and Re) enter the sample and elastically bounce off the atoms within that sample with no loss of energy, and are detected as the characteristic energy from the source anode. This results in spectral peaks at the characteristic emission energies originating from the tube source.

Compton scattering results when X-rays from the XRF tube lose some energy in their interaction with the atoms in the sample through photon scattering. This produces a slightly wider peak than the Rayleigh peak with slightly reduced emission energies. The type of anode source in the tube of a particular unit may produce Raleigh and Compton peaks that can interfere with the specific elements that are of interest.

Sum peaks are the result of two characteristic X-ray photons arriving at the detector at the same time. The detector perceives this event as only one photon of twice the energy of the two incident photons. The result is a peak on the spectrum which appears at twice the characteristic elemental energy. For example Pb L β has emission energy of 12.61 KeV, so the sum peak would occur at 25.22 KeV which coincidentally directly overlaps Sn K α emission energy. This phenomenon is also known as a double photon counting event.

Escape peaks are caused by the creation of fluorescent Si x-rays from the detector's surface during collection of X-ray emissions from the object of interest. The result is the generation of an escape peak occurring at 1.74 keV (the energy of the Si K α x-ray) below each 'true' measured peak. These escape peaks are small and generally less than 1% of the parent peak height. They can be confusing for users to identify when higher concentration elements are present in the sample.

Spectral interferences can be confusing enough but things can get even more complicated when there are several elements in the sample. Matrix effects, both absorption and enhancement can occur and will alter the resulting spectrum and subsequent results. The X-ray source produces a beam that will interact with the sample and cause primary fluorescence of all elements present. However, when the characteristic X-rays of a higher energy element, for example Fe, are trying to escape the sample, their high energy may be enough to interact and excite lower energy elements like Ca. The result is a false enhancement affect for Ca and a false absorption affect for Fe in the spectrum. This is called secondary fluorescence. Following the same line of thinking, tertiary fluorescence can occur as well (see "Basic fundamental parameters in x-ray fluorescence" for more details.)

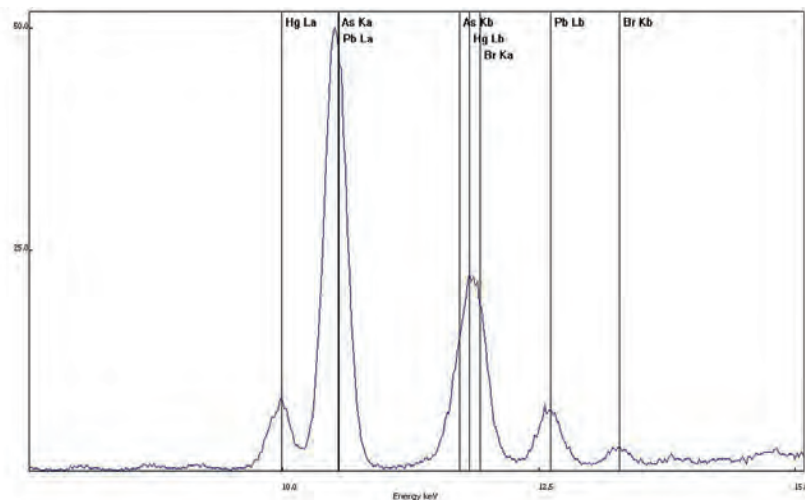


Figure 1: Part of a spectrum from an ethnographic artifact which had been treated with heavy metal pesticides showing spectral emission line overlaps of Pb, As, Br, and Hg (courtesy of the Buffalo Museum of Science).

How little can we detect and how can we quantify it?

Some commonly asked questions concerning XRF results include “how little can I detect in my sample?” and “can I quantify my results?” These seemingly similar ideas are actually two very different concepts. The limit of detection (LOD) is the lowest concentration level at which the XRF can detect whether an element is present in a sample. The LOD is typically reported to be as low as 10ppm for many elements by the manufacturers. A common misconception is that the manufacturer’s reported LOD is the value at which conservators will be able to identify elements in their samples.

This is not the case. In fact, the manufacturer’s reported LOD value is based on analysis of laboratory reference standards and should not be expected to apply with the varied compositions, densities, and thicknesses of the materials examined in conservation projects. In addition, the LOD does not equal the limit of quantification (LOQ) which is a statistically accepted value of 10 standard deviations above a blank background value (see “Limits of detection in spectroscopy” for more details on LOD and LOQ). The values for LOD and LOQ will vary by instrument and with different materials and compositions so you cannot rely on the manufacturer’s suggested LOD values or their pre-calculated LOQ. These values must be verified for each instrument you are using for each material you intend to analyze.

Achieving quantification of results for individual elements is a crucial issue for conservators. There are two standard methods which manufacturers use to calibrate the machines for quantification which are pre-programmed into your instrument: Fundamental parameters and Compton peak normalization. Fundamental parameters (FP) is based on the theoretical conversion of measured X-ray peak intensities to the concentrations of elements in the sample. This is typically done using a calibration step and the resulting algorithm will provide fairly reliable results. The Compton peak normalization method uses the analysis of a single standard and the subsequent normalization for the Compton peak. The Compton peak intensity and shape is altered by materials of different matrices which can cause problems with FP calibrations. Normalizing to the Compton peak can reduce problems associated with matrix effect and is the technique that is most commonly used by handheld XRF manufacturers. Both are valid techniques but they are mainly useful for traditional modern material analysis. Applying these pre-conditioned calibrations to samples like the pesticide treated object featured in Figure 1 will result in mis-quantification and poor, if not outright wrong results.

Manufacturers do provide an option for self-calibrating machines to accommodate these different matrices and materials. This calibration option allows the user to add additional reference materials, or standards to the software so that it can better quantify specific spectra. This re-calibration must be done for each unique material conservators wish to study. For heavy metal pesticides there is now a large collaborative program to solve quantification problems for pesticide analysis. The Smithsonian’s Museum Conservation Institute (MCI), National Museum of the American Indian (NMAI), National Museum of Natural History (NMNH)), the National Institute for Standards and Technology (NIST), the Canadian Conservation Institute (CCI), and the Environmental Pro-

tection Agency (EPA) have all begun to produce reference materials for calibrating handheld XRF units, specifically for quantification of heavy metal pesticides in museum collections.

The pesticide ‘reference material’ project was initiated by MCI with the intent to create reference materials specifically designed for calibrating handheld XRFs to accurately quantify heavy metal pesticides on ethnographic artifacts, particularly objects designated for repatriation. This collaborative approach is drawing on the expertise of conservation scientists, conservators, analytical scientists, medical toxicologists, and tribe members. Several roundtable meetings have been held over the last few years to help direct this research (see Sirois *et al* 2008 for more information about these events and working towards finding a solution for pesticide contamination in museum artifacts). In the near future, these reference materials will be made available to XRF users to better calibrate their machines. In any case, for whatever material you are investigating, it is now possible to search several reference material producers and to purchase any required samples to ensure you are calibrating your machine to the best of your ability (start with NIST standard reference materials web page at ts.nist.gov/measurementservices/referencematerials/index.cfm).

I hope this brief overview has excited an interest in the potential for the handheld XRF in future conservation work. Although there seem to be many obstacles to overcome to obtain valid results from this powerful analytical technique, proper consultation, planning, and collaborating with a museum scientist can help in dealing with most of these issues. The benefits of handheld XRF (its portability, non-destructive analysis, and relative ease of use) ensure that their use will continue to peak interest as a major analytical tool within the conservation community. Remember! As previously stated, successful use of XRF is 90% interpretation, and this may require assistance from manufacturers, conservation scientists, or X-ray spectroscopists. In practicing good XRF analysis, you not only advance the understanding of your own object, you help to advance the development of new equipment that serves a broader spectrum of our community needs.

Acknowledgments

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A Study of Butvar and its Effects on Bronze

by Ainslie C. Harrison

Introduction

While conservators have a wide range of thoroughly tested materials available to them for use with metals, situations involving composite objects require consolidants and coatings known to be compatible with both the organic and metal components. The poly(vinyl butyrals), like Butvar, have been used frequently as consolidants, adhesives, and filling materials for wood, leather, and other organics, but reservations remain about their suitability for metals.

Questions regarding the effects of Butvar on metals arose in 1990 when treatment of a composite wood and bronze serving stand began at the Gordion Furniture Project in Ankara (fig.1) (Simpson and Spirydowicz 1999). The fragmentary stand, believed to be from the 8th c. BCE, is one of many exquisitely carved wooden furniture pieces found in the burial mounds at the ancient Phrygian capital. The stand is unique, however, in that it is covered on top with small bronze studs.



Figure 1. Tumulus W serving stand after conservation (Simpson and Spirydowicz 1999)

Conservators chose Butvar B-98 to consolidate the weak, desiccated boxwood as extensive testing and previous use on other furniture pieces from Gordion had shown it to be an effective consolidant for this kind of material.

The serving stand fragments were partially immersed in a 10% solution of Butvar B-98 in 60/40 ethanol/toluene by maintaining the consolidant level just below the surface with the bronze studs. Contact between the Butvar and studs was avoided mainly because of initial tests indicating that the Butvar may have some corrosive effect on the bronze (Ng 1992). The serving stand was then reconstructed over several years, placed on a custom made Plexiglas mount, and returned to storage at the Museum of Anatolian Civilizations in Ankara where it remains.

