Dear Membership,

Greetings and Happy New Year! I’m honored to step into the role of President of WAAC and look forward to our next annual meeting in Portland this September. Plans are underway with the Portland Art Museum (PAM) and possibly a couple other venues for functions but they’re still in the planning stages. I’m hoping the meeting will be educational for the WAAC membership and the greater Portland arts community as well.

The annual meeting was last held in Portland in 2002, which doesn’t seem very long ago, but much has changed since then. The Portland Art Museum has a new Executive Director, and the museum purchased the former Masonic Temple next door (in 1980s), which was renovated and now holds the Jubitz Center for Modern and Contemporary Art.

Former president, Claire Dean, wrote much regarding the city of Portland in the 2002 WAAC Newsletters so I thought I’d augment her information about Portland with some fond memories of my time and history, especially as I have come to know the city, its art organizations, and conservation community.

In 1993, my husband Steven was offered a graphic design position at Nike. We were living in Los Angeles, and I came up with Steven for the interview to see what Portland was like. It was so green and beautiful although it was a rainy, 60 degrees Fahrenheit day in July; but I soon came to see coffee would take care of that. Coffee is a staple in the Pacific Northwest, which has an abundance of coffee hut drive-thrus and Starbucks.

Just before our move to Portland, I received my acceptance letter from the Winterthur Conservation Program at the University of Delaware. Both opportunities were too good to turn down so I decided to commute from Delaware to Portland. Fortunately, I spent the next two summers in Portland, the first as an intern at PAM, and the second as an intern on the restoration of the Astoria column, with Claire Dean and Jonathan Taggart.

As I came to see, the Portland Art Museum has a great history; it’s the oldest museum on the west coast and one of the seven oldest in the nation. I was really amazed when I learned that the 1913 Armory Show traveled to Portland, which was the only west coast venue. Sally Lewis, whose collection of Roman classical bronzes I was rehousing, was friends with Brancusi and many European artists and was instrumental in bringing the show and modern art to Portland. She later donated her sculpture, Brancusi’s A Muse, to the museum.

During my summer internship at PAM, I was fortunate not only to have the opportunity to watch artists Mike and Doug Starn install their work Sphere of Influence, but also to sit a few feet away from them in the park a few times during lunch. (I still kick myself for not going over to say hello.) I also saw Spaulding Gray’s monologue, Gray’s Anatomy, which I missed in LA because it sold out within the first few hours, unlike Portland, where we bought tickets the same week. I started to see there were some great advantages to living in this small beautiful city.

Conservation also has a long history in Portland. The Pacific Northwest Regional Center was established in the 1970s at PAM with the help of NEA funding. Unfortunately over time, the regional center did not last because as with many centers established throughout the country with NEA money, sustainable funding was not established or forthcoming. However, PAM kept the laboratory and conservation work continues on the museum’s collections.

When I interned at PAM in 1994, the conservation lab was located on the same
President’s letter, continued

floor as the Museum Art School, which is now the Pacific Northwest College of Art. This was the last time I would see both the school and conservation lab, which were subsequently moved off site while PAM went through renovations over the next few years. I’d like to thank again the two conservators at PAM, Sonja Sopher (now retired) and Elizabeth Chambers, who offered me the opportunity for my internship.

Although I anticipated coming back to Portland after graduation, I was side tracked by a post graduate internship. Then Steven was transferred to Nike Europe for the next three and a half years; so I didn’t make it back to Portland again until 2000. In the next newsletter, I’ll pick up from here and talk about the past ten years in Portland as much will pertain to where I intend to go with the theme of the meeting, “Expose Yourself to Art, Collaborations in Conservation,” or at least something along these lines.

Before I finish, I’d like to thank outgoing president Scott Carrlee, who put together a wonderful meeting in Juneau. The papers presented were informative, ranging in topics from the set up of painting conservation studios to sculpture conservation to archaeological conservation projects in Alaska, which very much reflected conservation in the extreme. It was my first time to the beautiful state of Alaska, and I look forward to another chance to return to see the large mosquitoes I heard so much warning about, but never saw.

Many thanks to the nominating committee, Marie Svoboda, Suzanne Friend, Albrecht Gumlich, and Dana Senge, and special thanks to the members who ran for office. I hope and encourage all of you to run again. Serving on the WAAC board of directors has been a great experience and opportunity to make new friendships in the western conservation community and participate in conservation’s future.

Best wishes to all for a peaceful and happy 2010,

Marie LC

WAAC 2010 Election Join the Board!

Submit your name for the 2010 election. We are seeking candidates for:

Member-at-Large: Two year commitment. Duties are to attend five board meetings over the course of two years and assist with major projects such as the annual meeting.

Vice President: Two year commitment, the first as Vice President, the second as President. Vice President attends three board meetings, runs the election, and edits the regional news column for the WAAC Newsletter. In the following year, the President is responsible for attending two board meetings and planning and executing the Fall Annual Meeting for WAAC.

Contact: Dana Senge at dsenge@gmail.com or 206-225-0993 for more information or to submit your name for consideration.

Election Schedule: Nominations and candidates from April 5, 2010 to June 18, 2010. Voting scheduled to take place between July 1-July 31, 2010. Thank you!!!
AZARNA

The Musical Instrument Museum (MIM) in Phoenix, Arizona is scheduled to open to the public on April 24, 2010, and preparations are progressing at a feverish pace. Conceived on the new building recently ended, and the collections have begun their cross-town move to the temporary work and storage facility. Each exhibit at MIM will highlight the musical traditions of many different cultures. Among the most impressive recent installations are an Indonesian gamelan, complete with roughly 100 shadow puppets in a faux-banana log, and a 22-foot long Decap dance organ.

Barbara Hamann, head of conserva- tion has been working with the MIM’s architects and engineers to ensure that the visible conservation lab is fully functional before the staff move in. Meghan McFarlane leads conservation efforts on Asian instruments. Latently, her work has focused on the treatment of flaking paint on Indonesian shadow puppets and the cleaning and assembly of a gilded and mirrored orchestra set from Burma.

Irene Peters leads the treatment of in- struments from the US, Canada, and Europe. Her recent treatment highlights include exploring methods for making bagpipes appear inflated for display, and performing repairs on Western stringed instruments. Daniel Cull oversees the treatment of instruments from Latin America, Oceania, and Africa. He is currently experimenting with ways to fill termites damaged wood, and has successfully reassembled several broken and sprung gourds.

Brynn Bender, Maggie Kipling, and Audrey Harrison treated two historic river boats owned by Grand Canyon National Park while the boats were on exhibit at the John Wesley Powell River History Museum in Green River, Utah. They also traveled to Mesa Verde National Park during the beautiful off-season to survey prehistoric collections on exhibit.

Maggie and Audrey continue to treat ceramics at the National Park Service center in Tucson with assistance from the Arizona Museum of Natural History and pre-program intern Kevin Wohlgemuth.

Holly Young reports that the Payne Grand Museum has received official notice of its re-accreditation. Despite setbacks and staff reductions due to the flagging economy, the Accreditation Visiting Committee site visit team found the museum to be “well managed, well governed organization... that has maintained forward momentum in difficult times.”

The Arizona State Museum conservation laboratories are still working despite the sabattical absence of Teresa Moreno. Nancy Oedegaard made presentations at the Tribal Libary Archive and Museums conference in Portland and at the North Carolina Preservation Consortium in Chapel Hill.

Nancy, Gina Watkins, and Werner Zimmer are guiding the doctoral research of Christina Bisula (consolidation of bone from a late Pleistocene Cloviskill site material), Molly McGath (development of nanomaterials for conservation of racecar), and Lesley Free (treatment of a multi-component archaeological alarm clock, as well as supervising pre-program interns Amy Molnar and Emily Kleinkeaf.

Marilen Pool and Esther Echenique continue to work part-time on the ASM ceramic project and other interesting object treatments. Lab work is represent- ed with three chapters in the new book Holding It All Together (Archetype).

Congratulations to Caitlin Grady and Lesley Free, the first PhD graduates of the Heritage Conservation Science doctoral program in the Department of Materials Science & Engineering at the University of Arizona.

Regional Reporter: Brynn Bender

GREATERS LOS ANGELES

LACMA conservator Elma O’Donoghue and Bianca May are teaching a 18th- c. paintings by mexican artist Juan Patricio Mortolez Ruiz. The paintings,featuring figures and animals, were a part of six which are based on the famous series by Claude-Joseph Vernet, The Ports of France. All six works will be restored in the coming months.

Joe Fronck recently completed restoration of an important work in LACMA’s collection, Rembrandt’s Portrait of a Dancing Couple. This work will be on view beginning in January 2010 in the museum’s newly renovated Dutch galleries. Other European galleries will open in the following months. Renova- tions include a reconfiguration of the galleries and a new lighting system designed by Heffernan Partners Lighting Design.

Textile conservators Catherine McLean and Susan Schmaltz have been busy preparing objects for LACMA’s upcoming show Fashioning Fashion which will open in the new Lynda and Stewart Resnick Exhibition Pavilion later this year.

Laelena Vellanoweth will be volun- teering in textiles conservation during school breaks in 2010. Lynn Bathke begins an internship in textiles conservation in October 2009. Lynn recently completed her degree from the Textile Conservation Center program in Winchester, UK.

Maria Fuscio began her Mellon Fel- lowship in textiles in December 2009. She completed her degree from the Winchester program in 2007.

Graduate intern Birgit Schwahn of the Stuttgart graduate program in objects conservation, is currently working on a technical study of two Limoges painted enamel plaques. Each plaque contains exquisite fired enamel restorations set into the original copper foil. Birgit Schwahn is from Germany, and would be interested in any other examples of this type of repair in American museums.

Arlen Heginbotham and Michael Schill- ing (senior scientist at the GCI) pre- sented a paper at the end of October at the AIC Journal. Their paper, entitled “Crossing Borders: The Conservation, Science, and Material History of a Gothic Decap Dance Organ,” was presented in the fall at Metal 2010 in Charleston, S.C.

At the Natural History Museum, Tec- nutia Collas, Liz Homburger, and senior consulting conservator Claire Dean are examining and treating objects slated for the exhibit Under the Sun (open 2012) in a new visible conserva- tion workspace at the museum’s California History Hall. This space al- lows the conservators to work-in-situ on objects such as the Los Angeles City Model, the Disney animation table, and the oil pump that are too large or too difficult to move to the non-visible conserva- tion labs. Visitors will be able to see the conservators at work through windows in the partition and learn more about the conservation work in progress through interpretive signs. Currently, Claire is doing a remarkable impres- sion of the 1950s B-movie The Attack of the 50 Foot Woman as she examines and documents the Los Angeles City Model from atop scaffolding.

