

SPHINX and TROWEL

Volume I
Number 1

newsletter

Conservation in
Theban Tomb 16

Excavating Egypt's
Ancient Capital

The background of the entire page is a photograph of a tropical sunset. The sky is filled with orange and yellow clouds, with the sun low on the horizon. In the foreground, there is a dense line of palm trees and other tropical vegetation. A body of water in the bottom left corner reflects the colors of the sunset and the silhouettes of the trees.

THE SPHINX FOUNDATION

FOR ARCHAEOLOGICAL RESEARCH

www.sphinxarchaeology.org

SPHINX AND TROWEL NEWSLETTER



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MESSAGE ON THE 2024-2025
Research and Fieldwork
Season

EXECUTIVE DIRECTOR

Dear Friends,

The past year has been incredible, and I wish to thank everyone for their support, especially the donors, board members, accountants, legal and financial advisors, project directors working in Egypt, and friends and colleagues in the US, Egypt, and throughout the world. The enthusiasm and support from the Ministry of Tourism and Antiquities, Supreme Council of Antiquities, officials, inspectors, and specialists in archaeological fieldwork in Egypt, has been especially touching. The success of the first year of The Sphinx Foundation for Archaeological Research (SFAR) would not have been possible without their support and guidance.

As I have said before, the world is ever changing, and the increasingly limited funding sources and budgetary restrictions faced by academic institutions and museums, existing nonprofit organizations, along with rising costs, makes SFAR a critical partner to ensure that academic research, fieldwork, and conservation projects to explore and preserve the past continues unimpeded. This is especially true now; the landscape for funding to support such endeavors has irrevocably changed in the past months.

The foundation hopes to strengthen ties between Egyptian and American professionals in the field and further advocate for equity and integrity in the pursuit and transmission of knowledge. SFAR strives to further scientific and interdisciplinary approaches to address questions regarding the Egyptian past.

The pages that follow in our inaugural newsletter describe the incredible work of our partners in Egypt. The results from the initial work to clean the badly damaged scenes in the "Tomb of the Birds" (TT16) is astonishing and serves to underscore the need for this work to continue. Similarly, the results of the initial season at *Kom el-Fakhry*, Egypt's ancient capital of Memphis, has proved substantial to our understanding of one of the earliest administrative centers in the world. This work is set to continue and will likely prove invaluable.

We have many exciting things planned for the coming year. I look forward to your support as we continue this journey.

With immense gratitude and kind regards,



Daniel M. Warne
Executive Director

THE SPHINX FOUNDATION

FOR ARCHAEOLOGICAL RESEARCH



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The Sphinx Foundation for Archaeological Research is a 501(c)(3) non-profit corporation that was created to provide charitable funding and services for archaeological missions working in Egypt and for research projects engaged in scientific analysis, conservation, and the study of Egyptian material culture in the United States, Egypt, and other countries associated with such endeavors.

Make a tax-deductible donation to support new and ongoing research projects that uncover the mysteries of our shared human past. Please help our partners' vitally important work by making a gift via our online portal today. Thank you!

Support archaeological research in Egypt and become part of the adventure.



Image courtesy of MKAP.



Image courtesy of MKAP.

REDISCOVERING MEMPHIS

UNCOVERING EGYPT'S ANCIENT CAPITAL

Raghda (Didi) El-Behaedi



Above: Team photo from the 2023 MKAP excavation season (courtesy MKAP).

For centuries, Memphis (*men-nefer*) reigned as one of the most important cities of the ancient world—Egypt's first capital, seat of royal power, and a sprawling metropolis teeming with life. And yet, in modern times, Memphis has remained largely out of sight—its ruins obscured by time, neglect, and the encroachments of modern life. Today, a renewed archaeological effort is working to bring this legendary city back into the spotlight. In 2023, the Memphis Kom el-Fakhry Archaeological Project (MKAP) launched its first season at Kom el-Fakhry, one of the key mounds within the Memphis archaeological zone. With a focus on archaeological preservation, digital documentation, and the recovery of ancient layers long thought lost, MKAP has taken a major step in reintroducing Memphis to the historical record.

