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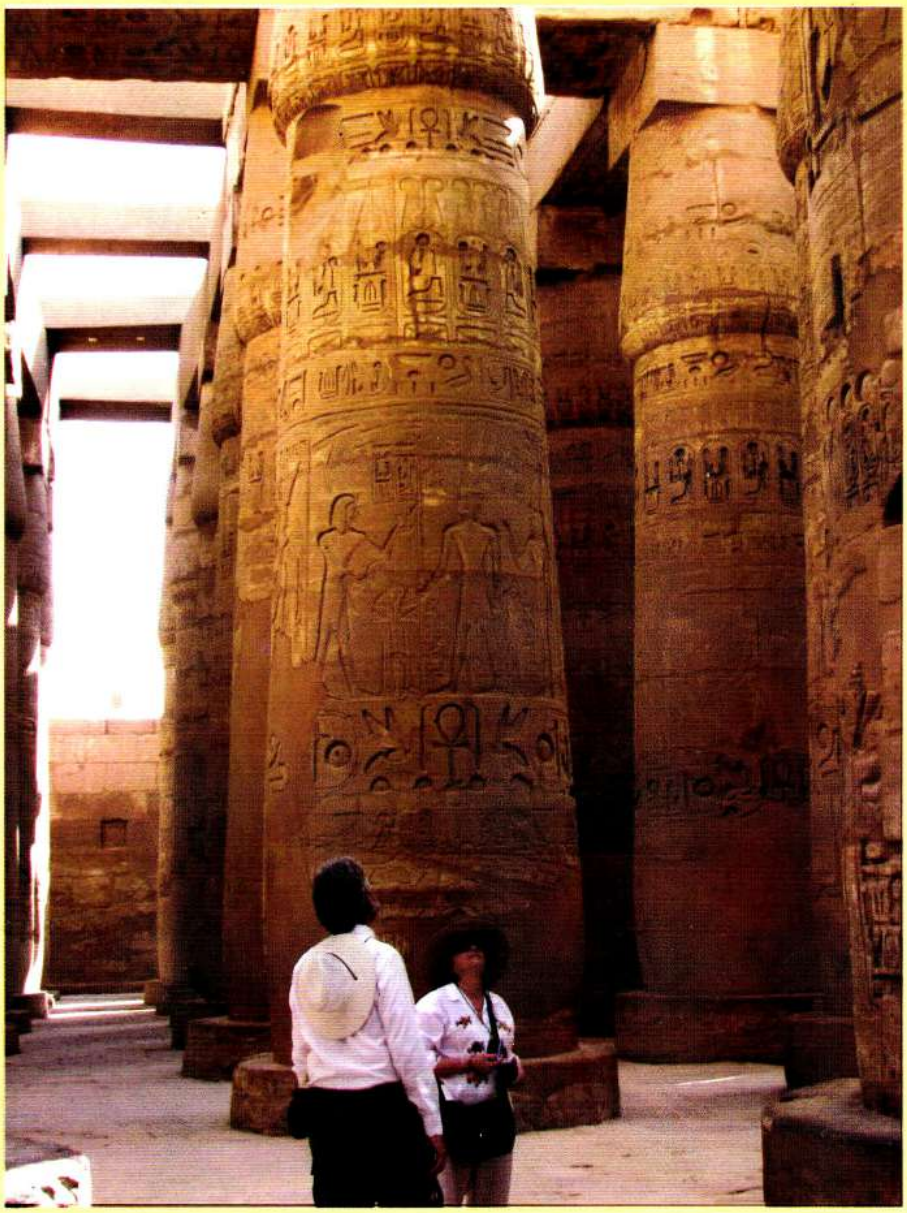
ARCE Begins New Conservation Initiatives in Upper Egypt

Gerry Scott

The Karnak and Luxor temple complexes on the East Bank of the Nile at Luxor are, without a doubt, iconic symbols of ancient Egypt. Yet, rising ground water has, until recently, been slowly destroying these sites. In 2006 a USAID (United States Agency for International Development) funded groundwater lowering project was completed at the two temple complexes. Systems of underground drainage pipes and above ground pumping stations were installed and the pumps began the process of lowering the groundwater last fall. A similar groundwater lowering program is now underway on the West Bank. Ultimately, USAID's plan is to provide a groundwater lowering engineering project that will serve an area of the West Bank at Luxor that stretches from Seti I's mortuary temple in the north to the Medinet Habu Temple in the south.



The hypostyle hall at Karnak dwarfs and amazes visitors. This temple will be one of the main focuses of ARCE's new conservation grant from USAID. Photo: Kathleen Scott

In addition to these two sites, other monuments including the Ramesseum and the remains of the mortuary temples of Merenptah, Tausert, and Thutmose III will benefit from the proposed program.

With a new multi-million dollar USAID grant add-on to the Egyptian Antiquities Conservation Program (EAC), The American Research Center in Egypt (ARCE) has begun an important new mission in Upper Egypt. More than a year ago, ARCE was approached by USAID about the possibility of ARCE undertaking a monitoring and conservation project at the two temple complexes after the completion of the groundwater lowering engineering project. Ultimately, USAID asked ARCE to submit a proposal to them for a conservation program for Karnak and Luxor. As a result, ARCE recently received funding to undertake the proposed work with an additional grant from USAID for the Egyptian pound equivalent of $8.8 million. This sum is to be added to ARCE's existing $8.6 million Egyptian pound equivalent EAC grant.

The new ARCE grant initiatives call for the monitoring of the east bank temples' structural integrity as the water recedes from the foundations, the active conservation of damaged blocks, the construction of a conservation laboratory for the use of conservation staff of Egypt's Supreme Council of Antiquities (SCA), a training program for Egyptian conservators who will be maintaining

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from the director

Avenue of Sphinxes. Photo: Kathleen Scott

Dear ARCE Members:

You have before you another very full issue of the Bulletin, which reflects the fact that ARCE is a very active organization with many interesting and rewarding programs. Our lead story, featured on our cover, describes an exciting – and highly important – new conservation initiative in Luxor. Because of the trust that USAID continues to have in ARCE and our programs, we have received an additional major grant award to implement an ambitious program of monitoring, conservation, and training at the temples of Karnak, Mut, and Luxor on the East Bank of the Nile at Luxor. As this issue goes to press, USAID is considering making an additional contribution to ARCE's current Egyptian Antiquities Conservation program (EAC). If awarded, the funds will allow ARCE to expand our current activities on the East Bank to include a comprehensive field school on salvage archaeology for our Egyptian colleagues who work as SCA inspectors to be conducted in the area of the Avenue of the Sphinxes between Luxor and Karnak temples (see photo) and a documentation and conservation project related to the demolition of two relatively recent Luxor structures, the neo-pharaonic police station and the mosque adjacent to it. In addition, this possible additional award would enable ARCE to provide archaeological monitoring for a USAID engineering project to lower the groundwater on the West Bank at Luxor in order to protect the major mortuary temple sites there from the ever-increasing ravages of rising damp and salts.

The good work that ARCE funds through its Antiquities Endowment Fund (AEF) is highlighted here by several contributions ranging from site management training for SCA staff, conservation initiatives at el-Hiba temple, an existing conditions assessment for many of the royal tombs in the Valley of the Kings, and an innovative experiment in conservation at Giza that combines backfilling the excavated remains of Old Kingdom foundations (to protect them) with new construction directly above to enable visitors to imagine the ancient structure. Other important work accomplished with ARCE/AEF funds include a new display of Predynastic objects in the Egyptian Museum in Cairo and an exploration of the archaeological remains of the White Monastery Church.

Additional features of this issue include an ARCE Fellow's reports on architectural and decorative aspects dating to the reign of Seti I, a student's perspective on this year's CAORC-funded Arabic Summer Language Institute, and a report on ARCE's annual meeting in Toledo, Ohio.

In addition to these articles on ARCE activities and contributions from Members and Fellows, this issue contains ARCE's annual report to you, our membership. The Annual Report includes a summary of ARCE's most recently audited financial statements for the 2005/2006 fiscal year, recognition of ARCE's leading donors, and a listing of ARCE's Expeditions, Fellows, Board, and staff for the same period.

Finally, please note the back cover that announces ARCE's fellowship opportunities for the 2008/2009 academic year. If you know of qualified students or colleagues, please let them know about this important opportunity to conduct research in Egypt.

In closing, sadly, I must report that Robert K "Chip" Vincent, Jr. passed away in October. Chip was honored at the 2007 ARCE Annual Meeting for his many contributions as ARCE Project Director of the Egyptian Antiquities Project. His accomplishments live on in the many Egyptian monuments conserved by that program.

Gerry D. Scott, III
Director

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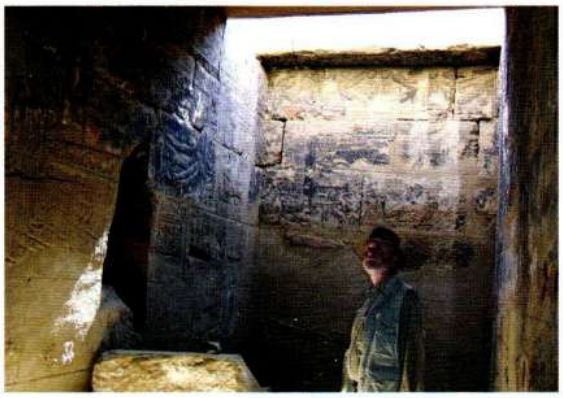
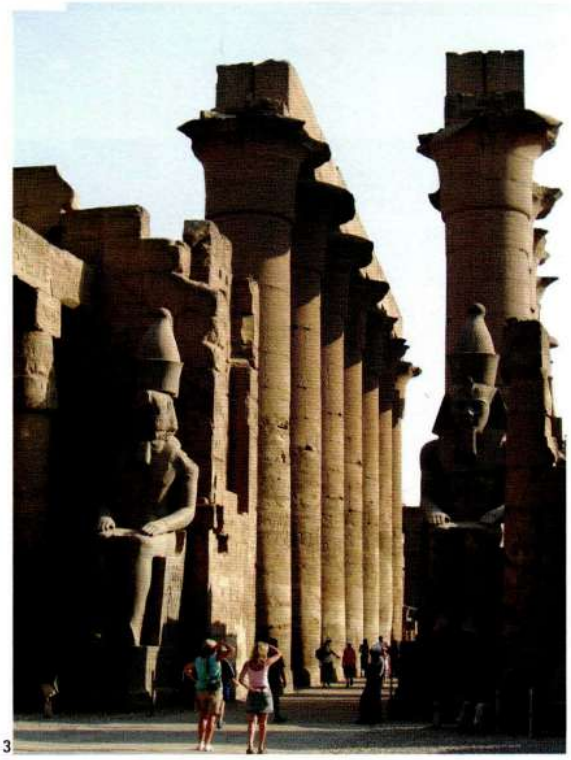


the sites into the future, investigation and possible intervention at the Sacred Lake of the Karnak Temple and the Sacred Lake of the Temple of Mut at Karnak, and cleaning the remaining painted relief sculpture of Ramesses IV in the Temple of Khonsu at Karnak. All work within the Karnak Temple enclosure walls will be conducted in concert with the SCA, the Franco-Egyptian Center, and Chicago House of the University of Chicago.

Project Director and water engineer, Fraser Parsons, has set up an ARCE project headquarters in Luxor. The facility includes offices and a hostel for housing the conservators and other visiting experts, as well as some project staff, throughout the 3-year project. The conservation lab is being constructed on site at Karnak temple. The lab will provide workspace for conservators as they focus on the cleaning and conservation of reliefs throughout the complex and especially at the Khonsu temple. The lab will also provide classrooms for the training of Egyptian conservators. ARCE will be working at the site of the Mut Temple at Karnak, in consultation with expedition leaders



1. ARCE Director Gerry Scott surveys chambers within the Khonsu Temple at Karnak for future conservation activity. Photo: Kathleen Scott

2. Still brightly painted reliefs will be cleaned and conserved in the Khonsu Temple. Photo: Kathleen Scott

3. Luxor Temple. Photo: Jaroslaw Dobrowalski

4. Shari Saunders, ARCE's Assistant Director visits with Project Director Fraser Parsons (right) and Adel Abdel Maguid, office/hostel manager, at ARCE's recently established conservation offices in Luxor. Photo: Kathleen Scott

5 & 6. Salt damage from rising groundwater can be clearly seen on these two reliefs from with in the Karnak temple complex. Photo: Kathleen Scott

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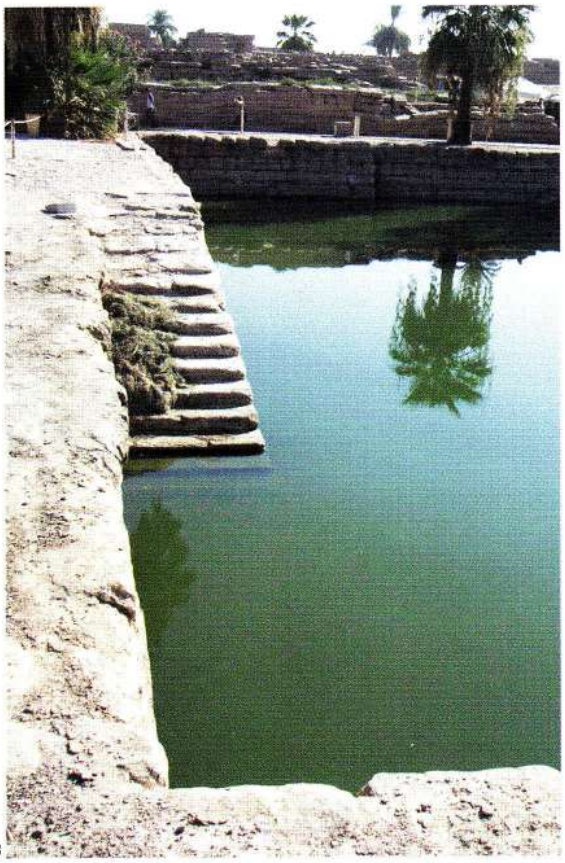

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7 & 8. Work will also be done on the sacred lake at the Mut temple (7) and at the large sacred lake at Karnak (8).
Photo: Kathleen Scott

9

9. Monsour Boraik, SCA Chief Inspector of Upper Egypt, examines moisture damage at the Khonsu Temple.
Photo: Kathleen Scott

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10. Ed Johnson will oversee the conservation activities for the new ARCE initiatives in Luxor.
Photo: Fred Saunders

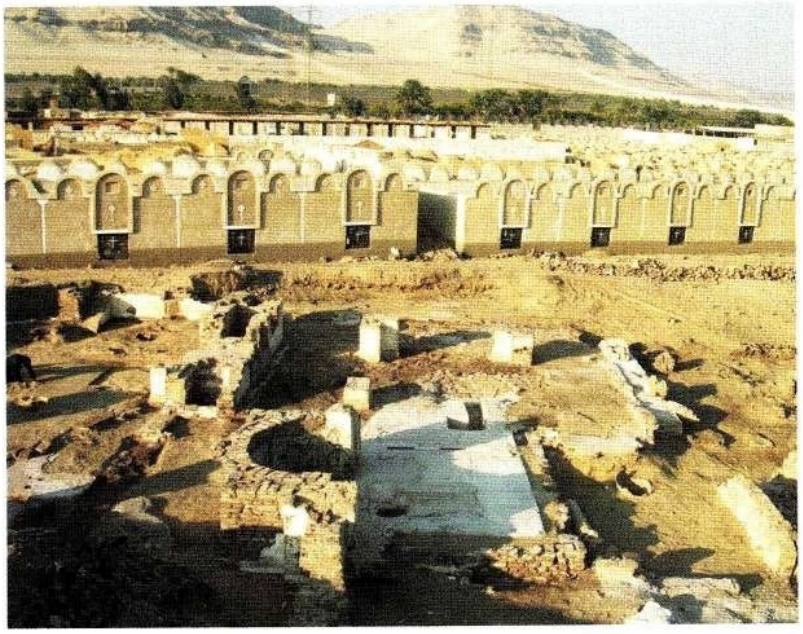
Richard Fazzini, Director of the Brooklyn Museum of Art mission, and Betsy Bryan, Director of the Johns Hopkins University mission. ARCE will be investigating conservation issues of the temple's sacred lake, as well as continuing the conservation program conducted by Professor Bryan begun under the aegis of ARCE's USAID-funded Egyptian Antiquities Project (EAP). At Luxor temple, monitoring and conservation will also be ongoing under the supervision of Dr. Ray Johnson and his team from Chicago House (University of Chicago/ Oriental Institute). Overseeing all of the conservation aspects of the project is archaeological conservator Edward Johnson, the project's Assistant Director. ■

Late Antique and Medieval Painted Decoration at the White Monastery (Dayr al-Abiad), Sohag

Elizabeth S. Bolman, Louise Blanke, Darlene Brooks Hedstrom, Mohammed Khalifa, Cédric Meurice, Saad Mohammed, Gillian Pyke, and Peter Sheehan

1. The White Monastery church from the southwest, in April, 2006. Photo: E. Bolman

The wall painting conservation project currently underway at the Red Monastery (Dayr Anba Bishay), near Sohag, has raised the profile of this monument considerably in recent years, with its dramatically colored Late Antique murals.[1] Today, the neighboring White Monastery church appears to have only a few areas of painting, all medieval. With funding in the form of a grant from ARCE's Antiquities Endowment Fund (AEF), Elizabeth Bolman, Louise Blanke, Darlene Brooks Hedstrom, Mohammed Khalifa, Cédric Meurice, Saad Mohammed, Gillian Pyke, and Peter Sheehan, studied the evidence for Late Antique painted plaster at the White Monastery, with very interesting results.[2] One important component of the project comprised a first phase of conservation and protection of recently excavated wall paintings, undertaken by Luigi De Cesaris, Alberto Sucato, and their assistants. We are grateful to the Supreme Council of Antiquities for their collaboration, and to Bishop Yohannes and the monks of the monastery for their exceptional support and hospitality.[3] We examined not only paintings in a small triconch funerary chapel excavated by the Egyptian Supreme Council of Antiquities in 2002, but also remains



2. The Triconch Funerary Chapel Complex from the east, with the Chapel in the center of the photograph, and the adjacent rooms to the left, January 2007. Photo: P. Sheehan

of several phases of painting – at least two Late Antique, and three Medieval – throughout the White Monastery church itself. These last discoveries raise the question of when all of these decorations in the monumental church were removed.

In Late Antiquity, the Monastery of St. Shenoute, commonly called the White Monastery, was the center of an enormous network of monks and nuns in the region outside of Sohag, the former Panopolite nome. The settlement – a federation of two men's monasteries, a nunnery, and a group of hermitages – was founded in the fourth century CE and inhabited continuously until the thirteenth century. Today, the so-called White and Red Monasteries are but the gigantic churches of these two men's monasteries, standing within historical remains and new buildings recently constructed by two currently reinvigorated monastic communities (fig. 1). The monastic leader who established the White Monastery Federation was St. Shenoute (346-465). He is the most important and well attested Coptic writer of any period.[4] What makes the site of his Federation so uniquely important is the survival of complementary evidence in many different media, in large quantities. The presence of archaeological remains, documentary texts, monumental and quotidian architecture, wall paintings, manuscript illuminations and sculpture all testify to the vitality of monastic life at this center. Study of early monastic texts and history is flourishing, but knowledge about the material culture of its beginnings lags far behind. There is probably no other archaeological site from Late Antiquity that comes even close to documenting the structure of life and activities of a monastic group (in this case a population of thousands) in such magnificent detail. An international consortium of scholars has focused their attention on multi-disciplinary studies of the remains of Shenoute's Federation, sharing the results of discrete projects.[5] The AEF project to study evidence for paintings at the site of the White Monastery adds to our understanding of the Late Antique and Medieval appearance of the site, contributes to the corpus of Egyptian Christian wall paintings from these periods, and helps us understand some of the architectural transformations that happened over the centuries to the White Monastery church.

The Triconch Funerary Chapel Complex:

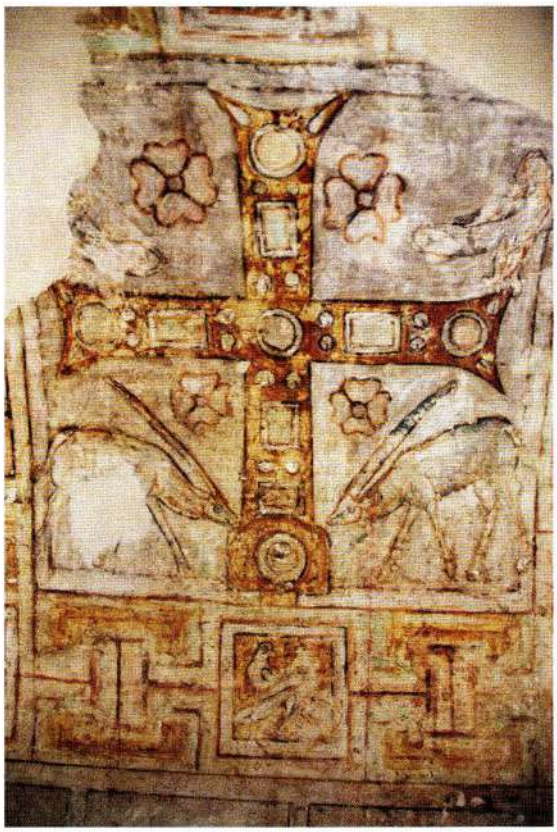
During excavations at the site in 2002, an SCA team led by Saad Mohammed uncovered the remains of a painted funerary chapel with a crypt, and an adjacent complex of rooms (fig. 2). Recently, additional cleaning and excavation by Sheehan has indicated three building phases, all of which originally had painted decoration, and one of which included areas of marble flooring. The latest and best surviving structure also shows evidence of later, domestic reuse. The best-preserved parts of the building are the subterranean tomb, several piers, sections of walls at the eastern end of the triconch, and some areas of the adjoining rooms to the south of the chapel. These all include in situ painted plaster. Substantial quantities of fragments of painted plaster were also found in the course of both the SCA excavations and during the recent work, at which time the specific location of groups of this material was carefully recorded.

De Cesaris observed two layers of painted plaster on some of the standing walls above ground, and one layer (with a single later addition) in the underground rooms. The surviving walls of the triconch are decorated with non-figural designs, and show close parallels to the Late Antique paintings now being

conserved at the Red Monastery, and also to finds from other excavations (e.g. the Monastery of Apa Apollo at Bawit, and the Monastery of Apa Jeremias at Saqqara). The piers include traces of patterns, a depiction of fruit trees (probably signifying paradise), and monochrome rust-colored depictions of Christ. The principal colors used for the non-figural decorations are gold, black, pink, red, green and brown.

