Arrested Decay
CURATING A MOMENT IN TIME

Righting Wright
SAVING A CALIFORNIA MASTERPIECE

Culture at a Crossroads
PRESERVING A WAY OF LIFE IN MALI
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FALL 2005

WORLD MONUMENTS

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ON THE COVER

Bodie, California, a nineteenth-century ghost town and 1998 World Monuments Fund Watch site © Berthold Steinhilber

Founded in 1965, the World Monuments Fund is dedicated to the preservation of imperiled works of art and architecture worldwide through fieldwork, advocacy, grantmaking, education, and training. A New York-based organization, WMF has affiliates and offices in France, Portugal, Spain, and the United Kingdom.
Too Little, Too Late

POST-WAR BUILDINGS SLATED FOR DEMOLITION

Nine modern buildings and sites appear on the 2006 World Monuments Watch list. One of them—Frank Lloyd Wright's Ennis House—is facing a brighter future thanks to the creation by a powerful consortium to save it, the Ennis House Foundation supported by actress Diane Keaton (see page 14). Two others—Richard Neutra's Cyclorama Center at the Gettysburg Battlefield and Edward Durell Stone's post-modern museum at Two Columbus Circle in New York—may soon become part of history as preservationists' efforts to protect them are exhausted and the dates for their planned demolition near. These are two of the first sites in the 12-year history of the World Monuments Watch list to be definitively lost. But, as we have noted in previous issues of ICON, modern buildings are a special case.

The Cyclorama Center and Two Columbus Circle—aesthetic and philosophical opposites—have a few things in common. Both were intended to embody a grand vision. Huntington Hartford, who commissioned Two Columbus Circle, asked architect Edward Durell Stone to build a "Guggenheim on the West Side." The architect's marble-clad design was clearly intended to challenge the spare functionalist ethos of Modernism, which he had once embraced. The Cyclorama Center was envisioned by Neutra to be a living symbol of the spirit of Lincoln's Gettysburg Address and an international gathering point for talks about reconciliation.

Both buildings were controversial from the moment of their completion—the Stone building derided by critics, the Neutra center dismissed as unusable by the agency that commissioned it, the National Park Service. Both buildings fell under the stewardship of public entities that loathed them and ignored the responsibilities of maintenance and productive use. Today, both are in a state of advanced dereliction today that would have made conservation a challenge even if a more sympathetic steward had emerged. Both have attracted vocal advocates for their preservation. In the case of Two Columbus Circle, every national and international preservation organization with a purview, as well as leading critics and academics, supported the preservation of the building. In the case of the Neutra building, historians of modern architecture solidly and consistently deplored the government's decision and regretted even more the mediocre new structure that will be built now to replace it.

From the perspective of WMF, the most important communality is the fact that both buildings were condemned to demolition without a comprehensive review of their significance, which might have led to their permanent designation and protection. When Neutra's building eventually was determined eligible for National Register listing, it was too late to alter the decision to demolish it. In the case of Two Columbus Circle, the New York City's Landmarks Preservation Commission consistently refused to convene a public hearing in spite of repeated calls for public review.

As demolition plans proceed, and the dates closely coincide, the buildings will be inevitably coupled as examples of the loss of significant modern buildings, while bewildered enthusiasts for the buildings stood by unable to influence public process. But will their histories just reinforce a treacherous trend, or create a new moment of public awareness and concern for recent buildings?

Other modern buildings on the Watch list are slipping closer to irretrievability. Moscow's Narcomfilm Building, an architectural icon, is being emptied of its residents by the municipality in preparation for demolition. The Malmi Airport in Helsinki has been landmarked, but the loss of surrounding land and facilities deprives it of its capacity to continue its original and intended function. Its survival is far from certain. All this makes the new foundation for the Ennis House an especially welcome development, and it shows what a difference a committed steward can make as other buildings from the modern era come to the brink, as they surely will continue to do. We hope this lesson will be remembered.

Bonnie Burnham
PRESIDENT
EXPLORE ANTARCTICA'S HERITAGE
ONBOARD THE ICEBREAKER KAPITAN KHLEBNIKOV

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for centuries if not millennia, peoples around the globe have developed and maintained cultural traditions that have not only sustained their practitioners but in more recent years have garnered the admiration of those visiting from the outside. According to the World Tourism Organization, an agency of the United Nations, cultural tourism is the number one industry in many countries and the fastest-growing economic sector in terms of foreign exchange earnings and job creation. Tourism stimulates significant investment in infrastructure, which in large part helps to improve the living conditions of local people. Yet, left unchecked, increased exposure to the outside world can have a detrimental effect, eroding traditional lifeways and exacting an extraordinary toll on the very sites so many have come to see.

This issue, we journey to the Mali’s Bandiagara Escarpment (see page 40), where extraordinary geography and human genius have conspired to create one of the world’s great cultural landscapes. Until the mid-twentieth century, the Dogon cliff dwellers who currently inhabit the escarpment had experienced very little contact with the outside world. In recent decades, however, the modern world has arrived in Dogon Country, bringing with it the benefits of higher education, improved healthcare, and enhanced agricultural production. Unfortunately, some of these “benefits” have come complete with infrastructure ill suited to this extraordinary, yet fragile landscape.

While WMF’s primary focus has been on carrying out actual restoration projects, more and more sites in our portfolio require assistance in the form of advocacy, development planning, and tourism management so that disaster is averted before it has struck. Through the creation of well-reasoned management plans, drafted with the participation of the stakeholders involved, WMF has been able to assist many sites in charting a course that ensures the protection of the cultural elements we hold most dear. Inheritors of a legacy that stretches back millennia, the Dogon are indeed at a crossroads, challenged to choose a path that will ease an often difficult life, while preserving the very essence of what makes them unique. With WMF’s assistance they just might succeed.

Angela M.H. Schuster
EDITOR
WATCH SITE UPDATE
Nearly a Decade after Watch Listing Fort Apache Gets its Due

After two years of negotiation the federal government has agreed to spend $12 million to fix the deteriorating buildings and grounds at Old Fort Apache, an historic Arizona military outpost on Native American land just south of Whiteriver. The settlement comes after the U.S. Supreme Court ruled two years ago the White Mountain Apache could sue the Interior Department for failing to take care of buildings at the historic fort since 1960, when Congress made the department a trustee of the site.

Established by President Grant in 1871, the Fort Apache Reservation became the base from which the U.S. Army, with the help of White Mountain Apache scouts, pursued renegade Apache bands in an effort to settle the West. About 7,500 acres were carved from the reservation in 1877 specifically for the fort.

Fort Apache later became a symbol of the pacification of the Old West through numerous films, including John Ford's 1948 film starring John Wayne.

Today, there are more than 30 buildings at the fort, including the officers' barracks, parade grounds, and stables used by the cavalry that first occupied the compound, as well as an Indian school.

Although Fort Apache has been one of Arizona's most popular tourist destinations, most of its buildings had fallen into ruin, prompting WMF to place the outpost on its 1998 list of 100 Most Endangered Sites. An American Express grant of $80,000 underwrote a masterplan for preserving the site, laying the groundwork for the current preservation campaign.

WATCH SITE UPDATE
The Beginning of the End of Battersea?

For more than 60 years, the four white chimneys of Battersea Power Station have been a distinguishing feature of South London's riverscape. However, Parkview International, the current owner of the power station, which was included on WMF's 2004 list of 100 Most Endangered Sites, have submitted proposals to have the chimneys demolished and rebuilt in replica with the backing of none other than English Heritage. WMF, the Twentieth Century Society, and Battersea Power Station Community group have joined together to produce a report on the viability of repairing the original chimneys as they are, questioning the conclusions of Parkview and English Heritage, which have declared the chimneys beyond repair and structurally unsound.

The WMF-funded report noted that the owners had never seen inside the chimneys, had extrapolated their findings on the condition of one chimney alone, and had misunderstood the causes of the cracks in the chimneys.

—Will Black

WATCH SITE UPDATE
Vigil for Neutra's Cyclorama

The Recent Past Preservation Network, a non-profit dedicated to saving significant postwar buildings, and Design Within Reach, a manufacturer of modern furniture, recently teamed up in a last-ditch effort to preserve the Cyclorama Center at Gettysburg Battlefield, a 2006 WMF Watch site slated for demolition early next year. The group recently hosted Modern Misfits, a gala event aimed at publicizing the plight of the Cyclorama, in hopes of saving it.

Commissioned by the U.S. Park Service, the Cyclorama Center, which closes to the public on November 20, 2005, was designed by Richard Neutra to house a large 360° rendering of Pickett's Charge, the last battle of Gettysburg by French artist Paul Philippoteaux.

While the building has been hailed as a modernist masterpiece, it has fallen into disrepair in recent years as a result of poor maintenance. Those arguing for its demolition contend that its location atop the actual battlefield, which they consider hallowed ground, violates the sanctity of the site.

Prior to its destruction, WMF plans to fully document the Cyclorama for archival purposes. To join the campaign, madridfrench@recentpast.org
**GLOBAL BRIEFING**
Highlights of WMF’s work around the world
compiled by Holly MacCammon

**CASTLE SINCLAIR-GIRNIGOE** Work to stabilize the sublime ruins of this late fifteenth-century Scottish Castle is elucidating the complex construction history of the one-time seat of the Earls of Caithness, which overlooks the North Sea. Among the surprise finds to come to light have been the remains of what may have been a small chapel with a raised altar and small porter’s lodge, both of which were hitherto unknown. The project (see ICON, Fall 2003) has been supported by WMF through its Robert W. Wilson Challenge to Conserve our Heritage.

**PIŃCZÓW** Conservators cleaning and consolidating murals in the women’s gallery of this seventeenth-century synagogue in the heart of Poland were surprised to find 23 tiny scrolls—many with Hebrew inscriptions—that had been placed between masonry blocks, most likely at the time of the chamber’s construction. The mysterious documents are now being conserved and studied as part of the ongoing restoration project, which has been supported by WMF through its Jewish Heritage Grant Program.

**SHAXI MARKET TOWN** Rehabilitation of this mid-Qing Dynasty entrepôt on the legendary Tea and Horse Caravan Trail, placed on WMF’s 2002 list of 100 Most Endangered Sites, has attracted the attention of UNESCO, which recently bestowed its 2005 UNESCO Asia-Pacific Heritage Award on the site. Jacques Feiner and the Swiss team carrying out the work at Shaxi (see ICON, Summer 2004) are supported by WMF through its Robert W. Wilson Challenge to Conserve our Heritage.

