

Conservation

The Getty Conservation Institute Newsletter ■ Volume 23, Number 2, 2008



*Entrance to
Temple
Medinet Habu*



The Getty Conservation Institute Newsletter

Volume 23, Number 2, 2008

The J. Paul Getty Trust

James Wood President and Chief Executive Officer

The Getty Conservation Institute

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Conservation, The Getty Conservation Institute Newsletter

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Color West Lithography Inc. Lithography

Front cover: Entrance to Temple Medinet Habou, 1850s, by Francis Frith. Medinet Habu—the memorial complex of Ramses III—is located toward the southern end of the Theban Necropolis on the West Bank of the Nile at Luxor. Reproduction: Prints and Photographs Division, Library of Congress, LC-USZ62-108969.

The Getty Conservation Institute works internationally to advance conservation practice in the visual arts—broadly interpreted to include objects, collections, architecture, and sites. The Institute serves the conservation community through scientific research, education and training, model field projects, and the dissemination of the results of both its own work and the work of others in the field. In all its endeavors, the GCI focuses on the creation and delivery of knowledge that will benefit the professionals and organizations responsible for the conservation of the world's cultural heritage.

The GCI is a program of the J. Paul Getty Trust, an international cultural and philanthropic institution that focuses on the visual arts in all their dimensions, recognizing their capacity to inspire and strengthen humanistic values. The Getty serves both the general public and a wide range of professional communities in Los Angeles and throughout the world. Through the work of the four Getty programs—the Museum, Research Institute, Conservation Institute, and Foundation—the Getty aims to further knowledge and nurture critical seeing through the growth and presentation of its collections and by advancing the understanding and preservation of the world's artistic heritage. The Getty pursues this mission with the conviction that cultural awareness, creativity, and aesthetic enjoyment are essential to a vital and civil society.

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The Getty Conservation Institute

1200 Getty Center Drive, Suite 700
Los Angeles, CA 90049-1684 USA
Tel 310 440 7325
Fax 310 440 7702

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A Note from the Director

By Timothy P. Whalen

THIS SPECIAL ISSUE OF *Conservation, The GCI Newsletter* brings together two subjects that have been very much a part of the Getty Conservation Institute's history and focus—cultural heritage in Egypt and site management.

The interest and involvement of the GCI in the conservation of Egypt's cultural heritage dates back to the earliest days of the Institute. The GCI's first field project, begun in 1986, was a collaborative undertaking with the Egyptian Antiquities Organization—today the Supreme Council of Antiquities (SCA)—to assess, analyze, and conserve the remarkable wall paintings in the tomb of Queen Nefertari in the Valley of the Queens on the West Bank of the Nile at Luxor. The initiation of this project was followed by other projects, including a study of the causes of deterioration of the Great Sphinx at the Giza Plateau and the design, testing, and technology transfer to Egyptian personnel of nitrogen-filled cases for the Royal Mummy Collection in the Egyptian Museum in Cairo.

In recent years, the GCI has renewed its relationship with its cultural heritage colleagues in Egypt and returned to the Valley of the Queens to assist the SCA in developing and implementing a plan to address the management and conservation of the valley as a whole. The management and conservation of sites is another long-held interest of the Institute that, over the years, has manifested itself in courses and workshops, publications, and conferences and in many of the collaborative field projects conducted by the GCI. The Institute is bringing this expertise to its new efforts in the Queens Valley, which involve not only the management plan but also training for SCA professionals in site planning and implementation, as well as a separate program for wall paintings conservators.

The Valley of the Queens is a major part of the Theban West Bank—one of the most archaeologically rich sites of Egyptian antiquity—which also includes the Valley of the Kings and the Tombs of the Nobles, as well as a number of mortuary temples, a workers' village, and other notable places. In the context of its work in the Queens Valley, the GCI has joined with the SCA and other organizations working in the West Bank area to regularly exchange information and to create the foundation for the development of a management and conservation plan that will encompass the entirety of the West Bank.

In light of this important undertaking, we asked several of those joining with us in this effort to contribute to this edition of *Conservation* as a way of illuminating both the major preservation issues facing this extraordinary site of antiquity and the steps being taken to address these issues. We are grateful to our colleagues at the SCA (in particular to Zahi Hawass, SCA's secretary general), the Epigraphic Survey of the Oriental Institute of the University of Chicago, the Theban Mapping Project, the Egypt Antiquities Information System, the American Research Center in Egypt, and the French Archaeological Mission of Western Thebes (a program of the Centre National de la Recherche Scientifique) for sharing their thoughts in the following pages.

Detail from a tourist map of the West Bank of Thebes, produced by the Survey of Egypt in 1922. Map: Courtesy of the Egypt Antiquities Information System and the Egyptian Survey Authority.

Conservation of Egyptian Monuments

The SCA Program for Site Management

By Zahi Hawass

THE SUPREME COUNCIL OF ANTIQUITIES (SCA) is responsible for the conservation and restoration of monuments from all eras of Egyptian history. Along with the development and construction of museums, the care of prehistoric, pharaonic, Greco-Roman, Jewish, Coptic, and Islamic sites is at the heart of the SCA's mission. In a country as rich in historical culture as Egypt, fulfilling these responsibilities is an enormous task.

When I became secretary general of the SCA in 2002, one of my first initiatives was a five-point strategy for the protection of Egypt's monuments. The first of this program's interrelated goals is to transform Egypt's museums from outdated storage facilities into world-class cultural and educational institutions; landmarks like the Museum of Islamic Art in Cairo are under renovation, and a number of new museums are under construction across the country. The second goal is to raise awareness among Egyptians of their cultural heritage and history by implementing educational programs for both children and adults.

The third goal is the protection of Egypt's antiquities from looting and destruction. We are improving the way monuments are guarded and building more secure storage facilities. We are simultaneously in the process of strengthening the laws that govern the theft, illegal export, and destruction of artifacts and monuments. The changes being made to our laws also support our fourth goal, the repatriation of stolen antiquities. We are actively pursuing the return of a number of important stolen artifacts.

Our fifth goal, the development of comprehensive site management programs for all monuments under our care, is one of the most ambitious and challenging undertakings in the history of the SCA. Six years ago, the concept of site management was in its infancy in Egypt. Tombs and temples were excavated, conservation programs were carried out, personnel were trained, and visitor facilities were constructed—but seldom, if ever, with an overarching vision for the understanding and protection of the site as a

whole. The situation changed little over many decades, and no one seemed concerned with developing comprehensive strategies to protect our sites for the future. I knew that it was important to introduce these ideas to Egypt.

In 1995 I attended a conference arranged by the Getty Conservation Institute to discuss site management.¹ Through this conference I visited a number of major Mediterranean sites, to study the ideas behind site management and to bring attention to the dangers facing Egypt's monuments. At this conference I first announced that without intervention, we would lose all of Egypt's great historical sites within one hundred years.

What are the challenges in protecting our monuments?

- **Tourism.** This is, perhaps, the most visible threat to Egypt's ancient sites. UNESCO recognized this problem years ago, and in 1996—in cooperation with the European Union and the World Tourism Organization—it addressed the issue at conferences in Milan and Paris. Tourism is increasing rapidly in Egypt, and because it is so important to the national economy, we must accommodate the needs of visitors. Our challenge is to do this while finding ways to minimize the impact of tourist traffic on our fragile monuments.
- **Urban growth.** This growth and the increasing vehicular traffic around archaeological sites are constant and growing concerns.
- **The rising water table.** This is a countrywide threat to our ancient monuments and perhaps the single most significant challenge we face today.
- **Inadequate restoration.** At many sites, we face damage done in the past by inadequate conservation. For example, restorations to the Great Sphinx at Giza carried out between 1980 and 1987 were done with cement and unsuitable stone, and we have sought to correct the problems caused by this work.
- **Neglect in excavations.** Excavations are multiplying all over the country, but mapping, publication, and conservation are often sadly neglected.
- **Blind reliance on technology.** Although there have been many positive technological advances over the past decade, we must also address the problem of a blind reliance on whatever technology is fashionable at the moment. Many ignore the fundamentals of excavation and conservation, and they waste time and money on flashy but insubstantial results derived from such technology.²

In 2000, at the Eighth International Congress of Egyptologists in Cairo, we held a debate about site management and conservation.³ Many important ideas came out of this discussion, including ways to end inadequate restoration and to save areas like Karnak, Esna, Mit Rahina, Alexandria, and the Faiyûm from rising ground-



Fallen Colossus, Ramasseum, Thebes, 1858, by Francis Frith. Collection of the J. Paul Getty Museum. In the nineteenth century, photographs of ancient sites helped to spur tourism to these once-exotic locales. Reproduction: Courtesy the J. Paul Getty Museum.

water. At the conference, we also made the first international announcement of the site management program for the Giza Plateau. This project, currently under way, has already made great progress.⁴ When I took my present position with the SCA in 2002, the time was right to expand this concept to sites all over Egypt.

The site management concept that we have developed includes safe zoning, the use of both natural and man-made barriers to isolate antiquities areas, the development of facilities to improve the experience of visitors while minimizing their impact, and comprehensive conservation and restoration programs. One of the problems we faced at Giza was the presence of homes only fifteen meters from the Sphinx. The people living in these homes were not taking proper care of the area, and it was very difficult to educate them about the importance of preserving the site. Similar situations caused problems at many other sites, including Edfu and Esna. We now construct walls to protect sites if no natural boundaries exist, to prevent homes and businesses from encroaching upon antiquities areas. (The wall around the pyramids area at Giza is about seventeen kilometers in length.) Another important component of our site management strategy is the construction of visitor centers, designed to explain the importance of the monuments and educate visitors about the history of the sites. We are also building new roads and pathways in appropriate areas to direct visitor traffic.

One of our most important goals is to make sure that conservation and restoration are carried out with the entire site in mind. We do not want work to be directed toward just one tomb or wall but, rather, at the site as a whole. The temple of Dendara is a good example of this kind of comprehensive plan. We are in the process of cleaning the entire temple and have added a visitor center, cafeteria, and bazaar outside the site.

Providing training to archaeologists, architects, conservators, and administrators is also integral to our programs. Unless we improve the professional capacities of our employees, it will be impossible to develop and implement long-term plans to maintain sites into the future.

We have thus far completed the implementation of management programs at many sites, including Abu Simbel, Kalabsha, Edfu, and Esna. We are also close to finishing programs at a number of sites in the Delta, including one in the vicinity of Alexandria;

these sites have been given priority based on the urgency of their conservation needs and the amount of tourist traffic to which they are subjected. The monuments of Luxor, in particular the Karnak and Luxor temples, have undergone important conservation work. On the West Bank, the SCA is currently working in cooperation with the Getty Conservation Institute on a site management program for the Valley of the Queens. In the Valley of the Kings, the SCA is making important interim changes while we examine the best approach to an overall site management program. A visitor center has already been erected, complete with an introductory short film. A bazaar and parking lot have been constructed, and electric vehicles bring passengers from the parking area up to the tombs. We are currently examining comprehensive conservation strategies for the individual tombs. Our plan is to combine conservation work with the addition of facilities, such as improved lighting, that will enhance the experience of visitors. An important part of our conservation strategy will be to open only selected tombs, on a rotating schedule, in order to minimize visitor impact.

We have made significant progress in our efforts to care for monuments in a systematic and effective way. A new village, completely funded by the government, has been constructed for the residents of Qurna, a village that grew over the last few centuries directly atop the Tombs of the Nobles on the West Bank. Many of the villagers' daily activities were carried out in or above the tombs, filling them with water and trash and threatening the survival of the necropolis. We demolished many of the village houses that were beyond repair but left approximately twenty-five standing to preserve the history and culture of the village.

We are now working to create a truly comprehensive plan for the West Bank. Although we have already taken some steps, what is needed is a plan that fully incorporates all aspects of site management—facilities for visitors, both to enhance their experience and to reduce their impact on the tombs; conservation and restoration; and training for personnel. Luxor's West Bank is possibly the most important archaeological site in the world, and it urgently needs a master plan to preserve all its precious monuments.

Zahi Hawass is secretary general of Egypt's Supreme Council of Antiquities.

1. *The Conservation of Archaeological Sites in the Mediterranean Region. An International Conference Organized by the Getty Conservation Institute and the J. Paul Getty Museum, 6–12 May 1995* (Los Angeles: Getty Conservation Institute, 1997).
2. See Zahi Hawass, "The Egyptian Monuments: Problems and Solutions," *International Journal of Cultural Property* 1, no. 4 (1995): 105–17.
3. See Hawass, "Site Management and Conservation," in *Egyptology at the Dawn of the Twenty-First Century: Proceedings of the Eighth International Congress of Egyptologists, Cairo, 2000*, vol. 3 (Cairo: American University in Cairo Press, 2003), 48–61. See also Christian Leblanc, "Response to Z. Hawass" (*ibid.*, 62–68), Wolfgang Mayer, "Response to Z. Hawass" (*ibid.*, 69–70), and Kent Weeks, "Response to Z. Hawass" (*ibid.*, 71–72).
4. See Hawass, "Site Management at Giza Plateau: Master Plan for the Conservation of the Site," *International Journal of Cultural Property* 9, no. 11 (2000): 1–22.