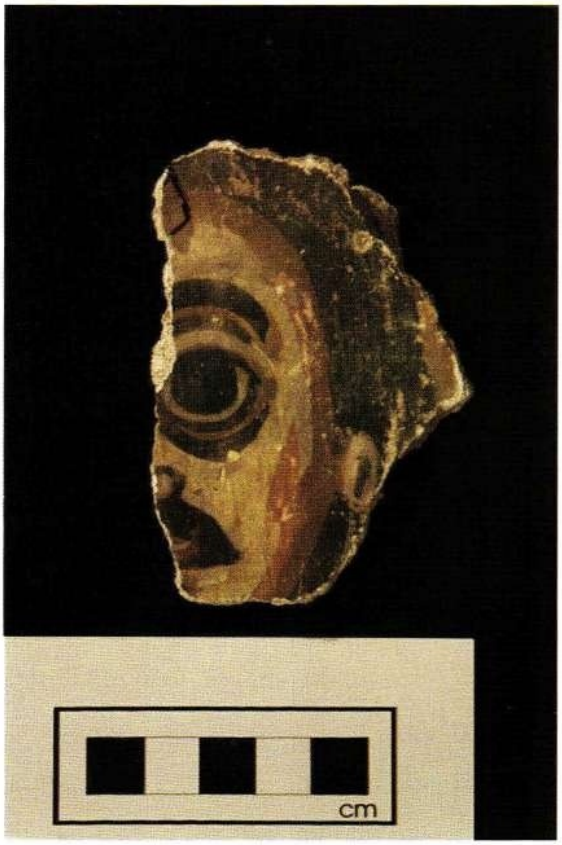
The underground tomb consists of a narrow, barrel-vaulted passage, a small, shallow-domed entranceway with rectangular niches on either side, and a broad barrel-vaulted burial chamber. The walls of the tomb have a lightly applied series of depictions with subjects that are typical of funerary contexts in the Late Antique period, and convey the themes of resurrection and paradise. These include gemmed crosses, gazelles, eagles, and peacocks (fig. 3). The dado shows remnants of imitation white and gray marble cladding. The walls of the entrance corridor immediately preceding these chambers are painted with black lines, in an imitation of dressed white stone. The color palette in these rooms is more restrained than that of the paintings aboveground, including primarily ocher, light yellow, rose, cream, and black. A very light, and somewhat awkwardly painted standing figure appears to have been added to the north wall of the burial chamber after the rest of the paintings were finished. The partial inscription accompanying it, above the figure's head, indicates that it is of St. Shenoute.[6]

In January 2007, De Cesaris and Sucato directed the stabilization of all of the paintings above ground, as these have been most threatened by the sun, wind and sand.[7] Some areas of plaster had been detaching from the walls, and have now been re-attached. Cracks and areas of paint and plaster loss have been filled in to make the surface considerably more stable. Materials used were consistent with, but readily distinguishable from, the original materials. In some cases it was necessary to anchor the edges of the plaster with localized infiltrations of acrylic resin in a 35% emulsion (Acryl 33) mixed with micronized calcium carbonate. In a few areas of particular fragility, it was necessary to secure portions of plaster with small strips of Japanese paper, which were applied to the surface with an acrylic resin solution. Temporary brick walls were then built 10cm from the painted surfaces, with the spaces between the paintings and these protective walls filled with clean sand, as an interim measure while the future of the structure is being considered. The entrance to the crypt was also provided with a new and more substantial cover. We plan further conservation work in the chapel, and are exploring strategies for its long term protection and display.



3. Gemmed Cross and Gazelles, Barrel Vault, Tomb Chamber, Triconch Chapel, January 2007. Photo: Bolman

Painted Plaster Fragments from the Tomb Chapel Complex:
Plaster fragments of varying sizes and states of preservation have been uncovered first by the SCA as part of their excavations, and more recently by Sheehan in the tomb chapel complex (fig. 4). Their coloration and style indicate that they belong primarily or exclusively to the latest of the Late Antique phases of painting in the complex, corresponding in density of pigment coverage to the uppermost layer of paint aboveground, and in distinct contrast to the much more lightly applied, restricted palette of the



4. Fragment of a Face, Triconch Chapel Complex, discovered in 2002-2003 by Saad Mohammed and his team.
Photo, 2007: Heather Badamo and Elizabeth Khalaf Agaiby

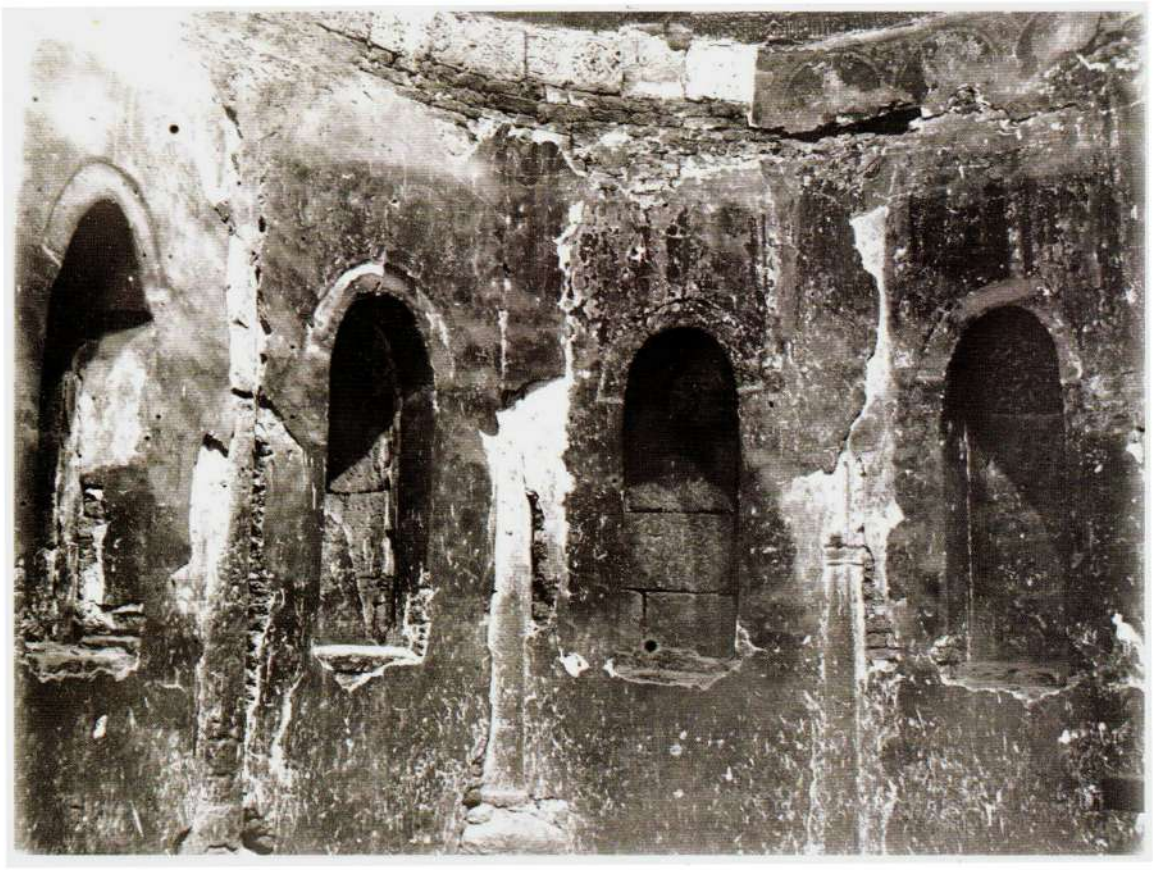
underground paintings. Their style is vigorous and confident, including both the use of outlining (with its attendant stylization) and passages rendered in an illusionistic manner, and is consistent with Egyptian Christian paintings very generally dated to the sixth century. Several fragments show remnants of faces and hands, some clearly belong to areas of non-figural decoration, and others depict such typical features of Egyptian Christian wall paintings as wings with eyes (from the four incorporeal living creatures).

Our work thus far has included the recording of the archaeological context of the newly discovered fragments, photographing[8] them and storing both these and the pieces found by the SCA in 250 wooden trays. A study of these fragments is planned in order to determine their relationship to the plaster layers remaining *in situ* and the architectural sequence established by Sheehan, and to investigate the nature of the decorative scheme of the chapel and the adjacent rooms.

The White Monastery Church in Late Antiquity:

No Late Antique paintings now greet the visitor who casually looks around the White Monastery church. Nevertheless, the careful examination of the walls of the church undertaken primarily by Pyke, with assistance from Blanke, Sheehan, Meurice, and Bolman, shows that the church was painted at least twice in Late Antiquity. Pyke identified two painted plaster skims dating to this early period, with an indication of additional phases of work in the longitudinal room running along the south side of the church, which we have called the great hall. Pyke's painstaking examination of the characteristics of plaster and skim renderings, and their relationship to each other in various parts of the church, provide the principal source of evidence for the chronology presented here. The first phase of painted decoration included at least blue, yellow and red, and survives in several of the niches (e.g. nave, sanctuary and great hall) and in the architectural sculpture framing them (e.g. pilasters in the Baptistery). On the western wall of the narthex and in the corridor to the north of the eastern apse, Pyke observed remnants of a treatment very similar to that found in the tomb chapel entrance corridor described above. The wall appears to have been left with much of the white of the plaster skim showing, onto which were applied thin horizontal and vertical black lines, creating the illusion of dressed white stone courses. It may have been the case that in this first phase of painting, the colored decoration was concentrated on the region of the niches, with more austere treatments of the other areas of wall. Presumably all of the stone sculptures of the niche heads and cornices, and remnants of wood were painted in this first phase, but the only evidence we observed of it is in two niches which are now accessible only via the roof. As described below, these two niches were originally part of the interior decoration of the sanctuary.

Yellow, pale red and black, and more rare blue pigments were applied to the second Late Antique plaster layer. In the eastern apse, traces of two decorated phases with discernible patterns have survived. The earliest of these consists of trapezoidal depressions, perhaps filled initially with carved and painted wood. At some point, still in the Late Antique



5. Eastern lobe of the Sanctuary, White Monastery Church, showing the Medieval brick and plaster walling up of the sculpted surface. Decorative motifs are visible in the upper right of the photograph.
Photo: the Comité. Courtesy of the Musée du Louvre.

period (based on the character of the plaster and the painted surface), these depressions were filled with brick, covered over with plaster, and painted with a geometric design. Additional (later?) interventions seem to have taken place in the great hall, showing traces of both geometric and also figural painting (south wall, western end), suggesting that these formed a significant element of one of the phases of the decorative scheme. Pyke observed a total of five plaster layers in the great hall, more than was found in any other part of the church.

We found traces of Late Antique painted plaster in all areas of the church interior, although not enough to determine if any of it was figural, and also evidence that the surfaces of the walls have been comprehensively scraped to remove painted plaster. Photographs from about a century ago, provided by Meurice, shows faint evidence of what may well be Late Antique paintings, particularly in the Baptistery. Albert Gayet described non-figural and figural paintings covering the interior of the White Monastery sanctuary, in a publication of 1902.[9] He stated that they were similar to those in the Red Monastery sanctuary, which Bolman has recently dated to Late Antiquity.[10] All but fragments of the non-figural paintings and their plaster layers have since been removed, as is discussed below. Only some of the figural paintings have escaped destruction.

The White Monastery Church in the Medieval Period

Considerable renovation of the fabric of the church happened in the Medieval period, on at least one occasion. The principal source of evidence for this is the reconstruction of the sanctuary roofing in brick, and the extensive remodeling of areas of the great hall and narthex, also using brick. The largely plaster-covered brick columns in the nave have the same mortar as the Medieval brickwork in the great hall, and therefore also date to this period, demonstrating that a substantial project took place. Meurice has discovered extensive early photographic evidence for the walling in of the triconch with brick and plaster, presumably for increased stability. Most or all of the plaster surfaces were covered with paintings (fig. 5). Similar work took place at the Red Monastery in the sanctuary, and Meurice has discovered the date of 1210 inscribed on the plaster.

While the domed structure at the western end of the great hall is clearly Medieval in date, the mortar

6. Upper half of a Late Antique sculpted niche, now embedded in a Medieval brick roof. The back of the niche includes a painting of the upper half of a cross. Photo: Bolman

appears to have a different character than the rest of the Medieval mortar, suggesting a separate phase of work in this general period. The lower halves of two niches that had been part of the Late Antique sanctuary interior at the level of the clerestory were incorporated into the Medieval roof. The upper halves of these niches are currently visible from the roof, and show not only traces of painted plaster on the sculpted parts of the niche, but also paintings on the niche walls. The best preserved, southern niche, shows the top half of a cross against a yellow background (fig. 6).

Figural paintings from at least three Medieval phases have survived in the sanctuary. According to Bolman's preliminary work on this subject, the earliest, with a well-known inscription by an Armenian artist dating it to 1124, is the painting in the eastern apse of Christ in Majesty with the four evangelists.[11] Next, all apparently painted by the same hand, are an archangel and saint on the lower sanctuary walls and the south semidome with a depiction of the Deesis (an intercessory subject). This monumental apse painting shows a variation of the standard iconographic type of Christ between the Virgin Mary and St. John the Baptist, in which a large cross in a mandorla (a large halo, usually found around the entire body of Christ) takes the place of Christ. These are almost certainly related to the lost paintings on the 1210 brick walls, currently being studied by Meurice. To the right (south) of the eastern lobe in the sanctuary is a very darkened painting of the Virgin and child enthroned. The patterning on the throne suggests that this depiction dates to the later thirteenth or early fourteenth century, and is distinctly different from the two earlier phases of figural painting. Remnants of patterning on Medieval layers of plaster were found principally in the eastern lobe of the triconch, but also on the south nave wall near the eastern end, above a niche. These are harder to date without additional work establishing the relationship of the plaster layers to each other. Regular markings in red paint representing the setting-out for the Medieval brick arches in the great hall survive on the surface of the earlier wall

The Post-Medieval Church and Village

Since the *Description de l'Egypte* by Napoléon Bonaparte, all travelers have seen a village in the great hall and the nave of the church at the White Monastery. This village included two main streets, and two-story houses. In that period, the sanctuary functioned as the church. With the intention of returning the appearance of the church as much as possible to its original state, the *Comité de Conservation des Monuments de l'Art Arabe* took down many of the houses and the mudbrick filler walls of the triconch between 1905 to 1910. At the same time, the Comité reinforced several areas of the church, until the Suez crisis brought an end to their work. While neither the Comité's publications, nor that of Ugo Monneret de Villard discuss the removal of painted plaster, such an enormous job could only have been undertaken by this organization. Monneret de Villard's 1926 publication includes photographs of the sanctuary without it.[12]

One aspect of this project included the excavation of a dump consisting primarily of plaster fragments with some pottery, found by Blanke, Sheehan, and Mohammed Khalifa below ground level immediately outside the door in the north wall of the nave. The area of dumped plaster and pottery was defined and

fully excavated, and a trench extended to the church to investigate the nature of its foundations and sequence of activities in this location. Pyke studied the plaster fragments, and established a typology of plaster types based on composition and surface treatment. The number of pieces of each plaster type was counted and significant fragments fully documented and photographed. A total of 1179 plaster fragments was found. The number of examples of each type was counted to establish the frequency of each type and their relative proportions. Particular attention was paid to the occurrence and nature of modeled, inscribed or painted fragments, in order to determine whether any tended to be associated with particular architectural elements, opportunistic or formal decoration.

Pyke-integrated the results of the survey of plaster remains in the church with the fragments found in the dump, and examined the characteristics of mortar in the church and the dump to investigate the possible sources of the fragments. The dumped plaster fragments were found to be most similar to those of the later layers in the great hall, suggesting that they belong to architectural elements dating to the Medieval period or later. This might suggest that they were originally part of architectural elements of the later brick phase of the church, or to relatively modern structures within the nave.

Conclusion

The survival of substantial parts of a triconch funerary chapel and adjacent complex, with Late Antique paintings both *in situ* and found in fragments during excavation, adds significantly to our knowledge of painting and architecture in this region. The paintings have particular importance for their similarities to those in the Red Monastery, and may enable us to identify a regional school. The evidence of repeated phases of colored plaster in the monumental White Monastery church attests to the community's sustained prosperity into the thirteenth century and perhaps beyond. It also underscores the importance of painted decoration at this site over centuries. ■

NOTES

1. The Red Monastery Project is being carried out in collaboration with the Supreme Council of Antiquities and the Coptic Orthodox Church. It is being administered by the Egyptian Antiquities Project (2002-2006) and the Egyptian Antiquities Conservation Project (2006-2007) of the American Research Center in Egypt, with funding provided by the United States Agency for International Development (USAID Agreement No. 263-A-00-04-00018-00).
2. We thank ARCE's Dr. Gerry D. Scott, III, Shari Saunders, and Michael Jones for their interest in and support of this project. The AEF-funded project on the White Monastery wall paintings is one discrete component of a larger archaeological, documentation and conservation project at the White Monastery, which also receives funding from the National Endowment for the Humanities, Dumbarton Oaks, and the Yale Egyptological Institute in Egypt.
3. We thank particularly the Abbot, Father Wissa, and also Father Shenoute and Father Fam, without whose help and enthusiastic support we could not have undertaken this project. We are also grateful to Dr. Abdallah Kamel, who fostered the collaboration between the SCA inspectors and the ARCE-funded team.
4. For an introduction to Shenoute and his works see Stephen Emmel, "Shenoute's Literary Corpus" (Ph.D. dissertation, Yale University, 1993); J. Barns, "Shenoute as a Historical Source," in *Actes du Xe Congrès International de Papyrologues*, ed. by J. Wolski (Cracovie, 1964), 151-159; S. Emmel, "From the Other Side of the Nile: Shenoute and Panopolis," in A. Egberts, B.P. Muhs, and J. van der Vliet, eds., *Perspectives on Panopolis: An Egyptian Town from Alexander the Great to the Arab Conquest* (Leiden: Brill, 2002). 95-113.
5. The members of the consortium are: I. Scholars: Elizabeth S. Bolman (Consortium Chairperson; Tyler School of Art, Temple University), Darlene Brooks-Hedstrom (Wittenberg University), Stephen Emmel (University of Münster), Gawdat Gabra (Coptic Museum, retired), Peter Grossmann (Deutsches Archäologishes Institut, Kairo, retired), Karel Innemée, (University of Leiden), Bentley Layton (Yale University), Sheila McNally (University of Minnesota), Philip Sellew (University of Minnesota), Hans-Georg Severin (University of Bonn), and Thelma Thomas (University of Michigan); II. Experts: Fawzy Estafanous (St. Mark Foundation for Coptic History), Father Maximous (Monastery of St. Antony), and Hany Takla (St. Shenouda the Archimandrite Coptic Society).
6. Thanks to Paul Dilley for reading the inscription.
7. Assistant conservators working on site were: Cristina Caldi, Diego Pistone, Federico Ratti, and Emiliano Ricchi.
8. We are grateful to Heather Badamo and Elizabeth Khalaf Agaiby for assisting with the photography of many of the trays of painted plaster.
9. Albert Gayet. *L'Art Copte* (Paris: Leroux, 1902) 145-146, 150-151.
10. Bolman, "Late Antique Aesthetics, Chromophobia, and the Red Monastery, Sohag, Egypt," Eastern Christian Art, forthcoming.
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Mudbrick and Good Manners: the Karanis Site Management Project

Willeke Wendrich and Jolanda Bos

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Introduction

The Greco-Roman town of Karanis is a well known point for tourists visiting the Fayum. Located at a 45 minute drive from the pyramids, where the road from Cairo enters the Fayum depression, it is perhaps the best accessible ancient site in the Fayum. The typical visitor's experience centers around two aspects: a two-story, granite fronted museum and the 'open air museum', which is the actual archaeological site. The vulnerable mudbrick walls at Karanis need to be approached with care by everybody who visits or works at the site. It is a matter of imbuing good manners in an archaeological and conservationist sense. Starting from this view point, the Karanis Site Management Project was initiated in 2005 and has finalized the initial survey and report on the project's future management objectives.

The Karanis open air museum

The open air museum consists of one main path, with an end loop to accommodate the police car that follows all groups of foreign visitors. The tour focuses mainly on three buildings in this large settlement: the South Temple, the North Temple and a bath, excavated in the 1960's by Cairo University in cooperation with French archaeologists. These buildings have seen several instances of conservation interventions, while the rest of the site is left basically the way it was when Michigan University ended its archaeological work at the site. Karanis, which by virtue of its location, could be the visiting card of the Fayum, presents merely a puzzling sight to the unwary visitor. Crumbly walls surround the main path, which runs right over the tops of ancient stone and mudbrick walls and is lined with two rows of

1. Photograph of the center of Karanis, looking south-west towards the South Temple. The low-lying area between the mud brick building and the stone temple is the "area entirely destroyed by *sebakhin*".

brick pedestals capped with some of the large stone olive press weights which litter the site. Fragments of grinding stones hint at the untold story of Karanis as an important agricultural center in the Greco-Roman period. The surface of the site is pitted and holed, with enormous differences in elevation. The first century AD South Temple, dedicated to the crocodile gods Petesouchos and Pnepheros, looms over the remains of Ptolemaic houses to its south, the impressive foundation walls completely bare, as if they represent the walls of a fortification. Similarly, the Northern Temple proudly stands over a gaping hole and seems to represent a classical agora.

Excavation history of Karanis

Such impressions are quite misleading. The present shape of Karanis does not reflect the ancient urban design, but is the result of recent activities, mostly dating to the late 19th and early 20th centuries. The first published accounts we have of Karanis are brief notes by Petrie and Grenfell and Hunt (Grenfell et al. 1900). During Petrie's visit in 1890 the site was relatively undisturbed (Petrie 1891), but by the time Grenfell and Hunt came to collect papyri in 1895, the *sebakhin*, collectors of fertile mud-brick and stabling layers, were active at Karanis. Using a light railroad system, they excavated away large parts of the town, starting in the center. Mining for papyri followed a similar devastating method. In 1920 Kelsey, a classicist from the University of Michigan, visited Egypt in order to purchase papyri. While visiting Oxyrhynchus, he observed the destruction by the *sebakhin*. This experience led him to find support for archaeological work, basically rescue excavations, in order to document the houses and daily life of Egyptian villagers in the Greco-Roman period. It was the work of the University of Michigan, starting in Karanis in late 1924, that finally brought the destructive work of the *sebakhin* to a halt. Michigan University worked for nine years in Karanis, under direction of Arthur Boak and Enoch Peterson ((Boak and Peterson 1931; Boak 1933; Husselman 1979). The Kelsey Museum in Ann Arbor houses a large collection of objects from Karanis (Gazda 1983). The excellent preservation of organic remains enabled a full overview of the architecture, agricultural implements, and objects of daily life.