While no visible deterioration of the serving stand has occurred to date, ongoing concern over the potential corrosivity of Butvar prompted further research at Queen's University into its effect on bronze. While an in-depth description of the project and results may be found elsewhere (Harrison 2008a,b), a summary of the findings are presented in this article.

Poly(vinyl butyrals) in Conservation

Around the time the Gordion Furniture Project began, several studies pointed to the polyvinyl butyrals (PVB), such as Butvar, as ideal consolidants for dry wood. Extensive research on dry wood consolidants at the Canadian Conservation Institute (CCI) indicated that the PVBs perform better than the acrylic resins and poly(vinyl acetates) in terms of mechanical strength, flexibility, stability and solubility in non-toxic solvents (Grattan 1980; Barclay 1981). Virtually no shrinkage or expansion was observed in the wood treated with Butvar, and only minimal color change was found to occur. Butvar also has very good adhesive properties, a relatively high glass transition temperature (T_g), and its viscosity can be adjusted by varying the solvent carrier. The testing and use of Butvar B-98 in conservation has been reported in numerous reports and publications confirming these early observations (Wang and Schniewind 1985; Nakhla 1986; Grattan and Barclay 1988; Sakuno and Schniewind 1990; Carlson and Schniewind 1990; Battram 1991; Schniewind and Eastman 1994; Paterakis 1996; Toutloff 1999; Spirydowicz et al. 2001).

Poly(vinyl butyral) Structure and Degradation

PVBs, including Butvar B-98, are known for their excellent stability and one of their primary uses in industry is as a coating for metals (Monsanto Chemical Company 1989). PVBs are terpolymers composed of the three monomers: poly(vinyl butyral) (PVB), poly(vinyl alcohol) (PVOH) and poly(vinyl acetate) (PVAC). PVB is formed by reacting an aldehyde with a PVOH under specific conditions that control the resulting proportions of hydroxyl, acetate, and acetal groups (fig.2). Butvar B-98, for example, is composed of 80% PVB, 18-20% PVOH, and 0-2.5% PVA (Monsanto Chemical Company 1989). These proportions in turn determine the physical properties of the polymer resin.

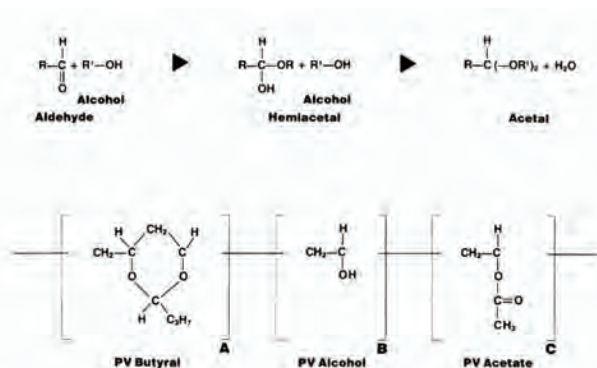


Figure 2. Structure of poly(vinyl butyrals) (Monsanto Chemical Company 1989)

Studies into the photo-degradation of PVBs reveal very good long-term light stability (Feller et al. 2007; Reinohl et al. 1981). The T_g , however, is known to affect the rate and type of degradation resulting from exposure to heat and light. Feller et al. (2007) found that at temperatures above

A Study of Butvar and its Effects on Bronze, continued

the T_g of Butvar B-79, cross-linking of the polymer chains occurred after exposure to UV radiation, while at temperatures below T_g , chain breakage resulted from photo-oxidation, thus maintaining the polymer's solubility when kept under normal temperature conditions. Induction times for degradation of PVBs were also found to be considerably longer at temperatures below T_g leading Feller et al. (2007) to estimate that, under typical museum conditions, PVBs may go 113 years before onset of weight loss and other degradation mechanisms.

Analysis of the chemical species released from PVBs has identified butanal (butyraldehyde) and water as the most abundant volatile products from thermal oxidative degradation (Liau et al. 1996). While butyric acid was also found to be a product of PVB degradation, it is produced in much smaller quantities (Liau et al. 1996; Dhaliwal and Hay 2002). Feller et al. (2007), for example, reported just 1 mol of acid liberated for every 70 mol of aldehyde after 455 hours of exposure under UVA lamps (fig.3).

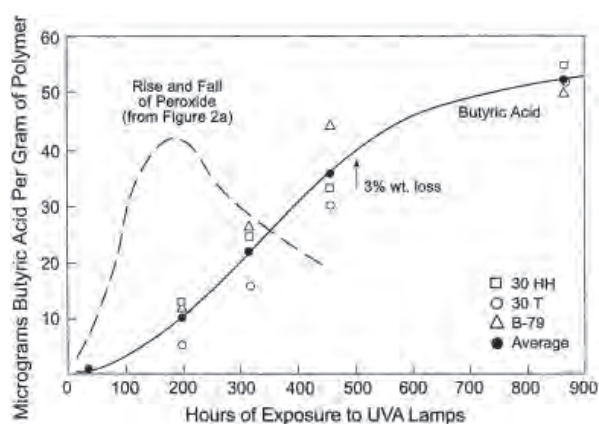


Figure 3. Evolution of butyric acid from PVBs exposed to UVA Lamps (Feller et al. 2007)

Experimental

As the bronze studs on the serving stand did not come into direct contact with the Butvar consolidant, a modified Oddy test was used to determine the possible interactions of the materials when in close proximity. Bronze coupons were made with a similar composition to the bronze studs (6% Sn and 94% Cu), cut from one mm thick sheet that was

prepared and rolled at the Canadian Mint. The coupons and studs were suspended in sealed jars, half of which contained cast films of Butvar B-98, and were aged at 60° Celsius for one month at high humidity. The corrosion produced on the Butvar exposed samples and controls during Oddy testing was then scraped off and analyzed by XRD.¹ The remaining corrosion was cleaned from the coupons with HCl for weight measurements (ASTM 2005), and the Butvar films were removed from the test jars and analyzed by FTIR.²

Tests for pH of dried Butvar B-98 films were also performed following ASTM D 1583-61 (1982), a method also used by Down et al. (1996) at CCI to help determine the suitability of different adhesives for use in conservation. Small pieces of Butvar films (2g) were added to vials of water and measurement taken daily until stabilization of the solution pH occurred.

Results and Discussion

All of the Oddy test coupons were visually determined to have corroded by the end of testing. There was no significant difference in the appearance of the corrosion between coupons exposed to Butvar and the controls (fig.4).

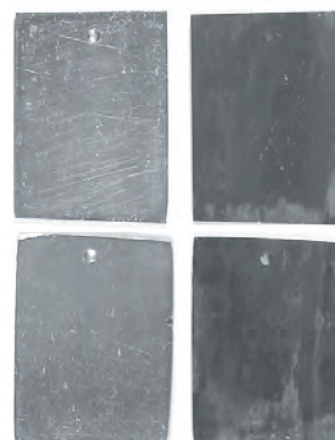


Figure 4. Before and after photos of control coupon #25 (top), and coupon #29 exposed to Butvar (bottom)

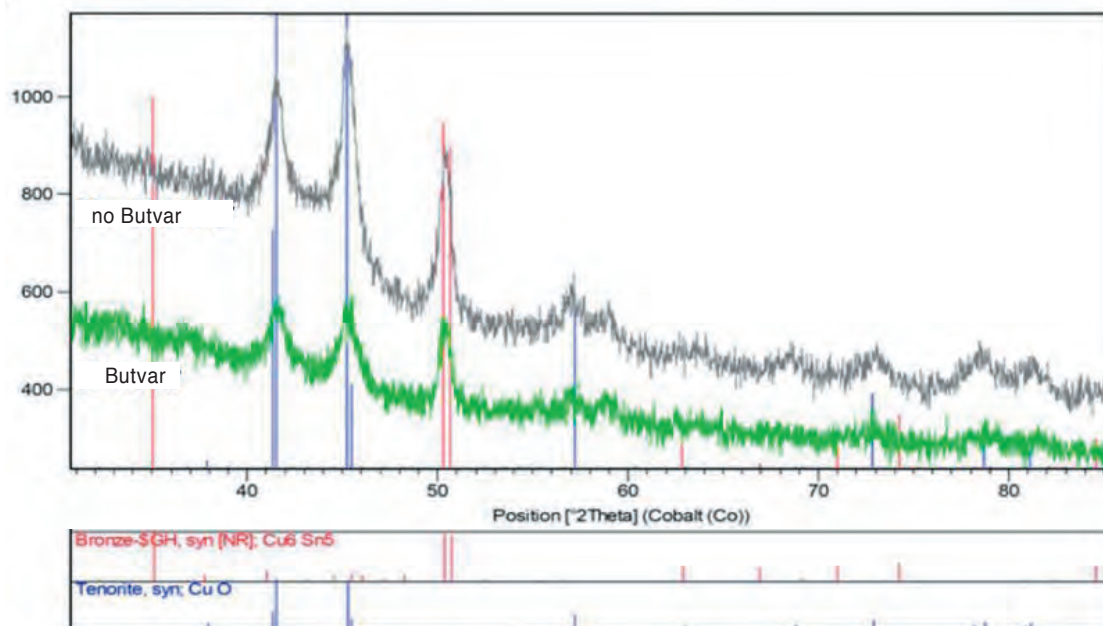
Weight measurements and XRD analysis confirmed the visual results. The difference in weight loss after Oddy testing between the controls and the coupons exposed to Butvar was within the standard deviation, indicating that the same amount of corrosion occurred to both (table 1).

