Maya Marvels at Risk
SECURING A FUTURE FOR THE ANCIENT NEW WORLD

Bluegrass Blues
A RACE AGAINST TIME FOR AN ICONIC AMERICAN LANDSCAPE

Conservation in the Shadow of Vesuvius
STEMMING THE LOSS OF ONE OF THE WORLD'S MOST TREASURED SITES
What time and neglect are ruining, the World Monuments Fund is fighting to preserve

The World Monuments Fund and founding sponsor American Express created the World Monuments Watch in 1996 to raise public awareness of the plight of the world's most endangered sites and attract the funding needed to save them. American Express has committed $10 million over ten years to the Watch. For the past eight years, American Express Publishing's Travel + Leisure magazine has devoted a special section to the Watch, contributing 10 percent of all net advertising revenue to the cause. We are proud to be associated with the World Monuments Watch initiative and the vital work of the World Monuments Fund.
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, Italy, Portugal, Spain, and the United Kingdom.
Knowing What’s at Stake

DOCUMENTATION IS CRITICAL TO INFORMED DECISION MAKING

When cultural sites are facing urgent challenges, the idea of taking time to document their condition may seem cumbersome, time-consuming, and academic. The temptation is to do something concrete rather than sinking funds into understanding the nature of the problem. Yet documentation is as critical to effective conservation work as preventative check-ups are to maintaining one's health.

Following Pompeii's inclusion in WMF's inaugural Watch List in 1996, WMF supported the first comprehensive condition survey of the site. The result, Un Piano per Pompei, revealed significant deterioration of many of the city's historic buildings and their wall paintings over the last 40 years. This information was sufficiently dramatic to convince the Italian government to create a special autonomous entity to oversee and prioritize conservation in the historic city in the future.

When proposed dam construction on the Usumacinta River, which flows between Mexico and Guatemala, threatened to inundate an area between the famed Maya sites of Yaxchilán and Piedras Negras, WMF commissioned a simulation of the flood zone and a survey of the area to document previously unknown archaeological sites that would be destroyed if a dam were built. This new information has put the project on hold, at least for the moment.

In the Bluegrass Region of Kentucky, where thoroughbred farms are giving way to uncontrolled development, the adoption of an overall regional strategy for the 11 counties that make up the region has been hampered by a lack of knowledge of just what is and isn't protected by some of the oldest preservation laws in the United States. By including the Kentucky Bluegrass region on the 2006 Watch List, WMF hopes to encourage the development of systematic documentation and an integrated plan to protect and manage this sensitive area for the future.

One happy ending occurred at the church of St. John's in Lunenberg, Canada. The community there was devastated when their picturesque "carpenter Gothic" church was substantially damaged by fire in November 2001. But because it is part of a World Heritage site, the building had been carefully documented, which allowed it to be completely reconstructed, using traditional methods and materials. After its Watch listing and a successful fundraising and restoration campaign, the church was rededicated this past year.

As we have learned, thorough documentation of endangered sites and the destructive processes that threaten them can be an effective tool in convincing political leaders to pursue a different course of action, often preventing the irretrievable loss of sites that matter to all of us. And, in a worst-case scenario, careful documentation of these sites will enable us to inform future generations of what we once had, and considered to be important, long after it is gone.

Bonnie Burnham
PRESIDENT
What is space?
It's bigger than just a room.
Space creeps out into the hallway.
Space sprawls out on the patio.
It's your home without dividing lines.
Make the most of your space
at knollspace.com

Knoll
Eero Saarinen Dining Table and Chairs.
For timeless designs, visit knollspace.com or call 866 94-KNOLL for the retailer nearest you.
COMPROMISO CON EL DESARROLLO CULTURAL DE MÉXICO

35 AÑOS

PROGRAMA DE RESTAURACIÓN Y CONSERVACIÓN DEL PATRIMONIO CULTURAL

Dentro de este Programa se impulsa el rescate del patrimonio arqueológico prehispánico y arquitectónico virreinal de México. En Yucatán se trabaja en colaboración con el Gobierno del Estado y el World Monuments Fund, en los siguientes proyectos:

- Aké
- Kabah
- Labná
- Xocnaceh
- Chichén Itzá
- Convento de San Miguel de Maní
Preserving a Great Maya Legacy

For more than a millennium, the Maya civilization flourished in southern Mexico and Central America, building great cities with extraordinary architecture. Today, vestiges of this ancient civilization are evident in the thousands of archaeological sites that dot the region, testament to the engineering skill and artistry of a people whose descendants continue to live in the shadow of these impressive monuments.

For WMF, preserving what remains of this New World legacy presents one of the great conservation challenges as each site differs in its urban design, method of construction, and natural setting. This issue we journey to the land of the Maya where WMF has been supporting efforts to save these ancient cities and devise a comprehensive strategy to address such pressing issues as regular maintenance, public interpretation, and tourism management (see page 30).

Halfway around the world, we catch up with British archaeologist Andrew Wallace-Hadrill to look into the complex preservation and management problems that continue to plague the 2,000-year-old Roman city of Pompeii. Under excavation for more than two centuries, this cultural treasure, included on WMF's inaugural Watch List in 1996, has become in his estimation "a conspicuous example of a conservation crisis," continuing to deteriorate along with other sites in the shadow of Vesuvius as a result of neglect and inappropriate restoration (see page 22). Reflecting on his years of field experience, particularly at Herculaneum, Wallace-Hadrill examines the international efforts to arrest decay at the site and guarantee its preservation for future generations.

Contributors

ANDREW SLAYMAN is a writer and photographer specializing in historic preservation, antiquities, and archaeology.

ROBERT HIRLLE is a Lunenburg-based reporter and photographer for Lighthouse Publishing Ltd., publishers of the Lunenburg Progress-Enterprise and Bridgewater Bulletin newspapers.

A noted historian of Roman society and culture, and author of numerous books, including Houses and Society in Pompeii and Herculaneum, ANDREW WALLACE-HADRILL is director of the British School at Rome and its Herculaneum Conservation Project.

FROM RIGHT, NORMA BARBACCI; WMF’S DIRECTOR FOR LATIN AMERICAN PROJECTS: ARCHAEOLOGIST VILMA FIALKO; ICON CREATIVE DIRECTOR KEN FEISEL; AND EDITOR ANGELA M. H. SCHUSTER SET OFF FOR THE LATE CLASSIC CITY OF MARANJO IN GUATEMALA’S PETEN REGION, THE MOST RECENT SITE TO ENTER WMF’S MAYA PORTFOLIO.
MODERNISM AT RISK HIGHLIGHTED
Norman Foster joins forces with WMF to save endangered works of modern architecture

As rain fell, pooling on the expansive glass roof of the Hearst Tower in Midtown Manhattan on April 25, the crowd inside—including many of America's leading architects, trustees of WMF, and invited journalists—mingled, anticipating the arrival of the toast of the Hearst-sponsored evening, Norman Foster. In recent years, the architect has become a leading advocate for environmental, or green, design, a key component of which, in his view, is the adaptive reuse of historically important structures—the Hearst Tower being a quintessential example of sympathetically incorporating a landmarked building into a visionary new work. Foster's 46-story glass-and-steel tower, which rises from within the shell of Joseph Urban's 1928 six-story structure, is the first building in New York to be granted a Gold Leadership in Energy and Environmental Design (LEED) rating by the U.S. Green Building Council. As part if the building's green design, rain falling on the roof that evening was was being collected to water office-building trees.

Joining WMF president and host for the evening, Bonnie Burnham, were event co-chairs Liz Diller and Ric Scofidio, who have been charged with transforming New York's derelict elevated railroad, the Highline, into a garden paradise; and Tod Williams and Billy Tsien, architects behind the American Folk Art Museum. Andrew B. Cogan, CEO of Knoll, was also on hand. The furniture company is the founding sponsor of WMF's newly launched Modernism at Risk initiative, which seeks to save important, yet endangered works of modern architecture (see wmf.org).

The night before, Foster had wowed WMF supporters and museum-goers with his lecture at the Metropolitan Museum of Art—part of WMF's Touchstones of Past and Present series—where he told the packed house, "I have always felt it is important to go back to the original drawings of buildings to understand what the original architect had in mind before embarking on a radical transformation."
—AMHS

ADVOCATING FOR ROCK ART
Australia's Burrup site of Dampier finds worldwide support

In an effort to protect the 10,000-year-old Dampier Rock Art site from further industrial development, concerned citizens around the world are "standing up for the Burrup" before their own iconic monuments and landscapes. Their hope is to send a powerful message to the Western Australian Government, which refuses to protect the thousands of engravings and petroglyphs at the Burrup Peninsula site, favoring continued expansion of natural gas industry there.

Since the first natural gas plant was built on the Burrup in the 1960s, hundreds if not thousands of engravings have been removed or destroyed, while toxic emissions generated by the installations continue to eat away at renderings not directly damaged by site construction. Despite the wishes of the area's Aboriginal population and advocates for preservation, the Western Australian Government seems content to lose an extraordinary cultural landscape of global importance (see ICON, Winter 2006). To join the campaign to save the site, visit: www.standupfortheburrup.com/
—KAREN GARTHE

Italians in Africa on view in London

ASMARA: AFRICA'S SECRET MODERNIST CITY, AN EXHIBITION HIGHLIGHTING THE ARCHITECTURAL WONDERS OF THE ONE-TIME HUB OF ITALIAN COLONIALISM IN AFRICA, AND PRESENT-DAY CAPITAL OF ERITREA, OPENS AT THE ROYAL INSTITUTE OF BRITISH ARCHITECTS ON JULY 2. A 2006 WATCH SITE, ASMARA HAS ONE OF THE WORLD'S LARGEST ENSEMBLES OF MODERN ARCHITECTURE, DESIGNED BY ITALIANS AND BUILT BY ERITREANS DURING THE TWENTIETH CENTURY. THE EXHIBITION, ON VIEW UNTIL AUGUST 18, IS SPONSORED IN PART BY WMF IN BRITAIN.
HIGH-PROFILE PROJECT LAUNCHED
WMF to restore a Khmer masterpiece

Few works of Southeast Asian art rival that of Churning of the Sea of Milk, a 49-meter-long bas relief that graces the east gallery of Angkor Wat, the most famous of all the temple complexes at Angkor in Cambodia. Commissioned by the Khmer king Suryavarman II in the twelfth-century A.D., the relief recounts a Hindu creation myth in which devas (gods) and asuras (demons) join forces in churning the primordial ocean, in order to release amrita, the elixir of immortality.

The relief was first documented in the 1960s and 1970s by the Ecole Francais d’Extrême Orient (EFEO), which determined that it was in dire need of conservation and structural stabilization, having been exposed to centuries of water infiltration. At that time, members of the EFEO carefully mapped the thousands of stones that make up the frieze and then disassembled them to carry out necessary repairs. The French installed a new foundation, retaining walls, and drainage system, however, war broke out in Cambodia before the project could be completed, leaving the sandstone blocks of the relief exposed to the elements for well over a decade. When hostilities ceased in the late 1980s, a team of conservators from the Archaeological Survey of India began work on a number of projects begun by the French, among them the restoration of the Churning of the Sea of Milk gallery.

“Unfortunately,” says WMF consultant Glenn Boornazian, who is spearheading technical evaluation and conservation planning for the project, “the ASI reassembled the roof using a portland cement with high concentrations of water-soluble calcium sulphate (gypsum), which has accelerated the decay of the fragile sandstone. In the process, the ASI also sealed up the original Khmer drainage system, which once channeled water away from the carvings.” Using state-of-the-art evaluation and monitoring techniques, Boornazian and his team have been able to assess the external and internal condition of each individual block and pinpoint the source of the damage. In the coming months, the roof will be disassembled once again and work will begin within an on-site laboratory to desalinate the masonry blocks, stabilize surfaces, and restore the original drains. Funds permitting, Boornazian and his team hope to install a walkway and viewing station so visitors to the site can look in on the conservation work, which is expected to take at least two years and cost an estimated $1.5 million to complete. For information on supporting this exciting project and following its progress, see wmf.org

WATCH SITE SAVED
Frank Lloyd Wright’s Ennis House out of danger

Frank Lloyd Wright always knew how to reassure clients nervous about his technological and aesthetic experiments. “The final result is going to stand on that hill a hundred years or more,” he wrote in 1924 to Charles and Mabel Ennis, owners of a Los Angeles clothing store, while building them a concrete-block ziggurat atop a Hollywood Hills ridge. But even during construction, the walls showed signs of bulging and cracking, and the Ennises ended up firing the contractor: none other than Wright’s son Lloyd.

The Ennis house has since suffered devastating earthquake damage and flooding; many concrete blocks have shed their interlaced-square patterning, and entire walls have collapsed. The city declared the site uninhabitable in 2005, and it appeared on WMF’s 2004 and 2006 Watch Lists. Healthy momentum, however, has built up in the wake of the listings.

A new Ennis House Foundation led by a strong board of directors—including actress Diane Keaton and Lloyd’s son, Eric Lloyd Wright—has replaced the house’s previous owners. A year-long, $6.5 million stabilization and reconstruction, funded by FEMA and a loan guaranteed by supermarket tycoon Ron Burkle, is slated for completion this summer.

The foundation has brought in 60-ton cranes to haul new concrete beams and columns up the hillside. Water-damaged interior plasterwork, wood beams, and herringbone-pattern stained glass windows and doors have been repaired. “The work has gone very smoothly,” says foundation treasurer Stephen McAvoy. “Eric Lloyd Wright, 76, has been up on the scaffolding. He’s seen the work up close and been very pleased.”
ADAPTIVE REUSE SCHEME
Ellis Island Hospital poised to become conference center

Immigrants at Ellis Island who failed the staff's snap-judgment health inspections sometimes spent a year or more convalescing at the island's hospital complex. In 30 early twentieth-century buildings, the U.S. government set up wards for contagious and non-contagious disease victims, as well as labs, staff housing, laundries, kitchens, and a morgue. Inmates who recovered could enjoy a library, theater, and playground. When they were certified cured, they left the island via an Art Deco ferry terminal that has been called "the happiest building in New York."

Wedged between the hospital zone and main registry hall, the 1936 terminal replaced an 1890s wooden predecessor that had burned. Charles Delano of blue-blood architecture firm Delano & Aldrich designed the brick building, trimming the copper cupola in bronze eagles and stone chevrons. Delano's elegant work only served the tail end of immigration flow—the government shuttered the island in 1954. Aside from the main building's lauded 1990 transformation into a museum, architecture there has since been molding. (In 2006, the Baggage and Dormitory Building next to the museum was added to WMF's Watch List.)