**OMO HADA** Following the tsunami that struck Southeast Asia in December 2004, American Express and the U.S. Ambassador’s Fund have awarded grants toward the preservation of two nineteenth-century traditional stilt houses on the Indonesian island of Nias (see ICON, Summer 2003). Despite their delapidated state, the houses proved far more resistant to seismic activity than their modern counterparts. WMF hopes these restoration projects will help foster a revival of a vernacular form so ideally suited to its environment.

**SAHRIJ AND SBEYIN MADRASSAS** Nearly 700 years after their construction, these schools of Islamic learning at Fez are finally receiving the attention they desperately need. Their masonry has been weakened by centuries of exposure to humidity and seismic activity. Development of a conservation plan, which has been supported by a $75,000 grant from American Express, began this October and is slated for completion in June 2006.
ANTEDILUVIUM

Turkey’s Ancient Allianoi Threatened with Innundation

If all goes according to plan, an irrigation basin created by the construction of the Yortanli Dam on the Ilya River will soon flood the ancient Roman city of Allianoi, destroying one of the most important ancient spas in Turkey’s Pergamon region. First settled in the late Hellenistic period, the site, 18 kilometers from Bergama, flourished under the reign of the Roman Emperor Hadrian (A.D. 117-138), who carried out an extensive building program there. Standing architecture includes a Roman bath complex preserved to a height of two stories, a courtyard with six columns, well-preserved floor mosaics, and a Roman bridge.

According to Turkish and German archaeologists working at the site, the Yortanli Dam could be relocated to a more suitable site without compromising the hydroelectric power it is expected to generate. Yet, Turkish authorities have shown little interest in protecting the site. Europa Nostra, a European federation for cultural heritage, has joined forces with the International Council on Monuments and Sites (ICOMOS) in launching an on-line campaign to save the site. So far, 35,000 signatures have been collected, 30,000 of those from Turkish citizens. Aside from merely preserving the site, Europa Nostra argues Allianoi has great potential for cultural tourism development in the area, monies that could contribute to sustainable development of the entire region. To follow the campaign to save the site or to sign the Europa Nostra petition, visit, www.europanostra.org/save_allianoi.html

AMHS

SPOTLIGHT ON AFRICA

Traditional Architecture in Focus

This October, Senegal set the stage for a meeting of conservators specializing in indigenous African architecture. The conference, the sixth in a series, was held as part of Africa 2009, an initiative launched by ICCROM and CRA-Terre EAG, the Center for Earthen Architecture at the University of Grenoble in France. The long-term aim of AFRICA 2009 is to improve conditions for the conservation of immovable heritage in Sub-Saharan Africa by better integrating it into a sustainable development process. For information on future programming or for proceedings of previous meetings, visit: www.iccrom.org/africa2009/ or write: africa2009@iccrom.org

AMHS

EXHIBITION ANNOUNCED

Perm 36 takes Center Stage

This coming Spring, the Gulag Museum of Perm, Russia, and the National Park Service (NPS) are co-producing a traveling exhibit, GULAG: Soviet Labor Camps and the Struggle for Freedom, the aim of which is to educate Americans about the important history of the Soviet Union’s notorious forced labor-camp system and its impact on Russia and the world today. The Gulag Museum based at Perm-36 (see page 30), one of a vast network of labor camps, which was included on WMF’s 2004 list of 100 Most Endangered Sites (see ICON, Fall 2003). At the height, the Gulag system imprisoned or internally exiled more than 5 million citizens. Aside from repressing political opposition, the system provided the labor needed to fuel the Soviet Union’s economic engine. Dismayingly, this history remains largely unknown to most Americans despite the international attention given to the writings of Alexander Solzhenitsyn and more recently, Anne Applebaum, whose book, Gulag: A History, won the Pulitzer Prize. The exhibit will feature archival footage and photographs, full-scale re-creations of prison camp cells, prisoner artwork, maps, and artifacts related to daily camp life. Following its New York debut on Ellis Island in February 2006, the exhibit will travel subsequently to Boston; Atlanta; Topeka; Independence, CA; and Washington, D.C. For an exhibition schedule, contact: louis_hutchins@nps.gov
CONTROVERSIAL CONSERVATION?
Space-Age Superstructures to Protect Lalibela

Four years after winning an international competition to design shelters for five twelfth-century rock-hewn churches at Lalibela, the Italian firm, Teprin Associates, has presented the details of its experimental design to the Ethiopian Ministry of Culture.

Underwritten by a $7 million contribution from the European Union, the project aims to arrest the deterioration of five churches—Bete Mariam, Bete Medhanealem, Bete Amanuel, Bete Libanos, and Bete Meskel—by shielding them from the corrosive effects of wind and rain.

According to Teprin project director, Mario Sarti, panels of translucent Tevlar burlap are to be stretched across the churches and held in place by steel cables, which, in turn, will be anchored to pylons placed at each corner of the site. While conservation professionals have argued for protection of the churches, which were inscribed on UNESCO’s World Heritage List in 1978, many have noted that simple shelters do not address the primary problem plaguing the site, namely chemical changes in the tuff from which the sanctuaries are carved wrought by humidity, revealed in a recent UNESCO study. To solve the problem will require the development of a conservation intervention to address stone degradation.

“While temporary shelters are needed,” says Francesco Bandarin, of UNESCO’s World Heritage Center in Paris, “they constitute only a partial solution to the problem. I think the results of recent studies call for a revision of the original project, which gave prominence to the need of building permanent shelters.”

Beyond the enormous cost to produce the proposed shelters, they will have a significant visual impact on the area of the churches, due to their extraordinary size and height.

“It is clear,” says Bandarin, “that conservation efforts should be focused on finding a permanent and sustainable method to stabilize and preserve the tuff. In the meantime,” he adds, “a more cost-effective means to temporarily protect the site from the elements should be found. I believe that the Government of Ethiopia has the opportunity at this stage to reconsider the project and its objectives.”

—AMHS

MONUMENTAL MAKEOVER
Mt. Rushmore Gets a Facial

Among America’s most famed monuments, the colossal heads of presidents George Washington, Thomas Jefferson, Theodore Roosevelt, and Abraham Lincoln, which grace the face of Mount Rushmore near Rapid City, SD, are brightly shining, having been stripped of the lichen, algae, and moss, which had discolored the granite sculptures in recent years. The 18-meter-high portraits, carved by Gutzon Borglum between 1927 and 1941, were given the high-tech facial between July 4 and August 1, 2005, not only to enhance their beauty but to prevent damage to the underlying rock, which can rapidly degrade if biological growth is left untended.

The cleaning—undertaken by Kärcher, a German company that manufactures pressure washers, and the National Park Service, which manages the historic site—was carried out using high-pressure washers and boiling water. “Our goal,” said Frank Schad, a spokesman for the company, “was to remove the layers of dirt and biological growth, without affecting the actual surface of the sculptures.”

Over the past two decades, Kärcher has cleaned other well-known monuments such as the Colossi of Memnon at Luxor, Egypt; Berlin’s Brandenburg Gate, and the base of the Statue of Liberty in New York.

—AMHS
IN KATRINA'S WAKE
The Effort to Preserve Gulf Coast Heritage

text and photographs by MORRIS HYLTON III

The eye of the hurricane came ashore just east of Bay St. Louis, Mississippi. Seventy-five-year-old resident Dorothy Phillips was there to see it. She had decided to ride out Katrina in her waterfront, antebellum home on the town's elegant Beach Boulevard. Like many residents of the small towns and cities of the Mississippi coastline, her decision to stay was based upon her experience with Hurricane Camille in August 1969. For more than a generation along the Gulf Coast, Camille, one of only two Category 5 hurricanes to make landfall in the continental United States in the twentieth century, has remained the storm by which all others are compared.

Katrina was different. The storm surge, as high as ten meters in some areas, devastated Bay St. Louis and other small Mississippi coastal towns like Pass Christian and Ocean Springs. Historic properties that had survived Camille and other powerful storms were lost to Katrina. Phillips's timber frame home was badly damaged. The front porch or “gallery” was washed away along with many of her neighbors’ homes. In Louisiana, flooding devastated the Mississippi Delta, and left New Orleans' historic neighborhoods, like the Lower Ninth Ward, under as much as three meters of water. Responding to the scale and severity of the destruction, World Monuments Fund has added the Gulf Coast and New Orleans as the 101st site to its 2006 list of 100 Most Endangered Sites.

In October, I traveled to the Gulf Coast as a representative of the World Monuments Fund along with Rudy Christian, a master timber framer and vice president of Preservation Trades Network, the nation’s lead organization representing the traditional building trades. It had been two months since the storm and the clean-up was still in progress. The amount of debris that remained was incredible. We saw flattened buildings, destroyed cars, fallen trees, and personal belongings scattered at random.

Christian and I toured historic districts in New Orleans and Mississippi...
as part of a unique partnership between WMF, the National Trust for Historic Preservation, and the Preservation Trades Network to address the damage to the built heritage of the Gulf Coast and New Orleans in the aftermath of perhaps the worst hurricane to strike the U.S. The joint effort is funded in part by a grant from American Express.

WMF is taking the lead to implement a series of restoration projects along the devastated Gulf Coast. These restoration projects will focus on historic building types that are common to the region, such as the vernacular cottages of Mississippi and shotgun houses of New Orleans; and typical post-disaster conditions, including structural destabilization caused by wind and mold resulting from flooding. They will serve as pilot projects. Information about the preservation methods and resources used during the restoration will be widely distributed to area owners planning the rehabilitation of their historic buildings. In addition to providing technical assistance, these model projects will also help to advocate for the preservation of the region's historic architecture as a critical component of the long-term reconstruction effort and to demonstrate the power of cultural heritage preservation in reuniting communities in a shared goal. Wherever possible, the projects will engage and involve area residents and incorporate opportunities for education and training.

During our visit, Christian and I worked with local partners including Preservation Resource Center of New Orleans, the city's Historic District Landmarks Commission and the Mississippi Heritage Trust to identify a number of potential sites as restoration projects. Our first stop was New Orleans, a city still struggling with recovery efforts. At the time of our visit, less than one-fifth of the city's nearly 500,000 population had returned. Outside of the French Quarter, Garden, and Business Districts, which sustained only minor to moderate damage thanks to their higher elevations, most neighborhoods remained uninhabited.