Table 1. Weight changes of bronze coupons after Oddy test

	#	Before aging (g)	After HCl (g)	Weight change (g)	AVG loss (g)	STDEV
No Butvar	25	4.1465	4.1366	-0.0099	-0.0045	0.0047
	26	4.0688	4.0671	-0.0017		
	27	4.2095	4.2076	-0.0020		
Butvar	28	4.6937	4.6901	-0.0036	-0.0076	0.0035
	29	4.5279	4.5185	-0.0094		
	30	4.3399	4.3302	-0.0097		

A Study of Butvar and its Effects on Bronze, continued

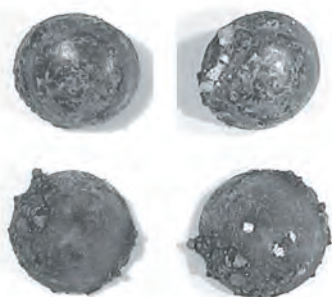
Figure 5.
Diffractogram
of corrosion from
coupons 25 (control)
and 30



Similarly, XRD confirmed that tenorite was produced on both types of coupons, which suggests that the copper was oxidized in each case via the same corrosion mechanism (fig.5).

The Oddy test results for the bronze studs was similar to that of the coupons in that no difference was noted between the control studs and those exposed to Butvar (fig.6).

Figure 6.
Before and after
photos of stud 3 not
exposed to Butvar
(top), and stud 5
exposed to Butvar
(bottom)



All of the studs developed bronze disease by the end of testing, which was confirmed by the presence of atacamite

($\text{Cu}_2\text{Cl}(\text{OH})_3$) and clinoatacamite ($\text{Cu}_2(\text{OH})_3\text{Cl}$) identified by XRD. Weight results also indicate that the control studs corroded to the same degree as the studs exposed to Butvar (table 2). Most likely, previous contamination of the studs with chlorides was the main catalyst for corrosion in this case.

No significant change was noted in the FTIR spectra between the Butvar films before and after Oddy testing except for the disappearance of a solvent peak due to evaporation. Also, the pH of the Butvar films, measured after 144 hours of extraction, was found to be within an acceptable pH range of 6.6 to 7. In summary, there was no indication that the Butvar films in these tests released any corrosive product that could damage bronze.

Conclusion

Experimental work has shown no evidence that fresh films of Butvar B-98 release volatile products corrosive to bronze under the accelerated aging conditions of the Oddy test. This is supported by testing of the Butvar films by FTIR, cold extraction pH testing, and gravimetric and XRD analysis showing the similarity in type and amount of corrosion between controls and bronze coupons exposed to Butvar.

Table 2. Weight changes of bronze studs after Oddy test

	Stud	Before (g)	After (g)	Weight Change (g)	AVG change (g)	STDEV
Butvar	1	1.0629	1.0654	0.0025	0.0041	0.0035
	2	0.9902	0.9984	0.0081		
	5	0.9701	0.9719	0.0018		
No Butvar	3	0.7284	0.7323	0.0040	0.0047	0.0011
	4	0.9041	0.9084	0.0042		
	6	1.0499	1.0559	0.0060		

A Study of Butvar and its Effects on Bronze, continued

The literature indicates that PVBs are highly stable and emit very small amounts of butyric acid only after exposure to extreme UV light and thermal conditions. Although Feller et al. (2007) suggested a comfortable induction period before degradation of PVBs in the museum environment of over 100 years, this figure allows for an average light exposure of 323 lux. While consolidated objects in storage, like the Gordion serving stand, have virtually no light exposure and can likely expect a longer period before PVB degradation begins, estimates based on accelerated aging tests are problematic as they assume linear extrapolation of laboratory-derived arrays that may have more complex form over longer timescales. The best course of action, even where testing indicates long-term stability of the material, is continued monitoring and maintenance of good environmental conditions in storage.

Fortunately, the Gordion serving stand is kept under ideal RH and temperature conditions at the Museum of Anatolian Civilizations. This is especially important as testing of the loose bronze studs in this study indicated the presence of chlorides. The studs on the serving stand, however, were treated with BTA and coated with Paraloid B-72 during the initial conservation treatment, which so far appears to have been successful in preventing further corrosion.

Notes

1. XRD was carried out by Alan Grant in the Department of Geological Science and Engineering at Queen's University.
2. Herbert (Gus) Shurvell carried out FTIR analysis of the Butvar films in the Art Conservation Department at Queen's University.

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Annual Meeting Abstracts

Repair and Restoration of Two Sculptures by Benny Bufano

Jonathan S. Fisher

The pieces were restored for the California Academy of Science in 2008. One was a large marble owl (3'x5'x4') that had a broken and missing ear. We sculpted, then casted, then attached the new ear to the body. The other was a sculpture of a small bear of cast concrete (24"x4"x6") that was broken in half. We joined the two parts and then matched the surface, contour, color, and texture. Also I would like to include an overview of the artist's life and work so that he can be further appreciated.

Undocumented Worker

Karen Zukor

Conservation performed under the radar; how to practice ethically and excellently when the client, location, and object must remain a secret. Three paper conservation projects that stretched the boundaries of normal documentation, and required imagination and a sense of the ridiculous.

Things Shouldn't Go Bump in the Night!: Paranormal Research and Investigations in Museums and Historic Sites

David Harvey

Paranormal investigations or "ghost hunting" has become a prolific activity in recent years with the popularity of various reality-based television shows such as *Ghost Hunters* and *Ghost Adventurers* and more. Many local and regional paranormal groups inundate museums and historic sites with requests to conduct all-night investigations with their teams and equipment. While many institutions find the marketing opportunities of having resident ghosts irresistible, many are also understandably distrustful of having these groups roaming their buildings and collections in the dark.

This paper explores the challenges presented and a pilot program with specific guidelines for both museums and paranormal groups to follow so that preser-

vation is enhanced and both groups can benefit from each other. Several case studies will be presented that illustrate the issues, challenges, and decisions that were made. Because of the unique situations encountered there has to be an approach that raises mutual awareness and respect by everyone involved.

A Comparison of Two Soot Removal Techniques: "Dry Ice Dusting" and Rubber-based Chemical Sponges

Seth Irwin and Randy Silverman

Faced with numerous soot-stained ledger books from a 2006 fire at a county recorder's office in Utah, Preservation Librarian Randy Silverman employed the technique of dry ice dusting to remove soot residue from the surface of the books. Visual observation after treatment suggested the technique was more effective than conventional surface wiping with rubber-based sponges, but quantifiable analysis was impossible to consider at the time.

This paper compares the techniques of dry ice dusting and rubber sponge cleaning in removing soot residue from the surface of smoke-damaged books. The study defines an experimental approach for standardizing soot deposition on various types of bookbinding material (leather, fine and coarse cloth, paper). The research compares the efficacy of the two cleaning methods by investigating the amount of residual soot remaining on the cleaned surfaces with colourimetry and uses a laser scan profilometer to measure surface abrasion to identify risks associated with each method.

PEG Treatments at the Alaska State Museum

Ellen Carrlee

Brief introduction to the past 30 years of conservation literature about polyethylene glycol for waterlogged wood and basketry. Review of PEG treatments used at the Alaska State Museum since 1990 with a focus on archaeological basketry. Discussion of the challenges in treating basketry material and possible solutions currently under investigation in Alaska.

Conservation of Waterlogged Wood from the USS Monitor

Susanne Grieve and Elsa Sangouard

The Mariners' Museum, located in Newport News, Virginia, is the official repository for artifacts excavated from the *USS Monitor*. Recovered by the National Oceanic and Atmospheric Administration and the United States Navy, several of the larger components of the Civil War ironclad, such as the rotating gun turret, steam engine, gun carriages and cannons, are currently undergoing treatment. Smaller artifacts recovered from the wreck site number in the thousands and include personal items such as tools and clothing. Many personal items and pieces of ship's equipment are composite artifacts of wood and metal. Waterlogged wood treatment case studies from the *USS Monitor* and an examination of current research being conducted on wooden samples from the wreck site will be discussed.

The Ice Patch Archaeological Collection: Conserving 9000 years of Yukon Hunting History

Valery Monahan

In 1997, hunters on a mountain near Whitehorse, Yukon, Canada made an important discovery in a patch of alpine snow: caribou dung more than 2000 years old and a fragment of a wooden throwing board dart (or atlatl) over 4000 years old.

Since then, a hundred ancient ice patches have been found. Local conditions preserved ice for up to 9300 years: a frozen record of life in this remote, mountainous region. Unusually hot summers in the 1990's exposed and melted the ancient ice, releasing its contents. Most ice patches have yielded faunal remains, but twenty three contained beautifully preserved archaeological artifacts: composite arrows and throwing board darts, some virtually complete. Materials preserved include wood, antler, hide, sinew, feathers, ochre paint, and spruce resin hafting adhesive. The collection includes the most complete, early examples of large game hunting projectiles in the New World. Ice patch artifacts document

9000 years of hunting in the southern Yukon, from just after the last ice age until the arrival of Euro-Canadians in the 19th century.