2. Google Earth photograph of the main settlement site and the cemetery North of the Cairo-Fayum road.

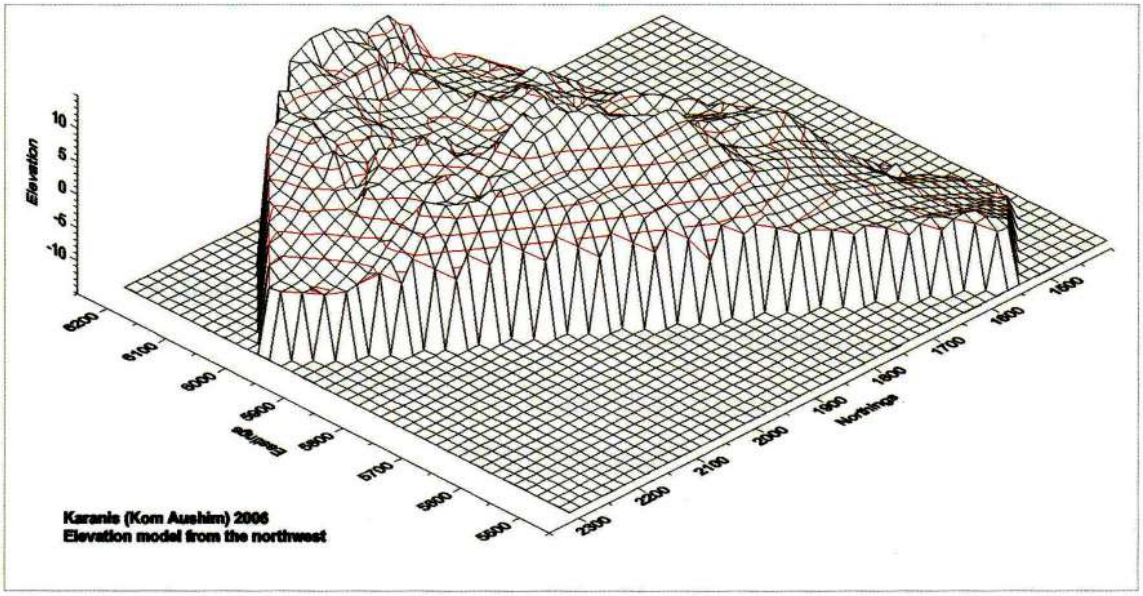
The method followed by the University of Michigan involved excavating large areas to great depth. Late layers were completely removed in order to enable excavation of the earlier ones. This was not done consistently layer by layer, and since stratigraphical control over such an enormous area is impossible, there is a discrepancy in dating of the layers in different parts of the site. In 1935 the work was closed off, but the site was not backfilled, leaving the vulnerable mudbrick walls open to natural weathering.

Visitor experience in Karanis

The present day visitor therefore finds an extremely confusing urban landscape. The entire center of the town has been dug away by the *sebakhin,* while the excavation dumps of the University of Michigan flank natural heights of the site (Figure 1). The excavated houses have partly deteriorated, and the northerly winds have blown large quantities of sand (mixed with garbage) to fill the streets, alleys and abandoned rooms of the ancient village. Of the well-preserved houses discovered in the early 20th century, with doors, windows, roofs and stair cases intact, little can be seen. Most importantly, this bewildering site keeps its interesting history and development well-hidden.

Site management project

With a generous contribution by the Antiquities Endowment Fund, administered by ARCE, archaeologists of the University of California, Los Angeles (USA) and the Rijksuniversiteit Groningen (RUG, the Netherlands),



3. Elevation map of Karanis (survey by Hans Barnard). This map will be integrated in the Virtual Reality model.

have started the first phase of a site management project at Karanis. Purpose of the project is threefold. From the above it should be clear that Karanis should develop a new tourist management approach. New information provision and enhancement of the visitor's experience is of great importance. In addition however, the archaeological potential Karanis still holds in its unexcavated quarters should be managed as well, and the exposed remains should be conserved. With these three management objectives in mind, it is of great importance to first study the site degradation and the aspects that are most detrimental to the standing remains. Mudbrick sites are notoriously difficult to protect, and Karanis presents an extra tough problem, because it is an enormous site, that has been quietly deteriorating for almost 80 years. Analyzing and monitoring the ongoing deterioration is of prime importance and will be regarded as the basis of our management approach. The project's prong is the provision of long term sustainable management tools, plans for oversight and regulation, involving all the stake holders. This can only be achieved when the state of preservation and the preservation potential of the environment are well understood.

Interdisciplinary project consortium

The development of the site management plan is a cooperation of several institutions. The Supreme Council of Antiquities, and especially the Fayum inspectorate are, of course, closely involved. A private archaeological site management company from the Netherlands (Past2Present-Archaeologic) provides the consultancy for the policy development. The Free University of Amsterdam is a participant in the degradation research, as are the Cotsen Institute of Archaeology at UCLA and the UCLA/Getty conservation program. The first important steps taken, financed by the ARCE AEF grant, are an exploration of the site boundaries, an assessment of the current state of deterioration, in comparison with the situation in 1935, and the formulation of a position paper.

Management tools in the initial stage

In the fall of 2006 a total station survey, in combination with a magnetic survey determined that what is visible at the surface at present indeed represents the full extent of the site to the East, West and South. The information was verified by test trenches in the central and the peripheral areas of the town, while the area, indicated by the University of Michigan excavators as the "area entirely destroyed by sebakhin" was tested through excavation. The boundaries of the site, which are even quite well visible on the Google Earth map (Figure 2), are indeed the total extent of the built up area. The Northern boundary of the site is at present formed by the Cairo-Fayum road, while in reality this road overlies part of the ancient village. The cemetery of Karanis is located North of the road and its boundaries are less clear than those of the settlement site. The SCA has conducted excavations in the cemetery as recent as the summer of 2006 and works closely together with the site management team. The elevation map of the center of the site clearly indicates that the topography does not reflect a common urban development, but serious later disturbance of the site (Figure 3). Together with the survey on the state of the mudbrick remains conducted in 2005 a picture of

the preservation condition of baseline survey has now been obtained. This baseline survey will in the future be completed by chemical, physical and biological analysis of detrimental effects on the site.

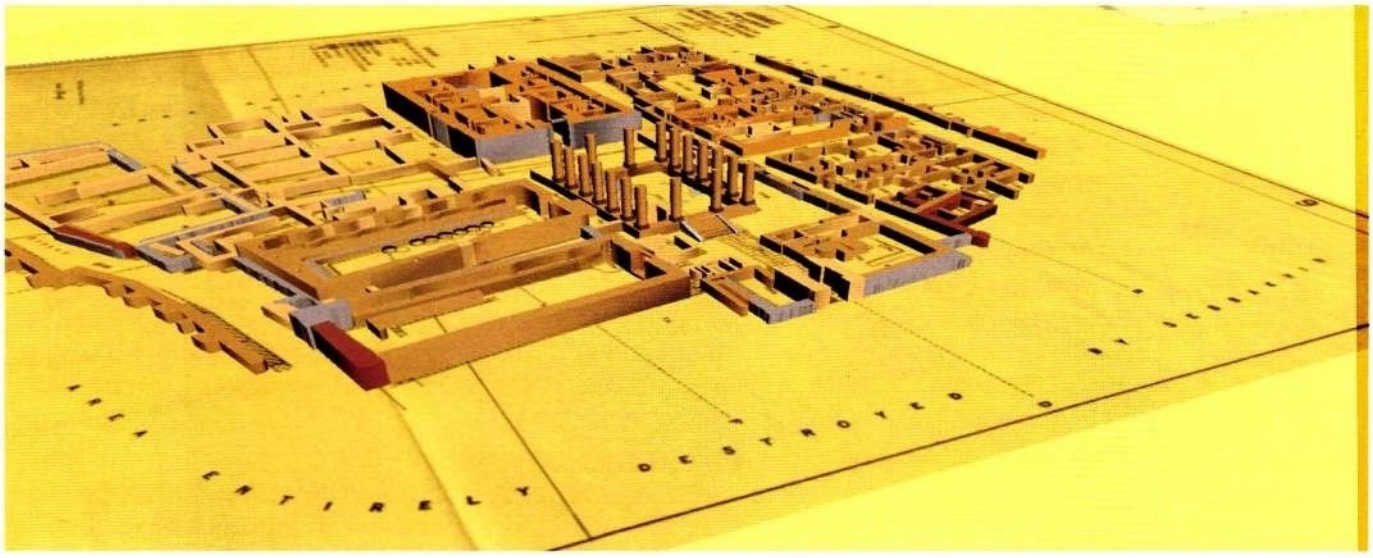
One of the tools currently in development at UCLA is a Virtual Reality model, based on the plans published by Michigan University in 1931, 1933 and 1979 (Figure 4). In 2005 and 2006 the UCLA/RUG Fayum project has photographed every visible wall height and thickness in Karanis. This painstaking project to record the present state of preservation of the mudbrick and stone buildings, has to date covered approximately 40% of the best preserved part of the site. The photographs will be used as overlay of the VR model, thus enabling a building-by-building and even wall-by-wall comparison with the Michigan photographs (Wendrich et al. 2006).

General future objectives

Although the core of the Karanis site management project is formed by degradation research as a tool for first aid and long term interventions and as the basis to formulate a sustainable archaeological heritage management plan, its results are strongly intertwined with tourism management. Research such as the 3D-VR modelling is used both as an evocative information provider for future visitors of the site, but also as a research tool to determine the decay over the last 80 years. The virtual reality model will have a key function in a future visitor centre and the on-site signage. It will provide the public with clarification of the urban fabric of Karanis and will thus enhance the visitor's experience. However, the outcome of this project will also serve another important new goal for Egypt in heritage presentation. It will hopefully not only instruct visitors on the finds and importance of the town for Egypt's history, but will also show the development of the field of Egyptian archaeology in the past 80 years. A future visitor centre will serve an important role in presenting the field of archaeology and archaeological heritage management characteristic for up to date approaches. It will in this manner also create awareness for management in Egyptian archaeology, an approach strongly advocated by the SCA.

More visitors, less pressure

Although site management involves much more than the management of visitors, the attention of the management plan for routing and education will result in the seeming oxymoron that more visitors actually will result in less damage of the site, because visitor streams will be better regulated. In addition the involvement of the Karanis stakeholders will become an important focus of the site management development team. Through information sessions in Fayum, the visitor centre and a website, all those involved and interested in Karanis will be asked to actively participate in the debate on future goals. The local population of the north-east Fayum, the tourists visiting the site, the SCA as well as foreign experts, should all be



4. First stage of the Karanis VR model (in development), based on published maps from the University of Michigan publications. In the forefront the map indicates the "area entirely destroyed by *sebakhin*".

aware of their responsibility in the preservation of Karanis. Making visitors, guards and researchers aware of a set of simple rules when interacting with vulnerable mudbrick sites is an important start: good manners are the first step to best practice. ■

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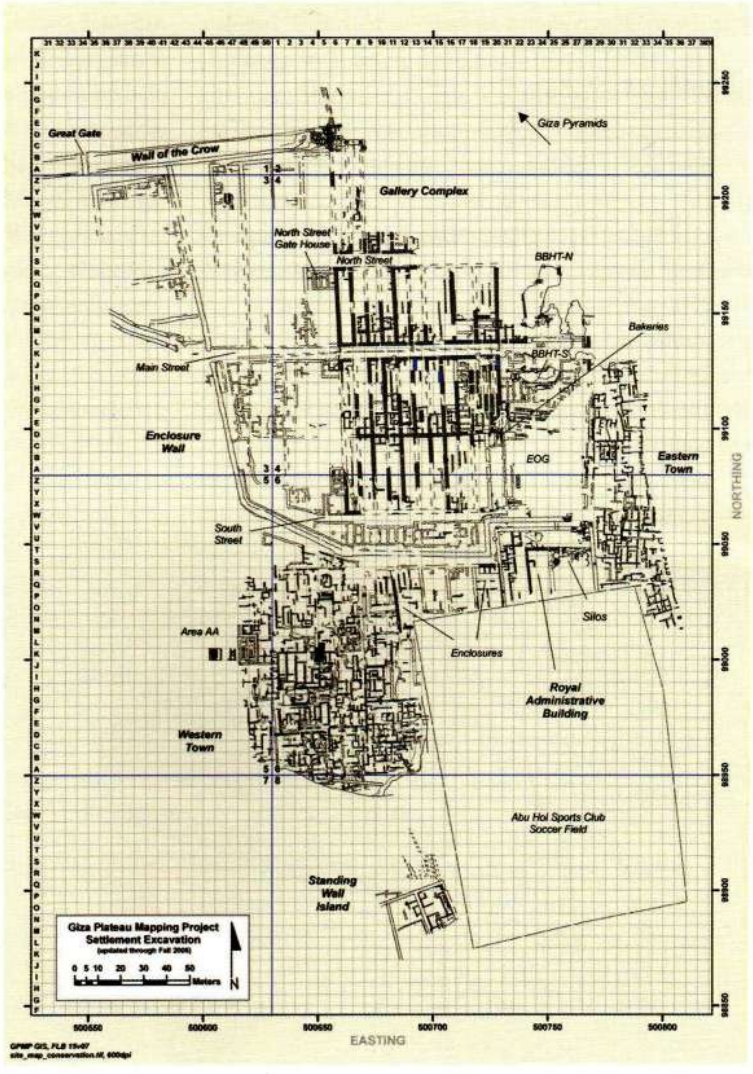
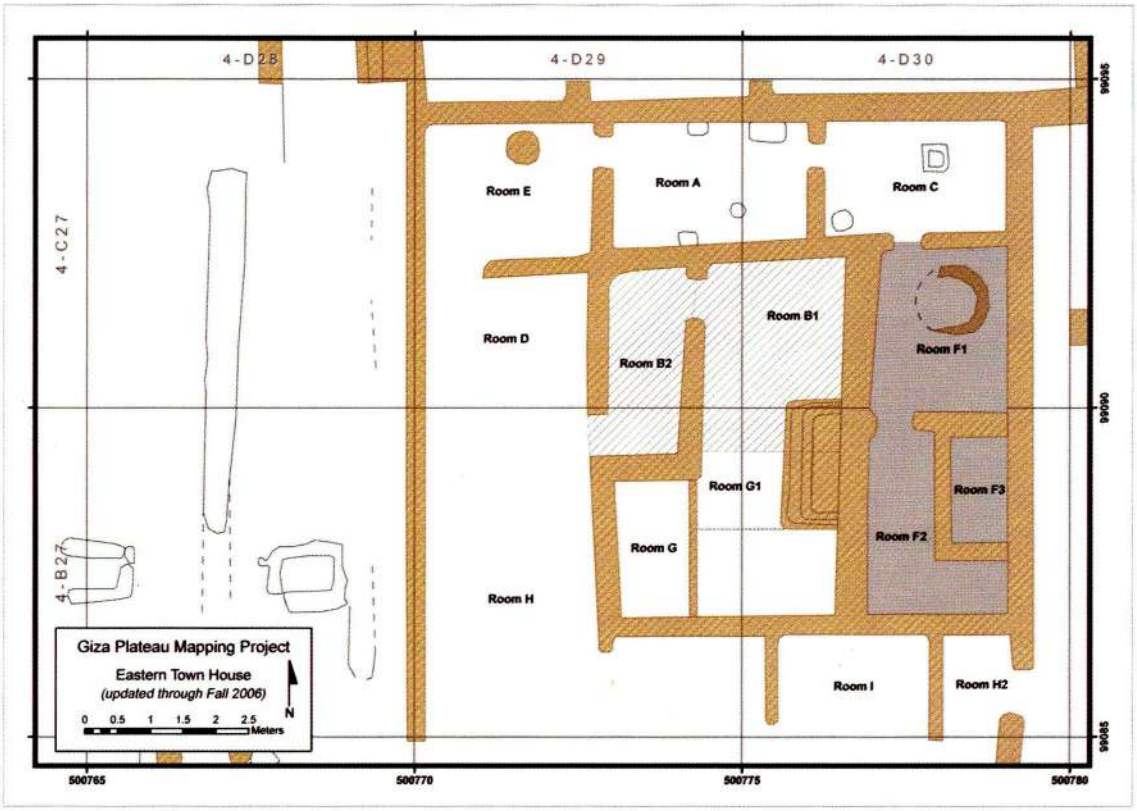
Giza Plateau Conservation Pilot Study, 2005-2006: Eastern Town House

Mark Lehner, Günter Heindl, Ed Johnson, Ashraf Abd al-Aziz, and Ana Tavares



1. Map of the Heit el-Ghurab site.



2. Plan of the Eastern Town House (ETH).

During twenty years of clearing, mapping, and excavation of the Giza Plateau Mapping Project (GPMP) we have saved nine to ten hectares of an ancient urban complex dating to the time of the 4th Dynasty pyramids (Lehner 2002, Lehner and Wetterstrom 2006) (Fig. 1). Only 400 meters south of the Great Sphinx and beyond a gigantic stone wall called *Heit el-Ghurab*, ("The Wall of the Crow"), the massive settlement was built of fieldstone and mudbrick. Having survived for 4,500 years, the ruins of the ancient settlement have been in recent times threatened by modern mechanized digging, waste dumping, urban expansion, and tourist activity. In addition, the walls vary in the extent to which they are preserved from mere remnants of less than a single brick course to the 10-meter-high Wall of the Crow. The ancient walls are vulnerable to a variety of destructive forces, including rain, wind, runoff, and capillary action from ground water and efflorescing. Cycles of expansion and contraction from temperature and ground water fluctuations threaten the stability of the site. The ground water has been rising steadily and is now a major threat to the stability of the site. The walls wick up the water, resulting in a cycle of wetting-drying and salts efflorescing, which erodes the walls.

Concerned with these threats to the site, we embarked on a pilot conservation project in 2005, funded by the American Research Center in Egypt's Antiquities Endowment Fund (AEF). Our goal was to investigate the feasibility of both protecting the remains of this 4,500-year-old settlement, while also presenting them for future viewing and study. Showing the architectural structure is important as a way to convey information about the site, not only to scholars and other visitors, but also to those who make decisions about site management (Agnew et. al. 2004). In our case, these decisions involve the location of the new SCA high security wall, the eventual removal of a soccer field that is currently located on the site, and controlling traffic from numerous riding stables nearby. The process of reconstructing or augmenting an ancient structure can also be heuristic; generating insights into how people built and used the structure and the spaces it defines.

Eastern Town House

We chose for our pilot project a small, discrete compound in the eastern part of the site that we call the Eastern Town (Hounsel 2004; Wetterstrom 2004). The compound, the Eastern Town House (ETH), includes a core house, in a traditional ancient Egyptian "snail pattern" surrounded by a series of small, open courts (Fig. 2) (Lehner 2004). During the excavations here in 2004 and 2005 we determined that there was only a single phase of occupation (Hounsel 2004).

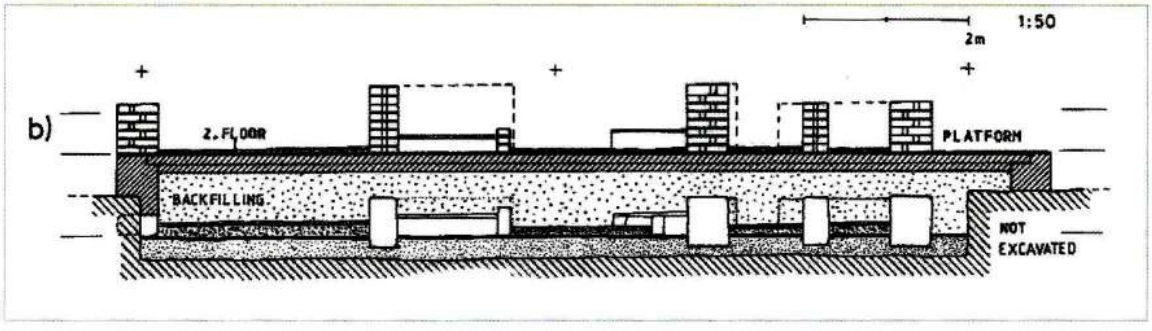
We carried out our pilot conservation project during the fall 2005 (Lehner, Kamel, and Tavares 2006) and fall 2006 field seasons. This work was part of a larger, ongoing program to conserve and present the site by backfilling and reconstructing selected structures. Our aims were to preserve the mudbrick walls and to present some of the salient ancient architectural structures for colleagues and scholars in the future. The Supreme Council of Antiquities Giza Inspectorate encouraged us to make some of the ancient structures on the site "visible" in order to "show" the reality of the archaeology. It is important that the significance of the archaeology be "seen" by those who make decisions about issues having important implications for the site, such as the location of the new high security wall, the eventual removal of the soccer field, the control of the numerous stables and horse and camel riders. So in this indirect way, "showing" the architecture also aids the conservation of the site.

Originally we proposed to preserve mudbrick walls by capping and augmenting with new bricks. However, after we reviewed previous mudbrick conservation projects and after reviewing the sites in Egypt where walls had been capped (Johnson and Abd al-Aziz 2005), we concluded that capping would not serve our goals very well. (Johnson and Abd al-Aziz 2005). While capping "shows" the structure, it also drastically changes its dimensions, since it involves adding material to the dimensions of the walls. Moreover, capping and encasing could have potentially serious consequences if the modern materials, placed directly on the walls, interacted with the ancient fabric.

In addition, capping fails to offer any protection from the very serous threat of rising ground water. Since 2004 the water table has been inching upward and continues to do so up to the present (spring 2007). In 2004 it was at 14.67 meters asl in the soccer field (see site map, fig.1). By fall 2005 it had reached 15.12 meters asl in the Royal Administrative Building (RAB) and by late April 2007 was at 15.845 meters in the southern part of the site. The high water table is especially threatening to the integrity and long term preservation of the site since the galleries, one of the major complexes in the settlement, sit at around 15.60 meters asl at their floor level.

Instead of capping, we concluded that backfilling with clean sand would be the best measure to conserve our site. Reburial has been shown to protect ancient walls but not alter the dimensions of original fabric (Demas 2004, Ford et al. 2004). In addition, a thick layer of sand would prevent the ground moisture at our site from wicking up through the walls. It would also serve as a separation layer to distinguish the original walls—the evidence as found—from anything that we might add according to our understanding and mental models.

In certain contexts, conservators must also place a separation layer between the ancient and modern materials. The practical function of a separation layer is to prevent ground moisture from wicking up through the ancient walls. Separation layers can be made of various materials such as sand, gravel, potsherds, or tar-paper.



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3. East-west section through the Eastern Town House (ETH) showing the relationship between the ancient and the reconstructed structures.

In order to accomplish the second goal of our conservation project, making the ETH available for archaeologists and others in the future to see, we built a very accurate replica on top of a 30+ centimeter separation layer of clean sand, positioned exactly in same location as the original walls (fig. 3).

Survey and Documentation

It was crucial to thoroughly document the ancient structure before reburying it. Much of the work had already been done during the 2004 excavations (Lehner 2004). Dan Hounsel and Emma Hancox had mapped and photographed every stratigraphic feature of the ETH and produced several composite overall phase plans at a scale 1:20 (Hounsel 2004). Prior to the conservation work in 2005 Anies Hassan drew extra archaeological sections and Mohsen Kamel remapped the walls of the ETH with the total station using the Giza Plateau Mapping Project (GPMP) grid. The team surveyed hundreds of points on the tops and bottoms of the original walls as we found them, so that we could use these points in the future to construct a graphic three-dimensional model of the ruins. GPMP photographer Yukinori Kawae carried out a photographic survey of every stratigraphic feature (walls, hearths, doors, sockets, thresholds) still in situ.