Regional Reporter: Virginia Rasmussen

ARIZONA

Regional News, continued

HAWAII

In preparation for the reopening of the Bishop Museum Picture Gallery in the Hawaiian Hall (closed since 1940) Rie Corwine, D. Howard Hitchcock, Annie Lassiter, and Leonardo Coccorante. They will be presented in the fall at Metal 2010 in Charleston, S.C.

In the coming months, the Pacific Art Conservation staff is currently working on a number of panel and canvas paintings for the Old Masters exhibition scheduled to open at the Honolulu Academic Art of Art in 2011. The paintings are by a wide range of artists including Jan Leiv- ens, Marc Antonio Franceschini, Jan Van Goyen, and Leonardo Coccorante. They recently had the opportunity to work on paintings of Hawaiian scenes by Lionel Walden and Shirley Russell being lent to

and Melissa Mariano and Douglas Ma- cLean have recently begun pre-pro- gram internships at the Fowler Museum at UCLA under the guidance of Anna Collas.

Dean Yoder from the Cleveland Mu- seum of Art was a guest conservator in paintings conservation at the Getty Center last November, and he’ll be returning to Los Angeles from time to time in the upcoming year to work closely with Sue Ann Chui on the treatment of a large panel by Savoldo from the Cleveland collection.

Colleen Snyder began an internship last September in antiquities conservation at the Getty, continuing through September 2010. While at the Getty Villa, she will be working on a variety of projects, including a number of Greek ceramics on loan. She is also enjoying living on the west coast for the very first time!

Decorative arts and sculpture conserva- tion has been busy with the redesign and reinstallation of the sculpture gal- leries at the Getty Center. Four galleries in the museum’s North Pavilion will open early in the spring of 2010, including the first permanent installation of the stained glass Julie Colle.

Jolie Wolfe’s article “Effects of Bulking Paraloid B-72 for Marble Fills” was recently published in the summer 2009 AJC Journal.

Victoria Blyth Hill recently completed the treatment of a Nepalese “Genealogical Paintings,” dating from 1782 for the National and Asian Art Department at LACMA. In December, Victoria served on the acquisitions committee for the Pa- cific Asia Museum in Pasadena, CA.

Chris Stavroudis has been busy. He re- leased the newest version of the Modu- lar Cleaning Program (MCP) in October (download it from http://cool.conserva- tion-us.org/byauth/stavroudis/mcp/).

In July, he was invited by Gwendolen Boe-Jones to present the workshop to private and institutional conserva- tors. In September at the invitation of Kate Webber, he presented the MCP in Maastricht in conjunction with SRAL (Stichting Restauratie Atelier Limburg). Later in the month, he led an MCP workshop organized by Susan Blakney and assisted by Nina Roth-Wells in Ska- neateles, NY.

HAWAII

In preparation for the reopening of the Bishop Museum Picture Gallery in the Hawaiian Hall (closed since 1940) Rie Corwine, D. Howard Hitchcock, Annie Lassiter, and Leonardo Coccorante. They will be presented in the fall at Metal 2010 in Charleston, S.C.

In the coming months, the Pacific Art Conservation staff is currently working on a number of panel and canvas paintings for the Old Masters exhibition scheduled to open at the Honolulu Academic Art of Art in 2011. The paintings are by a wide range of artists including Jan Leiv- en...
Regional News, continued

Senator Daniel Inouye for display in his offices in Washington, DC.

Makiko Watanabe joined Pace Art Conservation from September 2008 through February 2009. Makiko was awarded a scholarship by the Seattle Art Museum for Cultural Affairs to study painting conservation in the United States for one year. She worked in New York and was based in Hawaii where she moved to New York to work in the Rustin Levinson Studio.

This past June Larry gave a presentation about art conservation and artists’ materials to the Art studio students at the University of Hawaii, Windward Community College. This is a summer inmersion program that provides local artists and art students with invaluable experience with classical and traditional training. This was the fifth year he has spoken to the group.

With travels and conservation projects scattered across the world, Dawne Steele Pullman does manage to keep returning to the Hawaiian Islands for her private clients as well as some of the museums. This past year she treated Chinese contemporary paintings in Hong Kong. While condition reporting several paintings at the Sotheby's auctions, she came across paintings she had worked on when residing in Singapore back in 2004 - the late Song to Yuan Dynasty Bodhisattva and repoussé Lady Justice sculpture located in the Garden. Also on the agenda for 2010 is one of the conservation intern interested in objects conservation and the Arts. Gregory also has continued to help Amy Rosenfeld at the Sully Barn Museum in Loudoun County, Virginia with the survey, research, and preparation of the Bronze Entrance Doors at the Bethesda Naval Medical Academy; the survey, research, and preparation of Contract Documents for six buildings located at historic Fort Belvoir in Virginia; and the treatment of the porcellain capitals at the Baltimore City Hall.

Their two year contract with Vizcaya Museum and Gardens in Miami, Florida is finally underway with the repair and conservation of sculptures and fountains located in the Marine Garden. Also on the agenda for 2010 is the conservation of a copper repoussé Lady Justice sculpture located at the Augusta Municipal Building in Augusta, Georgia. The conservation department of the Department of Cultural Affairs and the New Mexico Association of Museums received a Connecting to Collections planning grant. As part of that grant, Bettina Raphael and Jo Anne Martsz Kilgore offered six free workshops around New Mexico to inform the state’s art communities about the importance of documentation for their collections.

Gregory Thomas of Art Care has continued to provide painting conservation in Hawaii and on the mainland. Most recently Gregory completed four acrylic on canvas murals for the State of Hawaii that were hung at the Honolulu International Airport. Two of the paintings were by Pegge Hopper and two were by Jerry Okimoto. Stains were removed by Greg and the work was completed for the Honolulu Mayor’s Office on Culture and the Arts. Gregory also has continued to help Amy Rosenfeld at the Sully Barn Museum in Loudoun County, Virginia with the survey, research, and preparation of the Bronze Entrance Doors at the Bethesda Naval Medical Academy; the survey, research, and preparation of Contract Documents for six buildings located at historic Fort Belvoir in Virginia; and the treatment of the porcellain capitals at the Baltimore City Hall.

As 2009 winds down, Joe Sembrat and Conservation Solutions, Inc. (CSI) are pleased to be looking forward to a busy start to 2010. CSI was awarded a Department of Veterans Affairs contract for the conservation of the Union Soldier’s Monument at the Knoxville National Cemetery in Knoxville, Tennessee. Other projects that have kept them busy this fall include the restoration of the Bronze Entrance Doors at the Bethesda Naval Medical Academy; the survey, research, and preparation of Contract Documents for six buildings located at historic Fort Belvoir in Virginia; and the treatment of the porcelain capitals at the Baltimore City Hall.

Their two year contract with Vizcaya Museum and Gardens in Miami, Florida is finally underway with the repair and conservation of sculptures and fountains located in the Marine Garden. Also on the agenda for 2010 is the conservation of a copper repoussé Lady Justice sculpture located at the Augusta Municipal Building in Augusta, Georgia. The conservation department of the Department of Cultural Affairs and the New Mexico Association of Museums received a Connecting to Collections planning grant. As part of that grant, Bettina Raphael and Jo Anne Martsz Kilgore offered six free workshops around New Mexico to inform the state’s art communities about the importance of documentation for their collections.

Regional Reporter: Dawne Steele Pullman

PACIFIC NORTHWEST

Miriam Clavir was invited to the Salzburg Global Seminar. “Connecting to the World’s Collections: Making the Case for the Conservation and Preservation of our Cultural Heritage,” Oct. 28 - Nov. 1, 2009, in Salzburg, Austria. This international session was co-hosted by the Institute for Museum and Library Services (IMLS) and addressed the sustainability of cultural heritage. It produced a consensus declaration on the conservation and preservation of cultural heritage which can be viewed on the IMLS website. In addition, the SGS has made available podcasts of the director of the conservators’ talks. The talks can be downloaded from the SGS homepage.

The Royal BC Museum was privileged during the fall of 2009 to host Jacylann Hornung, a Senior Painting Conservation intern interested in objects conservation. Jacylann was kept very busy on a number of loans and exhibits as well as research into the deterioration of plastic paints and tokens to a presentation at the Pacific Conservation Group on the topic of Micromesh abrasives.

Jana Stefan and Carly Wmnys, former Fleming interns, have both been working at the RBCM. Jana in a full time position in the exhibitions department and Carly working temporarily in the Archives preparing documents for scanning. We are also privileged to have Sharon Koehler working with us temporarily. Sharon is a private ceramics conservator from Virginia who is currently living in Victoria.

Last fall Colleen Wilson attended the NAA’s workshops about text and digital output at the Chinese Art Museum in Quebec City, and George Field participated in and cooked for the CSI workshop teaching tomoe pole conservation in Alert Bay, BC. Lisa Bengston switched to the night shift recently, cleaning conservation tools that had inadvertently found its way into display cases in the First Peoples Gallery.

Robert Davison and Betty Walsh have a very busy mail as numbers for their final specs on a cold storage facility for the archives and museum deteriorating plastics collections. And Kjerstin Mackie has been cracking the whip over contributors to a publication on the Kwdhay Dan T’inch’i research.

Kasey Brewer is gearing up for an update on the 2005 Collections Risk Assessment, planned for mid-2010. They are all looking forward to a slightly more relaxed new year.

Dana Senge and pre-program intern Megan Salazar-Walsh continue to work with the collections at the Hihub Cultural Center in Tulalip, WA. They have been cleaning, consolidating, and stabilizing a number of pieces carved by William Shelton.

The conservation staff of the Vancouver Art Gallery is working on the second development phase of an open-source digital archive, which includes preservation planning and actions.

For the first time this past November, the Archives held a screening of archival films in a large, modern, single-screen theatre, and, to their astonishment, set a box office record, turning away a queue down the block. As an introduction, they discussed the preservation challenges they faced in bringing the films to the screen as DigiBeta copies. It was great for the staff’s appreciation for both the films and the background information. They’ll definitely do this again!

Seattle Art Museum associate conservator Liz Brown has been working with colleagues in Florence to study an important sculpture by Massimiliano Soldani Benzi from SAM’s Samuel H. Kress Collection.

