

In the Desert of the Mamluks

RESTORING THE CITY OF THE DEAD

Encircling Khufu's Temple

NEW DISCOVERIES FROM THE OLD KINGDOM

Developments at Carter House

REIMAGINING A HISTORIC HOME

# SCRIBE

THE MAGAZINE OF THE AMERICAN RESEARCH CENTER IN EGYPT

## **A Foundation** *for the Future*

**AMBITIOUS PLANS SET OUT  
ON ARCE'S 75TH ANNIVERSARY**

SPRING 2023 | ISSUE 11



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A beautifully carved head of the falcon god Horus discovered in the material filling of the pillar sockets of Khufu's pyramid temple. COURTESY OF AERA AND THE MOTA.

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## ON THE COVER

The capital of a column in the pronaos of the temple of Esna. In the background is a band of hieroglyphs before conservation. See page 32 for the full story.

COURTESY OF AHMED EMAM AND THE MOTA.

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### DESIGN

Made In Design Co.

Scribe is published by the American Research Center in Egypt

ISSN 2578-8558

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Garden City, Cairo, 11461

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909 North Washington Street  
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Alexandria, Virginia, 22314

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Updates on developments taking place in the United States and Egypt

# Building a New Foundation for Our Future, 2023-2028



Dr. David Anderson



Dr. Louise Bertini



Liska Radachi

**I**n November of last year, the ARCE executive team presented an exclusive, members-only virtual town hall webinar that set out ARCE’s new vision for the future. Board of Governors President Dr. David Anderson, Executive Director Dr. Louise Bertini, and US Director Liska Radachi presented ARCE’s new strategic plan, developed after many months of consultation with staff, chapter leaders, focus groups, and nearly five hundred members and associates.

Over the past year ARCE’s Board of Governors worked to establish a new strategic plan which updates and realigns ARCE’s goals for the future. Remaining committed to the founding purpose we have embraced for 75 years, we at ARCE will fulfill our mission with greater reach and impact, through deeper, more powerful collaborations, and by seizing the transformative opportunities created by our new home and headquarters in Egypt at Cairo House.

ARCE’s mission is reframed for the future: To support research on all aspects of Egyptian history and culture, to protect, preserve, and promote Egyptian cultural heritage, and to strengthen American-Egyptian cultural collaboration. In restating ARCE’s mission we reaffirm our commitment to the founding purpose that has guided us for 75 years. As we continue our leadership for the next 75 years, this means adapting to a changing global landscape, utilizing new technologies, and exploring channels to connect diverse new audiences with our work.

As part of this new plan we are excited to announce the purchase of the former Canadian embassy in Cairo to use as ARCE’s new office in Egypt. Ambitious reforms and urban redevelopment have led to significant changes in rental agreements. After nearly thirty years in our current rent-controlled leased property, ARCE’s current rent structure is changing so that payment increases will soon outpace the value of the space. Purchasing a new home became the most fiscally prudent solution, especially in relation to our ambitious goals.

The new building, currently called Cairo House, includes nearly 5,000 square meters of office space (more than 50,000 square feet) located over four floors. It is no less than five times the size of current headquarters that is located only a few blocks away, also in Garden City, and it is in a safe and accessible location. This new home will provide new space for an expanded learning community,



ARCE’s existing archival space in Cairo

larger facilities for hosting both ARCE and community programs, space for our ever-growing archives and library, and allow ARCE to strengthen cross cultural connections more effectively. Renovations are expected to take approximately two years.

In selecting a new property, safety, accessibility, and location were top priorities, and with this former embassy in Garden City, ARCE is proud to have met those needs. While we are glad to deliver on our primary requirements, within budget, this is not a turnkey property. The building has solid infrastructure, but interior renovations and repairs are needed after several years vacant. It’s a major undertaking and ARCE has, therefore, a goal of raising \$5M to complete the project over the next few years.

