



Preservation Architect

The Newsletter of The Historic Resources Committee | March 7, 2008

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Upcoming Conferences and Events

Letter from the Historic Resources Committee 2008 Chair

Sharon Park, FAIA, provides a preview of things to come during her year as 2008 chair of the Historic Resources Committee.

> [Read the full letter](#)

Letter from the Communications Subcommittee Chair

Don Swofford, FAIA, welcomes members to this issue of Preservation Architect and highlights upcoming topics

> [Read the full letter](#)

HRC Programs and Events

The AIA [HRC Web site](#) runs a regularly updated list of scheduled HRC events. Just look under "HRC Highlights" and click on the links for more details about any HRC-sponsored or related event. Also, view [HRC events at AIA National Convention](#) for convention workshops hosted by AIA/HRC.

In the News

AIA Committee on Design to venture to Copenhagen, Denmark

August 31 - September 5, 2008

Join the AIA Committee on Design in conjunction with the AIA Historic Resources Committee and the Danish Architecture Centre for a conference celebrating Danish modern architecture and design. See the [conference website](#) for more information.

AIA Request for Proposals: Research Grant Proposals due April 16th

The AIA Board Knowledge Committee is [seeking proposals](#) for research projects to be completed in a seven-month period, beginning in May, 2008.

Features

Electrochemical Treatments on Historic Steel Frame Buildings

by Paul Noyce and Gina Crevello

Electrochemical treatments are utilized on historic buildings to extend the life of the structure from corrosion related damages.

> [Read the full article](#)

That Old Building May Be the Greenest on the Block

by James T. Kienle, FAIA

In our haste to make all things green, we may be losing the bigger picture

> [Read the full article](#)

A Reliquary for Menokin

by Charles Phillips, AIA

How do you preserve a ruin? Well, it would be a lot easier if you could just take it inside.

> [Read the full article](#)

The Graduate Program in Historic Preservation at the University of Texas at Austin

by Michael Holleran and Frances Gale

Professor Michael Holleran gives us a glimpse into the Historic Preservation program at UT Austin, as well as a glimpse to the program's future.

> [Read the full article](#)

Preservation Knowledge and Networks

HRC Book List

The AIA Historic Resources Committee (HRC) has compiled a [book list](#) based on the recommendations of HRC members around the country. We continually expand the list with additional titles. If you know of a book that should be on the list, we encourage you to send

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your recommendation to [Raymond Plumey, FAIA](#).

Call for Submissions to Preservation Architect

This issue of Preservation Architect stands before you as a high-quality source of information that reaches more than 6,000 HRC members. Countless others browse through with much anticipation and good recognition of new and timely information relative to historic preservation. We strive to be diverse, trendy, and up-to-date with our product, and we certainly need your help in sustaining our goals.

Did you know that you can contribute to our quarterly electronic newsletter by submitting an interesting article from your region? Yes, you can! We accept unsolicited articles of interest to the HRC membership. Yes, there is a review process, and yes, we have submission guidelines. You can start by going to the [HRC Web site](#) and clicking on "Tips for Submissions." You may contact the [AIA staff](#), or [Don Swofford, FAIA](#), the HRC Communications and Publications Subcommittee chair, if you have any questions or comments. We look forward to receiving your submission!

HRC Member and Component News

AIA Elevates 116 to Fellow

The AIA congratulates the 116 individuals who were selected as [Fellows of the Institute in 2008](#). The AIA HRC would like to further congratulate the following 2008 Fellows who were elected for their work in the historic preservation industry:

Jean Carroon
Boston Society of Architects/AIA

David Fixler
Boston Society of Architects/AIA

Michael Murphy
AIA Baltimore

Baird Smith
AIA Northern Virginia

Starting a Knowledge Community: A Toolkit for Components

AIA National has 20 practice-related knowledge communities (KCs) which provide AIA members an opportunity to find knowledge related to their specialty area and connect with like-minded architects. The AIA has compiled an [assortment of documents](#) which will help with the establishment of knowledge communities at the state or local level.



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Letter from the Historic Resources Committee 2008 Chair

Sharon C. Park, FAIA

The Historic Resources Committee has an ambitious year coming up in 2008 and I am thrilled to be at the helm of this great, and oldest, of the AIA committees. The Advisory Group particularly wants to extend its thanks for a job well done to our outgoing 2007 Chair, Jack Pyburn, FAIA. Jack will continue with the subcommittee on Historic Sites Advocacy Team and the education initiative which works with promoting preservation values in our first degree architectural education programs.