Nicholas Dormann oversaw condition checking and transport of the Luminous Jewels exhibition of 100 works of art from SAM’s Asian holdings. The show is on the road in Japan until July 2010, and the SAM conservation team is working with Japanese colleagues to study specific works from the collection during their tour.

Conservation intern Linda Lin, from the Getty/UCLA Conservation Program, has been treating and studying objects from the collection for exhibition and loan, including Camerounian masks and a Qing Period miniature screen.

Nick and Marta Pinto-Llorca have been preparing for a comprehensive survey of SAM’s Chinese paintings collection with conservator Kewei Wang of the University of Michigan Museum of Art. The technical and condition survey will form part of a Getty Foundation-funded on-line catalog for this collection.

Regional Reporter: Dana Senge

ROCKY MOUNTAIN REGION

In July Allison Holcomb left the Buffalo Bill Historical Center to enter the University of Wyoming’s Master of Arts Program in Art Conservation. Rachel Wilson from the University of Kentucky was in residence as a conservation intern throughout the summer.

Jennifer McGlinchey, third year paper conservator from the Buffalo State College program spent two weeks conserving photos, archives, and works of art on paper for the BBHC. Christina Smimms spent the summer as a conservation intern and then moved into the IMLS Connecting to Collections project manager and volunteer conservation technician position, heading the outdoor sculpture maintenance program for the BBHC. Hannah Mancell, Tera Grif- fin, and Tessa Lisowe successfully completed their internships with the BBHC. Nathan Haines-Walsh and Jamie Weaver were also interns in the summer.

Jodie Utter, conservator of works on paper from the Amon Carter Museum, spent two weeks in residence researching watercolors by Charles Demuth.

Beverly Perkins completed a CAP survey for the Schoolhouse History and Art Center in Colstrip, Montana and an in-house training week for the staff of the Jackson Hole Historical Society and Museum. Bev traveled the state of Wyoming, leading IMLS statewide planning symposia in Cody, Casper, Sheridan, Rock Springs, and Cheyenne. She is working with the Colorado Wyoming Association of Museums to address the needs discussed in the Wyoming Connecting to Collections symposia. She attended the annual Heritage Preservation meeting in Washington, DC.

Aaron Burgess is the new pre-program intern at Denver Art Museum. Aaron curates a mixed media show that he is a conscientious and enthusiastic addition to the conservation department. Tara Hornung continues her Kress Fellow- ship at DAM. She will soon begin examination of select works from the Kress Foundation collection of paintings using IR and X-ray. The findings will be part of a forthcoming museum publication about the bequest of the Inter-American Program in Art Conservation. Rachel Wilson from the University of Kentucky was in residence as a conservation intern throughout the summer.

In preparation of a complete reinstallation of the American Indian galleries at DAM, Gina Laurin and Tara are treating a broad scope of artifacts that range in date, origin, and media. Steve Osborne continues to create mounts and resolve a variety of installation issues.
related to conservation. Most recently, his skills were successfully tested for the Ebrace! exhibit currently on view at DAM.

Cynthia Lawrence has been working on completing the treatment of numerous paintings. Of note is her treatment of the 17th-century Spanish Colonial painting, Apparition of Saint Michael on Mount Gargano, by Sebastián de Arteaga. As part of an IMLS-funded storage improvement project, Cynthia, Steve, and Aaron have been hard at work upgrading hardware and backings of paper and improving their eventual storage on new rolling screens.

Through funding from the Hughes Trust, Mark Minor has been treating an elaborate 18th-century Bouillé marquetry desk, comprised of sea turtle shell, wood, and brass. Mark also completed treatment of another piece of marquetry – an 18th-century Ecuadoran lap desk made from various types of wood. The lap desk was featured in an upcoming museum publication.

In April 2009, Sarah Melching was appointed Director of Conservation at DAM. She also continues to address the needs of the works on paper and photography collections.

Cari Patterson and Asian Art Curator Emeritus Mary Lanius traveled through the Orissa and Bastar regions of India recently to study dhokra bronzes. The trip included interviewing artists, collecting objects and videoing Indian conservation labs, and documenting dhokra production methods. Of special interest were techniques for deburring and use-related patination that might effect conservation treatments. The project was made possible through funding from the Gabo and Mellon Foundations.

Laura Downey Stannett is leaving her private practice, Silverpoint Art Conservation LLC. From January 2010, Silverpoint will be solely owned and operated by Camille Moore.

Victoria Montana Ryan recently completed work on a significant mural cycle, The History of Navigation, by artist Eric Bransby now in the exhibit NASA: 50 Years of Exploration. The artwork was organized by SITES and coordinated with the Smithsonian National Air and Space Museum, is currently on view at the Colorado Springs Fine Arts Center through March 7, 2010.

Regional Reporter: Paulette Reading

SAN DIEGO

Regional Reporter: Frances Pritchett

SAN FRANCISCO BAY AREA

Things have been pretty quiet at the Asian Art Museum of San Francisco following the opening of Emerald Cities: Arts of Siam and Burma. There have been many mentions of the extensive conservation involved in preparing for the exhibition on Youtube. The Asian Art Museum’s blog highlights some of the work involved and has turned many of the staff into celebrities: Mark Fenn, Katie Holbrook, and Shiho Sasaki. For those of you who cannot make it to the museum to view the exhibition, you can still read about the many hours of preparation required at the museum’s website.

Margaret (Meg) Geis-Mooney, textile/costume conservator in private practice, gave two lectures on costume storage at the Phoenix Art Museum in October.

Conservators at the Oakland Museum of California are preparing for the museum’s reopening in May 2010. Julie Tropsen is working on three-dimen- sional objects, ranging chronologically from 16th-century navigational devices to Obama campaign playing cards; Pam Graves has been preparing numerous 19th and 20th-C. paintings; and Peng-Peng Wang has been working on paper ranging from an 1886 Jules Tavernier pastel to a Frank Gehrke cardboard chair, all for reinstallation in both the art and history galleries.

John Burke has been working on outdoor sculpture, museum lighting/HVAC, and exhibit microenvironments. The staff has also just completed an IMLS grant to re-house the Native American Basket collection, and a Luce Foundation grant for treatment of important paintings in the art department. Work on an IMLS grant for re-housing the museum’s costume and textile collection is ongoing.

And, after teaching at the Tainan National University of the Arts, and the National Palace Museum in Taiwan for the past 3 years, John Burke recently published two articles on Conservation Parameter Theory and Anoxic Fumigation in The National Palace Museum Research Quarterly (Volume 27, 2009).

FAIC just received a grant from the Kress Foundation for Tim Vitale and Dawn Heller to prepare class materials for a 4-day workshop on digital imaging for conservators. The workshop will be given in the University of Delaware Continuing Education 20-seat “just completed” computer laboratory (and classrooms) in Wilmington, DE in April. Applications to the AIC for tuition support (estimated to be accepted through the end of Febru- ary; registration will remain open until filled, up to 25 participants.

Participants can bring any professional-grade of semi-profession camera (even P-N-S, such as Canon G7 - G11, Pana- sonic lumix LX1 - LX3) and be assured they will be leaving knowing how to get the best results, save files in an archival manner, apply metadata, manipulate im- ages for presentation, and make better conservation documentation images. Participant will be required to read (in advance) the recent AIC publication The AIC Guide to Digital Photography and Conservation Documentation (2008); the goal being to develop a knowl- edge base and common vocabulary for a better educational outcome. For in- formation on registration, please call: (302)831-1171. A website will be avail- able mid-January.

Regional Reporter: Beth Sturhay

TEXAS

In October, Sylvia Pichinson, conservа- tor of photographs at the Amon Carter Museum, Fort Worth, Texas taught a 2-day workshop on identification and care of color photographs to the gradu- ate students of the conservation program at the Tainan National University of the Arts, Taiwan. She also presented a paper “Collecting Contemporary Photographs: Trends and Challenges” at the Interna- tional Academic Seminar “Retrospect and Prospect: Conservation of Cultural Relics,” hosted by National Taiwan Mu- seum, in Taipei, Taiwan.

Jodie Utter, conservator of works on paper at the Amon Carter Museum con- tinues her technical study for Romance Maps: Cartographers of Charles Russell, an exhibit slated for 2010. Her study will be published in the accompanying exhibition catalogue. As part of the project she is studying Russell’s technique and materials through traditional examination, polarized light microscopy, infrared reflectography and X-ray fluorescence. She has been able to study a number of Russell’s watercolor paintings from several collections, his paintings, as well as contemporary historical pig- ments for comparison purposes in an effort to identify the pigments he used throughout his career.

In addition, she is serving as the pro- gram chair for this year’s AIC Book and Paper Group to be held in Milwaukee. The program is finished, and the meet- ing brochure was mailed out in January. The talks cover a variety of topics and should be very interesting.

WAAC welcomes the following new members and late renewals.

Contact information is printed in the 2009 WAAC Membership Directory and the new members are listed here by name only.

Katherine Ara
Art Conservation B.V. (J. C. Stekman)
Maria Charette
Daniel Heath Cull
Michele Austin Dennehy
Fenig Flagg
Catalina Hernandez
Seth Irwin
Dawn Jaros
Zachary R. Jones
Ernie Mack
Douglas MacLennan
Jennifer McGlinchey
Valery Monahan
Museum of Fine Arts, Houston
Nina Marta Olsson
Christina Simms
Marcus Szymczykowski
and Anne Turner Gunnison.

Alex Bern and Kathryn Blackburn, both second year book conservation stu- dents at Bowling Green State University of Texas at Austin, and Lauren Morales, a private Austin paper conservator, volunteer their time with training with Marga- rine Watkins in paper conservation at the Harry Ransom Center at the U. of Texas at Austin. This semester they continue “unsticking” many adhered papers and working on large circus and theater advertising posters destined to be digitized, UT senior, Desi Peters, who created a circus poster in paper conservation last spring, is working this semester testing the “Landmarks Preservation Guardian” pro- ject supervised by objects conservator, Catherine Williams. Under Catherine’s supervision, students examine and main- tain modern outdoor sculptures dispersed throughout the UT campus.

Alexa Fogg and Cameron Blakeholder, both second year book conservation stu- dents. 

Regional Reporter: Ken Grant

WAAC Newsletter Volume 32 Number 1 January 2010

WAAC Newsletter Volume 32 Number 1 January 2010

WAAC Publications

Handling Guide for Anthropology Collections

Straightforward text is paired with humor- ous 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 de- signed to be used by researchers, docents, volunteers, visitors, students, staff or others who have not received formal training in the handling of museum artifacts. Paper- bound and printed on acid-free stock.