Highlights from the Memphis Kom el-Fakhry Archaeological Project (MKAP)

A City Waiting to be Rediscovered

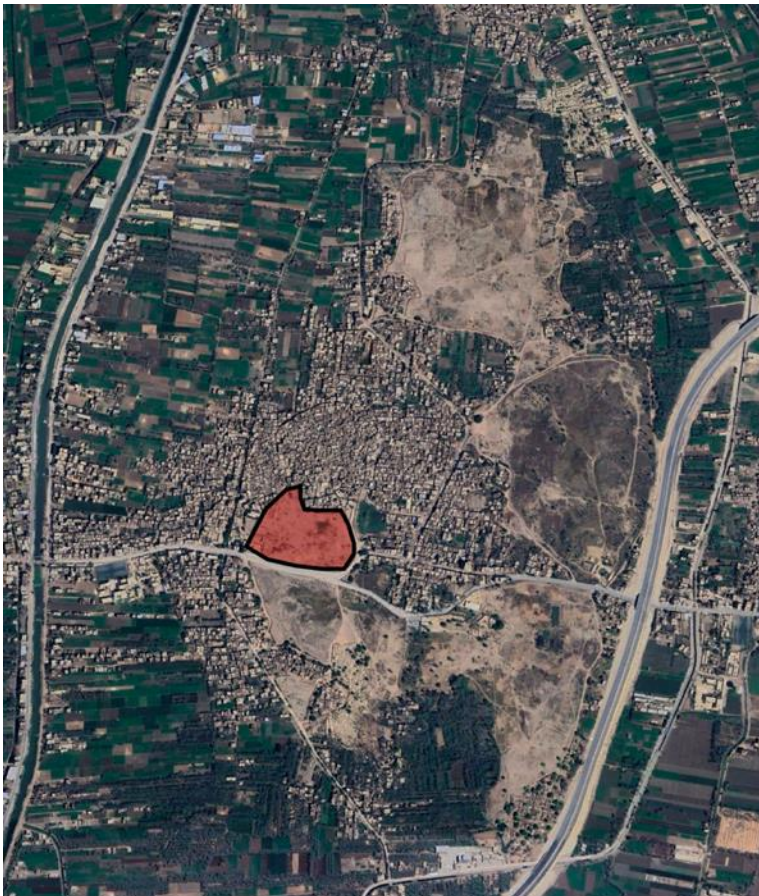
Located just south of modern-day Cairo in the village of *Mit Rahina*, ancient Memphis once stood at the symbolic and geographic crossroads of Upper and Lower Egypt. Traditionally founded around 3100 BCE by the legendary King Menes, the city served as the beating heart of the Egyptian state for millennia. Though its name lived on in historical records, classical writings, and medieval travelers' accounts, the physical city gradually slipped from view—its stones dismantled and reused in later constructions, its temples buried beneath centuries of Nile silt, and its

once-bustling neighborhoods overtaken by farmland and modern expansion. Over time, even Memphis' exact location was lost to memory, reduced to legend and speculation, waiting to be rediscovered beneath the fields and roads of Mit Rahina.

While portions of the ancient city have been investigated by archaeologists over the past two centuries, many of these discoveries were accidental – brought to light during military activity, construction projects, or farming. With few exceptions, systematic excavation and long-term documentation have remained limited, and key areas like Kom el-Fakhry remained virtually untouched by sustained archaeological research—until now.

Why Kom el-Fakhry?

Kom el-Fakhry is not just another mound in the sprawling archaeological landscape of ancient Memphis—it is one of the most significant. To date, it is the site of the oldest in-situ architectural remains yet discovered at Memphis, offering a rare and invaluable glimpse into the city's earliest phases of urban development. Its importance first came to light in the early 1950s, when the construction of the Bedrashein–Saqqara Road inadvertently cut through the mound, exposing a First Intermediate Period cemetery and, shortly thereafter, parts of a Middle Kingdom settlement. In the decades that followed, additional finds—such as New Kingdom silos and mudbrick structures—further confirmed Kom el-Fakhry's long and multi-layered history of occupation.



Map of the modern archaeological zone of Memphis with *Kom el-Fakhry* outlined in red (courtesy MKAP).