The HRC will continue to fulfill its mission of being the voice for preservation through a number of new and existing partnership activities. Our website is full of interesting and useful information, including a reading list and contacts with the wide range of affiliated preservation organizations. Our popular conferences and workshops are opportunities for networking and obtaining valuable Continuing Education System (CES) units. Several highlights are at the AIA National Convention (Workshops on HSRs, Tax Credits, Preservation Breakfast), and at the Traditional Building Exhibition and Conferences in Boston (March 12-15) and Chicago (Sept.17-20). We will help celebrate the 75th Anniversary of the Historic American Building Survey (Nov.14-15) in Washington, DC. There are also some off-shore venues. The HRC is joining with the Committee on Design (COD) to venture to Copenhagen, Denmark (Aug. 31-Sept.5) for a conference on Danish Modern; Then and Now. Working with the Danish Architectural Council, there will be lectures and tours on Mid-Century Modern architecture, an emerging preservation issue here in the US., as well and visiting some exciting and dramatic contemporary urban architecture. In addition, the HRC will be working with the Association of Preservation Technology, International on their conference in Montreal, Canada (October 13-17).

The HRC has active subcommittees on publications, the web materials, awards, sponsorship, conferences and education. Should you be interested in participating on any of these subcommittees, I encourage you to contact us. The five Advisory Group members are eager to hear from you and to get feed back on our various offerings. Our AG is diverse in the roles they play in preservation and to give you a bit of background, I have provided a bit of a short bio for each of our members. I was thrilled to have a "doers" profile on [AIArchitect for the week of January 11, 2008](#), so if you want to know something about me, please go to see the bio. I am newly at the Smithsonian Institute as the Associate Director of Architectural History and Historic Preservation having spent many years in historic preservation at the National Park Service. David Woodcock, FAIA is Professor of Architecture, Texas A&M Universtiy; Harry Hunderman, FAIA is a practitioner in the Chicago area with Wiss, Janney, Elstner Associates; Raymond Plumey, FAIA is an architect and planner in NYC; and Thomas McGrath, FAIA, is the Superintendent of the National Park Service's Preservation Training Center

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in Gaithersburg, MD. So you can see that we bring a varied and interest set of experiences to this committee.

We all look forward to an exciting year which will be made more meaningful with your participation!

~Sharon C. Park, FAIA
2008 Chair, AIA Historic Resources Committee Advisory Group





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Letter from the AIA HRC Communications Subcommittee Chair

The Communications Subcommittee is very happy to present this edition of Preservation Architect you. I believe we have assembled an issue that will give you a glimpse into some of the serious thinkers in our field of architecture. James Kienle, AIA takes the argument of historic buildings being "green" to the forefront with his excellent article. James's article makes a very important point regarding our dialogue with other practitioners: that historic spaces are green, always have been green and always will be green. It is a dialogue that we of the Communications Subcommittee see as essential to the continued work of the HRC.

When I read the precise for Gina Crevello on Electrochemical Conservation of Historic Buildings, I was impressed with the rigor of Gina's work in this field. The final article reviewed by Raymond Plume, FAIA of your committee was not a disappointment. Raymond gave the final drafts high marks and I believe you will as well. I also feel that the article really opens a door on the potential of the fascinating application of knowledge of physics and electricity to our world of stabilization and conservation. It is a good read. The that truly turned up my creative juices, however, was Charles Phillips, AIA A Reliquary for Menokin. When the abstract for Charles's work came across my desk several months ago, and having a sound knowledge of the work at Menokin here in Virginia, I thought the notion a bit absurd. Bowing to my instincts for scholarship at the edge of the box, however, I asked Charles to develop the thesis and give us an article. When I read the first draft I was amazed, as I am time after time with Charles Phillip's thinking, at the plausibility and possibility of such an undertaking. Encapsulation in glass of truly significant monuments, in whatever condition they might exist, as a conservation tool took on new meaning for me, and I was convinced. Some may recall that this was Charles's painstaking question at the APT meeting in New Orleans during the mind eighties that lead to the New Orleans Charter, and a serious effort to convince our colleagues to reconsider climate control inside historic building envelopes. Kudos to Charles.

