

BEYOND MEMNON

BURIED FOR MORE THAN 3,300 YEARS, REMNANTS OF AMENHOTEP III'S EXTRAORDINARY MORTUARY TEMPLE AT KOM EL-HETTAN RISE FROM BENEATH THE EARTH

by HOURIG SOUROUZIAN

The towering Colossi of Memnon are among the most impressive of the ancient monuments that dot the West Bank of the Nile at Luxor. Yet few visitors are aware that these magnificent sculptures are but two of countless statues that once graced the Mortuary Temple of Amenhotep III—in its day, the largest and most lavishly appointed mortuary temple in the whole of Thebes, then capital of New Kingdom Egypt. Erected in the fourteenth century B.C., the Colossi of Memnon, portraits of the Dynasty XVIII pharaoh Amenhotep III (1391–1353 B.C.), mark the entrance to what was once a vast temple precinct. Today, traces of the temple can still be discerned in a swath of discolored earth that stretches some 700 meters along a modern road that traverses a patchwork of cultivated fields at the edge of the desert plateau.

Considered among the largest sculptural programs ever carried out in Egypt, the temple complex was composed of three enormous mud-brick pylons, the innermost linked to a Great Peristyle Court by a long processional way that in antiquity was likely lined with sphinxes. Colossal statues carved in quartzite and alabaster stood in front of each of the pylons. The entire precinct was enclosed by a mud-brick wall.

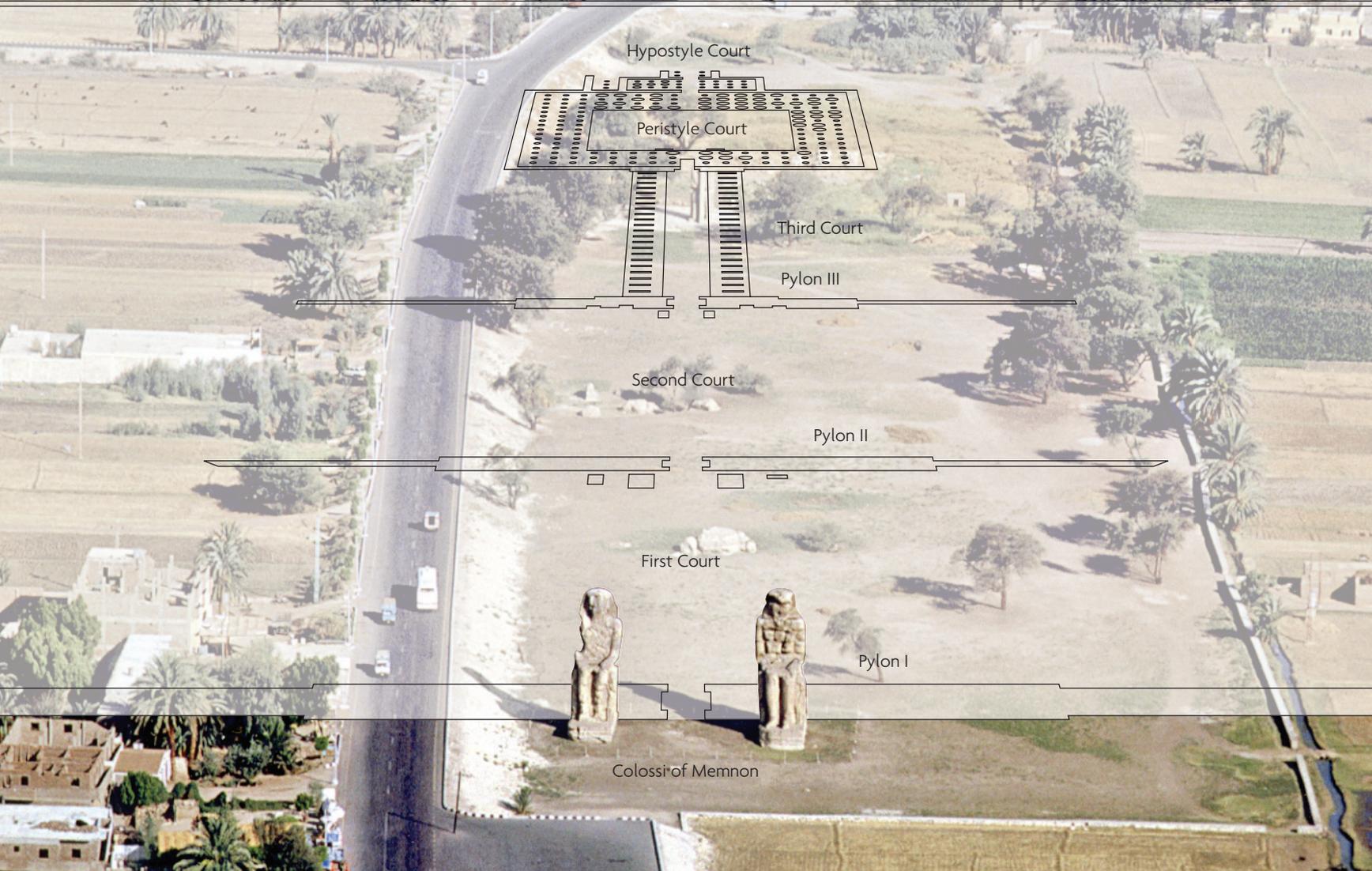
Until recently, however, it was thought that beyond the Colossi of Memnon, a few scattered architectural fragments, and faint soil stains, little survived of the temple at Kom el-Hettan, thought to have been toppled by an earthquake sometime in the thirteenth century B.C. Not long after the collapse, temple remains began to be harvested for a host of new Theban building projects, including the Mortuary Temple of Dynasty XIX pharaoh, Merenptah (r. 1212–1202 B.C.). Statues, stelae, and religious paraphernalia were readily appropriated for reuse in other West Bank temples.