Guided by Elliott Perkins, acting executive director of the city's Landmarks Commission, Christian and I viewed first-hand the impact on New Orleans' historic architecture, from the nineteenth-century creole cottages and shotgun houses of Faubourg Tremé and New Marigny to the early twentieth-century bungalow-type cottages of Mid-City and Broadmoor. These vernacular wood buildings—whose architecture ranges from the ordinary to the audacious—are as much an integral part of the culture of the city as are its celebrations, music and food. They lend the more renowned French Quarter and Garden Districts their context.

We concluded a full day of touring New Orleans' historic neighborhoods by visiting the Ninth Ward, which was heavily damaged by the levee breach that occurred along the Industrial Canal, particularly the "Lower Ninth." The community closest to the breach, the Lower Ninth was decimated by the force of the water. Much of the neighborhood simply no longer exists. Many of the shotgun houses and other residences that remain were shifted off their foundations. The entire area was flooded with as much as three meters of water for more than a month. Sections of the neighborhood remain closed to public access, guarded by military reserves. Residents have not been allowed to return. During our visit we saw a bus filled with evacuees from the Lower Ninth who were being allowed to tour the remains of their community and homes. Plans for the rehabilitation and rebuilding of the neighborhood are uncertain. But whatever decisions are made here will have an impact on the Ninth Ward's Holy Cross neighborhood, a National Register and local historic district. Architecturally,
the neighborhood is defined by its nineteenth-century shotgun houses and early twentieth-century cottages. The neighborhood is also known for a pair of unique “Steamboat Gothic” houses built along the Mississippi by riverboat captains in 1912.

Floodwater levels exceeded a meter in the district. But Holy Cross, like many neighborhoods in New Orleans, is threatened as much by pre-catastrophe conditions as contaminated wood and mold caused by flooding. Many historic residences were in a state of advanced disrepair or derelict, abandoned by owners and damaged by the region’s tropical climate and formosa termites before the hurricane. In the continued aftermath of the catastrophe, there is a concern that the pre-existing conditions of much of New Orleans’ historic architecture will be used as a rationale for its demolition. The survival of the city’s architectural legacy will depend in part on the resumption of pre-disaster programs focused on the rejuvenation of New Orleans through the rehabilitation of its historic housing.

Since 2002, the Preservation Resource Center of New Orleans has been working in the Holy Cross Historic District to rehabilitate dilapidated houses and sell them to low and moderate income families. The Center’s Operation Comeback promotes the purchase and restoration of blighted historic homes citywide in New Orleans. As the focus of the demonstration project, we have proposed to augment the existing Operation Comeback program and restore a double shotgun house on Dauphine Street, already owned by the center, which has rehabilitated two properties on the same block. Any funds obtained by the eventual sale of the house will be directed to another property in Holy Cross.

In Mississippi, we met David Preziosi, executive director of the Mississippi Heritage Trust, and Lou Linden, consultant to the National Trust For Historic Preservation. The two were our guides in the historic town of Ocean Springs.

Our first stop was the Sullivan-Charnley Historic District, a compound of two houses and, before Katrina hit, a series of cot-
 Constructed between 1890 and 1910 by renowned Chicago architect Louis Sullivan and his family's closest friends, the Charnleys, the houses and cottages are known as much for the dispute over the authorship of their designs as for their shingle-style architecture. Both Louis Sullivan and his then-apprentice Frank Lloyd Wright took credit for the design of the houses and cottages in their autobiographies. But only the Charnley House survived Katrina, albeit in a ruined state. Owners Tom and Peggy Butera are salvaging the remains of the Charnley Cottage, their former home, in the hopes that the next owner will reconstruct it.

Our second stop in Ocean Springs was the Shearwater Pottery National Register Historic District. There is a strong tradition of art pottery along the gulf coast of Mississippi. One especially important figure in the history of Gulf Coast pottery is Annette McConnell. A graduate of the renowned Newcomb College of Pottery in New Orleans, McConnell and her husband George Walter Anderson purchased the Shearwater Pottery site with its antebellum house and waterfront views just after the turn-of-the twentieth century. The Anderson's son Peter established his pottery studio here and was later joined by his brothers James and Walter.

At the Shearwater property we met with descendents of the three brothers, who still live in a family based artist's colony here. The compound and nearby Walter Anderson Museum were a vital part of an arts community that had flourished in Ocean Springs prior to the hurricane. Three of the homes that make up the compound were completely destroyed, swept out into the Gulf. Walter Anderson's cottage, which could date to 1830, was forced off its foundation by the storm surge. Pottery studios and kiln barns on the site were also significantly damaged.

Our last visit was to the Beach Boulevard Historic District in Bay St. Louis, Mississippi, which was particularly hard hit by Katrina. A town of approximately 8,200, Bay St. Louis has five national register historic districts which together have some 400 historic buildings. The historic residences of the Beach Boulevard Historic District in particular are of a rich variety of architectural styles dating from 1790 to 1940, including large ornate buildings in the Greek Revival, Queen Anne, Colonial Revival, and Mission styles. Modest vernacular cottages are some of the oldest surviving structures in the town.

While admiring the exposed timber frame of Dorothy Phillips' ca. 1840 home we had a chance meeting with her daughter Noel and son-in-law Dennis Fell. They had come to the house for the eighth straight weekend to clean up the property and apply a temporary tarp roof with the hope that the original interior finishes—including lime-based plaster with horsehair binder—could be saved. The meeting ended with an examination of a neighboring cottage partially demolished by a fallen live oak. Christian used joinery and layout techniques to determine the origins of the craftsman and the approximate date of construction, giving the small group that had gathered an impromptu lesson on timber frame construction.

Forgetting the destruction that surrounded us, everyone became excited by this palpable connection with history. And although unspoken, I am certain everyone present walked away better understanding the singular role preserving the built heritage must play in reconstructing the Gulf Coast. We've chosen Phillips' home as a site for one of our pilot demonstration projects.
That list of must-see Maya ruins in Mexico and Central America, add the Ennis House in Los Angeles. The temple-like romanza of pyramiding volumes and battered walls designed by Frank Lloyd Wright grows up from a plateau the architect built in the Los Feliz hills overlooking the city. Last year, record rains exacerbated the damage caused in 1994 by the Northridge earthquake, and the once timeless, seemingly imperturbable monument, inspired by Pre-Columbian architecture, precipitously deteriorated. The high plinth on which the house appears to rest lapsed, great expanses of its south face shearing off the cliff-like base. Other façades on this apparently solid but vulnerable structure now resemble sugar cubes in melt-down. This is one of those monuments that doesn't look better as a ruin.

A milestone of invention in Wright's career and a major monument even in this architecture-rich city, this haunting evocation of a distant and exotic Americand past was designed at a time when modern artists were looking at the African masks and sculpture of "primitive" cultures for inspiration, and when sensational discoveries in Egypt were capturing the popular imagination. Wright picked Maya architecture because the temples were indigenous to the Western hemisphere.

A designated national, state, and local landmark, the Ennis House climbed onto the World Monument Fund's list of 700 Most Endangered Sites in 2004. With the most recent damage, building inspectors "yellow-tagged" as unsafe parts of the retaining wall, motor court, and chauffeur's quarters.

Famously used as a set for Ridley Scott's Blade Runner and Black Rain and John Schlesinger's Day of the Locust— as well as many horror movies and fashion shoots—it can no longer host any income-producing shoots or public visits.

The Ennis House is one of five textile block structures built by Wright in Los Angeles and nearby Pasadena in the 1920s, as he reinvented himself with a silver-bullet material that would at once act as structure, enclosure, and decorative surface.
would use versions of block throughout his career, always changing and modifying its application. Related to today's concrete blocks, the textile blocks in Los Angeles—made of cement and, in the case of the Ennis House, an aggregate mixed with decomposed granite to match the color of the hills—were cast on site like miniature sand castles in molds that left complex, sometimes jazzy geometric surface imprints.

Wright had used poured-in-place concrete earlier in, for example, the Unity Temple, but the technique was labor-intensive and time consuming, and discouraged surface patterns. In Los Angeles he arrayed the blocks inside and out in patterns that recalled the textured hand-carved decoration of his Imperial Hotel in Tokyo. Using blocks rather than poured concrete, the architect could eliminate the labor-intensive board-forms of cast-in-place technology. What was essentially on-site factory manufacture and assembly would, in theory, limit trades and reduce construction while generating surface patterns similar to those at the Imperial Hotel, achieved through the laborious process of skilled carving.

In Pasadena, the first of Wright's local textile-block houses, the Millard residence—tarped now and awaiting restoration—leaked from the beginning, according to architecture historian Robert Sweeney, author of Wright in Hollywood. In this and subsequent houses, the causes of water penetration were multiple, and the biography of each house tells a different version of a similar tale. "As Tolstoy wrote, each unhappy family is unhappy in its own way," says Jeffrey Chusid, a preservation architect now finishing a book on the restoration of Wright's Freeman House in the Hollywood Hills, owned by the architecture school at the University of Southern California.

Problems started with the actual fabrication of the blocks. Chusid notes that the blocks incurred hairline cracks even as they were evicted from their molds with the stroke of a mallet: the cracks eventually became conduits for water. Furthermore, the blocks were insufficiently compressed when cast, and not properly hydrated and cured, so they proved porous, thirsting like sponges. All but the Millard House were laid without mortar at their seams; water also penetrated at the joints.
Except for Millard, which has no steel reinforcing, a grid of rebars lying in grooves at the sides of the blocks reinforced the wall structure. But when the grooves were packed with grout to bind the steel and the block, not all the crevasses were completely filled, which created small air pockets that collected water penetrating the wall. The consequent pooling, aided and abetted by the acidity of Los Angeles' rain, has caused the steel reinforcing bars inside to rust, which has exploded the interior grout, starting a deterioration that has proved progressive. The result is a ring fracture which splits the block in two, like slicing a bagel. On the back face of the Ennis House, the outer half of the block characteristically pops off because of a failure where the steel rebar collars the block, leaving half the block in place. The combination of the concrete's softness and consequent porosity, its brittleness over time, and the creeping rust inside the walls causing ring fractures creates the conditions for a structural cancer growing within the wall.