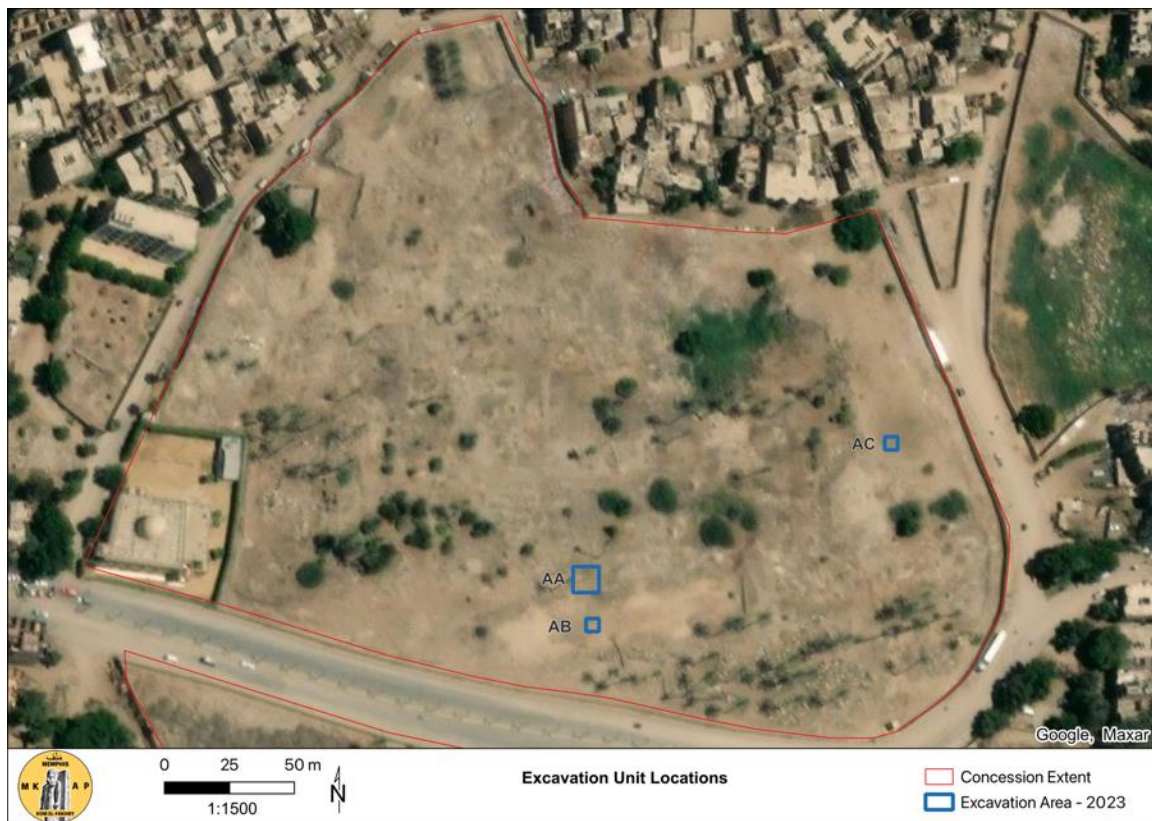
Yet despite these discoveries, the site had only seen limited and intermittent investigation, with no long-term archaeological project dedicated to fully uncovering its history. A particularly important season of excavation took place in 2011, carried out by the Mit Rahina Field School—an initiative led by Ancient Egypt Research Associates (AERA), the American Research Center in Egypt (ARCE), and the Egyptian Exploration Society (EES). This season yielded valuable findings and insights, but the work remained limited in scale and was never fully published. With much of the mound still unexcavated and increasingly threatened by modern dumping, erosion, and the lingering effects of past looting, the MKAP team recognized Kom el-Fakhry as an urgent research and conservation priority.

The site's proximity to the Ptah temple complex and its location near what was likely the heart of ancient Memphis made it

an especially promising site—one that could yield vital insights into the city's urban fabric, institutional infrastructure, and long-term historical trajectory. As the main sanctuary Memphis' patron deity, the Temple of Ptah served as both a religious and administrative hub, anchoring royal rituals, temple economies, and priestly authority. Excavating near this monumental complex offers a rare opportunity to understand how sacred, political, and residential spaces once intersected in Egypt's first capital.

Goals and Groundwork

Under the direction of a collaborative team of Egyptian and American archaeologists, MKAP launched its first field season in October 2023. The team—comprising specialists in archaeology, ceramics, digital documentation, and environmental survey—worked closely with inspectors from the Ministry of Tourism and Antiquities to develop a multi-pronged approach to the site.



Excavation unit locations (AA, AB, and AC) from the previous field season (prepared by Dan Plehov).

Three central objectives guided the work:

1. Expand previous excavations of the Middle Kingdom settlement that had been identified in limited form in earlier research.
2. Determine whether Old Kingdom layers remain preserved in situ beneath later construction phases.
3. Survey and digitally document the mound to create an updated, high-resolution map of the area for future research and conservation.

The excavation team targeted three areas within the concession, designated as Units AA, AB, and AC, each selected for its potential to reveal new insights into the urban history of Memphis.