Reconstructing the ETH

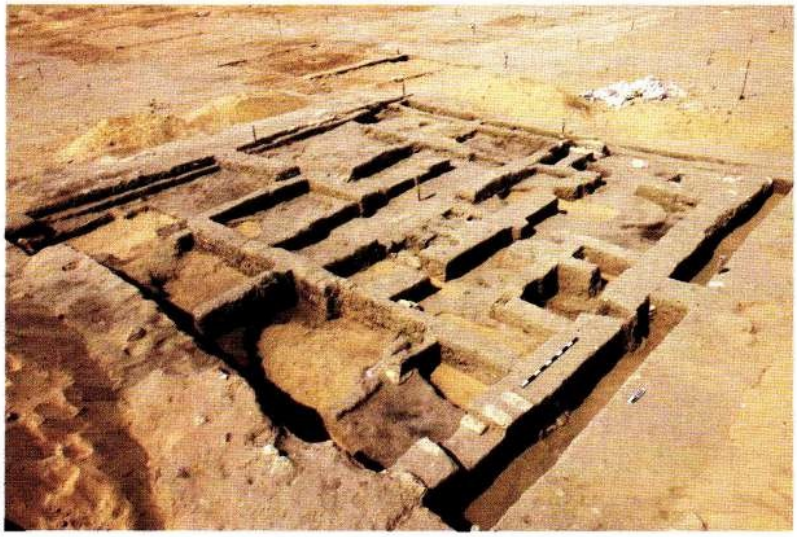
To retain the thick sand separation layer, we built walls around the sand layer similar to the ancient ETH compound's outer walls. On the west and south they correspond exactly to the positions of these walls; on the north and east the walls extend about a meter out beyond the actual outer compound wall so that visitors can stand on the platform to view the house from outside.

We reconstructed the walls to the same exact widths as the originals and positioned them on the sand separation layer precisely over the locations of the ancient walls using the survey control within the GPMP grid. Günter Heindl also used one-meter pins to extend upward nine datum points through the sand separation layer. From these datum points, he triangulated the exact positions of 70 corners (each measured from three points) so that they corresponded in horizontal position exactly with the original corners of the ETH buried below.

The bricks are of similar composition and of the same size as in the ancient walls, laid in the same pattern as the originals. We manufactured the bricks on site, using a mixture of alluvial mud and sand similar to the ancient bricks of the ETH. We established this mixture as part of Ashraf Abd al-Aziz's long-term study of mudbricks from our site, which includes a typology based on size and fabric.

In reconstructing the walls we took liberties with the height. In the reconstructed core house they are 77 centimeters high, slightly above the walls of the surrounding courts, which are 58 centimeters high. With the floors we took great care to replicate as closely as possible the composition of the original, ancient ones. In some rooms they were composed of pressed ash and alluvial mud. We tried to recreate these ashy floors, using a mixture of sandy silt and ash from excavation dumps. We spread it as a "soup" on the northern half of the floor of Room I. After it dried, it was bluish-gray and very similar to the original floor, as described in Dan Hounsel's excavation records. In the southern half of the room, we placed a dry mixture of ashes, sand, and silt.

Replicating such detail is important not just for the sake of authenticity. It also helps us understand the ancient construction techniques. During our fall season 2006 we learned about plasters when Huda Merazi tried to replicate the coatings preserved in 19 places on the ETH's walls. There were three variants, determined "by eye" of gray alluvial mud plaster and three of marl or crushed limestone plaster. We tried to replicate the specific plasters for the corresponding sites on the reconstructed ETH. We first recreated the mud render that in some places was a base for the marl or limestone plasters by using material left over from the manufacture of bricks in 2005. To replicate the white-to-yellow surface coat, the team experimented with 22 plaster mixes. The 22 test patches of these plasters still remain on the eastern wall of the ETH. For the limestone powder, one of our workmen crushed local limestone by hand. Later we were able to obtain quantities of limestone waste powder generated by masons working on SCA restorations at Giza. After many experiments, we found a formula that produced the right colors. As a



4a

4b

4a. Eastern Town House (ETH) after excavation, view to the north-west.

4b. Reconstructed Eastern Town House (ETH), view to the north-west.

check we compared our resulting white and yellowish limestone plasters to intact plaster of four different colors on the mudbrick structures being excavated in Area AA of our site.

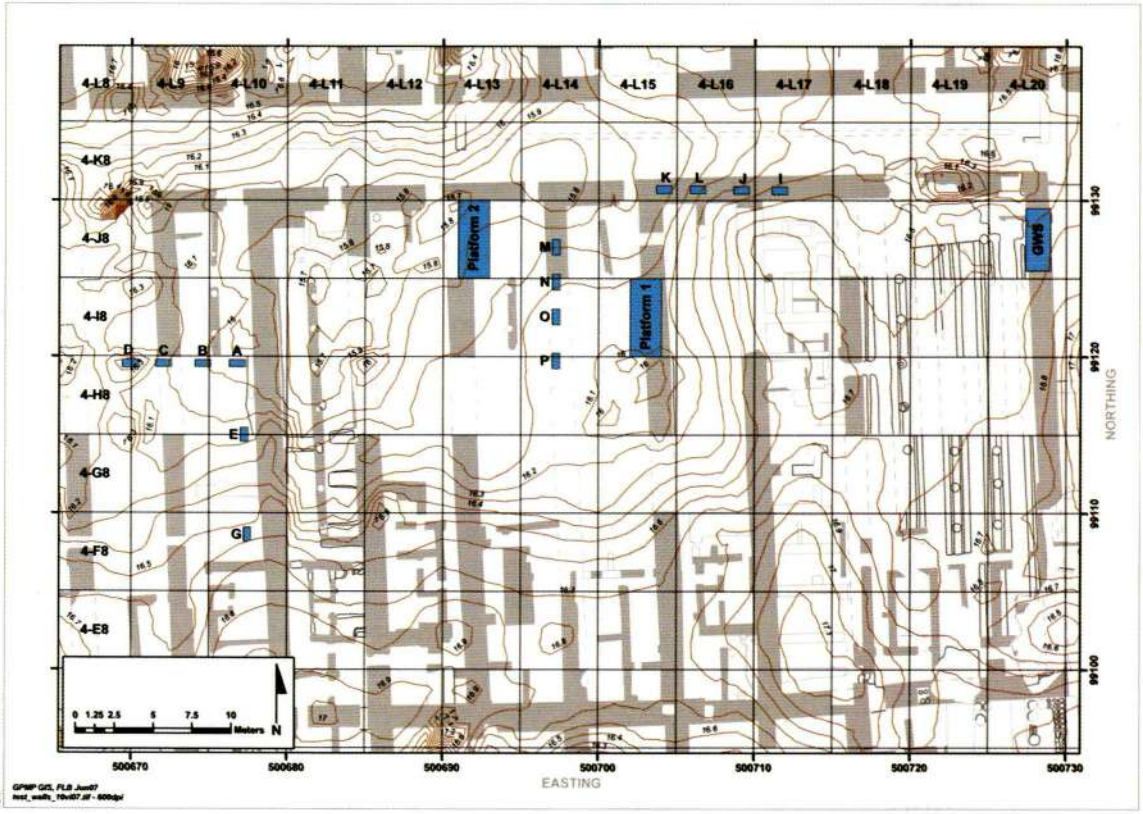
As we were completing our replica, we added details found in the original ETH, including a limestone threshold in the entrance of the core house and a limestone pivot socket tucked against its southern jamb. In the northeastern court we set a limestone basin and a small pottery vat into the floor. In the southwestern courtyard floor we submerged three medium sized, round-shoulder jars. The original jars had come to light just prior to the reconstruction. We had concluded before that there was no earlier occupation, based on nine intrusive Late Period burial pits that cut through the ETH into sterile sediments, but conducted two test probes to be sure. The jars, with their broken tops plastered over by a higher courtyard floor, turned up in one of them. We obtained approximations of the three jars from potters in El-Fustat and installed them so that visitors could see the vessels below surface, even though the original jars were buried up to their necks for sub-surface storage. To make the jars visible, we set them in the reconstructed courtyard floor in a rectangular trench, covered with a Plexiglas sheet. (See Fig. 4a and 4b for photos of the original ETH and the replica.)

Test Walls and Platforms for Long Term Conservation

Originally we planned to cap the walls on a select number of major structures at our site: one of the galleries (III.4) that may have been used as a barracks (Abd al-Aziz 2006), parts of the Royal Administrative Building (Lehner 2002, 59-64), and the Hypostyle Hall, one of Egypt's oldest known columned halls (Lehner 2002, 42-48). All three structures are in areas that are lower in elevation than the ETH and are now threatened by the rising ground water. In 2006 a standing pool appeared in the northern end of Gallery III.4 and has not receded. As a result we have had to progressively fill in with clean sand to absorb the water and prevent the cycle of wetting-drying and salt efflorescing.

Before launching any conservation work on the three structures, Ed Johnson and Günter Heindl in 2005 built 14 test walls in a variety of locations that are damper and lower than the ETH (fig. 5). Their goal was to monitor the longer-term effects of ground moisture and various ambient conditions. Fortunately, we erected the test walls before the ground water rose so high as to pool in these places.

Each test wall is about a meter long, a meter high, and about half a meter wide. Some are of straw-tempered mudbrick, others of sandy mudbrick (fig. 6). Some have mud renders (plastering) and some do not. Some renders are of straw-tempered mud, and others of sandy silt. To some walls we added caps that overhang the sides by 3 to 7 centimeters. They are intended to test how well such features protect the upper edges of the walls against rain and wind erosion. We also built test walls in a variety of alignments,



5. Site map with contours showing the locations of the test walls, platforms, and Gallery sample wall (GWS).

to test for different exposures to sun and wind (see fig. 5 for locations). Eight walls are on a north-south alignment and six run east-west. We built one set of six walls (A-B-C-D, G-E) in the western and southern area of the Gallery Set III ruin surface. The walls are not directly over the ancient walls, but span the unexcavated fill of the open spaces in the galleries. Another set of four walls (M-N-O-P) run north-south directly on the remains of an ancient gallery wall in our grid squares 4.J/I/H.14. We built four east-west test walls (I-J-K-L) immediately upon the remains of the northern wall of Gallery Set III. These run from higher, drier ground on the east to lower wetter conditions on the west. But now, because of the rising ground water, all the test walls are in wet areas.

We built a fifteenth test wall (GWS) 4 meters long, 2 meters high, and the full width of a lateral gallery wall, about 1.57 meters. Designed to test plaster finishes, the wall stands upon the northern end of the eastern wall of Gallery Set III, which is also the outer wall of the Hypostyle Hall. On this wall segment we tested lime plaster (from hand-crushed local limestone) over marl plaster on the north half of the western face, leaving the southern half bare. On the east side we applied marl (tafla) plaster over two kinds of alluvial mud base plaster.

In preparation for conservation work on Gallery III.4, we built two test platforms during mid October of our 2006 season. Our goal was to test the potential of different materials as separation layers by observing how they reacted to the ground water. Each platform is 5 meters long, 2.10 meters wide, and around half a meter high (4 to 6 brick courses). We constructed the western platform in the lowest area at the front northern end of the galleries, building the walls on tar paper. We located the eastern platform southeast of the first one on slightly higher ground, also using tar paper as the separation (see fig. 5 for locations of the test platforms).

After partitioning both of the platforms into four compartments, we filled each quadrant with a different material: rough gravel, fine gravel, potsherds, and clean sand. We put the fill in the compartments of the

western platform directly over the ground. The tar paper under the eastern platform ran under the walls and the fill of the compartments. We then plastered over the entire top surface of each platform with a smooth alluvial mud render.

Results of the Test Walls and Platforms

A year and a half later (April 2007) the elements, except for the wind, have taken their toll on the test walls. The ever-rising water table has inflicted the most serious damage, causing the bases of many of the walls to erode to a depth of 2 – 8 centimeters on the corners and to a height of 10–15 centimeters (fig. 6). One of the walls even toppled over in April 2007 (test wall K, fig. 7). On those walls founded at the lowest elevations, salt has effloresced to a height of 36 centimeters as a result of repeated cycles of ground water wicking up and subsequently drying. In recent months the ground water has totally saturated the lowest areas and, without our backfilling, would remain to this day in standing pools.

Through most of 2006 the fifteenth wall segment (GWS) stood unblemished except for some drip marks and thin runnels down the faces caused by heavy rains. Then, with the dramatic rise in ground water in late 2006 into the spring of 2007, the base of this wall segment also began to erode. On the east side, the marl plaster fell away to a height of 13 centimeters, while on the west, the lime plaster, which is harder than the underlying alluvial mud, fell away due to the rising damp and heavy rainfall up to a height of 30 centimeters.

Of all the platforms, the western one fared the worst after only six months (mid October 2006 to mid April 2007) (fig. 8). This was not surprising since the ground water here actually pooled at the very base of the northern side of the platform. We had to successively backfill the area with clean sand, which soon turned green from mold and was "frosted" with a white crust of effloresced dried salt. Of the four fills in the compartments, which were directly on the ground surface, the two with gravel provided the best insulation against the ground water. The mud-rendered top of the platform was smooth and dry. These compartments located on the south side of the platform, are slightly higher and drier. The pottery fragments that fill the second compartment on the north side not only wicked the ground water up through to the plaster surface at the top of the platform, they also contributed deleterious salts or other chemicals to the moisture. Just above the compartment, the mud plaster turned to a very fine powder. Sand, which filled the first compartment to the north, also wicked up the ground water. The plaster on top of this compartment deteriorated but did not turn to fine powder. The dampness and salt so undermined the mudbrick fabric of the platform containing walls, that by mid April 2007, the entire northwestern corner of the platform had collapsed (fig. 8). We concluded that the best separation layer is the rough gravel while potsherds are the worst.

Of all the test walls and platforms, the eastern platform fared the best. It has the advantage of occupying higher and drier ground than the other platform, but the most significant factor is the tar paper that we laid underneath the entire structure. The platform remained completely dry and unblemished as of April 2007.

As for the ETH, it stands high, dry, and relatively free of erosion at the time of this writing, after one and a half years of exposure. Some plaster has fallen from the upper edges of the walls, which we did not cap with an overhang. It is noteworthy that plaster applied to the walls in thinner coats has performed better than thicker coats. The floors show some slight wear already from visitors.

Conclusions

The reconstructed ETH is a dramatic presentation of the architecture that once stood on the site. Inspiring to our team, the mudbrick compound is also of great interest to visitors and colleagues. Building it has been a valuable exercise, generating new ideas and hypotheses about how the ancient inhabitants constructed and used these spaces.

Although we had considered capping the walls, we believe that we chose a far more appropriate solution to conservation for our site by preserving the ancient house compound through reburial and showing it as a replica. This approach preserves and protects the original fabric under a thick separation layer of clean sand. It offers scholars and other visitors a very good facsimile in the exact location of the original. And, finally, it can be reversed—we can remove the reconstruction and study the original intact.

Once the ground water subsides we plan to

6. The north-south row of test walls (M, N, O and P), all showing bottom deterioration. View to the south-east.

7. Toppled test wall K. The adjacent test wall (L) still stands but its base is badly eroded, in the background the Gallery sample wall (GWS) also showing deterioration of the plaster at the bottom. View to the east.

8. Deteriorated western platform (platform 2) with collapsed corner, in the background the north-south row of test walls (M, N, O and P) and platform 1. View to the south-east.

reconstruct three more structures, drawing upon the lessons learned from the test walls and platforms, as well as the ETH project. We hope that in a few years visitors to Giza will be able to view not only the ETH, but also replicas of Gallery III.4, the Hypostyle Hall, and portions of the Royal Administrative Building. ■

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Saving Hibeh: The Preservation and Conservation of the Archaeological Resources of Tell El- Hibeh, Beni Suef Governorate, Egypt

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1. One of the Coptic mummies removed from NGLP in 2004.

Tell El-Hibeh, located in lower Middle Egypt approximately 110 miles south of Cairo on the eastern bank of the Nile River near the town of El-Fashn, has long been recognized as an archaeological site of considerable importance. The site of a temple built by Pharaoh Sheshonq I in honor of the god Amun, Hibeh currently exhibits evidence of occupation or use from at least the Third Intermediate Period through the Islamic Period.[1] Temple village, way station between Upper and Middle Egypt, an administrative center, a fortress, and an important necropolis are just a few of the functions currently recognized as being part of the complex history of Hibeh. Many important papyrus documents are attributed to this site, including the Petition of Petiese, as well as the Tale of Wenamon, in addition to hundreds of other less complete papyri dating to the Graeco-Roman Period.[2]

Several archaeological expeditions have targeted Hibeh for investigation in the past including Kamal,[3] Grenfell and Hunt,[4] Ranke,[5] and Parabeni.[6] Unfortunately, the methods of recovery and recordation employed during these excavations do not provide specific provenance for any of the significant artifacts and papyri, and, in fact, have helped contribute to the degradation of the site since many of the massive areas of excavation were never backfilled and continue to erode and provide opportunities for looters. A more

systematic approach was utilized by Wenke[7] with students from the University of Washington during one season at the site in 1980, but no subsequent work was conducted by this investigator.

In 2001, a team from the University of California, Berkeley headed by Dr. Carol Redmount, began a program of damage assessment of El-Hibeh, including an investigation of ground water and erosional damage on the Sheshonq temple.[8] Subsequent seasons of research have followed up on these studies as well as conducting an evaluation and salvage of endangered human remains, including mummies, on or near the tell. In 2004, salvage operations were undertaken at two locations, Burial Cave 1 (BC-1) and the North Gate Looter Pit (NGLP), where human mummies were being actively vandalized and/or damaged by feral dogs; mummified remains representing at least eleven individuals were recovered during this season and stabilized.[9] Additional work was undertaken in the salvage of Coptic-age mummies from NGLP in 2005. [10] Archaeometric studies utilizing a portable x-ray unit designed to identify various ceramic clay sources[11] and mudbrick clay sources[12] have also been undertaken in the past few seasons.

During the recent work at El-Hibeh, the UC Berkeley team had noted several instances of continuing site degradation that included significant wind erosion that impacts both burials and tombs, dangerous subsidence of covering soils revealing gaping sinkholes on top of the tell, and the continuing disintegration of mud brick architectural features and building, and further tomb looting. Additionally, an intensive survey of the area just north of the tell was needed to assess the condition of various looted tombs and human remains that had become exposed during looting activities. In an effort to address many of these issues of site destruction, the authors sought funding from the Antiquities Endowment Fund for the 2006 field season. Thankfully, the project was funded and a team was assembled consisting of core staff and graduate students from both UC Berkeley and California State University, Bakersfield.

There were five main components to the project proposed for the conservation, preservation, and documentation of certain aspects of Tell El-Hibeh that we have determined require immediate attention. The first component addressed the stabilization of certain tomb or major burial areas that had been recognized over the past few seasons which required erosion control and in-filling. The second involved the stabilization of certain features upon and within the tell (including tunnels and large building interiors) that had been observed to continue to subside in a dangerous manner, not only endangering the lives of the project team members, but further damaging important archaeological features and materials within the tell. The third component involved the stabilization of various mud brick building walls, mostly of Roman-aged walls that, having been undercut by various erosional factors, continue to topple at an alarming rate. The fourth was the detailed bioarchaeological survey of the Northern Necropolis area north of the tell to identify, document, and salvage any important disturbed graves that might occur in the area. Finally, it was of the utmost importance to provide a proper storage space for the numerous mummies that had been recovered the previous seasons as described above; to this point, these remains had been stored temporarily on the floor of one of our site guard shacks. This was a tall order to be filled in the allotted six weeks between the beginning of July and the middle of August (although some of the tasks were initiated by an advance team in May).

Endangered Tomb and Burial Stabilization

Three major burial or tomb areas were focused upon during the 2006 field season for stabilization and documentation: North Gate Looter Pit (NGLP), Burial Cave 1 (BC-1), and Limestone Shaft Tomb 1 (LST-1).

North Gate Looter Pit (NGLP)

This locality has been the focus of salvage operations over two previous seasons under the direction of the author. The excavation of this large "looter pit" at some time in the past century (perhaps by Grenfell and Hunt in 1906?) had exposed numerous mummies and shrouded burials, likely dating between the periods of A.D. 100 to 600; these remains have continued to erode out of the side walls of the pit, causing significant damage to some of the bodies. The pit is large in size (8 m in diameter and nearly 4 m in depth). During the 2004 and 2005 field seasons, a total of 8 mummies were

rescued from this feature, but it is clear that others are present, perhaps in great numbers (Figure 1). Although the most obvious mummies had been salvaged during these seasons, there was continuing concern that the great size of the feature and its easy access would continue to make this gaping hole an open gateway for future looters.

The goal of the season for this unsightly pit was to "reclaim" this part of the site by completely backfilling the feature in by using a combination of geotextile, 55-gallon steel drums, sandbags, and sterile sand. It was determined that this would be the only way to adequately fill the massive volume needed with the resources at our disposal in Middle Egypt. As usual, things are never as easy as they should be. We ended up substituting burlap for traditional geotextile just because it was a material we could obtain in Egypt and would last millennia in the dry soils while providing a strong barrier between archaeological soils and sterile in-fill. Finding any type of steel barrel is no simple matter in Egypt, and required considerable effort even to find used barrels. Yet, in spite of the difficulties, the task was accomplished. Sixty barrels, nearly a thousand sandbags, then several truck loads of clean sand made for a remarkable transformation and the stabilization of a very important part of the site (Figure 2).

2. Three views of NGLP: The pit as it appeared at the beginning of the 2006; the pit in the process of being filled; and the final covering of clean sand.

Burial Cave 1 (BC-1)

BC-1 was another focus of mummy salvage efforts in 2004; the damaged mummies of at least 5 individuals and skeletal remains representing another 14 individuals were recovered at that time.[13] This tomb feature appears to date between Ptolemaic and Late Roman times based on the presence of various time-sensitive artifacts (i.e., mummy masks and coins). The back half of the tomb was excavated, in part to bedrock, and had been left open following the investigations to facilitate further study at some point in the future.. Unfortunately, erosion, canid activity, and the actions of curiosity seekers had resulted in subsidence of the southern baulk, causing damage to the archaeological deposit in front of the tomb.

As with NGLP, the excavated portion of the pit was lined with our version of geo-textile and filled to the proper elevation with sandbags, then topped with clean, sterile sand. We had originally proposed installing a series of overlapping sheet metal plates over the surface of the interior floor of BC-1to help thwart the scavenging efforts of feral dogs, foxes, and jackals, but realized that the result would be very unsightly and probably not very effective (as the sheet metal would likely migrate shortly after our departure).

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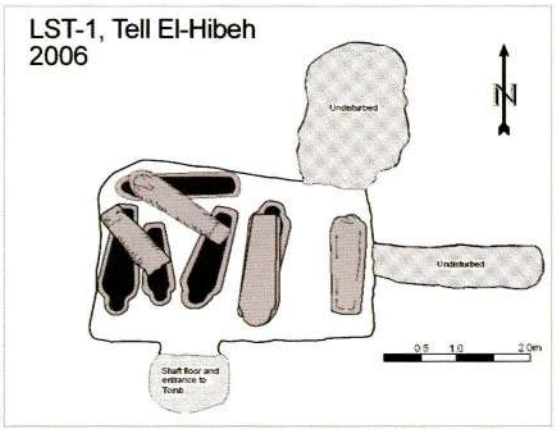

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numerous shaft tombs, all of which have been looted to one degree or another. Upon investigation, LST-1 was found to contain at least three rough-hewn limestone sarcophagi and numerous pieces of painted coffin wood which may date as early as the Third Intermediate Period. Although the tomb has been looted, the side galleries with their heaps of human and non-human vertebrate remains appear to be mostly undisturbed. It was our belief that this tomb had the potential to yield additional significant information, so the objective of the 2006 season was to stabilize, evaluate future research potential, and institute protective measures to keep both animals and humans from entering and further disturbing the tomb.