This talk will describe conservation work on archaeological artifacts from Yukon ice patches. Exposed when ancient ice melts, these organic artifacts deteriorate rapidly. Each summer, a crew uses a helicopter to monitor ice patch melt and to salvage artifacts and specimens. Artifacts are dried slowly in commercial style freezers, a “low-tech” approach which minimizes conflict between stabilization and future analysis. Though small in numbers, the finds are a rich source for research. Custom designed mounts and boxes are made for each artifact, to help protect this unique heritage resource for the future.

Backward Glances: Radical or Conservative?

Dennis K. Calabi

Since the theme of the conference is “Extreme Conservation” and the theme of the recent AIC conference was “Conservation 2.0,” I couldn’t help but ponder the subject in terms of the latest trends versus older materials and techniques. Which is conservative, which is extreme? As an older conservator/restorer of paintings trained 40 years ago in an old fashioned apprenticeship, rapid adoption of experimental new materials and techniques seems to me a bit extreme, yet it seems that the new dominant paradigm is to abandon the old as soon as a promising new material appears. If it proves to be a disaster in a few years, the crowd moves on to the next great thing, continuing to ignore older solutions.

While many old ways really were awful and should be abandoned, many others were simply flawed. The beauty of the old ways is that they are known and tested, their flaws as well documented as their virtues, so we can predict the results. I will discuss specific materials I feel have been foolishly discarded as well as others too widely embraced. I also wish to discuss what seems to me to be an excessive reliance on science, much of it poorly understood or incorrectly applied. Good science is obviously

essential, but it seems that hand skills and intuition have been taking a back seat. I’m not advocating a reactionary return to the past, just a more measured and balanced approach. We need more tools in our arsenal, not fewer. I would also like to see more independent thinking, less lockstep marching forward like lemmings.

On Again, Off Again: Conservation Aspects in Accessible Display Case Design

Michele Austin Dennehy

The National Museum of Natural History (NMNH) and the National Museum of the American Indian (NMAI) are in the final stretch of a three year collaboration with the Anchorage Museum at Rasmuson Center to create an Alaska Native cultural exhibition. The project, developed in conjunction with the Smithsonian’s Arctic Studies Center is intended to provide an unprecedented level of access and interaction between Smithsonian collections and indigenous source communities. The gallery, located in the new wing of the Anchorage Museum, will include both exhibition and research spaces. Floor-to-ceiling glass cases will display almost 600 Alaska Native heritage objects from the Smithsonian collections, and at the same time be available for hands-on examination and discussion by Alaska Native elders, artists, and scholars.

Smithsonian conservators have been working to ensure the long-term preservation of these objects, while simultaneously facilitating an unprecedented level of access. Meeting conservation criteria to allow objects to be safely removed from exhibit for study has been an ongoing process, which has included working closely with exhibition designers, curators, fabricators, and mountmakers. Conservators have been working to address many conservation concerns including: 1) the design and development of display cases utilizing a tensioned rod system to support fragile objects in an active seismic environment 2) the design of object mounts that properly support objects inside the display case; allowing the objects to be visually accessible for study and serve as

a means of conveyance to bring objects from exhibit cases to the study center.

This talk will summarize the conservation challenges of working with a unique exhibition case design in which objects will be routinely removed from exhibition for study and museum programs.

Treating Ipiutak Wooden Objects Remotely – A Work in Progress

Monica Shah

In the summer of 2008, officials for Ukpeagvik Inupiat Corporation (UIC), the village corporation of the Inupiat from Barrow, contacted the Anchorage Museum to help preserve some unique objects unearthed during excavations at a local site. They needed immediate assistance and long range planning for the treatment of a large amount of wooden artifacts. The objects ranged from 1.5 m-long sled runners carved from a single piece of wood to a small spoon or paddle. In an area where there are no trees and wood is harvested on the beach, these wooden artifacts were especially important. Because of the fragility, size, age, and rarity of the objects, shipping them to a conservation lab, out of the community, was not an option. Instead, a plan was developed to treat them at a research facility in Barrow, monitor them from a distance, and give guidance to archaeologists who live in Barrow year-round. I will present our treatment plan, why it was chosen, and our assessment of the various treatments so far.

Photograph Conservation Internship in Alaska

Jennifer McGlinchey

This talk will summarize a 10 week summer internship at the Alaska State Library in Juneau. The internship included a survey of the Library’s Historical Collections (comprised of nearly half a million photographic prints and negatives), collections management, and workshops conducted throughout the state through Alaska’s Archives Rescue Corps. The experiences of another 2nd year Buffalo State Conservation student, Jennifer Dennis, during her internship at

Annual Meeting Abstracts, continued

the Baranov Museum in Kodiak, Alaska, will also be shared.

The Conservation of the Frances Davis Paintings from the Holy Trinity Church, Juneau Alaska

Carmen Bria

This paper will be a brief overview of the conservation treatment of 6 altar paintings by Frances Davis. These paintings were removed from Holy Trinity Church in Juneau in 2005 and sent to the WCCFA in Denver for treatment. In March of 2006, as the paintings were about to be returned to Juneau for re-installation, the church was consumed by fire. Holy Trinity Church was the second oldest church in Juneau having been built in 1896. Davis and her husband were among the founders of the church. It has since been rebuilt and the paintings will soon be re-installed. One of the paintings, *The Day of Judgement*, is presently on view at the Douglas-Juneau City Museum.

Simple Solutions to Complex Problems: The 2008/09 Ice Mitigation and Artefact Conservation Program at Scott's Terra Nova Hut Cape Evans, Antarctica

Lizzie Meek and Susanne Grieves

As part of the Ross Sea Heritage Restoration Project managed by the Antarctic Heritage Trust (AHT) the Trust is currently undertaking conservation work at Captain Scott's iconic last expedition base at Cape Evans. During summer 2008/9, year 2 of the 6 year project, AHT undertook a major ice and snow mitigation work program. Until this season Scott's Terra Nova Hut had been at imminent risk of loss due to unprecedented snowfall and ice buildup.

To overcome this threat, work has involved making the building structurally secure and weather-proof. Snow and ice were removed from around the hut using vehicles, humans, and the awesome power of nature. Temporary wind deflectors were installed to minimize future snow and ice build-up. The removal of ice from under the hut floor was a major undertaking.

A combined international team of 3 conservators and 4 conservation carpenters lived onsite throughout the season. Due to an unexpectedly shortened schedule the team was required to work 12 hour shifts, 7 days a week in order to complete the work program. The custom-built conservation laboratory and carpentry workshop located onsite this season allowed for a greater range and number of conservation treatments and carpentry repairs to be carried out.

The ice and snow removal revealed a number of artifacts which were exposed for the first time in decades. These artifacts were surveyed and added to the 8000+ artifact conservation treatment program which continues with 4 winter conservators employed working through winter in modern laboratory located at Scott Base.

Sand or Snow? - Preparation of an Archival Model by Renowned Modernist Architect John Lautner for a Traveling Exhibition

Albrecht Gumlich

The importance of 3D architectural models can be witnesses in many museum entrances where visitors are provided with a comprehensive overview of the complex building they are about to enter. For the same reason of simple interpretation architects continue to use actual maquettes to convince a client of their extraordinary projects.

At the Getty Research Institute (GRI) architectural models together with their respective drawings provide specialists with some insight into an architect's mind. It is the conservator's job to assure not just physical integrity but also legibility for the items to be interpreted correctly.

As part of the John Lautner Archive, the model for the Turner House, which was built in the early 1980s in Aspen, Colorado, was recently donated to the Department of Architecture and Contemporary Art at the GRI. The overall yellowed appearance of the grainy surface of this model could easily be misread. An apparent interpretation was that of a modernist mansion after a

Jobs

The Cleveland Museum of Art

ASSISTANT/ASSOCIATE OBJECTS CONSERVATOR (Temporary)

This full-time temporary position is available immediately and will conclude upon the completion of a major reinstallation project; approximately 2012. Under supervision of the Objects Conservator, this position will work closely with various departments and staff members to examine, document, and treat the Museum's vast and diverse object-based collections as well as aid in the reinstallation of works of art as the museum begins to reopen. In addition, the candidate will work with the design and collection management departments to ensure proper handling, preparation, mounting and display of these collections.

The candidate must have a Bachelor's degree and completed graduate-level of study in Art Conservation, or equivalent education and training, with at least two years of work experience. The applicant must be able to lift up to 50 pounds. Salary will commensurate with experience.

Send resumes or other relevant credentials to:

resume@ clevelandart.org
Human Resources
The Cleveland Museum of Art
11150 East Boulevard
Cleveland, OH 44106-1797
(No Phone Calls Please)

EOE/M/F/D/V

(Jobs continued on next page)

sandstorm - a fantasy not far fetched, as Lautner had numerous wealthy clients in and around the desert city of Palm Springs, California.

The challenge of this intervention was to provide visitors of a traveling Lautner exhibition with a better chance of correct interpretation while keeping reversibility in mind.