The ferry building, however, may now signify changing tides. It opened in April after a $6.4 million, seven-year restoration, orchestrated by Save Ellis Island Inc., a nonprofit partner of the National Park Service. Inside the former waiting rooms, photos and artifacts explain hospital history; the wall texts quote from interviews with former patients, who remember the confusion and terror of being separated as children from their newly arrived families and the comforts provided by nurses with soft voices and stroking hands.

The last ferry that served the terminal, a 1904 artifact with a 1,000-passenger capacity, sank in the island's harbor during a 1968 summer squall. Its rusted skeleton peeks above the water line at low tide. This summer, the Park Service plans to dredge out the remains, salvaging the engine and propellers for museum display. Meanwhile, long-term plans are afoot for a $250 million conversion of the hospital complex into the Ellis Island Institute and Conference Center, focused on immigration and public health. For schedules of free tours and restoration updates, see www.saveellisisland.org.

—EVE M. KAHN

SPOTLIGHT ON COLD WAR ARCHITECTURE
Unknown Soviet works in focus

For the past five years, French photographer Frédéric Chaubin has traveled throughout the former Soviet Union, documenting fantastic commissions carried out by architects of Eastern Bloc countries—Armenia, Estonia, Georgia, Lithuania, Belarus, Ukraine, and Russia—during the Cold War years of the 1970s and 1980s. Operating in a cultural context sealed off from the influence of their Western counterparts, these architects drew inspiration from sources ranging from expressionism, science fiction, early European Modernism, and the Russian Suprematist legacy to produce an idiosyncratic, flamboyant, and often imaginative architectural ménage, which stands in stark contrast to stereotypical late-Soviet architecture. As well as presenting the architecture itself, CCCP: Cosmic Communist Constructions Photographed traces the intellectual and political undercurrents that act as a backdrop, and at times inspiration, for the work of these Soviet architects, who, until now, ever achieved anything more than local recognition. CCCP is on view through May 26 at the Storefront for Art and Architecture in New York, 97 Kenmare Street, NYC 10012, Tel 212.431.5795 info@storefrontnews.org.

—AMHS
MONUMENTAL MADNESS
Do we really need a new Seven Wonders of the World?

A New Seven Wonders of the World is to be announced in Lisbon, Portugal, this coming July 7. Chosen not by one man—Philon of Byzantium in 200 B.C.—as was the original list, the new seven are being selected via a global online voting campaign, the brainchild of Swiss film producer, author, and aviator Bernard Weber. As of this writing, the field has been narrowed to 21 finalists, eight of which have been the subject of WMF-sponsored conservation efforts.

Tourism officials in the countries where the finalists are located have spared no expense in promoting their respective wonders, which, according to contest rules, must be man-made and date from the dawn of humanity to the year 2000 to qualify. Preservation professionals, on the other hand, fear a greater tourism burden on already trampled sites such as Mexico's Chichén Itzá (see page 30). According to New7Wonders spokesperson, Tia Viering, half the profits from the campaign will be donated to "global good causes in historic preservation."

Of the original Seven Wonders—the Great Pyramids of Giza, the Hanging Gardens of Babylon, the Statue of Zeus at Olympia, Temple of Artemis at Ephesus, the Mausoleum at Halicarnassus, the Colossus of Rhodes, and the Lighthouse of Alexandria—only Egypt's pyramids still stand.

STAGE MAKEOVER
Britain's Theatre Royal gets a facelift

In the early 1800s, a southeast English town called Bury St. Edmunds attracted crowds from across the region every autumn for a theater troupe's six-week residency at the Theatre Royal. Actors with enormous stamina performed up to four plays a night to raucous audiences crammed onto backless, cushionless benches at the 1819 neoclassical theater, designed by architect/troupe manager William Wilkins. The building was engineered for lavish special effects—simulated avalanches, cannon explosions, ghost visitations—amid dazzling house décor. The exterior is an austere, pilastered, whitewashed-brick box, but the inside is gaily painted with portraits of goddesses and griffins and trompe-l'oeil skies over a protruding forestage.

"It's a palace of illusion in 360 degrees, with fantastic acoustics; it would have been an extraordinary, transporting experience for the ticket buyers of the time," says Colin Blumenau, the Theatre Royal's artistic director.

Used for performances sporadically from the 1840s to the 1920s, the building languished for much of the twentieth century as a brewers' barrel warehouse. In 1965, it reopened as a theater, but with only conjectural versions of its original paint schemes and stage layout. This September, after a £5.1 million restoration (funded by government, foundation, and individual grants), the Theatre Royal will unveil a well-researched restoration of its 1819 appearance, brought back by London architects Levitt Bernstein Associates.

On the new forestage (one of only two Georgian survivors in Britain), Blumenau plans to revive plays he calls "glorious forgotten gems. We want to do for Georgian theater what the Globe has done for Elizabethan theater." The only period-inappropriate aspects of the Theatre Royal experience will be the climate controls, seat padding, state-of-the-art backstage equipment, and extended foyer, among other visitor amenities. "It's a vibrant, living, working theater, and of course the audiences expect comfort now," he says. "But the actors will never need microphones here, and we'll be able to dim the lights to candlelight levels, to add another measure of authenticity."

For visitor information (tours will be available when rehearsals are not in progress), see www.theatreroyal.org

—AMHS

Vote for me! on www.new7wonders.com

THE CASTILLO AT THE MAYA SITE OF CHICHÉN ITZÁ, YUCATÁN, MEXICO

-WMFO.ORG

-ICON—
A distinguished architectural critic and writer, ICON contributing editor Colin Amery has been director of WMF in Britain for nearly a decade. Now, as he hands over the reins of chief executive of our British affiliate to noted architectural historian and host of the popular BBC archaeology program *Time Team*, Jonathan Foyle, we thought it an opportune time to have Amery—who will remain a senior advisor to our organization—introduce his hand-picked successor and explore the future of WMF in Britain.

**CA:** Welcome aboard the WMF ship. As an architectural historian and archaeologist as well as someone who has been taking groups on cultural tours for some years, you sound like just the man for WMF. How did your passion for the heritage first begin?

**JF:** I was raised in the country, in Lincolnshire, and as a teenager I started to go on long solo cycle rides across the flat Fen country and into Northamptonshire. What strikes a visitor to that part of England are the churches rising out of the landscape and the superb quality of the local stone. I realized that when you just walk inside the door of an ancient parish church the whole perspective of the centuries opens up for you. I felt transported into a different time zone and that sense of wonder and history, once you have felt it, never leaves you.

**CA:** Were you directed by anyone at that time?

**JF:** No, I was on my own, but I was inevitably influenced by Nikolaus Pevsner’s incredible guides to the buildings of England and his impenetrable texts did make me curious to understand chronology and architectural style.

**CA:** So was it history that made you want to become an architect?

**JF:** Well, not just that I loved to draw and paint and so on; it was also visual and aesthetic pleasure. I realized that I could always draw and paint in my spare time but that I wanted to train as an architect and so I took myself off to the College of Art in Lincoln, where I studied under the shadow of my favorite building, Lincoln Cathedral. I was gripped daily by the scale and detailed beauty of that great cathedral.
CA: Were you keen on Modern architecture?
JF: No, not really. I found it disappointing, and my passion for history took me on to the School of Architecture at the University of Kent at Canterbury where I could again study close to a medieval masterpiece. I preferred to work with my pencil and a box of watercolors rather than learn to draw with CAD [computer-aided design] systems. There was also an inspiring teacher of architectural history at Canterbury, Christopher Tadgell—who, incidentally, is now a Trustee of WMF in Britain—and he told us the thrilling story of the history of architecture.

CA: You strike me as very English in your appreciation of history and architecture.
JF: I was pretty convinced in my youth that England was the center of the world. But I soon traveled to Italy. When I was 18, I did my own version of the Grand Tour on a bicycle! England’s influence has always interested me, from Georgian Colonial buildings in the U.S. to the products of the Industrial Revolution that we exported globally. But it is a two-way trade, and the Chinese Pagoda at Kew Gardens and the Indian domes at Brighton’s Royal Pavilion show how we absorbed international influences. Italy, I think, convinced me that historic buildings were going to be my life’s work and my love of the medieval world. Beyond architecture, I have always been interested in the development of cultures. In North America, I was fascinated to see how Native American sites in Arizona were developed at the same time as we were building Salisbury Cathedral. Parallels across continents in always instructive. So I went to the Courtauld Institute in London for a year to learn much more, while working on my thesis, about the methods of historical research.

CA: So WMF looks as though it will suit you well! You have spent some time working with the agency that cares for Historic Royal Palaces and wrote your Ph.D. on aspects of Hampton Court. Was it the commercialization of the palaces that made you move into the world of freelance consulting and teaching?
JF: In some ways yes, but I am a fervent believer in making history accessible and I see an important educational role for WMF. I also like the way WMF in Britain is not a bureaucracy, like English Heritage. I was staggered to find how few people work for WMF in Britain and how much it has achieved in the last decade.

CA: How do you think you can convey your passion for seeing and learning under the WMF umbrella?
JF: Historic buildings and monuments contain clues and information that connect all types of people to the qualities of the past. Archaeology is really about discovery, and that generates enthusiasm to conserve the artifacts of the human story. For me and for the general public who don’t live in palaces, the archaeology of everyday life is often very eloquent. Historic places are part of the mosaic of human memory, I’d like to see 10,000 members of WMF in the UK and the strength of an international outfit like WMF is that it is not government. It can speak for everyone and WMF and its affiliates in Europe can learn so much by cooperating with each other and sharing knowledge.

CA: Is it too early to ask for a mission statement for WMF in Britain?
JF: No, it’s a good moment. I’d like to see that WMF in Britain aims to leave every building in its care in better condition, better understood, and better valued so that the legacy of the world’s historic environment is enhanced for present and future generations.
A extraordinary altarpiece and several stone funerary monuments within the fifteenth-century monastery church of Santa María de Miraflores in Burgos have just been unveiled following a two-year WMF-sponsored restoration.

Located in northwestern Spain, the Cartuja (or Carthusian monastery) de Santa María de Miraflores was designed by Hans and Simon of Cologne and completed in 1482. The complex was built atop the remains of an early fifteenth-century hunting lodge that was given to the Carthusian Order by King John II in 1442 and which was subsequently gutted by fire. Within the monastery church is one of the most important ensembles of late Gothic art and architecture to survive in Spain—two intricately carved stone sepulchers and a massive gilt and polychrome wooden altar—all the work of “wandering Jewish” artist Gil de Siloé, executed between 1493 and 1499.

The principal tomb is that of King John II and his second wife Isabel. The second belongs to their son, the Infante Alfonso, who died at the age of 14, having been poisoned in the wars of succession. His death paved the way for his sister Isabella—principal patron of Christopher Columbus’ New World voyages—to ascend to the throne. Her marriage to Ferdinand in 1469 joined the royal houses of Castille and Aragon, leading to the creation of modern Spain.

The carved alabaster mausoleum of King John II and Queen Isabel is in the shape of an eight-pointed star, a representation of the Maltese Cross and an emblem of the Knights of Saint John of Jerusalem at the time of the crusades. Atop the star-shaped chamber are carved representations of a recumbent king and queen surrounded by miniature angels, several of which were stolen by French soldiers stationed there during the Napoleonic wars. The tomb chamber of the Infante Alfonso, which is against the wall to the left of the altar, is capped with a statue depicting the young prince kneeling in prayer, surrounded by cherubs.

Spanish Splendor

CELEBRATING THE LATE
GOTHIC AT THE CARThUSIAN MONASTERY
OF SANTA MARÍA DE MIRAFLORES

The altarpiece, which was carved by artisans from Siloé’s workshop between 1496 and 1499, measures 13 by 9.5 meters and comprises some 50 individual figures, including members of the holy family, saints, martyrs, monks, King John II, and the royal arms of Castille and León. The carvings and other exquisite decorative flourishes, which were painted by Diego de la Cruz, bear a Moorish motif that echoes the design of the mausoleum.

Over the centuries, the wooden elements of the altar had been damaged by humidity and biological growth, resulting in a weakening of structural supports and pigment loss, while the stone elements had suffered material loss and damage during the Napoleonic period. For decades, the monks who continue to live at the monastery had tried to engage the preservation community to carry out comprehensive study and conservation of the extraordinary artworks, yet funding for such a project seemed to constantly elude them. That was until 2004, when the Fundación Iberdrola, the philanthropic arm of one of Spain’s foremost private electric companies, stepped forward to support the conservation project, joined shortly thereafter by WMF, with whom the company had partnered on a prior restoration effort.

In 2005, WMF Spain officially launched the jointly funded project with a technical team from Junta de Castilla y León supervising the conservation efforts. The work involved documenting and conserving the main altar and mural paintings, the intricately carved tomb of Infante Alfonso, the alabaster mausoleum of King John II and Queen Isabel, and the wrought-iron rood screen. During the project, the conservation team made the surprising discovery of Infante Alfonso’s remains, thought to have been removed from his crypt and lost during the Napoleonic invasion.

The restoration of the church’s altar and mausoleums, which cost $700,000, was funded by
THE REMAINS OF THE INFANTE ALFONSO, LONG THOUGHT TO HAVE BEEN DESECRATED DURING THE NAPOLEONIC WARS, ABOVE LEFT, WERE FOUND IN THE PRINCE'S SEPULCHRE, BELOW LEFT, DURING RESTORATION. AN EXTERIOR VIEW OF THE CHAPEL, ABOVE, FACING PAGE, THE MAUSOLEUM OF KING JOHN II AND QUEEN ISABEL.

grants from the World Monuments Fund—including the Robert W. Wilson Challenge to Conserve Our Heritage and the Samuel H. Kress Foundation European Preservation Program. Additional funding for this project and for the conservation of the stained glass was provided by the regional government of Castille and León, the archdiocese of Burgos, and the Foundation of Castillian Patrimony.

"We are very proud to have taken part in the restoration of this exceptional monument," said Juan Carlos Fierro, President, WMF Spain, during a formal inauguration of the restoration on March 19, "since it demonstrates our commitment to the conservation of Spain’s historic patrimony." The Cartuja de Miraflores, he added, "is full of history, from its awe-inspiring architecture to the centuries-old rites that are still performed today. This is a place that Spain—indeed, the world—cannot afford to lose."

"The inauguration is particularly special for the World Monuments Fund," said Bertrand du Vignaud, president of WMF Europe at the event, "as it is the last in a recent series of noteworthy ceremonies that show the ever-stronger presence of WMF in Europe."

The ceremony was attended by Her Royal Highness Infanta Doña Pilar, the Duchess of Badajoz; the Most Reverend Francisco Gil Hellin, the archbishop of Burgos; Juan Vicente Herrera, president of the Regional Government of Castille and León; Vicente Orden Vigara, President of the Burgos Provincial Government; Juan Carlos Aparicio, Mayor of Burgos; Ignacio Sanchez Galán, President of Iberdrola Electric Company; and Santos Llamas, president of the Foundation of Historic Patrimony of Castille and León Foundation.