Finally, we conclude with an exposition of the fine Historic Preservation program at the University of Texas School of Architecture in Austin. Started by Blake Alexander and Wayne Bell, FAIA in the seventies, the program has produced many accomplished practitioners to the field today. Professor Michael Holleran gives us a glimpse into this fine program and his new Chairmanship of the program as well as a glimpse as to what is in the future. With the partnerships and strategic initiatives Michael is building, the program continues on sound footing to assist the beginning professional for at least the next two decades.

In the coming issues, we will continue on course to explore the Classicists Point of View, and then turn ahead to look at the field of Historic Buildings of the Recent Past. This subject was also the subject of the recent

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symposium at the Center of Heritage Conservation at Texas A&M this past month and we are hoping to glean some articles from the presentations of that meeting.

~Don Swofford, FAIA
2008 Chair, AIA/HRC Communications Subcommittee





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Electrochemical Treatments on Historic Steel Frame Buildings

by Paul Noyce and Gina Crevello

Electrochemical treatments are utilized on historic buildings to extend the life of the structure from corrosion related damages. Corrosion is present in historic buildings which utilize iron or steel in construction and can cause a variety of failures leading to masonry damage, the loss of original fabric, and even death. Traditional repair techniques can temporarily slow the corrosion process but do not provide a long term solution for corrosion.

By utilizing corrosion engineering techniques it is possible to extend the life of the structure before the effects of corrosion have caused irreparable damage. Electrochemical repair techniques mitigate corrosion for an extended period (greater than 25 year life), can be installed without removing masonry cladding, are reversible, and are completely undetectable on the historic façade. In 1990, members of our team were commissioned by Historic Scotland and English Heritage to research corrosion related issues in historic steel frame masonry clad buildings and provide innovative solutions to mitigate corrosion.

The objective of the project was to study what initiates corrosion in buildings, ways of investigating corrosion related damages, and to treat corrosion in a non-traditional manner, i.e. without removing the historic masonry cladding. The case study for this work was St. Andrew's House, located in Edinburgh, Scotland.

The research and investigations took the tools used in the corrosion industry and applied specific tests and treatments to historic steel frame buildings. Rates of corrosion, polarization tests, steel or section loss, and depth of cover were tested and assessed in association with methods used in historical building surveys. Corrosion related damages, voids and areas of high water content were detected.

Afterwards, invasive techniques were employed to verify the accuracy of the testing. It was discovered that with the proper testing and analysis of data, precise accuracy can be used in predicting when damages will occur (time to cracking models), which areas have suffered more damage, and where different building elements fall within a corrosion risk scale. Repairs were developed around corrosion risk. The work resulted in Historic Scotland's Technical Advice Notes 20 Corrosion in Masonry Clad Early 20th Century Steel Framed Buildings.

Traditional repair options and replacement can be very costly and cause additional damage to the cladding as it is removed from the structure. Key supporters of the research, English Heritage in particular, and the Department of the Environment were looking for 1) a cost effect solution, 2) a solution which allowed the historic masonry to remain in situ to deal with corrosion and 3) a green solution, not having to manufacture new materials

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to replace and dispose of damaged pieces.

Impressed Current Cathodic Protection, which is used in pipelines and concrete, was developed and refined for its use in historic buildings in a series of steps. Electrochemical techniques were employed first in the laboratory, then in small scale projects such as the Inigo Jones Gateway, London, and Dublin College Arcade. In 1996, the first full scale installation of an Impressed Current Cathodic Protection System was installed on the Joshua Hoyle Building, Manchester. This is a terra cotta and brick clad structure, which currently houses the Malmaison Hotel.

Since this time, numerous landmarks in England have had systems installed. Our company has installed over 100 systems in the UK. In the US there are eight historic steel frame buildings with impressed current cathodic protection systems. The first installation in the US was on the Marshall Field's Building in Chicago, IL.

The benefits of the systems have been applauded by English Heritage and the UK Department of the Environment, who have chosen electrochemical treatments as the preferred method of corrosion mitigation in historic buildings. The requirements for a successful installation include understanding historic structures, knowing the necessary electrochemistry for design work, and knowing the limitations of a structure. Not all buildings are suitable candidates.

Electrochemical treatments control the corrosion reaction by utilizing an inert anode within the masonry joints. This anode has no expansive properties and a life of over 100 years. The anodes are connected together with an inert wire and then to a DC power source. The steel frame is connected to the system, as a negative connection termed cathode. This allows the loss of electrons to occur on the controlled anode and hence protect the steel frame as the controlled cathode.