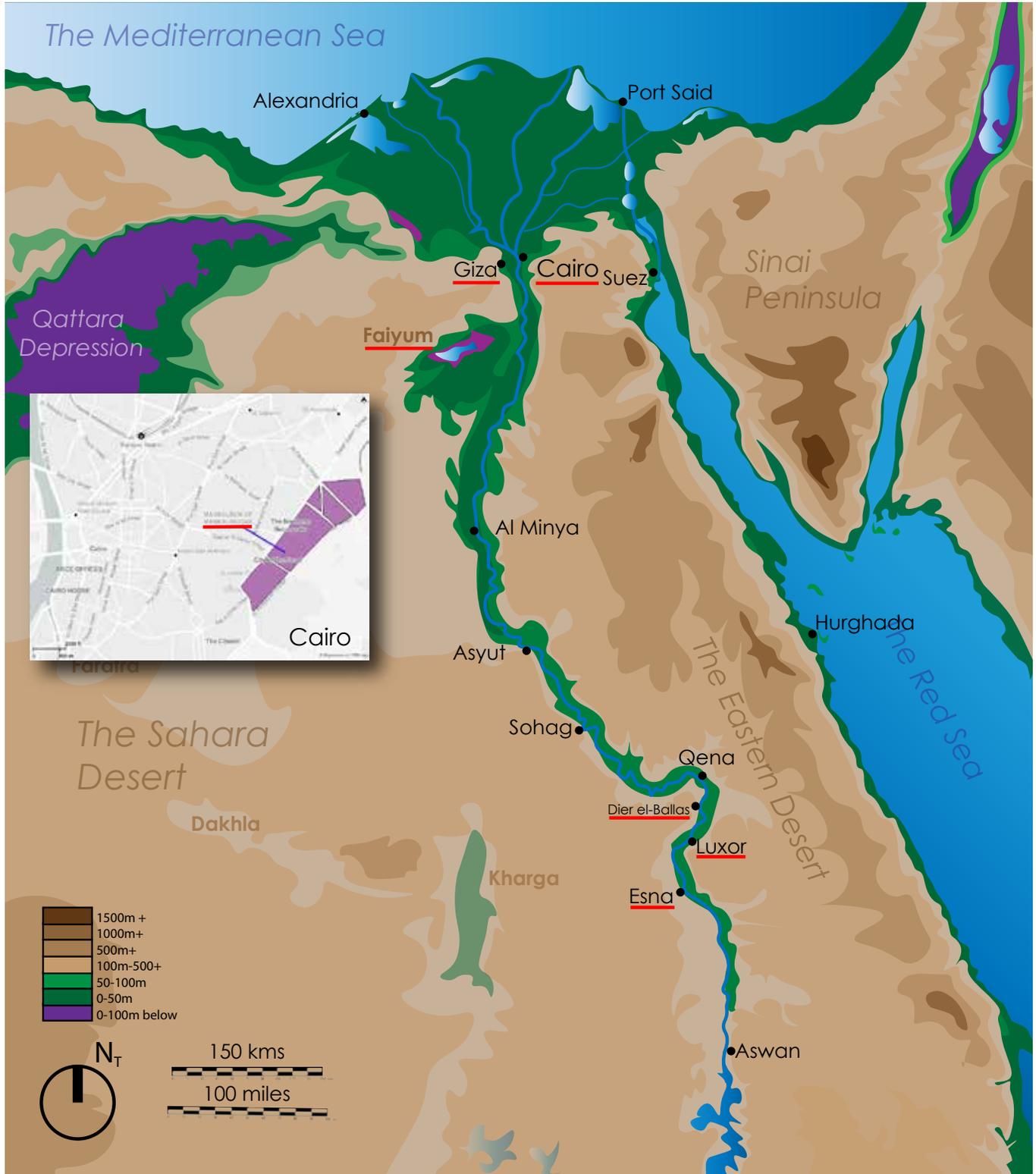
To provide foundational support, ARCE has established the Friends of Cairo House, a giving circle comprising our most dedicated supporters who we need to bring this project to life. This initial investment will provide the foundational support critically needed to jumpstart the renovation process. We are honored to recognize our initial Founding Friends of Cairo House on page 12 of this issue of *Scribe*.

We believe that ARCE’s new solid foundation and the renewed efforts of our supporting members and partners will ensure that our important mission in Egypt will be carried out effectively, and with even greater reach, far into the 21st century and beyond. 🌸

# MAP

## EGYPT

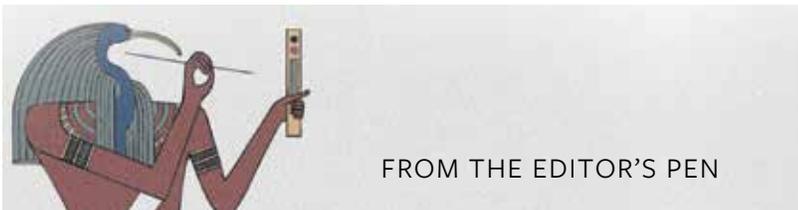
And it's environs with locations featured in this issue of Scribe underlined in red.