Price: $8.85
($6.60 copy for orders >10 copies)

Back Issues of WAAC Newsletter

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

For information please contact the WAAC Secretary:
tkmreno@u.arizona.edu

Make checks payable to WAAC drawn in US dollars on a US bank.

Membership

Membership

WAAC Newsletter Volume 32 Number 1 January 2010
On Again, Off Again: Conservation Aspects in Accessible Display Case Design

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 the access requirement of the loan. Meeting conservation criteria to allow objects to be safely removed from exhibition for study has been an ongoing process, which has included working closely with exhibition designers, curators, fabricators, and mountmakers. Conservators have also addressed the conservation concerns of display cases utilizing a tensioned rod system to support fragile objects in an active seismic environment and 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 paper summarizes 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.

The newly completed expansion wing of the AM holds the 10,000 sq ft Arctic Studies Center Gallery and adjacent rooms and spaces for the objects to be brought to for study. Ten Alaskan cultural groups are represented in the ASC gallery’s seven community cases. The objects are grouped within each case by the three major themes of home and community; land, seas and rivers; and ceremony and celebration. The objects are placed at “use” level with boots on the floor level deck, hats at head height, etc. In addition, there is a large thematic case with cross cultural groupings of objects types including boat models, baskets, pipes, goggles, and masks. The massive floor to ceiling community cases are double sided metal construction tied into the gallery floor and ceiling, with floor to ceiling glass panels. The large glass panels of the cases are also the case doors and open with actuators; the doors slide laterally to allow access to the case interiors.

Objects are displayed in these cases cantilevered from steel rods with attached hardware designed to allow objects to be removed for study and re-installed for exhibition multiple times over the length of the twelve year loan. This case hardware consists of spring tensioned vertical steel rods attached to the ceiling and screwed into the deck, all engineered to meet seismic requirements. Attached at a 90 degree vertical angle to the steel rods are collared, hollow steel bracket arms. The collars of the bracket arms are tightened on the vertical rods with Allen screws and can be infinitely adjusted along the vertical rods. Steel mount stems attached to the object slide into the bracket arms and are secured with thumb screws. Both the bracket arms and mount stems are square stock to prevent any rotation of the mounted object. Object mounts are primarily fabricated from brass with a pin extending from the back that drops into a hole in the mount stem. This pin is tightened to the mount stem with a small screw. If required the mounted object can be removed from the system via the pin. The pin also allows some adjustment of the object position in the case.

The exhibit case design, mounting system, and handling requirements posed new challenges for the project conservators. Initially it was necessary to evaluate whether the selected objects could endure being on display for an extended period, coupled with the stress of additional handling during access for study. When conservators were first asked to review the design for object access, we realized that mounting fabrication would be the most complex part of the project. The factors of the exhibit design of vertical rods, the access component, and the fact that Anchorage is in an earthquake zone necessitated complex mounts. The mountmakers had to create mounts to allow the objects to hang suspended from vertical rods, meet seismic criteria, protect fragile objects, hold the object immobile when handled, and serve as a means of conveyance from case to cart and back. Finally, the mountmakers were asked to make a mount that allowed maximum visibility for study such as the backs of masks and interiors of baskets. This was no small task.

The objects chosen for this loan are primarily ethnographic and are made from a wide variety of mostly organic materials including soft woods and other easily marred object types. They are also often constructed with many protruding and dangling parts and are difficult to mount for a standard display. In addition, even after conservation some of these objects remain inherently weak, and the mountmakers were asked to make supportive mounts for these objects. This type of mounting required extensive object handling by the mountmakers who were creating very extensive brass mounts to meet the design requirements. This type of intensive case-like mount is not the normal approach of the mount-maker who works to make mounts minimal and invisible. In addition, there was a balance of tightening the brass clips to make the object immobile while at the same time not pressing into or marring soft or friable surfaces.

The exhibition mounting system was new to both the conservators and mountmakers. There was a learning curve for both groups and some frustration early on until conservators could clearly articulate the mounting requirements. For example we asked that objects be locked on their mounts. To mountmakers this meant they could not be removed while conservators this meant that they could not be removed and also could...
There were some modifications to the primary mounting system. While the design initially did not include Plexiglas as a mounting component we found that in some cases ad-
tec systems would allow the access component to be used. We had a large group of boat models constructed of frag\le objects such as birthchuck and stretched skin, often with projecting paddles. Plexiglas platforms provided the least visible and most pro-
table mounting solution for fragile artifacts. While these were not part of the original design concept they became a standard component for mounting this exhibit.

Large flat textiles were mounted onto support boards. In a few cases, because of limited access to the thumb screw, a modification of the mounting system allows the support board to be removed from a metal frame that remains in the case while the textile travels flat on a cart for study.

Limited access at the ends of cases, which do not open, re-
stricts access to objects placed at the ends, and some large objects such as snowshoes need staff on both sides of the double sized case to de-install. Some very large or complex objects will not be removed from the cases because of the dif-
ficulty of access. Also, some objects such as a suit of armament that actively sheds are not good candidates for re-
move and will remain in the case. Because some objects will not be removed, care needed to be taken that the sur-
rounding objects could be maneuvered safely around the fixed object.

There were many practical considerations that became ap-
parent during this process. Install and de-install would be a group effort. It was quickly realized that the steel case com-
ponents especially the projecting bracket arms present some danger. This confirmed the need for a spotter to ensure the person working in the case does not harm themselves or an object with a careless elbow. Other considerations include possible surface damage of mounting objects when the absorbance level is high, making the spectra difficult to interpret in the particular wavelength regions of interest.

Several 3M films were rejected by the preliminary study. In this initial evaluation, the transmissions of the remaining films were charac-
terized by absorption spectrophotometry. After some consideration and discussion of the methodol-
gy and results reported, we found that we questioned the apparent ability of some aspects of the author’s initial eva-
uation process, for the following reasons: in actual use the films are always applied to glass, which absorbs most UVB radiation; the test did not accurately measure trans-
mission of UVAs (320-400 nm), which has been shown to damage many materials; adhesives contribute using a calibrated light source and UV-visible transmission spectrophotometry. They have had a variety of goals and thus have used differ-
ent types of measurements and performance criteria.

Evaluation of UV-blocking window films has been revisited recently in a survey of the UV and visible light transmitting properties of products from several suppliers. After pre-
senting a useful summary of film composition and manufacture, the author tested the UV transmission of the unmounted film samples without adhesive. A UV meter with response optimized for UVB radiation (280-320 nm) was employed in this initial evaluation. Several films were tested on the basis of their transmittance: in the second part of the investiga-
tion, the transmissions of the remaining films were charac-
terized by absorption spectrophotometry.

Several 3M films were rejected by the preliminary study. After some consideration and discussion of the methodol-
y and results reported, we found that we questioned the apparent ability of some aspects of the author’s initial eva-
uation process, for the following reasons: in actual use the films are always applied to glass, which absorbs most UVB radiation; the test did not accurately measure trans-
mission of UVAs (320-400 nm), which has been shown to damage many materials; adhesives contribute using a calibrated light source and UV-visible transmission spectrophotometry.

UV-Blocking Window Films for Use in Museums—Revisited

by Colleen Boye, Frank Preusser, and Terry Schaeffer

UV-blocking window films to block unwanted solar radiation can present a hazard to many of the materials found in art and archival collections. The radiation, in particular, is invisible to the human eye but can fade colors and dam-
age fibers and polymers. Therefore, institutions generally use window films to block this radiation.

Film suppliers have continually expanded their offerings and updated film technology to meet increased demand from commercial, residential, and automotive customers. However, the needs of museums have not been addressed specifically during this expansion of the range of window film products. Museums must determine the efficacy of individual films and select those that best meet their require-
ments for completely blocking UV and reducing visible light to the desired level without altering color values. To this end, the Conservation community has been evaluating UV-blocking window films for more than two decades (1-5). They have had a variety of goals and thus have used differ-
ent types of measurements and performance criteria.

Film Selection

As it was not the purpose of this study to be comprehen-
sive, we tested only films for which we could readily obtain samples, surveying different product lines available. We selected samples with high and low visible transmission from each line.

Experimental Procedure

Film Preparation

UV-visible spectra of the films, both unmounted and mounted on window glass, were obtained as follows.

Three samples of each window film were cut to fit into a 1 cm cuvette holder. The samples were cleaned of dust and fingerprints with a Kimwipe and the backing removed. The film samples were placed in the cuvette holder with the adhesive side towards the light source. Transmission was measured at three different locations on each of the tripli-
cate samples.

The films were also mounted to blanks of 1/16" window glass cut to fit into the cuvette holder (figure 1). Three samples of each film were cut slightly larger than the glass blanks, the backing removed, and the film placed adhesive side up on a clean surface. The glass blanks were rinsed with a dilute solution of approximately 1:1,000 solid sodium dodecyl sulfate 1 L distilled water and placed while still wet on the film samples, which were trimmed. Bubbles between the film and the glass were removed by rolling the shaft of a fluoropolymer policeman repeatedly over the sam-
ple. The samples were allowed to dry for at least one hour (some sources recommend allowing at least two week for films applied to windows to dry (3), but tests showed that, at this small scale, there were no significant spectral differences between air-dried and 2-week dried films). Transmission was measured at three different locations on each of the triplicate samples.

The glass was oriented towards the light source.

Figure 1. Film samples mounted on glass

UV rejection and color neutrality of the films. The ageing behavior of the films will be examined in a second study.

Film Selection

As it was not the purpose of this study to be comprehen-
sive, we tested only films for which we could readily obtain samples, surveying different product lines available. We selected samples with high and low visible transmission from each line.

Experimental Procedure

Film Preparation

UV-visible spectra of the films, both unmounted and mounted on window glass, were obtained as follows.

Three samples of each window film were cut to fit into a 1 cm cuvette holder. The samples were cleaned of dust and fingerprints with a Kimwipe and the backing removed. The film samples were placed in the cuvette holder with the adhesive side towards the light source. Transmission was measured at three different locations on each of the tripli-
cate samples.

The films were also mounted to blanks of 1/16" window glass cut to fit into the cuvette holder (figure 1). Three samples of each film were cut slightly larger than the glass blanks, the backing removed, and the film placed adhesive side up on a clean surface. The glass blanks were rinsed with a dilute solution of approximately 1:1,000 solid sodium dodecyl sulfate 1 L distilled water and placed while still wet on the film samples, which were trimmed. Bubbles between the film and the glass were removed by rolling the shaft of a fluoropolymer policeman repeatedly over the sam-
ple. The samples were allowed to dry for at least one hour (some sources recommend allowing at least two week for films applied to windows to dry (3), but tests showed that, at this small scale, there were no significant spectral differences between air-dried and 2-week dried films). Transmission was measured at three different locations on each of the triplicate samples.