Uncovering the City's Deep History

Units AA and AB yielded particularly promising results. In Unit AA, MKAP expanded upon areas previously explored by earlier projects, uncovering residential architecture and clear signs of domestic activity dating to Egypt's Middle Kingdom (ca. 2040–1640 BCE). Among the most striking discoveries were two ceramic deposits—remarkably well-preserved clusters of vessels, many still intact and seemingly left in place as they were used. These finds offer valuable glimpses into daily life more than 3,800 years ago. Some of the vessels closely resemble those associated with high-status homes at sites like Lahun, raising compelling questions about the social status of Kom el-Fakhry's residents and their relationship to the broader urban fabric of Memphis. The careful spatial layout—defined by intersecting walls, potential courtyards, and adjoining rooms—begins to reveal a once-thriving neighborhood, offering a rare window into the lived experience of the Middle Kingdom capital, a period often overshadowed in Memphis by its better-known New Kingdom monuments. In Unit AB, efforts were focused on reaching earlier deposits, with the goal of uncovering traces of the Old Kingdom capital that flourished during Egypt's pyramid-building period. This work resulted in a key discovery: intact late Old Kingdom deposits from Dynasties 5 and 6, found in situ. These represent the first securely documented Old Kingdom layers ever found at Memphis to date. Adding to the complexity of the discovery, a partially preserved human skeleton was also uncovered at the base of the trench. Although the burial was left in place for future analysis by a specialist, its presence

Luiza Silva and Dan Plehov carefully uncover a ceramic deposit dating to the Middle Kingdom (courtesy MKAP).

Workmen breaking ground on a
newly opened excavation unit
(courtesy MKAP).



raises important questions about how space was used in early Memphis—was this an isolated burial beneath a domestic floor, or part of a broader cemetery? At present, it remains too early to determine the exact context, but the find opens up intriguing possibilities for future investigation.

Encouraged by the discovery of the late Old Kingdom remains, the team conducted augering at the base of Unit AB, uncovering an additional 2.5 meters of cultural material likely dating to the Old Kingdom or earlier. These results suggest that the remains uncovered in 2023 may be just the beginning. While the full significance of these discoveries is still unfolding, they mark a major milestone in the archaeological history of Memphis. They open the door to a new chapter in our understanding of the city's earliest urban development and suggest that substantial portions of the Old Kingdom capital *may* still lie preserved beneath the surface, waiting to be revealed.

Unit AC, by contrast, was opened farther east to explore whether ancient remains might extend toward the Ptah temple precinct. However, after two days of excavation, it became clear that this area had been heavily disturbed in modern times—containing thick layers of compacted debris and modern trash fill, likely associated with road leveling and use as a soccer field. Although no ancient features were reached, the unit still provided valuable information about recent activity on the site and helped confirm that areas farther east may be less archaeologically promising in the short term. This, in turn, allowed the team to better prioritize future excavation zones with higher potential for preserved ancient occupation.



Didi El-Behaedi and Luiza Silva excavating Old Kingdom-era human remains (courtesy MKAP).

Protecting What Remains

Alongside excavation, MKAP prioritized documentation and site preservation. A detailed topographic survey was completed using high-precision Global Positioning System (GPS) and photogrammetry, creating an accurate digital model of the mound and its features. This work was particularly vital given the site's complex modern history—an area once threatened by illegal construction, waste dumping, and neglect. By mapping the visible architecture, modern debris, and looting activity across the site, the team

laid the groundwork for future excavation units and for long-term monitoring of the area's condition. This effort also included installing a permanent survey marker and producing digital reference maps to support future work.

As part of the project's outreach and stewardship mission, MKAP also produced an informational sign in both Arabic and English, now housed at the Mit Rahina Open-Air Museum, to help raise awareness about the importance of Kom el-Fakhry among visitors and local communities. Designed to be both accessible and informative, the panel highlights the site's long history, recent discoveries, and the significance of preserving Memphis' cultural

heritage. By placing it within the museum—a key stop for both tourists and school groups—MKAP hopes to foster greater appreciation for the ongoing research and the shared responsibility of protecting Egypt's archaeological legacy.

A Collaborative Future

One of the hallmarks of MKAP is its commitment to partnership. The project is co-directed by Dr. Raghda (Didi) El-Behaedi and Dr. Elham Ahmed, with Dr. Kelly-Anne Diamond serving as Assistant Director. The team is composed of Egyptian and American specialists, joined by skilled local workmen from Mit Rahina and quffis—hereditary master excavators—under the leadership of Reis Omar Farouk.