*David Lightbody*

**Dr. David Ian Lightbody**  
Managing Editor



# ARCE at 75 years: Making excellent plans

**W**elcome to this new issue of *Scribe* magazine and thank you for supporting the important work of ARCE in Egypt and at home. I hope you had a good start to the year and are looking forwards to attending chapter events, participating in the annual meeting in Minneapolis, travelling to Egypt, or simply reading all about it online and on paper. As usual, this issue of *Scribe* includes exclusive stories direct from excavators, conservators, and scholars working in the field. They have illustrated their reports with full-color high-definition images wherever possible and some of their discoveries are reported here for the first time. This issue also reports on the celebrations that took place in Luxor to mark the centennial of the discovery of KV62, the tomb of Tutankhamun. ARCE's president David Anderson helped commemorate the great event at Luxor Temple alongside Egypt's new Minister of Tourism and Antiquities, Mr. Ahmed Issa, and along with hundreds of other guests and officials from around the world.

## WE WANT TO HEAR FROM YOU!

Are you a student or researcher interested in contributing to *Scribe*? Have feedback or questions about any of our featured projects or content? Get in touch. [scribe@arce.org](mailto:scribe@arce.org)

**O**n the other side of the Nile, ARCE staff helped inaugurate the beautifully restored Carter House. You can see more details of the restoration work spearheaded by ARCE in this issue's feature and read about future plans to build a new archaeological center at the historic West Bank site.

Meanwhile at Giza near Cairo the remaining parts of a much more ancient building, the pharaoh Khufu's temple situated beside the Great Pyramid, have also received some well needed attention from conservation experts. In this issue we can read about the project to protect the remains of the temple's monumental black basalt courtyard by encircling it with a new walkway to guide tourists around the site. The conservation work brought to light several rare new fragments of reliefs that date right back to the Old Kingdom, and these are shown in the article by Drs. Mark Lehner and Zahi Hawass, and Daniel Jones. From later on in ancient Egyptian history at Esna in Upper Egypt we can read a report from Dr. Christian Leitz's team about the ongoing project to clean, restore, and document the inscriptions and paintings on the ceiling of the pronaos of the temple of Khnum. The high-quality photos in this issue reveal the bright colors of the painted lotiform capitals for the first time and show the painted texts that have been hidden beneath the layers of grime for hundreds of years.

The final feature in this issue reports on a project recently completed in Cairo's 'City of the Dead'. Architect Agnieszka Dobrowolska and her husband Jaroslaw of ARCHiNOS architecture describe how their team is bringing life back to the area by transforming a badly neglected Mamluk-era tomb belonging to Emir Mankalibugha al-Fakhri. Since 2014, ARCHiNOS has been working in the area known as the Desert of the



“Make excellent plans”

Mamluks on various historic buildings and architectural spaces. The conservation of Mankalibugha’s mausoleum dovetailed into this effort, as did the creation of the social enterprise named MISHKĀ through which local women are trained to produce and sell handcrafted, designer-quality, leather products and jewelry using beautiful motifs inspired by the neighborhood’s glorious Mamluk heritage.

I’ve been editor for *Scribe* for almost a year now. During that time, I’ve been impressed by the variety and impact of the projects that ARCE carries

out at home and in Egypt. The most striking aspect, however, is the enthusiasm and dedication of all the staff, fellows, architects, Egyptologists, archaeologists, and scholars as they carry out their work with skill and commitment. One of the most important ways in which ARCE achieves its mission is by developing strong and long-lasting partnerships with people and organizations in Egypt and all around the world. These relationships are academic, governmental, professional, cultural, and social. In addition, Egyptology profits from the support of many independent scholars and keen amateurs who devote their lives to learning about Egypt and its history. The positive energy and the impressive results that are generated by all these people and all their interactions is striking.

The well-organized work by experts must be financed, and *Scribe* reports on the results of the generous financial support that individual members and governmental funds provide. This work is immensely valuable, and with your ongoing support it can continue for another 75 years and many more.