Usual conservation issues of lost of elements, structural integrity and accumulated surface grime will only briefly be mentioned, as this presentation will focus on the search for and application of "faux snow", resembling the actual Colorado setting.

The Fine Arts Conservancy

SENIOR PAINTING CONSERVATOR

FAC seeks a highly skilled Senior Paintings Conservator. Duties include examination, technical analysis, written and photographic documentation and treatment of traditional and contemporary works. Will perform highly skilled tasks requiring manual dexterity (emphasis on color matching, fills and in-painting), intense concentration, connoisseurship and aesthetic sensitivity. Incumbent will interface with senior administrative personnel, and will be involved with a wide range of conservation projects, ranging from old master to post modern in a busy, collegial environment.

Eighty five percent of the job is conservation and restoration, and the balance is managing the studio, managing picture flow in the lab, keeping track of paintings in the lab and storage rooms, weekly meeting to discuss work flow, supervising support personnel, meeting and consulting with clients, condition and treatment reports, consulting with framing department and stock control of conservation materials. There will be some travel, and frequent interaction with clients both at the labs and at their homes/museums et al. Participation in our profit sharing plan; opportunities are offered for continuing education and professional organization meetings.

With 5000 + sq. feet of modern, well-equipped laboratories, FAC is a highly regarded facility, noted for its commitment to excellence, providing conservation services to collectors, museums historical societies and insurers throughout the southeast with some national and international clientele. The staff is augmented with contract conservators, art handlers and installers, packers and shippers. There are separate labs for painting conservation, paper conservation, framing, and a diagnostic and technical examination lab.

We are located in Palm Beach, Florida, one of the most beautiful areas in America. There is no state or local income taxes, and the cost of living is less expensive than most areas of the country.

Minimum Qualifications: graduate degree from a recognized program with 5 to 8 + years experience in traditional and contemporary paintings; US citizenship or Green Card; fluent in spoken and written English, strong interpersonal skills. Must have physical strength to lift large and heavy art works, crates, etc. PA or someone qualified to stand for PA. An independent worker, self-motivated and deadline driven.

Ideal Candidate: also skilled and knowledgeable in digital photography and graphics software, Photoshop specifically, and an understanding of three-dimensional objects. Knowledgeable in modern and composite materials a definite advantage.

Cover letter, resume, supporting materials and references, please. Current employment will be kept confidential and not be contacted prior to mutual agreement. Selected candidates will be invited to interview and asked to submit a portfolio of projects.

SENIOR PAPER CONSERVATOR

We are seeking a highly skilled Senior Paper Conservator to undertake projects for our clients who are private collectors, museums, historical societies, insurance companies, and the occasional governmental entity.

Duties include examination, determining a need for treatment, writing proposals for treatment, performing both major and minor treatments, and photography and treatment reports. There is a wide range of projects, from Old Masters to contemporary works.

The Conservator will perform highly skilled tasks, requiring manual dexterity (emphasis on color matching, fills, in-painting, mending, consolidation, bleaching, hinging, et al), intense concentration, problem solving skills, connoisseurship and aesthetic sensitivity. Must be capable of working independently in a well-equipped lab, but there will be daily interaction and collaboration with other staff; there is some travel and frequent consulting with clients either at the lab or their location. We also perform several

disaster recoveries annually, in which the Paper Conservator plays an important role. It is useful to have a fundamental knowledge of framing and framing materials. There are Adjunct Conservators in textiles, metals, outdoor sculpture, and objects. Some objects are done with internal staff.

Candidates must have a bachelor's degree with significant experience practicing in the field of paper conservation, or a master's degree from a conservation program and experience. Professional Associate in AIC or the necessary qualifications to become a PA are important. Computer skills and knowledge of Photoshop are helpful. Candidates must be qualified to work in the United States. We need someone who is an independent worker, self motivated and deadline driven. Compensation is commensurate with experience and ability; there is participation in the company's Profit Sharing Plan. Opportunities for continuing education and attending professional organization meetings, both nationally and internationally.

FAC has a 5000+ square foot highly modern facility with floor to ceiling UV shielded windows on two sides, and is well equipped for paper conservation. There are individual labs for paper, paintings, framing and a separate lab for diagnostics, technical analysis, and photography. Experience in various examination aids is useful. We are located in South Florida, the Palm Beaches; one of the country's most beautiful areas. There are no state or local income taxes, and the cost of living is less expensive than most of the country. Our clientele, while mostly local from Miami to Vero Beach, extends across the country, with a few international projects.

Please submit resume and salary requirements to:

Gordon A. Lewis, Jr.
The Fine Arts Conservancy
5840 Corporate Way, #110
West Palm Beach, FL 33407
gal@art-conservation.org
561.684.6133 (tel)
561.684.8508 (fax)

Articles You May Have Missed

Susanne Friend, column editor

“Everything Old Can Look New Again,” *SoMdNews.com*, 05/01/2009

It’s not easy to make really old stuff look new again. Ask the few conservation, preservation and restoration professionals in Southern Maryland, who have spent years of training and schooling to be qualified to work on historic buildings and artifacts. Though their jobs are easily overlooked by passersby as workers scrape away moss from gravestones, scrub bronze statues in a lobby or balance with cleaning supplies on a scaffold in front of a building, they’re necessary.

The profession has grown in recent years as demand by the private sector for specialized craftsmen has increased. Because of their proximity to the nation’s capital, local conservators’ work takes them all over the state and country for government-funded projects. But that doesn’t mean they aren’t constantly itching for a chance to work on Southern Maryland’s own historic treasures when funding for such becomes available.

“We are in a way, coming out of our shell. Half of the industry is working in the private sector. For a while, the field was much more dominated by institution-based conservators. The demographic has changed in last 15 to 20 years. It reflects a need for conservation services in general, certainly in the art world,” said Paul Messier, spokesman for the American Institute for Conservation of Historic and Artistic Works. “The growth of conservation businesses has been very good. ... There is now a consciousness that we need to raise our profile as a considerable portion of our clients is coming from private sector.

Conservation is not just for large institutions. It’s for family photographs, people with fine furniture ... it’s for auction houses and private collectors.” Demand has grown for such professionals after disasters as well, particularly after Hurricane Katrina devastated New Orleans in 2005.

“Havana’s Historic Architecture at Risk of Crumbling into Dust,” *South Florida Sun-Sentinel*, 05/03/2009

Chunks of this city’s rich and eclectic architectural history tumble to the ground every few days, piece by piece, forever lost in the rubble. Neo-Baroque and Art Deco treasures deteriorate

at an alarming rate. Every three days, there are two partial or total building collapses in Central Havana alone, according to architectural experts.

Experts say a combination of age, decay, neglect and the elements threatens important 19th century neo-classical villas and Spanish colonial mansions, along with some of the world’s finest examples of 20th-century architecture — Art Deco palaces from the 1930s and modernist structures from the 1950s.

“Many buildings will be totally lost in 10 years,” said Orestes del Castillo, a retired architect and restoration expert with the office of the city historian. Centuries-old colonial buildings and picturesque squares in Old Havana have been restored since UNESCO, the cultural arm of the United Nations, designated it a world heritage site in 1982. The city historian’s office paid for the restorations. Similar financing schemes don’t exist for historic neighborhoods such as Central Havana, Vedado and El Cerro.

The communist state has been a reluctant supporter of capitalist ventures. The result: the city’s vast architectural repository is crumbling. Other architecture experts said just the opposite is true: A half century of communist rule saved the capital’s stunning architecture from developers, even though a lack of money for repairs has taken a toll.

“Famed Nefertiti Bust ‘a fake’: Expert,” *Agence France Presse*, 05/05/2009

The bust of Queen Nefertiti housed in a Berlin museum and believed to be 3,400 years old in fact is a copy dating from 1912 that was made to test pigments used by the ancient Egyptians, according to Swiss art historian Henri Stierlin.

Stierlin, author of a dozen works on Egypt, the Middle East and ancient Islam, says in a just-released book that the bust currently in Berlin’s Altes Museum was made at the order of German archaeologist Ludwig Borchardt by an artist named Gerardt Marks. On December 6, 1912, the copy was admired as an original work by a German prince and the archaeologist “couldn’t sum up the courage to ridicule” his guest, Stierlin said. The historian, who has been work-

ing on the subject for 25 years, said he based his findings on several facts.

“The bust has no left eye and was never crafted to have one. This is an insult for an ancient Egyptian who believed the statue was the person themselves.” He also said the shoulders were cut vertically in the style practiced since the 19th century while “Egyptians cut shoulders horizontally” and that the features were accentuated in a manner recalling that of Art Nouveau.

It was impossible to scientifically establish the date of the bust because it was made of stone covered in plaster, he said. “The pigments, which can be dated, are really ancient,” he added. Stierlin also listed problems he noted during the discovery and shipment to Germany as well as in scientific reports of the time.

“Floods Force Vienna to Evacuate Albertina Museum,” *Reuters*, 06/24/2009

Vienna’s Albertina Museum, home to landmark Impressionist works by Monet and Renoir, will start removing 950,000 artworks from its leaking underground depot following some of Austria’s heaviest downpours in 50 years.

The gallery, which remains open, will start moving the works on Thursday, including pieces by Flemish painter Rubens and Italian master Michelangelo. “There has not been any damage to the works so far,” gallery spokeswoman Verena Dahlitz said on Wednesday.