Luiza Silva and Catie Witt examine and sort ceramic finds (courtesy MKAP).



A freshly unearthed Middle Kingdom vessel held by Luiza Silva and Serag Abd Tawad (courtesy MKAP).



This collaborative framework not only promotes professional exchange and training but also reflects a growing emphasis in archaeology on inclusive, community-engaged practice. The goal is not only to extract data from the ground, but to build sustainable, transparent, and locally invested research programs.

What Comes Next?

MKAP's previous work has revealed just a fraction of what Kom el-Fakhry—and Memphis more broadly—may still hold. The discovery of preserved Middle Kingdom and Old Kingdom remains suggests that substantial areas of the city's ancient core are still accessible to archaeologists, despite centuries of change. In upcoming seasons, the team plans to expand the excavation area, deepen its exploration of earlier layers, and refine our understanding of how this once-great capital developed over time. The project will also continue working with local authorities on site protection and community outreach, including building a new guard house. Ultimately, MKAP hopes to help rewrite the story of Memphis—not just as Egypt's ancient capital, but as a

dynamic urban landscape whose legacy continues to unfold through careful excavation and collaboration.

Stay Connected

To follow our progress and future field seasons, keep an eye on our Instagram page (@excavating.memphis). For now, Kom el-Fakhry stands as a reminder that even the most legendary cities can be lost to time—and, with care, brought back to light. 🐘

2023 MKAP Excavation Team

Raghda (Didi) El-Behaedi, *Director*
Elham Ahmed, *Co-Director*
Kelly-Anne Diamond, *Assistant Director*
Luiza Osorio G. Silva, *Archaeologist*
Daniel Plekhov, *Surveyor*
Catherine Witt, *Registrar*
Ibtehal Ali Ahmed Ali, *Illustrator*
Ramadan Elkout, *Chief Inspector*
Ekramy Elsaket, *Inspector*
Reis Omar Farouk, *Foreman & Excavation Manager*
Yaseen Hassan Abdullah, *Qufti*
Serag Abd Tawad, *Qufti*
Shahad Muhammad Mahmoud, *Qufti*
Local Mit Rahina workmen

MKAP team photo at Kom el-Fakhry (courtesy MKAP).



A man with a headlamp is shown in profile, looking up at a large, ancient Egyptian wall painting. He is using a small, thin tool to carefully clean or restore the painting. The painting depicts a bird, possibly a falcon or hawk, with its wings spread, rendered in green, yellow, and brown pigments. The background of the painting is dark, and the surrounding wall is also dark and textured. The man is wearing a black headlamp and a black shirt.

Suzanne Onstine

CONSERVING THEBAN TOMB 16



Protecting the Legacy of Panehsy and Tarenu at Dra abu el-Naga Season Report 2024

In the winter of 2024, the University of Memphis team returned to Theban Tomb 16, a Ramesside tomb belonging to Panehsy and Tarenu who lived during the reign of Ramesses II, ca. 1250 BCE. The tomb is part of the famous "Valley of the Nobles", a vast cemetery of non-royal Egyptians who lived in the New Kingdom through the Greek and Roman eras. Our tomb-owner Panehsy and his wife Tarenu were musicians participating in temple rituals. They did not have very high titles, but they built a beautiful tomb with many colorful depictions of daily life and religious scenes. This marked the team's first full scale conservation efforts to be undertaken. After many years of archaeological clearance and epigraphy (since 2008!), funding from the Sphinx Foundation allowed us to hire master conservator Erico Peintner to direct and begin the work.

Opposite: Master conservator Erico Peintner works to reveal the birds in TT16 (courtesy of the University of Memphis Mission to TT16).

The tomb was built low in the foothills of the Dra abu el-Naga region of the Theban mountains in a layer of conglomerate limestone that is very friable. As a result, the tomb builders had to use a thick layer of mud substructure, sometimes even mud bricks, on the walls for the plaster and paint to sit on. Although this was a robust solution in antiquity, it means that the walls are sometimes not securely attached to the stone anymore and that the mud layer attracted insects because it is full of organic

material. Consequently, the plaster layer is fragile. Further complicating the situation are a variety of human-caused problems, including thick layers of smoke damage, and sections of the wall that were looted using a knife that left cut marks, jagged edges, and exposed mud layers.