The executive team are making excellent plans to secure the future of ARCE. An epithet sometimes used in ancient Egyptian texts was: “One who makes excellent plans”, i.e. one who makes thorough, high-quality plans: *ir sxrw mnxw*. The chisel sign (Gardiner’s U22) is used in the word for ‘thorough’ or ‘excellent’ there, *mnxw*, and this seems like an apt metaphor for the work that ARCE carries out. ARCE faces immense challenges to help conserve and uncover the history and heritage of Egypt, but as far as I can see, ARCE’s overseers are putting very good plans in place, while ARCE’s staff members and fellows are chiseling away at the monumental task very effectively. Long may it continue! LPH! ♡

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Hands Along the Nile (HANDS) is a U.S. based non-profit working to improve inter-cultural understanding and empower marginalized communities in Egypt and MENA region.

**NOTE:** that in *Scribe* issue 10, page 44, in the article by Dr. Anke Weber on KV11, the photo caption should be corrected to: Faience vessels of Ramses II (E.11094): ©2004 Musée du Louvre / Christian Décamps.

Permalink: <https://collections.louvre.fr/ark:/53355/cl010006480>

# RFID Tagging at the Marilyn M. and William Kelly Simpson Library in Cairo

DR. YASMIN EL SHAZLY, DEPUTY DIRECTOR FOR RESEARCH AND PROGRAMS



**E**stablished in 1972, the ARCE Library currently boasts a collection of over 32,000 titles including a substantial number of rare books such as a first edition of the *Description de l’Egypte*, a complete set of the *bulletins of the Comité de Conservation des Monuments de l’Art Arabe*, and the *catalogues généraux* of the Egyptian Museum and the Museum of Islamic Art. The collection is focused on Egyptology, yet also contains a strong Islamic studies collection, important titles on other areas of the Near East, on classical antiquity, Arabic literature, and relevant titles on archaeology, museology, and heritage management.

As one of the few open-stack libraries in Cairo, ARCE’s library receives numerous visitors in search of rare books and documents. Searching our extensive collections was, however, challenging due to users relying on our antiquated card catalogue system and an



incomplete online database. In 2020, ARCE launched a new library collections management database and online catalogue, funded by the Council of American Overseas Research Centers (CAORC). In 2021, in response to the



pandemic, ARCE then launched its digital library, which currently provides authorized users with access to over 5000 e-books and journals.

As we continue to update and modernize the library, ARCE has identified the need for RFID tagging (radio frequency identification tagging) as the next step towards improving our collections. In 2022, ARCE signed a contract with Al Zad to install an RFID tagging system in the library to increase security, facilitate inventory controls, and adhere to modern collections management standards. The project has been generously funded by CAORC. We at ARCE are incredibly grateful to our partners at CAORC for supporting this project. Thanks to their support, ARCE was able to launch this digital library and expand the physical library. CAORC funding is fundamental to the maintenance and growth of the ARCE library and to the associated ARCE programs and projects.

RFID tagging will be particularly helpful in managing the library’s relocation from its current home into the new location at Cairo House. The library’s new location will feature state of the art reading areas for research and collaboration and proper storage areas for rare books and documents.

To learn more about the future of the ARCE library, including naming opportunities in Cairo House, please contact Liska Radachi, U.S. Director, at [lradachi@arce.org](mailto:lradachi@arce.org). 

# Text and Ritual in Islamic Cairo

BY PROFESSOR RICHARD MCGREGOR, DEPARTMENT OF RELIGIOUS STUDIES  
VANDERBILT UNIVERSITY, NASHVILLE, TN



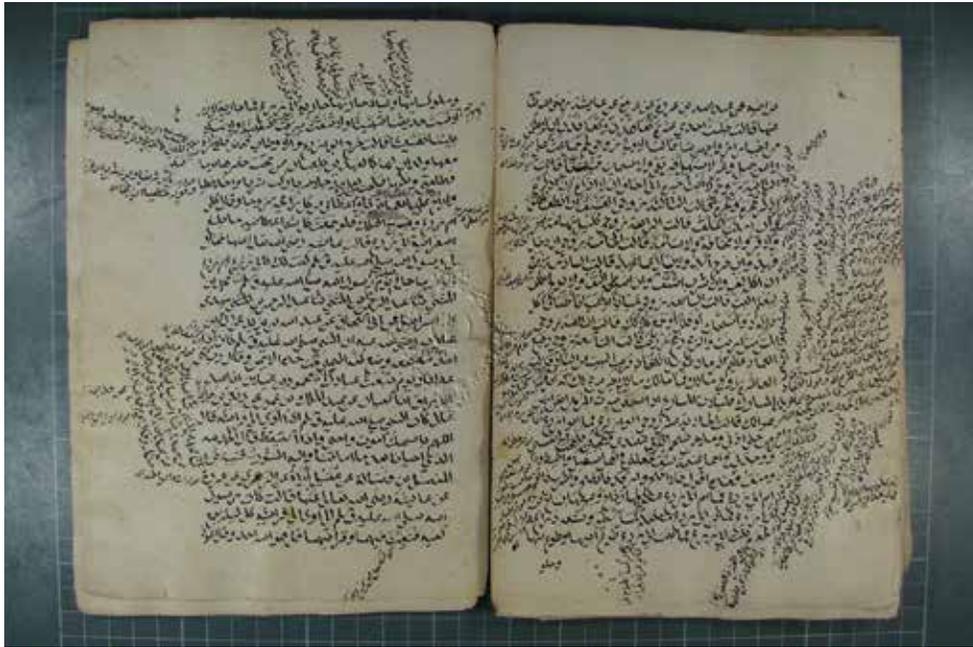
Courtyard of the mosque of al-Azhar, Cairo, 2022