Following an earthquake in 27 B.C. the northernmost of the colossi collapsed, and, at sunrise, began to produce an eerie musical sound that early Greek travelers interpreted as the mythical half-mortal Memnon calling out to his mother Eos, goddess of the dawn. Visitors came from far and wide to hear the song, including the Roman Emperor Hadrian and the Empress Sabine, who had to wait several days before the statue called out to them in A.D. 130. The bust was restored in the Roman period and mounted on huge sandstone blocks. According to legend, Septimius Severus (r. 193–211 A.D.), seeking to repair the colossus, inadvertently silenced it forever. It was from this strange phenomenon—thought to have been caused by a daily rise in heat and humidity—that the statue took its name, which now applies to both of the first pylon figures.

Over the millennia, Kom el-Hettan continued to be pillaged, most recently in the early nineteenth century when collectors and agents working on behalf of French and British consuls “discovered the site” seeing it as a rich source of museum-grade antiquities. Among the finds recovered during this period were two superb quartzite heads of Amenhotep and two dark granite seated royal statues that were sold to the British Museum. Another huge head of pink granite was acquired by the Louvre along with a pair of colossal royal feet resting on a statue base and figures representing Egyptian deities such as Sekhmet, goddess of pestilence and healing. Two enormous sphinxes were







ported to Alexandria for shipment to St. Petersburg to be placed at the embankments of the Neva River where they remain today, having been recently restored. Numerous other statues from the site continued to enrich collections of Egyptian antiquities worldwide.