The USC architecture school, guided until recently by its dean, the late Robert Timme, has taken the long preservation view for the Freeman House, and is now in the process of building new foundations and a supporting structure. In this interpretation, the blocks are being re-applied as a veneer on the new reinforced concrete armature. Expensive and complicated, the process will save the house many earthquakes into the future, though the structural redesign undercuts the original intention of using block as a one-stop, cost-saving mono-material intended to do it all. Saving the Freeman House meant defeating the principle. The restoration project doubles as a study program: using the original molds, students have been casting new blocks.

Nearby, the Storer House, restored by film producer and architecture buff Joel Silver,
TEXTILE BLOCKS OF DECOMPOSED GRANITE, USED BOTH INSIDE AND OUTSIDE OF THE HOUSE, BEGAN TO DETERIORATE AT AN ALARMING RATE FOLLOWING THE APPLICATION OF CEMENTACEOUS PLASTIC, WHICH HAS TRAPPED MOISTURE WITHIN THE BUILDING ELEMENTS.
Brian Curran, a preservationist who serves as the West Coast consultant for the World Monuments Fund, says, "The rains turned what was an exterior problem, which was being dealt with, into an interior disaster, compounding the problem. Wright's art glass windows are now threatened as the sills swell with water, and the woodwork and mosaic tiles on the fireplaces are all affected by the water ingress. As the trust puts out one fire, another emerges. It's a race against time. The interior problems will provide the trust with issues for decades."

The current effort at the Ennis House is aimed at stabilizing the house according to plans already prepared by Eric Lloyd Wright, who has worked on rehabilitating most of his grandfather's textile block houses in Los Angeles. The 1994 earthquake weakened the house in several places, including the forecourt wall, portions of the house's south wall, and the south wall of the majestic plinth. Fortunately the plinth, which forms the visual foundation for the house, is not structural to the house, which has its own independent foundations.

Still, the damage is extensive, and growing. Wright's plans call for rebuilding the south wall of the plinth, reinforcing the structure under the forecourt, and replacing the living room exterior south wall, where a temporary steel beam now keeps the wall from separating from the main structure. FEMA money already available is, unfortunately, insufficient to execute Wright's plans and repair the immediate damage.

"Is it savable?" asks Wright. "Sure. We've been working with the trust to stabilize the house, and rebuild the whole forecourt, roofs, and exterior wall, which will stabilize the house. But the problem with the sealant, that's for another future. The main thing is the walls affected by the earthquake and the rains." Halting further deterioration and restoring the exterior will require what Wright historian Kathryn Smith calls a "heroic" effort, simply because of the size of the monumental structure and its acropolis of terraces. One estimate on restoring the entire structure, with its 24,000 blocks, many of them spalling, points to a $10 to $12 million price tag.

The immediate goal, however, is the stabilization of the house, but until recently, fundraising efforts fell short. Federal and state funds and a Getty grant amounted to $2 million less than the estimated $5 million construction price necessary for stabilization. The federal component, in the form of FEMA funds, also required matching funds as a condition of the agreement. Recently, the Ennis House Foundation met the FEMA requirements by securing a bank loan commitment for the balance of the funds (though closure on the deal is still dependent on a guarantor, who at the time of this writing had not yet signed onto the loan). A happy conclusion seems imminent, but the fact that such a ranking American monument could come so close to destruction is itself an indictment of American cultural values. Before the matching moneys seemed secure, Curran said, "In America, we have no central system to fall back onto, and have to depend on the ability of a voluntary organization. If the FEMA money doesn't come through, the building will dissolve into a ruin, and the remains will turn into artifacts displayed in a museum. That's the antithesis of preservation."

The denouement now seems promising, with new and expanded leadership, and enough money in the pipeline to stabilize the house before more extensive restoration can occur. "We almost have everything in place," says Robert Leary, chairman of The Ennis House Foundation, which has begun to attract the support of Hollywood notables such as Diane Keaton. "We just need the green light to go ahead and bring this building back to its glory. There's been a tremendous amount of hard work getting to this day, when construction will commence. And we believe that that day is very close."
embraced by the dense Argentine rainforest near the Paraguay border, the remains of the seventeenth-century Misión San Ignacio Mini bear silent witness to Jesuit efforts to indoctrinate the region's indigenous Guaraní, as well as manage Spanish economic interests in South America. Abandoned in the wake of the Guaranitica War of the 1750s and the subsequent expulsion of the Jesuits from Spanish lands in 1767, many of the 30 missions built at the junction of what are now Argentina, Paraguay, and Brazil, were destroyed. Others were harvested for building materials or left to decay. San Ignacio Mini is one of perhaps a dozen to have survived to the present day, albeit as a sublime ruin. Vestiges of its baroque grandeur, however, are evident in its magnificent east portal, which has only recently been restored.

The missions, which exhibit a unique blend of Spanish architectural forms and indigenous symbolism, served as a catalyst in the preservation of Guaraní culture and language, which was recorded in an extensive series of documents printed on mission presses.

Since its inclusion on WMF's 1996 list of 100 Most Endangered Sites, San Ignacio Mini—along with the sites of São Nicolau in Brazil and La Santísima Trinidad de Parana in Paraguay—has served as a proving ground for the development of a comprehensive conservation, management, and sustainable development program for all of the surviving missions, seven of which have been inscribed on UNESCO's World Heritage List.
RESTORATION OF THE PORTAL

A full restoration was carried out on the East Gate of what remained of the Church of San Ignacio Mini.

STONE MASONRY
Mortar joints in the masonry had deteriorated as a result of water infiltration.

LINTEL
The four wooden beams, installed in the 1940s to support the decorative lintel, had deteriorated to the point of collapse.

DECORATIVE LINTEL
Extraordinary carvings on the lintel had been obscured by biological growth.

JAMB
The masonry of the door jamb had deteriorated over the centuries while wooden beams had begun to sag.

THE RESTORATION
1. During the restoration, the ornamental stone lintel was left in place, temporarily supported, while wooden beams were replaced.

2. Prior to disassembly, each stone in the upper section of the wall was cataloged.

3. Beams were replaced with new ones hewn of the same type of wood as the originals. Metal flashing was inserted to protect the beams from water infiltration.

4. The portal was reconstructed with each stone having been cleaned and conserved, and returned to its original location.
AN EARLY CHRISTIAN WONDER IN THE HEART OF THE ROMAN FORUM

By Werner Schmid

The breathless headline of the January 9, 1901, London Times heralded the discovery of the "Sistine Chapel of the Eighth Century." The article was written by Gordon Rushfort, the first director of the British School in Rome, who had been an eyewitness to a sensational event, the re-discovery of Santa Maria Antiqua, an early medieval Christian church in the heart of the Roman Forum. The more than 250 square meters of painting still existing on the walls of Santa Maria Antiqua constitute an absolutely unique collection that is critical to understanding the development of early medieval and Byzantine art. Most paintings of that period were destroyed in the eighth century, during iconoclasm, the movement against holy images.

A year before the article appeared in the Times, a team working under the direction of the famed architect and archaeologist Giacomo Boni started an excavation campaign aimed at recovering the Santa Maria Antiqua by demolishing a thirteenth-century baroque church, Santa Maria Liberatrice, which had been built atop the ancient sanctuary.
Known from its description in a medieval pilgrim guide to the Holy City, the so-called Einsiedeln Itinerary, the church had actually been discovered by chance in 1701 by people digging in the area to salvage travertine blocks and other valuable building material. A watercolor from the period shows the wall paintings of the presbytery and an eighteenth-century diary describes how popular the site was until the owner decided to refill the excavation three months after its discovery.

Consecrated in the mid-sixth century as the first church in the heart of pagan Rome, Santa Maria Antiqua functioned for only about three centuries. By 847, following heavy damage sustained during an earthquake, the church was abandoned and reestablished near the Arch of Titus as Santa Maria Nova. A Madonna and Child encaustic, one of the oldest panel paintings in Rome, can still be seen on the main altar of this church, and attests the transfer of devotional objects to the new site. Apart from its brief exposure in the eighteenth century, Santa Maria Antiqua lay buried under for a thousand years, a time capsule from the early medieval period. The monument, currently the subject of a major restoration campaign funded in part by the World Monuments Fund, is providing a unique opportunity to savor the simplicity of a church from the first centuries of the Christian era.

The huge brick building was originally constructed under Emperor Domitian (A.D. 81-96) close to his new access road to the palaces on the Palatine Hill. The pagan structure had an ideal architectural layout to be transformed into a church, with a peristyle at the entrance and three vaulted rooms at the rear. The central part of the peristyle was simply sheltered to form the central nave. Two sides of the porticus were transformed into the side naves, the larger middle room became the presbytery, and the adjacent smaller rooms two side chapels.
Not only is Santa Maria Antiqua a good example of the adaptation of a pagan building into a Christian sanctuary, but the church is also key to understanding the cultural and urban development of the Roman Forum in the "dark ages" that followed the transfer of the center of power to Constantinople and preceded the establishment of the political dimension of the Papacy.

As important as it is as an architectural record of the period, the church's primary significance lies in its pre-iconoclast paintings. The oldest fragment, an enthroned Virgin with Child, flanked by an adoring angel, is part of a palimpsest on the wall to the right of the apse, where seven layers of plaster from different periods are superimposed. The earlier designs are visible where parts of the later layers were lost. The Virgin is referred to as Maria Regina because she is represented as a Byzantine Empress wearing a dress richly decorated with pearls and gems. The painting, in a severe, late-antique style, is reminiscent of the mosaics of Ravenna and dates to the sixth century. It was clearly made before the apse was opened, since the panel would originally have extended to the left, with the Virgin as center of the symmetric composition. This indicates the painting was done before the actual church was established.

The next layer consists of two fragments—part of a depiction of the Annunciation—one with part of the face of the Virgin, the other with the so-called Fair Angel. This pictorial phase, dated to the beginning of the seventh century, is characterized by a strongly impressionistic style of the Hellenistic tradition, with an aesthetic effect that stands in sharp contrast to the rigid, two-dimensional appearance of the Maria Regina.