Western Thebes

History, Change, and Challenges

By Mansour Boraik and W. Raymond Johnson

The Colossi of Memnon, sixty-five-foot-high colossal quartzite seated figures of the Eighteenth Dynasty pharaoh Amenhotep III, which stood against the entry pylons of his gigantic mortuary temple, currently being excavated by Hourig Sourouzian. These massive statues are the only visible remains of this once-large complex. *Photo:* W. Raymond Johnson.



IN ANTIQUITY, WHAT IS TODAY KNOWN AS LUXOR was the seat of Amun-Re, sun god and king of the gods, from 2000 BC until about AD 500. Known as Thebes in Greek and Waset in Egyptian, the entire city—spanning both sides of the Nile—was essentially one huge temple complex divided into four distinct sections. Luxor Temple, Ipet Resyet—which was the site of Amun-Re’s birth and creation—is located on the East Bank, the land of the rising sun. Two miles to the north on the East Bank lies the massive Karnak Temple, Ipet Swt, where Amun resided in palatial splendor for most of the year. Because the Egyptians believed that time was an endlessly repeating circle, Amun of Karnak was obliged to return to Luxor Temple annually to perform the act of creation and to be reborn during the festival of Opet, one of the great celebrations of the Egyptian religious calendar.

Across the river in the land of the dead—the Theban West Bank—rose the royal mortuary temples, ranged along the desert edge where Amun was worshipped as the deceased king in the form of the setting sun. During the annual Beautiful Feast of the Valley, Amun of Karnak visited all mortuary complexes on the western bank and reanimated all the dead Amuns and kings. At the southern end of the mortuary-temple field, directly across the river from Luxor Temple, lies the small Amun temple of Hatshepsut and Thutmose III (1479–1425 BC), Djoser Set, considered the traditional burial place of Amun (and later seven other primeval gods) from the time of the Middle Kingdom. This temple was later enclosed within the precinct walls of the mortuary complex of Ramses III (1194–1163 BC) at Medinet Habu.

In the desert cliffs of western Thebes, the Valley of the Kings and the Valley of the Queens protected the royal dead of the New Kingdom (Dynasties Eighteen–Twenty, 1550–1075 BC), while the desert foothills between them housed the necropoleis of the nobility,



known as the Tombs of the Nobles. Among the majestic mortuary temples of the kings, that of Hatshepsut (ancient Egypt's greatest female ruler)—built against the golden Deir el-Bahri cliffs—is considered to embody the perfect fusion of constructed and natural environments. The largest of the mortuary temples was built by Amenhotep III (1391–1353 BC), who also built most of Luxor Temple (he was the father of Akhenaten [1364–1347 BC], considered a heretic for his establishment of a monotheistic cult). In the generations after Amenhotep III's death, his mortuary precinct—in its day larger than Karnak—quickly fell into ruin and was quarried away by his successors. All that remain visible today are the great quartzite Colossi of Memnon, gigantic seated statues of the king that marked the entrance to the complex and that still dominate the plain.

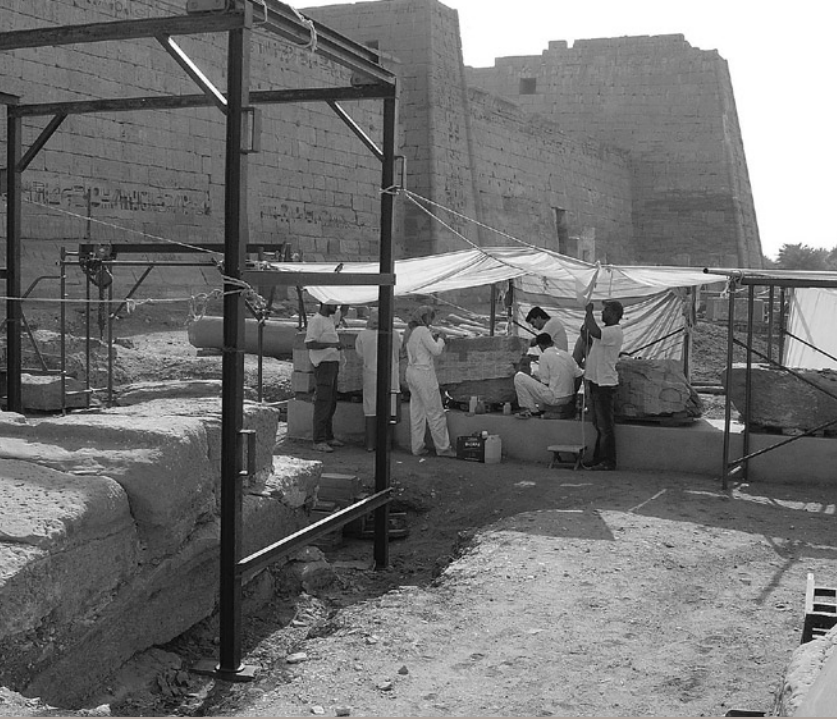
Recycling, Recovery, and Renaissance

Looting of the necropoleis began at their inception. The grave goods proved too tempting, even to some contemporaries of those who were preparing the burials. State-sanctioned recycling of grave goods from the royal necropolis occurred in the Third Intermediate Period (1075–656 BC), for reuse in royal burials in the Nile Delta. When the old pharaonic religion was replaced by Christianity (fifth century) and later by Islam (seventh century), reuse of tomb contents and standing monuments became the norm in a deliberate effort to remove all vestiges of the older cults and the pagan society they represented. Ancient monuments were adapted for reuse: tombs were converted into hermitages, dwellings, and monasteries; temples into dwellings, barns, storage areas, and updated places of worship. Many standing monuments were utilized as quarries or completely dismantled for new construction. The cult centers of the north—from the Faiyûm northward through the delta—disappeared as a result of this activity and can no longer be seen.

A view of western Thebes showing the Ramesseum (foreground) and the adjacent cultivated fields. Expanding agriculture and increasing population in the area are threatening ancient sites.
Photo: W. Raymond Johnson.



The crumbling mudbrick ruins of the sprawling palace complex of Amenhotep III, south of Medinet Habu. The mudbrick walls are displaying increasing decay because of changing weather and demographic conditions.
Photo: W. Raymond Johnson.



The Chicago House conservation team, headed by Lotfi K. Hassan, consolidating shattered blocks of a collapsing well of Ramses III, south of Ramses' great mortuary temple at Medinet Habu. Chicago House in Luxor (part of the Epigraphic Survey of the Oriental Institute of the University of Chicago) has sponsored expanded conservation and restoration programs that supplement its documentation projects throughout Thebes. *Photo: W. Raymond Johnson.*

It is the good fortune of the modern world that so few people resided in Luxor after the pharaonic period (favoring instead the large population centers to the north); today the monuments of this ancient imperial religious capitol survive relatively intact. It is a gift beyond measure and one that carries a great deal of responsibility.

The Western world forgot Egypt until the late medieval period, when occasional travelers reported back about the “wonders upon Pharaoh” that had survived the ravages of time. The tide turned decisively in 1798 when Napoleon invaded Egypt; his savants produced the first systematic scientific documentation of the entire country, including its astonishing ancient monuments (not the least of which were to be found in western Thebes). This information generated tremendous public interest, and shortly thereafter, when the ancient hieroglyphic script—silent for millennia—was translated and regained its voice, the floodgates of science and tourism opened wide.

Egyptian art, with its clean lines and close relationship to nature, had an immediate appeal to westerners, who perhaps recognized in it the foundations of Western art. Among the first visitors to Egypt were collectors who found that the population at the time, for religious reasons, held little regard for the relics of its pagan past. The great assemblages of Egyptian antiquities in Europe were the result of the collection of materials that might otherwise have been destroyed by nature and man, and they are today among Egypt's best ambassadors to the world. This interest soon led to the establishment of the Egyptian Department of Antiquities (now the Supreme Council of Antiquities, headed by Zahi Hawass), laws protecting Egyptian antiquities and sites, the Egyptian Museum in Cairo, and scientific archaeology. Egyptians and foreigners alike awakened to the enormous gains in knowledge to be made by systematic scientific excavation of Egypt's ancient sites. The discovery of Tutankhamun's tomb in the Valley of the

Kings in 1922 and its careful documentation and conservation—and the transport of its contents to the Cairo museum—marked a milestone in the history of Egyptian archaeology. Today dozens of foreign and Egyptian archaeological missions work in western Thebes.

Challenges of a Changing Environment

Until recently, archaeological work in Egypt involved the systematic recovery and documentation of the preserved remains from antiquity in order to make the data accessible to scholar and layperson alike—a difficult enough task. Groups like the Epigraphic Survey of the Oriental Institute of the University of Chicago were founded solely for the purpose of recording and documenting for publication the kilometers of inscribed wall surfaces in Egypt's temples and necropoleis; the enormity of the inscribed material that survives in Luxor alone is nothing short of miraculous. A growing interest in ancient Egyptian settlement patterns now finds a whole new generation of Egyptian and foreign archaeologists focusing their expertise on Egypt's ancient cities and towns, including Luxor.

Today's Egyptian archaeological community, however, finds itself forced to adjust to surprising changes in environmental and demographic conditions. The extraordinary monuments of the West Bank—and Upper (or southern) Egypt in general—survived in large part because of dry conditions and a low population. Over the last few decades, these conditions have completely changed; Egypt's weather is getting wetter, and increasing population and expanding agriculture are threatening the ancient sites in proximity to—or in the midst of—modern settlements. Lake Nasser, the enormous reservoir created by the Aswan High Dam (constructed in the 1960s), now allows controlled, year-round irrigation throughout Egypt. But Lake Nasser also creates tremendous amounts of airborne moisture through evaporation and condensation. Humidity fluctuations in the air—impossible even twenty years ago—

are now a daily occurrence; they activate groundwater salts, trapped in the temple walls, which migrate to the surface, crystallize, and shatter the stone. Runoff water from over-irrigated fields results in abnormally long periods of high groundwater, which contains dissolved salts that eat away at the foundations of the stone monuments and destabilize them. Humidity fluctuations and increased rainfall have dissolved mudbrick palace, house, and wall remains that have stood for thousands of years. The great mudbrick palace complex of Amenhotep III at Malkata, the enclosure walls of Medinet Habu and the Deir el-Medina temples, and the extensive mudbrick tomb chapel and settlement remains scattered throughout the West Bank—all have suffered the decay of centuries during just the last fifteen years.

On top of the preservation issues, an enormous tourism boom brings with it a whole different set of challenges. To accommodate the growing numbers of visitors, local authorities are faced with the need to expand visitor facilities and to consider a wholesale rethinking—and even reshaping—of the ancient landscape of Luxor.

But there is reason for some optimism. With an increased awareness of the changing environmental and demographic conditions in Egypt, the scientific community is responding. All expeditions working on sites undergoing decay are now obliged to add conservation to their programs; for more than a decade the Epigraphic Survey has sponsored expanded conservation and restoration programs (including the training of Egyptian conservators) that now supplement documentation projects on both sides of the river.

Exciting new collaborative programs have evolved: the Getty Conservation Institute (in the Valley of the Queens) and the American Research Center in Egypt (at Medinet Habu)—in collaboration with the SCA—are both sponsoring training programs for SCA staff in site management. The United States government has generously allocated funding through the U.S. Agency for International Development (USAID) for conservation and site management of Egypt's cultural heritage sites, as well as for training of SCA archaeologists and salvage archaeology, through grants administered by the American Research Center in Egypt. USAID has also directly funded engineering projects designed to lower the groundwater of both eastern and western Thebes.

Luxor and Karnak temples are now the beneficiaries of a dewatering program—designed by SWECO of Sweden and activated in November 2007—that has lowered the groundwater in the vicinity of the temple sites more than three meters, while the World Monuments Fund has recently funded a dewatering project specifically for the Temple of Amenhotep III. With the assistance of the scientific community, another program has been designed for western Thebes; beginning in the fall of 2008, drains will be laid for three kilometers in the cultivated areas from Medinet Habu in the



Chicago House conservator Hala Aly Handaqa infilling losses in the sandstone exterior wall blocks of the small Amun temple at Medinet Habu. Photo: W. Raymond Johnson.

south to the Temple of Sety I in the north, with a pumping station midway in front of the Ramesseum. Excess irrigation water that now flows toward the antiquities sites in the desert will be pumped into a drainage canal leading to the Nile, effectively lowering the groundwater approximately three meters. This change will slow the groundwater salt decay and buy Egypt time to address the real source of the problem—the over-irrigation of crops such as sugarcane that require far too much water.