In December 2006, conservation work drew to a close at the Cartuja de Santa María de Miraflores, one of the few places in Spain where rosaries are still made from roses. ■

—ANGELA M.H. SCHUSTER AND HOLLY EVARTS
A RACE AGAINST TIME FOR KENTUCKY’S Bluegrass Country

By Andrew Slayman

ay “Kentucky Bluegrass” during Derby season, and people’s visions run to rolling meadows, plank fences, and legendary horses like Seattle Slew—winner of the 1977 Triple Crown. As one drives the old turnpikes around Lexington, seat of Fayette County and de facto capital of the 1.2-million-acre Inner Bluegrass, one passes gate after gate marked with brass plates quietly announcing some of the most famous names in the thoroughbred world—Calumet, Claiborne Farm, and Airdrie Stud among them. Through these gates have passed numerous Kentucky Derby winners and six of the 11 Triple Crown winners in history.

With more than 450 horse farms, Bluegrass is justly known as the “horse capital of the world.” It is a befitting moniker for a region that is to host the World Equestrian Games in 2010. By the time of the games, however, the Bluegrass may well be significantly
smaller than it is today. Despite having some of the oldest and most ambitious land preservation programs in the country, this iconic American landscape has lost more than 80,000 acres of farmland to development during the past decade, an alarming trend that landed the Inner Bluegrass on WMF's 2006 List of 100 Most Endangered Sites, and which has left many wondering how such a storied region could fall prey to subdivisions and strip malls.

The bulk of the development has been centered on Lexington, whose population has doubled in recent years. As Lexington has expanded, the ten surrounding counties—which, together with Fayette, make up the Inner Bluegrass—have come under increasing development pressure. "I've lived in Lexington off and on for the last 35 years, and the city has ballooned over that period," says Rachel Kennedy of the Kentucky Heritage Council, which joined forces with the University of Kentucky's College of Design, the Bluegrass Conservancy, and the Blue Grass Trust for Historic Preservation in nominating the region to the Watch List. Their hope is that the listing will help foster cooperation among the counties and encourage a sorely needed regional approach to planning.

"Horses do so well in the Bluegrass because of the bluegrass itself," says WMF's Marty Hylton, a Kentucky native. "The whole region rests on a limestone plateau, so the grass is rich in calcium and phosphorus. Horses that eat the grass develop stronger bones and muscles." This grass and the horses raised upon it are one of the region's main economic engines. In addition to the farms themselves, which bring in some $250 million a year in stud fees, there is Keeneland—the second-oldest thoroughbred track in the country after Saratoga—which together with the auction firm Fasig-Tipton books as much as $850 million a year in horse sales. Statewide, the thoroughbred industry—with its unofficial headquarters at the Kentucky Horse Park in Lexington—brings in an estimated $4 billion a year and is responsible for 80,000 to 100,000 jobs, according to the Kentucky Equine Education Project (KEEP). And visitors to the Bluegrass—drawn by its splendid natural beauty and many historic sites as well as its horse farms—spend another $1 billion a year.

In addition to its horse farms, the Inner Bluegrass has at least four working bourbon distilleries, including Woodford Reserve, established in 1838 and completely restored in the mid-1990s. Woodford Reserve still buys all its grain from local farmers, draws its water from a limestone well beneath the distillery, and distills its whiskey in old-fashioned copper-pot stills up to 28 feet tall. Scattered among the pastures, a number of farms grow tobacco and air-cure it in the open-sided "Kentucky tobacco barns" that dot the landscape. County seats, including Paris and Winchester, offer historic downtowns, many of them preserved thanks to the state's Main Street Program. Lexington itself has numerous historic sites, including Gratz Park, several preserved nineteenth-century African-American hamlets, the Mary Todd Lincoln house, and Ashland, the elegant estate of Kentucky senator Henry Clay. All in all, the Inner Bluegrass boasts 865 sites on the National Register of Historic Places and 12 National Historic Landmarks, including Keeneland, Woodford Reserve, Ashland, and the Shaker village at Pleasant Hill.

Most of these properties have been preserved through private efforts. "I've come to believe that most Lexingtonians get their identity from the Bluegrass landscape," says David Mohney, dean of the College of Design at the University of Kentucky. And visitors to the Bluegrass—drawn by its splendid natural beauty and many historic sites as well as its horse farms—spend another $1 billion a year.
I

I

I

TWIN TURBINES OF WEISENBERGER MILL,
BELOW, SINCE THE EARLY 1800S.

URBAN SPRAWL ABUTS A FAMILY
FARM, ABOVE, THE WATERS OF SOUTH
ELKHORN CREEK HAVE POWERED THE
TWIN TURBINES OF WEISENBERGER MILL.
BELOW, SINCE THE EARLY 1800S.

of the University of Kentucky's College of Design. "But the irony of that is that it's
a private landscape, and the sense of public identity comes from the good will and
grace of a series of private owners." KEEP estimates that the thoroughbred industry
preserves some 140,000 acres statewide, mostly in the form of working, private
horse farms, many of whose owners have given conservation easements protecting
their land from development to organizations like the Bluegrass Conservancy. "The
conservancy was formed in 1995 to preserve agricultural resources through the use of
conservation easements," says former executive director Tim DeWitt. "Currently we
hold 23 easements on 3,656 acres and are in the process of finalizing two additional
easements containing more than 800 additional acres."

Founded in 1955, the Blue Grass Trust for Historic Preservation owns two prop­
erties in Lexington—the 1811 Pope Villa and the 1815 Hunt-Morgan House—and holds
restrictive covenants on 15 more. Three years after the Blue Grass Trust was estab­
lished, the county put in place the first urban service area in the county, primarily as
a response to groundwater pollution that was causing elevated hepatitis rates. Within
the urban service area, the county would provide sewer services, but except in des­
ignated historic districts new building was only lightly regulated. Outside the urban
service area, the county provided no sewer service, but set a minimum lot size of ten
acres to minimize water contamination from septic systems. (Water quality remains
a problem in the area, and last fall the U.S. Environmental Preservation Agency filed
suit against the city of Lexington for violations of the Clean Water Act.)

While the urban service area was originally established for health reasons, it has
proved an effective tool for containing growth in Fayette County. Since 1958, the
county's population has grown from about 130,000 to 270,000, an increase of more
than 100 percent. But over the same period, the urban service area has grown by only
23 percent—from 69 to 85 square miles out of a total of 285. "The urban services area
has worked really well at a macro scale," says Mohney, "but not as well at a smaller
scale. Outside the boundary it's working well to preserve the rural character of the
land, but the county hasn't managed what's happened inside the boundary."

Inevitably, with the population growing faster than the urban service area, unde­
developed parcels within the area are coming under increasingly intensive development
pressure. Of the old farms that have given way to shopping malls and subdivisions,
Hamburg Place may be the most prominent. Originally a 2,000-acre horse farm on the northern outskirts of Lexington, Hamburg Place produced seven Kentucky Derby winners, the last being Alysheba in 1987. But over the past five years, a large retail complex has taken shape in what was once pristine fields, and thousands of houses have been built, are under construction, or are planned for the future. Developer Patrick Madden, whose great-grandfather bought Hamburg Place in 1898 and whose family still owns the property, says, “It became impractical to farm it as a horse farm with the Interstate, three sewers, two water lines, and an electric station running through the place. When the city grew up against it, it became silly from an economic standpoint to raise horses on it.”

Population growth has also driven the demolition or redevelopment of a number of buildings in Lexington proper, many of which owe their fate to neglect. “This usually occurs when absentee landlords do the absolute minimum in terms of maintenance and allow buildings to deteriorate, often to the point where the city assesses fines and the threat of condemnation becomes a possibility,” says Zanne Jefferies of the Blue Grass Trust. The trust has worked with owners to save a number of buildings, including several houses dating from the 1830s, a barber shop dating from 1875, and an apartment building built in the 1920s. But sometimes even well-intentioned owners are unable to preserve historic structures. In 2004, a vacant Woolworth’s store dating from 1946 and listed in the National Register of Historic Places was demolished to make way for a parking lot after the owner—widely praised for his effort to save the building—failed to find tenants willing to foot the bill for a badly needed $5 million renovation.

While some grumbling about the county’s strict land-use policies in the rural zone is inevitable, there does seem to be a public recognition that much of the area’s identity derives from its beautiful rural landscape, and that this is something worth conserving. In 1999, the minimum lot size in the rural area was increased to 40 acres, a move that was lauded by conservationists but criticized by some property owners. The following year the county initiated its Purchase of Development Rights (PDR) program, which sought to preserve 50,000 acres of privately owned rural land in Fayette County—out of a total of 128,000 acres—by buying development rights from the owners. So far, the PDR program has protected more than 151 farms (including 84 horse farms) comprising at least 17,000 acres, at a cost of some $44 million—including $20 million from the county, $15 million from the state, and $9 million in federal grants. Billy van Pelt, the PDR program manager, is optimistic about its future. “We have 72 applications on 6,000 acres for 2007,” he says, and Lexington’s newly elected mayor strongly supports continued funding of the program.

Last fall, a proposed expansion of the urban services area by 7,700 acres spilled over into Lexington’s mayoral campaign. In a poll sponsored by a coalition of horse farmers, 74 percent of voters said they did not think more farmland should be offered up for development, and 71 percent said they would be unlikely to vote for a candidate who wanted to expand the urban...
service area. In the end, the anti-expansion camp won the election, and the proposal to increase the urban service area was defeated—at least for the time being. But even the staunchest conservationists admit that growth is necessary; developers, for their part, seldom deny the value of conservation—but, they say, it should be balanced against the need for new jobs and new places for people to live. “If we want to protect all the old horse farms up and down Old Frankfort Pike and Paris Pike, then let’s protect them,” says Patrick Madden. “But Lexington still does not have enough jobs and opportunities for kids coming out of college, and that’s one area I’d like to see improvement. Does that mean we have to destroy all the horse farms? I don’t think so.”

While Fayette County has largely succeeded in containing growth to the core of Lexington, the very lack of developable land in the county and the high prices it commands have driven growth in the outer counties. “Many [of those counties] don’t have the same planning and zoning approach as Fayette,” says David Mohney. Zoning regulations vary enormously from county to county, with minimum lot sizes ranging from one to five acres—tiny compared to Fayette’s 40-acre minimum. Rachel Kennedy points to Jessamine County, “border[ing] Lexington on the south, [which] has expanded its urban service area all the way to the Fayette line along U.S. Route 27. There has been urban sprawl-type growth, with significant losses of historic structures and cultural landscape.” Among the projects under development: A shopping center with almost 300 acres of retail and office space, planned for construction in phases through 2010.

The decline of tobacco farming over the past ten years, as the federal government has purchased farmers’ quotas to encourage them to convert to other crops, has had the effect of bringing more farmland onto the market. In 1997 almost 49,000 acres of tobacco were harvested in the 11-county region, according to the U.S. Department of Agriculture; by 2005 the number had declined to just over 11,000 acres. When farmers stop growing tobacco, they must find alternative uses for their land. “One of the ugly alternatives is the continuation of exurban development patterns,” according to Tim DeWitt. Additionally, with the decline of farming has come the deterioration of farm structures such as tobacco barns and warehouses—both of which are included on the Blue Grass Trust’s 2005 lists of endangered sites. Beyond buildings, other landscape features such as dry-stone walls are also disappearing. As of 1967, 50 miles of stone fences survived in Fayette County; by 1990, only 39 miles remained. Since then the pace of destruction of the fences has slowed, at least in Fayette County, thanks in large part to the passage of regulations barring developers from destroying stone fences along roads. Legislation recently proposed at the state level would offer owners tax credits for restoring dry-stone fences.

While the 11 counties in the region are all tackling the challenge of planning for growth, there has been little coordination among them—yet there is a consensus among conservationists and devel-
opers alike that regional coordination is exactly what is needed. “Planning in the Inner Bluegrass will only be successful if there’s a state mandate and if all the county governments work together to take a regional approach,” says Marty Hylton. Rachel Kennedy agrees: “It’s urgent to look at planning on a regional scale, as the Bluegrass region as a whole. What happens in Fayette has an impact on Jessamine, Washington, Montgomery, and the other surrounding counties. When we’re not thinking about that, we’re not adequately addressing the question—and there is no government organization charged with looking at it overall.” But whether regional planning can move from drawing board to reality is an open question. “I believe in regional development and planning,” says Patrick Madden, “but as a practical matter I’m not sure how you could do it when politics are involved and the [individual] counties have been run the way they’re run for a long time.”

One obstacle to regional planning is the availability of information on which to base planning decisions. “Right now much of the information about the area—its natural, agricultural, scenic, cultural, and historical resources—is dispersed through different organizations and sources,” says Dana Cox of the University of Kentucky’s College of Design, “so when policy makers look at land use and planning issues, there’s no one resource that says ‘Look what you’ve got here.’” The four groups that together submitted the World Monuments Watch nomination hope to help foster a regional approach to planning by surmounting this obstacle. “We are currently attempting to secure funding for a pilot computer modeling project that would inventory biodiversity, agricultural resources, cultural and historic resources, and scenic landscape quality across the region,” says Tim DeWitt. “We are putting together a work program for this pilot project that will cover a minimum of 20 square miles, the epicenter of which will be at the Kentucky Horse Park. We believe that once the pilot model is up and running it will generate considerable interest in preserving the Bluegrass, and ultimately provide the methodology for modeling the entire region.” But such an ambitious project does not come cheap: In their application to WMF, the coalition estimated that it would cost $4 million over five years—a funding mandate that remains, so far, unfulfilled.