Conservation Work

The main focus of our conservation work this season was to begin cleaning the decorated walls, in particular in the second



Erico Peintner using Infrared photography to assess the level of damage to the scenes in the second room of the tomb. The photos above to the left reveal the scenes hidden behind the layers of burning caused by past episodes of looting (courtesy TT16).

room which is not published anywhere and has the most smoke damage. Erico Peintner began with test patches of different solutions to see which would be best to use on the burnt walls. Infrared photography was used in key areas to determine how much paint remains.

Several test spots were done over 4 days to get the best mixture of cleaning chemicals. Different ratios of ingredients were necessary for different pigments. After choosing the best formulation of materials Erico began cleaning a section with birds on the ceiling of the second room. The ceiling is covered with many birds in flight, grape clusters, plants and vines, leading us to call it **“the tomb of the birds”**. There are no exact parallels for it and this section of the tomb is unpublished, so it was prioritized as a place to start. The initial results are stunning. As birds begin to emerge from the blackness, it is easier to imagine what the effect would have been across the entire ceiling of the back room. In antiquity, the undulating rock face and flickering torchlight would have created the illusion of movement, as if the birds took flight as you entered their domain.

Other areas addressed included the deified Amenhotep I and the *sm*-priest in the second room and a section of the ceiling in the first room. Each of these areas were affected by the smoke in slightly different ways. The second part of the conservation involved the removal of old mud *mouna* (the Egyptian Arabic word used for the mud

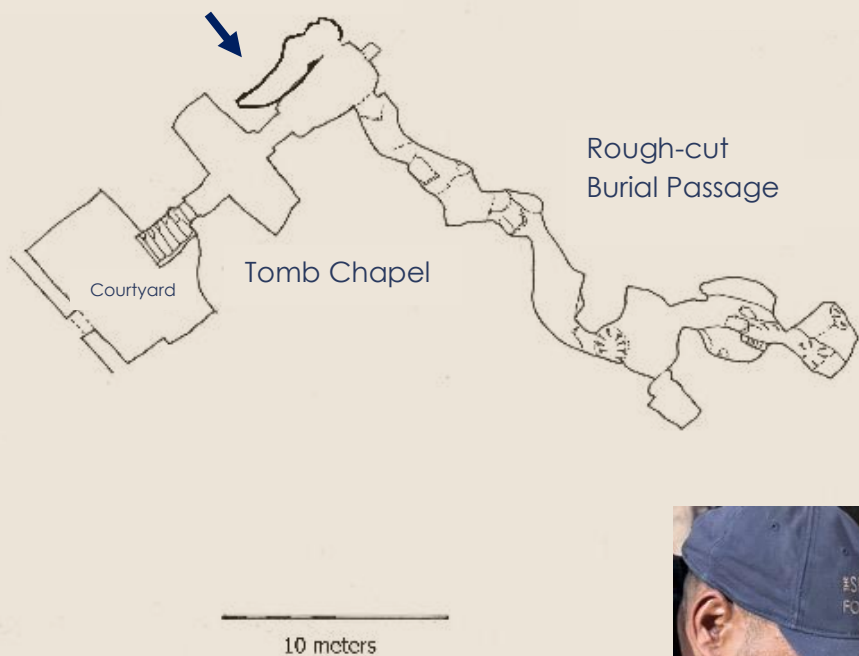
Above and right: Erico Peintner works carefully to remove the layer of soot that darkens this scene of a *sm*-priest in the second room, the same areas as revealed in the IR photo above. (courtesy TT16).





The current state of the vaulted ceiling with the section that was cleaned by the conservator in the lower right (detailed image to the left). The natural light from the entrance highlights some of the preserved decoration masked by the discoloration from burning during episodes of looting in the past (courtesy ITI6).

Location of the new room discovered during the season.