Ultimately, agricultural reform is the only long-term solution to the groundwater decay problems facing the monuments of western Thebes. The replacement of the sugarcane fields with lucrative crops that require far less irrigation—such as fruits, flowers, and vegetables—would result in an immediate lowering of the groundwater and a slowing of the decay in western Thebes. This sort of change takes time, but the local authorities in Luxor have started working toward that goal. In an effort to protect the fragile antiquities sites from the increasing numbers of visitors, new site management programs—including crowd control—are being developed and coordinated by the Egyptian government and its outside institutional partners. These programs will also take time to implement, and those of us working on the sites are assisting in every way we can.

With the SCA's dedication to the maintenance of Egypt's cultural heritage and the world's commitment to assist in these endeavors, there is great hope for the survival of these extraordinary vestiges of the past.

Mansour Boraik is director of the Supreme Council of Antiquities, Luxor. W. Raymond Johnson is director of the Epigraphic Survey of the Oriental Institute of the University of Chicago (Chicago House, Luxor).

Developing a Management Plan for Egypt's Valley of the Kings

By Kent R. Weeks

FOUR OR FIVE THOUSAND YEARS AGO, the village of Thebes was a small, undistinguished hamlet, little different from its Upper Egyptian neighbors. But by the Eighteenth Dynasty (1550 BC), Thebes had become a city of fifty thousand people, and for the remainder of Egypt's New Kingdom (until 1069 BC), it was the wealthiest and most powerful metropolis in the ancient world, the capital city of Egypt, and home to its most powerful god, Amon-Re. It was at Thebes that New Kingdom ruling families, high priests, and senior bureaucrats lived and were buried.

The cemeteries of Thebes, collectively known as the Theban Necropolis, lay in the desert along the western edge of the Nile floodplain. From a small collection of rock-cut tombs in the Old Kingdom (2575–2134 BC), it had grown by the New Kingdom into one of the largest and most elaborate necropoleis in the country, covering an area of about three square kilometers. It had several parts: the Valley of the Kings (KV), where at least sixty-three tombs were dug for royalty and royal aides; the Valley of the Queens (QV), where over ninety tombs were dug for royal wives and children; and the Theban Tombs of the Nobles (TT), a thousand small, elegantly decorated tombs dug for Theban bureaucrats and priests. Near the tombs, dozens of huge memorial temples, some covering many acres, were built to support the well-being of pharaohs in the afterlife. With pride and confidence, the Egyptians boasted that their temples and tombs were “mansions of millions of years” that would last forever. They were wrong.

After centuries of neglect, the fragile monuments of Thebes are threatened with destruction by rising groundwater and flash floods, geological instability, environmental changes, pollution, and, most seriously of all, heavy and inadequately controlled tourism. For some tombs and temples, conservation and protection came too late—many have already crumbled to dust. For the rest, urgent action is needed if these ancient treasures are to survive for even another generation. It is ironic that we now find ourselves obeying

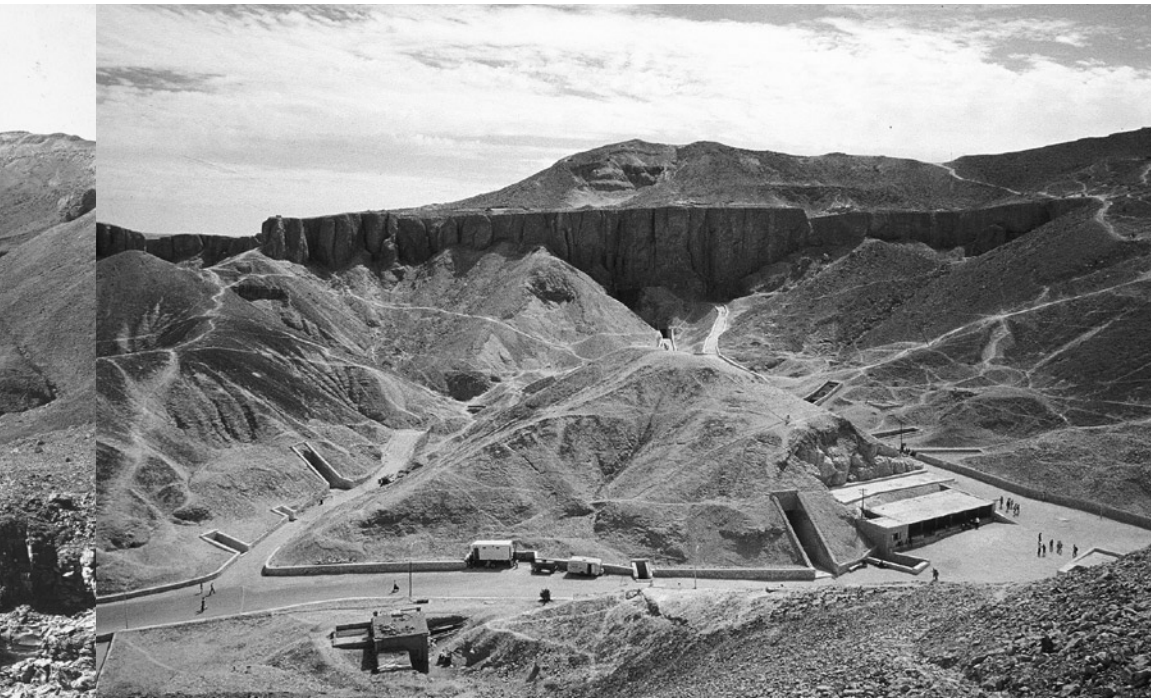


Valley of the Tombs of the Kings, 1856, by Francis Frith. Reproduction: Prints and Photographs Division, Library of Congress, LC-DIG-ppmsca-04515.

Percy Shelley's Theban king Ozymandias (Ramses II), who commanded us to “Look on my works, ye mighty, and despair.”

The Theban Mapping Project

The need for archaeological conservation at Thebes has been recognized for years, but it was only after the establishment of the Theban Mapping Project (TMP) in 1979 that a systematic, necropolis-wide approach to its protection began. The project started with the establishment of a survey grid laid across the West Bank, making it possible for the first time to locate archaeological monuments accurately. The next step was a detailed survey of the Valley of the Kings, which included topographical maps and meticulous architectural plans of all accessible KV tombs. Comprehensive photographic coverage of KV included historical images as well as contemporary digital images taken by the TMP of all decorated tomb walls. Existing condition surveys were made, historical data were assembled, and extensive descriptions of each KV tomb were prepared. All of this information appears in hard copy and on the TMP's Web site (www.thebanmappingproject.com), which is visited by thousands of students and scholars every day.

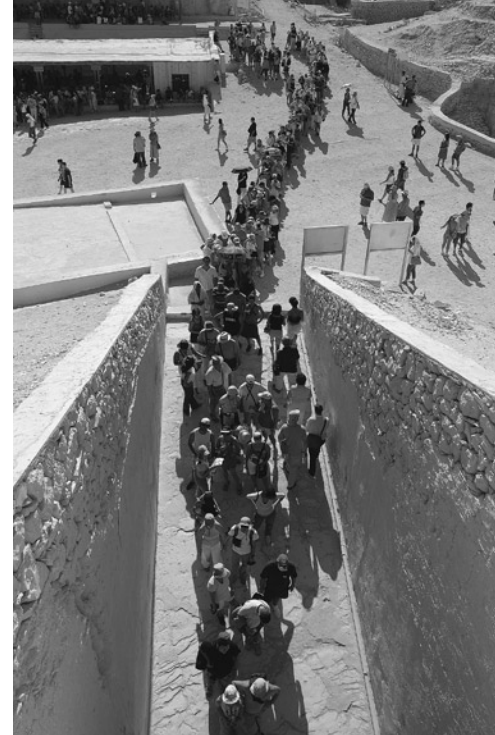


A present-day view of the Valley of the Kings, looking east. At the center is KV 5, tomb of the sons of Ramses II, and to its right is the tomb of Ramses IX and the modern rest house. At left, in a small wadi (valley), lie tombs KV 3 (sons of Ramses III), KV 46 (Yuya and Thuya), and KV 4 (Ramses XI). *Photo: Francis Dzikowski, © 1999, The Theban Mapping Project.*

Using these data as a foundation, the TMP has devoted the last four years to preparing a management plan for KV. It is the first part of what ultimately will be a plan for the entire Theban West Bank.

Work on the management plan began with a review of management plans at other archaeological sites and with a survey of stakeholder groups with an interest in KV. The TMP commissioned the Social Research Center of the American University in Cairo to interview several hundred tourists of various nationalities, as well as tour guides, antiquities inspectors, conservators, bus drivers, and curio sellers—indeed, anyone involved with KV—and ask their opinion of KV's strengths and weaknesses, the problems they perceived, and ways that they thought these problems might be resolved. Management plans for other heavily visited archaeological sites (such as Stonehenge, Petra, Angkor Wat, Chaco Canyon, and Hadrian's Wall) were studied to identify methods of conservation, traffic management, and administration that might be adapted to Thebes.

Fifty years ago, fewer than a hundred visitors came to KV each day; now there are as many as nine thousand, and that number is likely to double in the next decade. Increasing and uncontrolled



The visitor queue in front of KV 9, the tomb of Ramses VI. As many as nine thousand visitors come to the valley each day, and this number may double over the next decade. Heavy and unregulated tourism threatens the valley and diminishes the visitor experience. *Photo: Francis Dzikowski, © 1999, The Theban Mapping Project.*

tourism is the most serious problem facing KV. Tourists are responsible for rapid changes in temperature and humidity levels in the tombs—changes that damage plaster and pigment—and they inadvertently rub against decorated walls. But for Egypt's economy, it is essential that tourism be encouraged—and that it grow. The TMP therefore has devoted considerable time to developing proposals for visitor management. KV visitor numbers were monitored at several times during the last few years, and an optimum carrying capacity for each tomb was calculated (carrying capacity is the maximum number of visitors that can be allowed in a tomb at any one time before significant changes in temperature and humidity occur or before crowding diminishes visitor experience and threatens the tomb's well-being). Large numbers of tourists do not necessarily spell the death of an ancient site—if their numbers are carefully regulated, environmental controls are put in place to counter their negative effects, and long-term management plans are implemented.

This is no easy matter. For example, different methods of ticketing were studied to determine if they could help control visitor numbers in KV tombs, as has been done at other World Heritage sites.

Currently one KV ticket gives admission to any three of KV's twelve open tombs (except those of Tutankhamen, Ay, and Ramses VI, for which an extra charge is levied). Tickets are good for the date of purchase only and can be bought only at the KV entrance. The TMP suggested that switching to a system of timed tickets would help reduce crowding in KV by ensuring that optimum carrying capacities were observed; timed ticketing would also help maintain appropriate levels of temperature and humidity. However, the time when most visitors arrive at KV is largely determined by factors beyond the control of the Supreme Council of Antiquities (SCA) or local tour guides or imposed limits on visitors.

For example, charter flights usually arrive from Europe on Fridays or Mondays, so large numbers of tourists come to KV on Saturday and Tuesday. Most Nile cruise boats arrive on Monday, and they also contribute to the Tuesday crush. Recently, travel agencies have begun offering day trips from Red Sea resorts to Thebes, and every day several thousand tourists come to spend eight hours visiting Thebes. They invariably arrive in KV at eight in the morning, creating huge crowds and long lines, then move on to Deir el-Bahari and Karnak (where the crowding is repeated) before returning to the Red Sea in time for dinner. To further complicate planning, most guides prefer to bring groups to KV early in the morning, when it is cool, and visit three of the four easily accessible tombs nearest the entrance to KV instead of walking to tombs farther in. Large tombs take precedence over small ones; level tombs are preferred to those with steep steps. Timed tickets also require advance purchase, at least one day before a visit, and should be available at multiple sales outlets. (Ideally, one should be able to book online even before arriving in Egypt.) But these are things the SCA cannot yet do, given its long-standing procedures for handling cash and tickets without the aid of computers.

Extending visiting hours in KV is another way to reduce congestion, by distributing visitors over a longer period of time and thereby maintaining optimum carrying capacity. The site is currently open from 6:00 a.m. to 5:00 p.m., eleven hours a day; it could be open from 6:00 a.m. to 9:00 p.m., for fifteen hours a day. But nighttime operation would necessitate a major investment in lighting systems, as well as the cooperation of security police who patrol the area and supervise tourist visits. It would also require that tour companies change tight and inflexible hotel meal schedules, tour itineraries, sound-and-light show and museum visits, shopping trips, and staff working hours.