Nonetheless, all participants view the listing as an important first step. “Of all the sites on the 2006 Watch List, the Inner Bluegrass has received the most press next to Iraq and the U.S. Gulf Coast/New Orleans,” says Hylton. “The listing has helped galvanize interest in the Inner Bluegrass as a region,” says Cox. “It has given everyone something to point to.” Building on the publicity generated by the Watch, the group has put together a museum exhibition entitled Vanishing Bluegrass, which “explores the importance of balance in urban development and land preservation and the impact [development] has on the future of the land, its wildlife, and people.” The exhibition will be on view at the Kentucky Derby Museum in Louisville through December 31, 2007. But Fayette County’s population is projected to grow by another 60,000 by 2030, and what happens both inside the urban services area—where such legendary properties as Calumet Farm remain undeveloped—and in the surrounding counties will be the truest measure of the listing’s success. And if the coalition can bring about a regional planning process that successfully balances the competing needs of growth and preservation, it will have learned many lessons of value to communities across the country—and around the world—that are experiencing similar pressures.
CONSERVATION IN THE
A decade after Pompeii was included on WMF's inaugural List of 100 Most Endangered Sites, problems at the site and others on the Bay of Naples persist.

by Andrew Wallace-Hadrill

The visitor to the ancient Roman sites of Pompeii and Herculaneum can easily recapture the drama of their destruction when Vesuvius erupted in A.D. 79. But, unknowingly, he or she is also witnessing a second, slower, but no less devastating destruction. For everything that is most precious about these extraordinary sites, and which does most to evoke a past world—the delicate frescoes on the walls, the wooden beds and shutters—is also most subject to decay. Gradually, inexorably, the sites are disintegrating. It is a long process that stretches back some two and a half centuries, set in motion when the first excavations brought to light the remains of the ancient cities in the late 1740s. If we could view a high-speed film of the sites taken over several years, we would be horrified to see just how much crumbles and disappears, day by day.
It is easy to observe the signs of this process: streets and houses barred off with danger signs; doors not merely locked, but nailed shut with wooden planks; rusty iron scaffolding and worn plastic sheeting veiling areas of collapse. Anyone accustomed to maintaining his own property is sure to notice far more: cracked concrete beams revealing rusted iron reinforcements; damp rising up frescoed walls and the tide mark left by that damp visible in salts leaching through the plaster, which have caused it to blister and flake; and water pooled on mosaic floors and moss and vegetation spreading over what were once mosaic pavements, but have since disintegrated into their component parts. Such telltale signs arouse suspicion of deep neglect and the likelihood of serious structural faults. And rightly so, for these are all symptoms of a profound and widespread malaise that continues to plague one of the world’s greatest archaeological treasures.

How can it be that these sites have been allowed to become a conspicuous example of a conservation crisis, despite the international limelight in which they are bathed, and the constant attention of the media? And what can be done about it? If you want to play the blame game, it is only too easy to find culprits. Did the excavators think through the long-term conservation consequences before they exposed these remains to the daylight? Does the tourism industry that profits so much from these sites put back its fair contribution? Do the politicians who control the funds understand the risks they are taking with the future by not investing in conservation? Is the heritage agency set up in a way that enables it to do its job of protecting the site? The answers to all these questions are heart-breakingly negative. Nevertheless, the situation is not impossible and unmanageable.

It is essential to acknowledge what an extraordinary demand we are making in expecting these fragile remains—which witness nearly three million visitors annually—to survive intact.
Following the inclusion of Pompeii on WMF's inaugural Watch List in 1996, the organization partnered with the Soprintendenza Archeologica di Pompei (SAP) to launch a campaign to digitally document and assess the condition of the ancient Roman city, block by block, insula by insula—including more than 242,000 square meters of walls surfaces, 17,000 of which are painted; 20,000 square meters of plasterwork; and 12,000 square meters of floors, some of which have mosaics. As a critical step in the development of a masterplan for the site, *Un Piano per Pompei* was created to aid the SAP in conservation planning and site management.

By 1997, the first digitized interactive map of Pompeii—created by Giovanni Longobardi and Andrea Mandara of the Studio di Architettura—was released along with the criteria that were to be used to evaluate the condition of its urban fabric. Drafted on a 1:1,000 scale, the GIS-based map of the 67-square-kilometer site would ultimately be linked to thousands of records detailing the conditions of individual buildings and abundant archival material. In 1999, the completed map was issued in ArcView and a multidisciplinary team began the arduous task of linking it to Neapolis, a comprehensive database for Pompeii composed of more than 170,000 data sets.

In the decade since the first map was issued, still more data has been added and the information has been integrated into a planning scheme for the Pompeii region—not just the ancient remains but the modern town that has grown up around the site—so that local officials can begin addressing such issues as tourism management in tandem with on-site restoration campaigns.
When the Bourbons began to explore Herculaneum in the mid-eighteenth century, they left themselves no legacy of conservation problems. Their subterranean tunnels smashed mercilessly through structures; treasures of decoration were hacked brutally from their context, and transported to the Royal Palace at Portici where they were trimmed and fitted to heavy wooden frames. If one chooses to preserve selected highlights at the expense of the destruction of the rest, the policy is sustainable; over two centuries later, these artifacts, if often dusty and neglected, survive in reasonably good condition in the National Museum in Naples.

But ironically, what caused far more damage than the original policy of tunneling was that of open-air excavation, developed at Pompeii in the late eighteenth century. Though the public was rewarded with a spectacular open-air museum, the structures were exposed to a long, slow assault by atmospheric agents.

Giuseppe Fiorelli, superintendent for Pompeii from 1863 to 1875, was the first to take a holistic view of the Vesuvian sites, recognizing the vital importance of context and the fact that little shops and workshops were as fascinating as grand mansions. Understanding the visitor appeal of leaving frescoes and mosaics in situ, Amedeo Maiuri, who worked at Pompeii from 1924 to 1961, took this policy to its limit by displaying in their original position fixtures and fittings, casts of doors and furniture, original wooden doors and presses. Above all at Herculaneum, he created a new concept of the ancient city as living museum, displaying artifacts in cases, such as the rope and windlass from a well, the amphorae and jugs from a wineshop, the carbonized grain, figs, and nuts from a grocery.

Unlike great public monuments, baths, and amphitheaters, however, Roman domestic structures were never built to endure forever. Their wattle-and-daub partitions and wooden cantilevered balconies, which do so much to evoke how “the other half” lived, are inherently ephemeral and certainly no match for the A.D. 79 volcanic eruption, which smashed down even the strongest structures, sweeping their upper levels out into the sea. Add to this weakening of structures caused by the Bourbon tunnels, aerial bombardment by the Allies in 1943, and ongoing seismic activity in the area, which peaked in 1980. All the while, the elements have continued to exact their toll—sunlight bleaching frescoes, rain penetrating roofs and trickling down surfaces, damp rising from floors, and the continually corrosive action of a climate that fluctuates between extreme heat in the summer and bitter cold in the winter, when Vesuvius is often blanketed in snow.
In addition to *Un Piano per Pompei*, a variety of documentation efforts are underway at Pompeii and other sites in the shadow of Vesuvius, among them the *Via dell'Abbondanza* Project, launched by Jennifer and Arthur Stephens in 2004. Using a combination of high-definition digital photography and precise, geomatic rectification, the Houston-based duo has been able to create accurate orthographic photomosaics of the famed Pompeian thoroughfare, which runs for some 33 blocks (nearly 900 meters) east-west through the ancient Roman city. "Beyond providing a view of the building frontages that could not otherwise be seen, the photomosaics [above and on opening spread] are enabling us to document the variety and condition of the many structures along the street, stretches of which have been exposed to the elements for 150 years or more," says Jennifer Stephens, adding that by comparing their images of individual buildings with those of earlier excavators, they can gauge the degradation over time. What has become obvious in the images, she says, is just how much building fabric and decoration has been lost in recent years. It is an alarming fact that has made their mission to document as much of the site as possible all the more important.

For more on the *Via dell'Abbondanza* Project see [www.pompeiiperspectives.org](http://www.pompeiiperspectives.org)

The challenge, then, is not to preserve ancient cities or villas in their entirety, but to extend the lifespan of an elaborate composite of ancient remains and modern reconstruction, built with the changing and often still-untested technologies of the day. We should never forget, as we ourselves bring in the latest technologies to the aid of the sites, that each generation has done the same, and that some experiments have proven disastrous. Reinforced concrete seemed the obvious contemporary solution in the mid-twentieth century. It was not clear at the time that unless mixed under careful supervision and then maintained, this material would rust, expand, and disintegrate within 50 years, and require replacement with the timber that should have been used in the first place. Portland cement was the unquestioned staple of the building trade, produced locally and cheaply, and familiar in its application to every worker in the industry. It has taken decades of experience to show the damage it causes when applied to ancient structures—being harder, less flexible, and less durable than the lime and volcanic sand mix of antiquity and often impregnated with salts which leach destructively through the frescoes it is meant to protect. Soaking carbonized wood in paraffin wax seemed a good idea at the time, until the heat of the sun caused it to melt out. The same wax smeared on frescoes gave a spurious appearance of freshness, while stopping the plaster from breathing; the paralloys that replaced the wax in the 1980s proved even more destructive.

Such lessons, repeated a thousand-fold across the sites, do not show that earlier generations of restorers were ignorant or irresponsible, but highlight the harsh reality that conservation is an experimental science. There is no rule-book telling us "how to preserve an ancient city." We have to write it and rewrite it as we go. This in turn has significant implications for management.

First, the sites require a multidisciplinary team—of conservator-restorers, archaeologists, structural engineers, experimental scientists, and surveyors—to analyze the problems, learn from past mistakes and successes, try out and subsequently monitor new solutions. Such a team is beyond the resources and capacity of the heritage agency as presently constituted. Secondly, the rulebook as derived from their work has to be translated into intelligent bureaucratic practice, so that limited resources are not squandered on ill-conceived and expensive projects.

Since his appointment as superintendent in 1995, Pier Giovanni Guzzo has proved remarkably open in inviting international debate and collaboration to help his agency confront the crisis. The World
Monuments Fund led the way, having placed Pompeii on its inaugural Watch List in 1996, by working with Guzzo to produce a detailed mapping and conditions assessment of Pompeii, entitled *Un Piano per Pompei*. The first step in saving a site is detailed documentation of its condition. Only then can a strategic approach be evolved, and the challenges prioritized, instead of intervening desperately after the event when roofs have already collapsed. There are now, with the encouragement of Guzzo and his superintendency, a number of experimental conservation projects afoot, including one by the University of Bologna in the House of the Centenary in Pompeii, another by the University of Maryland and the Restoring Ancient Stabiae foundation at the villas of Stabiae, and the project at Herculaneum financed by the Packard Humanities Institute, and managed by the British School at Rome, which I myself direct. What have we learned in five years of operation on-site?

The first lesson is the fundamental importance of recording and documentation. Apart from anything else, there is the not-so-remote risk that these sites might be catastrophically effected by a second volcanic eruption or by earthquakes. The least we owe to the future is the most thorough documentation possible. Documentation is also fundamental for conservation and future maintenance. It is essential to be able to recover the details of how a house was excavated and restored, and a complete history of

RESTORING ANCIENT STABIAE

Ancient Roman Stabiae has the largest concentration of well-preserved large seaside villas in the Mediterranean world. As yet fully excavated, the site has remained relatively unknown to the public. In 1998, the Restoring Ancient Stabiae (RAS) project was launched—a collaborative effort of the University of Maryland, the Soprintendenza Archeologica di Pompei, and the Comitato di Stabiae Renatae, a local group of educators and donors. Their goal has been to develop a masterplan to selectively excavate and conserve six of the villas and a portion of the town, and in time presenting them within an innovative archaeological park dedicated to the villa life of the ancient Roman elite.

Since then, the RAS has conducted a series of geophysical survey, using ground-penetrating radar, magnetometry, and resistivity to determine the extent of unexcavated remains and develop plans for selective excavation and presentation. As part of its outreach effort, RAS was instrumental in creating a travelling exhibition, *In Stabiano, Exploring the Ancient Seaside Villas of the Roman Elite*, which opened at the Smithsonian in 2004 and is currently on view at the Elvehjem Museum of Art in Wisconsin through June 3, after which it will travel to Jacksonville, Florida.
subsequent interventions. A remarkable amount of information still survives in the archives. That needs
to be recovered and collated, and made readily accessible in electronic format; and standards and rou-
tines of recording need to be established to ensure that knowledge of present and future interventions
is not lost again. The recording of interventions must be placed in the context of full and accurate mapping
of the sites: existing plans are dismally approximate, and regularly fail to provide basic information
such as elevation (critical for the movement of water). Good surveying, both by traditional means and by
new technologies like 3D laser-scanning, is required in all Vesuvian sites. This must be allied to a careful
mapping of points of risk and damage to structures and decorative features, such as that pioneered by
WMF in *Un Piano per Pompei*. Such a database would become both a major asset to research and a basic
management tool for the heritage agency.

A second lesson is the importance of attention to infrastructure. The minute and labor-intensive work
of a group of conservator-restorers on a crumbling fresco is pointless if the underlying problems that led
to the damage in the first place are not addressed. The remains are exposed to numerous environmental
risks—including sunlight, fluctuation between extreme heat and cold, and the uncontrolled growth of
vegetation—but no element is so damaging as water. One may dream of hi-tech solutions, like a biospheric
dome, but these are likely to lead to as many new problems as they solve, above all intolerable heat. What
has emerged at Herculaneum as the simplest and most effective solution is to study the entire capillary
water management system of the ancient town, to reactivate it where possible, and to adapt and supple-
ment it where needed. From the impressive system of public drains and sewers, to the detailed use of
drains, channels, cisterns and soakaways in individual houses, the movement of each drop of water across
the site must be understood from its arrival to its final exit. Only by looking at the site as a whole can this
work. It is frightening to discover that even recently, new roofing has been installed, which discharges
water onto neighboring structures.

The third lesson is the importance of an ongoing program of ordinary maintenance. Under Maiuri, the
superintendency still disposed of a significant force of up to a hundred maintenance staff, large enough to
operate across all sites. Maiuri consciously built up a reservoir of craft skills specific to the site; the long-term
stability of the workforce ensured that knowledge was transmitted across generations. More recently, this

A collaborative effort of the Packard Humanities Institute, the Soprintendenza Archeologica di Pompei (SAP), and the British
School at Rome, the Herculaneum Conservation Project was launched in 2001 not only to safeguard and conserve the ancient site
but to enhance and advance the knowledge, understanding, and public appreciation of Herculaneum and its artifacts.

The project has two main areas of operation. The first is a site-wide campaign to address the most pressing conservation problems—collapsing
roofs, vegetation growing atop walls, plaster falling from walls, disintegrating mosaics, and pigeon infestation—and devise ways to improve site infra-
structure, especially water management. To complement these efforts, the project is promoting research into the chemistry of decay—including
the composition of destructive salts, and the preservation of carbonized wood—and creating a database of knowledge, through surveying and
recording, mapping of problems, co-ordinating archives of past interventions, and establishing procedures for “best practices” in conservation and
maintenance. A second area of operation is a case-study of the Insula Orientalis I, a block of houses on the southeast corner of the
site, which is being used to establish procedures for the site-wide campaign. Most recently, the project has carried out a series of
experiments in roofing solutions for the most exposed elements, particularly the atrium of the House of the Gem, and the marble-
floored salon of the House of the Telephus Relief, while also testing the impact of new low-cost types of roofing.