The glass was oriented towards the light source.

Figure 1. Film samples mounted on glass

UV rejection and color neutrality of the films. The ageing behavior of the films will be examined in a second study.

Film Selection

As it was not the purpose of this study to be comprehen-
sive, we tested only films for which we could readily obtain samples, surveying different product lines available. We selected samples with high and low visible transmission from each line.

Experimental Procedure

Film Preparation

UV-visible spectra of the films, both unmounted and mounted on window glass, were obtained as follows.

Three samples of each window film were cut to fit into a 1 cm cuvette holder. The samples were cleaned of dust and fingerprints with a Kimwipe and the backing removed. The film samples were placed in the cuvette holder with the adhesive side towards the light source. Transmission was measured at three different locations on each of the tripli-
cate samples.

The films were also mounted to blanks of 1/16" window glass cut to fit into the cuvette holder (figure 1). Three samples of each film were cut slightly larger than the glass blanks, the backing removed, and the film placed adhesive side up on a clean surface. The glass blanks were rinsed with a dilute solution of approximately 1:1,000 solid sodium dodecyl sulfate 1 L distilled water and placed while still wet on the film samples, which were trimmed. Bubbles between the film and the glass were removed by rolling the shaft of a fluoropolymer policeman repeatedly over the sam-
ple. The samples were allowed to dry for at least one hour (some sources recommend allowing at least two week for films applied to windows to dry (3), but tests showed that, at this small scale, there were no significant spectral differences between air-dried and 2-week dried films). Transmission was measured at three different locations on each of the triplicate samples.

The glass was oriented towards the light source.

Figure 1. Film samples mounted on glass

UV rejection and color neutrality of the films. The ageing behavior of the films will be examined in a second study.

Film Selection

As it was not the purpose of this study to be comprehen-
sive, we tested only films for which we could readily obtain samples, surveying different product lines available. We selected samples with high and low visible transmission from each line.

Experimental Procedure

Film Preparation

UV-visible spectra of the films, both unmounted and mounted on window glass, were obtained as follows.

Three samples of each window film were cut to fit into a 1 cm cuvette holder. The samples were cleaned of dust and fingerprints with a Kimwipe and the backing removed. The film samples were placed in the cuvette holder with the adhesive side towards the light source. Transmission was measured at three different locations on each of the tripli-
cate samples.

The films were also mounted to blanks of 1/16" window glass cut to fit into the cuvette holder (figure 1). Three samples of each film were cut slightly larger than the glass blanks, the backing removed, and the film placed adhesive side up on a clean surface. The glass blanks were rinsed with a dilute solution of approximately 1:1,000 solid sodium dodecyl sulfate 1 L distilled water and placed while still wet on the film samples, which were trimmed. Bubbles between the film and the glass were removed by rolling the shaft of a fluoropolymer policeman repeatedly over the sam-
ple. The samples were allowed to dry for at least one hour (some sources recommend allowing at least two week for films applied to windows to dry (3), but tests showed that, at this small scale, there were no significant spectral differences between air-dried and 2-week dried films). Transmission was measured at three different locations on each of the triplicate samples.

The glass was oriented towards the light source.

Figure 1. Film samples mounted on glass

UV rejection and color neutrality of the films. The ageing behavior of the films will be examined in a second study.
Transmission Spectroscopy

The transmission properties of the films were evaluated using an OceanOptics DT 1000 CE UV/Vis light source and an OceanOptics ADC1000-USB detector calibrated in the 200-850 nm range. An OceanOptics 1 cm cuvette holder was positioned horizontally with the light path pointing downward so that films with no backing lie horizontally and normal to the light path, with the adhesive side up (figure 2).

The spectrometer was calibrated to 100% transmission with the cuvette holder empty. A zero light calibration was also performed for every spectroscopy session. Transmission spectra of the films were referenced to air. A new air background was taken between every film sample. Transmission was recorded approximately every 0.3 nm between 200 to 800 nm, integrating over 4 ms and averaging 100 scans. Percent transmission was measured to facilitate direct comparison of the data to the manufacturer’s specifications. This approach also precludes the need to perform a direct comparison of the data to the manufacturer’s specifications.

Data Reduction

The three spectra obtained for each sample were averaged and the approximate total area under the averaged curve from 300-400 nm obtained by taking a Riemann sum. This sum was divided by the total possible transmission over that range (100% x 100 nm) to obtain the percent transmission in the near ultraviolet range, which was converted to percent rejection of the films not mounted to glass. All block the vast majority of radiation below 380 nm, but the visible transmission, the percent transmission at maximum eye sensitivity in the green at 550 nm was compared to the values at 425 nm in the blue and 675 nm in the red.

Results and Discussion

Figures 4-7 show spectra of several window films on glass. These curves are representative of the range of spectra observed for all the films tested. All block the vast majority of radiation below 380 nm, but the visible transmission, the percent transmission at maximum eye sensitivity in the green at 550 nm was compared to the values at 425 nm in the blue and 675 nm in the red.

To evaluate the steepness of the UV cutoff, a linear regression was fit to the curve. The midpoint of the cutoff region of the transmission curve was approximated by defining the lower and upper endpoints as the wavelengths where the extension of the linear regression line crossed the abscissa and the film’s average visible transmission (figure 3).

Color neutrality is an important factor for films to be used on museum windows. Color neutrality was evaluated in two ways. First, approximate CIE L*a*b* values were calculated from the averaged visible spectra of the three samples of each film not mounted to glass. Second, to characterize the extent to which the films removed blue and red light, the percent transmission at maximum eye sensitivity in the green at 550 nm was compared to the values at 425 nm in the blue and 675 nm in the red.

UV-blocking Film Properties

Table 1. Spectral Properties of Various Window Films on Glass

<table>
<thead>
<tr>
<th>UV Rejection</th>
<th>Visible Transmission</th>
</tr>
</thead>
<tbody>
<tr>
<td>Window Glass</td>
<td>41.3%</td>
</tr>
<tr>
<td>3M Night Vision 15</td>
<td>98.6%</td>
</tr>
<tr>
<td>3M Night Vision 35</td>
<td>97.2%</td>
</tr>
<tr>
<td>3M Prestige 40</td>
<td>98.5%</td>
</tr>
<tr>
<td>3M Prestige 50</td>
<td>98.3%</td>
</tr>
<tr>
<td>3M Prestige 70</td>
<td>97.3%</td>
</tr>
<tr>
<td>3M Ultra Prestige 70</td>
<td>98.4%</td>
</tr>
<tr>
<td>3M Neutral 20</td>
<td>98.8%</td>
</tr>
<tr>
<td>3M Neutral 35</td>
<td>97.2%</td>
</tr>
<tr>
<td>Artscope Energy Film</td>
<td>85.7%</td>
</tr>
<tr>
<td>Llumar N/020 SR CDF</td>
<td>97.8%</td>
</tr>
<tr>
<td>Llumar N/065 SR CDF</td>
<td>94.9%</td>
</tr>
<tr>
<td>Llumar N/VAS SR PS</td>
<td>98.0%</td>
</tr>
<tr>
<td>Llumar UVCL SR PS</td>
<td>97.2%</td>
</tr>
<tr>
<td>Vista Soft Horizons V33</td>
<td>98.2%</td>
</tr>
<tr>
<td>GAM Color Cinefilter 1810</td>
<td>95.5%</td>
</tr>
<tr>
<td>GWF Delta Dual Reflective 25</td>
<td>95.9%</td>
</tr>
<tr>
<td>GWF Delta Dual Reflective 45</td>
<td>94.8%</td>
</tr>
<tr>
<td>GWF Glaze Cut NR 35</td>
<td>94.7%</td>
</tr>
<tr>
<td>GWF Glaze Cut NR 70</td>
<td>92.6%</td>
</tr>
<tr>
<td>GWF Residential Neutral 20</td>
<td>97.7%</td>
</tr>
<tr>
<td>GWF Residential Neutral 50</td>
<td>93.2%</td>
</tr>
<tr>
<td>HanitaTek Cold Steel 20</td>
<td>96.9%</td>
</tr>
<tr>
<td>HanitaTek Cold Steel 50</td>
<td>93.8%</td>
</tr>
<tr>
<td>HanitaTek Cold Steel 70</td>
<td>97.2%</td>
</tr>
<tr>
<td>HanitaTek Optitune 15</td>
<td>99.0%</td>
</tr>
<tr>
<td>HanitaTek Optitune 30</td>
<td>94.6%</td>
</tr>
<tr>
<td>HanitaTek Optitune 55</td>
<td>92.8%</td>
</tr>
<tr>
<td>HanitaTek Silver 35</td>
<td>94.6%</td>
</tr>
<tr>
<td>HanitaTek Silver 70</td>
<td>91.3%</td>
</tr>
<tr>
<td>HanitaTek UV Filter Film</td>
<td>97.9%</td>
</tr>
<tr>
<td>Madico Advanced Ceramic 1000</td>
<td>97.3%</td>
</tr>
<tr>
<td>Madico Advanced Ceramic 6000</td>
<td>95.0%</td>
</tr>
<tr>
<td>Madico CLS-200-X</td>
<td>98.5%</td>
</tr>
<tr>
<td>Madico CL-200-XSR</td>
<td>94.2%</td>
</tr>
<tr>
<td>Madico CL-200-X</td>
<td>94.5%</td>
</tr>
<tr>
<td>Madico CL-20</td>
<td>99.2%</td>
</tr>
<tr>
<td>Madico Sunscape Satin 550</td>
<td>95.0%</td>
</tr>
<tr>
<td>Madico TSG-335</td>
<td>98.7%</td>
</tr>
<tr>
<td>V-Kool VK40</td>
<td>98.2%</td>
</tr>
<tr>
<td>V-Kool VK70</td>
<td>97.1%</td>
</tr>
</tbody>
</table>

The calculated percent of UV rejected and percent of visible light transmitted for each film are shown in table 1, where they are compared with the manufacturers’ values. The data obtained for films on glass are listed; values obtained for unmounted films were usually within 1% of the values for the films on glass. It should be noted that the disparity between...
The transmission of the films at 425 and 675 nm, as compared with 550 nm, are plotted in figure 9. These data are from manufacturers and presumably give a good overall indication of the performance of the films in question. The measured values of UV rejection and the manufacturers’ claims do not mean that the latter are erroneous. The industry claims can have low chroma but still be highly saturated. The tinted HanitaTek films did not perform well according to the criteria used in this study. In contrast to the findings published previously (6), this study found all of the 3M films to perform well enough for museum use. These films rejected at least 97%, and most more than 98% of the UV radiation below 400 nm, and the Prestige line had the steepest cutoff curve of any of the films evaluated. The only potentially objectionable trait of these films is their tint: 3M does not produce a highly transparent UV-blocking film and the Night Vision line is mirrored, which may not be appropriate for museums.