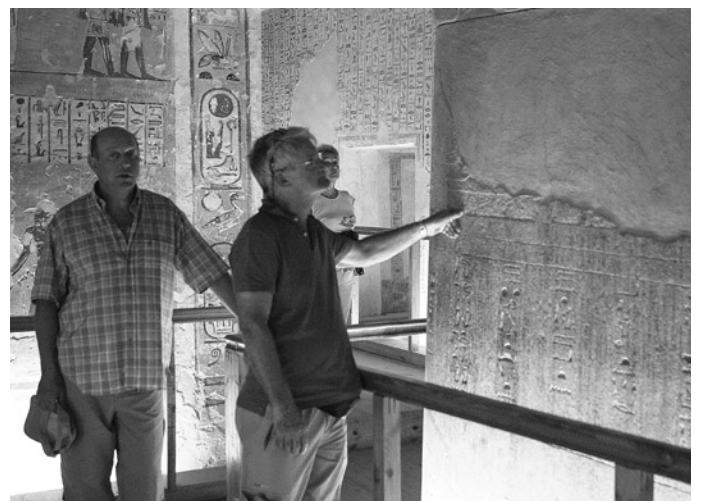
Management Challenges

There are no simple solutions when developing suitable management plans for Thebes, and even small changes can have unintended consequences. Of the many planning problems highlighted by the work of the TMP, the following four examples illustrate this point. First, any management plan for KV, which is one portion of the much larger archaeological complex at Thebes, must be a part of a broad, Thebes-wide planning process. Changes in KV will affect other West Bank sites and impact Karnak and Luxor temples across the Nile as well. Any system that only shifts crowds from KV to another Theban site merely passes the problems of crowding on to other equally threatened monuments.

Second, the KV environment is unsuitable for high-tech equipment. Heat, changing humidity, and dust quickly damage instruments, and maintenance is a serious problem because of the lack of trained personnel. Environmental monitoring and control equipment, devices to count tourists entering or leaving tombs, ticketing machines, and tomb lighting systems must be as simple and as low-tech as possible, and even then, the need for the frequent replacement of units can upset budget planning. KV does not yet have a reliable source of electricity, and power failures occur two or



The burial chamber of KV 9, the tomb of Ramses VI, one of the best decorated and preserved royal tombs in the Valley of the Kings. *Photo:* Francis Dzikowski, © 1999, The Theban Mapping Project.



A tourist unthinkingly touching an ancient tomb wall. Touching and accidental abrasion of tomb walls are on the rise as more and more visitors crowd into tombs. *Photo:* Francis Dzikowski, © 1999, The Theban Mapping Project.



A sign in Qurna, the hillside area that includes the Theban Tombs of the Nobles. Over the past two centuries, residents of Qurna built homes above entrances to the tombs, damaging the tombs and making them accessible to looters. In 2007 the homes were razed and residents moved to a newly built village north of the archaeological zone. *Photo: Francis Dzikowski, © 1999, The Theban Mapping Project.*



Souvenir sellers and their wares, typically found at the entrance to every Theban Necropolis site. While they are an annoyance to many tourists, these vendors are a mainstay of the local economy. *Photo: Francis Dzikowski, © 1999, The Theban Mapping Project.*

three times each day. A new electrical system, with surge protectors and emergency backup, must be installed before new devices are considered.

Third, solutions to the problems faced by Theban sites can only succeed when there is a high level of Egyptian interministerial cooperation. Egypt's bureaucracies are well organized vertically, within a single ministry, but there are inadequate horizontal contacts between ministries. Yet tourist management policies invariably have impact across ministerial boundaries. A change in the rules of any one agency can affect the SCA, security procedures, the goals of the Ministry of Tourism, the operations of tourist companies, plans of the Luxor City Council, decisions of the ministries of irrigation and agriculture, the military, and a host of other agencies. Here is an example: the Egyptian government's insistence that foreigners travel between Upper Egyptian cities only in police convoys, which move only two or three times a day, makes it nearly impossible for travel agencies to vary their tour schedules. The convoys mean that large numbers of tourists—often a thousand or more at a time—arrive en masse at archaeological sites, putting intense pressure on the monuments. Without more discussion, cooperation, and communication among all concerned parties, even the best management plans will prove inoperable and be ignored.

Fourth, without a declaration by the SCA that it is fully committed to exploring possible changes in current KV site management, and without a willingness to allocate funds for the implementation of those changes, there is simply no chance that Theban monuments will survive intact for more than a few decades. All recent studies of the monuments agree that time is running out.

Nongovernmental organizations (NGOs) can and do provide advice and funding for many aspects of site management. The TMP and its donors, for example, paid for the development of a KV

management plan and for the installation of interpretive signs and display panels in a Japanese-built KV visitor center. It is working to raise funds to pay for new LED lighting systems and environmental controls in KV tombs, and it has already undertaken tests of those systems. But no NGO can raise funds to buy new rubbish bins or build toilet facilities or pay the salaries of maintenance personnel or cover the costs of basic infrastructure—and should not be expected to do so. Those expenses must be covered by the SCA (which each day collects nearly a million Egyptian pounds—roughly US\$190,000—from ticket sales at Thebes alone). A much larger part of the SCA's annual budget must be allocated to conservation and site management, and to the training of personnel who will take responsibility for such matters. The SCA is well aware of this need, of course, but it is hampered by other agencies that demand a share of its income and access to the lands under its control, and by an enormous monthly budget for staff salaries and benefits (the SCA employs nearly forty thousand people).

Frankly, this is a difficult administrative environment in which to develop and implement site management plans, but such plans are desperately needed nonetheless. Perhaps one day the SCA will be a separate government ministry, similar to archaeological ministries in Europe, with the authority and fiscal control that such separation implies. In the meantime, the SCA, government ministries, major travel companies, and NGOs must work more closely together to create a workable, long-term, Thebes-wide management plan. And they must all work to provide the necessary funding and trained personnel for its implementation. Only in this way can the future protection of humankind's Egyptian patrimony be assured.

Kent R. Weeks is the director of the Theban Mapping Project.

Site Management Training at Medinet Habu

By Naguib Amin
and Michael Jones



HISTORIC MONUMENTS AND SITES IN EGYPT, as in many countries, are often at risk from contradictory social and economic pressures. Exploitation that serves the economically crucial tourism industry threatens the heritage that is the asset at the heart of the business. Changing environmental conditions such as unregulated groundwater and wastewater, increased air humidity, and pollution—by-products of a developing society and expanding economy—affect both buried and standing remains. Populations living adjacent to historic precincts are increasingly encroaching upon sites and contributing to water infiltration. Nevertheless, the goodwill of local inhabitants is often important in sustaining the historic environment.

Although local authorities have initiated activities related to site management, these mostly concern infrastructure, quasi-professional conservation projects, and arrangements for visitors. While restoration work is extensive for the monuments of Memphis, the pyramids area, and Luxor, basic facilities, explanatory panels and booklets, and easy access are lacking. Comprehensive site management plans are only now being developed, as a combination of circumstances supported by new political interests offers an important chance for progress in this field.

The secretary general of Egypt's Supreme Council of Antiquities (SCA), Zahi Hawass, has recognized the opportunities for proper site management and the need for capacity building in the SCA and other responsible authorities. The site management training project of the American Research Center in Egypt (ARCE)—funded by the United States Agency for International Development (USAID)—was a response to a long-expressed request by the SCA to increase within its institution knowledge and skills in historic site management. The overall objective of the training program, initiated in 2006, was to promote effective and integrated site management in Egypt and, more specifically, to increase the expertise of the SCA to formulate, implement, and administer site

management plans that would protect the country's outstanding heritage, improve site interpretation, and provide the means to handle risks at sites.

From the several locations considered for the training program, Luxor was chosen because of its World Heritage status and the intensity of many of the conservation issues described above. Medinet Habu—the memorial complex of Ramses III at the southern end of the Theban Necropolis—was selected for the on-site training. This complex, while an integral part of the West Bank historic landscape, remains a discrete area with good teaching potential. Issues can be studied with a clear focus and then linked to the wider neighboring district.

To serve as the SCA's site management headquarters, the first Luxor house of Howard Carter (dating from 1902) was renovated. Carter was the archaeologist who discovered Tutankhamen's tomb, and so the house has special meaning because of its significant link to the history of Egyptology. Holding the training in this location fosters a sense of participation in a process that connects present SCA inspectors with their predecessors at the site.

The aim of the ARCE training program was to create a center of excellence to perpetuate site management within the SCA upon the conclusion of ARCE assistance. The program aspired to introduce modern site management concepts within the context of conditions prevailing in Egypt; it drew on experiences worldwide and judiciously evaluated them to determine what would work in Egypt. In spring 2006, sixty-four SCA inspectors were trained in a sixteen-week course led by Naguib Amin of the Egypt Antiquities Information System and conducted by professionals from Egypt, Tunisia, Morocco, France, Germany, and the United States. The course focused on three areas:

- International principles of site management and their applications, with reference to the Venice Charter, Lahore Statement, Nara Document on Authenticity, and Burra Charter;

General view from the southeast of Medinet Habu, showing the memorial temple of Ramses III and the temple palace. *Photo: Michael Jones.*



Inspectors selected by the Supreme Council of Antiquities to participate in the Luxor West Bank site management training. They are gathered at Howard Carter's first house on the West Bank at Luxor, restored by ARCE as a site management center. *Photo: Naguib Amin.*

- Site assessment, including historic site documentation and recording, assessment of needs, determination of threats and risks to historic sites, and setting of priorities for interventions;
- Design and preparation of an actual site management plan for Medinet Habu, in all its complex aspects—from defining strategies (including how to involve local inhabitants) to organizing implementation, conducting regular monitoring, and adapting to changing circumstances.

In summer 2006, in the weeks preceding the demolition of the modern settlements over the tombs on the hillsides of Sheikh Abd al-Qurna and Dra' Abu al-Nag'a, an emergency site management response was required. SCA participants from the ARCE site management course were able to document and record traditional houses before they were destroyed. They were also active in developing plans for the adaptive reuse of the houses selected to remain. On the East Bank at Luxor and Karnak, the clearance of structures along the Avenue of Sphinxes and the development of tourist facilities in front of the Karnak Temple offered opportunities for the trainees to apply their archaeological site management knowledge to real-life situations.

Program participants returned to Medinet Habu in December 2007 for a one-month follow-up course. As the first step in the implementation of their Medinet Habu site management plan, they composed texts and designed layouts for information panels. This step was carried out entirely in Arabic. English-language adaptations of the texts are under way. Direct translations, we now realize, do not satisfy the different cultural interests of Egyptian and foreign visitors.

Much of the technical literature on site management is available only in European languages, and this often leads to an incomplete understanding of other approaches to site management. Emphasizing the Egyptian context and the Arabic language are

central to this project, and much of the classroom activity and all on-site discussion took place in Arabic. Furthermore, the creation of Arabic manuals derived from the classroom training and site assessments formed the basis of a body of practical literature in site management that we hope will grow and receive further refinements as the impact of the training becomes more widely felt.

It must be recognized that the overwhelming need for effective site management countrywide cannot be addressed solely by a localized project aimed at training a select, small group in a high-profile locality such as Luxor. Nevertheless, such a training project is important for increasing knowledge and awareness among the participants, thereby enabling them to play active and informed roles in leading new initiatives within the SCA. Zahi Hawass has now established a new site management department of the SCA, and several of those who participated in the ARCE training project at Medinet Habu have been appointed to it. Meanwhile, at Medinet Habu itself, information signs will be installed under the supervision of the participants, and further plans for visitor management may be developed in coming seasons.

Naguib Amin is director of the Egypt Antiquities Information System. Michael Jones is associate director of the Egyptian Antiquities Conservation Project at the American Research Center in Egypt.

The site management training included an assessment of visitor access—especially car and bus parking arrangements, which presently are too close to the temples. *Photo: Jaroslaw Dobrowolski.*



A school group from Luxor posing for its photograph in the second court of the Ramses III temple. Local schools, which arrange trips to the temple, supply one of the largest sets of visitors. *Photo: Jaroslaw Dobrowolski.*

The Ramesseum

A Model for Conservation and Presentation of Heritage

By Christian Leblanc

ONE OF THE MOST SIGNIFICANT SITES from antiquity in western Thebes is the Ramesseum, the funerary temple of Ramses II—a site admired since ancient times and celebrated in Percy Shelley’s famous poem “Ozymandias.” Since 1991, the Supreme Council of Antiquities of Egypt (SCA), the Centre National de la Recherche Scientifique (CNRS), and the Association pour la Sauvegarde du Ramesseum (based in Paris) have collaborated on the exploration and conservation of the Ramesseum. Our knowledge of the functioning of this great royal establishment of the New Kingdom in thirteenth-century BC has been enhanced by the systematic excavation undertaken in the ceremonial portions of the building and in its vast mudbrick economic and administrative complex. These investigations have not only provided better understanding of the peripheral layout of the temple but also clarified the long history of the site, since discoveries of tombs or funerary chapels dating back to the Middle Kingdom confirm the occupation of this space long before the memorial to Ramses II.