The project has recently played a key role in setting up a new Study Centre, under the auspices of the Associazione Herculaneum,
a collaboration between the civic authority of Ercolano, the SAP, and the British School at Rome. Working closely with ICCROM,
an international organization for the preservation of cultural heritage based in Rome, it aims to develop the site as a laboratory for
understanding conservation problems, to sensitize archaeologists to these problems, and to promote a closer relationship between
the site and the local community. For information see www.herculaneum.org
The House of the Silver Wedding Anniversary (Casa delle Nozze d'Argento) is a significant example of an extended atrium house, or urbanized villa, from Pompeii's pre-Roman period. The house was first excavated in 1883-1884 and restored immediately thereafter, with the first roof erected between 1906 and 1909. The house was maintained with periodic cleaning and conservation through the 1960s; its current roof was installed in 1979, after which maintenance of the site ceased. Being made of cementacious material, the 1979 roof has caused structural degradation of the site.

In May 1998, the Kress Pompeii Conservation Project was launched by WMF to establish new standards in site conservation and presentation. Several buildings within Insula V2— an area the Soprintendenza Archeologica di Pompei had hoped to one day open to the public—were chosen for demonstration projects, among them the House of the Silver Wedding Anniversary. Methods developed in the course of these projects would be used to formulate a conservation strategy for the whole of the insula. For its part, WMF agreed to provide funding and technical assistance to carry out feasibility studies for the house restoration, enlisting the help of ace conservators Paolo Marconi and Antonio Pugliano. They would develop a structural stabilization plan for the House of the Silver Wedding Anniversary that included among other things a plan to replace the roof—the current one some five times heavier than the original. The result was the development of a laminated wood structure that was in keeping, both visually and architecturally, with the original building construction.

While all of the conservation research to restore the house has been carried out, plans to construct the new roof have been drafted, and an imaginative method for presenting the site to the public has been developed, the project is currently on hold due to internal management issues within the SAP. It is hoped that once these are resolved, the WMF Kress project will be able to move forward as planned, establishing new standards in conservation and presentation at one of the world's most treasured sites.

Essential workforce has been gradually scaled back, and increasing use made of external contractors, a policy that reached a peak in the major restoration project of the 1980s and early 1990s in Region I of Pompeii. But while the state may have rid itself of some headaches—like the financial burden of a permanent workforce—it has substantially lost its reservoir of know-how and exposed itself to the mercies of sometimes unscrupulous contractors. The system imposed by public law considers only the lowest bidder, not quality and experience, and though it is designed to avoid corruption and criminal interference, it has little chance of effectiveness when the local construction industry is under the stranglehold of organized crime. No building, however well constructed, let alone this delicate and compromised composite of ancient remains partially reconstructed, can survive without a regular and detailed maintenance program. Until the way is found to put this back in place, the future prospects of the sites will remain bleak.

Though the challenges are daunting, there is good news to celebrate. The mere fact that the conservation problems of the Pompeii area have become a focus of international debate is due to the openness of the superintendency and its own desire for reform. The international community has responded in many ways. What is needed above all is support at the highest government level, which must recognize that the Vesuvian sites constitute an asset as delicate as it is valuable. If they are to continue to act as the motor for the tourism on which the region depends, they merit sustained investment and sympathetic management. Only then can we save these sites, which for centuries have excited international admiration, from becoming objects of international outrage.
he noonday sun beams down on us as our lanchero, Gabriel Maldonado, artfully slips our boat between boulders and raging whirlpools. It is the last patch of class II whitewater we will encounter before reaching the 1,500-year-old Maya city of Piedras Negras, the remains of which blanket a two-kilometer-long stretch of rugged terrain on the eastern shore of the Usumacinta, the largest and longest river in Mesoamerica and the natural border between Guatemala and the Mexican state of Chiapas. With one swift gun of the 75hp engine, he brings the craft about, gently nosing its bow into a steep, soft sandbank where we unload our gear in preparation for an afternoon of exploration.

Our visit to this ancient city marks the third stop on a whirlwind journey that has taken us—Norma Barbacci, WMF's director for Latin American field projects, Ken Feisel, ICON's creative director and an intrepid photographer, and I—throughout the Petén region of Guatemala to check on the progress made at a suite of sites WMF is currently working to preserve. Joining us for this leg of our trip is Javier Márquez of Defensores de la Naturaleza, a Guatemala City-based NGO that manages the Sierra del Lacandón National Park—the rainforest preserve in which Piedras Negras is located—and one of WMF's partners in supporting conservation work at the site.

Márquez knows the park well, having served as chief ranger here before assuming his current post as park director a year and a half ago. As we make our way along a narrow path, troops of howler monkeys scamper in the forest canopy, their cacophonous chorus echoing through the jungle. Márquez is quick to point out fresh jaguar tracks and a variety of exotic plants, among them the Tepejilote palm. Our boat crew gathers...
NAMED FOR THE STONE MACHSKS THAT GRACE ITS FAÇADE,
THE TEMPLE OF "EL MASCARON" (AKA K5) AT PIEDRAS
NEGRAS WAS BUILT CA. A.D. 677. THE TEMPLE, ABOVE, AS
IT LOOKS TODAY FOLLOWING STABILIZATION, AT LEFT
AS IT LOOKED IN 2002, AND BELOW, AS IT APPEARED
SHORTLY AFTER THE UNIVERSITY OF PENNSYLVANIA
EXCAVATED IT IN THE 1930S.

the male inflorescences of the plant, a highly prized delicacy
known locally as pacaya, for our evening's dinner.

For centuries, Piedras Negras vied for mercantile control
of this vast waterway with its long-time rival Yaxchilán, sited
atop an idyllic oxbow on the Mexican side of the Usumacinta,
nearly 40 kilometers upstream. Evidence of the city's pros­
perity abounds in the fallen stelae and collapsed remains of
once-grand buildings with graceful corbel arches and ornate
moldings that rise out of dense vegetation. We soon come
upon a clearing, where archaeologists and conservators have
been working to stabilize and consolidate one of the site's
most famous buildings, known in the archaeological literature
as K5—or El Mascarón—after the giant stone masks that grace
its multi-tiered façade.

First excavated by the University of Pennsylvania Museum
in the 1930s, Piedras Negras has yielded abundant information
on the Maya civilization, which flourished during the first millen­
nium A.D. in what are now the modern nations of Mexico, Guai­
temala, Honduras, Belize, and El Salvador. Here, the Maya built
great cities with monumental architecture—pyramids, temples,
palaces, and ballcourts—connected by a vast network of roads
and rivers. Today, the remains of their civilization can be found in the hundreds of archaeological sites that dot the region's landscape. Stylistically varied in their architecture and urban design and disparate in their natural settings, these sites collectively speak volumes about one of the greatest civilizations the New World has known, making their preservation all the more important.

For conservators, Piedras Negras presents a special set of problems. Beyond damage wrought by the passage of time and exuberant vegetation, many of its buildings, including El Mascarón, were laid bare at a time when preservation did not go hand in hand with excavation, resulting in structural instability prompted by a failure to backfill trenches. Until recently, simply working at the site proved difficult, Piedras Negras being located in an area controlled by leftist guerrilla forces. Although the protracted struggle between the government of Guatemala and pro-Native American groups officially ended in April 1995, debate over land ownership has continued.

I am amazed at the work that has been carried out at the site in recent years, particularly in the West Group where K5 is located. When I last visited Piedras Negras on assignment for ARCHAEOLOGY magazine more than a decade ago, buildings in this part of the site were all but illegible without the aid of architect Tatiana Proskouriakoff's extraordinary drawings made shortly after the Penn excavations. I am also relieved to see stabilizing fresh fill placed within a number of the early trenches by archaeologist Stephen Houston of Brown University and Héctor L. Escobedo of the Universidad de San Carlos, who have been exploring the site since reopening excavations here in 1997.

Beyond supporting conservation work at the individual site level, WMF's Maya preservation program—carried out with partners drawn from academic institutions, the private sector, and government agencies—seeks to address a range of issues from environmental policy and sustainable development to site interpretation and tourism management. "While carrying out on-site conservation at places such as Piedras Negras is our main priority," says Norma Barbacci as we hike up to the West Acropolis, "it has become clear that our efforts may be fruitless if they are not undertaken within a larger context—one that looks at the overall environmental condition of a..."
When the ancient city of El Pilar in far western Belize became the first Maya site to be included on WMF’s biennial List of 100 Most Endangered Sites in 1996, the organization began amassing a portfolio of sites that represent the full range of architectural expression and the conservation challenges facing such ancient remains. While some Maya sites such as Chichén Itzá in Mexico, Copán in Honduras, and Tikal in Guatemala have been excavated, consolidated, and opened to the public on a grand scale, others continue to languish, engulfed in exuberant and often destructive vegetation, or have been ravaged by time, pillaged by looters, and threatened by industrial development. Many have suffered as a result of uncontrolled tourism, poor site management, inappropriate restoration, and, in some cases, wholesale reconstruction.

Today, on the eve of publication of WMF’s 2008 List of 100 Most Endangered Sites—slated for release later this spring—more than a dozen Maya sites have entered the portfolio, prompting WMF to launch a new initiative, the goal of which is to develop a comprehensive strategy for preserving this extraordinary cultural legacy. For more information on these ancient cities and WMF’s efforts to save them, visit our website at wmf.org.

AKÉ
Although Aké was occupied for more than a millennium (ca. A.D. 250-1450), the majority of its visible remains—which are spread over more than two square kilometers and include the impressive Structure 1, at right—date to the Early Classic Period (a.d. 250-600). A preliminary WMF-funded conditions assessment has been carried out to establish conservation priorities and develop an appropriate plan for public access and presentation of the site, which at present is off the beaten path.

CHICHÉN ITZÁ
Built between a.d. 850 and 1200, Chichén Itzá hosts more than a million tourists a year, a visitor load that takes its toll on the site. Wear and tear on the archaeological remains is particularly evident in the so-called Castillo—first restored by the Carnegie Institution in the 1920s and again by INAH in the 1980s—which was closed in to the public in spring of 2006 due in part to structural instability. WMF has carried out a preliminary conditions assessment, which will enable conservators to prioritize their future work at this architectural jewel.

KABÁH
The remains of Kabáh, built between a.d. 800 and 1000, currently straddle Highway 261, which was cut through the Late Classic Puuc site in the early nineteenth century. Among the site’s most impressive buildings is the Codz-Poop, or Palace of the Masks, the façade of which is adorned with hundreds of masks depicting Chac, the rain god. While its roofcomb was restored in 1991, the rest of the structure remains at risk. Current plans call for stabilization of the Codz-Poop, as well as rerouting of the highway to restore the integrity of the site.

LABNÁ
The Puuc-style site of Labná, dated a.d. 650-1000, has a number of notable structures, including a Palace and the Arch, pictured at right. In 1991, INAH launched a comprehensive documentation project at the site, which included limited reconstruction of several buildings in order to understand its architecture. Today, however, many structures still need stabilization and consolidation, as well as conservation of finishes, some of which are threatened by biological growth resulting from water infiltration.

NARANJO
With the majority of its monumental architecture cloaked in jungle, Naranjo, occupied between ca. A.D. 400 and 830, has yet to be developed as a tourist destination. However, this may change with the construction of a new road. Despite the fact that the site has been pillaged for its polychromed ceramics and free-standing monuments, Naranjo offers an excellent opportunity to present a vast Maya site in its natural setting. WMF is working with its site director to develop a holistic management plan and interpretation program for Naranjo.

PIEDRAS NEGRAS
Sited on the Guatemalan side of the Usumacinta, Piedras Negras is the largest Classic Maya city in the western Lowlands. Although the site was founded in the fourth century a.d., most of what we see today dates to the seventh and eighth century. As a result, the site has often been subject to looting, as well as the damaging effects of weather and erosion. WMF is working with its site director to develop a holistic management plan and interpretation program for Piedras Negras.
centuries. Since 2002, WMF has sponsored conservation work in the so-called West Group, its buildings weakened by the passage of time and a failure to backfill archaeological trenches during excavations in the 1930s. Current work includes completion of the stabilization of the K5 temple and carrying out a comprehensive conditions assessment for the whole site.

**SANTA ROSA XTAMPAPAK**

One-time capital of the Chenes area of Campeche, the 1,500-year-old site of Santa Rosa Xtsampak has one of the most architecturally interesting Maya buildings, a palace with two internal staircases that spiral up three stories. With private funding, INAH has been excavating the site and consolidating the most important structures. Much remains to be done to arrest the decay of exposed limestone elements and polychromed stucco interiors.

**TECOLOTE**

Thought to have been a political ally of Yaxchilán and one of more than a dozen sites recently documented with WMF support in a swath of land between Yaxchilán and Piedras Negras, Tecolote faces certain destruction if the Usumacinta is dammed (see ICON, Summer 2003). Much of the site, dated A.D. 600-900, has been heavily looted. However, Structure 1, one of seven vaulted buildings noted at the site, contains the remains of polychromed murals that await conservation.

**XOCNACEH**

Founded ca. 500 B.C., a millennium before its neighboring sites in the Maya, the recently discovered site of Xocnaceh is altering our understanding of the earliest period of Maya civilization and its connection to that of the Olmecs, long thought to be its cultural predecessor. The site, which is not yet open to the public, has one of the largest surviving structures from the Preclassic period in Mesoamerica. A preliminary WMF-funded conditions assessment has been carried out, and plans for conservation and interpretation are underway.

**YAXCHILÁN**

Built between A.D. 359 and 810, Yaxchilán boasts numerous edifices with fretted roofcombs and walls, lintels, and stele with finely carved reliefs. Biological growth and instability wrought by rain and erosion plague many buildings. WMF has underwritten conservation work, training workshops, and a study to assess the impact of dam construction on the site and others along the Usumacinta. WMF is working with the Commission of Protected Areas and INAH to develop a management plan for the site and its surrounding environment. In addition, a new method of monument documentation sponsored by WMF and carried out by Harvard University’s Corpus of Maya Inscriptions project is being tested at the site.

According to Barbacci, the site, which we are to visit later in the week, was in dire need of conservation and maintenance when it was included on WMF’s 2000 Watch List. Yet Yaxchilán—along with Piedras Negras, which was placed on the List in 2002—faced a far more pressing threat: destruction by inundation if proposed plans to build a hydroelectric dam on the river were carried out.

"The notion of harnessing the waters of the Usumacinta for hydroelectric power is an idea that had been kicking around in one form or another since the late 1940s," says Barbacci. "However, it wasn’t until Vicente Fox’s administration that it seemed to gain any momentum, being one of several large infrastructure projects included in his Plan Puebla Panama, an ambitious scheme to stimulate economic development not only in Mexico but throughout Central America." Since then, she says, a variety of proposals from dams to subaquatic turbines have been put forth.