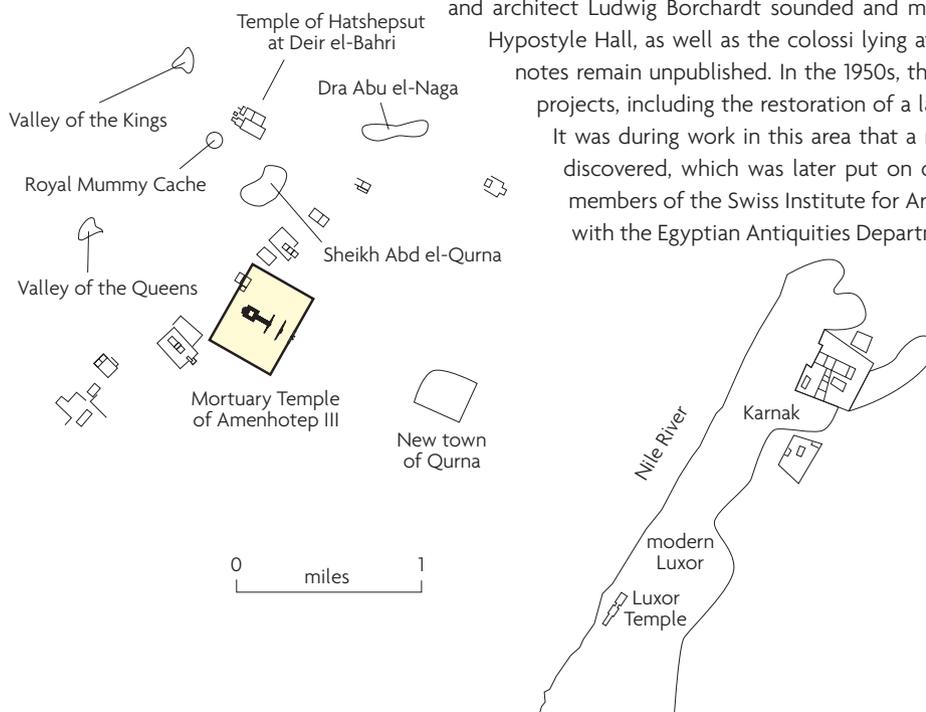
Despite these predations, however, recent exploration of the area by members of our international team of archaeologists and conservators has revealed that much of the temple has, in fact, survived at the site, albeit in fragments and in dire need of documentation and conservation.

Although Kom el-Hettan had been the subject of several archaeological campaigns, its remains had never been systematically excavated and mapped, save for a few isolated areas. In 1930, the well-known German Egyptologist

and architect Ludwig Borchardt sounded and mapped portions of the Great Peristyle Court and the Hypostyle Hall, as well as the colossi lying at the northern gate of the precinct. Unfortunately, his notes remain unpublished. In the 1950s, the Egyptian Antiquities Department carried out several projects, including the restoration of a large stela at the entrance to the Great Peristyle Court.

It was during work in this area that a monumental head of a royal statue in red granite was discovered, which was later put on display in the Luxor Museum of Art. In 1964 and 1970 members of the Swiss Institute for Architecture and Archaeological Research in cooperation with the Egyptian Antiquities Department opened up a number of exploratory trenches that were documented and later published. From these limited excavations, a preliminary map of the site was developed. However, it was far from complete. More-over, these early campaigns laid bare abundant architectural remains—stelae, columns, building blocks, and fragmented colossal statues—with no provision for their conservation.

Complicating matters has been a dramatic change in the Luxor landscape since the construction of the Aswan Dam in the 1960s. While the remains of the temple have not been directly



affected by seasonal floodwaters as they were in the past, they have suffered as a result of a rising water table, which has invited agricultural encroachment onto newly fertile lands in and around the ancient monuments. The situation has been further compounded by a rise in soil salinity from irrigation; slash-and-burn land clearing, the heat from which has caused massive stones to split; and an increase in exuberant vegetation such as camel thorn whose deep root systems have been able to penetrate cracks in even the strongest of subsurface stones.

Realizing that, collectively, these factors had put the entire temple site at risk of imminent disintegration, we pulled together a small multinational team in 1997 to develop a comprehensive long-term preservation program for Kom el-Hettan, which would be carried out under the auspices of the Ministry of Culture, the Supreme Council of Antiquities, and the German Archaeological Institute. A strategic component of our plan was the nomination of the site for inclusion on WMF's 1998 list of the *100 Most Endangered Sites*.

To our delight, the site was selected, and within months of the Watch list announcement, received a generous grant from American Express through WMF. These funds—which enabled us to clear the site of vegetation and carry out emergency stabilization of exposed remains, some of which were removed to a temporary onsite conservation laboratory for treatment—were later complemented by substantial contributions from Mme. Monique Hennessy and the Association des Amis des Colosses de Memnon.

In January 2000, with funding in hand, we embarked on an ambitious plan to conserve the entire temple complex, which covers some 385,000 square meters. To do so, however, required that we systematically map the whole site, document all remains above and below ground, and note the current conditions of each of the finds. For the past five seasons, we carried out resistivity and magnetometric surveys, looking for architectural remains and working to define the limits of the temple precinct. As we have progressed, results from our surveys are compiled and entered into an ever-growing database by the Colossi of Memnon Mapping Project (COMMAP).