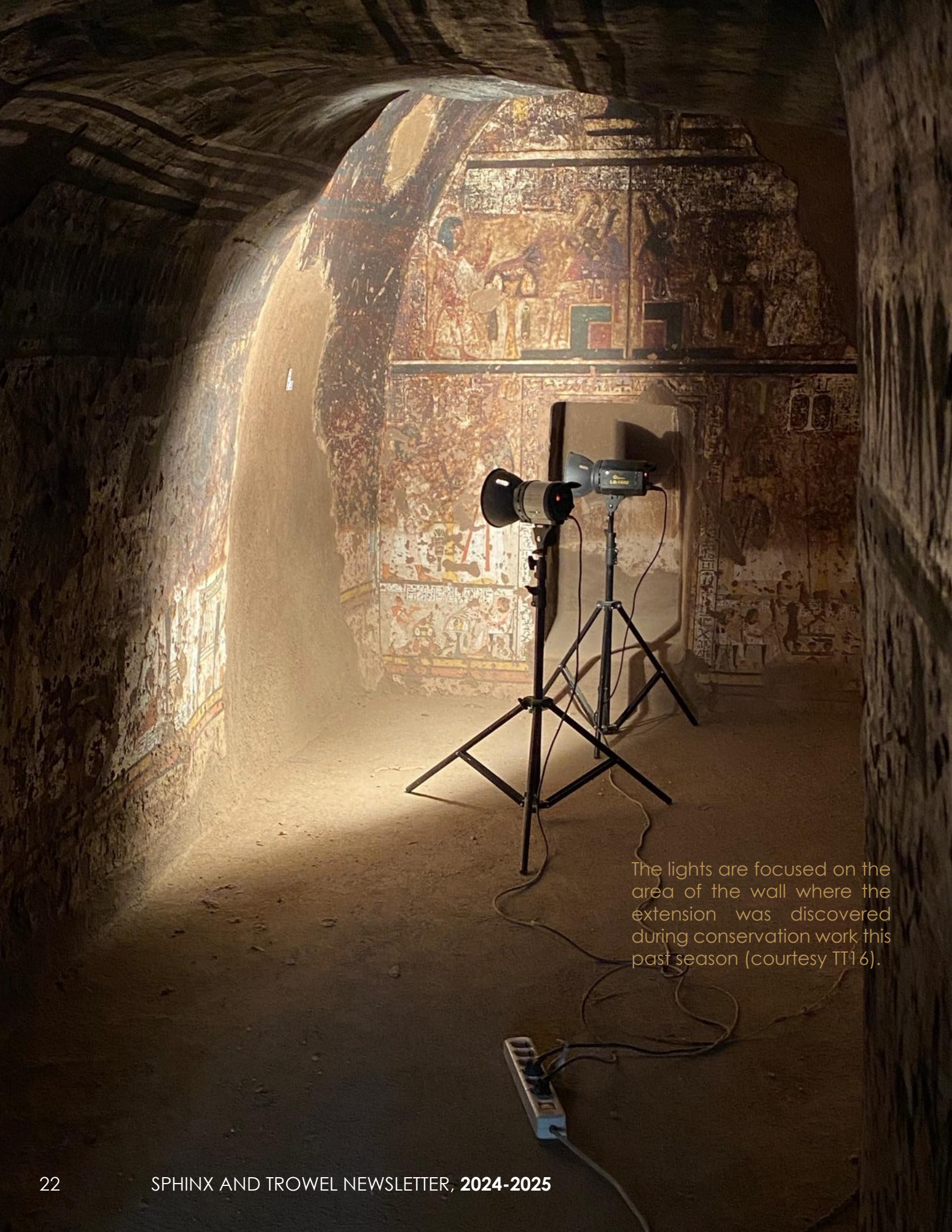


used as plaster) installed by previous conservators to fill empty areas of plaster loss. This material contains a lot of organic bits like straw which attracts insects. Our goal is to remove all of this prior conservation material that was probably done around 60- 70 years ago. Better materials that limit insect infestation and still allow the stone underneath to breathe are now available.

In the process of removing *mouna* on the south wall of the second room, Conservator Ahmed Sallam discovered a modern limestone block wall underneath that covered a large hole, or door, leading into another small chamber. Since this part of the tomb has never been published and there were no records in the government inspectorate documenting their conservation many years ago, we were unaware of its existence, even after working in the tomb since 2008! After several days of

Above: (1) Plan of TT16 with rough sketch of the newly discovered extension; (2) Ministry Conservator, Ahmed Sallam stabilizing the edges of the decoration; (3) Erico Peintner cleaning another test area (Courtesy TT16).

removing the cement and limestone blocks, as well as a very large chert nodule blocking the entry, it was finally opened enough to crawl into the previously hidden room behind the wall. It is still unclear why it was walled up but excavation in this area in 2026 may shed light on the room's history.



The lights are focused on the area of the wall where the extension was discovered during conservation work this past season (courtesy TT16).