PHOTO: RICHARD MCGREGOR

The study of religious history is usually divided between two camps. One seeks to recover the daily lived practices of believers, while the other explores the surviving documents that a tradition has written about itself. In the widest terms, this division reflects the common distinction between anthropology and literary studies. The “Text and Ritual in Islamic Cairo” project explores religious history in the Mamluk and Ottoman periods at the overlap of these approaches. More specifically, it seeks evidence for the intertwining of text and ritual as evidenced by the surviving manuscripts of the period. To this end, I have surveyed a series of Islamic manuscripts, exploring their marginal notes and their associated sacred spaces in the city to recover evidence attesting to the ‘lived’ interactions that pre-modern Muslims had with these texts as devotional objects.

The practice of ritual and devotional interaction with manuscripts in fact took many forms. Not only were illustrations in prayerbooks representing, for example, the Prophet’s tomb in Medina rubbed and kissed, but names were sometimes similarly treated. Tracings of the Prophet’s sandal were made from at least the 14th century in Damascus. Several manuscript examples of such tracings were produced in the *Fath al-Muta’al fi madh al-ni’al* (The Divine Opening in Praise of the Sandals) by Ahmad ibn Muhammad al-Maqqari (d. 1631). The text draws on hadith literature and devotional poetry venerating the Prophet Muhammad. One example is from al-Azhar’s manuscript collection (top right) cataloged as number 5450. It is undated, but identified as a *waqf* (endowment) to al-Azhar, specifying that it should be preserved for the benefit of the Syrian contingent of students (*riwaq*). The tracings in this text, all double lined outlines in black ink contrasted with orange, are rather simple and in places irregularly executed. The example in the smaller figure (opposite) also indicates a set of holes through which the straps would have bound the sandal to the foot. The larger example represents a further refinement in the reproduction of the sandal image.

These tracings were believed to have the miraculous power to cure ailments and to ward off misfortune. A long-lived tradition developed around the virtues of making such copies on paper from earlier tracings. The relic images that were produced often came with records of whose hand had made the tracing.



**LEFT:** Al-Tirmidhi, *Shama'il al-Nabi*. Al-Azhar University Library, manuscripts section, (raqam khass 7387)

PHOTO: RICHARD MCGREGOR.

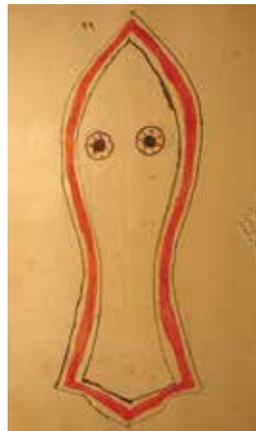
Descriptions of tracing rituals from the Mamluk era have come down to us, and several examples are preserved in Cairo, which I have recently written about.

The record of interaction with devotional texts can also be recovered through the examination of marginalia and in-text comments and commentary added to manuscripts. These often take the form of pious notes, supplications, interpretations, and additions to the text. In order



Tracing of the Prophet's sandal from al-Maqqari, *Fath al-Muta'al*. Dar al-Kutub: Tarikh Taymur 897

PHOTO: RICHARD MCGREGOR



Tracing of the Prophet's sandal from al-Maqqari, *Fath al-Muta'al*. Al-Azhar University Library, Manuscripts section, (Al-Shawam, raqam khass 5450)

PHOTO: RICHARD MCGREGOR

to explore the record of the interactions with devotional manuscripts, I have focused only on a few titles, the most prominent being that of al-Tirmidhi's (d. 892 CE) *al-Shama'il al-Nabawiyya* (Prophetic Virtues). Running at around forty folios, this short text often has significant marginalia and comments added to it. In 2021-2022, thanks to funding from ARCE's AEF, I was able to consult thirty-five copies of this text at the Dar al-Kutub library (Egypt's national library and archives) and identified eleven additional copies in the library at al-Azhar University. Some manuscripts preserve significant comments and details regarding the locations where they were copied or stored (see for example above).