One of the 200-year-old gallery’s most important pieces, a delicate watercolour of a hare by Albrecht Durer from 1502, has already been saved. The collection will be moved from central Vienna to another location in Austria and the museum does not yet know how long the operation will take.

Austria has put 10,000 soldiers on standby to cope with the flooding, which has mainly affected towns along the Danube River in northern and western Austria.

The Albertina, housed in a Neo-Classical palace which was rebuilt after World War Two bomb damage, is one of Vienna’s main tourist attractions, drawing some one million visitors a year. Apart from the rain, the museum has also been hit by the financial crisis, with donors pulling 2 million euros (\$2.81 mil-

lion) in sponsorship earlier this year. **“Leonardo Unbound: Splitting the Master’s Tome to Save His Words,”** *The New York Times*, 05/08/2009

In a windowless room in the underbelly of the Ambrosiana Library here, a group of restorers, most of them Benedictine nuns from the Abbey of Viboldone, has been working for months to unglue the pages of the Codex Atlanticus, the largest-known collection of drawings and writings by Leonardo da Vinci.

They have been unbinding the Codex since March to preserve better the works in Leonardo’s hand. But splitting up the manuscripts — which were compiled and bound into book form 400 years ago by the sculptor Pompeo Leoni — also means that more pages can be exhibited to the public, making it a potential moneymaker for the Library, which has owned the Codex since 1637.

Come September, pages will be available for public viewing at the library and in the Milanese church where Leonardo painted “The Last Supper.” After the original pages are detached from their paper supports, they will be reframed, using acid-free mat boards. The individually mounted pages will be kept in special archival boxes and stored in the vault, where the temperature and humidity are carefully monitored.

“Palace of Fine Arts Offers Peek at Restoration,” *San Francisco Chronicle*, 05/09/2009

Fencing around San Francisco’s beloved Palace of Fine Arts will come down by the end of the month, unveiling the latest refurbishments in the multiyear, \$21 million project to make the neoclassical monument seismically safe and strong.

Gone are the safety nets that have hung under the rotunda’s ceiling since the 1989 earthquake. The ceiling has been seismically braced and painted, extensive cracks on all of the structure’s surfaces have been repaired, and graffiti and what architects politely referred to as “animal deposits” have been removed.

But enjoy it while you can - the fencing will go back up in late fall, after swans’ and other birds’ nesting season, to complete the third and final phase of the refurbishment.

The Palace of Fine Arts is the only surviving structure of the 1915

Panama-Pacific International Exposition, which was called “Jewel City” and took place in what is now the Marina neighborhood. The palace was always intended to be temporary, as was evidenced by its original materials: plaster, hemp and chicken wire. But philanthropist Phoebe Apperson Hearst, mother of newspaper owner William Randolph Hearst, led a drive to save it, calling it too beautiful to be torn down.

The third phase, to begin this fall, will include adding some of Maybeck’s original features that have been lost, including landscaping similar to what was there in 1915, new formal entrances featuring “architectural rooms” intended to draw visitors into the site in a more intimate way, a decorative rotunda floor featuring medallions inlaid into colored concrete, a terrace jutting off the rotunda’s edge into the lagoon, and panels to educate visitors about the 1915 fair and Maybeck.

“Thomas Becket Paintings Unveiled in Spain,” *BBC News*, 05/15/2009

For the first time in 30 years, wooden protective boards and a glass panel have been taken away to fully reveal a rare medieval artwork.

The paintings in the ruined church of St. Nicolas in the Spanish town of Soria tell the story of the murder of the English Archbishop Thomas Becket. Becket is remembered as the Archbishop of Canterbury who stood up to a king and for his trouble was murdered by the king’s knights while he was praying.

King Henry II never forgave himself for his role in the murder of his political foe and his guilty conscience found its way to Spain. His daughter, Eleanor of England, married the Spanish King, Alfonso VIII. As a way of asking God to forgive her father, Eleanor commissioned paintings of the murder of Becket to adorn the walls of a church in the northern Spanish town of Soria.

Today the church of Saint Nicolas is a complete wreck near Soria’s main square, but three decades ago, builders were stabilizing the ruin when they rediscovered these medieval paintings in excellent condition. Since then a glass panel together with a wooden board have been the only protection for these beautiful works of art that are otherwise exposed to the open air.

Compared to photos taken when they were rediscovered in the late 1970s, half of the work has vanished. The ruined church was still in the hands of the Roman Catholic Church until about five years ago when it became the responsibility of the town council.

In a bid to boost tourism, the town council has been campaigning to secure state funding to restore the historic centre of Soria. The mayor has announced a restoration project that will contribute about half a million euros to restore the ruined church - including the crypt area and the paintings. The results of the efforts, he believes, will be visible during this year.

“They Rode the Rails in Style,” *The Wall Street Journal*, 05/28/2009

Seeing Henry Morrison Flagler and John Ringling’s private railroad cars -- their interiors, furniture and opalescent glass skylights gleaming from recent renovations -- you’d never know that by the 1950s one had become housing for migrant farm workers, and another a fishing shack.

Now, thanks to the Flagler Museum in Palm Beach, Fla., and the Ringling Museum in Sarasota, Fla., visitors can get a glimpse of the lives of tycoons whose careers were so closely intertwined with rail travel. Flagler (1830-1913) created the Florida East Coast Railway (FEC), and Ringling (1866-1936) was advance man for the Ringling Bros. and Barnum & Bailey Circus. Both men used their cars for business and only incidentally for pleasure.

The car, built in 1886 by the Jackson & Sharp Co. of Wilmington for \$70,000, had a copper roof with a Victorian-styled, wood-paneled lounge, sleeping berths for visitors, and a private stateroom with bath for Flagler. There was a copper-lined shower, a dining area, and a small food preparation area with an ice box and wood stove.

Today, Car 91 looks better than ever, with no sign of its period as farm housing in Virginia. In the Ringling’s Circus Museum building in Sarasota, one must view John and Mable Ringling’s railcar, the Wisconsin, from the outside -- because it’s still being worked on. The Wisconsin’s interiors are mahogany and other woods, decorated with elaborate moldings and gold-leaf stencils. There

are toilets in each compartment, and the Ringlings had a private bathroom, including tub. The rear compartment in the 79-foot car is the observation room, which could be used as a lounge or office. There are also crew quarters and a kitchen. All rooms get extra daylight from a clerestory of opalescent glass.

“Does Plastic Art Last Forever?” *Slate*, 07/01/2009

In the early 1960s, curators at the Philadelphia Museum of Art noticed something funny about one of their modern-art sculptures: It smelled like vinegar. Worse, the once-clear plastic sculpture had begun browning like an apple, and cracks had appeared on its surface.

By 1967, Naum Gabo’s translucent, airy *Construction in Space: Two Cones* looked like Tupperware that had gone through the dishwasher too often.

In the 1920s, Gabo and other artists began experimenting with plastic, both because it offered the freedom to create any shape in any color and because they believed artists should embrace technology and a plastics-based industrial future. Plastics manufacturers assured the artists that cellulose acetate was durable—Greek marble for a new generation.

Not quite. It turned out plastics were no more intrinsically stable (and sometimes less stable) than wood, paint, or any other media—a detail Gabo and the Philadelphia curators never suspected until too late. As plastics revolutionized the making of furniture, toys, health care products, and electronics, museums of industry, design, and medicine began snapping up plastic objects that were either historic (the first artificial heart) or culturally important (Barbie dolls). Plastics hold up well for the decade or so during which a consumer uses most products. But museums, unlike consumers, are in it for the long haul, and when plastics crash, they crash precipitously. As a result, museums of all sorts have been having Gabo moments in the past decade.

“Making Work Presentable a Job for Pros,” *The Columbus Dispatch*, 05/14/2009

Don’t be fooled by the modestly dressed subjects (including two holding Bibles) in these family portraits: The

Clarks of Morrow County were a dirty bunch. Who wouldn’t be, after so many decades without a good cleaning?

Wanting to spruce up the 1844 paintings, the Columbus Museum of Art hired Kenneth B. Katz to handle the delicate restoration work. Conservation and Museum Services, a Detroit company owned by Katz, helps museums, corporations and private collectors in Ohio and Michigan care for paintings.

Not only were the portraits featured in the museum’s “Meet the Clarks” display -- dirty and cracked after almost 70 years in storage, but a previous restorer had brushed varnish over older layers of dirt and grime. Each work required 10 to 15 hours of attention, which included filling cracks with putty and repainting damaged areas. Sometimes, restoration can yield surprises. While working on a painting owned by a Michigan family, Katz determined that a full head of hair had been added to the subject during a previous restoration. “So he had to go back to the family bald.”

“Michelangelo’s Self-Portrait?” *The Toronto Star*, 07/03/2009

The restoration of Michelangelo’s frescoes in the Vatican’s Pauline Chapel may have produced a special prize: a previously unknown self-portrait of the artist.

Chief Vatican restorer Maurizio De Luca said yesterday that the face of a man on horseback in the artist’s *The Crucifixion of St. Peter* could well be the artist, though De Luca told AP Television News that nobody will ever know “with absolute certainty that the face is Michelangelo’s.”