The key to choosing an electrochemical treatment for an historic steel frame building is the early use of a system. Potentially, this can save the owners a great amount of money in repair strategies, preserve irreplaceable historic masonry, and control the corrosion reaction for an infinite period of time.



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A Reliquary for Menokin

by Charles Phillips

"You can't do that!" has always seemed a dangerous challenge, both to me and to John Lee, material conservator who is taking the lead on this project.

So, how do you put the ruin in a vitrine and not have it detract from the experience or interpretation? Even better, can you make it a positive addition that contributes to the interpretation?

Why not enclose the original volume of the structure using glass to connect the dots between the existing fragments? One can include as much detail as contributes to the interpretation. In the case of Menokin we have both HABS (Historic American Buildings Survey) drawings and photographs of the building before the fall, as well as the remaining elements, to rely on.

I had been mentally dragging around the idea of putting ruins in a glass box for years. In graduate school at the University of Texas, I wanted to build a dome over a small wattle and daub structure and then build a replica to provide both the artifact and the restored building for study and interpretation. Years later, in Charleston, I wanted to preserve the original but no longer functional tile roof of the 1713 powder magazine by putting the site in a glass enclosure that would include the archaeology of the remaining revetment of one of America's few walled cities. Minel's Byzantine Chapel in Houston was an exciting nudge, and every time I went back to UT and walked past the Harry Ransom Center and saw the etched glass I knew I wanted to use glass to exhibit a building. Then a few years ago, on a project with Stanley Tigerman at The Brice House, John Lee and I enlivened the offices of the International Masonry Institute. We were able to preserve an interior wall behind glass, complete with original brightly colored lime washes and the ghosts of a very early kitchen dresser.

At Menokin the infill glass can start with a frosted or etched pattern of the decorative elements such as quoins and belt courses, and later include cast glass elements applied to the glass walls to provide the projection, texture and shadow effect of the decorative elements. If taken to the penultimate, LCD glass capable of displaying images would allow us to represent information such as changes to the building over time, or the construction lines depicting the geometry of the Georgian facade. Menokin could even finish off the week for local residents with a picnic on the front lawn where they can watch the latest movies on the facade.

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Brice House offices

Photo credit: Charles Phillips

Glass and carbon fiber prostheses for amputated/truncated structural members will allow them to be put back into service and in place so that the original structural system, once refitted within the ruin, will make sense. These members will be much more valuable as artifacts of a system rather than conserved individually on a shelf in a building at a distance from the ruin.



Menokin: Model view (left) and today (right)

Photo credit: Charles Phillips

We were talking up the concept of a glass house at Menokin when I saw a photo of the Apple store on 5th Avenue and realized that it is bigger than Menokin. This was a scale that people could get their minds around. If a picture is worth a thousand words, what is a model worth? So we made one.

Renowned structural glass engineer, Tim MacFarlane who engineered the Apple Store quickly saw the possibilities when we discussed the idea over breakfast before his lecture to a glass conference at Corning. He is now a member of the team and we are off and running. This project is allowing the whole team to stretch in material conservation, and designing ways to test the structural capacity of repairs to severely compromised structural elements.

If you remember the models of *The Visible Man*, and *The Visible Woman*, you can envision Menokin as *The Visible 18th Century House*. The story of Menokin is way too large for this article. The history, the green engineering and design going into this "green house," the salvage and preservation of the interiors before collapse, and the material conservation program are all major articles by themselves, so visit the website: www.menokin.org for more information and updates.



*Menokin Harry Ransom Center
detail*

Photo credit: Charles Phillips



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The Graduate Program in Historic Preservation at the University of Texas at Austin

by Michael Holleran and Frances Gale

The University of Texas at Austin's School of Architecture has taught Historic Preservation for nearly fifty years, beginning with an informal emphasis through courses taught by Blake Alexander (whose collections formed the nucleus of today's Alexander Architectural Archive), Eugene George and others. By the mid-1970s, preservation was organized as a track within the Master of Architecture, under the leadership of Wayne Bell, FAIA. UT's collection of historic structures at Winedale Center served as a summer preservation laboratory, including a HABS documentation studio that earned a number of Peterson Prizes.