In exploring these materials, the unique nature of each manuscript is brought into focus. This allows us to retell the story of each manuscript by recounting at least some of its ritual history. Additionally, important dimensions of institutional context can be illuminated. These annotated devotional texts were often housed in madrasas and used ritually. It is this ritual life that is of particular interest to my project. How devotional texts were stored, displayed, and marked not only opens new perspectives on religious life, but also allows us to rethink the role of madrasa libraries and other manuscript archives, shining light on them as ritual and devotional spaces. 🌸



## THE FOUNDING FRIENDS OF CAIRO HOUSE

Friends of Cairo House was established to build a broad base of support for our new Cairo House building project. Those who made a commitment by January 31, 2023, to this project are hereby recognized as Founding Friends of Cairo House. We deeply appreciate and recognize those who first answered the call to assist ARCE in bringing Cairo House to life. Cairo House is a transformational and impactful project—and this is just the beginning.

Mahmoud Abdallah  
Ahmed Abou-Sayed  
James P. and Susan J. Allen  
David A. and Holly N. Anderson  
Kathryn Bard  
Al and Barbara Berens  
Louise C. Bertini and James H. Sunday  
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Emily Teeter  
Christopher G. Townsend  
Elizabeth J. Walker  
David and Gretchen Welch  
Ann R. Williams

While becoming a Founding Friends was limited, we encourage those who want to influence the future of Egyptology to become a Friend of Cairo House. For more information, please contact Liska Radachi, US Director at [lradachi@arce.org](mailto:lradachi@arce.org).

# A WONDERFUL CENTENNIAL IN LUXOR

To celebrate the centennial anniversary of the discovery of King Tutankhamun's tomb, ARCE partnered with the Ministry of Tourism and Antiquities to produce a cultural celebration in Luxor. The event included a three-day conference entitled "Transcending Eternity: The Centennial Tutankhamun Conference", which began with a keynote lecture by Dr. Zahi Hawass presenting "*Tutankhamun: Family, Death, and the Valley of the Kings After Howard Carter*". The first session included a talk by Lord George Carnarvon and Lady Fiona Carnarvon. Lord George is a descendant of Lord George Herbert, the 5th Earl of Carnarvon, who sponsored Howard Carter's excavation of the tomb of Tutankhamun along with his wife Lady Almina Carnarvon.

CONTINUED ON NEXT PAGE



Brilliant lights illuminated Luxor Temple providing a dramatic and inspiring backdrop for the gala.

PHOTOS: AYMAN EL DAMARANY

On November 4th, 2022, ARCE members and guests visited the tomb of Tutankhamun alongside news media from around the world. The tomb's visit was followed by a ribbon cutting and celebratory luncheon to commemorate the reopening of Howard Carter's house. The luncheon featured remarks from Dr. Mostafa Waziri, Secretary-General of the Supreme Council of Antiquities of Egypt, British Ambassador Gareth Bayley, and Daniel Rubenstein, U.S. Charge d'Affairs to Egypt.

The celebration was capped with a lavish gala at Luxor Temple, sponsored by The Cleopatra Group. Guests walked a red carpet under a brilliant light display illuminating the temple. Welcome remarks were extended by His Excellency Mr. Ahmed Issa, Minister of Tourism and Antiquities, and Dr. David Anderson. The assembled guests were treated to a 30-minute concert led by Maestro Nayer Nagi with special guest soprano Dina Iskander.