The Vatican announced that the restoration had been completed after five years at a cost of \$5.2 million (Canadian). The frescoes were commissioned by Pope Paul III and painted between 1542 and 1549, when Michelangelo was 75. They were his last works. The chapel, generally known by its Italian name *Cappella Paolina*, is used by the Pope and is not open to the public. It has two Michelangelo frescoes, the other of which depicts the conversion of St. Paul.

“Polishing a Lost Gem to Dazzle Tourists,” *The New York Times*, 07/08/2009

The beauty of the exquisitely preserved ancient mosaic only seemed

to underline the incongruity of its surroundings. Modern Lod is a diverse city characterized by hardship. The late-Roman-era mosaic floor, one of the largest and finest in Israel, was unveiled by the authorities last week for just the second time since it was discovered in 1996 in the dilapidated eastern section of this poor town near the international airport, south of Tel Aviv.

Some 1,700 years old, the magnificent tiled floor spreads over almost 2,000 square feet and depicts a panoply of colorful birds, fish, exotic animals and merchant ships. The archaeologists of the Israel Antiquities Authority believe the mosaic, which lacks any inscriptions, was commissioned by a wealthy individual who owned a grand villa here.

The mosaic will be removed to a laboratory in Jerusalem for painstaking conservation. In 2010, a section will be sent to the United States for exhibit at the Metropolitan Museum of Art in New York. Two years from now, the entire mosaic is supposed to be returned to this patch of ground in eastern Lod and put on permanent display in a protected environment.

“Joan of Arc Statue out for Repairs,” *The Philadelphia Inquirer*, 07/24/2009

Don’t look for the gracious, golden Joan of Arc in her usual spot near the Philadelphia Museum of Art. The 15-foot-tall statue, created in France by sculptor Emmanuel Fremiet and erected in Philadelphia in 1890 in honor of the centennial of the French Revolution, is off for repairs.

“We knew she was in need of restoration,” said city public art director Margot Berg, who said the planning had begun three years ago. “There’s a significant crack” in the granite pedestal, she said, and the gold-leaf gilding on the bronze statue needs replenishing. The \$75,000 restoration is being done by Milner & Carr Conservation in Philadelphia and Gold Leaf Studios of Washington.

About two-thirds of the cost is coming from the city’s capital budget - not its operating budget - and was encumbered several years ago, Berg said. The rest is from a grant from the French Heritage Society. The statue of the French peasant girl who led her countrymen to victories in the Hundred Years War will return in about three months.

“Stripping Away the Darkness as Murals Are Reborn,” *The New York Times*, 07/26/2009

For the last nine months the murals in the lobby of 30 Rockefeller Plaza have been cleaned by a team of six conservators who have all but moved in and will be there for the next two years. Carefully concealed behind giant scrim, they spend hour after hour methodically removing decades of yellowed varnish from the building’s famed murals, one inch at a time. Their work is so quiet and the scrim — blown-up photographs of the murals — so unobtrusive that nobody seems to notice them.

EverGreene Architectural Arts is restoring the murals, which include paintings by the Spanish painter José María Sert. Their two biggest challenges still lie ahead: “Time,” Sert’s mural on the lobby’s ceiling, and “American Progress,” at the information desk. To work on Sert’s dramatic ceiling, conservators plan to build what EverGreene owner Mr. Greene calls a “dance floor” above the foot traffic. More difficult will be tackling “American Progress” because it conceals electrical and mechanical equipment from the elevators. “Over the years there has been damage from decades of floods,” Mr. Greene said. “We want to avoid radical surgery. First we will clean the mural, stabilize it, reattach pieces of canvas that have gotten loose, and flatten pockets that have formed.” And as they have throughout the project, conservators will delicately paint in any discolored or damaged surfaces.

Conservators plan to build what EverGreene owner Mr. Greene calls a “dance floor” above the foot traffic. More difficult will be tackling “American Progress” because it conceals electrical and mechanical equipment from the elevators. “Over the years there has been damage from decades of floods,” Mr. Greene said. “We want to avoid radical surgery. First we will clean the mural, stabilize it, reattach pieces of canvas that have gotten loose, and flatten pockets that have formed.” And as they have throughout the project, conservators will delicately paint in any discolored or damaged surfaces.

“Babylon’s Ancient Wonder, Lying in Ruins,” *The Washington Post*, 07/29/2009

A report released this month in Paris by the United Nations’ cultural agency, UNESCO, says that the U.S. forces’ 18-month stay in the archaeological site of Babylon caused “major damage” and represented a “grave encroachment on this internationally known archeological site.”

According to the report, which comes after five years of investigation by a team of Iraqi and international experts, foreign troops and contractors bulldozed hilltops to serve as parking lots for military vehicles and trailers, pulverizing fragile pathways and archeological frag-

ments. They dug trenches where they stored fuel tanks for their helicopters, which landed near an ancient theater.

U.S. forces did not exactly destroy the 4,000-year-old city, home of one of the world’s original seven wonders, the Hanging Gardens of Babylon. Even before the troops arrived, there was not much left. But they did turn it into Camp Alpha, a military base, shortly after the U.S.-led invasion in 2003. Among the structures that suffered the most damage, according to the report, were the Ishtar Gate and a processional thoroughfare.

Facing mounting criticism from archaeologists in Iraq and around the world, troops vacated it in summer 2004. It was reopened this June, despite warnings from experts that the ruins might suffer further damage unless they were first restored and given proper protection. Now, with security in Iraq improving, officials hope to start work on a \$700,000, two-year project funded by the U.S. State Department to restore the site. The United Nations is also trying to name the place a World Heritage site, a designation that would provide support and protection.

“Mexico’s Diego Rivera Murals get Restoration Treatment,” *The Los Angeles Times*, 07/29/2009

Anyone with even a passing interest in Latin American art and culture will be familiar with Diego Rivera, the Mexican painter and muralist. Rivera, who is credited with being one of the founders of the Mexican muralist art movement, was also an active communist and husband of the equally famous Mexican artist Frida Kahlo.

Between 1922 and 1953, Rivera painted murals in Mexico City, Chapingo and Cuernavaca here in Mexico, as well as in San Francisco, Detroit and New York City. Mexico City’s Palacio Nacional, or National Palace, is home to some of the paintings that Rivera did under government commission, and those works are currently the focus of a restoration project by the government.

Diligent specialists are touching up missing color with watercolor paints, and using a weak alcohol solution to wash away dust and grime that the murals have collected. The restoration is expected to be completed in September.

“As Art Ages, So Do the Skills to Preserve It,” *The Wall Street Journal*, 07/31/2009

No more than half a dozen or so restoration specialists world-wide have the expertise for the highly skilled task of panel paintings conservation, and most of them are nearing retirement. The only specialist training program for panel painting conservation, located in Florence, Italy, recently shut down.

“It has created this vacuum in expertise,” says Getty Conservation Institute scientist Alan Phenix. To save critical art restoration skills, the Getty Foundation, the Getty Conservation Institute and the J. Paul Getty Museum have launched a global panel paintings initiative, a global program to train a new generation of panel conservators.

“Clean-up Reveals True Rembrandt,” *BBC News*, 08/07/2009

A portrait thought to have been painted by a pupil of Rembrandt has been proven to have been created by the master himself after a restoration.

Portrait of Pastor Swalmius, painted in 1637, had been the subject of debate by art connoisseurs for centuries. But curators at Antwerp’s Royal Museum of Fine Arts were overjoyed after layers of dark varnish were removed to reveal the Dutch painter’s signature. “There was a very dark varnish on the painting so subtleties within it were not visible anymore and after time people thought it wasn’t genuine,” said museum spokeswoman Veronique van Passel.

The Rembrandt Research Project confirmed the painting’s authenticity after tests showed it was made from the same piece of linen as two other genuine Rembrandts - one on display in Frankfurt and the other in St. Petersburg. It also pointed to features of the collar, beard and wrinkle of the eyes which were characteristic of Rembrandt’s style.

“Why Settle for Imitations of the Past?,” *Toronto Star*, 08/08/2009

Never has the need to preserve been greater. Architectural conservation has always been important, but at a time of environmental crisis, it no longer makes sense to tear down the past to clear the way for the future. Which brings us to Borgo di Vagli.

This 14th-century hamlet, 20 or so kilometres from Cortona, was abandoned after World War II and quickly fell into disrepair. Then in the late '90s, Italian builder and engineer Fulvio di Rosa decided to acquire the property and restore it. The borgo comprises a series of perhaps 20 small stone buildings, some detached, some connected. Presiding over the tiny community is a clock tower, also stone, now transformed into a trattoria. "The intention was to let it be as it has always been," di Rosa explains.

Because the idea was to restore the buildings and sell them as a fractional ownership resort, they had to be brought up to code. That entailed providing earthquake and fire protection, power, insulation and so on. The concrete beams required to stop earthquake damage are hidden between roofs and ceilings. The terracotta comes from nearby Sienna and the plaster is a special chalk-based mix. It is a testament to the power of restoration properly done that this 600-year-old enclave, which reopened in 2006, still feels at one with its rugged landscape.