"Knowing the destructive potential of such a project, we commissioned a study to assess the impact of a whole range of schemes (see ICON, Spring 2005). What was particularly alarming was that beyond damaging Yaxchilán and Piedras Negras, waters would flood a vast area between the ancient cities, a little-explored swath of land rich in cultural remains."

"We knew from inscriptions that the stretch of the Usumacinta between these vast urban centers was densely settled," says Charles Golden of Brandeis University, who, with WMF support, has spent the past four field seasons bushwacking his way through the area, documenting the locations of more than a dozen previously unknown sites in the process. He has also found the remains of a wall system demarcating a clear political..."
boundary between the two cities. “What is interesting,” he says, “is that we have discovered material at each of the new-found sites that tells us which of the two cities controlled them, information that will have a major impact on the field of Maya studies. It is also information that is sure to be lost if the proposed dam or series of dams is constructed.”

While plans to dam the Usumacinta appear to be on hold for the moment, Barbacci and others take little comfort, noting that Mexico’s current president, Felipe Calderón, was head of the country’s federal energy commission under the Fox administration, at which time he endorsed exploitation of the river for hydroelectric power.

In recognition of the looming environmental threats to the cultural heritage in the region, WMF included the whole of the Usumacinta Cultural Landscape on its 2004 Watch List. Since then, the organization has continued to underwrite much-needed conservation and documentation work at both Yaxchilán and Piedras Negras and sponsor training workshops for guards and maintenance crews from the sites. “We have also met with the communities that live in the shadows of these great ruins and make their living from them,” says Barbacci, adding that in addition to tourism, many local inhabitants—descendants of the people who built the cities—draw their livelihood by tending small plots in and around the remains often through slash-and-burn agriculture. “We are doing what we can to save these sites from every possible angle.”

This more holistic approach to site conservation has become a hallmark of WMF’s work in recent years, resulting in a number of partnerships with environmental groups such as Defensores de la Naturaleza—which is as concerned about dwindling jaguar populations as it is about sublime ruins of architectural masterpieces—and the Nature Conservancy, with whom WMF hopes to collaborate at Naranjo in the western Petén, the most recent site to enter the Maya portfolio. To underwrite the new initiative, WMF has enlisted the help of several of its corporate partners who have an interest in the region. Contributions from companies such as American Express and Banamex, Mexico’s largest bank, have complemented those of stalwart supporters of the organization’s work in the area—among them Robert W. Wilson, Bernard Selz, the Ildiko and Gilbert Butler Foundation, the Klein Foundation, and the J.M. Kaplan Fund.

“It was Banamex that first approached us with the idea of forging a partnership with its philanthropic division, Fomento Cultural Banamex, the government of Yucatán, and Mexico’s Instituto Nacional de Antropología e Historia (INAH),” says Barbacci of a program launched in 2005 to carry out restoration at several important Maya sites in that state—among them the Puuc-style cities of Chichén Itzá, Kabah, Labná, and Aké, and the recently discovered Middle Preclassic (500-300 B.C.) site of Xocnaceh—as well as the 1,500-year-old city of Santa Rosa Xtampak in the state of Campeche.

“Our investment in safeguarding cultural patrimony is a major part of a company-wide campaign to improve the overall quality of life for the people of Mexico and preserve our heritage for future generations,” says Roberto Hernández, co-chairman of Fomento Cultural Banamex, noting that since 2000, his organization has partnered with a number of public and private institutions not only to carry out restoration work but to underwrite archaeological investigation and improve site infrastructure and visitor services, as well as outreach efforts of on-site museums.

“While sites in the Petén have suffered as a result of decades of civil unrest and a host of ecological problems related to slash-and-burn agriculture,” says Barbacci, “those in the Yucatán tend to face somewhat different issues, namely those of tourism management and site interpretation.” With its relative ease of access, the Yucatán Peninsula has become a favored destination, particularly for North American travelers, with sites such as Chichén Itzá seeing more than a million visitors a year.

“Chichén is a great revenue generator for the region,” says Barbacci, “yet
only a small percentage of the gate actually goes back to the site to underwrite its conservation and maintenance." Wear and tear is particularly evident in the Temple of the Warriors and the site's most famous building, the 30-meter-high Castillo, which was officially closed to the public in March 2006 due in part to structural instability. As of this writing, several conservation projects have been proposed for the site, including carrying out a detailed conditions assessment of many of the monuments and the drafting of a regular maintenance plan to prevent further damage.

Unlike Chichén Itzá, the Late Classic Maya site of Naranjo in the eastern Petén near the Belize border has yet to witness systematic excavation, much less experience an onslaught of visitors. But this may soon change if current plans to open a road into the site materialize. Today, reaching Naranjo entails a rodeo-esque journey—two hours on horseback or an hour by ATV—through a bajo, a lowland bog rich in flora and fauna.

Although the site has been heavily looted—stripped of nearly all of its freestanding stelae and altars—its buildings on the whole remain cloaked in jungle. And that is just the way Vilma Fialko, the archaeologist in charge of the site, would prefer to leave it if the site is opened to tourism. "We have a unique opportunity to selectively excavate representative buildings or portions of buildings while preserving the remains in their natural setting," Fialko told us when we visited the site earlier in the week. During our foray to Naranjo, Fialko shared with us her vision of presenting the site as a "Maya garden" in which ancient ruins could be admired alongside exotic birds, rare orchids—of which more than a dozen new species have been identified at the site—and medicinal plants used by the ancient and modern Maya that are native to the site's watery environment.

As we make camp at El Porvenir, a temporary army base and ranger station a three-kilometer hike north of Piedras Negras, we reflect on the dramatic progress made at that site and the potential the future holds for untapped sites such as Naranjo. "For us," says Barbacci, "conservation is not just the buildings themselves but the natural environment that embraces them and the demands made upon it, both locally and globally. In this context, the potential economic value of cultural heritage conservation extends well beyond the physical domain of a site to include sustainable local development." For Barbacci and her colleagues, finding a way to preserve the environment in concert with non-destructive forms of job creation are essential elements of the preservation process.
After Watch Listing in 2004, a historic Nova Scotia church is reborn.

IN THE EARLY MORNING HOURS of November 1, 2001, Lunenburg firefighters responded to what would be their 23rd and final call on one of the most hectic Halloween nights in the town's history. While their other calls that evening were to extinguish small spot fires deliberately set in various areas of the town by youthful pranksters, this last one was far different. St. John's Anglican Church, one of three national historic sites in the UNESCO World Heritage-designated town—and a hallowed hall of worship for nearly 250 years—was on fire. It was just after midnight when parishioner Andrew Eisenhauer was awakened by a call from Richard Knickle, chairman of the church's property committee, who informed him of the tragedy. "I got here pronto and saw what it was and started calling people," Eisenhauer recalled. One of those on his phone list was fellow parishioner Ed Jordan, who days later would join him as co-chairmen of a committee that was formed to oversee the restoration of the historic structure, which—despite the valiant
efforts of 16 volunteer fire departments—was almost completely destroyed.

Later that same evening, with the lights of emergency vehicles still illuminating the night sky and the acrid smell of smoke permeating the air, 500 parishioners and townspeople crammed into the church's parish hall for what was originally scheduled to be an All Saint's Day service.

Instead, Diocesan Bishop and former St. John's pastor Fred Hiltz led a service of healing in which he told the assembly that, despite their loss, they must reaffirm their trust and confidence "in the goodness and mercy and the exuberance of God." "We have lost a beautiful building. The nation has lost a piece of heritage," he said. "But perhaps most significantly, you have lost a place which you call your spiritual home."

Rev. Hiltz's words, spoken from the scorched altar that had been miraculously rescued from the burning church earlier that day and painstakingly cleaned by a group of boys from a neighboring Lutheran parish, offered solace and some hope to members of the congregation. However, Jordan said for several days they couldn't think of doing anything. "They thought that the insurance company was going to do everything for them, which it couldn't," he explained. "So the first thing we did was get a fence around it... and then we started salvaging things."

In the days that followed the fire, as people of all ages pitched in to lend a hand in the clean-up operation, Eisenhauer, Jordan, and other members of what would soon become known as simply the restoration committee, began devising various scenarios which would outline what course of action they should pursue with regards to the church's future.

In late November, the committee presented the congregation with four alternatives through which they could proceed. The first and cheapest option was to simply do nothing and turn the site into a park and a cemetery. The second alternative was to build a new, modern building, while the third was to construct a replica of the original structure.

"The fourth one was to restore based on what we still had," Jordan said. "We had ballpark, pulled-out-of-the-air prices for each of these [alternatives] and we presented those to the parish."

On December 3, a secret ballot was held including all members of the congregation, "whether they were terribly active or not," to decide which way to proceed. "The vote was an overwhelming 91 percent for restoration," Jordan recalled.

After getting reassurance from Parks Canada that enough of the original structure remained so that a restored St. John's would still qualify as a National Historic Site, the committee forged on. One of their first orders of business was to hire Ron Cahoon, a project manager for Halifax-based Dora Construction, who had worked on numerous restoration projects in Canada, including the rebuilding of St. George's Anglican Church in Halifax that was severely damaged by fire in 1994.

As with other restorations he has been involved with, Cahoon's goal from the beginning was to utilize the services of local contractors and artisans wherever possible, and that choice served him well, considering the 250-year shipbuilding history of the local community. Securing the site from the elements also became a major priority, one which was accomplished through the purchase of a giant barn-like metal frame and plastic cover which in the ensuing days became affectionately known as "the dome." Unfortunately, it wasn't until the following June that the covering was put in place, and the site had to endure some substantial storms during that first winter.

"Again, volunteers from the congregation showed up, men and women, to shovel out the snow," Eisenhauer said. "There was a lot of volunteer labor in those early days. The committee was also fortunate that the church was located in close proximity to Sattler Stained Glass Studios, who were commissioned to recreate 22 of the 23 stained-glass windows that once graced St. John's but were destroyed by the fire.

Company founder Norbert Sattler was actually in New York installing a window on November 1 when he first heard about the tragedy. However, he rushed home and he and his staff were on the scene the day after the blaze, crawling through the debris and picking up shards of broken stained glass with the help of volunteers from the congregation.

"The first thing I told Eisenhauer was that we had to collect all the pieces on the ground," he recalled, adding that analyzing them enabled him to learn details about the painting, colors, and origins of the windows that would prove vital to the restoration process.
As much glass as possible was salvaged from each window and placed in its own box, then taken to the company's studio and painstakingly put back together like a giant jigsaw puzzle. Sattler said that because the windows were originally produced at different times and by different companies, "you have different painters and each painter has a different style." Because the studios were also technically different in the manner in which the windows were originally produced, artist Sue Obata had to know which layer of paint came first before she could begin recreating the images on the glass. For that reason, a window may have looked like the original when it was first painted, but once it was fired the appearance changed, "and it was not right, so you would have to do it again until it appeared the same."

Chimer Peter Allen, on the other hand, was about to embark on a two-year odyssey of his own. He knew something major was on fire as he dressed for work that fateful morning, and initially thought the blaze was not that serious as he approached the church. "But once it started to break out through the [bell] tower and the tower started to lean and give way, the initial feeling that I had and most people had was the church was lost," he recalled.

The most crushing blow for Allen, who had spent two decades ringing the chimes at St. John's, was when the tower finally collapsed and his beloved bells came crashing to the ground. "That's not something you ever think you are going to see in a lifetime," he said.

Once the decision to restore the church was made, Allen took responsibility for overseeing not only the restoration of the bells, but the construction of a new cradle to hold them in the refurbished tower as well. He also single-handedly took on the challenge of re-creating a new chime stand for the church, the first step of which was to sort through the rubble of the fire, trying to salvage whatever he could that resembled pieces of the original platform. Investigation into finding a company capable of refurbishing the church's ten bells led Allen to the Meeks and Watson Foundry in Georgetown, Ohio. On November 16, 2002, 100 years to the day from their original dedication and a year after the tragic fire, the bells of St. John's left Lunenburg on a flat bed truck, bound for the Meeks and Watson Foundry where, over the next 12 months three would be totally recast and seven others refurbished.

On November 6, 2003, with a large crowd gathered and under the watchful eye of Allen, the ten bells were bolted into the new cradle and gently lowered into place by a giant crane. Later that same day, after the final section of the church's new tower was placed over the cradle, Allen climbed to the top and, to the hearty cheers of the multitude gathered below, rang each bell, once, by hand.

"It was something I just did on the spur of the moment," he laughed. "I really didn't know if I was going to try it, but they were there and I was there and I just couldn't resist. It was great." Of course, without a funding plan capable of raising the estimated $7.3 million necessary to complete the project, the restoration of St. John's Anglican church might never have gotten off the ground.
Artist J.J. Coolen was in the United States when she learned of the blaze that destroyed St. John's. Little did she know that just over a year later she would become an integral part of the building's resurrection—chosen to re-create the ornate celestial paintings that grace the ceiling of the chancel area of the church.

Unfortunately, she didn't have much to work with. “All we had were these old pictures from Parks Canada, which were incomplete,” she recalled, suspecting it might be an actual starscape. Fortunately, Coolen's mother Margaret had a contact at the Canadian Astronomical Society, who put them in contact with David Turner, a professor at Saint Mary's University in Halifax and former director of the Doran Planetarium at Laurentian University in Sudbury, Ontario.

When shown the old photographs of the ceiling, his first impression was that the stars, which did not appear to be truly random, might represent something in the sky from the nineteenth century that was of interest to mariners, Turner recalled. “After about five minutes, however, I was able to convince myself that the paintings represented the familiar Northern Hemisphere constellation of Perseus,” he explained.

“Since Perseus often appears in the eastern sky, I assumed that the stars were oriented as one would see them through the church rafters if the roof was not there.” He said that while other constellations surrounding Perseus were “mostly there,” they were often disguised by extra or missing stars. “But the pattern of Perseus sitting well above the eastern horizon struck me as peculiar. The orientation of the group was not as one would see it today.”

Working on the theory that the image might have a connection to the first advent, Turner decided to go “backwards in time, 2000 years to be exact,” and set the planetary software in his computer to December 25, A.D. 1. “I set the sky as it would appear at sunset, set the location for Lunenburg, and checked the eastern horizon,” he said. “What I found was that I was looking at the stars as they appeared on the easternmost panel.” With the identity of the image discovered, Turner made scaled replicas of the ceiling panels, containing small dots to represent each star.

Put in charge of that daunting task was local businessman Jim Eisenhauer, son of Andrew Eisenhauer, and a life-long member of the church. While the flow of contributions from parishioners started “before the cinders were cold,” the enormity of raising millions of dollars for such a project would be challenging. Just two weeks after the fire, however, Canada's then Minister of Heritage and Culture Sheila Copps visited the site, offering a grant of $100,000 to stabilize the structure and an additional $900,000 in conditional funding. The church was also able to collect $2.5 million from their insurer, enabling them to invest the money and earn an additional $140,000 in interest before the principal was spent. Another benefactor was American Express, who, via the World Monuments Fund, provided $80,000 to cover restoration of the decorative paintings within the church.