Many thanks to the numerous guests, sponsors, presenters, staff, and volunteers who made this celebration unforgettable. Special thanks go to our sponsors and supporters:

- Cleopatra Group
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- CAORC
- National Geographic
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- Egyptalloyd
- Google
- USAID
- Adina Lei Savin Family Trust
- The Houston Museum of Natural Science
- The Griffith Institute
- Luxor Times
- British Embassy
- Chicago House
- The Oriental Institute
- The Metropolitan Museum
- The Worcester Art Museum
- Factum Arte
- AUC Press



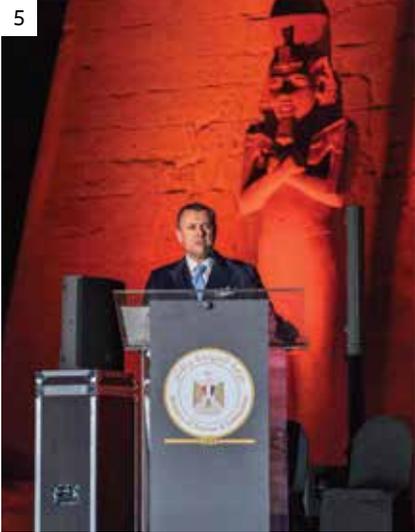
**1** Adina Savin (center) ARCE Board of Governors Member and Carter House supporter, walking the gala red carpet with Josh Savin (left) and Dr. Ben Harer (right).

**2** Dr. Mostafa Waziri, Secretary General of the Supreme Council of Antiquities at the opening and dedication of Carter House.

**3** ARCE President Dr. David Anderson delivers opening remarks at the Centennial Gala.

**4** ARCE member Bunny Radachi visits the tomb of Tutankhamun on November 4th as part of the ARCE Member Tour.





**5** His Excellency Minister of Tourism and Antiquities Mr. Ahmed Issa delivers opening remarks at the gala.



**6** Over 350 guests filled the Sonesta hotel ballroom to hear the keynote lecture from Dr. Zahi Hawass.

**7** Musicians at the dedication of Carter House.



**8** Carter House Ribbon Cutting: (L to R) Dr. Mostafa Waziri, Secretary General of the Supreme Council of Antiquities, H.E. Mr. Ahmed Issa, Minister of Tourism and Antiquities, Counselor Mostafa Alham, Luxor Governor, and Dr. Louise Bertini, ARCE Exec. Director.

**9** ARCE President Dr. David Anderson and wife Holly at the Carter House ceremony.

**10** Dr. Zahi Hawass delivers his keynote address at the opening of the centennial conference.



**8**



**9**



**10**





# CARTER HOUSE REIMAGINED

Howard Carter's historic house in Luxor celebrates the life of the excavator of Tutankhamun's tomb

BY SALLY EL SABBAHY

Attendees at the opening lunch for Carter House.

PHOTO: NICHOLAS WARNER

**T**he 100-year anniversary of Howard Carter's discovery of the tomb of Tutankhamun on November 4th, 2022, was marked by a bevy of events and special exhibits in leading cultural institutions around the world, but

none with more enthusiasm than those in Egypt where the Ministry of Tourism and Antiquities organized a series of national commemorations running over the course of the entire month. Leading this impressive roster was the official reopening of Carter House on the West Bank at Luxor. Carter's Egyptian base from 1910 until his death in 1939 has been painstakingly restored by the American Research Center in Egypt over a condensed nine-month period to meet the November 4th relaunch deadline. That Friday after-