The first securely datable layer, the sixth in the stratigraphic sequence of the palimpsest, is represented by fragments of the cycle painted during the papacy of Martin I (649-653), which likely covered the whole of the presbytery. The palimpsest wall preserves the image of two Church Fathers holding forth scrolls, which have a counterpart on the other side of the apse. The dating
TO THE RIGHT OF SANTA MARIA ANTIQUA'S APSE IS A PALIMPSEST OF SEVEN LAYERS OF PRE-ICONOCLAST PAINTINGS. THE OLDEST FRAGMENT, A SIXTH-CENTURY ENTHRONED VIRGIN WITH CHILD, DEPICTS MARY AS A BYZANTINE EMPRESS.

is based on the texts on the scrolls, which were cited at the Lateran Council in 649. A trompe l'oeil marble panel below is attributed to the same pictorial phase, as are many other paintings in the church.

The uppermost or latest layer consists of fragments of an iconographic program dated to the papacy of John VII (705-707). A small fragment with the head of a Church Father in a yellow halo on a bluish black background with Greek script is preserved near the head of Maria Regina. Higher up on the two sides of the apse and above, in the huge lunette, this design appears to be the only painted layer, and it seems that all earlier layers were removed in preparation for this decoration. The pictorial cycle of John VII also extends onto the side walls of the presbytery and into the apse, which was re-painted for the last time under Pope Paul I (757-767). John VII was son of the administrator of the imperial palaces on the Palatine, which may be a reason why he was particularly fond of Santa Maria Antiqua and undertook extensive restoration and redecoration of the church.

All of the wall paintings are done a fresco, which means that the pigments, distempered in water and sometimes mixed with diluted lime, were directly applied to the wet plaster. Many of the painted plasters are characterized by a high-binder (lime) ratio and by the presence of vegetable fibers (wheat straw or husk) in the mix. This particular composition, rather unusual for Rome, confirms that the workshops involved in the decoration of the church were working in the Byzantine tradition or perhaps even had craftsmen from the east. Besides the early medieval plasters, the monument has extended residues of the bedding layer for an Opus Sectile (marble inlay) and a mosaic decoration, as well as other plasters, in part showing remains of a painted decoration which document the pagan period of the monument.

The excavation of Santa Maria Antiqua, which involved moving an enormous amount of earth, was accomplished in less than two years. By 1902, the reconstruction of walls and vaults and the treatment of paintings, unpainted plasters, and mosaic floors had been completed.

The discovery of the paintings had enormous implications for both art history and archaeology. Many theories of the development of early medieval art had to be completely revisited. The paintings were documented both by standard photography and by a series of water-colored photographs which were published by the German archaeologist Joseph Wilpert.

In the first attempt at preservation, the paintings were coated with a wax-based material and secured along the edges of fragments with cement fillets and brass pins. How-
ever, after this first intervention carried out in 1900-02, the progressive decay of the paintings remained a major concern in some areas. In five instances between 1910 and 1957, the alarming condition of the paintings led conservators to detach some panels from the wall and transfer them onto new supports. Only a few paintings were conserved in more recent years and, in general, only a minor part of the paintings was treated after the 1900-02 intervention, which involved methods and materials that are not acceptable today. In order to improve conditions for preventive conservation, the Archaeological Superintendency of Rome carried out general building maintenance between 1984 and 1988 and in 1999.

Today's ongoing Santa Maria Antiqua Project was launched in 2001 as a cooperative project between the Archaeological Superintendency of Rome, the Norwegian Institute in Rome, and WMF. Funding from WMF through its Samuel H. Kress European Preservation Program has made it possible to implement a conditions assessment of wall paintings and other architectural surfaces to identify and quantify conservation needs and to draft a work plan and schedule.

Our survey indicated that the most urgent conservation need was the stabilization of the approximately 250 square meters of wall painting and an equal amount of unpainted plasters. More than 60 percent of the examined surfaces were delaminating, with vast areas of plaster showing complete separation from the wall and loss of internal strength. Investigations on the apse wall revealed that the left side, in physical contact with the Palatine Hill, continued to be subject to active decay due to excessive structural moisture and continuous cycles of soluble salt crystallization. Through the comparison of archival photographs from 1900-02 and the 1960s, we determined the areas that had suffered more decay since the church's rediscovery.

Fortunately, on many important paintings, such as the ones of the palimpsest, we found no visible loss of original material or major alterations. The relatively good preservation of these areas can be attributed to the rather mild interior climate of the church, characterized by a high but stable relative humidity and slow, seasonal temperature fluctuations. This is especially important because all
surfaces contain high amounts of dangerous soluble salts, mainly deriving from the extensive use of cement in 1900, which can only be kept under control by the optimization of the microclimatic conditions inside the church.

A second phase of work carried out between 2002 and 2004 focused mainly on priority interventions identified during the investigation campaign. This included the stabilization of all wall paintings and plasters, further investigation into the moisture problems of the apse, continued climate monitoring and experimental research on the consolidation of heavily salt-decayed surfaces. It also involved the execution of complete conservation and restoration trials on wall paintings and other architectural surfaces to define general concepts and to establish a treatment methodology. Project phase II was financed by the Italian government and a second, larger WMF Kress grant.

In 2004, thanks to monies made available through WMF's Robert W. Wilson Challenge to Conserve our Heritage, we were able to carry out the complete conservation and restoration of the Chapel of Medical Saints. The name of the chapel refers to its paintings which show almost life-size figures of eastern saints, the anargyroi, healers who do not accept payment. Recent studies have led to the hypothesis that the chapel was used for night prayers and meditation by pilgrims seeking miraculous healing.

With the conservation and restoration of the Chapel of Medical Saints we've launched the third and last phase of the Santa Maria Antiqua Project. We aim to optimize the conservation conditions in the church, as well as treat all its architectural surfaces. We also plan to implement a visitors' management system, and will develop interpretation aids in anticipation of the eventual re-opening of the monument and its grounds to the general public. Thanks to the continued support of the Samuel H. Kress Foundation and the World Monuments Fund, the conservation and restoration of the west wall of the Chapel of Theodotus is currently under way. The Archaeological Superintendency of Rome has committed substantial funding for the next three years, which when matched by additional contributions from WMF through its Wilson Challenge, will allow us to achieve our final project goals by the end of 2008, after which members of the public will be able to view Santa Maria Antiqua for themselves.
A TWO-YEAR RESTORATION OF THE MARBLE HALL OF ENGLAND'S STOWE HOUSE IS NOW COMPLETE.

GEORGIAN REVIVAL

A stunning restoration of one of Britain's great interiors

Emulating Rome's Pantheon, the Marble Hall at Stowe is one of the great interiors of northern Europe. It is at the heart of the great Stowe House, which itself is at the center of one of the greatest manmade landscapes in England. Almost all the great English architects of the eighteenth century worked at Stowe: Vanbrugh, Gibbs, Kent, Soane—and in the park, Capability Brown. The Marble Hall was the work of an Italian architect, Giovanni Battista Bartoli, and was designed and built between 1775 and 1778. He designed all the interior detail and masterminded the wonderful plasterwork and the great scagliola column, imitating Sicilian jasper.

In September of this year, Lord Sainsbury of Preston Candover hosted a reception and dinner at Stowe as Chairman of the Appeal to mark the completion of the two-year restoration of the Hall. It looked completely magnificent—the Carrara marble floor gleaming and the 16 polished columns shining and reflecting the light of the new lanterns. Standing in the center of the Hall one sees both ways through the entire house and out into the park, where the great Corinthian Arch was specially illuminated for the evening.

The restoration would not have been possible without support from WMF's Robert W. Wilson Challenge to Conserve our Heritage, which contributed U.S. $600,000 of matching funding. The Marble Hall is part of a larger six-phase project, begun when the entire house was placed on WMF's 2002 Watch list of 100 Most Endangered Sites. The domed space is in fact elliptical, and is surmounted by a frieze in high relief depicting a procession of triumphant soldiers returning home with the spoils of war. Today they must be celebrating the triumph of the restoration that has made Stowe one of the wonders of Europe once again.

—Will Black
ARRESTED DECAY
Curating a Moment in Time
by Eve M. Kahn
Ruins form every time technologies requiring built architecture go obsolete, or civilizations abandon remotest edges of settlements or deplete land beyond habitability or give up on streets devastated by war or natural disaster. The sheared and eroding walls used to be considered stockpiles of building materials: much of ancient Rome, after all, was assembled from chopped-up fragments of ancient Greece. Not until the Renaissance did artists and poets start pointing out the poignant thrills of leaving ruins intact and in view. As the French historian Michel Makarius points out in *Ruins* (Flammarion, 2005), a survey of changing attitudes towards decayed architecture, fifteenth-century humanists discovered “the picturesqueness of ruins, which affords a species of delectation that neither nature left to its own devices nor human ingenuity can arouse in isolation: coming across a heap of once proud dross, where ivy and bramble vie with crumbling stone, in which a tree, a hill, and the sky surreptitious whiff of the genius loci.”

The twenty-first century has given rise to a new and especially evocative species of ruin: one that has been permanently frozen in mid-disappearance. High-tech mortar and waterproofing potions now enable field crews to prop up walls bereft of plaster or roofs, and preservation dogma encourages such delicate interventions rather than costly, Disney-esque replications of lost monuments. Tourists are flocking to the snaggletooth, heart-stirring result: a moment in history’s march, writ large, in limbo. Some of these ruins have found their way into WMF’s working portfolio before the needed preservation work has been carried out; each presents its own set of challenges. We asked five caretakers of stabilized ruins worldwide to describe why and how they maintain their landmarks, as well as how they keep visitors from taking home temptingly loose parts as souvenirs.

**CHUCK FELL, PARKS MAINTENANCE SUPERVISOR**

Bodie State Historic Park, California

**OVERSEES:** Bodie, Calif., an abandoned 1860s mining town with stores, offices, and homes, all full of abandoned artifacts

**ON BATTLING DECAY:** “From May or June to October every year, we send out crews who live at a campground or in converted old houses near the site, they’re called permanent intermittent employees. A lot of them are just enthusiastic kids in their teens and 20s, led by a skilled person. The goal every year is to keep things from falling down, and to start and finish something in a season. We’ll focus on one structure at a time, or break up the crews to take on smaller projects. We use some modern materials, like pressure-treated lumber and concrete, and we’ll create foundations where there weren’t any. Often we leave the historical material visible beneath the repair. We’ll scab on or sister on an identical board for a structural member. For sheathing, we just put on a whole new layer, or else you’d end up with too many layers of patches. We have a huge supply of rough-sawn pine with the same circular-saw kerf that was used originally at Bodie. And the original roofs here were mostly either cedar shingles or flattened three-gallon tin cans. We can replicate the shingles fairly easily, and for the cans we take the same gauge sheet metal and crimp it into the pattern of the cans. This past season we focused on finishing the Wheaton-Hollis Hotel, putting on a couple of new roofs, and building a new wooden storage structure tucked away to protect some artifacts that aren’t displayed. The 2004 winter was a real bear, we had hard damage. Like any state agency, we never have enough money, enough people, enough time, but we’re as effective as possible within those limitations.”