Like other West Bank sites, the Ramesseum faces a number of threats. A raised and widened asphalt road cuts the temple off from its panoramic cultural and natural landscape. The encroaching agricultural fields and resulting high water table are a continuing problem, as is the uncontrolled rural development in proximity to the archaeological sites. The solution to these problems must be part of a greater plan for the whole West Bank that takes into consideration both cultural and socioeconomic factors.

Within the precincts of the Ramesseum itself—and in tandem with archaeological investigations—the work of presentation, restoration, and protection of this prestigious complex has progressed systematically. Protection of the site’s monumental first pylon (i.e., gateway) is currently the subject of study and analysis by the SCA and the California-based Institute for Study and Implementation of Graphical Heritage Techniques (INSIGHT). The portico, blocked up in 1991 to prevent collapse, requires a large-scale intervention that will span many years. A drain installed in the



An aerial view of the Ramesseum from the southeast. Like many other sites of the West Bank, the Ramesseum faces rural development and agriculture at its perimeter. *Photo:* Courtesy of Christian Leblanc.

Views of both sides of the site’s first pylon, or gateway. The pylon suffers from both structural instability and a rising water table. The SCA and INSIGHT are currently engaged in a study to protect this monument. *Photos:* Courtesy of Christian Leblanc.





Left: Protection of the complex's mudbrick structures, seen in the lower half of the images. To preserve the fragile structures, the ancient walls were covered with courses of modern bricks. Made of the same materials as the originals, the new courses protrude slightly and are reversible. *Photos:* Courtesy of Christian Leblanc.



Right: Restoration of the southern ramp and gate to the hypostyle hall. A number of interventions were completed to improve the legibility of the temple's layout. *Photo:* Courtesy of Christian Leblanc.

agricultural fields that encroach upon the temple precinct now transports water away from the temple—which suffers from the rising water table—and should permit a progressive drying of the structure as early as 2009. After this operation achieves its results, we will be able to plan the clearing of the length of the pylon in order to study the state of preservation of the courses still hidden under centuries of alluvium.

The dismantling to which the temple proper was subjected to in the distant past—particularly during the Ptolemaic and Roman epochs—as well as the destruction suffered subsequently make it difficult for the visitor to understand the layout of this edifice. To improve the legibility of the temple's layout, a number of interventions were undertaken, particularly in the second courtyard. There the walls and bases of pillars and columns were restituted with a slight elevation to suggest a built structure whose foundation was preserved but whose superstructure is no longer extant. Similarly, two staircases that provide access to the large hypostyle hall were also rebuilt, and the ancient pavers of certain floors—ripped up long ago—were replaced.

Other operations involve restoration or conservation of temple elements. Greater legibility of the scenes depicted in the temple and increased stability of the structure were achieved through a program of cleaning the columns of the large hypostyle hall, uncovering the preserved colors hidden by centuries of dust, and grouting pillars and walls. The fragile and often deteriorated mudbrick structures within the complex—occasionally subject to torrential rains—also required protection. Under the circumstances, the most appropriate solution was to cover the ancient walls with courses of modern bricks made of the same material as the original bricks—and indicating the additional height by a slight protrusion. To ensure the aesthetics of this protection, it was preferable to follow the structural shape of the wall ruins rather than make the restoration too rigid by imposing a uniform elevation. The work

done in the temple's kitchen and bakery areas, as well as in the school for scribes (only recently identified), demonstrates that satisfactory results are possible—with the advantage that they are reversible.

Following a combined approach of protection and presentation of the site, many colossal statues conserved in situ were placed on bases, and a signage project is being developed to help turn the Ramesseum into a true site museum. To make the Ramesseum more coherent for visitors, a new entry to the site (established in 2004) permits direct access into the first courtyard and then flows more logically through the temple spaces to the now-excavated sanctuary, whose plan is being developed. Consideration should be given to the enormous colossus of Ramses II, which was shattered through human action during the first centuries of Christianity. If its reinstatement remains a questionable option for ethical and aesthetic reasons, it nevertheless would be worthwhile to find an appropriate solution to prevent its further deterioration. One possibility is to situate the colossus on a protective layer after moving it a few meters, while retaining its current orientation to the ground; in this way, the “Ozymandias” of Shelley will finally be protected. At the same time, its relocation would free the axial passage leading from the first to the second courtyard and offer visitors an exceptional perspective of the large hypostyle hall.

Finally, to enhance the presentation of the temple for the increasing numbers of visiting schoolchildren, an illustrated, bilingual (French/Arabic) educational pamphlet is distributed free of charge at the site entrance. Funded with the support of a Franco-Egyptian bank (NSGB), it allows young people to learn about their history while encouraging respect for efforts expended in service of cultural heritage.

Christian Leblanc is director of the French Archaeological Mission of Western Thebes (MAFTO), which is a program of the Centre National de la Recherche Scientifique (UMR 171-CNRS).

Envisioning a Future for the Valley of the Queens

The GCI and SCA Collaborative Project

By Neville Agnew and Martha Demas

THE TITLE OF ARCHAEOLOGIST BRIAN FAGAN'S BOOK, *The Rape of the Nile: Tomb Robbers, Tourists, and Archaeologists in Egypt*, encapsulates a jaundiced but perceptive view of what has happened to the antiquities of Egypt. The era of the ancient tomb robbers is long gone, but tourists and archaeologists continue to be drawn by the magnet of Egypt. Archaeology has become an academic enterprise with missions from around the world appearing like migratory birds year after year at the set season to work their concessions. There is ever more to discover and understand about this most ancient and wonderful of civilizations.

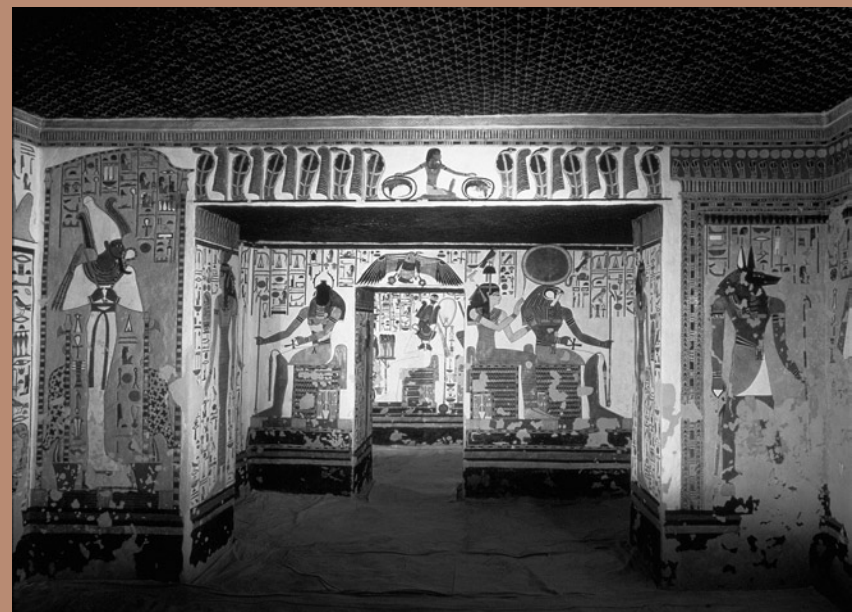
Tourism to Egypt may be said to have an even longer history than archaeology. Visitors in ancient times were enthralled by the mysteries of the country and by a deep antiquity that was already thousands of years old when Herodotus gazed upon the Sphinx. From a trickle to a torrent, tourists have continued to arrive. Today a vast industry exists (as anyone who visits can attest), and Egypt's economy depends upon its revenues. The country's sites serve tourism—but are far from being preserved by it. Tourism is a user of sites and a destroyer in the absence of care and management.

Because of a long history of exploration and research going back over two hundred years, the focus of professional attention has remained strongly archaeological. Management and conservation of sites and artifacts did not develop in tandem with archaeology (although Egyptologists like Howard Carter, discoverer of Tutankhamen's tomb, did meticulous work to preserve the treasures they discovered). So great is Egypt's appeal that it steadfastly remains a premier tourist destination; however, most tourists go but once in a lifetime, which means that there is an endless flow of first-time visitors and little incentive for the industry to manage and enhance the experience. The authorities have not been prepared for the onslaught of mass tourism, rapid development, and physical threats to sites. Their orientation is toward archaeological investigation, and an entire stratum of professionals trained in management,

protection, and care of sites has largely been missing—although Egypt's Supreme Council of Antiquities (SCA) is taking steps to address this problem.

To reach a point where administrative systems and trained personnel are in place to manage the many forces at play is a long-term endeavor, requiring action by many agencies and others vested in preserving the sites' integrity and authenticity. The Getty Conservation Institute (GCI)—in a six-year partnership with the SCA—is among the institutions addressing these issues, focusing its activities on the Valley of the Queens. Burial site of the queens and princes of the New Kingdom (1550–1069 BC), the valley contains nearly one hundred tombs—including a most beautiful and famous tomb, that of Nefertari, favorite wife of the powerful and long-reigning ruler Ramses II. In the late 1980s the GCI undertook the

An interior view of the tomb of Queen Nefertari. Osiris and Anubis flank the entrance to a side chamber. Conservation of the tomb—undertaken by the GCI and Egyptian authorities between 1986 and 1992—involved cleaning and stabilization of the wall paintings, salt removal, and infilling of lacunae.
Photo: Guillermo Aldana, GCI.

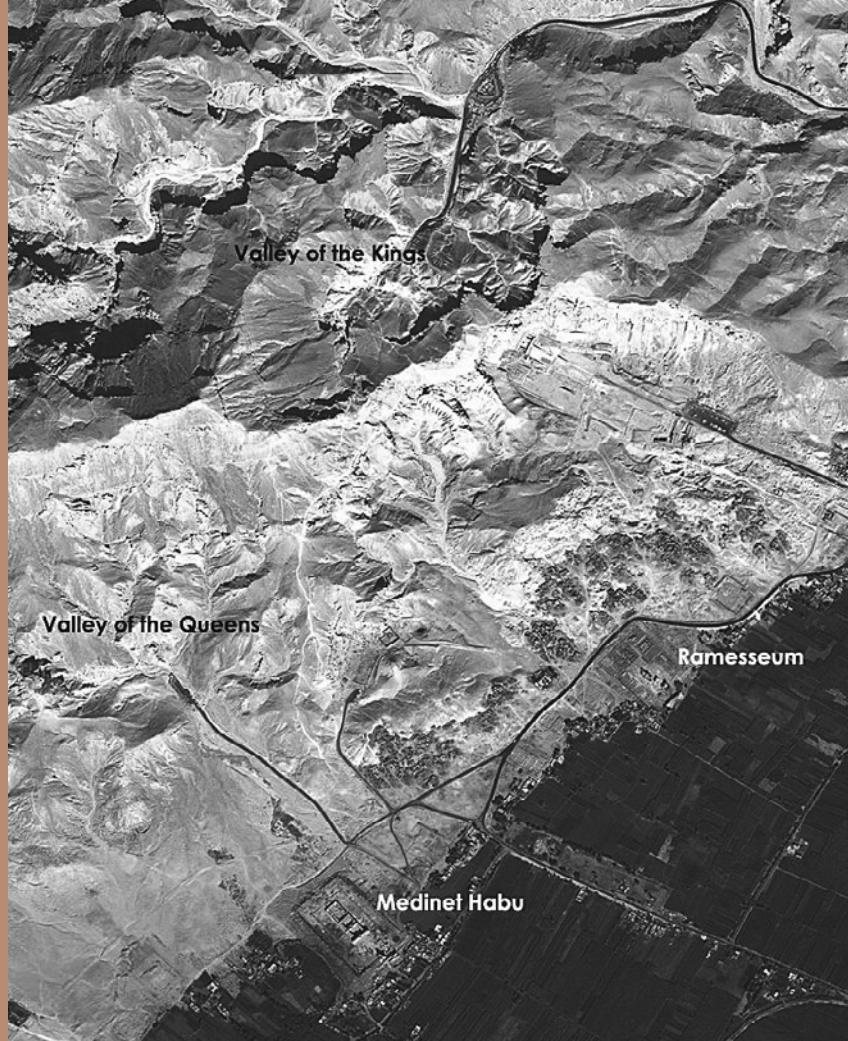


conservation of the wall paintings in the tomb, by then closed to visitation for some years because of escalating damage. The GCI's current Queens Valley project is a comprehensively conceived undertaking that builds on the earlier work and, in a sense, picks up where the Nefertari project left off. By developing a conservation and management plan for the valley as a whole with the tombs in their mountainous desert setting, the project will address a full range of issues, including tourism, site presentation and interpretation, tomb conservation, flood mitigation, and training for conservators and site managers.