"Fragile Art takes a Hit in an Interactive World," *Chicago Tribune*, 08/09/2009

Can the public love public art to death? Yes, it can, particularly if the art isn't ready to take the kind of pounding that goes with being displayed in a raucous public place rather than the refined confines of a museum. That is what's happening in Millennium Park, where the Burnham Plan centennial pavilion by Amsterdam architect Ben van Berkel and his UNStudio will close for desperately needed repairs.

Ever since the pavilion opened June 19, the human urge to climb has boldly asserted itself. Children have run up the pavilion's scoop-like curves, gouging openings in its glossy white surface and exposing underlying plywood. Skateboarders have left track marks. Once sleekly sculptural, Van Berkel's design now resembles a beaten-up jungle gym.

The other Burnham pavilion -- a podlike structure by London architect Zaha Hadid -- suffered as well. All too predictably, parkgoers stepped onto its ground-hugging fabric walls, leaving footprint marks. It's easy to point fin-

gers at Van Berkel and Hadid for creating dazzling pieces of sculpture that failed to anticipate how people would behave. Yet it is also true that star architects need tough clients to say no, when they come up with designs that are beautiful but impractical.

"Woman Attacks Mona Lisa," *Telegraph*, 08/11/2009

A Russian tourist sparked a security alert when she threw a mug at the Mona Lisa, officials at Louvre Museum in Paris have revealed. The Russian woman is thought to have bought it minutes earlier at the museum gift shop. However, the Mona Lisa's enigmatic smile was unaffected by the commotion, as the mug bounced harmlessly off the bullet-proof glass shielding her and shattered on the floor.

The woman was seized by two museum security guards and handed over to central Paris police after the incident on August 2. The Russian is being held in custody and has reportedly undergone a psychological examination. Doctors were trying to assess whether she was suffering from Stendhal Syndrome, a rare condition in which often perfectly sane individuals momentarily lose all reason and attack a work of art.

"Battle to Save Chicago's Gropius Architecture has Preservationists and City at Odds," *The Christian Science Monitor*, 08/20/2009

Recently, while studying engineering and architecture at the Illinois Institute of Technology (IIT), Grahm Balkany discovered that one of the great minds of modern architecture, Walter Gropius, lay behind many of the small, flat-roofed hospital buildings on Chicago's South Side, built in the 1950s and early '60s in a great gust of urban renewal.

But what began as a triumph for scholarship and Chicago's architectural history has quickly soured. While Balkany was busy attaching Gropius's name to the buildings, the city was laying plans to raze them. Officials want the 37-acre campus of Reese Hospital, which went bankrupt last September, to build an Olympic village for the 2016 Games, for which Chicago is a finalist.

Even if Chicago doesn't win the

Games, officials envision a new residential development that they say will help invigorate the South Side. The decision to demolish has angered preservationists in part because it came with little or no public debate. The city has talked to architects and preservation groups, but so far it has shown little willingness to compromise. Contractors have already cut down trees around the buildings and begun demolition of the interiors.

"Restoration of 'Virgen de la Asuncion' 17th Century Painting Continues," *ArtDaily.org*, 08/07/2009

Known as "Xochimilco Cathedral," San Bernardino de Siena Parish will receive back the restored oil painting "Virgen de la Asuncion", one of the few Colonial paintings with its support united with maguey fiber, a technique that was not used later on.

Painted on board in 17th century by Juan Sanchez Salmeron, one of the greatest New Spain art representatives, the work is part of the altarpiece, and is being restored by National Institute of Anthropology and History (INAH) experts since January 2009.

Restorer Lucia de la Parra, responsible for restoration of the 90 centimeters long painting, explained the conservation state of the piece: "it was affected by insects' attack, which harmed the wood and caused pictorial layer loss". Fumigation to eliminate insects and larvae was the first step taken. Then deep cleaning took place, followed by surface stabilization.

"An Old Spanish Master Emerges From Grime," *The New York Times*, 09/09/2009

For years the Metropolitan Museum of Art displayed the painting of a mustached man in his mid-30s on the same wall as famous portraits by the 17th-century Spanish master Velázquez. But was "Portrait of a Man," also painted by Velázquez, as thought when it was bequeathed to the museum in 1949? Or was it merely from "the workshop of" Velázquez, as experts concluded a few decades later?

After revisiting a painting that had raised nagging questions, Met curator of European Paintings, Keith Christiansen, and Michael Gallagher, chief of

the Met's paintings conservation department finally have the answer. Decades of varnish had discolored the canvas and the painting had been heavily restored and cleaned in the 1920s and revarnished in 1953 and again in 1965.

When the museum recently started to catalog the Spanish paintings in its collection, Mr. Christensen asked Mr. Gallagher to take another look. He ended up not only studying the painting but also carefully cleaning and conserving it. As details like the individual brushstrokes of a collar emerged, he concluded that Mr. Christiansen's instincts were on target. Buried beneath decades of yellowed varnish and poor retouching were all the marks of Velázquez's hand.

Jonathan Brown, this country's leading Velázquez expert, agreed. "The picture was thinly painted and never intended to be finished," said Mr. Christiansen, who says he believes it was actually a study. "It was a sitting done from life, which gives it great immediacy."

"Mending the Broken Art," *The Buffalo News*, 09/25/2009

It's not quite "Antiques Roadshow," but Buffalo State College has its own version of the popular PBS series. The college's renowned Art Conservation Department held its annual art clinic Friday, during which a few dozen collectors brought in art, antiques and prized heirlooms in need of repair and restoration.

Buffalo State's art conservation program is one of only three comprehensive, graduate-level programs in the United States, and some of the pieces brought into Friday's clinic provide its 20 graduate students with projects to help them master skills they'll need once they graduate and take jobs at galleries and museums. The department faculty looks for a variety of pieces offering just the right degree of challenge for a student to complete over the course of an academic year. As with all the objects and artwork selected, the owner is charged a fee, which helps bring some money into the department.

"Lifting the Lions," *Reuters*, 09/10/2009

Pittsburgh's oldest bank announced today the Phase I launch of a major restoration project and overhaul

of its historic 1871 building on Fourth Avenue, beginning with the removal of its symbolic lions.

The two signature lions will be removed for a complete restoration and replacement that is estimated to take a year. The restored lions will be returned to Pittsburgh to a to-be-determined location in midyear 2010, while the newly sculpted replacement lions will return to Fourth Avenue in about a year.

The lions, sculpted by Max Kohler, each from a single block of quarry-bedded brownstone, represent "guardianship of people's money." A 20-ton crane will lift each 13,000-pound lion from its Pittsburgh perch where it has rested since its original installation just after the Civil War. The lions will be removed and transported by McKay Lodge Conservation Laboratory, Inc. to its large sculpture conservation facilities in Oberlin, Ohio.

The lions are extremely fragile and risk the danger of crumbling during the removal period. Each lion must be undercut to insert a lifting cradle to help transport the lions safely to the carrying containers. Friable stone under the surface will require vacuum-assisted alkoxysilane and possibly resin treatments.

The restored lions will be scanned to obtain three-dimensional digital data. This data will control a router in the cutting of high-density foam, making patterns of the restored lions. Lost carving detail will be restored in the foam patterns by hand work based on historic photographs so the patterns will become an accurate basis for the carving of the stone replicas.

In addition to restoration of the original lions, the project under McKay Lodge's direction will produce two new lions each of matching uniform color. The stone itself will be quarried in China from a quarry found to have the only stone that matches the original lions.

"15 paintings from Goa to get 'Major Treatment,'" *The Times of India*, 09/11/2009

The Regional Conservation Laboratory (RCL), Mysore is set to take fifteen paintings from the Goa State Museum for restoration to due to lack of necessary facilities in Goa. M. V. Nair, director of the National Research

Laboratory for Conservation of Cultural Property, Lucknow, said that Goa needs to utilize the Rs 6 crore central grant to upgrade regional and state museums.

Nair, who is in Goa to inaugurate a two-day workshop on preventive conservation of museum objects, said that Goa has a number of rare artifacts and paintings that need conservation and restoration. He said that grants provided by the central ministry for art and culture could be used by the Goa State Museum to set up its own laboratory.

RCL is a unit of the National Research Laboratory for Conservation of Cultural Property, Lucknow and the only laboratory serving Mysore and the surrounding region. He further said that focus should preferably be on prevention of humidity, as this is the best way to save paintings from deterioration.

"Experts Awed by Anglo-Saxon Treasure," *The New York Times*, 09/24/2009

For the jobless man living on welfare who made the find in an English farmer's field two months ago, it was the stuff of dreams: a hoard of early Anglo-Saxon treasure, probably dating from the seventh century and including more than 1,500 pieces of intricately worked gold and silver whose craftsmanship and historical significance left archaeologists awestruck.

Experts described it as one of the most important in British archaeological history, surpassing the greatest previous discovery of its kind, a royal burial chamber unearthed in 1939 at Sutton Hoo, in Suffolk.

Tentatively identified by some experts as bounty from one of the wars that racked Middle England in the seventh and eighth centuries, the treasure includes dagger hilts, pieces of scabbards and swords, helmet cheekpieces, Christian crosses and figures of animals like eagles and fish. Archaeologists tentatively estimated the value of the trove at 1 million pounds — about \$1.6 million — but say it could be many times that.

And they took a vicarious pleasure in noting that the discovery was not the outcome of a carefully planned archaeological enterprise, but the product of a lone amateur stumbling about with a metal detector.