In concert with the mapping effort, we have continued to treat exposed remains, including the colossi, as well as the smaller finds that had been transported to the lab. In 2002, the colossi themselves were cleaned and their surfaces were stabilized. During this work, we were surprised to find scattered about their bases 12 large blocks of quartzite that originally formed much of the body, throne, and base of the southern colossus. It is possible that missing stone from the statues' faces also lies buried nearby. Re-restoration of the colossi using their original stone would require a full excavation around



THE HEAD OF THE NORTHERN COLOSSUS OF THE SECOND PYLON IS CONSERVED IN AN ONSITE LABORATORY.

PRIOR TO THE BEGINNING OF THE AMENHOTEP III MORTUARY TEMPLE PRESERVATION PROJECT, NEARLY ALL OF THE REMAINING STATUARY FRAGMENTS LAY IN SALINE WATERS AMID CULTIVATED FIELDS. TODAY, MOST OF THE SITE HAS BEEN CLEARED OF VEGETATION, AND, ONE BY ONE, SURVIVING SCULPTURE FRAGMENTS ARE BEING SEPARATED FROM SALT WATER WITH AN IMPERMEABLE BARRIER, A TEMPORARY MEASURE UNTIL THE GROUND WATER PROBLEM IS SOLVED PERMANENTLY .





THE BASE AND FEET OF ONE OF THE NUMEROUS COLOSSI OF AMENHOTEP III, BELOW, PRIOR TO CONSERVATION. THE SAME AREA OF THE SITE DURING TREATMENT. THE SITE HAS BEEN CLEARED OF VEGETATION AND A LAYER OF GRAVEL HAS BEEN PLACED BENEATH SCULPTURES WHERE POSSIBLE. SMALLER PIECES HAVE BEEN TAKEN TO AN ONSITE LAB FOR CONSERVATION.

and below the statues so that all surviving fragments could be recovered. The long-term preservation of the colossi, however, will depend on our ability to address the problems of groundwater intrusion and vibrations caused by buses and cars rumbling along the road adjacent to the site.

Working west from the colossi, we began excavations in the area of the second pylon, 100 or so meters away, to document the remains of another colossal statue—that of a seated pharaoh wrought in red quartzite, which had fallen across the entrance to the second pylon in antiquity, breaking into several large parts. Centuries of exposure to salt and vegetation had rendered the exposed portion of the statue shapeless beyond recognition. According to an archaeological report, parts of the statue had been uncovered in the 1950s, however, it was unclear how much of the statue had survived. We were amazed to find that the entire right half of the figure was preserved. The head, which weighs some 25 tons, along with the statue's right shoulder, arm, knee, and leg were pulled from the mud by more than 180 workmen using a winch. The massive fragments, which were wrapped in protective cloth, have since been taken to a laboratory tent for conservation treatment. Smaller fragments have been registered, photographed, and stored for study in a temporary workshop.

Hidden in the mud, behind the leg of the fallen colossus, we made a most extraordinary discovery, that of a statue of the pharaoh's queen consort Tiye, which once stood to the right of the pharaoh's throne. The impressive figure is intact and measures 3.245 meters in height including the crown of feathers. As our excavation of the statue progressed, groundwater had to be pumped constantly.

In addition to recovering the statues, we continued excavations in the area of the second pylon, discovering the remains of its gate and exposing a portion of the east façade of its northern wing. The façade has two large niches each measuring 212 x 168 meters, which we believe may have framed royal banners that once flew from cedar flagpoles mounted on pedestals of finely polished red granite that we found in situ. We also recovered numerous small silver and copper nails that we suspect were used to fix a plating of gold leaf to wooden flagpoles, which have long since disintegrated. The final dimensions of the pylon, however, could not be determined as rising groundwater prevented further investigation. We have since covered exposed brick features with protective cloth and backfilled our excavations.

Near the third pylon were an alabaster statue of a crocodile and large blocks belonging to two colossal statues of Amenhotep III rendered in alabaster that once flanked the pylon's gate. These fragments remain in situ, half submerged in mud. Although we have cleared the area of damaging vegetation and have covered the statues with fine sand—a temporary measure to slow the corrosive effects of salt water—the sculptural remains are in desperate need of conservation. Their excavation, extrication, and treatment, however, is an expensive proposition for which we are now raising funds.