Work in this tomb was the most complicated and time-consuming of the proposed field activities for the 2006 season. First, the disturbed fill was removed from the shaft in arbitrary 10-cm. levels and sieving all the soil through 1/8th-inch screen (Figure 3). Once the entry way to the tomb was fully exposed, the interior was cleared of wind-blown trash, debris and sand fill, the latter of which was also sieved for artifacts and bones that were not taken by looters. The main chamber of the tomb, measuring 3 x 4 m, contains six rough-hewn limestone sarcophagi (Figure 4). All sarcophagi had been vandalized and were empty of intact remains. They are all anthropomorphic in shape and vary in length from 125 to 190 cm. Additionally, many fragments of wooden coffins were also recovered. The rectangular tomb was found to contain two galleries (I and II), each of which are filled with mounds of domestic sheep (Ovis aries) bones. The northern gallery (Gallery I) is 2.4 m in length and 1.3 m at its widest portion, while the eastern gallery (Gallery II) is 2.3 m long and 0.65 m wide. The galleries were not cleared of this bone and will be studied in greater detail during a future season of work at the site. Among the general debris in the main chamber of the tomb were many human and sheep bones. A preliminary examination of the human bone suggests that the tomb contained the remains of at least nine individuals, ranging in age from small children to mature adults.

Once the interior of the tomb was cleaned out and documented, a custom-made rebar cage measuring 3 x 3 m. was placed over the entrance of the tomb shaft and cemented deeply into the limestone (Figure 5). The

3. Robert Yohe standing in the LST-1 in the process of clearing accumulated sand and debris from the shaft. Note the height of the fill in the door way to the tomb interior.

4. Plan view of LST-1.

5. Rebar "cage" over the shaft entrance to LST-1 at the close of the 2006 season. The cover is anchored into the limestone with cement.

Limestone Tomb No. 1 (LST-1)

During the 2005 field season, a disturbed shallow shaft tomb with an expansive room and two side galleries filled with sheep and human bone was discovered and designated LST-1 during reconnaissance work southeast of the tell. In this general area are found evidence of

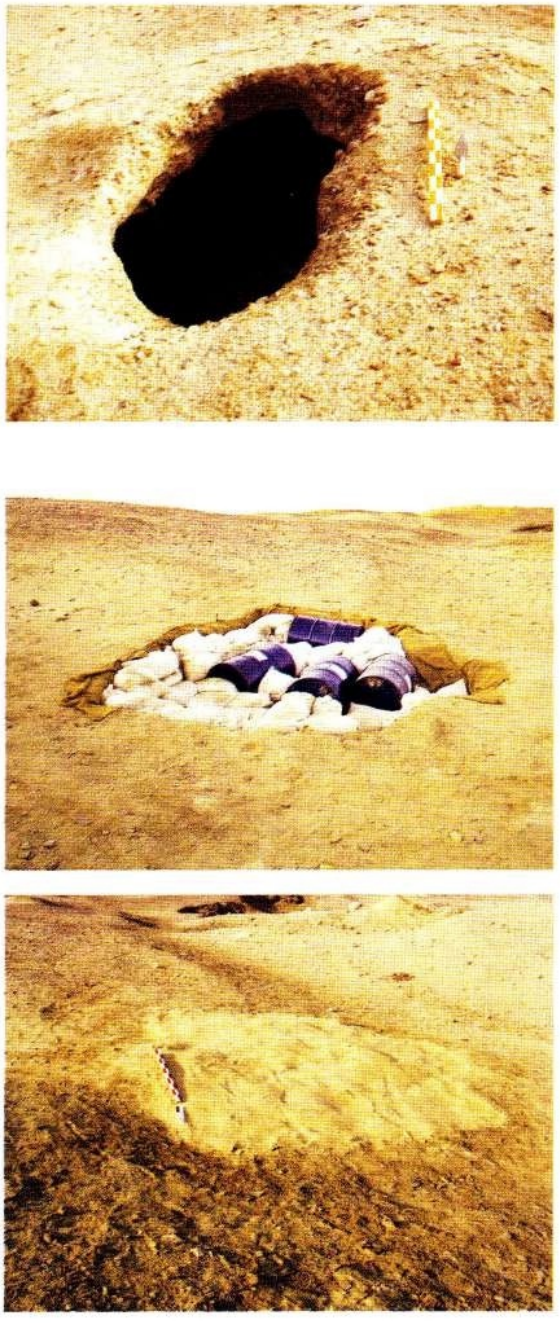
grate has a padlocking door in the center to allow for future access by researchers. It is our hope that these measures will ensure long-term protection for this interesting tomb.

Stabilization of Tell Surface and Architectural Features

Addressing Subsidence and Cave-In Issues on the Tell

Project personnel had monitored several spots around the central portion of the tell over the past few seasons and had noted areas of possible collapses into empty rooms in buried buildings and covered passages. Of great concern was a new collapse just discovered during the 2005 season, measuring nearly a meter wide and two in length with maximum depth of 2.5 meters that opened into a void of considerable volume. We originally believed that this phenomenon might be the result of tunneling looters who had dug out the interior of tombs, house courtyards, or rooms within domestic structures. Since looters had left a series of potentially dangerous shafts, we thought it important to fully document and evaluate these and stabilize those that had the greatest potential of causing harm to people or underlying archaeological features.

All areas of potential danger were located, evaluated, and slated for appropriate stabilization. Most of the pits appeared stable enough and did not pose any sort of threat, with the exception of two "sinkholes," SH-1 and SH-2. SH-1 was indeed the sinkhole that had appeared mysteriously on top of the tell in 2005 and its undercut opening posed certain danger to anyone unaware of the situation walking close to the edge. The stabilization strategy was to carefully cut back the undercutting to where all the walls of the hole were made perpendicular with the surface. The archaeological evaluation of the hole suggests that it was likely the subsidence of very fine, loose soil beneath heavier debris that was a mix of cobbles, modern and ancient refuse, and sand, all likely part of an older looting event. No clear undisturbed archaeological feature of significance was noted, and the pit was treated like NGLP and BC-1, being lined with textile prior to filling with sandbags, steel barrels, and a final layer of capping sand (Figure 6a, b, c).



6. Stabilization and infilling of sinkhole SH-1.

The second sinkhole, SH-2, was determined to be part of a looted shaft tomb. Dangerous overhanging soils were removed and/or cut back, and basic documentation was completed. This feature was not backfilled because those dangerous aspects of the surrounding unstable surfaces were addressed and archaeological investigations are likely to occur at this location in the relatively near future.

7. Maury Morgenstein ar Malia Johnson putting the finishing touches on the cement and rebar suppor beneath a severely under wall on top of Tell El-Hibe

Stabilizing Falling Walls on Roman-Aged Mud Brick Structures

Many mud brick buildings found in the southern portion of the tell are in an excellent state of preservation, but there are others that have not borne the burden of time as well. Several walls are now experiencing a degree of undercutting, due in some cases to differential weathering, that are causing the collapse of some walls. We proposed emergency stabilization of walls that merited such measures in our proposal for addressing the multitudinous issues facing Hibeh.

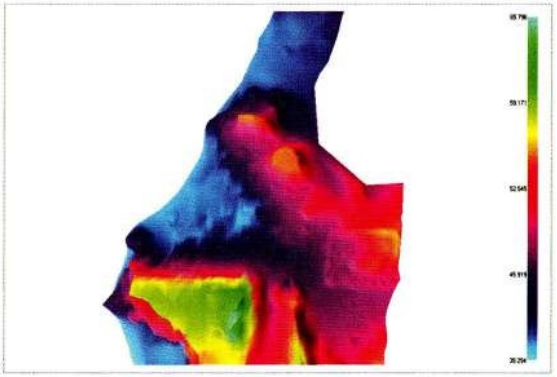
Each of the standing structures in the south half of the tell were evaluated for general condition, level of damage and suitability for stabilization. Preference would be given to those structures or walls that are undercut or had shown recent loss of brick. Wooden cribbing would be used, but the wood would be disguised with local mud plaster so as not to distract from the aesthetic values of the buildings or walls. After considering multiple factors, we settled on the single worst case of an undercut mudbrick wall to see how our hypothetical support structure would hold up over the course of a year before we continued this approach on additional walls.

As can be seen in this rather extreme case of undercutting, a wood and rebar support was placed under the gap and filled with cement, which was then coated with surrounding eroded brick dust to give the repair a more natural appearance (Figure 7). This repair will be monitored over the next few seasons to see how it holds up under the stress of the compromised wall and other factors such as wind erosion.

The Mapping and Evaluation of the North Field Necropolis Area

The expansive burial/tomb complex just north of Tell El-Hibeh has produced extremely important papyrus documents from huge stores of mummy cartonnage, but at present it appears to be a disarray of looted tombs and scattered human bone. An extensive and considerable amount of bioarchaeological data was believed to still exists in this area, and one of the tasks for the 2006 season was to further explore this possibility. Students with bioarchaeological training under the supervision of the author systematically assessed the area and GPS technology was used to locate the areas of greatest disturbance and greatest scientific potential (Figure 8).

The degree of devastation that has occurred to this area and its many tombs is horrific, an all too common fact for much of Egypt. We were able to locate four areas that may still contain useful human skeletal data with some context, but all have been disturbed to at least some degree. Each was given a North Field Necropolis designation (NFN-1 through -4). NFN-2 had been discovered due to looting activity that was taking place at the site during our 2004 field



8. A 3-D GIS map showing the area of the North Field Necropolis.

season. During this time, several Late Roman/Coptic mummies had been partially exposed by relic hunters; these individuals were reasonably well preserved and buried without coffins, some between natural fissures in the limestone. These had been backfilled at the time and had seen no subsequent abuses. We decided that owing to the space problem we faced with regard to storing additional mummies (this was before we had completed the construction on our mummy storage facility), combined with the fact that these bodies did not seem to interest the local artifact seekers, that we would leave these remains undisturbed until a future season. NFN-3 is a ravaged tomb location just west of the highest limestone outcropping in the necropolis area. Although out of direct context, the skeletal remains are complete enough to provide osteological data, and artifacts provide some rough chronological information (Late Roman). NFN-4 is a looted tomb at the base of the northern wall of the tell with numerous human remains and the potential to relate them further to the incompletely excavated tomb. Surface collections of artifacts and human remains were made at NFN-3 and NFN-4 and will be subjected to further osteological study during subsequent seasons.

However, of the four areas identified during this phase of the investigation, NFN-1 was determined to be the most endangered. This eroding, partial mummy had been identified the previous season, and was specifically mentioned in our AEF grant proposal as being a target for salvage efforts. Given its proximity to the paved road that runs less than 50 m west of the remains, it appears that the disturbance here was to remove soil for fill elsewhere rather than intentional vandalism. The area here was grided, mapped, and excavated using hand tools, with all soils being sieved through 1/8-inch hardware mesh. To our surprise, it turned out that the remains consisted of two linen-wrapped individuals, not one. Both individuals had been severed above the waist by the soil removing event that had exposed the remains to further erosion. Typical of Coptic burials, these individuals were buried with the head-west/feet-east orientation, the northern individual an adolescent female, her burial partner to the south a fully adult male. These partial mummies were mapped, photographed, and removed for storage (by this time our mummy facility was being built on site). The open excavation was filled with linen sand bags and covered with clean sand, all to further stabilize the slope and discourage looting.

Stabilization of the Hibeh Mummies: The Construction of the Mummy Room

The conundrum faced by our team during previous seasons at Hibeh was how to properly care for human remains, especially mummies, once they are rescued from the ravages of the outside world. For two earlier seasons, we had commandeered one of the plain block guard houses that sat on the high limestone point about two hundred meters north of the tell, arranging our mummies on synthetic woven mats placed on the bare earth floor. No further salvage, or research devoted to the biological/anthropological study of the ancient inhabitants of Hibeh, was possible without first addressing the problem of storage. During the summer of 2005, a large block-wall storage magazine was built at the extreme north end of the Hibeh site area, bordering the southern edge of the village of el-Ogra. This was an excellent compliment to our two laboratory "caravans" (small metal trailers serving as osteology and artifact processing labs), providing an additional 2,000 feet of storage/lab space. We originally considered constructing a separate building to house our growing inventory of human remains, but after discussing the matter with a number of potential architects and considering the costs of such a venture, it was decided to add a dedicated room to the interior of the magazine that would house the Hibeh mummies. This approach was congruous with the SCA's desire for archaeological materials recovered

during investigations to stay on site, plus made transport of the remains easier and less apt to cause damage to the bodies. A 12 x 14 ft room was designed and then constructed by a local architect, with a raised, waterproof floor (Figure 9). A high-quality wooden door with a lock provides access as well as control of entry to the facility. To further waterproof the base of the walls of the entire magazine, the outside of the foundation was excavated and coated in asphalt (a problem with an overflowing sewer behind the adjacent guard building made us very much aware of the potential damage we could face from water as we watched it seep through the wall!). A custom-made wooden examination table would allow for comfortable analysis and several new metal shelves would now serve as the new, elevated resting places for the Hibeh mummies, all of which were added to the room once it was completed (Figure 10). Not only is the new facility user-friendly to the visiting researcher, but it will help preserve the current and future Hibeh human remains for centuries to come.

Although many important steps were taken this past season to ensure the future survival of the rich archaeological heritage at El-Hibeh, we see this as only the beginning of a long-term commitment to both preservation and research at one of Egypt's forgotten sites. ■

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11. Maury Morgenstein and Carol Redmount, *"Using Portable Energy Dispersive X-ray Fluorescence (EDXRF) Analysis for On-Site Study of Ceramic Sherds at El Hibeh, Egypt."* Journal of Archaeological Science 32 (2005) 1613-16523.
12. Virginia Emery and Maury Morgenstein, *"Portable EDXRF Analysis of a Mud Brick Necropolis Enclosure: Evidence of Work Organization, El Hibeh, Middle Egypt."* Journal of Archaeological Science 34 (2007) 111-122.
13. Yohe and Gardner.

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9. The beginnings of the "Mummy Room" during early construction phase.

10. The storage of mummies on metal shelves will help ensure the preservation of these delicate resources.

Preparation of Existing Condition Reports for Tombs in the Valley of the Kings, Luxor, Egypt

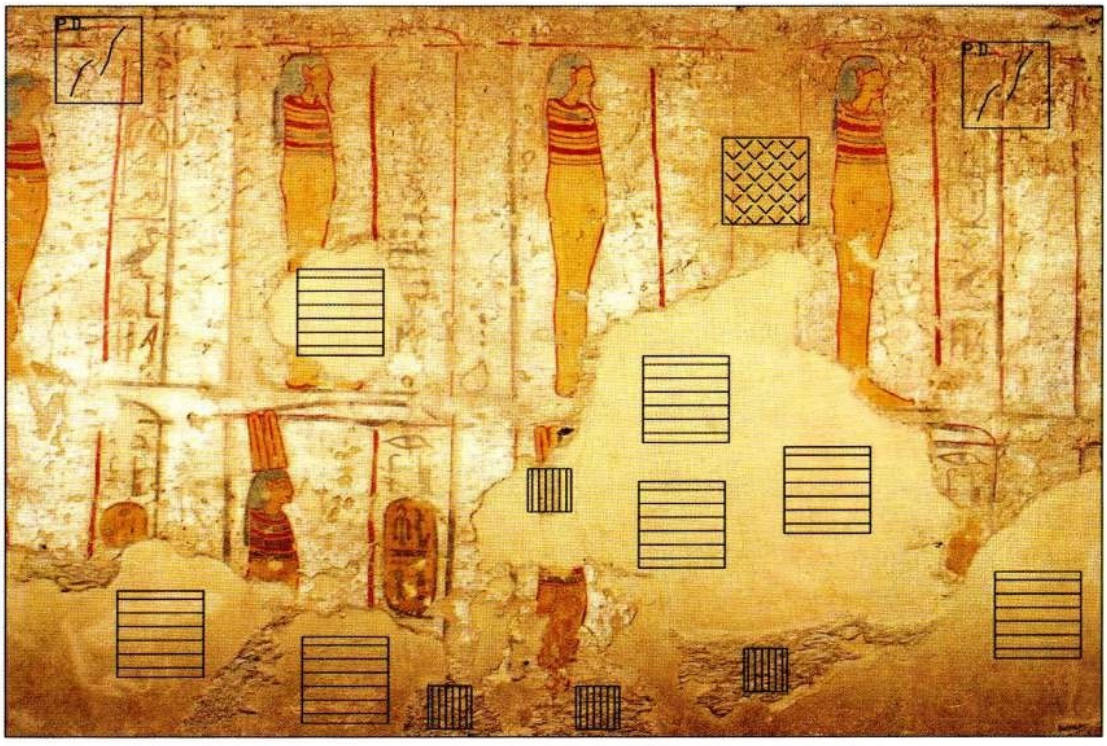
Kent Weeks

Dr. Kent Weeks is the Director of the Theban Mapping Project.

Theban Mapping Project

The Theban Mapping Project (TMP) was established in 1979 to prepare a detailed map of the Valley of the Kings (KV) and architectural plans of its tombs. The result of that work was the Atlas of the Valley of the Kings, published in two hardcopy formats, a boxed set of loose sheets, and a spiral bound "Study Edition." It is also available, with substantially more data, on the TMP's website, www.thebanmappingproject.com.

The Atlas was intended to lay the foundation for a comprehensive management plan of this famous archaeological site, something that we believed to be essential if the Valley of the Kings was to be adequately protected. But to succeed, any management plan requires not only that maps and plans be drawn, but that detailed reports are prepared on the condition of the Valley, its tombs, and their contents. An archive documenting the structural, environmental, and archaeological changes KV has undergone—and continues to undergo—has to be established. Carefully crafted procedures for site management, including environmental monitoring and controls, a program of regular maintenance and



Symbols and written descriptions were used to record current conditions.

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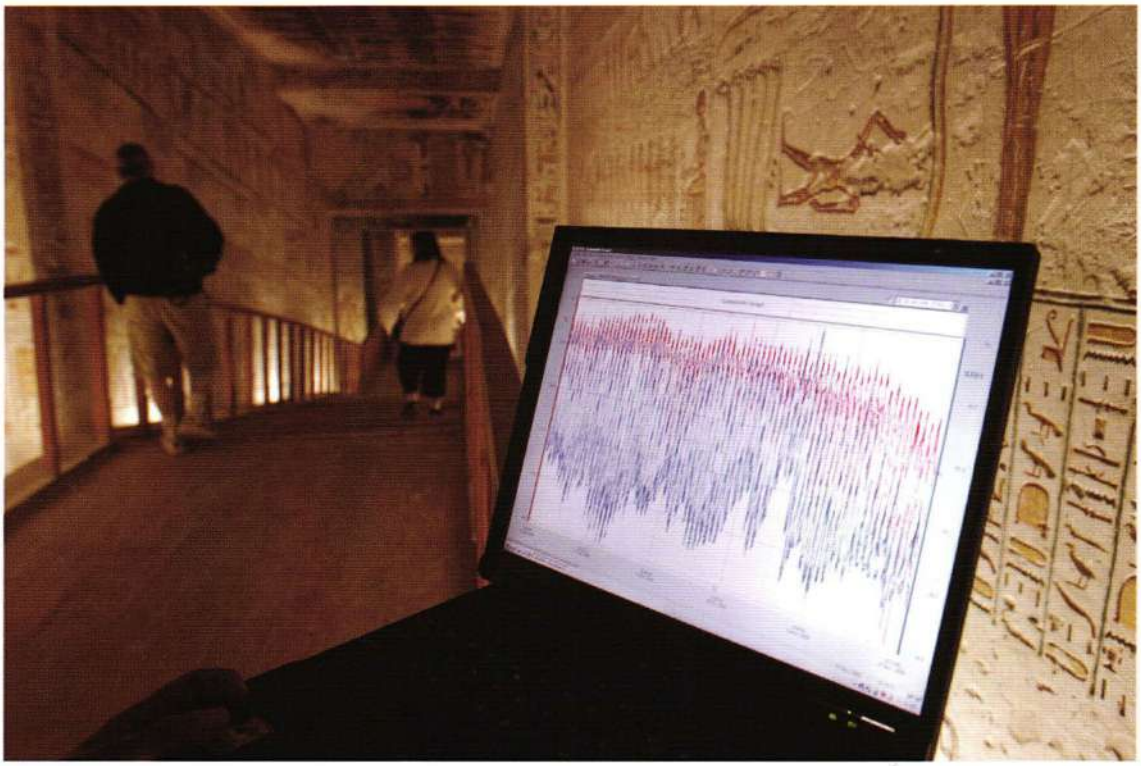


Surveys of environment conditions in tombs wer compiled.

inspection, and systems to control mass tourism (something Thebes was already beginning to experience in the 1980s) must be put into practice.

We believe that only with the establishment of practical, long-term plans for the management of KV can we hope to protect its monuments from the pressures to which they are subjected. Foremost among these pressures is the rapidly-increasing number of visitors. Ten years ago, KV received about 1,000 visitors a day; today, it receives over 7,000; by 2015, the Ministry of Tourism hopes to make that 15,000. Such numbers pose serious threats to the very survival of KV. The pressures faced by KV are great, and they are growing. Some of our colleagues have argued that, if nothing is done to protect its monuments, many will cease to exist within the next 25 years; other colleagues say that the damage will be done in less than a decade. Urgent though the problems might be, however, their solutions must be based on careful study and monitoring, not on untested, last minute "quick fixes." That is why the TMP believes that no work should be undertaken in any KV tomb, or to the fabric of the site as a whole, until what are called "existing condition reports" have been prepared. Only when we have a comprehensive record of the monuments we want to protect, know precisely what kinds of problems they face, how those problems interact with each other, why they developed, and how they are growing, can we safely implement procedures to minimize their deleterious effects.

Recently, thanks to the financial support of the World Monuments Fund, the TMP Foundation, the American Research Center in Egypt's Antiquities Endowment Fund, and private donors, the TMP has prepared existing condition reports on those tombs in the Valley of the Kings that are currently open to the public or that may be opened within the next few years. These existing condition reports include complete and detailed photographic coverage of all decorated tomb walls, pillars, ceilings, and general coverage of all chambers; the acquisition of historical images that allows us to trace changes in condition over time; and the preparation of conservation surveys that document the current condition of tombs and their decoration. With these data in hand, we will be better able to make appropriate plans for the tombs' protection.

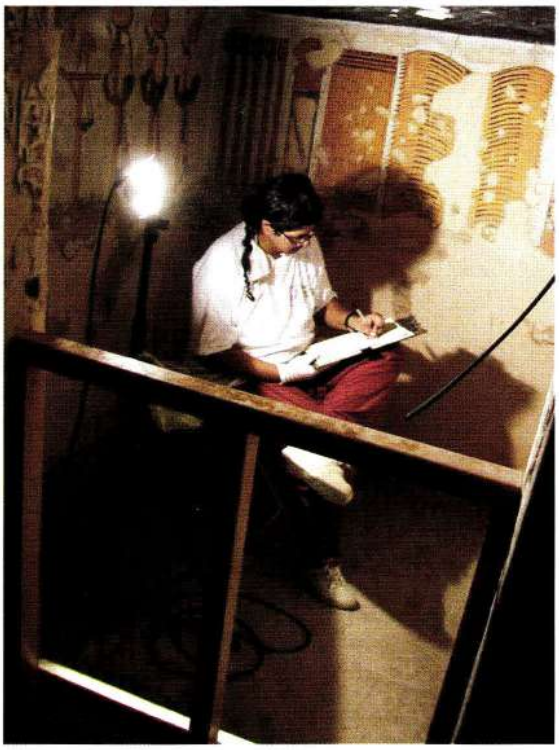
Photography of the KV tombs was undertaken by Matjaž Kačičnik and Francis Dzikowski in the fall and winter of 2005 and spring of 2006. Work in closed tombs proceeded fairly quickly. But it was very slow in tombs that were open to the public. There, our photographers could only work between the hours 1400, when tourist numbers declined, and 1800, when local security police insisted the Valley be vacated.