From the onset of the project, Eisenhauer made a case for raising funds, private or public, beyond what could be provided by the congregation. “It was really based on the fact that this project became as much or more about restoring a national historic site than it was about building a church for Anglicans in Lunenburg,” he said. As devastating as the fire was, in the end it came as almost a blessing in disguise for the congregation. The newly restored church replaced a nearly 250-year-old building that—workers discovered as the project progressed—had been suffering from a number of serious structural problems, including a sinking foundation and unstable footings for the balcony and belltower, which had never really been attached to the building. “The farther we got along in the reconstruction,” Andrew Eisenhauer added, “the more rot we found in various places. We found a whole litany of things that had to be corrected.” Since then, those repairs coupled with more recent improvements to the electrical and heating systems, the installation of a new sprinkler system, fire-resistant insulation, better lighting and sound systems, and wheelchair accessible entrances made the restored St. John's not only more user friendly, but also a far superior structure than its predecessor. “If the original church lasted for 250 years, it should now last for 500,” Eisenhauer said. The last element of the church to be restored, the organ, was inaugurated last June.
For more than a century, controversy has raged over the best ways to clean buildings. In the 1870s, William Morris and friends launched “anti-scrape,” in response to the Victorian practice of stripping finishes off old churches and leaving weathered stones vulnerable to further damage. Since then, techniques such as aggressive sandblasting, bleach or acid baths, and waterproof coatings have had their moments in the sun, only to end up discredited by the preservation community. Today, gentle, thorough cleaning is recommended, carried out using lasers.

Machines the size of small file cabinets generate beams, which are pulsed through cables into hand-pieces aimed at stone or bronze. Encrusted dirt gets blasted into easily vacuumable puffs of dust. Here's how three of the world's most enthused laser-cleaning conservators have rid bronze and stone landmarks of disfiguring, corrosive filth, and what these experts consider the technology's advantages and pitfalls.

GORAN NIKŠIĆ
Preservation architect, Split, Croatia.
Laser-cleaning territory: Diocletian's Palace, a late third-century a.d. complex of the Roman emperor's home, military base, temples, and mausoleum

The palace was built from a high-quality near-white local limestone. But between the wood and coal traditionally burned for heat, and pollution generated more recently from cement factories in Split, a hard, thick crust of dirt formed on the stone, which was not only ugly but harmful to the health of the stone. Since 1996, we have brought in companies from various countries to test laser cleaning on the palace, but it has been hard to find government funding for a full-scale project or to convince Croatian companies to buy the machines, which can cost €100,000 or more. But the technique is cost-effective. An operator can be trained in a matter of weeks, the laser beams are good for cleaning both huge planes of dirt and very fine details, the dust gets vacuumed away during the cleaning, and you can see right away if you've cleaned enough. With a poultice or a pressurized-water method, you may have to go back in again and again until it's clean, and you end up with runoff that would have been terrible to deal with here.

Six years ago, we started a pilot project on the North Gate; a stone had fallen there and broke apart, it really set off an alarm. We laser-cleaned before we dealt with the structural problems—the cleaning made it easier to see what stabilizing and repointing would be needed. Since then, $500,000 from WMF and the Kress Foundation, matched by government funding, has enabled us to work on the Peristyle, the palace's colonnaded main square. We hope to be done by 2009. In a few decades, the stone will need cleaning again, but probably just a light spray or poulticing, not lasering.

The air in Split is so much cleaner than it used to be. We've also laser-cleaned parts of the mausoleum, and are planning to clean the Temple of Jupiter, another building whose restoration was funded by the WMF and Kress. We're making sure the laser energy beams are just strong enough to take off the dirt and not disturb the patina, which is the stones' natural protection. We've used a machine, nicknamed Michelangelo, from an Italian company called Quanta System and several different machines from Lynton Lasers in Britain, including a new one the size of a hairdryer. The price and size of the machines are coming down. This is definitely the future of cleaning old buildings.

There are some precautions that users need to take. The laser beams can cause blindness if you look straight into them. Workers must wear goggles at all times and the scaffolding has to be wrapped in nontransparent protection so the beams won't reach the street. And the very fine dust needs to be vacuumed during the cleaning, so it doesn't get into anyone's lungs or settle anywhere else on the building.
ANDRZEJ DĄJNOWSKI
Owner, Conservation of Sculpture & Objects Studio, Chicago. Laser-cleaning territory: Philadelphia City Hall bronze statues, the 1883 Nickerson Mansion in Chicago, Civil War memorials in Milwaukee, Illinois, and Iowa

I was very skeptical of laser cleaning until five years ago, when we were testing chemical cleaners on the Nickerson Mansion. It had 3,000 square meters of completely blackened sandstone. We performed 25 or 30 tests; nothing worked, and some chemicals, it seems, would have discolored or dissolved the stone. Only lasers produced satisfactory, consistent results, and the clean-up was ridiculously simple. At the end of each day with lasers, you don’t even have to empty the vacuum cleaner, and you don't spend tens of thousands of dollars mopping up wastewater. In 2003, we were awarded a $1.4 million contract to clean ten bronzes by Alexander Milne Calder on top of Philadelphia City Hall. The city didn’t want to have to close the 150-meter tower or the observation deck, and the white marble and granite skin had already been cleaned. Any wet processes we would have used to clean the sculptures would have sent green corrosion streaks down the building. The pressurized water wash. But lasers are better for bronze than water. The beams can get into crannies of detail. The operator can set the beams to take off the corrosion layer by layer, and to slightly melt the surface, up to one micrometer deep, to leave behind oxides and seal the tiny pores in the bronze. When we finished, we applied an ammonium sulfide patina and four coats of lacquer. The sculptures are a uniform color now, with no streaks. Even from the street, you can clearly see Calder’s details."

The machines can cost up to a few hundred thousand dollars each, although the savings on cleanup and waste disposal do partly make up for that expense. There are also a number of safety measures you have to take: put up a protective shield and ponytail count.

We brought in machines from a German company, Adapt Laser Systems, and a company in California, General Lasertronics Corporation. We tested them first on a hatch from the back of one sculpture, and Andrew Lins, the chief conservator at the Philadelphia Museum of Art, said the results were comparable to a 40,000-psi company in California, General Lasertronics Corporation. We tested them first on a hatch from the back of one sculpture, and Andrew Lins, the chief conservator at the Philadelphia Museum of Art, said the results were comparable to a 40,000-psi

JOSÉ DELGADO RODRIGUES
Geologist, National Laboratory for Civil Engineering, Lisbon. Laser-cleaning territory: Lisbon’s Jerónimos Monastery, a circa-1500 Manuoline-style extravaganza of lacy carving and ribbed vaults

In the mid-1990s I participated in an EU-funded research project in which companies and institutes from various countries developed prototypes of a machine called LAMA, short for Laser Manuportable. Based on the tests we conducted, I was confident that this was the right solution for the Jerónimos Monastery. The arches of the lower galleries, which are incredibly important architectonic features of the building and finely carved, were covered with thick black crusts of dirt and some parts of the limestone were peeling away. The galleries were built at different times during the sixteenth and seventeenth centuries, and the older stonework had a more intense crust of black. We tested a LAMA prototype on a small section, using a machine with a very homogenous, steady, low-energy beam, for maximum control of the cleaning quality. The cleaning procedure is virtually innocuous.

For the full cleaning that began in 2000, we used a machine called Laserblast 500, made by a French company, Quantel. Over the course of two years the teams cleaned the arches and lower galleries. We also applied a great deal of biocide to an extensive biocolonization that was very actively degrading the stone surface. WMF helped fund the €1.5 million project, along with the Portuguese government and arts patrons. This cloister has regained its original magnificence, it’s a splendidous building again, and the only reactions I've heard from scholars and the public have been positive.

There are very few disadvantages, aside from the goggles and masks workers must wear and the opaque barriers that have to be set up to protect any passersby. There is still some controversy about yellowish deposits that sometimes are left behind after laser cleaning. The yellowing, I have concluded, is actually a positive sign: it indicates that the laser left behind some particles; the beam did not hit the stone directly. The cleaning procedure was safe for the stone. And at the Jerónimos cloister, the yellowish color blends in well with the mixed palette we already have, from all the stones with distinct patinas of different eras.

LASERS HAVE BEEN USED TO CLEAN THE JERÓNIMOS MONASTERY IN LISBON, LEFT; BRONZES ATOP PHILADELPHIA CITY HALL, ABOVE; AND DIOCLETIAN’S PALACE IN SPLIT, FACING PAGE.
La Cartuja de Miraflores

GETTING THERE
The Cartuja de Miraflores, located in Burgos, capital of Castilla y León, is some 230 kilometers north of Madrid and can be reached by car, train, or plane. The Cartuja is open to the public 10:15 A.M. to 3:00 P.M. on weekdays and from 4:00 to 6:00 P.M. on Sundays and holidays. For information visit www.cartuja.org. For more on Burgos see www.aytoburgos.es and www.spain-info.com

MORE ABOUT IT
A new three-volume publication on the restoration, which contains information on the artist Gil de Siloé, is available at the monastery. For more on Spanish history at the time the Cartuja monuments were executed see, Imperial Spain: 1469-1716 by J. H. Elliott.

WHILE IN BURGOS
The capital of Castilla y León and birthplace of Spain’s eleventh-century hero, El Cid, Burgos is known for its architecture. Among its most impressive buildings are the churches and palaces of its Renaissance Quarter and the massive Gothic cathedral where El Cid is buried. Two monasteries between Madrid and Burgos are worth visiting: the Monasterio de las Huelgas in Lerma and Monasterio de Santo Domingo de Silos (just east of Lerma), whose monks are famed for their chant (www.silos.arrakis.es). Some 15 kilometers east of Burgos is Sierra de Atapuerca—a suite of caves where some of Europe’s oldest human fossils and stone tools, dating to between 780,000 and 1 million years ago, have been unearthed in recent years (www.atapuerca.org).

Kentucky Bluegrass Region

GETTING THERE
The Inner Bluegrass comprises all or part of 11 counties—Franklin, Scott, Harrison, Bourbon, Clark, Jessamine, Boyle, Mercer, Anderson, Fayette, and Woodford—centered on Lexington, Kentucky. Blue Grass Airport (LEX) in Lexington offers nonstop flights to 13 cities in the U.S. see www.bluegrassairport.com for more information. Alternatively you may find it more convenient to fly into Cincinnati, 145 kilometers north of Lexington but with far more connections, and drive from there.

MORE ABOUT IT
Podor’s Compass American Guide to Kentucky (2006), by Susan Reigler, has almost 50 pages on Lexington and the Inner Bluegrass, including a brief historical overview, information about touring the horse farms, and a section on the region’s distilleries. Online resources include the Blue Grass Trust for Historic Preservation (www.bluegrasstrust.org), with information on the Hunt-Morgan House and Pope Villa; the Bluegrass Conservancy (www.bluegrassconservancy.org); and the Kentucky Heritage Council (heritage.ky.gov), the state preservation office.

WHILE IN BLUEGRASS COUNTRY
A visit to Lexington is not complete without a trip to Keeneland, the town’s famed racetrack. Known as the most traditional of American tracks (It didn’t introduce a PA system until 1997, and the movie Seabiscuit was filmed here to take advantage of the early twentieth-century ambience), Keeneland’s spring meet ends with the Bluegrass Stakes, the most important Derby tune up. The fall meet culminates with the largest of Keeneland’s four annual horse auctions, open to the simply curious as well as those in the market for $2 million dollar foals. See www.keeneland.com for details.

Sites in Vesuvius’ Shadow

GETTING THERE
Pompeii, Herculanenum, Boscoreale, Oplontis, and Stabiae are open every day from 8:30 A.M. to 5:00 P.M. November-March (last admission 3:30 P.M.) and every day from 8:30 A.M. to 7:30 P.M. April-October (last admission 6:00 P.M.). The sites are closed January 1, May 1, and December 25. Directions for reaching the sites by train, bus, or car; details regarding admission fees; and information on the history of the ancient cities and their excavation can be accessed at the Soprintendenza’s official website: www.pompeiisites.org. Contacting the Soprintendenza Archeologica di Pompeii—address: Via Villa dei Misteri, 2 80045 Pompei (NA) Italy; e-mail: info@pompeiisites.org; tel: +39 081 8575111; fax: +39 081 8613183.

MORE ABOUT IT
Ever since Pliny the Younger wrote of the destruction of Pompeii in A.D. 79, numerous authors have penned tomes on the ancient city and other sites in the shadow of Vesuvius. Among the best current works on Pompeian architecture are: Lawrence Richardson, Jr., Pompeii: An Architectural History (Baltimore and
MAYA SITES OF MEXICO AND GUATEMALA

GETTING THERE

Most Maya sites on the Yucatán Peninsula can be reached from either Mérida or Cancún. Chichén Itzá and Aké are just off Highway 180 (Cancún-Mérida Highway), while those of Kabáh, Labná, and Santa Rosa Xtampak, which are south of Mérida, can be accessed via Highway 261. Xocnaceh, near Ticul on Highway 184 (intersects Highway 261), is not yet open to the public. For travel information see www.visitmexico.com. Sites in the Petén Region of Guatemala, including Tikal and Uaxactún, are easiest to reach from Santa Elena (Flores), which has daily air service from both Guatemala City and Belize City. Naranjo is not open to the public in Guatemala and Yaxchilán in Mexico, from both Guatemala City and Belize to the Petén Region of Guatemala, including Tikal and Uaxactún, are easiest to reach from Santa Elena (Flores), which has daily air service from both Guatemala City and Belize City. Naranjo is not open to the public in Guatemala and Yaxchilán in Mexico, from both Guatemala City and Belize.

WHILE AT POMPEII

A botanical garden featuring plants native to ancient Pompeii has just opened. A collaborative effort of the Applied Research Laboratory of the Soprintendenza Archeologica di Pompei and l'Antica Eboristeria Pompeiana, the garden features herbs, legumes, fruit and nut trees, and medicinal plants. The inaugural exhibition in the garden, Le stagione di Pompeii (The Seasons of Pompeii) is on view through July 15.