The ancient doorway was clearly cut after the 19th Dynasty occupants as its creation destroyed a scene that would have depicted Hathor coming out of the western mountain, or Taweret in front of the mountain. The part of the scene remaining on the right side of the door is of the mountain; red dots indicate desert land, and a clump of papyrus in front of and above the mountain side is a hallmark of the Hathor coming from the mountain scene, popular in Thebes. On the left side of the door is a single male foot with a long skirt facing toward the mountain scene, clearly a person making an offering to or praising the subject of the scene. Until we excavate the material we can only speculate about the nature of the remains and what date can be assigned to the new room. The construction appears very similar to the sloping corridor we already investigated

between 2011 and 2017 that served as the site for around 150 secondary burials. It is rough cut, and the ground surface is covered with large stones, human remains, ceramic sherds, and possibly one piece of plaster from the tomb's ceiling. The surface looks the same – the result of past looting, probably in the 1800s.

Lost and Found

One last exciting discovery of the season was locating the pair statue of Panehsy and Tarenu! It has been in Turin, since 1824, unattributed to any tomb or monument as it was purchased in Egypt by the famous collector Bernadino Drovetti. The statue made its way to Italy via King Charles Felix of Sardinia who purchased Drovetti's collection and formed the basis of the Museo Egizio in Turin. The statue would



Suzanne Onstine examines the opening to the hidden extension that was blocked off in modern times by earlier conservation, hidden by the *mouna*. Allam looks on as she estimates the depth of the blocking wall (courtesy TT16 Project).





This extraordinarily beautiful scene of Panehsy and his wife, Tarenu, in Ramesside Period garments, are among the exceptionally well-preserved decoration that requires careful treatment and stabilization from the conservators. Suzanne Onstine and her team intend to preserve this incredible tomb for future generations (courtesy TT16).



Cult image of the deified Amenhotep I (courtesy IT16).



Above, left to right: (1) Reis Farouk; (2) team photo; (3) Allam and Suzanne Onstine (courtesy TT16).

have been sitting in the niche at the end of the tomb in the back wall, a focal point of the tomb and an important part of the funerary rites carried out for the deceased. The museum has been very helpful in providing details about the statue and its history in Turin, and they have scheduled 3-D scanning of it for this fall. Watch for the next issue of *Sphinx and Trowel* for a photo essay on the statue, and social media (Instagram @thebantomb16) for research on the statue as it unfolds! 🐉

November-December 2024, University of Memphis Mission to Theban Tomb 16 Team

Suzanne Onstine, *Director*
 Erico Peintner, *Conservator*
 Daniel Warne, *Epigrapher*
 Meredith Brand, *Ceramicist*
 Khadiga Ali, *Inspector*
 Ahmed Sallem, *Conservation Inspector*
 Reis Farouk Ali el Guftawi, *Foreman and Manager*
 Allam, Abdel Hadi, and Zuglut, *Workmen*

Detail of the bird following cleaning by Erico Peintner (courtesy TT16).

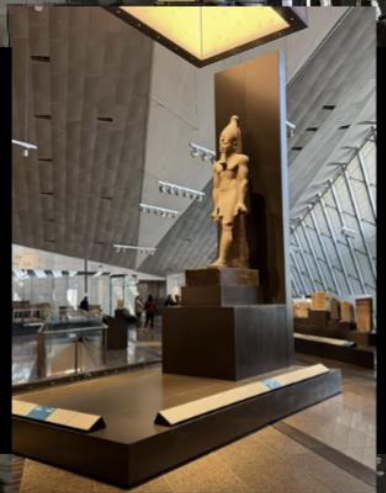




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THE OPENING OF THE
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Congratulations to the Egyptian government and
people on this momentous achievement.

ACTIVITIES AND EVENTS

Coffee and Archaeology with the Moudiras Webinar

SFAR hosted our first webinar event Coffee and Archaeology with the *Moudiras* in April, which was a great success. The “moudiras” or project directors affiliated with SFAR briefly introduced their respective sites and discussed several topics related to archaeology, Egyptology, working in Egypt, and their respect and appreciation for the Egyptian people, colleagues, and friends. This event allowed attendees to speak directly with scholars conducting fieldwork and have their questions answered. The webinar is still up on SFAR’s YouTube Channel and can be accessed via the link on our Events page on our website. Suzanne and Didi also expressed their appreciation for SFAR and the impact it has had on the projects they direct in the field.

Thank you to everyone that made this event a success.



UPCOMING LECTURES

Unearthing Memphis: New Discoveries from Egypt's Elusive Ancient Capital

Dr. Raghda (Didi) El-Behaedi
Virtual Lecture, August 29th

Protecting the Legacy of Panehsy and Tarenu at Dra abu el-Naga (TT16)

Dr. Suzanne Onstine
Virtual Lecture, November

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**Cover Image: Master
conservator Erico Peintner works
to reveal the birds in TT16.**