Nevertheless, we have been able to completely photograph and document the following:

- KV 1 Rameses VII
- KV 2 Rameses IV
- KV 6 Rameses IX

- KV 9 Rameses V & Rameses VI
- KV 11 Rameses III
- KV 14 Twosret & Setnakht
- KV 15 Seti II
- KV 16 Rameses I
- KV 23 Ay
- KV 34 Thutmes III
- KV 35 Amenhetep II
- KV 47 Siptah
- KV 57 Horemhab
- KV 62 Tutankhamun

Three tombs were not recorded as part of this project. KV 17 (Seti I) was not photographed because of the inordinate amount of time and money the undertaking would have required. Since the tomb has been comprehensively photographed several times during the past two decades by other projects, we felt that it could safely be excluded from this study, and our limited funds used to record less well-documented tombs. KV 8 (Merenptah) could not be photographed because of extensive work being conducted at the time of our field work by the SCA (who were installing new walkways and lighting) and by a French mission (who were clearing chamber J's side-chambers). KV 19 could not be photographed because the SCA determined that it was too dangerous to remove the 1.5 x 3.4 m. glass panels mounted some years ago in front of its decorated walls. We hope that KV 8 and 19 can be added to our survey in a subsequent season.



Conservators examine and describe the condition of KV tomb walls.

Our photographers used digital cameras with various lenses. Lighting was provided by two to eight 1000-watt incandescent lamps with umbrellas to ensure even lighting of tomb walls. Both large-scale and detailed images were taken. In all, over five thousand images were shot, and from them a selection was made to provide complete tomb coverage. The images, in Nikon Electronic Format, were edited using Photoshop CS to correct for differences in lighting, shading, and color. The results are as clear and as close to reality as possible. Copies of the images are stored on external computer hard drives and on DVDs, and sets have been placed in the offices of the SCA (in Luxor and Cairo), the Centre du Documentation (in Zamalek), ARCE (in Cairo), the TMP offices in Cairo and Luxor, and the World Monuments Fund (in Paris and New York). Soon, a complete set of images, in Zoomify format, will be available on the TMP's website.

Existing condition reports on each tomb were prepared by three project members: Lotfy Khaled, Lamia el-Hadidi, and Dina Bakhoum. The structural condition of each tomb was noted, and the condition of all decorated walls described in detail. Nearly all of the tombs studied shared similar problems. These included: cracks in walls and pillars, ranging from minute to large; loss of plaster layers due to natural and human causes; loss of color, due to the strength of binding agents or the size of particles from which the pigment was made; salt efflorescence, due largely to flooding; dust accumulations; and graffiti. In many tombs, inappropriate modern conservation and engineering work has resulted in streaking and spattering of modern materials on walls, staining and darkening of original pigments, and the plastering over of early graffiti and ancient relief. The installation of glass panels, wooden walkways, and electrical cables have also done occasional harm.

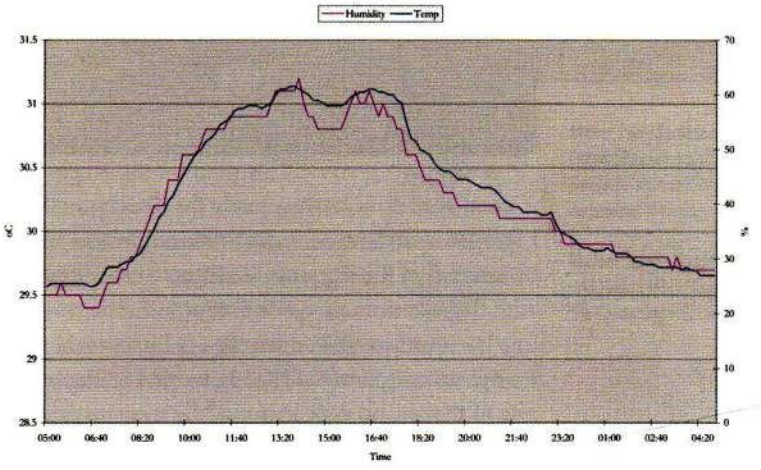
The monitoring of temperature and humidity levels in several tombs shows that large numbers of visitors

Photographer Matjaž Kačičnik in KV tomb. Complete digital images were made of decorated KV tomb walls.

Some tombs—this is KV 9—show dramatic changes in temperature and humidity readings, apparently due to the number of daily visitors.

can produce dramatic spikes in levels, and certainly have a significant negative impact on the stability of ancient pigments. For example, in KV 9, temperatures in the tomb could move from 21 Celsius at 0500 to 33 Celsius at 1700, then drop back to 21 Celsius by 0500 the next morning. Humidity level could move from 15% at 0500 to 76% at 1700. After the tomb had been closed to the public for two weeks, the levels stabilized at about 27 Celsius and 30% throughout the day. The TMP is working with several Egyptian and international engineering firms to develop proposals that will stabilize levels, even when large numbers of visitors enter the tomb.

Like the photographs, the existing condition reports have been distributed to the agencies noted above, and are being translated into Arabic for the use of SCA staff in Luxor. In addition, they will be added to the TMP's website. All of these data and photographs also appear as appendices in the TMP's Valley of the Kings Management Plan—co-authored by site management specialist Nigel J Hetherington and myself—submitted to the SCA in 2006 and scheduled for publication in 2007. That plan, the result of several years' work and the compiling of literally hundreds of source documents, will form the basis of future work in KV. We believe that there is not necessarily any inherent conflict between archaeological site protection and tourism, as long as the needs of both are carefully planned for and studied. The existing condition reports and photographic survey that we have now completed form a very significant part of that process. ■



A New Display for the Oldest Objects: The Predynastic Period in the Egyptian Museum, Cairo

Peter Lacovara

Dr. Peter Lacovara is Senior Curator of Ancient Egyptian, Nubian, and Near Eastern Art at the Michael C. Carlos Museum at Emory University.

New Upper Egyptian Predynastic Case being installed.

A number of projects to upgrade the displays in the Cairo Museum have been undertaken in recent years by the staff of the Egyptian Museum in collaboration with the American Research Center in Egypt.
The latest project was undertaken to improve the Predynastic display (Gallery 53), located on the main axis of the second floor in one of the most prominent areas of the Museum. Despite its central location and its proximity to the recently renovated and very popular Animal Mummy Gallery (Gallery 54), the display had not been substantially updated since its initial installation by Brunton over half a century ago. Given both the advancement in our knowledge of the period and advances in the technology of exhibition design, it seemed that this area was very much in need of attention.

antiquities endowment fund grants

In a multi-phase effort funded by ARCE's Egyptian Antiquities Project (AEF), and beginning in December, 2004, staff from the Michael C. Carlos Museum at Emory University, under the direction of Peter Lacovara, along with co-director Dr. Salima Ikram of the American University in Cairo, worked with the staff of The Egyptian Museum in Cairo in a continuation of a collaborative program to reinterpret, upgrade and re-install the Predynastic Egyptian display.

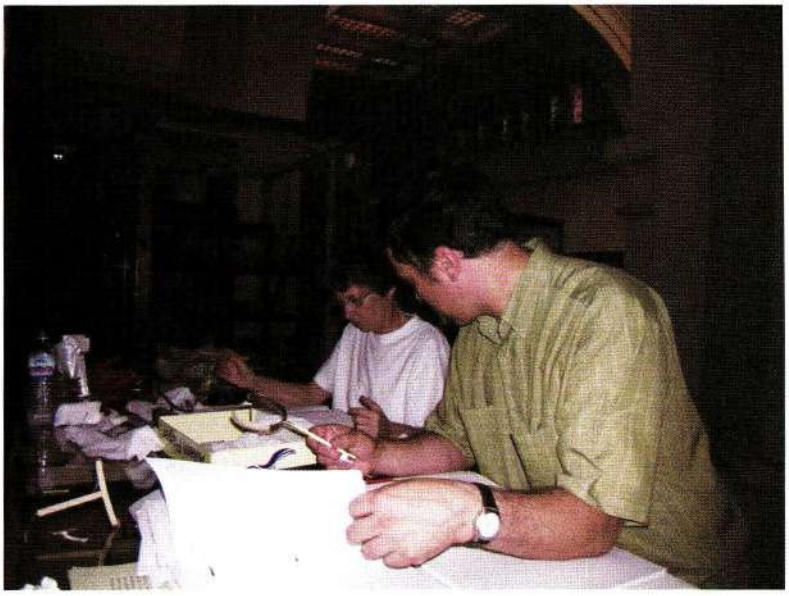
The process began with the examination of each of the 160 objects selected for the final installation. Working with Cairo Museum staff, all the objects were reviewed. A selection was made of both the most common as well as more unusual artifact types from each of the main phases of the Upper Egyptian Predynastic [Badarian, Naqada I (Amratian), Naqada II (Gerzean), Naqada III (Late Gerzean to Dynasty 0)]. Those objects requiring immediate conservation were treated by the Egyptian Museum's conservation laboratory along with Carlos Museum Conservator Renee Stein and in the second phase, Santa Fe Cart Museum Conservator, Maureen Russell. Artifacts not requiring treatment and selected for re-installation were fitted for mounts and returned temporarily to their old display/ storage locations to await installation in the new case. All objects were photographed and documented in written condition reports.

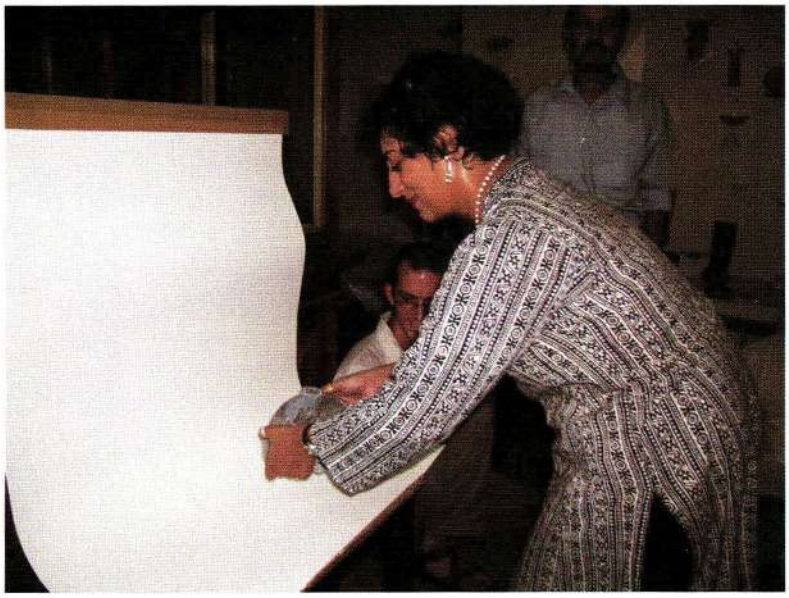
In December 2006, the second phase of the project was undertaken, this time to create a new, matching case to house the Lower Egyptian Predynastic material, specifically that from the site of Merimde.

Additional thematic cases included jewelry and objects of personal adornment, tools and items of manufacture.

As in Phase 1, the objects selected for the Second Phase were those that were currently on display or that were in storage. These were surveyed and condition and conservation needs were noted. In addition, three existing cases were re-lined and re-organized for the display of Predynastic jewelry, sculpture and decorative arts. Other existing cases were re-arranged to provide a better overall view of the sequences on display in the new cases. It is hoped that some of the material in these extraneous cases may be used to supply material for new museums under construction in Egypt thus clearing away the remaining clutter in this area.

Now that this project is completed, it has not only dramatically improved the appearance of this prominent part of the Museum, but more importantly, this new installation will give the visitor a much-needed introduction to the beginnings of Egyptian civilization and help preserve, for future generations, these important relics from Egypt's most ancient roots. ■





Above: Peter Lacovara and Carlos Museum designer Nancy Roberts checking customized mounts.

Bottom: Salima Ikram and Mahmoud el-Hewagy photographing objects.

Gestures of Offering in the Temples of Seti I and Ramesses II

Katherine Eaton

Katherine Eton is an Independent Scholar and received an ECA Department of State Fellowship in 2006-2007.

1. Seti I presents ointment in a double presentation. From the Temple of Seti I at Abydos.

Thanks to a fellowship grant from the U.S. State Department Bureau of Educational and Cultural Affairs, administered by the American Research Center in Egypt, I had the opportunity to study gestures of offering in the Temples of Seti I and Ramesses II in the spring and summer of 2007. I initially focused on white bread and mD-ointment. A broad trend immediately became apparent. mD-ointment is depicted being presented in many different ways – using seven distinct gestures or modes of presentation (Chart 1). Although some of these modes are uncommon, none clearly dominates. In contrast, out of the eighty-two bread offering scenes with gestures surviving from those same monuments, all but three depict the king presenting conical loaves with the 'protective gesture' (Figs. 2-3). This difference transcends major stylistic changes during the time period. Moreover, although some modes of presentation, like the two-handed tilt (Fig. 6), may not have worked with the form of conical loaves of white bread, several gestures appropriate for its form were rarely (arm-by-the-side appears once in the Great Hypostyle Hall at Karnak and double presentation appears twice in the Great Temple at Abu Simbel) or never used.

As I extended my analysis of gesture to a wider range of offerings, I found that these trends are part of a larger division between offerings for which one mode of

Chart 1: Gestures the king is depicted using in presenting mD-ointment.

Location / Gesture	Seti I's Abydos Temple	Seti I's Theban Temple	Great Hypostyle Karnak	Luxor First Court	Ramesseum Great	Abu Simbel Temple	Total
two-handed tilt	29	1	13	2	1	0	46
pinky gesture	13	4	11	2	0	4	34
double presentation	14	5	7	1	3	3	33
protective gesture	6	0	2	5	2	1	16
statuette, held by king	6	2	9	0	2	0	19
tray presentation	2	3	6	1	1	0	13
one hand, arm by side	1	0	0	0	0	0	1
total	71	15	48	11	9	8	162

presentation is clearly dominant and offerings for which many modes of presentation were regularly depicted. I call offerings depicted being held up before deities in essentially the same fashion over and over again 'static offerings' or 'offerings of presentation.' Offerings which show a wide variation in the ways in which they were held and in accompanying gestures are called 'dynamic offerings' or 'offerings of dissemination,' because these offerings were probably not simply presented to deities, but had to be waved around to distribute the scent and/or liquid.

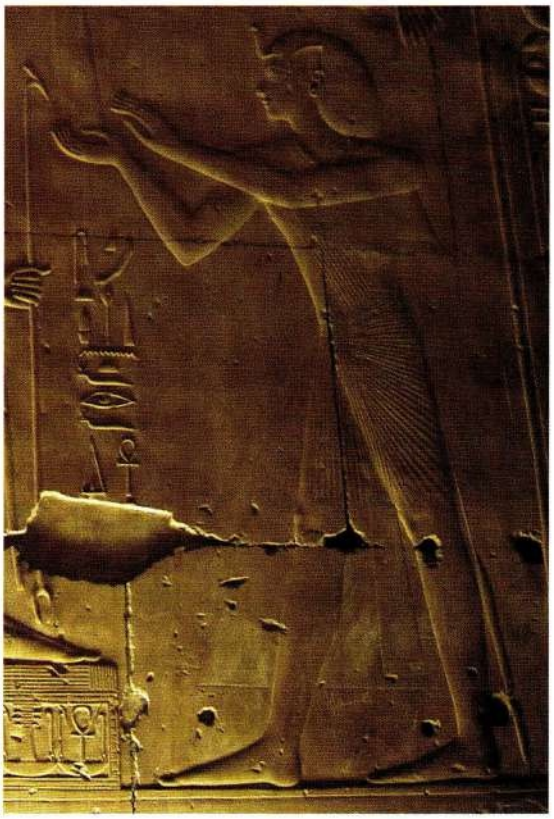
Individual scenes depicting dynamic offerings often draw from the same stock of modes of presentation as static offerings. However, when large numbers of scenes are compared there is wide variation in the way in which the offerings are held. Cursory looks at Eighteenth and Twentieth Dynasty monuments have confirmed that the most common offerings of dissemination – incense and libation, flowers, and ointment – show significant variations in modes of presentation throughout the New Kingdom. Confirming that an offering was an offering of presentation requires much more systematic study. However, two different types of offering of presentation have already been studied in detail – offering wine by Moo Choo Poo and Maat by Emily Teeter. These studies confirm the consistency of a very limited range of gesture depicted over a much broader time period than I have been able to cover.

I identified twelve basic offering gestures or modes of presentation:

Double presentation (Fig. 1): A pair of identical objects is held, one in each hand. Some offerings are almost always depicted using this mode of presentation, including wine, and milk. For other offerings, this is only one of many modes of presentation employed, including ointment, nmst-vessels, and flowers.

Mixed presentation: Two different objects are held, one in each hand. Incense and libation is the only common mixed presentation.

Protective presentation (Figs. 2-3): An offering is held in one hand and the free hand is held up behind the offering, as if to protect it. The fingers of the hand are cupped, with tips pointed towards the offering. The thumb is in front of or beneath the palm. This gesture is used in presenting Maat, as Teeter noted:



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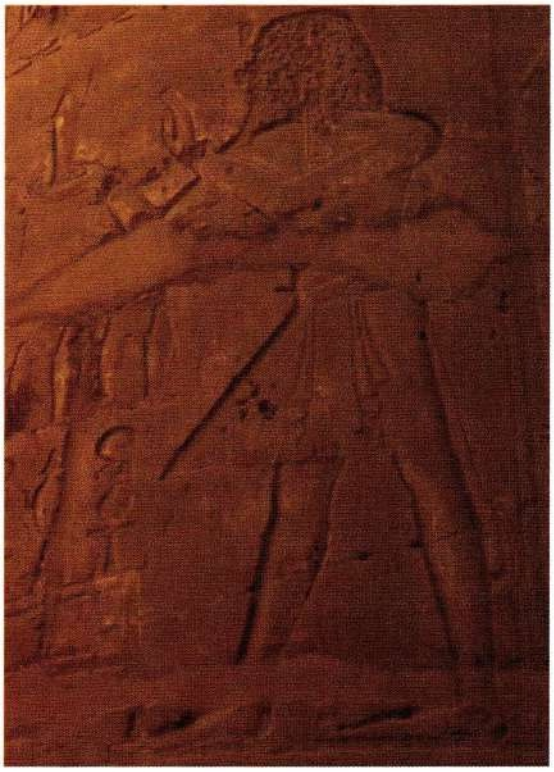

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2. Seti I presents a conical loaf of white bread using the protective gesture. From the Temple of Seti I at Abydos.

3. Ramesses II presents ointment using the protective gesture. From the Great Hypostyle Hall at Karnak.

4. Ramesses II offers Maat using the reverse protective gesture. From the Great Hypostyle Hall at Karnak.

5. Seti I wipes mD-ointment on the brow of the statue. From the Temple of Seti I at Abydos.

6. Seti I offers mD-ointment. From the Temple of Seti I at Abydos.

7. Ramesses II offers mD-ointment in a tray presentation. From the Temple of Seti I at Abydos.

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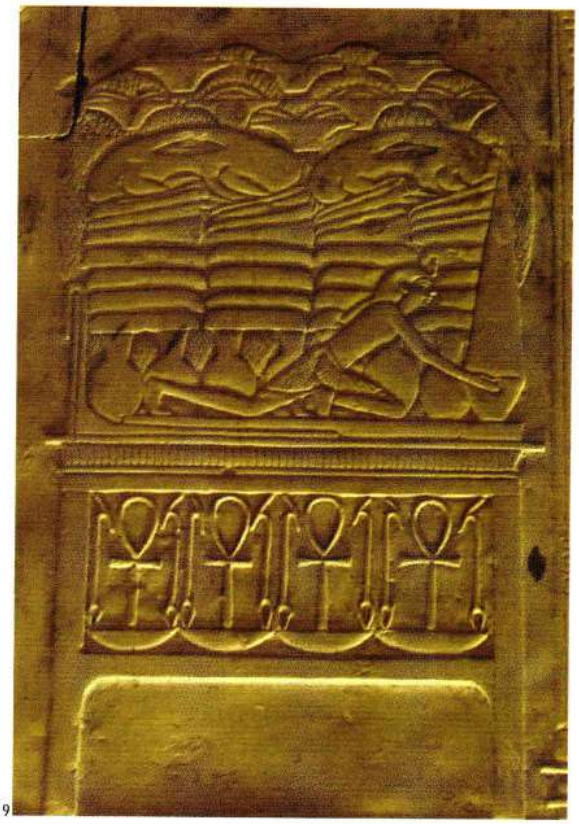


8. Ramesses II offers two jars of mD-ointment presented by a royal statuette in the splayed-knee pose. Two additional statuettes kneel together on an offering table, each presenting a jar of mD-ointment. From the Temple of Seti I at Abydos.

9. A statuette in the splayed-knee pose presents a conical loaf of white bread. From the Temple of Seti I at Abydos.

"The donor holds Maat, or the name equated with Maat, in one outstretched hand. According to a Ptolemaic period offering inscription at the Temple of Khonsu, the hand that does not hold the image of Maat is raised in protection of the goddess."[1]

The protective gesture can be depicted very close to the object or further back and with the hand at many different angles - from almost vertical to almost horizontal. Thus, one can imagine the hand poised to protect the object, perhaps moving slightly. The hand may also have been cupped around the object at many different angles in ritual, but only depicted from its most characteristic angle in art. The next two, more rarely depicted modes of presentation involve gestures which suggest other motions as well.

Reverse protective presentation (Fig. 4): The protective hand is depicted in front of the object being offered, rather than behind. This variation supports the view that protection was offered from many sides with the cupped hand, perhaps even encircling the object. This mode is common in scenes of offering Maat in the Great Hypostyle Hall at Karnak, although the regular protective presentation still dominates.

Arm-by-the-side: Single-handed presentations with the free arm-by-the-side are even rarer than reverse protective gestures. When the king holds up both hands as for the protective gesture the hands are said to be raised in adoration. The less depicted lowered position is like the arm-by-the-side. Thus, in presenting some offerings with the protective gesture the free hand may have been raised and lowered in adoration.

Greeting: The hand is extended out in greeting. Not to be confused with the protective gesture, here the fingers are straight, not cupped and the thumb faces up.

Pinky gesture (Fig. 5): The three middle fingers are folded against the palm, and the pinky and thumb extended out. This gesture is used to wipe ointment on statues, and the other hand invariably holds a jar or cup of ointment. Usually the pinky is held up to the deity's brow, although sometimes it is behind the jar.