Most of the Llumar and Madico films were found to be acceptable, in agreement with the earlier study, but several of these films rejected less than or exactly 95% of the UV light. Films from these manufacturers should be evaluated on a case-by-case basis. CFPfilms, Llumar’s parent company, also owns Vista. The single Vista film evaluated performed well, but generalizations about the brand cannot be drawn from that one sample. Few of the Global Window Films samples. These tend to increase in transmission sharply above 650 nm, which results in their appearing less red to the eye than the calculations suggest, due to the eye’s lower sensitivity in that range. It should be borne in mind that no mathematical measure of color is a replacement for human observation.

Conclusions

The most important considerations for a museum when selecting a window film are the overall amount of UV-blocking, the steepness and location of the cutoff curve, and the color appearance. Table 2 lists these properties for all the films evaluated. By setting 95% as the minimum acceptable UV rejection level for the 380-400 nm range and 390-410 nm as an acceptable range for the midpoint of the cutoff curve, the list of films suitable for museums can be narrowed down.

In contrast to the findings published previously (6), this study found all of the 3M films to perform well enough for museum use. These films rejected at least 97%, and most more than 98% of the UV radiation below 400 nm, and the Prestige line had the steepest cutoff curve of any of the films evaluated. The only potentially objectionable trait of these films is their tint: 3M does not produce a highly transparent UV-blocking film and the Night Vision line is mirrored, which may not be appropriate for museums.

The 3M films have their UV absorbers incorporated into the adhesive. Previous studies (2, 6) have indicated that this is less desirable than having a separate UV-blocking layer, leading to worse performance and longevity, but no experimental support has been given for this assertion. Our findings show that the 3M films performed more uniformly well than any other brand, despite having UV blockers in the adhesive; the second part of the study will evaluate their longevity.

The tinted HanitaTek films did not perform well according to the criteria used in this study. In particular, the Optitone and Silver lines are highly mirrored and appear slightly blue. While non-neutral color is not necessarily a failing for these films, which are marketed as neutral in their utility, it does make them unsuitable for use in a museum setting. UV rejection was also variable.

Of the less widely distributed films, the Artscapes Energy Film, a do-it-yourself adhesive-free film, is clearly unsuitable for museum use. The V-Kool films, which are marketed primarily as IR-blocking rather than UV-blocking, perform acceptably but have too much of a green tint.

Some sources have suggested that the ideal UV filter would block all radiation under 400 nm but no visible light (2). This study evaluated several highly transparent UV-blocking films, with visible transmissions of 80% or above. Llumar UVCL, GAM #1810, HanitaTek UV Filter Film, and films from Madico CLS-200-X, CL-200-XSR, and CL-200-X were found to be unacceptable. Of the others, GAM #1810 was the weakest performer, but the other three blocked greater than 97% of the UV and had good color neutrality, making them all acceptable options.

The present study looked at a small number of representa- tive films from each company. In many cases, other films may not perform as well. The most important considerations for a museum when selecting a window film are the overall amount of UV-blocking, the steepness and location of the cutoff curve, and the color appearance. Table 2 lists these properties for all the films evaluated. By setting 95% as the minimum acceptable UV rejection level for the 380-400 nm range and 390-410 nm as an acceptable range for the midpoint of the cutoff curve, the list of films suitable for museums can be narrowed down.

<table>
<thead>
<tr>
<th>Film</th>
<th>UV Blocking</th>
<th>Cutoff Midpoint</th>
<th>Time Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>3M Night Vision 15</td>
<td>98.6%</td>
<td>395 nm</td>
<td>Mirrored Neutral</td>
</tr>
<tr>
<td>3M Night Vision 35</td>
<td>97.2%</td>
<td>396 nm</td>
<td>Mirrored Neutral</td>
</tr>
<tr>
<td>3M Prestige 40</td>
<td>98.5%</td>
<td>402 nm</td>
<td>Neutral/Yellow</td>
</tr>
<tr>
<td>3M Prestige 50</td>
<td>98.3%</td>
<td>400 nm</td>
<td>Neutral/Yellow</td>
</tr>
<tr>
<td>3M Prestige 70</td>
<td>97.3%</td>
<td>399 nm</td>
<td>Neutral/Cyan</td>
</tr>
<tr>
<td>3M Ultra Prestige 70</td>
<td>98.4%</td>
<td>400 nm</td>
<td>Neutral/Green</td>
</tr>
<tr>
<td>3M Neutral 20</td>
<td>98.8%</td>
<td>394 nm</td>
<td>Neutral</td>
</tr>
<tr>
<td>3M Neutral 35</td>
<td>97.2%</td>
<td>395 nm</td>
<td>Neutral</td>
</tr>
<tr>
<td>Artscape Energy Film</td>
<td>85.7%</td>
<td>384 nm x</td>
<td>Cyan x</td>
</tr>
<tr>
<td>Llumar N1020</td>
<td>97.6%</td>
<td>396 nm</td>
<td>Neutral</td>
</tr>
<tr>
<td>Llumar N1065</td>
<td>94.9%</td>
<td>398 nm</td>
<td>Neutral</td>
</tr>
<tr>
<td>Llumar NUV65</td>
<td>98.0%</td>
<td>406 nm</td>
<td>Neutral/Orange</td>
</tr>
<tr>
<td>Llumar UVCL SRPS</td>
<td>97.2%</td>
<td>404 nm</td>
<td>Neutral/Yellow</td>
</tr>
<tr>
<td>Vista Soft Horizons V33</td>
<td>98.2%</td>
<td>401 nm</td>
<td>Neutral</td>
</tr>
<tr>
<td>GAM #1810</td>
<td>95.5%</td>
<td>401 nm</td>
<td>Neutral/Orange</td>
</tr>
<tr>
<td>GWF Delta Dual Reflective 25</td>
<td>95.9%</td>
<td>396 nm</td>
<td>Neutral/Orange</td>
</tr>
<tr>
<td>GWF Delta Dual Reflective 45</td>
<td>94.4%</td>
<td>397 nm</td>
<td>Neutral</td>
</tr>
<tr>
<td>GWF Glaure Cat NR 35</td>
<td>94.7%</td>
<td>388 nm x</td>
<td>Neutral/Red</td>
</tr>
<tr>
<td>GWF Glaure Cat NR 70</td>
<td>92.6%</td>
<td>391 nm</td>
<td>Neutral</td>
</tr>
<tr>
<td>GWF Residential Neutral 20</td>
<td>97.7%</td>
<td>392 nm</td>
<td>Orange/yellow</td>
</tr>
<tr>
<td>GWF Residential Neutral 50</td>
<td>93.2%</td>
<td>387 nm x</td>
<td>Neutral</td>
</tr>
<tr>
<td>HanitaTek Cold Steel 20</td>
<td>96.9%</td>
<td>388 nm x</td>
<td>Neutral</td>
</tr>
<tr>
<td>HanitaTek Cold Steel 50</td>
<td>93.8%</td>
<td>390 nm</td>
<td>Neutral</td>
</tr>
<tr>
<td>HanitaTek Cold Steel 70</td>
<td>97.2%</td>
<td>402 nm</td>
<td>Neutral</td>
</tr>
<tr>
<td>HanitaTek Optitune 15</td>
<td>90.6%</td>
<td>397 nm</td>
<td>Mirrored Blue x</td>
</tr>
<tr>
<td>HanitaTek Optitune 30</td>
<td>94.6%</td>
<td>388 nm x</td>
<td>Mirrored Neutral/Blue x</td>
</tr>
<tr>
<td>HanitaTek Optitune 55</td>
<td>92.8%</td>
<td>389 nm x</td>
<td>Mirrored Neutral</td>
</tr>
<tr>
<td>HanitaTek Silver 35</td>
<td>94.6%</td>
<td>386 nm x</td>
<td>Mirrored Blue x</td>
</tr>
<tr>
<td>HanitaTek Silver 50</td>
<td>91.8%</td>
<td>387 nm x</td>
<td>Mirrored Blue x</td>
</tr>
<tr>
<td>HanitaTek UV Filter Film</td>
<td>97.9%</td>
<td>408 nm</td>
<td>Neutral</td>
</tr>
<tr>
<td>Madico Advanced Ceramic 3000</td>
<td>97.3%</td>
<td>396 nm</td>
<td>Neutral/Green</td>
</tr>
<tr>
<td>Madico Advanced Ceramic 6000</td>
<td>95.0%</td>
<td>396 nm</td>
<td>Neutral/Yellow</td>
</tr>
<tr>
<td>Madico CLS-200-X</td>
<td>98.5%</td>
<td>409 nm</td>
<td>Neutral</td>
</tr>
<tr>
<td>Madico CL-200-XSR</td>
<td>94.2%</td>
<td>397 nm</td>
<td>Neutral</td>
</tr>
<tr>
<td>Madico CL-200-X</td>
<td>94.5%</td>
<td>398 nm</td>
<td>Neutral</td>
</tr>
<tr>
<td>Madico NG-20</td>
<td>99.2%</td>
<td>394 nm</td>
<td>Violet x</td>
</tr>
<tr>
<td>Madico Suncase Satin 550</td>
<td>95.0%</td>
<td>394 nm</td>
<td>Neutral</td>
</tr>
<tr>
<td>Madico TSG-335</td>
<td>98.7%</td>
<td>402 nm</td>
<td>Neutral</td>
</tr>
<tr>
<td>V-Kool VK 40</td>
<td>98.2%</td>
<td>401 nm</td>
<td>Green x</td>
</tr>
<tr>
<td>V-Kool VK 70</td>
<td>97.1%</td>
<td>400 nm</td>
<td>Green x</td>
</tr>
</tbody>
</table>
UV-Blocking Window Films for Use in Museums—Revisited, continued

Reform of the MSDS is Coming

You readers and others have made me an MSDS expert. For 25 years, I have offered to interpret and comment on MS
ds you send or attach to an email. So I’ve read thousands. And more stink.