In antiquity, Kom el-Hettan's Great Peristyle Court was surrounded by porticoes supported by massive sandstone columns carved in the form of papyrus bundles. Most of these were quarried millennia ago for reuse in the construction of other West Bank monuments. However, numerous column bases remain in situ marking the location of the columns. The eastern, northern, and southern porticoes were composed of three rows of columns while four rows comprised the western portico.

Between the columns in the façades of these porticoes were colossal statues of the pharaoh, standing hands crossed and holding a crook and flail, the royal insignia. In the northern half of the Peristyle Court, the royal statues were wrought in quartzite from Gebel el Ahmar, a quarry in the vicinity of ancient Heliopolis, near modern Cairo, and wear the crown of Lower Egypt (North). In the southern half, the statues were of red granite from Aswan (South) with the crown of Upper Egypt.

While most of the sculptures in the Great Peristyle Court were looted over the centuries, we have recovered thousands of statue fragments and splinters within the rubble left by previous excavations—official and clandestine—in and around the Peristyle Court in the course of clearing the site and mapping it. After documentation, all these statue fragments are being conserved and reassembled to the extent possible.

Throughout the peristyle we found numerous life-size statues of the goddess Sekhmet—identified by her lioness head and anthropomorphic female body shown seated and carved in granodiorite. Most of these, which were concentrated in the northern and eastern porticoes, had been knocked over in antiquity, most likely during later quarrying to recover sandstone from the ceilings, walls, and columns of the porticoes. Even though the Sekhmet statues had suffered some damage from salt infiltration, they were far better preserved than the statues of the pharaoh. These have since been removed from the court and transported to our onsite conservation lab. In addition, we also “rediscovered” a magnificent alabaster statue of a white hippopotamus among the Sekhmet statues in the northern portico. The hippo sculpture had been noted during excavations in the 1970s but it was somehow never recorded. Its head and tail are missing, which may still lie in situ, however, ever-present groundwater prevented further exploration of the area, which we hope to resume next season.

THE COLOSSI WERE RECENTLY CLEANED AND CONSOLIDATED. IT IS HOPED THAT THE NORTHERN COLOSSUS, WHICH WAS RESTORED WITH NEW STONE IN THE ROMAN PERIOD, WILL ONE DAY BE RE-RESTORED WITH ITS ORIGINAL MATERIAL, FRAGMENTS OF WHICH HAVE COME TO LIGHT AT THE SITE. BELOW, AN ALABASTER HIPPO IS MOVED TO THE LABORATORY.





A STATUE OF QUEEN TIYE, THE WIFE OF AMENHOTEP III, WAS FOUND BURIED IN THE MUD BENEATH A COLOSSUS OF THE PHARAOH, WHICH HAD FALLEN ACROSS THE ENTRANCE TO THE SECOND PYLON.

Just to the west of the Peristyle Court, we cleared the area of the Hypostyle Hall of centuries of debris so that it too could be properly mapped. Like the porticoes of the Peristyle Court, the Hypostyle Hall was once supported by rows of papyrus bundle columns. Today, however, only their bases survive, most of which are in the southern half of the building. It was here that during our 2003 field season we happened upon a cache of six standing statues of Sekhmet, holding in one hand her papyrus stalk, in the other an ankh, the symbol of life.

Following treatment, the statues of Sekhmet were put on display in our temporary site museum. Our hope is that when we complete the documentation and stabilization of the Peristyle Court, we will be able to present the restored sculptures in their original context. We hope to do the same with some of the other colossal statues but this cannot happen until the groundwater problems are permanently addressed. At present, we are carrying out thorough examination of the foundations beneath various structural remains in an effort to find a permanent solution.

Clearly, all of these finds need to be isolated from their moist, saline environment. We hope that the Egyptian government declares the site and a buffer zone around it off-limits to agriculture and bans irrigation in the area. This would prevent any further increase in soil salinity. In addition, we are examining ways to decrease the salts and water that have already infiltrated the site. We believe this could be accomplished through a system of aqueducts and wells that constantly channel and drain water away from buried temple remains. We will be testing a scaled-down version of a well system in the area of the Peristyle Court and the second pylon to see if it could be effectively used throughout the mortuary temple complex. We are also placing protective barriers between the soil surface and any of the statues that we reassemble for display in situ. Another solution would be to install a protective barrier between the water table and the foundations of all the monuments. Unfortunately, both of these solutions are extremely expensive, the latter in particular could actually damage fragile portions of the site. Should we find an effective method to deal with the groundwater issue, it will be an invaluable tool in preserving other sites in the West Bank.