Pincer gesture: The king holds a pellet of incense between his thumb and forefinger. Often a stream of pellets is thrown into a censor or cup. Such pellets can also stream forth from the king's palm when raised as for the protective gesture.

Two-handed tilt (Fig. 6): An object is held between the king's two open palms and tilted towards the deity. The thumbs generally face inward, towards the object and each other. The angle can vary, sometimes even being vertical. This mode of presentation is particularly common in Seti I's Abydos temple, where it was the most commonly used gesture in presenting ointment. All offerings depicted with this mode of presentation are presented with other modes as well.

Two-handed grasp: The two most commonly encountered offerings held in this manner are giant bouquets, in which case one hand is usually at shoulder level and the at waist level or lower; and necklaces, in which case both hands are usually held at shoulder level. This mode is never used for either bread or ointment, neither of which is grasped.

Tray presentation (Fig. 7): A tray with offerings upon it is held up, usually with both hands. This mode is used for the elevation of offerings; the presentation of the menu; and jars of ointment – among other things.

Statuette presentation (Figs. 8-9): A statuette of the king, usually held like a tray, holds the offering to be presented. This mode is most common with ointment jars, with most statuettes in the splayed knee pose or the form of a sphinx. Similar statuettes also appear presenting ointment on small offering tables, usually either kneeling or in the splayed-knee pose. Statuettes of the king are also frequently depicted presenting white bread, however these are not held up by the king in offering scenes. Rather, they are always placed on the front edge of heavily laden offering tables facing the deity (in contrast to the otherwise empty tables upon which statuettes presenting ointment tend to sit). No other type of statuette appears in this position.

Egyptian art is famously static in form. In some cases, this appears to be a relatively accurate reflection of the static nature of the presentation of offerings (ex. white bread, wine and Maat) – although some motion may have occurred, as described above. However, in other cases, large numbers of static-looking scenes reveal a variety in gesture which, taken together, suggests that certain offering rituals involved a dynamic mode of presentation (ex. ointment, flowers, incense and libation). ■

NOTE

1. E. Teeter, *The Presentation of Maat*. SAOC 57 (1997) 22.

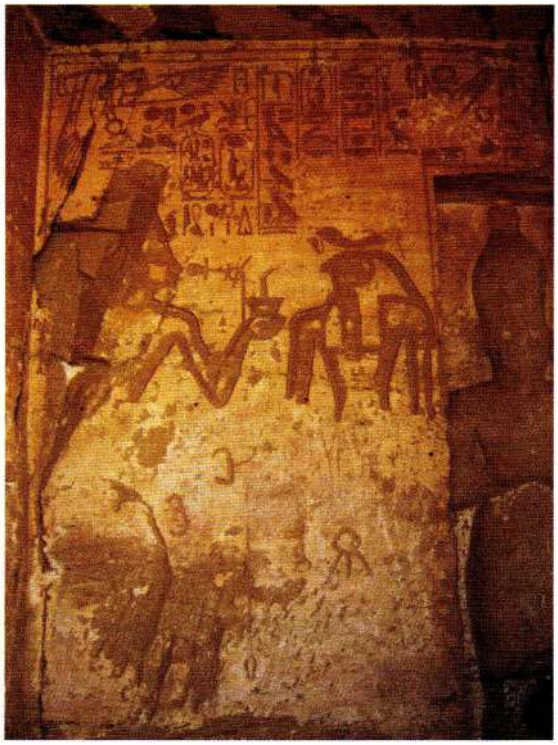
Kanais

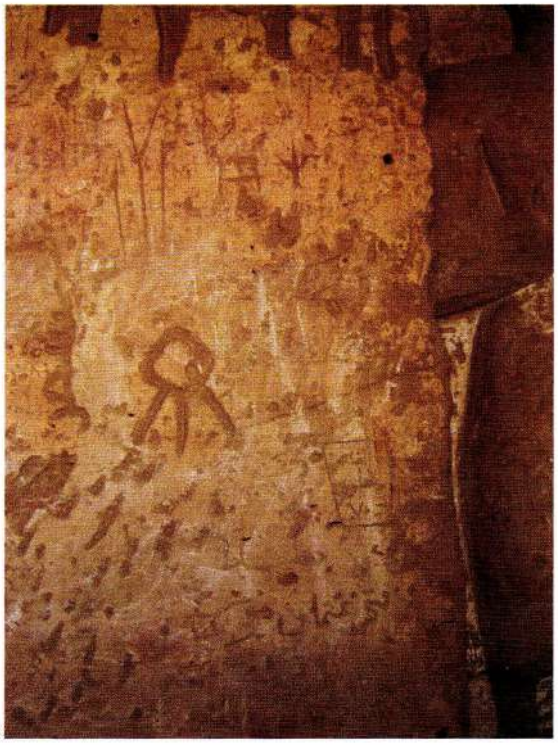
Katherine Eaton

1. Seti I's Kanais Temple. According to local officials the interior is unstable.

In the spring and summer of 2007, I studied regional variation in the royal monuments of Seti I and Ramesses II, thanks to a fellowship grant from the United States Department of State Bureau of Educational and Cultural Affairs, administered by the American Research Center in Egypt. I would also like to thank Dr. Mohammed el-Bialy, Mr. Mohammed Zanan; and Mr. Osama Ismai Ahmed, my inspector, whose knowledge of the site greatly facilitated my work. The areas of Nineteenth Dynasty activity along the northern cliff face at Kanais proved to be particularly interesting.

Kanais is located in the Wadi Mia, which connects the Nile Valley at Edfu to the Red Sea. This enchanting place features a number of shady overhangs. As such, it is the first place along this route where a substantial crew of workers heading to gold mines in the desert could find adequate shelter from the sun. Seti I ordered that a well be dug here and a temple (Seti I's Kanais Temple, Fig. 1) be built in conjunction with mining operations to provide gold for his memorial temple at Abydos. The decorative program in the temple was left incomplete. The unfinished state of the sunk relief program in the portico provides a unique opportunity to analyze the process of creating painted sunk relief during the reign of Seti I. Because the scenes are so damaged, observations are highly





2. South wall, east side of the portico. The lower half of this scene bears traces of red and yellow paint (see detail in fig. 3). The first phase of carving was in progress on the upper half when work was abandoned. Red grid lines are visible.

3. Detail of scene in fig. 2, pointing out the remains of a bulls tail painted in yellow and red.

tentative. Nonetheless, similarities between what I found at Kanais and the trends in painted raised relief in Seti I's Abydos temple are encouraging.

I identified five major phases in the production of these reliefs:

1. The scene was drawn with the aid of a grid drawn in red (Fig. 2). The only two colors preserved for this phase are red and yellow (Fig. 3), although more may have been used. In better preserved scenes in Seti I's Abydos temple Baines identified nine phases in the creation of the painted scenes (Baines, et al. 1989:13). The small area of the portico which features this phase (only the lower half of the south wall east of the central door) is very damaged and does not allow such deep analysis.

2. The general shapes of the elements in the scenes – figures, ritual objects, texts, etc. – were carved. This phase was in progress on the upper half of the eastern section of the southern wall (Fig. 2) and on the cobras over the door to the interior of the temple when work was abandoned.

3. After the initial carving was done the area received a yellow wash and the background was painted white. The best preserved area featuring this phase is a vulture on the central portion of the ceiling (Fig. 4). This is as far as work progressed on the east wall, the door to the rock-cut part of the temple, the central portion of the ceiling, and most of the architraves.

4. Details, including hair, pleats, broad collars etc. were carved. All of the work which reached this stage bears traces of paint, indicating that it was completed through stage 5.

5. The scenes were painted with a palette consisting of red, yellow, light blue, dark blue, green and white. Red and white were combined to render the king's diaphanous garments and the skin of the captives on the west wall. This is essentially the same palette identified by Baines in the painted raised relief in Seti I's Abydos temple (Baines 2001:148-149). Examination of the scenes inside the temple, which are reportedly much better preserved, could reveal more about the final stages of decoration. Unfortunately, the interior of the temple is closed due to structural instability.

There is a second area of Nineteenth Dynasty activity along the north face of the cliff, beneath an overhang to the east of the temple (the 'stelae overhang'). There are three stelae, all with cartouches of Seti I. Just to the east of these is a large painted composition with some

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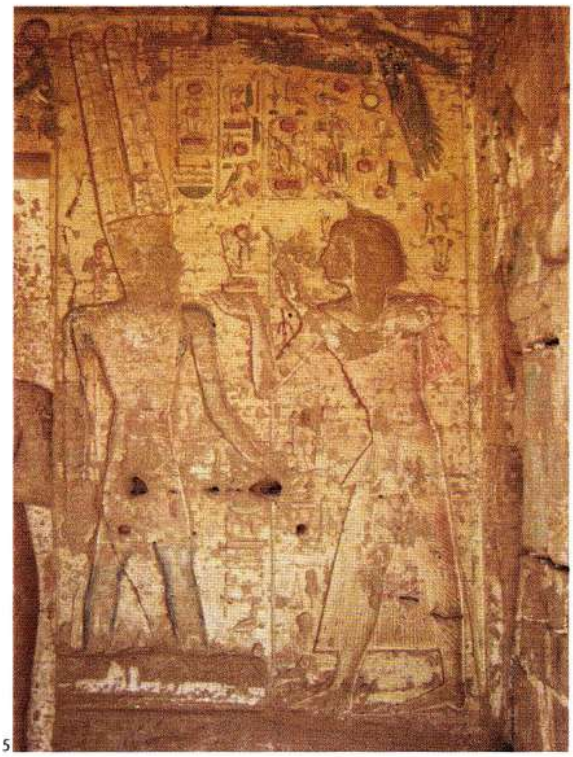

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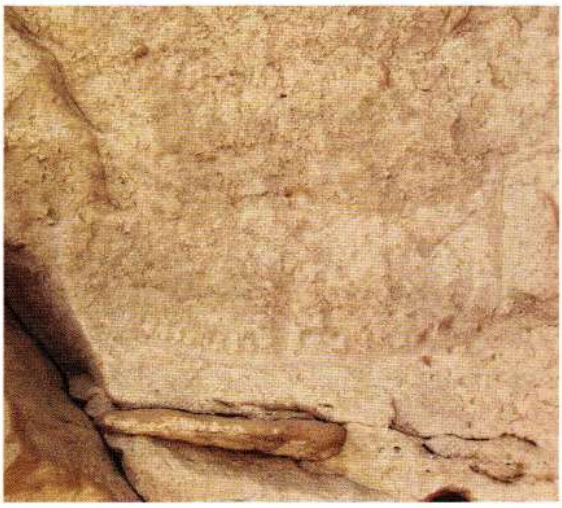

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4. Central portion of the ceiling, with decoration carried out through stage 3.

5. South wall, west side of the portico. Decoration here was completed through phase 5. Note the detailed carving, particularly on the king's kilt.

6. A pharaonic reproduction of a boat in the archaic style.

7. Archaic rock-drawings of boats, from a fallen boulder between the Temple of Seti I at Kanais and the stelae overhang.

incised elements. The paint, where it is still preserved, is now in very muted tones of grey, pink, and yellow, with some white. Weigel published the central, and most well preserved component of the scene, a figure offering libation before Horus in the form of a falcon (Weigell 1909: 158 and pl. XXVIII.1). However, he did not publish the larger context of the scene, which is more interesting than the scene itself.

To the east of the offering scene, is a painting of a boat in the archaic style (Fig. 6), like those in nearby rock inscriptions on the cliff and on the two fallen boulders between the stelae overhang and the Temple of Seti I (Fig. 7). The offering scene itself is actually within a second boat in this style. The combination of its low position on the cliff relative to the archaic boats and the use of paint can leave little doubt but that these boats are pharaonic copies of archaic boats contemporary with the offering scene. To the west the painting is almost completely invisible, but on close inspection two bovines - one white and one yellow - are clear.

Kanais is a site worthy of further study. Stabalizing the temple, studying technical aspects of the painted sunk relief within and conserving the unique painting on the cliff face are all worthy projects. Even with the inside of the temple closed, it is a site well worth devoting a morning to if you happen to be in Edfu during the cooler months of the year. ■

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Exploring The Language and Culture of Egypt


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By Erika Mercer

As the taxi sputters noisily along the crowded streets of downtown Cairo, I make brief conversation with the driver, beginning simply with "Inta kwayis?" (Are you well?). The surprise that registered in his eyes when I first used Arabic to negotiate the fare is still apparent, but he is clearly happy to indulge my attempt to practice his language. He tilts his head back, smiles, and answers: "Hamdu'Allah" (Praise be to Allah). His positive response mingles with the busy honking of car horns and the clamorous throngs of pedestrians outside. Soaking in the sounds of the city on what will be my final taxi ride through Cairo for the summer, I smile back, indicating that I understand.

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"Hamdu'Allah" is a word that I heard innumerable times in my two months in Egypt and represents much of what I came to recognize and value about Arabic. Like many words in Arabic, it embodies more than a straightforward response – rather, it connotes an entire belief system, lifestyle, and cultural identity. During my stay, I learned that grasping the meaning of such words and their usage is vital to appreciating Middle Eastern culture. My conversations with taxi drivers signified more than just small talk – they gave me a nuanced understanding of Egyptians' values, convictions and perceptions and lifted my language learning far out of the realm of textbooks.

Embarking on this linguistic and cultural exploration was the goal of my summer in Egypt as a member of the Critical Languages Scholarship (CLS) Program. Designed to grow the number of American students studying foreign languages deemed important to national security, the CLS Program offers intensive summer study in Arabic, Bangla/Bengali, Chinese, Hindi, Korean, Persian, Punjabi, Russian, Turkish, and Urdu. Funded by the U.S. State Department's Bureau of Educational and Cultural Affairs through a grant to the Council of American Overseas Research Centers (CAORC), the program seeks to instill in its participants an appreciation and passion for these languages and cultures.

As a participant in the Beginning Arabic Program in Cairo, I joined twenty-nine other U.S. undergraduate and graduate students with academic and professional backgrounds ranging from law to education to political

Ms. Mercer in currently pursuing a Masters in Higher Education at Harvard University. Previously she worked as a Study Abroad Advisor at Brown University.

1. Felucca Ride.

2. Brendan with Fruit Vendor in Downtown Cairo.

3. Larkin at the Pyramids with Vendors.

4. Watching the Sunrise over Sinai.

5. Author riding camel named columbus.

6. Author, bottom left, with classmates and instructor Nancy.

science, yet all possessing an interest in Arabic. Hailing from over twenty home states and universities around the country, we assembled first in Washington, D.C., for a two-day orientation led by CAORC. There, we also met the Cairo Program Coordinator, Daniel Beaumont, Associate Professor of Arabic Literature at the University of Rochester. On June 19, we then boarded our Cairo-bound flight, excited to begin our summer in Egypt.

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Whether explored on foot, from the backseat of a tired Peugeot taxi, or from the crowded confines of one of the city's notorious microbuses, Cairo is an onslaught to the senses. Already on our first bus trip through the city – from the airport to the President Hotel, our home for the following eight weeks – I was overwhelmed but impressed by the sheer volume of pedestrians, live animals, carts, trash, buses, and cars milling about the streets, which nevertheless followed a tacit system that allowed traffic to continue moving.

Adding to the enigma of the ancient city, we passed countless street signs and advertisements that appeared to us, with no knowledge of Arabic, completely unintelligible. Conversations abuzz on the streets were gibberish to our ears. The music, the newspapers, the cries of the vendors, the five-time-daily call to prayer – we could make sense of none of it. Until our Arabic progressed, the language of the signs and streets remained indecipherable – and largely, therefore, the culture.

Our courses were taught by five Egyptians from the Episcopal Training Center in Cairo, all of whom had been hired by the American Research Center in Egypt (ARCE). The instruction was divided in two – half our time was spent learning Modern Standard Arabic (MSA), and the other half was devoted to colloquial Arabic. In our MSA section, we learned the alphabet, as well as how to construct basic sentences and conjugate verbs. The colloquial class focused on situational vocabulary (how to negotiate with taxi drivers and shop for clothing, for example) and also touched on grammatical structures and verb conjugations. Class was held from Sunday to Wednesday, with each day consisting of four hours of morning classes, followed by a buffet lunch and one additional afternoon hour of instruction.

In addition to mastering a new alphabet, Arabic also presented us with the challenge of a diglossic language – one in which the vernacular or spoken tongue differs significantly from (though is often closely related to) the formal or written language. Living in Cairo and being able to immediately apply what we were learning in the classroom eased these challenges, however. When asked how living in Cairo facilitated language learning, one student, Trevor Burns, responded, "I realized that what I was learning in the classroom I could use that same day on the street." From grocers to taxi drivers to hotel staff, local Cairenes catered patiently to our desire to practice colloquial Arabic. Harry Etra, another student on the program, stated: "Despite my limited ability, cab drivers and shopkeepers were willing to engage in conversations with me in Egyptian Arabic."

Living in Cairo also provided

7. Classroom in the newly renovated Arab Studies Center in Maadi where the language students met each morning for instruction.

8. During a morning break, students gather to discuss their progress with program director Dan Beaumont and visiting State Department evaluator Matthew McMahon.

9. Students work in small groups in the afternoons at the ARCE offices.

10. At the US Embassy in Cairo, students are greeted by Ambassador Francis Ricciardone.

Photos: Kathleen Scott

us with chances to practice MSA in ways that did not involve a textbook. Commenting on this, another participant, Ndieme Ouleye Ndoye, wrote: "The best part of learning Arabic in-country was being able to look out the window and see signs written in Arabic and try sounding them out with our classmates. Then, pulling from our vocabulary to see the meaning of the word... We always felt a huge sense of accomplishment when this monumental task was achieved with success!"

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For many Americans, the word "Egypt" calls to mind sphinxes, pyramids, hieroglyphics, sarcophagi, etc. – the celebrated and seemingly eternal remains of the country's ancient past. While Egypt today bears little resemblance to that former civilization, the country's history is nevertheless at the root of its contemporary culture. Egyptians are immensely proud of their history and also reliant on it – tourism is one of the main facets of their economy. In order to understand present-day Egypt – from its language to its people to its culture – it is necessary to explore what one fellow student described as the seemingly "infinite number of historical and cultural sites."

ARCE facilitated this process by organizing weekly cultural excursions around Cairo and a longer weekend trip to the Red Sea. These tours were arranged by Mary Sadek, Program Coordinator at ARCE, and led by Tarek Swelim, a specialist on Egyptian history and civilization and former Professor of History at the American University in Cairo. The excursions took us chronologically through Egypt's history – from the ancient Saqqara and Giza pyramids, through Cairo's Coptic and Medieval periods, and into the Modern era with a tour of the Citadel of Mohammed Ali. Apparent on these excursions was the modern city's rapid encroachment on ancient sites, which served as a visible reminder of the inextricability of Egypt's past and present.

11. Group photo taken at the US Embassy.

Photo: Kathleen Scott

In addition to these excursions, ARCE arranged for a visit to the American Embassy in Cairo, where we were greeted by Francis Ricciardone, the American Ambassador to Egypt. Many students also traveled independently, visiting sites that included Luxor, Aswan, Alexandria and the Mediterranean Coast, the Sinai, and the Western Desert.

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When asked about their most valuable cross-cultural experience, students responded with stories that were as varied and vibrant as the country we had studied in. One student, Daniel Boehmer, described a dinner he had with one of the President Hotel's porters. Another student, Nicole Holliday, told about an evening spent in one of our Arabic instructor's homes, in which she was able to "see what life is really like in Egypt, and to talk about some of the more serious cultural and political issues."

From the lessons written on our classroom's whiteboards to the routine interactions with shopkeepers in Cairo to our travels throughout Egypt, we were given opportunities to not only learn Arabic but also understand the language's place in Egypt's culture and history. Like "hamdu'allah," many words become a fundamental part of our daily experience, and as we incorporated them into our own vocabulary, we were transformed from mere observers of a culture to participants in it. We slowly gained the ability to communicate with the people around us, granting us the ability to see deeper into their way of life – an achievement that highlighted the program's success.

in memoriam

ROBERT 'CHIP' VINCENT
23 April 1945 – 11 October 2007

When Chip Vincent came to Egypt in 1994, it was to set up and direct a new endeavour for ARCE, funded by a grant from the United States Government through the Unites States Agency for International Development (USAID) to be spent on the conservation and preservation of Egypt's cultural heritage. Chip established the Egyptian Antiquities Project (EAP) as a unit within ARCE to administer these funds and carry out projects at historic monuments and sites throughout the country. After twelve years successfully directing over fifty projects under the initial grant and the series of grants that followed, Chip was diagnosed with leukemia and had to leave Egypt for treatment. He died in Maine on 11 October, aged 62, after battling his illness for over a year.

Historic buildings conservation is an expensive business if it is to be comprehensive and sustainable. Chip's leadership and vision gave form to the idea and a structure for the management of the USAID funds to benefit the intended recipients - the historic sites and monuments that embody the richness and diversity of Egypt's cultural memory. Together with then ARCE Director, Mark Easton, Chip gave ARCE a new mission, which he saw as his responsibility to carry forward in partnership with our Egyptian colleagues in the Supreme Council of Antiquities (SCA).

Before coming to Egypt, Chip had established himself in archaeology and management on over 30 excavations and surveys in Britain, Cyprus, Jordan, Syria, Iraq and Afghanistan. During the 1980s he worked with the Sultan of Oman developing water resources, and prior to joining ARCE he was the Executive Director of the Institute of Nautical Archaeology at Texas A&M University.

At ARCE, Chip gathered an experienced technical and administrative team to manage the numerous projects initiated at chronologically and geographically diverse locations throughout the country. Major sites and monuments representing all Egypt's cultural and historic phases were included. Examples range from recording a Neolithic site in Sinai ahead of agricultural development, a building study followed by conservation of the Shunet el-Zebib at Abydos, conservation of decorated blocks at Luxor Temple and cleaning painted reliefs and structural conservation at Medinet Habu. Mosaics in the Graeco-Roman Museum and in situ at the Villa of the Birds in Alexandria were included. A masterplan was developed for heritage preservation in Old Cairo and an inventory and conservation of Coptic icons was begun. In the heart of historic Cairo, there were projects at the Bab Zuwailah, Bait al-Razzaz, and 19th century sabils. Collaboration with other institutions underscored Chips team-work ideal, such as New York University at Abydos and the University of Chicago (Chicago House) at Luxor and Medinet Habu. Similarly, partnership with the SCA always supported our work professionally and Chip developed personal friendships with many of our Egyptian colleagues.

Within a year of its inception, EAP had inspired sufficient confidence in USAID for a second grant to be offered to ARCE. This was under the Mubarak-Gore Agreement for Sustainable Tourism, an initiative

for safeguarding Red Sea environmental heritage, which included cultural component that fell to ARCE to implement. In late 1995 this new agreement was signed and the Antiquities Development Project (ADP) was created alongside EAP with ambitious projects at St. Anthony's Monastery, St. Paul's Monastery, Quseir Fort and the Tomb of Sety I in the Valley of the Kings.

Chip was concerned with sustainability, particularly by sharing expertise and knowledge. New conservation laboratories were installed in Alexandria and the Egyptian Museum, Cairo, and training given to SCA employees working in them. Practical courses in field archaeology, museum management, conservation of submerged artifacts retrieved from shipwrecks, were other training initiatives he fostered.