The Dilemma of Mass Tourism

What threats need to be addressed in holistic planning and implementation in the Queens Valley? Tourism, certainly—although the Queens Valley is far less visited than the nearby Valley of the Kings (approximately four hundred thousand per year compared to nearly two million). But as elsewhere on the Theban West Bank, there is no means of controlling the daily timing of visits or number of visitors—a situation that results in chaotic ebbs and flows of tour groups. Nefertari's tomb was the main draw of the Queens Valley, but since 1995 access has been limited because of concerns about the impact of visitors on the wall paintings. At present only high-paying groups may book and enter the tomb, and only for ten to fifteen minutes. While effectively limiting visitors, this privileges those who can afford the price; some means is needed to compensate the majority of visitors for lack of access. Other than building a replica of the tomb off-site—a difficult and costly undertaking—the best way to do this is to provide the visitor with information and an understanding of why things are as they are. At present there is no explanation of why the Nefertari tomb is closed, no interpretation at Queens Valley as a whole, and, sometimes, misinformation from commercial tour guides.

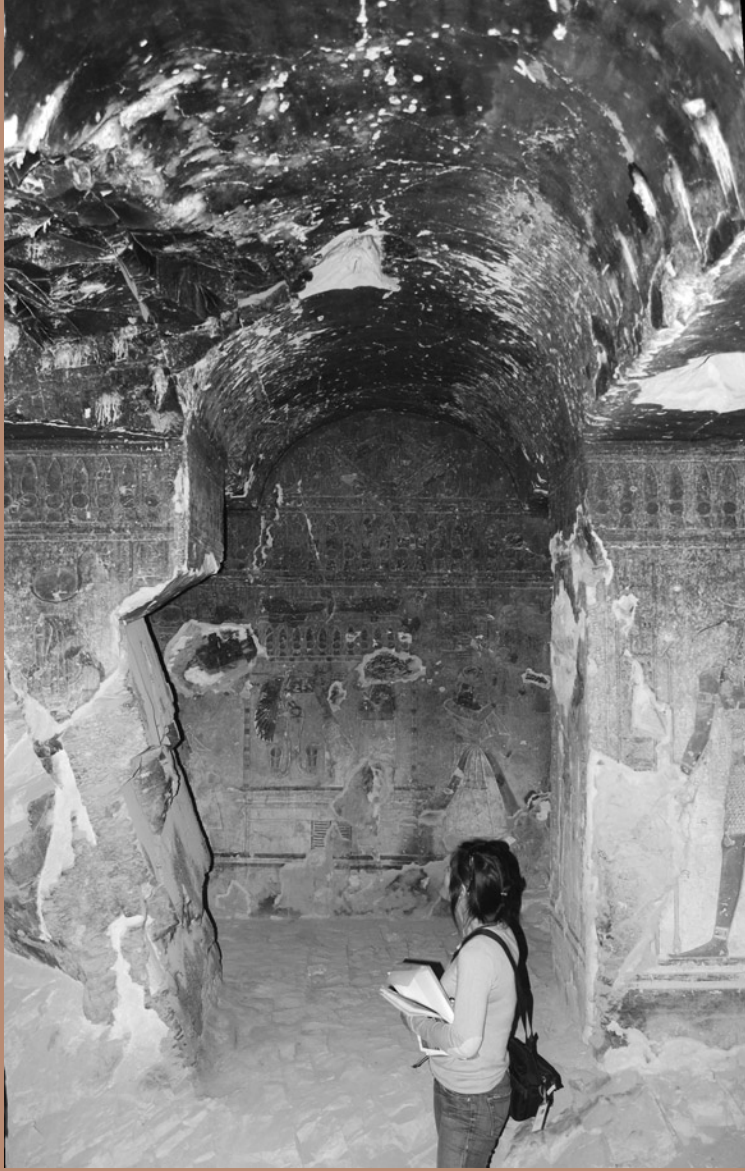
Only three other tombs in the valley have sufficiently preserved wall paintings and the structural stability to allow public access. Many of the other ninety-five or so tombs have factors that preclude visitation: either they are shaft tombs, inaccessible because of their configuration (deep vertical shafts that lead to the main chamber); have degraded decoration (some from post-pharaonic use); or are subject to rock collapse. Safety aside, however, the rationale for opening tombs to the public has been based on narrow historic and artistic criteria for what visitors want to see: well-preserved, colorful wall paintings depicting pharaonic funerary rituals. Damaged tombs—as well as other site elements at Queens Valley, such as the Coptic monastery overlying a Roman sanctuary—could be creatively interpreted to reveal the site's multilayered significance, including its extensive reuse during the Roman and Coptic periods. It is an inescapable reality, however, that it is unfeasible to develop for mass market tourism engaging and



A satellite view of the Theban Necropolis showing the Valley of the Queens in the context of other West Bank sites, as well as the connecting road system. Satellite photo: © 2006 DigitalGlobe, Inc.

meaningful interpretive material and tour options involving small spaces (such as tombs) and fragile remains (such as mudbrick). But there is scope for offering a more enriching experience for independent travelers and Egyptian nationals who currently constitute less than 3 percent of visitors to the Valley of the Queens.

Large-scale tourism requires infrastructure: visitor centers, shelter from the sun, bazaars for local vendors, parking areas for buses, toilets, and kiosks or restaurants. At present, amenities at Queens Valley are few and basic, although parking areas, bazaars, and security apparatuses confront the visitor upon arrival. Since there are no design standards or guidelines for buildings and interpretive signage (as exist, for instance, in the U.S. National Park Service), there is a lack of coherence and uniformity in the way West Bank sites are experienced. Thus, in considering interpretive signage and other visitor installations, the Queens Valley project team is looking to recent infrastructure and signage at the Valley of the Kings in order to provide a degree of uniformity between the sites. This is but one way an overall planning framework would benefit the whole West Bank.



An interior view of tomb QV 42, attributed to Queen Minefer and Prince Pareherunemef, wife and son of Ramses III (Twentieth Dynasty). Like the other Queens Valley tombs, it was robbed in antiquity and later reused. Although extensive decoration survives, it is blackened by fire, and the rock is fractured. *Photo: Martha Demas, GCI.*

Flooding, Structural Instability, and Bats

Less visible to a casual visitor are sitewide threats in need of urgent attention. Flash flooding—an ancient hazard with the single most catastrophic impact (other than tomb robbing)—has never been fully addressed at Queens Valley. The most recent flood, in 1994, caused considerable damage. In its aftermath, ancient debris from centuries of flooding was cleared from the valley floor by archaeologist Christian Leblanc, who began archaeological investigations of the Queens Valley in the 1970s. Leblanc’s work was an important step in preparing for future floods, but more must be done to protect the tombs from the next deluge, which surely will come. The limestone and shale—high in clay minerals—into which the tombs are cut present a great stability risk if exposed to water through flash flooding. In numerous shaft and chamber tombs, rock instability and collapse from past floods already present a serious problem—one that requires engineering interventions to remedy.

Bat colonies in many of the unvisited tombs pose another challenge. Bats have damaged a number of the remnant wall paintings by depositing urea and uric acid on the walls, with the guano also posing a health hazard. Though bats threaten preservation of the tombs, they contribute to healthy ecosystems and benefit local agriculture. In collaboration with the GCI, an SCA team is studying means of relocating the colonies—a solution sensitive to the ecology of the area.

Training in Conservation and in Management

Conservation as a reactive, interventionist activity often does more harm than good, particularly when it is dependent on recipes for treatment rather than on careful diagnosis and monitoring of problems. In Egypt, conservation is often accompanied by inadequate understanding of the technology of wall paintings and their susceptibility to damage from cleaning (especially when damaged by fire). Analytical techniques, in conjunction with careful in situ observations, can provide powerful insights into the materials and techniques of paintings and their causes of deterioration and can lead to development of appropriate treatments.

Training in modern concepts and principles of conservation is crucial to preserving the authenticity of sites and the information embedded in them. For this reason, the GCI’s Queens Valley project includes a program of theoretical and practical training for seven SCA wall paintings conservators, aimed at improving participants’ understanding of current conservation practice and risk assessment, as well as their judgment about when intervention is necessary. Participants are also given the opportunity to attend an international conference to afford them exposure to current thinking in conservation and the chance to exchange ideas with other professionals. Emphasized in the conservation training is use of the records of



The ruins of Deir el-Rumi monastery (fifth–seventh century). In the Byzantine or Coptic period, many monasteries were built on the West Bank. In Queens Valley, Deir el-Rumi, Arabic for “monastery of the Romans,” was built over a Roman sanctuary (second–fourth century), which itself incorporated a pharaonic tomb. Of considerable historic and visual interest, the ruins are difficult to present to large groups of visitors. *Photo: Martha Demas, GCI.*

previous condition and treatments for purposes of monitoring and decision making. Urgently needed for the Theban West Bank is a functional archive or documentation facility, with condition records and photographs accessible to researchers and SCA conservation and management personnel. In the absence of such documentation, decisions on conservation treatment tend to be based on opinion rather than evidence.

Site management problems are significant in the Valley of the Queens; underlying many of them are inadequate training, entrenched practices, and poor wages. Maintenance and monitoring regimes are rudimentary at best, and basic facilities for site staff are lacking. The notion of dedicated site managers responsible for daily operations at individual sites within the West Bank is just beginning to take hold. The current management structure relies on a cadre of rotating archaeological site inspectors and site guardians. Strong hierarchies and compartmentalization of responsibilities do not encourage teamwork of the sort necessary for good site management. SCA archaeological inspectors, who would be the source of managers, are well versed in Egyptology but require training in current concepts to equip them to face the emergent problems of archaeological sites. Some of these problems have nothing to do with archaeology per se—such as trash collection, security arrangements, and souvenir vendors at the site. Dealing with these problems requires skills not taught by archaeological faculties.

To address this need, the Queens Valley project also involves training for seven SCA archaeological inspectors in site management and planning concepts. In addition to regular teaching sessions and on-site work, each participant spends a month at the GCI in Los Angeles working with the Queens Valley project team and gaining experience with international practice. Training includes discussion and mentoring sessions held jointly with the GCI wall paintings conservation group to foster communication and better understanding of these two teams' complementary roles. The SCA's appointment of one of the site management participants as a dedicated site inspector at the Queens Valley is a positive move toward establishing management responsibility.

Developing a Plan for the Future

Midway through this two-phase project to create an integrated vision for the future of the valley, the GCI has completed a three-year assessment that will lead to the development and implementation of a conservation and management plan for the site. Achievements so far include tomb condition surveys, geological and geotechnical studies and mapping, laser scanning of the valley's topography for study of the drainage and creation of a GIS, comprehensive visitor questionnaires and stakeholder focus groups, and assessment of the management context. In development are a strategy for the bat problem, designs for a comprehensive approach to visitor routing,

new shelters and interpretative signage, and methods for stabilizing dangerous tombs and mitigating flood damage. Insofar as possible, expertise within Egypt is being tapped to contribute to the planning.

The sustainability issues and technical challenges of the project are great, but support and help from colleagues and archaeological missions has been encouraging: Christian Leblanc has been unstinting in providing detailed knowledge and photographic records that can only come from decades of working in the Queens Valley; the Theban Mapping Project has supplied CAD tomb drawings from their 1981 survey to be integrated into the Queens Valley project's GIS; the Egypt Antiquities Information System has been generous with advice and geographical and mapping information; and discussions with the American Research Center in Egypt on their management training initiatives on the West Bank have led to better coordination and understanding of complementary activities.

The GCI's Queens Valley project and other West Bank initiatives (as described in this publication) are all playing a part to catalyze change. As Zahi Hawass, secretary general of the SCA, has noted in this publication, there remains the challenge to harness these individual efforts and to integrate them within a wider vision for the whole West Bank.

Neville Agnew is principal project specialist and Martha Demas is a senior project specialist with GCI Field Projects.



Site inspectors and conservators attend a joint GCI-SCA seminar taking place under a shelter in the Valley of the Queens. Mixing formal lectures and presentations with on-site discussions draws on the experiences of the participants, thereby enriching the sessions. Photo: David Myers, GCI.

Integrated Planning for the Theban West Bank

By Martha Demas and Neville Agnew

Archaeological excavation and survey on the Theban West Bank has been an international enterprise for over a century. Today some forty foreign missions hold archaeological permits. The multinational character of this activity is evident in a partial listing: Waseda University, Tokyo, in the tomb of Amenhotep III; a team from Pisa, Italy, in the Amenhotep II mortuary temple; the Swiss Archaeological Institute at the mortuary temple of Merenptah; an Italian team at the tomb of Harwa in the Assasif; the French Archaeological Institute at Deir el-Medina; a Spanish-Egyptian mission in the tomb of Djehuty at Dra Abu el-Naga; the German Archaeological Institute at Dra Abu el-Naga; and many other groups from Egypt, Australia, Mexico, Italy, the United Kingdom, Germany, the United States, Belgium, Russia, and Hungary.