It will take an estimated 20 years to complete the documentation, stabilization, and restoration of the site as well as to properly present it to the public as a vast open-air museum. We are also planning to build a permanent on-site museum to house more fragile objects and finds recovered during earlier campaigns that are at present housed in a number of warehouses in the Luxor area. We envision displays that provide an overview of the history of the temple—from the quarrying of stone for its monuments to the innovative methods used in its conservation. While our goals may seem ambitious, what is at stake is nothing short of priceless. The Colossi of Memnon mark not only the entrance to a once-grand monument, they are the first to greet those touring the monuments of ancient Thebes—highly visible, ever-present, and, with help, forever enduring. ■

WMF at Thebes—A Race Against Time

In addition to underwriting conservation efforts at Amenhotep III's once-magnificent Mortuary Temple at Kom el-Hettan, WMF is supporting three other major initiatives at Thebes. In the Valley of the Kings, burial place of the New Kingdom pharaohs, including the boy king Tutankhamen, WMF, with support from American Express, has funded the design and installation of new signage as well as the development of a masterplan for the site. Egyptologist Kent R. Weeks, director of the Theban Mapping Project, and his team are currently carrying out conditions assessments for those tombs that are open to the public as well as formulating recommendations for limiting visitor impact on the site, which sees some 1.5 million tourists annually.

At Luxor Temple, also commissioned in large part by the Dynasty XVIII pharaoh Amenhotep III (1391–1353 b.c.), Ray Johnson of the University of Chicago's Oriental Institute and his team are continuing to collect, conserve, and document thousands of decorated sandstone wall and gate fragments excavated throughout the precinct. With WMF support from its Robert W. Wilson Challenge, the Epigraphic Survey (based at Chicago House) has moved all of the fragmentary material off the wet ground onto hundreds of meters of specially built brick platforms, damp-coursed against Luxor's corrosive, salty groundwater. Deteriorating fragments have been isolated, documented, and are being treated by stone conservator Hiroko Kariya. Johnson has begun sorting and reassembling the material, and has discovered that while half of the material comes from dismantled parts of Luxor Temple, half again comes from Karnak three kilometers away! The ultimate goal is to restore as much fragmentary material as possible to the original walls, at Luxor Temple and Karnak, and to reassemble the rest in an open-air museum to the east of Luxor Temple.

At Karnak Temple, François Larché, director of the Centre Franco-Égyptien d'Étude des Temples de Karnak, and his team carried out an extensive survey before embarking on the dismantling, consolidation, and reconstruction of the southern wall of the so-called Annals Courtyard. Dedicated to the worship of the god Amon-Ra and built by Seti II with blocks appropriated from an earlier wall commissioned by Thutmose III, the wall is teetering on the brink of collapse. Reliefs carved on the wall's numerous blocks show Seti II making appropriate offerings to a seated Amon-Ra. Scenes from older reliefs, which can still be discerned on 17 blocks taken from Thutmose III's wall, bear passages from the so-called Annals Texts, which highlight the pharaoh's accomplishments during his reign.



NEW SIGNAGE INSTALLED IN THE VALLEY OF THE KINGS IS PROVING INVALUABLE IN LIMITING THE CACOPHONY OF MULTILINGUAL LECTURES WITHIN THE NEW KINGDOM TOMBS THAT ARE OPEN TO THE PUBLIC. KENT R. WEEKS, ABOVE, AND HIS TEAM ARE NOW CARRYING OUT A CONDITIONS ASSESSMENT OF THE VALLEY. AT LUXOR TEMPLE, BELOW, RAY JOHNSON AND HIS UNIVERSITY OF CHICAGO TEAM ARE RECOVERING THOUSANDS OF ARCHITECTURAL FRAGMENTS FROM THE SITE, REMOVING THEM FROM THEIR DESTRUCTIVE SALINE ENVIRONMENT, AND DOCUMENTING THEM. AS WITH MOST OF THE ANCIENT MONUMENTS AT THEBES, THE RISING WATER TABLE HAS TAKEN ITS TOLL ON THE TEMPLE.