**ON SOUVENIR HUNTERS:** “Sometimes they take pieces of broken glass, or try to pry out the old cut nails. You never know what tourists will want. But most of our visitors are pretty respectful.”
VICTOR SHMYROV, DIRECTOR
The Gulag Museum, Perm, Russia

OVERSEES: Perm-36, a 1946 Soviet prison camp-turned-museum in the Ural Mountains.

ON BATTLING DECAY: "There were 25 wood or concrete buildings here originally, and 22 remain now, and we also have the barbed-wire enclosure. Two buildings are used now as administrative offices for a hospital, they’re in relatively good condition and we are in the process of reclaiming them. Some of the others are in very poor condition, but none of them needed reconstruction from foundation to roof, just refurbishment. The museum’s building brigade has restored ten buildings so far and it makes repairs year-round; volunteers started working here in 1997, when most Russians still did not want to know or remember what had happened at the camp. Our staff has 38 people now, including nine researchers. Visitors are shown all the buildings, whether survived or destroyed, and there is a museum devoted to the history of this camp and the whole history of the Gulag in the U.S.S.R. We plan to reconstruct the larger and more important buildings first—the workshops, the administrative headquarters—and save the smaller ones for later—the checkpoints, the exercise grounds. We also have to take care of some of the original workshop equipment and some beds and tables in the barracks. Our budget is $300,000 a year. Half comes from the government regional administration, and half comes from donors. It’s not quite enough—if it were a bit bigger, we could enlarge the museum, expand our programs, and make repairs more quickly."

ON SOUVENIR HUNTERS: "It is forbidden, and there are guards that would stop you."
Mill City Museum, Minneapolis, Minnesota

OVERSEES: Washburn A Mill, a National Historic Landmark abandoned in 1965, burned in 1991, converted in 2001 into a flour-milling history museum run by the Minnesota Historical Society

ON BATTING DECAY: "The city had just started looking for redevelopment ideas before the building burned down, and no developers were showing interest because the interior was so deep and dark. The fire created a kind of atrium. We helped advocate for the shell to be preserved as a ruin. We showed city officials pictures of partly occupied ruins in Europe, going back to Piranesi. There's a real melancholy charm and fascination to them. We think ours is the only occupied ruin in the U.S. It's supported on all sides: by a new building where our offices are, plus some small, attached, old lean-to buildings that didn't burn, a massively strong grain silo, and a new internal steel support. The ruin walls are quite a soft limestone, and the freeze-thaw cycle here is murderous on them. We removed the softest stones from the top, put down a plastic layer, and then replicated the removed stones in cast concrete, which covers the top of the wall and binds it together structurally. On the rest of the masonry we used conventional tuck-pointing. Every ten years there'll be a need for a cycle of maintenance, a close examination, and a lot more tuck-pointing."

ON SOUVENIR HUNTERS: "The most reachable part, the interior of the courtyard, is only accessible when the museum's open, so there are eyes on it, and there's nothing easy there to break off anyway. It's an acoustically wonderful space, as it turns out, and it's become quite a popular place for jazz concerts, parties, weddings. Adjacent to the ruin is a classroom in a former boiler room. We tried to leave peeling plaster and lath there, but it kept shedding, and the kids kept picking at it, so we had to strip it back to a more stable condition."
MICHAEL MORRISON, CONSERVATION ARCHITECT
New Zealand Antarctic Heritage Trust

OVERSEES: Sir Ernest Shackleton's Nimrod Hut at Cape Royds, Antarctica, a 1907 timber prefab at the foot of a 4,300-meter-tall active volcano, near ruins of a latrine and pony lean-to.

ON BATTLING DECAY: "The fir timbers got saturated in saltwater during the trip over in 1908, and now they're eroded by fungi, fiber defibrillation, UV rays, and 30-kilometer-an-hour wind blasts of salt spray, ice crystals, and volcanic ash. Shackleton's men stacked provisions all around the walls for insulation, it was two years' supply for ten men in plywood boxes of tins: beans, sugar, salt, brands you'd recognize like Tate & Lyle Golden Syrup, Colman's Mustard, Bird's Custard, plus some nasty chemicals—stove oil, motor fuel, carbon chloride. The boxes are made of an Estonian plywood called Venesta, and the external ones are pretty seriously perished. When the temperatures rise above freezing between December and February, the uppermost tins get wet enough to corrode. If they end up freed from the permafrost lump, they simply blow away, a long, long way. They can endanger wildlife. Inside the hut we have to deal with hundreds more artifacts: books, clothing, papers, timber bunks; a cast-iron stove, bits of an Arrol-Johnston motorcar.

The U.S. Navy made some temporary repairs with tarp after World War II, they recognized its iconic status, and later work was done by volunteers at the Scott Base nearby. In the early 1990s a pale gray rubber roof was put on—it's inappropriate and looks terrible. We're figuring out how to replicate the original coal-tar roofing felt. We're not going to rebuild what's gone, we won't recreate the latrine or put in a restored motorcar. Consolidating the artifacts we have is going to be a fantastic palaver, and jolly expensive. We may set up a temporary generator-powered conservation lab on skids at Scott Base that can be dragged over sea ice to Cape Royds, and maybe we'll take the really problematic pieces to a lab in Christchurch."

ON SOUVENIR HUNTERS: "Fortunately, it's extremely difficult to get there, and visitors are closely supervised. There was some souveniring long ago, mostly for museums; there are Shackleton artifacts at the National Maritime Museum in London and New Zealand's Canterbury Museum in Wellington."
PETER ROMEY, DIRECTOR OF CONSERVATION AND INFRASTRUCTURE
Port Arthur Historic Site Management Authority

OVERSEES: An 1830s Australian timber station turned isolated penal colony, shuttered since 1877 and savaged by fires twice in the 1890s

ON BATTING DECAY: "This was designated a historic site and came under government control in 1916, which was very early for preservation in Australia and in fact early for the preservation movement anywhere. But by that point a lot of material had been removed by locals building their own houses—the government and the public wanted to pretend the penal colonies had never existed. The fires had left everything with a haphazard outline, and whatever buildings that had more or less survived the fires—a number of houses, an asylum, a model prison—underwent a fair bit of reconstruction early on. Now the emphasis is on conservation; the philosophy is, do as much as necessary, and as little as possible. We cap the ridges of the ruins with low-cement mortar, to prevent water penetration and to keep vegetation from getting into the mortar joints. We will repoint, and if a brick gets to the point that it's only fragments, we will use another brick. And our largest building, a penitentiary, which is basically a shell, was braced with a steel and timber internal structure in the 1970s. We're planning to put in a new steel architectural solution, possibly with sound and projected images—it'll be unmistakably a contemporary overlay. In the longer term, we may have to place roofs over some of the roofless structures. Roofs like that are tricky to design, they do tend to overwhelm the ruin, but it's something we may have to come to terms with as an essential protection."

ON SOUVENIR HUNTERS: "People pick at the surfaces, they'll take home fragments of wallpaper. It's inevitable that you'll get some damage with 270,000 visitors a year. In fact we're thinking about opening an exhibit of returned material—bricks and stones that people took years ago and felt at the time they weren't causing any harm, but as the profile of the site has risen as a cultural icon, they've realized they'd removed something important. We get a steady trickle of pieces in the mail. Sometimes people tell us they've had terrible luck since they'd taken it, and feel liberated from a curse upon returning it."
A HERITAGE LOTTERY FUND

GRANT BRIGHTENS THE FUTURE

OF HORACE WALPOLE'S

LEGENDARY STRAWBERRY HILL

The future of Strawberry Hill, the "little Gothic castle" created by Horace Walpole in the eighteenth century, is looking decidedly brighter thanks to a £4.6 million grant which has been earmarked by the Heritage Lottery Fund (HLF). The award to the Strawberry Hill Trust along with £370,000 development funding will help to finance an eagerly awaited £8.8 million ($15 million) restoration project.

Horace Walpole, son of Sir Robert Walpole, Britain's first Prime Minister, was a politician, collector, author, and style "guru." He acquired the building, which he christened Strawberry Hill, in 1749 and set about transforming it over the next 20 years into a fashionable villa along the stretch of the Thames between Chiswick and Hampton.

The Grade One-listed house is now regarded as the most important and influential building of the early Gothic revival, inspiring designs for the Palace of Westminster 100 years later. Its vulnerability and uncertain future were highlighted in 2003, when the World Monuments Fund included it on their list of 100 Most Endangered Sites and, then again, when it featured in the second series of BBC2's Restoration. It is also on English Heritage's Buildings at Risk Register.

Walpole said of his creation: "My buildings are paper, like my writings, and both will blow away in ten years after I am dead." Although outliving Walpole's prediction by 200 years, Strawberry Hill's pinnacles and traceries, constructed of wood, stucco, and papier mâché (unlike the Gothic cathedrals that inspired them), are now in a perilous state of disrepair.

Carole Souter, director of HLF, said: "The importance of Strawberry Hill to our architectural heritage cannot be over-emphasised and without this project, its future was looking extremely bleak. The Heritage Lottery Fund is committed to investing in our historic buildings so that more people can enjoy them and we're very much looking forward
to seeing Strawberry Hill restored to its full splendor once again.”

Michael Snodin, chairman of the Strawberry Hill Trust, also commented: “This is wonderful news for the future of Strawberry Hill. We will now be able to work towards the restoration of the building and garden, bringing Walpole’s ‘little Gothic castle’ back to its former glory and making it a place everyone can visit and enjoy.”