Chip was proud of the achievement embodied in a successfully completed project and was scrupulous about ensuring acknowledgement for everyone involved. Yet he always called himself a field man, and getting out of the office to be in the midst of work in progress was the part of his job he enjoyed most. Site visits were also an important part of his outreach programme, and among his more famous visitors were Al Gore, and Hillary and Chelsea Clinton.

The projects were only one facet of Chip's life. Although dedicated to his vocation, Chip was careful in preventing his professional life from overwhelming his family to whom he was deeply committed. His love of the desert and the sea were the catalyst for many off-road excursions with family and friends in four-wheel drive cars, which he led, and diving trips in the Red Sea. He once told me that he often enjoyed planning his expeditions, obtaining reliable maps (when possible), discussing the route with people who had done it before and establishing the GPS points, even more than the trips themselves. A particularly famous trip from which he returned triumphant was driving the difficult, unmarked route through the mountains between Mons Claudianus and Mons Porphyrites. Chip liked to push himself physically and mentally. He kept himself fit by running and took part in several international marathons.

Among his other hobbies Chip was a keen and accomplished photographer, particularly in black and white, mounting several exhibitions of his own work from his school days onwards. This was reflected in his insistence on meticulous, professional photographic documentation of the conservation projects. He always took a camera on site visits and many of his photographs have been used in ARCE publications.

His style of leadership and commitment to friends were marked by his own personal integrity which permeated his professional and private lives. This was also the quality he admired most in others and he respected differences of opinion when these were thoughtful and expressed honestly and with conviction.

In May 2006 Chip was diagnosed with leukemia and left Cairo for the last time to be admitted to hospital in Boston. After a difficult summer of chemotherapy he recovered his strength and resumed work from his new home in Maine on the retrospective volume he had planned to produce for ARCE as a record of the 50 projects he directed. After a particularly active summer of 2007 with his family, on 11 October he was taken suddenly ill again, and died later the same day with his wife, Fran, beside him. His book, to be entitled *Preserving Egypt's Cultural Heritage*, will now be dedicated to Chip's memory.

Chip leaves two legacies for ARCE and for Egypt. His careful stewardship of grant funds has ensured the continuing practice of heritage conservation, while beyond the confines of the office many of Egypt's most enduring but once endangered monuments are now preserved for the benefit and enjoyment of future generations. He will be remembered by those who knew him as a valued friend who inspired through his great sense of humour and, especially in his last struggle, an ability to conduct himself with dignity and care for others.

Michael Jones

Report to Members from Toledo

Bob Bussey

Bob Bussey is Chapter Representative.

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1. Candy Tate greets Sarah O'Brien of the North Texas Chapter at the Reception desk.

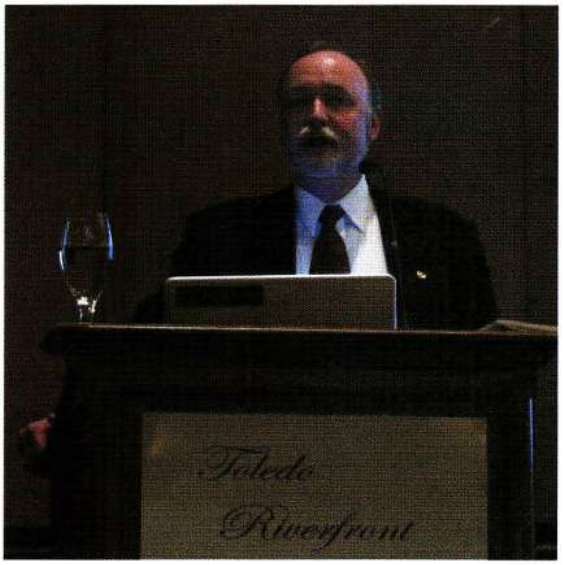
2. The ARCE Board of Governors conducts their annual session.

3. Dr. Gerry Scott, ARCE Director, delivers his report to the general membership.

Those of you who were at our April National Meeting in Toledo know that it was an excellent one. We had about 300 attendees and 117 papers were delivered in a 30-minute format. The new, longer format permitted a question and answer period following each presentation. This made for some lively speaker-audience interactions which greatly enhanced the meeting. We began the presentations late on Friday morning, thereby permitting an early and well-attended Board of Governors meeting in the morning.

Director Gerry Scott introduced two ARCE staff at the Executive Committee meeting. Kathann El-Amin is our new full-time CFO replacing Mike Allan who was part-time. Our new Director of Development is Dina Aboul Saad. She will lead our soon-to-be-announced capital campaign. Both Dina and Kathann are based in the San Antonio office. Djodi Deutsch has been hired in Cairo to oversee the fellowship program. She fills the hole that resulted from Susanne Thomas' departure from the Atlanta office.

Director Scott also announced some positive financial news. ARCE has received a USAID add-on grant of about $8.8 million for major conservation work at Luxor and Karnak temples. An additional $2 million is forthcoming for archaeological monitoring and groundwater management on the West Bank. These monies will greatly enhance ARCE's bottom line until 2010. However,



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Dr. Scott emphasized the need for ARCE to build its endowment to ensure greater financial stability. Financial stability and possible purchase of a new ARCE headquarters in Cairo will be major foci of the capital campaign. The American University in Cairo's rare book library is coming onto the market and would make an ideal headquarters for ARCE.

Congratulations to David Klotz of Yale University for winning this year's Best Student Paper award. His paper presented at the Toledo meeting was entitled *Domitian*

and the Contra-Temple of East Karnak. This was the third year for this competition which carries a prize of $500 plus round trip transportation to the ARCE conference. The competition is sponsored by the 13 ARCE chapters who are pleased to be able to give back to ARCE by providing some support to top students. This year's event was financed in part by a sponsored lunch in Toledo.

Rick Moran, chair of the Chapters Council, organized a Chapter Management Workshop. This will be an annual event at the National Meeting in which chapter members will have the opportunity to share their experiences on common chapter issues. The Chapters Council is a group comprised of leaders from the chapters.

ARCE's elected officers for the coming year are Richard Martin, President; Emily Teeter, Vice President; Bri Loftis, Treasurer and Rachel Mauldin, Clerk. Outgoing President Carol Redmount becomes an ex officio member of the Executive Committee. Officers of the Corporation are Gerry Scott, Director and Kathann El-Amin, CFO. New members of the Board of Governors are Kara Cooney, Chris Karcher, Diana Craig Patch and Janet Irwine. David O'Connor and Diana Craig Patch are our new Executive Committee members.

Our deepest thanks go to our Atlanta and San Antonio staff members Candy Tate, Diane Springfield, Yorel Dawkins, Rachel Mauldin, Kathann El-Amin, and Dina Saad for all the work that went into the organizing and running of such an excellent annual meeting. ■

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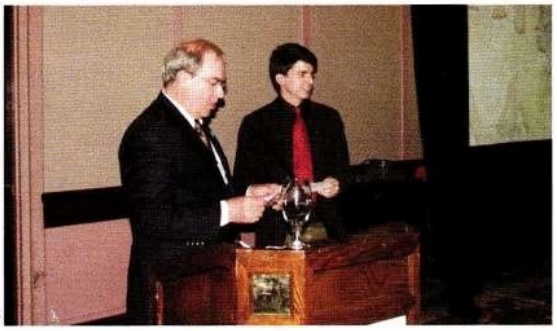

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4. Michael Jones reports on ARCE conservation projects.

5. Rick Moran, chairman of the Chapter Council, presents the Best Student Paper Award to David Klotz of Yale University.

6. Wendy Doyon, presents her paper on Egyptian museography.

Robert Masters

Robert (Rob) Masters, formerly of the Orange County chapter of ARCE, passed away in July 2007, after a battle with pancreatitus. Rob was a member of the founding Board of Directors of the chapter, served as Vice President for the first five years of the chapter's operation, and produced the chapter newsletter during that time. He served for many years as director of Public Works for the City of Newport Beach, California, and was also the official City Archaeologist. Upon his retirement a year ago, Rob and his wife Pat moved to Nevada where they had just completed building a new home. Rob had many interests, including teaching (with Pat) stained glass window making and square dancing. Rob was a regular attendee at ARCE annual meetings for many years, and donated his services as a photographer to enrich numerous issues of the Bulletin. He was a generous, kind, and knowledgeable Egyptophile, and his many friends at ARCE will miss him. His ashes were interred at Arlington National Cemetery.

John Adams

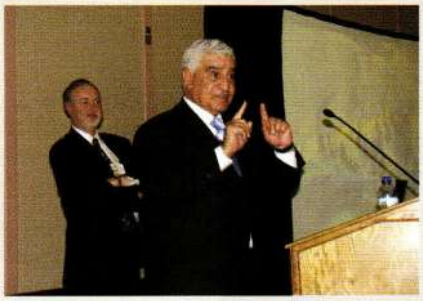
arce annual meeting

Special Events

It was ARCE's great honor and privilege to have Dr. Zahi Hawass, Secretary General of Egypt's Supreme Council of Antiquities, as the keynote speaker this year and, as expected, his talk drew a standing room only crowd to the Riverfront Hotel. His lecture on "Recent Discoveries" took the audience on a fascinating tour of Dr. Hawass' latest archaeological adventures with ancient mummies and hidden tombs as well as his frequent encounters with the rich and famous among the living. Dr. Hawass very generously donated his time at the ARCE Annual Meeting in honor of his professor and mentor Dr. David O'Connor. We are most grateful for Dr. Hawass' presence in Toledo and his continued support of ARCE's work in Egypt.

Those very important supporters of the American Research Center in Egypt who have made significant contributions to the financial security of the organization were honored at an elegant reception at the Toledo Country Club. This lovely event was hosted by Dr. Mohammed and Mrs Sue El-Shafie, who have been generous supporters of ARCE through the years.

The Toledo Museum of Art offered a beautiful venue for the Members' Reception on Friday evening that included open gallery viewing of its impressive collections. Of special interest were the museum's galleries of ancient Egyptian, Greek, and Roman art as well as the newly opened Glass Pavilion.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1. Dr. Zahi Hawass answers questions after his keynote address.
2. Dr. Zahi Hawass and Dr. David O'Connor
3. ARCE's new Board of Governor's President, Rich Martin enjoys the donor reception along with Board member Sarah Harte and Don Bacigalupi, Director of the Toledo Museum of Art.
4. Dina Saad and Andrew Bednarski enjoy the ancient art galleries at the Toledo Museum of Art reception.
5. ARCE's CFO Kathann El-Amin and Director of Development, Dina Aboul Saad join Amira and Sabry Gohara and Dr. Mohammed El-Shafie at the donors' reception. Dr and Mrs. El-Shafie generously hosted the reception at the Toledo Country Club.
6. Chapter President Bob Bussey chats with Toledo Museum of Art Curator Sandy Knudson at the Members' Reception hosted by the Toledo Museum of Art.

Special Recognition

The annual ARCE meeting is an appropriate venue for saying "thank you" to those special people who have given much to the organization over the years. At the Toledo meeting ARCE honored three dedicated people.

The Distinguished Service Award

The Distinguished Service Award was presented by outgoing President Carol Redmount to Dr. W. Benson Harer, Jr. Ben has been a loyal and influential supporter of ARCE since he joined the organization in 1980. Working jointly in 1996 with then ARCE Director Mark Easton and other members of the board and staff, Ben's vision for the organization led to the $35 million congressional earmark that brought operating endowment support to both ARCE and Chicago House, and the eventual creation of the Antiquities Endowment Fund. ARCE was pleased to honor Dr. W. Benson Harer for his many contributions to the American Research Center in Egypt.

Employee Service Awards

Dr. Susanne Thomas was hired in 1999 as Associate Director of US Operations. During her tenure at ARCE she set up and managed the Atlanta Emory University office, worked to organize many successful annual meetings, wrote numerous grants, and oversaw the Fellowship Program. ARCE thanked Susanne for her 7 years of dedication to the organization. Unfortunately, Susanne could not be present at the awards ceremony due to illness.

Robert K. "Chip" Vincent joined ARCE in 1994 as Project Director of the newly created Egyptian Antiquities Project (EAP) that was funded by a grant from USAID and dedicated to the conservation of endangered monuments within Egypt. Under Chip's leadership, over 50 projects have been completed throughout Egypt conserving endangered monuments dating from ancient times to the Ottoman period. ARCE honored Chip Vincent for his 13 years of distinguished service to the organization and his unfailing commitment to preserving the cultural heritage of Egypt.

opportunity

Academic Visitors Institute For The Study Of The Ancient World New York University

The Institute for the Study of the Ancient World, New York University (ISAW), plans to make about 8-12 appointments of visiting research scholars for the 2008-9 academic year. ISAW is a newly created, specially funded, cross-disciplinary institute for research and graduate education in the history, archaeology, and culture of the entire Old World from late prehistoric times to the eighth century AD, including Asia and Africa. (See www.nyu.edu/ isaw/ for details.) Projects of a theoretical or comparative nature relevant to this domain are also welcome. Academic visitors at ISAW should be individuals of scholarly distinction or promise in any relevant field of ancient studies who will benefit from the stimulation of working in an environment with colleagues in other disciplines. Applicants with a history of interdisciplinary exchange are particularly welcome. They will be expected to be in residence at the Institute during the period for which they are appointed and to take part in the intellectual life of the community.

Visiting research scholars at ISAW have access to the Institute's own library, which is in the process of development, as well as to a wide range of other libraries at NYU, the Metropolitan Museum of Art (located a block away), and other institutions in New York City. They are provided with their own workspaces. ISAW is prepared to host both individuals coming with their own funding and those needing partial or full support for a semester or year. Those appointed with ISAW funding will normally bear NYU research track ranks and have regular university benefits. Research support is normally a part of funding packages. Details of available support are given on the web site.

ISAW is prepared to consider not only individual applications for residencies but proposals from small research teams (usually two persons), the members of which are normally based in different institutions. It will also consider applications for years later than 2008-9 in cases where the applicant is interested in organizing an exhibition or a conference at ISAW.

Applications should be submitted electronically through the ISAW Web site listed above, where full details of required documentation are given. Applicants should have their doctorates in hand by the beginning of their period of appointment at ISAW. Students still in doctoral programs are not eligible for appointment under this program. Inquiries should be sent to Professor Roger S. Bagnall, Director, Institute for the Study of the Ancient World, 15 East 84th St., New York, NY 10028 (roger.bagnall@nyu.edu). Review of applications will begin on December 1, 2007. Founded in 1831, New York University is the largest private university in the country, with 13 schools, 3 institutes, and nearly 40,000 students.

NYU is an Equal Opportunity/Affirmative Action Employer.

Faculty Positions Institute For The Study Of The Ancient World New York University

The Institute for the Study of the Ancient World, New York University (ISAW), plans to make a number of faculty appointments during the coming several years. ISAW is a newly created, specially funded, cross-disciplinary institute for research and graduate education in the history, archaeology, and culture of the entire Old World, including Asia and Africa, from late prehistoric times to the eight century AD. (See www.nyu.edu/ isaw/ for details.) The fields and rank of these appointments and the pace of hiring are open, but all appointments will be tenured or tenure-track. We seek individuals of scholarly distinction or promise in any relevant field whose work will benefit from freedom from departmental structures and the stimulation of working closely with colleagues in other disciplines, approaches, periods, or geographical areas and who are committed to helping develop the intellectual life of such a community. Applicants with a history of interdisciplinary exchange are particularly welcome. The Institute's initial faculty will be closely involved in creating its graduate program, which will emphasize individual supervision, and in building its library. The faculty will also be involved in choosing a group of visiting researchers each year.

Applications (letter, curriculum vitae, and list of referees) or nominations should be sent to Professor Roger S. Bagnall, Director, Institute for the Study of the Ancient World, 15 East 84th St., New York, NY 10028. Review of candidates will begin on November 1, 2007. Founded in 1831, New York University is the largest private university in the country, with 13 schools, 3 institutes, and nearly 40,000 students.

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annual report 2005-2006

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Ms. Nimet Habachy
Mr. and Mrs. Donald Kunz
Mr. and Mrs. A. Bruce Mainwaring
Dr. Bonnie Sampsell
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Expeditions

Raymond Johnson
Chicago House
Epigraphic Survey
University of Chicago

Matt Adams
Northern Cemetery and Funerary Enclosure of Khasekhemwy
Pennsylvania/Yale/NYU Expedition

Peter Brand
The Karnak Hypostyle Hall Project
Memphis University

Renee Friedman
Hieronkonpolis
The British Museum-University of Arkansas

Harold Dibble
Survey of Palaeolithic Sites near Abydos
University of Pennsylvania Museum of Archaeology and Anthropology

Ed Brovarski
Epigraphic Survey of the Abu Bakr Concession at Giza
Brown University

Richard Fazzini
Mut Temple
Brooklyn Museum of Art

Betsy Bryan
Expedition to the Precinct of the Goddess Mut
The Johns Hopkins University

Mark Lehner
Giza Mapping Project
University of Chicago

Don Ryan
Valley of the Kings
Pacific Lutheran University

Joseph Wegner
South Abydos
Pennsylvania/Yale/NYU Expedition

Richard Wilkinson
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Mohammed Hassan Hassan, messenger
Eid Fawzy, messenger

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Hoda Abdel Hamid, technical adjunct
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RSM: Research Supporting Member of the ARCE Consortium
The date in parentheses indicates the year term ends.
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Stephen Emmel
Westfalische Wilhelms-Universitate Munster
Works of Shenoute Preserved in Coptic Manuscript Collections in Cairo

Peter Piccione
College of Charleston
Satellite Survey of the Theban Necropolis

Clarisse Pollard
University of North Carolina, Wilmington
The State of the Egyptian Family and the Egyptian State 1923-1952

Samer Shehata
Georgetown University
The New Reform Discourse in Egypt

ECA (State Department)

Katherine Burke
Uiversity of Chicago, Oriental Institute
The Sheikh's House at Quseir al-Qadim

Shane Minkin
New York University
Foreigners, Locals and the Contours of National Consciousness in Alexandria 1865-1905

Robert Moore
Emory University
The role of the Madrash and the Structure of Islamic Education in Mamluk Egypt and Syria

Maurita Poole
Emory University
Beauty Matters in Contemporary Egypt

Bruce Rutherford
Colgate University
Constitutionalism and Political Development in Egypt

Martyn Smith
Emory University
The Medieval History of the Pyramids: A Translation and Xommentary on Maqriz's Pyramid Chapter in the Khitat

KRESS

Amy Calvert
Institute of Fine Arts, NYU
The Regalia III: A Contextual Study into the Variations and Significance of Royal Costume

Elisabeth O'Connell
University of California, Berkeley
Tombs for the Living: Ascetic Reuse of Egyptian Funerary Architecture in Western Thebes

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American Research Center in Egypt
Statement of Financial Position
June 30, 2006 and 2005

ASSETS	2005	2006
Cash and cash equivalents	$11,240,025	$10,964,488
Receivables and prepaid expenses	762,126	952,891
Grants receivable	474,553	696,928
Investments, at quoted fair value	41,549,231	43,464,037
Property and equipment, net	135,250	98,868
Library collection	835,440	835,440
Deferred rent	208,000	196,000
Total assets	**$55,204,625**	**$57,208,652**
LIABILITIES		
Accounts payable and accrued expenses	$116,035	$291,596
Grants payable	272,497	128,338
Refundable advances & custodial funds	8,148	9,972
Deferred revenue	5,573,637	6,989,261
Assets held in trust for others	8,593,482	8,738,157
Total liabilities	**$14,563,799**	**$16,157,324**
NET ASSETS		
Unrestricted	1,028,216	316,638
Temporarily restricted	11,704,811	12,826,891
Permanently restricted	27,907,799	27,907,799
Total net assets	**$40,640,826**	**$41,051,328**
Total liabilities and net assets	**$55,204,625**	**$57,208,652**

American Research Center in Egypt
Statement of Activities
For the year ended June 30, 2006

REVENUES AND SUPPORT	TOTAL	UNRESTRICTED
Grants	$3,607,230	2,985,230
Membership dues	$139,588	139,588
Contributions	$26,459	26,459
Cultural endowment trust earnings	$124,625	124,625
Meeting, lectures, and publications	$134,725	134,725
Investment income	$1,618,463	209,110
Net unrealized & realized gains on investments	$(545,244)	405
Other	$16,940	16,940
Net assets released from restrictions	$0	315,816
Total revenues and support	**$5,122,786**	**$3,952,898**
EXPENSES		
Program services		
Conferences and seminars	$31,157	31,157
Fellowships	$271,613	271,613
Library	$88,488	88,488
Public education	$68,159	68,159
Publications	$20,021	20,021
Restoration and conservation	$3,162,755	3,162,755
Scholars residence	$14,590	14,590
Total program services	**$3,656,783**	**$3,656,783**
Supporting services		
Management and general	$974,630	974,630
Membership development	$27,767	27,767
Fundraising	$1,270	1,270
Total supporting services	**1,003,667**	**1,003,667**
Total expenses	**$4,660,450**	**$4,660,450**
Total change in net assets before foreign exchange gain	$462,336	$(707,552)
Foreign exchange gain	$(51,834)	(4,026)
Changes in net assets	**410,502**	**(711,578)**
Net assets at beginning of year	**$40,640,826**	**1,028,216**
Net assets at end of year	**$41,051,328**	**$316,638**

Fellowships in Egypt 2008-2009

Fields of Study:
Archaeology
Art & Architecture
Economics
Egyptology
History
Humanities
Islamic Studies
Language & Literature
Political Science
Religion

Applications will be submitted on line
Deadline is January 7, 2008

Fellowships to be awarded in 2008:

The U.S. State Department Bureau of Educational and Cultural Affairs

Fellowships are available to pre-doctoral candidates in the all-but-dissertation stage and to post-doctoral scholars. Fellowships are restricted to U.S. citizens and are for a minimum stay of three months.

National Endowment for the Humanities

The NEH makes available 2-4 fellowships for post-doctoral scholars and non-degree seeking professionals for a minimum stay of four months. One of these fellowships is for the ARCE Scholar-in-Residence, established to promote collegiality at the Center.

The Samuel H. Kress Foundation

This Kress Fellowship in Egyptian Art and Architecture is an annual twelve-month fellowship given to a pre-doctoral candidate of any nationality.

The William P. McHugh Memorial Fund

The McHugh Award is a small grant given to a graduate student from any nation to encourage the study of Egyptian geoarchaeology and prehistory.

A Sample of the 2007-2008 Awards:

Paul Dilley - The Crisis of Conversion: Monastic Self-Formation in Late Antique Egypt

Salima Ikram - A Survey of Egyptian Rock Art

Michael McLaughlin - The Nubian Middle Paleolithic of Egypt and the Origin of Modern Humans

Melinda Nelson-Hurst - Title Inheritance and Reciprocity during the Middle Kingdom: an Examination of the Textual and Art-Historical Evidence

Nasser Rabbat - Historicizing the City: Al-Maqrizi and his Khitat of Egypt

Duration and Allowances:

The fellowship year begins October 1, 2008 and ends September 30, 2009.

ARCE fellows receive a monthly stipend commensurate with academic status and number of accompanying dependents, plus round-trip air transportation for recipients only.

A R C E
AMERICAN RESEARCH CENTER IN EGYPT

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Applications available at www.arce.org