Many individuals and institutions have worked for decades in the area and have a deep commitment to understanding and preserving the ancient sites. Increasingly, their work has integrated conservation and management efforts with their archaeological activities. Among those most active in conservation and management, a common purpose is developing with the growing recognition that integrated planning is essential to a future for the West Bank sites. To facilitate coordination among those most engaged in these efforts, the Getty Conservation Institute (GCI) and the Supreme Council of Antiquities (SCA) have organized annual meetings, the first in 2006.

The aim of these meetings is to exchange information, discuss shared objectives and goals for conservation and management initiatives, and create possibilities for collaboration in pursuit of an integrated master plan for the West Bank. A brief review of the current work of those participating in the meetings—many of whom are featured in this issue—highlights efforts under way in conservation, management, and training, as well as the synergy developing among them.



The Carter House (site management center).
Photo: Chip Vincent.

American Research Center in Egypt (ARCE)

ARCE—a private nonprofit organization founded in 1948 and currently headed by Gerry Scott III—has been involved in conservation projects since 1993. Among its many initiatives in Luxor are a seven-month training program for conservators and the creation of a conservation laboratory and a training course for site managers at Medinet Habu (see page 16).



Medinet Habu.
Photo: Naguib Amin.

Egypt Antiquities Information System (EAIS)

The EAIS was established in 2000 as a joint venture between the SCA and the Finnish Ministry for Foreign Affairs to create an Arabic and English GIS for Egyptian historic sites as a cultural resource management tool. To enhance the capacity of SCA staff, EAIS director Naguib Amin is involved with ARCE in site management planning and training at Medinet Habu (see page 16) and development of a site management center for the West Bank. The EAIS has also mapped and recorded historic houses and ancient tombs associated with the demolition of houses in Qurna.

Medinet Habu.
Photo: Lorinda Wong, GCI.



Epigraphic Survey of the Oriental Institute of the University of Chicago (Chicago House, Luxor)

Chicago House began working on the West Bank in 1924 and has a superb library and photo archive unique to Upper Egypt. Many of its activities have focused on documentation and, more recently—under the direction of W. Raymond Johnson—on conservation at Karnak and Luxor temples on the East Bank. On the West Bank, efforts are centered on Medinet Habu to address severe and accelerated decay of the monuments due to rising groundwater from agricultural expansion (see page 11). Chicago House has also documented the Qurna houses, before and after demolition.

The Ramesseum.
Photo: Courtesy of Christian Leblanc.



Centre National de la Recherche Scientifique (CNRS) / Mission Archéologique Française de Thèbes-Ouest (MAFTO) / Association pour la Sauvegarde du Ramesseum

The activities of the CNRS/MAFTO, headed by Christian Leblanc, are focused on the mortuary temple of Ramses II (see page 18). These include archaeological investigation, survey, analysis, conservation and presentation, and, in collaboration with the University of California at Berkeley, a 3-D model and GIS of the temple. The mission continues work at the tomb of Ramses II in the Valley of the Kings, addressing structural stabilization. In collaboration with Naguib Amin of the EAIS, Leblanc has undertaken a risk assessment of West Bank sites.

The Valley of the Kings.
Photo: Neville Agnew, GCI.



Theban Mapping Project (TMP)

The TMP, directed by Kent R. Weeks, has devoted many years to mapping West Bank sites, producing a documentation and image database of the Valley of the Kings. Most recently, the TMP has been developing with the SCA a management plan for the valley (completed in 2006), undertaking hydrological studies and visitor surveys and developing interpretive signs for the site and panels for the new visitor center (see page 12). The TMP continues its long-standing project to investigate and conserve the tomb of the sons of Ramses II (KV 5).

The Colossi of Memnon.
Photo: Neville Agnew, GCI.



Colossi of Memnon and Amenhotep III Temple and Conservation Project

The Amenhotep III Temple Project, under the direction of Hourig Sourouzian and the auspices of the German Archaeological Institute, aims to comprehensively investigate and conserve the temple's remains and prepare the site for visitors. The Colossi of Memnon were cleaned, stabilized, and photogrammetrically surveyed, and the pigments were studied. Groundwater lowering has also been undertaken at the site. A visitor center is being proposed to display excavated statues in their original locations, and efforts are being made to expand training for professionals and workers.

An aerial view of the West Bank.
Photo: Neville Agnew, GCI.



World Monuments Fund (WMF)

The WMF has supported a number of initiatives on the West Bank, which are being led by Gaetano Palumbo. In the Valley of the Kings, this includes sponsoring the TMP's development of a site management plan, as well as interpretive signs for the tombs. At the Temple of Amenhotep III, the WMF sponsored a pilot project for lowering the groundwater level. Through a nomination prepared by the SCA and Kent R. Weeks, the WMF listed the Valley of the Kings as one of its one hundred Most Endangered Sites in 2005 as a way to raise awareness about the area's problems. In 2008 WMF placed the entire West Bank on its list of endangered sites.

The Temple of Hatshepsut.
Photo: Martha Demas, GCI.



Polish-Egyptian Archaeological and Conservation Mission

The Polish-Egyptian Mission, under the direction of Zbigniew Szafranski, continues its long involvement in the reconstruction and restoration of the Temple of Hatshepsut. The mission provides conservation teaching and training and hopes in the future to have a small museum on the north slope of the Assasif to present materials from Deir el-Bahri and the Assasif. The mission also resides in and maintains Metropolitan House—itsself a heritage building nearly one hundred years old.

Martha Demas is a senior project specialist and Neville Agnew is principal project specialist with GCI Field Projects.

Panel Paintings Initiative Launched

Conservators and collectors have long been challenged by the unique structure of panel paintings and the historic variations and complex aging behaviors of their wood and paint. Today, few conservators have the experience necessary to address the increasingly complex conservation issues of these works. With this in mind, the Getty Conservation Institute, the J. Paul Getty Museum, and the Getty Foundation have joined forces to develop a multiyear Panel Paintings Initiative designed to increase specialized training in the structural conservation of panel paintings and to advance the treatment of these works in collections around the world. The initiative will also raise awareness of related issues among painting and wood conservators, curators, and other museum professionals.

With the help of an international team of experts (see sidebar), the new initiative launched in February 2008 at the Metropolitan Museum of Art in New York. Project development continued when team members met in Florence in June 2008 at the Opificio delle Pietre Dure—one of the few institutions that currently offers specialized training in panel paintings conservation. To better understand the extent of current challenges, the initiative will support an assessment to determine the conservation needs of panel paintings in museum collections, as well as document existing training opportunities and resources.

These findings will help shape the future direction of the initiative, which is expected to focus on expanding opportunities for specialized training and increasing the number of trained practitioners. Training strategies to be explored include postgraduate apprenticeships at conservation studios, master classes, and expert workshops, each with the goal of introducing conservators to a range of treatment approaches and of developing a greater understanding of regional and historic variations in such treatments across the field. New strategies for sharing information will also be examined.

An international symposium on panel paintings conservation is planned for May 17–18, 2009, at the Getty Center in Los Angeles. The symposium will offer a platform for exploring this rich and challenging topic with experts from around the world. Sessions will address developments in research and conservation of panel paintings, future needs of the field, and related topics such as exhibition considerations and the results of specific treatment projects.

In 1995 the Getty Conservation Institute and the Getty Museum hosted a landmark symposium on the topic; the symposium proceedings, *The Structural Conservation of Panel Paintings*, has become a standard reference on the subject. By building on these earlier efforts and addressing ongoing challenges, the Getty's new initiative hopes to advance both the understanding and the interdisciplinary practice of panel paintings conservation.

Advisory Committee:

George Bisacca (cochair)
Metropolitan Museum of Art, New York

Jorgen Wadum (cochair)
Statens Museum for Kunst, Copenhagen

Simon Bobak
Simon Bobak Studios, London

Marco Ciatti
Opificio delle Pietre Dure, Florence

Ian McClure
Yale University Art Museum, New Haven, Connecticut (formerly at the Hamilton Kerr Institute, Fitzwilliam Museum, University of Cambridge, United Kingdom)

Paul van Duin
Rijksmuseum, Amsterdam

New GCI Bulletin

This fall, the Getty Conservation Institute will launch an email bulletin to provide our colleagues in the conservation field with greater access to up-to-date information on GCI programs and activities. The bulletin will supplement the GCI coverage found in *Conservation, The GCI Newsletter*, which will continue publishing in hard copy and online. The electronic bulletin will offer brief updates on projects, conferences, courses, and publications, with links to more detailed information.

If you would be interested in signing up to receive the GCI Bulletin, please go to www.getty.edu/conservation and click on the GCI Bulletin link.

Southeast Asia Workshop on Site Risk Assessment

In March 2008, the GCI Education Department coordinated a two-week workshop, “From Risk Assessment to Conservation: Safeguarding Archaeological Complexes in the Mekong Region,” at the World Heritage site of Vat Phou, in Champasak, Lao People’s Democratic Republic (Lao PDR). The workshop was a collaboration among the GCI, the Lao PDR Ministry of Information and Culture, the Southeast Asian Ministries of Education Organization Regional Center for Archaeology and Fine Arts in Thailand, and the Fondazione Lerici, Italy.

The goals of the workshop included addressing common conservation issues encountered by heritage professionals throughout the region, enhancing participants’ heritage conservation skills by providing new methodologies for conserving and managing large archaeological sites, and developing a network of built heritage conservation professionals within the region.

Twenty-five participants—five each from Lao PDR, Thailand, Vietnam, Cambodia, and Myanmar—attended the workshop. Participants were selected based on their professional experience (early- to midcareer professionals), their level of professional responsibility, and their ability to

share and implement in their home countries the information and experience gained during the workshop. An international group of conservation professionals led the workshop, which used lectures, guided discussions, field exercises, and group presentations to address such topics as risk identification and needs prioritization, documentation and condition assessment, material conservation, and risk prevention, as well as project budgeting and proposal writing.

The site of Vat Phou was chosen for the workshop not only because it is a quintessential example of the vast archaeological complexes found in the Mekong River region but also because it exemplifies the challenges associated with the conservation and management of cultural landscapes.

The younger conservation professionals of the region, despite their geographical proximity, often find it difficult to share knowledge and collaborate with their peers on common conservation challenges. The workshop not only offered participants an enriching experience, it also provided materials such as scholarly articles, teaching outlines, and bibliographies for their continued professional development.

The GCI is currently evaluating how, where, and with whom it might collaborate for a follow-up workshop. Other collaborative activities, such as the creation of didactic materials, are also being considered.

“From Risk Assessment to Conservation” is a component of the GCI project Built Heritage in Southeast Asia: Conservation Education and Training Initiative. Its objective is to respond strategically to key education and training needs for built heritage conservation in Southeast Asia. For more information on the Built Heritage in Southeast Asia Initiative, visit the Getty Web site at www.getty.edu/conservation/education/sea/index.html.

Instructor Pierre Pichard observes a group of workshop participants preparing a site condition report.
Photo: Jeff Cody, GCI.



2008 Directors' Retreat

In June 2008, the Getty Conservation Institute presented its fourth Directors' Retreat for Conservation Education, held in Chiang Mai, Thailand, and organized in partnership with UNESCO's Regional Office for Asia and the Pacific and the Southeast Asia Ministries of Education Organization for the Protection of Archaeology and Fine Arts (both based in Bangkok). The retreat focused on built heritage conservation and education in Asia and the Pacific and addressed discrepancies between the training received in academic programs and actual needs of the field. In attendance were eighteen participants from the Asia Pacific region, many of whom are directors of conservation programs that focus on built heritage.

The objectives of the four-day retreat were to identify areas for academic program development through enhanced curricula and innovative pedagogical methods, to review existing conservation programs and their specializations, and to make these programs better known to the existing network of regional colleagues.

The retreat's format included presentations by practitioners and assessments of the needs of the field. These were followed by focused

discussions among the participants to identify core competencies for built heritage conservation professionals in the Asia Pacific region.

During the retreat, participants visited several sites, including Wat Phra Thad Lampang Luang, Wat Pongsanuk, Wat Ked, and the Chiang Mai City Arts and Cultural Centre. The objective of these visits was to observe firsthand the way sites in northern Thailand are conserved and to provide a basis for discussion on how to best utilize historic sites for conservation education and training.

Finally, participants discussed how the perceived gaps between the needs of the field and the core competencies identified during the retreat could be better addressed in their conservation education curricula. Participants welcomed the opportunity to share ideas about conservation education, and the GCI learned how it could collaborate with educators in the region. One discussion concerned the development of new pedagogical approaches through the use of fieldwork and didactic materials that relate specifically to the Asia region. All participants of the Directors' Retreat were in agreement that the GCI could play a key role in creating teaching materials—particularly case studies to be shared with regional academic programs. Although specific partnerships are yet to be developed, the retreat provided a foundation upon which future collaborative work can be based.