As well as safeguarding the future of Strawberry Hill and its gardens, the HLF grant will enable the Trust to extend considerably the villa’s opening hours (currently just one afternoon a week in the summer) and create a far-reaching education program. The house was a popular tourist site in Walpole’s time, when visitors were drawn by its magical interiors, fireplaces, and gilded ceilings built to resemble mediaeval tombs and vaults, as well as Walpole’s extensive collections of curios.

The house went on to became the center for great political receptions in the ownership of Lady Frances Waldegrave in the nineteenth century, and is now under the stewardship of St. Mary’s University College. Strawberry Hill receives considerable local support through its friends group and has a core of supporters in the U.S. The World Monuments Fund is backing the campaign to raise an additional £3.5 million to ensure the project can go ahead. Completion is anticipated for 2010 to coincide with a major exhibition on Horace Walpole and his collections to be shown at the Victoria & Albert Museum in London and the Yale Center for British Art in New Haven, CT.

Arthur Naylor, Principal of St. Mary’s College, said, “We are delighted with the news. St. Mary’s has worked closely with the Strawberry Hill Trust to reach this stage and we are ourselves committing £1.4 million towards the project and its longer term sustainability.”

John Julius Norwich, Chairman of the World Monuments Fund, commented: “I am delighted that the Heritage Lottery Fund has agreed to fund Strawberry Hill and that the World Monuments Fund has been able to play a key role as a catalyst for the lottery application as well as enabling all the parties to work together.”

—Will Black
bedded sandstone ridge that rises some 500 meters above the parched sands of Western Sahara, the Bandiagara Escarpment has served as a cultural crossroads for more than 2,000 years. The eroded remnants of a Precambrian massif, the 200-kilometer-long formation snakes its way across the landscape from southwest to northeast. The plateau atop the escarpment slopes down to the Bani and Niger Basins to the northwest. Beneath it is a scree field littered with sizable sandstone blocks that have broken off the cliff face, creating a network of natural pathways and lush pockets of vegetation nourished by groundwater and seasonal rains trapped and channeled by fissures in the rock. A steady line of dunes marks the edge of the scree, beyond which is the vast sandy Seno Plain, stretching over the horizon toward the Burkina Faso border. Each twist, turn, and fold in the rock harbors a unique environment, not only in its flora and fauna, but in the cultural traditions and architectural forms that have developed there.

Considered one of West Africa's most impressive sites, the escarpment has witnessed nearly 100,000 years of human occupation. Among its more recent inhabitants have been the Toloy, a little-known people who took shelter in the numerous natural caves pocking the upper reaches of the cliff face sometime between the third and second centuries B.C. The eleventh century A.D. witnessed the arrival of the Tellem, a Subsaharan group who occupied the escarpment prior to the arrival of the Dogon in the fifteenth century A.D.
Initially, the Dogon, like their predecessors, settled in easily defended sites along the escarpment and a few rocky outcroppings on the plateau. In time, however, hundreds of Dogon villages sprang up along the base of the cliff, each with numerous buildings of stone, earth, and thatch. Ancient cave dwellings and granaries of the Toloy and Tellem were subsequently appropriated for use as communal shrines and burial chambers.

Toward the end of the nineteenth century, when security in the area began to improve with the pacification of West Africa under French colonial rule, the Dogon expanded their range, establishing villages on the Seno Plain, which afforded more space and easier living conditions with its better access to water and arable land.

Today, 267 Dogon villages make up what has come to be known as the Pays Dogon (Dogon Country), a 400,000-hectare area that includes not only the escarpment but substantial portions of the Dogon Plateau and Seno Plain. The majority of hamlets, composed of stone and mud-and-thatch dwellings, are concentrated along the lower reaches of the rock face, barely discernible from the surrounding landscape.

Each village is strategically sited to make the most of its environment—its plan and the shape and orientation of its structures designed to capitalize on available shade and natural ventilation. While the layout of each village is dictated by the terrain, all contain a suite of key architectural elements: a toguna, or council house for village elders; a public square for town meetings, seasonal festivals, and performances; a hut where women stay during menstruation, when they are considered impure; a ginna, or elder’s house for the patriarch of each village clan; burial grounds and chambers; altars, shrines, and temples dedicated to ancestors, the creator Ama, and a host of spirits that protect each village and its lineages and ensure the fertility of its soil; and lastly, a forge for the black art of smithing. Building walls are often adorned with geometric designs rendered in stucco relief while wooden doors, shutters, and support columns are
ornately carved with animal motifs or images of the Nommo, one of four bisexual couples—children of Ama and primordial ancestors of the eight Dogon lineages.

The toguna, the first structure to be built in a village, is always placed next to the public square, which often doubles as a children's playground. In large villages, there may be several toguna, one for each nongu, or neighborhood. Cemeteries and burial caves are considered particularly sacred, being portals to the realm of ancestors. As such, they are often sealed and jealously guarded. Also central to Dogon religion is a profound reverence for the nourishing Earth, the sole source of life and provider of food, building materials, and medicine. Various natural features—ponds, rivers, caves, and tunnels—found throughout Dogon Country are considered sacred and serve as focal points for specific rites.

For centuries, the Dogon had resisted the adoption of Islam, which had spread throughout much of Africa since it first took root on the continent in the tenth century A.D. Mali, under the leadership of Mansa Musa (r. 1307-1332), was the first African nation to make Islam the state religion, following the ruler's pilgrimage to Mecca. By the early nineteenth century, however, Dogon living on the Seno Plain and those around the town of Bandiagara atop the plateau, began to embrace the religion, influenced by Fulani shepherds from Massina. A half-century later, during French colonial rule, missionaries introduced Christianity in the Dogon region. These "conversions" were in large part less than complete and there is considerable syncretism in the Dogon Country. It is common, for instance, for different religions to be practiced within the same structures. Mosques built in the area have been inspired by the traditional architectural forms of the ginna, totemic sanctuaries, and ancestor shrines.

Despite the French occupation of West Africa, the Dogon had witnessed little contact with the outside world until the mid-twentieth century—maintaining their traditions, including the five-day week, which they still keep today. Shortly after publication of the English
edition of Marcel Griaule's 1948 book, Conversations with Ogotemméli: An Introduction to Dogon Religious Ideas, in the 1960s, however, the region began to attract adventure travelers from around the globe in ever-increasing numbers, creating demand for accommodations and infrastructure.

Since that time, the Dogon have been able to host small groups of travelers—mostly travelers with an appreciation for indigenous cultures, backpackers, and rock climbers lured to the escarpment's sheer sandstone cliffs. Some communities have set up camp grounds and offer guided tours of their villages and those of others. Several settlements have even built visitors' centers and small site museums, set up handicraft stores, and organize weekly performances of dances once done on a seasonal basis.

The advent of tourism has had a positive impact on the cliff-dwellers in spawning the revival of craft industries such as indigo dying that had once been on the wane and creating a sense of pride among the Dogon with regard to their culture. Yet, increased exposure to the outside world in recent decades has also resulted in the gradual erosion of age-old traditions. Moreover, only a few villages have been able to profit from tourism traffic, leading to jealousies and conflict within and between villages, which had not existed before.

Many visitors have been so moved by their experiences in Dogon Country that, some, in their desire to help the cliff-dwellers, have launched ambitious development projects aimed at providing basic education and health care and improving agricultural production. A number of these initiatives have actually succeeded, easing the often difficult living conditions of the Dogon, particularly during years of drought. The construction of small dams has allowed for better irrigation and the production of secondary crops, such as onions, in the wake of the millet harvest in October, while the availability of education has enabled some Dogon to find work elsewhere, moving into Mali's, and the world's, mainstream economy.

Unfortunately, many of the well-meaning organizations that have launched development projects in the Dogon area have done so with little regard to the cultural context, building schools and clinics that are out of sync with traditional architectural forms and thus visually pollute the very cultural landscape they are intended to help.

Aware of the escarpment's value as a natural and cultural treasure as well as its great potential for generating tourism revenue,
the Malian government, through its Ministry of Culture, nominated the site for UNESCO's World Heritage List, a designation the area received in 1989.

In 1993, the government established the Cultural Mission of Bandiagara, an umbrella organization charged with overseeing the preservation of the escarpment. Between 1995 and 1996, the Cultural Mission, aided by architects from the University of Konstanz, embarked on a cultural inventory of the Dogon area, underwritten by UNESCO's World Heritage Fund and a crucial first step toward the development of a management plan for the escarpment. Each village was surveyed and the conditions of its buildings were carefully noted. Sadly, many of the most important historic structures were found to be in varying states of decay or had been damaged and disfigured by inappropriate repairs, indicating a loss of the artisanal skills needed to maintain the buildings.

In concert with carrying out a conditions assessment, the mission set up a documentation center for the Dogon region in the town of Bandiagara and launched a public awareness campaign focusing on the historical importance of the area. It was crucial to spread as widely as possible an understanding, appreciation, and recognition of the site's World Heritage status and why the escarpment had achieved the designation. The mission also embarked on a series of pilot projects, including the rehabilitation of an encampment in the village of Songo, one of the most heavily visited settlements, and a network of hiking trails in the Sangha region.

When mission officials realized that far more would need to be done if the Dogon area was to be preserved—work that was well beyond the organization's capacity—they began reaching out to the international preservation community. Over the past decade, the mission has made great strides in forging partnerships with a variety of universities and NGOs, which have been able to provide technical assistance as well as financial resources to carry out work, among these CRATerre-ENSAG (the Research Center for Earthen Architecture) based at the National Superior School of Architecture in Grenoble, France. CRATerre, which nominated the Bandiagara Escarpment to WMF's 2004 list of 100 Most Endangered Sites, has been instrumental in drafting a management plan for the area, as well as developing a training program to revive the artisanal skills necessary to undertake individual restoration projects. The organization is also aiding the Cultural Mission in identifying key questions, articulating a vision, and establishing a strategic framework to guide the work of the many actors involved. To do this, however, it has been necessary to involve all of the economic and social players in the area to adopt an attitude of respect for the value of the site and to establish incentives for preservation of the most significant elements of the villages, and, lastly, to improve legal protection for historic structures.

Following the inclusion of the Bandiagara Escarpment on the 2004 Watch list, Ameri-
can Express, with WMF's urging, agreed to underwrite further development of the management plan for the area, which is nearing completion. Beyond the safeguarding and conserving of traditional buildings, the management plan calls for the regulation of any new construction through the establishment of strict building guidelines such as those that govern new development in historic districts around the globe.