In the early 1980s, the School began to offer historic preservation through a new degree, the MS in Architectural Studies. The MSAS opened preservation education here to students from a variety of backgrounds and expanded the program to encompass the variety of preservation professions: not only architects, but also historians, planners, conservators. In 2002 the degree was formalized as an MS in Historic Preservation (other smaller degrees born of the MSAS include Architectural History and Sustainable Development). The MSHP is available as a post-professional degree or a stand-alone professional degree. The core curriculum gives a thorough grounding in the four major areas of preservation: history and documentation, design, planning and policy, and materials conservation, with the opportunity to pursue one or more in greater depth.



MSHP student Michelle Stanard evaluates masonry repair materials in UT's Architectural Conservation Laboratory

Photo credit: Fran Gale

Last year UT brought on board two new preservation faculty; Michael

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Holleran as program director, and Fran Gale as director of our Architectural Conservation Laboratory. Holleran came from the University of Colorado, where he started the graduate preservation program in the College of Architecture and Planning. He is an historian of preservation and of landscapes whose work won the Antoinette Downing Award from the Society of Architectural Historians. He earned a PhD in planning at the Massachusetts Institute of Technology, served as Associate Dean of Research in Colorado, and founded the Colorado Center for Preservation Research. Gale, the first full-time director of the Conservation Lab, is a graduate of Columbia's preservation program. She was formerly Director of Training at the National Park Service's National Center for Preservation Technology and Training, and Technical Director at Prosoco, a manufacturer of products used in building restoration. Holleran and Gale each spent years in private practice.

With expanded faculty has come a renewed program. Architectural materials conservation has long been a strength at UT, and a grant from the University Co-op provided funds for a state-of-the-art facility. Additional support from the campus has expanded the lab's capabilities, and we now serve as an in-house consultant for UT campus projects, giving students a continuing window into historic property management on an 11 million square foot study area.

We also have returned the UT program to its design roots, reviving the M.Arch. preservation certificate from which the program originated (we have added a parallel specialization within the planning masters). The certificate gives an M.Arch. graduate a strong preservation background without the investment of time for a dual degree. Last fall we offered a preservation studio, with a focus on both architecture and communities. Students prepared designs for rehabilitation of Main Street buildings in Cuero, Texas, and for Austin's exuberantly Art Moderne 1939 Bohn House. They investigated removal of a 1970s slipcover from the Prairie-style Byrne-Reed House as a new headquarters for Humanities Texas. All MSHP students now take at least one studio, and many are taking more than one.

UT early launched a preservation PhD, at first building on the faculty's strength in architectural history. History and theory – now including landscape as well as architecture – continue as a strength, particularly in modernism and twentieth-century resources around the world. New faculty and interdisciplinary collaboration have allowed the doctoral program to grow to address research on emerging issues in practice, in preservation policy and the economic, social and environmental dimensions of sustainable preservation. Texas, with six of the country's 21 largest cities, is an excellent place to study preservation in an environment of urban growth.

Students come from around the world to study preservation at UT-Austin, and we provide our students opportunities to study in a variety of international settings. Studio Mexico is a longstanding interdisciplinary initiative of the School of Architecture; last year preservation students worked on rehabilitation of an 18th-century hacienda in the Valley of Teotihuacán. One student has taken up the institutional planning and fundraising for the project as a thesis. Several preservation students have worked at UT's Institute for Classical Archaeology sites at Chersonesos in the Ukraine and Metapontum in Italy. Another designed the adaptive use of a 15th-century chapel in Umbria as a town library. One is studying this semester in Turkey. Other programs are available or under development in China, France, and the Dominican Republic. Our Mebane Travel Scholarship

supports student work abroad.

A major new initiative this year is a campus preservation plan funded by the Getty Foundation. The Getty Campus Heritage program has supported dozens of college and university preservation plans (UT's is the first in Texas). The capabilities of our faculty, and our working relationship with campus architects and planners, allows UT's plan to be led by the preservation program. Our outside partner for the project is Volz & Associates, an award-winning preservation firm based in Austin.

The project provides an opportunity for students to work with a team of professionals in shaping the future of our extraordinary architectural and landscape resources. During the Fall 2007 semester, students participated in the project through research in a National Register documentation course, and in a field methods course that studied building materials, construction methods, and existing conditions of these historic buildings. In Spring and Fall of 2008, students will investigate cultural landscapes. At the conclusion of this two-year project, the completed preservation plan will establish a framework for helping the University preserve the historic and cultural heritage of the campus.