The Directors' Retreats are designed as a forum for senior-level educators and practitioners to convene in a quiet setting to discuss key issues in the development of conservation and education. They also provide an opportunity for colleagues throughout a region to reconnect and to establish new contacts that may lead to future collaborations. For more information on the Directors' Retreats, visit the Getty Web site at www.getty.edu/conservation/education/drsretreat/.

Meeting on Conservation of Modern and Contemporary Art

In June 2008 the Getty Conservation Institute organized a meeting of international experts to discuss the significant and often highly complex issues faced by professionals in the conservation of modern and contemporary art. The meeting, entitled "Conservation Issues of Modern and Contemporary Art," was held at the Museum of Modern Art in New York. Attended by twenty-six invited participants from Europe and the Americas, the group included conservators from a number of key institutions as well as some in private practice; scientists; collection managers; and those involved in conservation training programs and professional networks for contemporary art.

In an attempt to build on issues raised at the Getty's "The Object in Transition" conference in January 2008—which examined issues surrounding the preservation and study of modern and contemporary art (see *Conservation*, vol. 23, no. 1)—the meeting's attendees were asked to reflect on three main considerations: What are the principal issues currently faced by the field in the conservation of modern and contemporary art? How might the conservation profession address these issues? What changes would the profession want to make in the next five years to significantly improve the situation?



A site visit to Wat Phra Thad Lampang Luang. A member of the Fine Arts Department of Thailand discusses conservation work at the site with retreat participants. Photo: Jeff Cody, GCI.

Conservation Guest Scholars

A working document summarizing the primary issues and possible responses, as determined by the meeting's participants, is currently being circulated for comment among a larger group of conservation professionals. Some of the major concerns outlined in the document include:

- the lack of preventive conservation strategies for storage and display of the enormous range of materials used by contemporary artists;
- the need for more extensive research into the development and evaluation of conservation treatments for these materials;
- the absence of an appropriate forum to debate emerging ethical dilemmas;
- the necessity for improved guidelines for documenting unconventional media—in particular, installation art;
- the need to include training in skills relevant to contemporary art in conservation training programs;
- the need for more effective methods of exchanging information among conservators and with other areas of the arts profession.

The observations and conclusions from this meeting will form the basis of a strategic framework that will enable the Getty to initiate, cultivate, and coordinate a range of activities in the conservation of modern and contemporary art—including research, education and training, documentation, and dissemination.

For more information on the GCI's work on the conservation of contemporary art, visit the Getty Web site at www.getty.edu/conservation/science/modpaints/index.html.

The Conservation Guest Scholar Program at the GCI supports new ideas and perspectives in the field of conservation, with an emphasis on the visual arts (including sites, buildings, and objects) and the theoretical underpinnings of the field.

The program provides an opportunity for professionals to pursue scholarly research in an interdisciplinary manner across traditional boundaries, in areas of wide general interest to the international conservation community. Written inquiries should be directed to:

Attn: Conservation Guest Scholar Grants
The Getty Foundation
1200 Getty Center Drive, Suite 800
Los Angeles, CA 90049-1685
USA
Tel: 310 440-7703
Fax (inquiries only): 310 440-7703
Email: researchgrants@getty.edu

Deadline for application: November 1, 2008

2008–09 Conservation Guest Scholars

The GCI looks forward to welcoming four Conservation Guest Scholars in 2008–09:

Richard Mackay, Partner, Godden Mackay Logan (heritage consultants), Sydney, Australia
September 2008–February 2009
Critical Factors in Cultural Heritage Management

Christian Ost, Dean, ICHEC Brussels Management School in Belgium
September 2008–June 2009
A Guide for Town Planning in Historic Cities Using Economics of Conservation Methodology

Lassana Cissé, Head, Cultural Mission of Bandiagara, Mali
November 2008–February 2009
The Conservation and Management of African Living Cultural Sites: The Case of the Bandiagara Cliff Dwellings

Silvio Zancheti, Professor, Federal University of Pernambuco, Brazil
March–July 2009
Indicators of Authenticity and Integrity for Urban Heritage Areas

Getty Graduate Interns

Graduate internships at the Getty support full-time positions for students who intend to pursue careers in fields related to the visual arts. Programs and departments throughout the Getty provide training and work experience in areas such as curatorial, education, conservation, research, information management, public programs, and grant making.

The GCI pursues a broad range of activities dedicated to advancing conservation practice and education in order to enhance and encourage the preservation, understanding, and interpretation of the visual arts. Twelve-month internships are available in the Field Projects, Science, and Education departments of the GCI.

Detailed instructions, application forms, and additional information are available online in the Getty Foundation section of the Getty's Web site at www.getty.edu/grants/education/grad_interns.html.

The deadline for applications will be in December 2008.

2008-09 Graduate Interns

Enrica Balboni

Università degli Studi di Ferrara, Italy

Hande Cesmeli

Istanbul University, Turkey

Caroline Cheung

University of Pennsylvania, Philadelphia, U.S.A.

Tomoni Fushiya

University College London, UK

Azadeh Vafadari

University College London, UK

Huang Xiofan

Peking University, Beijing, China

Survey of *Conservation Readers* Completed

We would like to thank all of our *GCI Newsletter* readers who completed our recent survey either online or in hard copy. Over nine hundred responses were received. The information gathered from the survey is extremely helpful and will be used to assist the GCI in better addressing the information needs and interests of its readership.

Bihanne Wassink 1957–2008



Bihanne Wassink at the Teamwork for Integrated Emergency Management workshop, November 2007. Photo: Foekje Boersma, GCI.

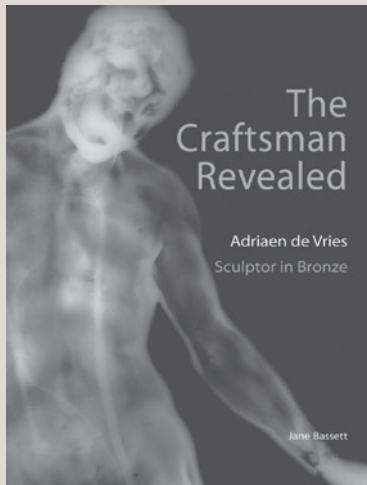
Bihanne Wassink, paper conservator at the National Archive of the Netherlands, died unexpectedly on April 21, 2008, at age fifty. Wassink was a valuable contributor to the GCI-sponsored course Teamwork for Integrated Emergency Management, held in Southeast Europe (see *Conservation*, vol. 23, no. 1). She served as an instructor during the two-week workshop in Macedonia and as a mentor during the ongoing distance-mentoring phase. Wassink's expertise in disaster preparedness, salvage, and recovery was invaluable. Participants, fellow instructors, and partners came to know her as a very dedicated professional. Sharing her knowledge and experience was a natural expression of Wassink's warm nature and her devotion to her profession.

Trained in paper and book conservation, Wassink had worked at the National Archive of the Netherlands since 1981. Beginning in 1998, she served as a conservation advisor for the International Conservation Centre of the National Archive. In 2005 she was made the disaster management advisor for the National Archive collection. She also managed The Hague Pilot ("Haagse Preventie Netwerk/Haagse Pilot"), a regional initiative aimed at disaster preparedness collaboration among twenty museums, libraries, and archives in The Hague.

Wassink also contributed to the field by carrying out research with the fire department in The Hague on fire progression in archives, as well as on the ways packaging and storage techniques can help mitigate damage in the event of fire. In a relatively short time, she acquired a formidable understanding of disaster preparedness for collections of cultural heritage and experience in hands-on mass salvage operations, which made her an authority in the field. She traveled extensively to share her knowledge around the world.

Wassink was one of the authors of *Preservation of Archives in Tropical Climates* (available online at www.knaw.nl/ecpa/grip/tropical.html), for which she wrote the section on disaster preparedness.

The GCI offers condolences to Wassink's family and friends and to her colleagues at the National Archive. She will be greatly missed.



The Craftsman Revealed *Adriaen de Vries, Sculptor* *in Bronze*

Jane Bassett

With contributions by Peggy Fogelman,
David A. Scott, and Ronald C. Schmidtling II

The sculptor Adriaen de Vries (1556–1626) spent much of his life working for the most discerning royal courts of the age, including that of Holy Roman Emperor Rudolf II in Prague. A master of composition and technique, de Vries was relatively unknown until the J. Paul Getty Museum's groundbreaking 1999 exhibition, *Adriaen de Vries: Imperial Sculptor*, which firmly established the artist's reputation and afforded a rare opportunity for in-depth study of a large group of bronzes.

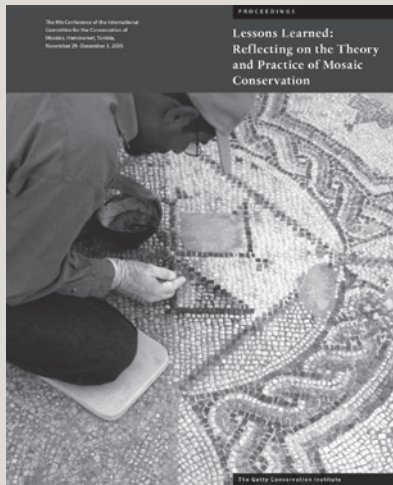
This heavily illustrated volume presents the results of the technical study of twenty-five bronzes from the exhibition. Introductory chapters provide background on the artist and technical methodologies. Subsequent chapters present case studies of individual statues, revealing the methods and materials used in their creation. The book will be of great interest to conservators, conservation scientists, art historians, curators, and sculptors.

Jane Bassett is associate conservator of decorative arts and sculpture at the J. Paul Getty Museum. Peggy Fogelman is director of education and interpretation at the Peabody Essex Museum. David A. Scott is chair of the UCLA/Getty Master's Program on the Conservation of Ethnographic and Archaeological Materials. Ronald C. Schmidtling II is a geologist in private practice in Los Angeles.

352 pages

100 color and 220 b/w illustrations

\$60.00



Lessons Learned: *Reflecting on the Theory* *and Practice of Mosaic* *Conservation*

Proceedings of the 9th Conference of the
International Committee for the Conservation
of Mosaics, Hammamet, Tunisia, November
29–December 3, 2005

Edited by Aïcha Ben Abed, Martha Demas,
and Thomas Roby

The ninth triennial meeting of the International Committee for the Conservation of Mosaics (ICCM), organized by the Getty Conservation Institute and the Institut National du Patrimoine (INP) of Tunisia and held in 2005 in Hammamet, Tunisia, focused on assessing past practices of mosaic conservation, both in situ and in museums.

This handsome, plentifully illustrated proceedings volume provides a comprehensive record of the conference. The volume's fifty-three papers, with contributions from over eighty leading professionals in the field, reflect the conference's principal themes: Evaluating Mosaic Practice, Caring for Mosaics in Museums, Documenting and Assessing Sites at Risk, Managing Sites with Mosaics, Sheltering Mosaics, Training of Conservation Practitioners, and Case Studies. Papers are presented in either English or French, with abstracts of all papers in both languages. The volume will be of interest to conservators and site managers, as well as to art historians and archaeologists of the Roman world.

Aïcha Ben Abed is director of monuments and sites at the INP. Martha Demas and Thomas Roby are senior project specialists at the Getty Conservation Institute.

432 pages

200 color and 150 b/w illustrations

\$75.00

A Message from Getty Foundation Director Deborah Marrow

Many colleagues in the conservation community have contacted me to inquire about recent changes in the Getty's grants. These changes have resulted from a Getty-wide strategic planning process that identified priorities going forward. As we approach the Foundation's twenty-fifth anniversary in 2009, it is also a particularly appropriate moment to take a fresh look at our past accomplishments and to chart new directions.

Our general approach is to shift resources from our ongoing grant categories to more focused special initiatives carried out in collaboration with the other Getty programs. This approach builds on our successful experience with past initiatives, such as Campus Heritage, which supported preservation planning at American universities, or our grants for the training of sub-Saharan museum professionals in preventive conservation through the PREMA program. We are currently working hard to define the range of programs in the area of conservation and are preparing two new initiatives—in collaboration with the GCI and the Getty Museum—designed to advance the practice of mosaics and panel paintings conservation respectively. (The Panel Paintings Initiative is described on page 26.)

To pursue these new directions, the Foundation had to make difficult decisions, including eliminating our long-standing architectural conservation grant category—although we will certainly develop other initiatives in this area. We are proud that these grants have contributed to the field since 1989, especially through their emphasis on conservation planning. At the same time, the field is clearly moving toward a more comprehensive approach, and therefore, future initiatives that focus on a specific region or issue may have greater impact.

As we develop new programs, we count on the participation of our colleagues in the field; it is only by drawing upon your experience that we will be able to create meaningful grants.

Deborah Marrow

Director, The Getty Foundation

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