To date, there has been no formal mechanism or protocol in place for evaluating development proposals—many of them government initiated—or guiding construction so that the cultural value of the Dogon region is protected. Adopting such guidelines in collaboration with all the local authorities and players in fields as varied as culture, environment, health, religion, construction, and tourism, will encourage the kind of development desired by all without negatively affecting the intrinsic value of the site.

The majority of Dogon are clearly in favor of preserving the natural and cultural richness of their environment as long as it does not impede them from obtaining better living conditions. Ideally, they should be able to reap the best of both worlds—benefiting from the fruits of the modern world all the while preserving their extraordinary cultural traditions.

This is precisely the challenge that must be met by the Cultural Mission of Bandiagara, as well as by all the public and private parties involved in the area. Some initiatives—such as those put forth in the management plan put together with the assistance of CRATerre and the World Monuments Fund—are clearly moving in this direction and demonstrate that such a vision is not utopian. On the contrary, it is perfectly realistic.
CHINESE HOUSES:
The Architectural Heritage of a Nation
BY RONALD G. KNAPP • TUTTLE PUBLISHING • 288 PP. • $60

China's two-decade growth spurt has both mowed down historic neighborhoods and brought forth preservation activism, regulation, and heritage tourism. Ronald G. Knapp, a geography professor at the State University of New York, based this exhaustive book on 40 years of research in the Chinese countryside. He's managed to find some common architectural threads, despite the nation's 56 ethnic minorities and tropical-to-subarctic climate extremes. In general, Chinese homes are symmetrical, axial, and enclosed, with private and public spaces well separated and zones clearly designated for family members of different rankings. The structures' footprints can be U's, Is, O's, ellipses, octagons, or rhomboids, roofed in thatch or tile and walled in granite, brick, or woven bamboo. Inscriptions and iconographical ornaments ask the deities for good fortune, or remind inhabitants of their familial duties. Knapp analyzes two dozen buildings in detail, whether vernacular yellow-earth caves or a bean-curd merchant's turreted estate or Mao's childhood farmstead turned national shrine. As the quasi-capitalists turn more landmarks into resorts, Knapp warns, the restorers often move too fast.

RUSSIAN PARKS AND GARDENS
BY PETER HAYDEN • FRANCES LINCOLN • 256 PP. • $65

Peter the Great came home from an early 1700s trips to Western Europe with ideas for re-landscaping his homeland. The royal gardens at Charlottenburg and Versailles had inspired the tsar to import European gardeners and retrain their Russian counterparts. Topiaries and classical statues soon formed allees on lawns throughout St. Petersburg and Moscow and the provinces, alongside sea-creature fountains and shell-studded grottoes. Catherine the Great then ushered in an era of less clipped, more English-style plantings, winding paths, and Gothic follies—"I scorn straight lines," she wrote to Voltaire in 1772. Her successors and their courtiers favored faux ruins, the stucco half-peeled, and the ground strewn with marble column fragments, which unfortunately foreshadowed the twentieth-century fate of most Russian gardens. In this lavishly illustrated study, British garden historian Peter Hayden documents not only the heydays of the sites but also their Nazi- and Soviet-era sufferings and current conditions. The good news now, Hayden reports, is that the Russian nouveaux riches are going garden crazy. They’re importing plants, subscribing to horticultural magazines, and landscaping even the roofs of new buildings. And since 1999, the Russian government has been celebrating an annual public holiday called Gardeners' Day.

THE ROSE WINDOW:
Splendor and Symbol
BY PAINTON COWEN • THAMES & HUDSON • 276 PP. • $85

Medieval churchgoers could read much into the round form of the rose window. It spoke to them of the shapes of celestial bodies, the rolling vagaries of human fortune, the cycles of the seasons and of life, death, and possible rebirth. Jewel-tone Biblical scenes in the windowpanes, writes British historian Painton Cowen, reinforced the congregations' images of a deity powerful enough "to force light into kaleidoscopic displays governed by precise and brilliant geometry." Cowen has spent some 30 years trolling Europe (with occasional forays to U.S. cathedrals) in search of stellar rose windows, dating back to the 1140s. Storms, wars, erosion, structural failures, and vandalism have damaged the windows, and Cowen describes survivors with panels replaced in the wrong order or shards simply "reset in a glorious jumble." The author generously, maybe a little obsessively, supplies diagrams for copying some of the more convoluted tracery he's found. "Draw a series of squares inside the main square in the traditional manner of 'right measure' until the central circle containing God is created—this is, appropriately, within the seventh square," reads a typical instruction. Much of the book's content is posted at www.therosewindow.com.
RUBBLE:
Unearthing the History of Demolition
BY JEFF BYLES • HARMONY BOOKS • 372 PP. • $24
First there was Joshua trumpeting down Jericho's walls, and Samson ripping apart the
Philistines' temple, then flash forward to London sailors blowing up townhouses to block
the path of the 1666 fire. Baron Haussmann's crews hand-wrecked miles of Paris's Victorian
byways, but the real fun didn't start until the twentieth-century imploders learned to flatten
skyscrapers in front of Champagne-swilling crowds and paparazzi cameras. Journalist Jeff
Byles chronicles the history of razing in entertaining, slangy prose, and his self-described
"unbildungsroman" brings a few characters vividly to life. Meet Jacob Volk, the Lithuanian-Jewish
immigrant who invented the wrecking ball around 1930 partly based on Mesopotamian military
ramming techniques. Byles' own attitude toward the wreckers often comes across as ambivalent.
Are they jackhammer-slinging evildoers hiding behind euphemisms like "building euthanasia," or
are they heroes who giveusty and cramped cities "a radical sort of freedom"? Preservationists
will nonetheless find the book packed with useful anecdotes and statistics. The average American
building's lifespan: 35 years. The number of houses intentionally eradicated each year: 360,000.
One heartening number in this blitz of gloom: of the 125 million tons of demolition debris the U.S.
generates annually, 40 percent is now worth enough to end up being picked through and recycled.

TILT:
A Skewed History of the Tower of Pisa
BY NICHOLAS SHRADY • PENGUIN • 166 PP. • $14
Few monuments are as readily identifiable as the Leaning Tower
of Pisa. The tilted campanile has brought centuries of fame and
untold tourism to the Campo dei Miracoli, which might
otherwise have been a run-of-the-mill sanctuary in a country with
more than its share of ecclesiastical wonders built over the course of two
millennia. Shrady traces the history of this iconic landmark from its flawed
inception in 1173, through the myriad charettes aimed at minimizing its five
and one-half degree lean, including the last in 1995, the seventeenth such
campaign, which recently granted the 60-meter-high tower a two-century
reprieve thanks to an innovative team of engineers. Delightfully written, the book
delves into arcane construction, geophysics, materials science, the myths and legends
surrounding the tower, and nearly a millennium of political intrigue, which in so many
instances compromised its stability.

VISIONS OF HEAVEN:
The Dome in European Architecture
BY DAVID STEPHENSON • PRINCETON ARCHITECTURAL PRESS • 192 PP. • $60
Wherever ecclesiastical architecture is hemispherical, David Stephenson wants to stand
beneath it. For 12 years the Australian photographer has been training his camera upwards
in churches, synagogues, and mosques. For this book he's chosen 125 images, spanning
chronologically from Hadrian's circa-138 Pantheon to a 1903 Art Nouveau synagogue in southern
Hungary. The full-page reproductions are at once utterly absorbing and clinically detached.
A dome-ologist could write an entire component-classification system based on them, and dome
restorers and builders will find a wealth of design ideas. The domes sometimes pay homage to
their funding sources, incorporating the patrons' portraits or coats of arms into the décor. And a
few dome designers worked their own visages into the lofty scenery. At a 1721 Benedictine Abbey
in Weltenburg, Germany, the architect playfully included a half-statue of himself, peering down
from the elliptical dome's rim. He's smiling at the parishioners, which they might not notice until
after taking in all the surrounding Biblical frescoes and whorls of faux clouds dissipating skyward.

To purchase titles featured here, click on WMF's Amazon.com link on our website at www.wmf.org.
Commissions on books purchased through our website support WMF field projects.
It is mid-September and I have come to Cusco—former capital of the Inca Empire and one of the most important Spanish colonial cities in the Americas—as one of more than 600 delegates attending the Eighth World Symposium of the Organization of World Heritage Cities. The biennial event, sponsored by UNESCO and the Getty Foundation, brings together preservation professionals and the mayors of hundreds of World Heritage Cities around the globe to discuss strategies for managing some of humankind’s most important cultural assets. In addition to attending various sessions, the conference also afforded me an opportunity to check in on a number of sites in WMF’s field project’s portfolio and scope out others seeking our support for preservation efforts. Despite my being from Peru, I am forever amazed at the richness of the cultural and natural patrimony of the country.

At the seventeenth-century Jesuit Church of San Juan Bautista in Huaro, WMF and its French Affiliate are working with Peru’s National Institute of Culture to conserve an extraordinary eighteenth-century mural cycle. Brought to our attention by none other than Mrs. Javier Perez de Cuellar, the murals, rendered in a style that has come to be known as Indian Baroque, are the work of Thadeo Escalante, a painter of Inca extraction who depicted his personal vision of heaven, earth, and hell in vivid colors and gruesome details. Some say the iconography reflects his witnessing of the brutal subjugation of the Inca under the rebel leader, Tupac Amaru, in 1780. Tupac Amaru not only inspired visions of hell but also raised hell by burning the sixteenth-century church of Sangarará in nearby Acomayo with 300 captive Spaniards inside. Today, the church and its baptistry, the latter decorated with important murals, are in desperate condition, and may be nominated to WMF’s 2008 Watch list of 100 Most Endangered Sites as part of a comprehensive conservation and eco-tourism development plan for this picturesque lake region of the Province of Quispicanchis.

Before returning to Cusco, I made a detour to the Province of Canchis where I visited the Inca site of Raqchi in the company of Pedro Tacca, the archaeologist in charge of its excavation for the past 25 years. The site contains the largest Inca temple ever found, 12 smaller temples symmetrically arranged, 150 circular stone workshops, and several agricultural terraces with a natural water supply. The site was only recently opened to the public.

For all of my familiarity with Inca architecture, this was the first time I had ever heard of this extraordinary site and somehow I do not think it will be the last.... Stay tuned.

—Norma Barbacci
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