WHILE IN LUNENBURG

The Lunenburg Art Gallery currently boasts nearly 100 member artists, and the town itself is the home of more than 20 private galleries. Three tall ships, the Picton Castle, Bluenose II, and the Theresa E. Connor—the latter the focal point of the Fisheries Museum of the Atlantic located on the town's waterfront—currently call Lunenburg home. Two others, the S.V. Concordia and the S.Y. Fryderyk Chopin, are expected to take up residence dockside later in 2007 when West Island College's Class Afloat Sea School finalizes its relocation to the town. Also of interest are a number of internationally known annual events, including the Lunenburg Folk Harbour Festival, the Boxwood Music Festival, the Lunenburg Festival of Crafts, the Lunenburg Folk Art Festival, and the Lunenburg Waterfront and Seafood Festival, among others.

MORE ABOUT IT

While there is no shortage of books on the ancient Maya, among the best to be released in recent years are Blood of Kings: Dynasty and Ritual in Maya art, by Linda Schele, Mary Ellen Miller, and Justin Kerr; and Chronicle of the Maya Kings and Queens: Deciphering the Dynasties of the Ancient Maya, by Simon Martin and Nikolai Grube. Two essential books on Maya hieroglyphs are Michael Coe's Breaking the Maya Code and The Art of the Maya Scribe, by Coe and Justin Kerr. The Rough Guides to Mexico and Guatemala are both excellent sources of basic travel information, while An Archaeological Guide to Mexico's Yucatán Peninsula and An Archaeological Guide to Northern Central America, both by Joyce Kelley, provide excellent descriptions of most of the sites.

St. John's, Lunenburg, Nova Scotia

GETTING THERE

Located on Nova Scotia's south shore, Lunenburg, a town of about 2,300 people, is a 90-minute drive from the provincial capital of Halifax via highways 102, 103, and 3. Visitors arriving in Yarmouth by car ferry from Maine can travel eastward along highway 103 to exit 10, or may wish a more scenic trip via highway 3's Lighthouse Route.

MORE ABOUT IT

Founded in 1753 by European settlers who immigrated from Germany, Switzerland, and the Montbéliard region of France, the town was the second British colonial settlement to be established in the province. During its first two centuries, Lunenburg's economy was primarily based on shipbuilding and fishing. However, the collapse of cod stocks and a sharp decline in the number of other species of fish during the latter part of the twentieth century forced the town to shift its economic focus in a different direction. While

a limited scallop and lobster fishery remains, new industries have developed involving modern technologies such as the manufacture of composite aerospace components and the design of computerized video games which complement already existing engineering and ship-repair facilities. Along with its blossoming manufacturing base, Lunenburg has also become a mecca for dozens of artists who have flocked to the area in recent years to pursue their craft.

In 1995, Old Town Lunenburg was named a UNESCO World Heritage Site based on its architecture and working waterfront. That designation, coupled with its three National Historic Sites—St. John's Anglican Church, Lunenburg Academy, and the Knaut-Rhuland House Museum—makes the town a popular destination for tourists.

WHILE IN LUNENBURG

The Lunenburg Art Gallery currently boasts nearly 100 member artists, and the town itself is the home of more than 20 private galleries. Three tall ships, the Picton Castle, Bluenose II, and the Theresa E. Connor—the latter the focal point of the Fisheries Museum of the Atlantic located on the town's waterfront—currently call Lunenburg home. Two others, the S.V. Concordia and the S.Y. Fryderyk Chopin, are expected to take up residence dockside later in 2007 when West Island College's Class Afloat Sea School finalizes its relocation to the town. Also of interest are a number of internationally known annual events, including the Lunenburg Folk Harbour Festival, the Boxwood Music Festival, the Lunenburg Festival of Crafts, the Lunenburg Folk Art Festival, and the Lunenburg Waterfront and Seafood Festival, among others.

A limited scallop and lobster fishery remains, new industries have developed involving modern technologies such as the manufacture of composite aerospace components and the design of computerized video games which complement already existing engineering and ship-repair facilities. Along with its blossoming manufacturing base, Lunenburg has also become a mecca for dozens of artists who have flocked to the area in recent years to pursue their craft.

In 1995, Old Town Lunenburg was named a UNESCO World Heritage Site based on its architecture and working waterfront. That designation, coupled with its three National Historic Sites—St. John's Anglican Church, Lunenburg Academy, and the Knaut-Rhuland House Museum—makes the town a popular destination for tourists.

WHILE IN LUNENBURG

The Lunenburg Art Gallery currently boasts nearly 100 member artists, and the town itself is the home of more than 20 private galleries. Three tall ships, the Picton Castle, Bluenose II, and the Theresa E. Connor—the latter the focal point of the Fisheries Museum of the Atlantic located on the town's waterfront—currently call Lunenburg home. Two others, the S.V. Concordia and the S.Y. Fryderyk Chopin, are expected to take up residence dockside later in 2007 when West Island College's Class Afloat Sea School finalizes its relocation to the town. Also of interest are a number of internationally known annual events, including the Lunenburg Folk Harbour Festival, the Boxwood Music Festival, the Lunenburg Festival of Crafts, the Lunenburg Folk Art Festival, and the Lunenburg Waterfront and Seafood Festival, among others.
THE LIGHT OF PARIS
By Jean-Michel Bert & Pierre Assouline • Assouline • $50.00 • 132 PP.

Who doesn't love Paris—day or night, rain or shine? And how many of us who reside elsewhere have wondered just what it might be like to live there rather than merely visit? The magical quality of the City of Light and its extraordinary architecture have been lovingly captured by Jean-Michel Bert in The Light of Paris, a collection of large-format black-and-white images recently released by Assouline. Shot in the empty hours just before dawn and just after dusk, the photographs present the city's buildings and monuments as though they were individual works of art in an exhibition, each to be appreciated on its own merit without the distraction of daily life. As one strolls through the pages one becomes acutely aware of the architectural harmony of such iconic places as the Hôtel des Invalides and the Petit Palais, while lights twinkling in apartment windows provide brief glimpses into private lives. As the French king François I once said, Paris n'est pas une ville, c'est un monde. The City of Light is not a city, it is a world. The evocative images in this book do much to underscore this sentiment.

STABLES: Majestic Spaces for Horses
By Olga Prud'homme Fargès and Alice Vayron de La Moureyre • Rizzoli • $45 • 192 pp.

The 13 horse quarters showcased in this global survey are so luxurious that some animals enjoy their own swimming pools and massage services. The authors, French journalists who specialize in equestrianism, chose case studies in 13 countries, scattered from Hong Kong to Morocco, Scotland, and Kentucky. The buildings date back to the 1100s and mostly belong to royal families, noblemen, or governments. A Scottish lord maintains his family's 1890s sandstone stables; when cars took hold in the early 1900s, his ancestors opted to build new garages rather than redo the beloved horse stalls. In Andalusia, a Spanish ministry now helps run a riding school in a neoclassical ducal palace designed by Charles Garnier (best known for Paris's opera house), and at princely stables in India, the horses come from an endangered breed called Marwari, known for its distinctive inward-curled ears. At every site the authors visited, healthful sunshine and breezes pour through skylights, clerestories, cupolas, or casement windows. But the architecture is also meant to withstand the damage horses can do; brick floors, tile walls, and bubinga hardwood doors resist hoof kicks.

BIOGRAPHY OF A TENEMENT HOUSE IN NEW YORK CITY:
An Architectural History of 97 Orchard Street
By Andrew Dolkart • University of Virginia Press • $27.50 • 142 PP.

In 1864 a German-Lutheran tailor named Lucas Glockner built a five-story tenement along a side street on Manhattan's Lower East Side, then moved his family into one of the units. He had made sure the brick façade was attractive to other tenants—brownstone lintels crown arched windows, and the sheet-metal cornice rests on modillions and acanthus-leaf brackets. But the apartments were rather cramped (maximum 32 square meters) and meanly appointed. Until the city started enforcing housing reform laws around 1905, no tenant at 97 Orchard Street enjoyed indoor plumbing or gaslights, or had much access to natural light or ventilation, and electricity didn't reach the building until around 1920. People who couldn't afford to live anywhere nicer crowded into the building; its population peaked at 111 souls in 1900. By 1935, the city required tenement owners to install expensive fireproofing, and 97 Orchard's tightwad landlords instead simply closed up every room except the storefront. A nonprofit named the Lower East Side Tenement Museum took over the building in 1988, and has since created a series of period rooms representing the grim homes of New York immigrants from the 1860s to 1920s. Andrew S. Dolkart, a professor of historic preservation at Columbia University, has written a lively, absorbing chronicle of how the modest structure became an emotion-stirring historic site that draws some 125,000 visitors a year.
THE ENGLISH HOUSE: 1000 Years of Domestic Architecture
BY JOHN STEEL AND MICHAEL WRIGHT • ANTIQUE COLLECTORS' CLUB • $89.50 • 399 PP.

Few countries can boast of houses in continuous occupation for a millennium. Not only do a number survive in England, but they also come with plentiful documentation about their original layouts and use. A typical lord dined, conducted business, and slept in a cathedral-ceilinged Great Hall, a smoky, drafty room with a roof hole for ventilation and no glass in the window slits. From this humble medieval precedent, explain British architectural historians John Steel and Michael Wright, arose some 300 kinds of residences. The book contains nearly 200 essays, spanning from high-style mansions to vernacular prefabs. All the major architectural innovators—from Inigo Jones to Charles Rennie Mackintosh through Marcel Breuer—get their due, as do each region’s traditional motifs, floor plans, and construction materials. The chapter headings alone—East Anglian Brickwork, West Yorkshire H-Plan Houses, Mexican Ranch-Style Houses—are worth the book’s cover price, not to mention the evocative names of properties like Mothecombe, Thatchways, and Peacehaven.

HUDSON VALLEY RUINS: Forgotten Landmarks of an American Landscape
BY THOMAS E. RINALDI AND ROBERT J. YASINSAC • UNIVERSITY PRESS OF NEW ENGLAND • $35 • 337 PP.

Thomas E. Rinaldi and Robert J. Yasinsac, preservation journalists, have trolled the Hudson River’s 150-mile frontage for overgrown, abandoned buildings that most observers deem beyond hope. The book profiles nearly 80 sites, from Albany to the Bronx border. There’s an especially heavy concentration of industrial wreckage and mansions; tycoons and cement- and power-plant builders alike have been taking advantage of the river’s proximity to Manhattan for over a century and then going bankrupt. The authors also point out Victorian schools, Dutch barns and farmhouses, transport artifacts (bridges, train stations, ferry carcasses), and drive-in movie theaters. In some cases, the buildings vanished while the book was in progress. But there are some happy endings on hand as well: mills turning into artists’ lofts, an asylum and a department store going condo, a brickyard becoming offices for an estuary research institute. The authors often update their website, www.hudsonvalleyruins.com, with news of demolitions, reopenings, and restoration funding drives.

THE LOST VANGUARD: Russian Modernist Architecture 1922-1932
BY RICHARD PARE • MONACELLI PRESS • $85 • 348 PP.

During the first burst of Soviet idealism, Modernist architects installed clean-lined, flat-roofed concrete forms across the new regime. The structures, sometimes sprouting sawtooth bays and daring cantilevers, housed factories, clubs, offices, apartments, schools, hospitals, stores, theaters and, more ominously, secret police. The naive builders’ accomplishments are all the more remarkable given the Soviet Union’s pervasive steel shortages before World War II and the lack of craftsmen familiar with new materials like reinforced concrete. By the 1930s, Stalin was busy purging intellectuals from his ranks, and most avant-garde architects ended up exiled or banned from practice. The buildings, meanwhile, moldered or acquired classical pilasters and reliefs of Soviet heroes that suited Stalin’s tastes. Since the USSR’s demise, Modernist remains by the score have been abandoned, razed, or felled in suspicious fires. Architectural photographer Richard Pare has been traveling to document whatever’s left since 1993. This book focuses on some 75 buildings—some of them scarcely published before—in Russia, Ukraine, and Azerbaijan, including Konstantin Melnikov’s weird cylindrical home in Moscow (on the WMF’s 2006 watch list). Pare wangled access to many interiors; a few are well-kept and still furnished with hairpin-arm streamlined chairs, while others are crumbling and revealing the primitive timbers and wood lath that underlay the low-budget architectural experiments. The volume has been published in conjunction with an exhibit of Pare’s work this summer at New York’s Museum of Modern Art.

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.
When I first heard of the recent, deadly bombings in Algiers, I was deeply saddened, having visited that city only weeks before on a mission to establish links with local preservation organizations and the country's Ministry of Culture. During my visit, I must confess, I sensed a certain anxiety on the part of my gracious hosts, who would not allow our consultant, Robert Mertz, and me to travel without a police escort. To us, such measures seemed excessive, as everywhere we went people were friendly and the tourists we encountered appeared to be enjoying their sojourns undisturbed. Despite feeling trapped, we were grateful for this unexpected treatment, which allowed us to move quickly from site to site, as we had much to see in too little time in a vast country.

Algeria is full of stunning landscapes and amazing sites, from the prehistoric rock art of the Tassili n'Ajjer in the Sahara, to Numidian mausolea, Roman towns, Islamic cities, and traditional villages such as those at the World Heritage site of the M'Zab Valley.

Aside from Algiers—whose Casbah is itself a World Heritage site—we visited four of Algeria's seven World Heritage sites: the Roman cities of Tipasa, Djemila, and Timgad, and the early Islamic site of Qala'a of the Beni Hammud. All these sites fully deserve their World Heritage status, but unfortunately they have suffered from the isolation they had to endure during the years of terrorism and civil strife. Maintenance has been sporadic, and conservators have not been available to provide expert advice. Conservation work has often been done with inadequate tools and inappropriate materials.

We also had a chance to visit a number of impressive mausolea commissioned by the Numidians, a semi-nomadic Berber tribe that played a critical role during the Punic wars. Under the leadership of King Masinissa, the Numidians aided Rome in their campaign against Carthage, during which they began a process of unifying a nation. Although the king's death prevented this unification to continue, Algerians still consider Numidians their ancestors, and for this reason Numidian monuments hold considerable political significance.

Despite the bombings, Algeria continues to look forward to a peaceful future, one in which tourism is seen as an important development opportunity. If peace should become more than just a dream, however, Algeria's monuments are ill prepared to cope with large numbers of tourists. Few if any sites have management plans, and at present conservation expertise in the country is all but nonexistent. To this end, WMF is committed to providing technical assistance and aiding local authorities in training a new generation of conservators to care for Algeria's great cultural legacy.

—GAETANO PALUMBO
Every day, irreplaceable cultural and historical monuments are threatened by war, development, pollution, natural disaster, and neglect. Your membership support makes a difference. Nearly 90% of all membership donations go directly toward fieldwork and educational programs that have made WMF an international leader in architectural preservation for over 40 years.

Renew your membership today or join online at www.wmf.org.
Call 646-424-9594 for more information.
INTRODUCING THE FRANK GEHRY COLLECTION

GEHRY BEAUTY WITHOUT RULES

Tiffany & Co.