MSDSs Today

The Occupational Safety and Health Administration (OSHA) requires 12 categories of information on MSDS, but many MSDSs don’t cover all of them. Finding information is difficult because there isn’t one set format in which the data must be presented. Confusing and contradictory statements, outright errors, and data that is years out of date are common.

Even worse, over the last decade I have seen more and more manufacturers reinterpreting OSHA’s regulations to mean they only have to list ingredients as hazardous if they are one of the roughly 400 chemicals for which OSHA has standards. Some manufacturers felt free to simply withhold from us the presence of any chemical for which there was no specific OSHA regulation or air quality standard. Usually they will even tell you they are doing this with statements such as “no regulated ingredients” or “no OSHA standards apply to any component.”

Listing only 400 ingredients is outrageous when you realize that the US EPA estimates there are 100,000 chemicals in commerce, the European Union has registered 140,000 chemicals to be used in their products, and the Chemical Abstract Service recently registered its 50 millionth chemical.

Window Tints, Etc. (Madico distributor)
6030 Santa Monica Blvd
Hollywood, California 90264
310.666.0908
madico.com

References
2. Crews, P. C., 1989. “A comparison of selected UV filtering ma-

Suppliers
Aladdin Glass (supplier of glass blanks)
9607 De Soto Ave
Canoga Park, CA 91304
818.700.7833
aladdinlass.com

Artiscope Inc.
3487 NW 4th Ave
Portland, OR 97210
877.729.0708
artiscope-inc.com

CP Films (distributor of Llumar and Vista)
Western Distribution Center
1849 West Sequoia Ave.
Orange, CA 92868
714.634.0900
Cpfilms.com

GAM Products Inc.
4975 West Pico Blvd
Los Angeles, CA 90019
323.935.4975
gamonline.com

Global Window Films
Global/Express West
330 East Orangethorpe Ave
Placentia, CA 92870
800.345.6669
Globalwindowfilms.com

Hanaitek
220 Regency Court, Suite 200
Brookfield, WI 53045
800.660.5559
Hanaitek.com

Suntec (3M distributor)
18401 Van Nuys St
Reseda, CA 91335
818.342.9285
3m.com

V-Kool, Inc.
13805 West Road, Suite 400
Houston, TX 77041
800.786.2468
V-kool-usa.com

PMHSs You thorou

MSDSs got to this sad state simply because no person or government agency checks MSDSs for accuracy or com-
pleteness. The information on an MSDS is only likely to be scrutinized after an accident, injury, or lawsuit. With no enforcement, there is little incentive to create good MSDSs.

Cavalry Coming

A United Nations program spearheaded by the European Union has come up with the answer to the MSDS problem. In 2003, the United Nations (UN) adopted the Globally Har-

The new MSDSs will be scrutinized after an accident, injury, or lawsuit. With no enforcement, there is little incentive to create good MSDSs.

The GHS is being adopted by more and more countries. Our new Safety Data Sheets are infinitely more usable for work-

The new Safety Data Sheets reflect the European Union’s influence in two aspects: 1) the adoption of the Precaution-

OSHA Proposed Rule

The OSHA’s proposal to update the MSDSs closed its com-

In the Purple Book’s Annex [appendix] 4, there is the follow-

So the new Safety Data Sheets tell us what is not known, along with what is known. For example, our old MSDs often tell us that a substance is not considered a carcinogen by various governmental agencies. You would be misled if you assumed this means the substance is not a carcinogen. Instead, this usually means there are no cancer studies for these agencies to evaluate!

While the new Globally Harmonized Safety Data Sheets can’t change the fact that most of the chemicals we use have never been tested, they will tell us unequivocally which tests have been done and which have not. I hope that workers and consumers one day will be motivated to action when they see over and over again from their Safety Data Sheets that even many of the common chemicals they use have never been tested for cancer—or any other chronic hazard.

Definition Changes

There is also a vital change in the definition of a health haz-

The new Globally Harmonized Safety Data Sheets will tell us what is not known, along with what is known. For example, our old MSDs often tell us that a substance is not considered a carcinogen by various governmental agencies. You would be misled if you assumed this means the substance is not a carcinogen. Instead, this usually means there are no cancer studies for these agencies to evaluate!

While the new Globally Harmonized Safety Data Sheets can’t change the fact that most of the chemicals we use have never been tested, they will tell us unequivocally which tests have been done and which have not. I hope that workers and consumers one day will be motivated to action when they see over and over again from their Safety Data Sheets that even many of the common chemicals they use have never been tested for cancer—or any other chronic hazard.

Definition Changes

There is also a vital change in the definition of a health haz-

The new Globally Harmonized Safety Data Sheets will tell us what is not known, along with what is known. For example, our old MSDs often tell us that a substance is not considered a carcinogen by various governmental agencies. You would be misled if you assumed this means the substance is not a carcinogen. Instead, this usually means there are no cancer studies for these agencies to evaluate!

While the new Globally Harmonized Safety Data Sheets can’t change the fact that most of the chemicals we use have never been tested, they will tell us unequivocally which tests have been done and which have not. I hope that workers and consumers one day will be motivated to action when they see over and over again from their Safety Data Sheets that even many of the common chemicals they use have never been tested for cancer—or any other chronic hazard.

Definition Changes

There is also a vital change in the definition of a health haz-

The new Globally Harmonized Safety Data Sheets will tell us what is not known, along with what is known. For example, our old MSDs often tell us that a substance is not considered a carcinogen by various governmental agencies. You would be misled if you assumed this means the substance is not a carcinogen. Instead, this usually means there are no cancer studies for these agencies to evaluate!

While the new Globally Harmonized Safety Data Sheets can’t change the fact that most of the chemicals we use have never been tested, they will tell us unequivocally which tests have been done and which have not. I hope that workers and consumers one day will be motivated to action when they see over and over again from their Safety Data Sheets that even many of the common chemicals they use have never been tested for cancer—or any other chronic hazard.

Definition Changes

There is also a vital change in the definition of a health haz-

The new Globally Harmonized Safety Data Sheets will tell us what is not known, along with what is known. For example, our old MSDs often tell us that a substance is not considered a carcinogen by various governmental agencies. You would be misled if you assumed this means the substance is not a carcinogen. Instead, this usually means there are no cancer studies for these agencies to evaluate!

While the new Globally Harmonized Safety Data Sheets can’t change the fact that most of the chemicals we use have never been tested, they will tell us unequivocally which tests have been done and which have not. I hope that workers and consumers one day will be motivated to action when they see over and over again from their Safety Data Sheets that even many of the common chemicals they use have never been tested for cancer—or any other chronic hazard.

Definition Changes

There is also a vital change in the definition of a health haz-

The new Globally Harmonized Safety Data Sheets will tell us what is not known, along with what is known. For example, our old MSDs often tell us that a substance is not considered a carcinogen by various governmental agencies. You would be misled if you assumed this means the substance is not a carcinogen. Instead, this usually means there are no cancer studies for these agencies to evaluate!

While the new Globally Harmonized Safety Data Sheets can’t change the fact that most of the chemicals we use have never been tested, they will tell us unequivocally which tests have been done and which have not. I hope that workers and consumers one day will be motivated to action when they see over and over again from their Safety Data Sheets that even many of the common chemicals they use have never been tested for cancer—or any other chronic hazard.

Definition Changes

There is also a vital change in the definition of a health haz-

The new Globally Harmonized Safety Data Sheets will tell us what is not known, along with what is known. For example, our old MSDs often tell us that a substance is not considered a carcinogen by various governmental agencies. You would be misled if you assumed this means the substance is not a carcinogen. Instead, this usually means there are no cancer studies for these agencies to evaluate!
**Articles You May Have Missed**

*The Daily News*

**3 Years after Quake Damage, Big Island Still Remains in Repair Mode**

Over 200,000 residents of the Big Island, Hawaii, are still dealing with the effects of the 2006 earthquake that left thousands displaced and many structures damaged. The recovery process continues as residents work to rebuild their homes and communities.

**A Faded Past…But a Bright Future for Stained Glass**

The Stained Glass Conservation Studio at Cologne Cathedral is part of a team working to restore the cathedral's glass to its former glory. The project has taken nearly five years and involved the use of high-tech equipment to repair damaged pieces and replace missing sections.


**“Agriculture and Cultural Heritage”**, *The Daily News*, 07/26/2009

**“Restoring Afghanistan,”** *Journal*, 10/08/2009


**“High-Tech Solutions for Cultural Heritage”**, *Asia Times Online*, 11/06/2009


The War of Troy Tapestry will immediately.

Removing this crust without harming the glass is a time-consuming operation,

The other ingredients — white filigree and crowned with stained-

Restoration efforts is desperately needed.

As they were realigned in a smooth,

The other ingredients — white filigree and crowned with stained-

Once it’s gone, it’s gone,” Smith says.

Virtually all of the windows in the City as a World Heritage site, helping to secure money for its maintenance.

The War of Troy Tapestry will immediately.

Restoration," the Museum's objects conservator, and Rick

City as a World Heritage site, helping to secure money for its maintenance.

The War of Troy Tapestry will immediately.

Restoration efforts is desperately needed.

The other ingredients — white filigree and crowned with stained-

It is much stronger than modern equivalents.

Glass," "Feels Like Walking Under Broken

removing the corrosion is a short-term strategy, because decay begins again in
due to help the beleaguered Trojans against

In nine of an 11-piece set, which when dis

54 x 88

Rutland Herald

restoration efforts is desperately needed.

The other ingredients — white filigree and crowned with stained-

The War of Troy Tapestry will immediately.

Removing this crust without harming the glass is a time-consuming operation,

The other ingredients — white filigree and crowned with stained-

Restoration efforts is desperately needed.

As they were realigned in a smooth,

The other ingredients — white filigree and crowned with stained-

Once it’s gone, it’s gone,” Smith says.

Virtually all of the windows in the City as a World Heritage site, helping to secure money for its maintenance.

The War of Troy Tapestry will immediately.

Restoration efforts is desperately needed.

The other ingredients — white filigree and crowned with stained-

It is much stronger than modern equivalents.

Glass," "Feels Like Walking Under Broken

removing the corrosion is a short-term strategy, because decay begins again in
due to help the beleaguered Trojans against

In nine of an 11-piece set, which when dis

54 x 88

Rutland Herald

restoration efforts is desperately needed.

The other ingredients — white filigree and crowned with stained-

The War of Troy Tapestry will immediately.

Removing this crust without harming the glass is a time-consuming operation,

The other ingredients — white filigree and crowned with stained-

Restoration efforts is desperately needed.

As they were realigned in a smooth,

The other ingredients — white filigree and crowned with stained-

Once it’s gone, it’s gone,” Smith says.

Virtually all of the windows in the City as a World Heritage site, helping to secure money for its maintenance.

The War of Troy Tapestry will immediately.

Restoration efforts is desperately needed.

The other ingredients — white filigree and crowned with stained-

It is much stronger than modern equivalents.

Glass," "Feels Like Walking Under Broken

removing the corrosion is a short-term strategy, because decay begins again in
due to help the beleaguered Trojans against

In nine of an 11-piece set, which when dis

54 x 88

Rutland Herald

restoration efforts is desperately needed.

The other ingredients — white filigree and crowned with stained-

The War of Troy Tapestry will immediately.

Removing this crust without harming the glass is a time-consuming operation,

The other ingredients — white filigree and crowned with stained-

Restoration efforts is desperately needed.

As they were realigned in a smooth,

The other ingredients — white filigree and crowned with stained-

Once it’s gone, it’s gone,” Smith says.

Virtually all of the windows in the City as a World Heritage site, helping to secure money for its maintenance.

The War of Troy Tapestry will immediately.

Restoration efforts is desperately needed.

The other ingredients — white filigree and crowned with stained-

It is much stronger than modern equivalents.

Glass," "Feels Like Walking Under Broken

removing the corrosion is a short-term strategy, because decay begins again in
due to help the beleaguered Trojans against

In nine of an 11-piece set, which when dis

54 x 88

Rutland Herald

restoration efforts is desperately needed.

The other ingredients — white filigree and crowned with stained-

The War of Troy Tapestry will immediately.

Removing this crust without harming the glass is a time-consuming operation,

The other ingredients — white filigree and crowned with stained-

Restoration efforts is desperately needed.

As they were realigned in a smooth,

The other ingredients — white filigree and crowned with stained-

Once it’s gone, it’s gone,” Smith says.

Virtually all of the windows in the City as a World Heritage site, helping to secure money for its maintenance.

The War of Troy Tapestry will immediately.

Restoration efforts is desperately needed.

The other ingredients — white filigree and crowned with stained-

It is much stronger than modern equivalents.

Glass," "Feels Like Walking Under Broken

removing the corrosion is a short-term strategy, because decay begins again in
due to help the beleaguered Trojans against

In nine of an 11-piece set, which when dis

54 x 88

Rutland Herald

restoration efforts is desperately needed.

The other ingredients — white filigree and crowned with stained-

The War of Troy Tapestry will immediately.

Removing this crust without harming the glass is a time-consuming operation,

The other ingredients — white filigree and crowned with stained-

Restoration efforts is desperately needed.

As they were realigned in a smooth,

The other ingredients — white filigree and crowned with stained-

Once it’s gone, it’s gone,” Smith says.

Virtually all of the windows in the City as a World Heritage site, helping to secure money for its maintenance.

The War of Troy Tapestry will immediately.

Restoration efforts is desperately needed.

The other ingredients — white filigree and crowned with stained-

It is much stronger than modern equivalents.

Glass," "Feels Like Walking Under Broken

removing the corrosion is a short-term strategy, because decay begins again in
due to help the beleaguered Trojans against

In nine of an 11-piece set, which when dis

54 x 88

Rutland Herald

restoration efforts is desperately needed.

The other ingredients — white filigree and crowned with stained-

The War of Troy Tapestry will immediately.

Removing this crust without harming the glass is a time-consuming operation,

The other ingredients — white filigree and crowned with stained-

Restoration efforts is desperately needed.

As they were realigned in a smooth,

The other ingredients — white filigree and crowned with stained-

Once it’s gone, it’s gone,” Smith says.

Virtually all of the windows in the City as a World Heritage site, helping to secure money for its maintenance.

The War of Troy Tapestry will immediately.

Restoration efforts is desperately needed.

The other ingredients — white filigree and crowned with stained-

It is much stronger than modern equivalents.

Glass," "Feels Like Walking Under Broken

removing the corrosion is a short-term strategy, because decay begins again in
due to help the beleaguered Trojans against

In nine of an 11-piece set, which when dis

54 x 88

Rutland Herald

restoration efforts is desperately needed.

The other ingredients — white filigree and crowned with stained-

The War of Troy Tapestry will immediately.

Removing this crust without harming the glass is a time-consuming operation,

The other ingredients — white filigree and crowned with stained-

Restoration efforts is desperately needed.

As they were realigned in a smooth,

The other ingredients — white filigree and crowned with stained-

Once it’s gone, it’s gone,” Smith says.

Virtually all of the windows in the City as a World Heritage site, helping to secure money for its maintenance.

The War of Troy Tapestry will immediately.

Restoration efforts is desperately needed.

The other ingredients — white filigree and crowned with stained-

It is much stronger than modern equivalents.

Glass," "Feels Like Walking Under Broken

removing the corrosion is a short-term strategy, because decay begins again in
due to help the beleaguered Trojans against

In nine of an 11-piece set, which when dis

54 x 88

Rutland Herald

restoration efforts is desperately needed.

The other ingredients — white filigree and crowned with stained-

The War of Troy Tapestry will immediately.

Removing this crust without harming the glass is a time-consuming operation,

The other ingredients — white filigree and crowned with stained-

Restoration efforts is desperately needed.

As they were realigned in a smooth,
The first three of these articles appeared as a series about damaged portraits at the Beaufort County Courthouse. The fourth article was published after the first three resulted in voluble commentary.

“Damaged Portraits are being Restored,” Washington Daily News, 1/21/2010

A hunt for Christmas decorations two years ago unearthed a treasure trove of damaged paintings hidden in a closet in the Beaufort County Courthouse. Efforts are under way to repair the portraits, which depict five leading Beaufort County residents from the past, and hang them in the Superior Courtroom, according to Clerk of Court Marty Paramore.

The story behind the damage was revealed by Jim Vosburg, former attorney and Superior Court judge. Vosburg was a lawyer involved in what turned out to be a particularly contentious child-custody case in 1968. “It was a very, very vicious custody proceeding. Things got really unpleasant, and the court recessed for a two-hour lunch break.” During the recess, the little boy who was at the center of the custody battle managed to get his hands on a court gavel. “He took that gavel and threw it at every portrait in the courtroom.”

Damage to the portraits ranged from small dents in the paint to sizable tears in the canvas. In 2008 the Beaufort County Board of Commissioners voted to fund the repairs, at a total cost not to exceed $3,000.

Happy that the portraits would be repaired, Paramore solicited bids on the work. To his shock and disappointment, a Raleigh art conservator submitted a nonbinding estimate that ranged from $12,500 to $17,500. And that didn’t include needed repairs to the ornate frames. Discouraged, Paramore feared the restoration work couldn’t be done. Then, a local artist came forward and became intrigued with the project.

“Scbole is Restoring History,” Washington Daily News, 1/22/2010

Nancy Scoble, a respected Washington artist and a genius at art restoration, was approached by Clerk of Court Marty Paramore and asked to consider taking on the project. She responded with enthusiasm. Experiences with family paintings prompted her to learn more about restoration. “I wanted to find out how to do this right, so I took course after course after course,” she said. “I’ve worked on the restoration of canvas paintings as well as porcelain pieces.”

The series of courthouse portraits, and older paintings in general, are covered with layers of soot and dirt from furnaces, along with nicotine stains from cigarettes, cigars, and pipes. This is in addition to the tears and gouges caused by the little boy wielding a wooden gavel more than 40 years ago.

Most of the portraits appear to date back to the 1860s, according to Scoble. She starts with a gentle cleaning and then begins the actual restoration process. “I work on the outside edge first and remove layers of grime,” Scoble said. “I repair the tears and chipped paint and freshen the faces. And I stabilize the paintings.”

“Courtroom is Gallery of Noted Citizens.” Washington Daily News, 01/24/2010

When one enters the Superior Courtroom in the Beaufort County Courthouse, there’s almost a feeling that the notables depicted in the paintings are looking down and making sure everything is being handled the way it should be. Included are prominent attorneys, District and Superior Court judges and even chief justices of the North Carolina Supreme Court, all with at least one thing in common — strong ties to Beaufort County and eastern North Carolina.

After a gavel-wielding youngster damaged five of them in the 1960s, the paintings are being restored for $3,000. Although the Washington Daily News’ Web site has been inundated with comments from out-of-towners who are questioning the restoration project, local residents are pleased.


A Washington Daily News series about a local artist’s efforts to restore paintings housed in the Beaufort County Courthouse has generated an unprecedented number of comments on the newspaper’s Web site. Clerk of Court Marty Paramore hired Washington artist Nancy Scoble to restore five paintings that had been stored in a closet under the stairs in the courthouse’s lobby. Posted online at www.wdnweb.com, the series drew criticism from some members of the art-restoration community, and support from people who approved of using a local artist to perform the work.

According to Paramore, the criticism began with the publication of the first installment in the series. Taken together, the comments outnumbered those for all other local stories posted on the site since 2003, according to the Daily News’ management.

A link to the first article in the three-part series apparently was posted to a conservators’ chat room, said Perry Hurt, associate conservator with the N.C. Museum of Art in Raleigh. Most of the conservators’ replies were not intended as personal criticism of Scoble, Hurt said.

The article tapped into “this well of frustration” within the restoration community, he said.

For her part, Scoble apparently was blindsided by the controversy. Scoble, a local art teacher, said she took a private art-restoration course with a teacher in Boca Raton, Fla., in 1996. She said the restoration methods she uses are outlined in art publications, and that all of her work is done “under true archival process.” “Everything is reversible,” she added. Scoble said her touch-ups are done in watercolors, which are easily removed. “And I never use acrylic,” she said. She uses wax to fill in rips and tears on canvas, and the wax also can be removed, Scoble continued.

She said her goal is to clean, reveal, and preserve the image as the artist intended it, with a focus on the figures in the foreground. She does little to nothing to the backgrounds of portraits. She also documents her work step by step with photography, saving the resulting images on CD.

In a later posting on the Daily News’ Web site, Hurt apologized “for any disrespect” Scoble might have perceived in the online comments. “I want to make it clear that, in my view, it’s not a personal attack,” he told the Daily News.

“It’s a larger issue that these conservators were trying to address, in a good way or not a good way in some respects.”