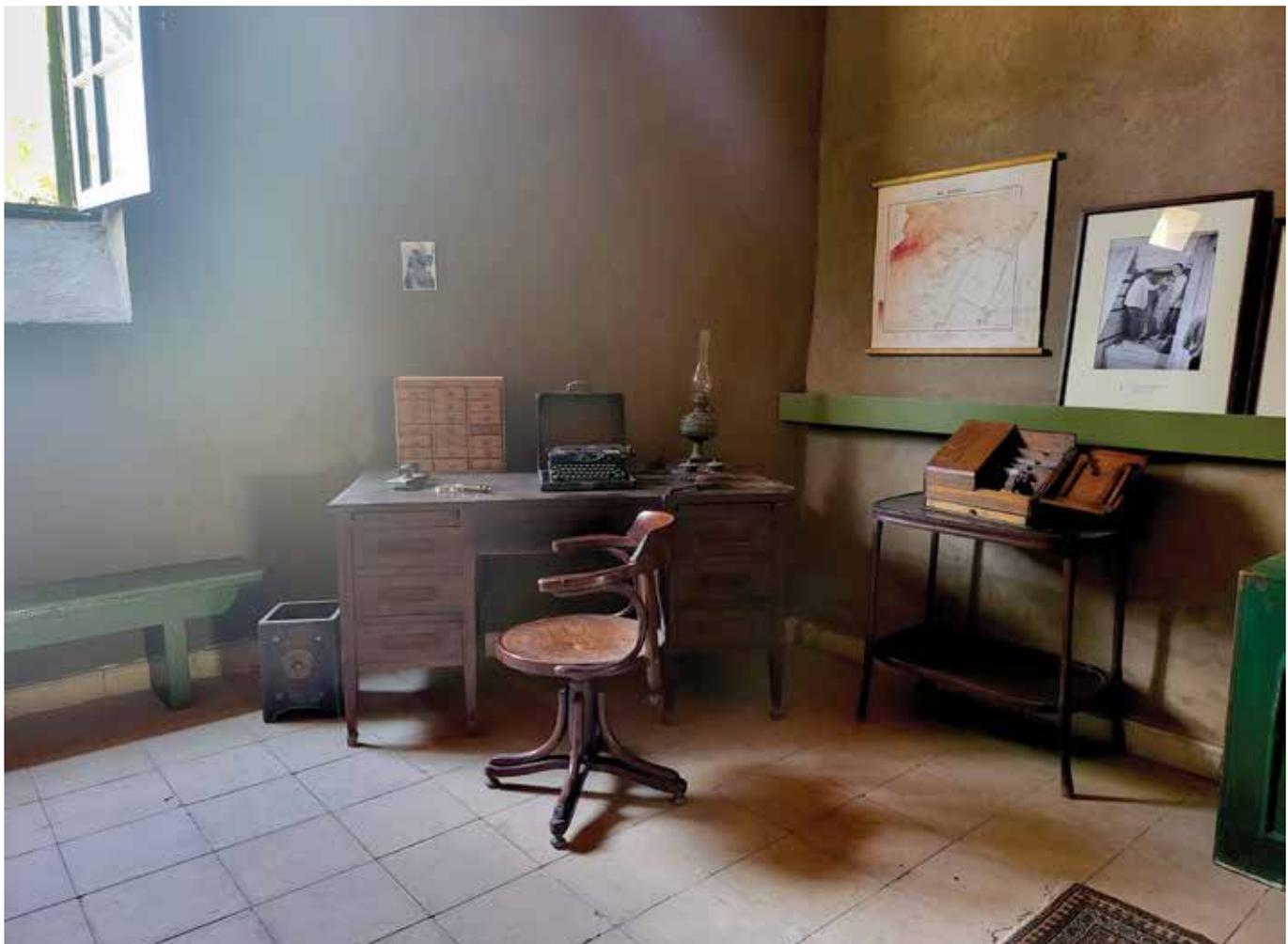
noon, Egyptian Minister of Tourism and Antiquities Mr. Ahmed Issa inaugurated Carter House in front of over 300 guests including foreign ambassadors, government officials, and descendants of some of the key figures involved in the discovery. They were invited to take a first look at what will surely become one of the West Bank's most valuable cultural gems.

### Conserving Carter House

"I conceived this project about two years ago in anticipation of the centenary of the discovery of Tutankhamun's tomb," said Nicholas Warner, project director and ARCE's Director of Cultural Heritage Projects. He explained that the proposal for Carter House had the objective of achieving two critical goals. Firstly, to conserve the mud brick building and protect it from extraneous water coming from the surrounding garden, and secondly, to reverse the many modern interventions that had considerably altered the physical appearance of the building.

**RIGHT:** Plan views and elevation. On the left is a general site plan showing the renovated Carter House complex with original architecture in dark gray and later extensions in light gray. The new replica of Tutankhamun's tomb KV62 is in light gray at the top. The proposed phase 2 archaeology center is located off the walkway between the house and the new tomb. On the far right is a detailed elevation and plan view of the center.

COURTESY OF NICHOLAS WARNER.



**ABOVE:** The desk arrangement in Carter's study was styled to match its original appearance based on archival photographs of the room during Carter's time in the house.

PHOTO: SALLY EL SABBAHY



**ABOVE:** The 'Rogues Gallery' located in Carter's former study highlights some of the key figures involved in the discovery.

PHOTO: SALLY EL SABBAHY

The approach to Carter House.

PHOTO: OWEN MURRAY





**“What people may not immediately realize is that when the house was built it was in full desert. There were no trees, not a blade of grass, and there was very little water”**

*– Dr. Nicholas Warner, project director.*

Intensive structural conservation work on the exterior of Carter House ran from February to March 2022, during which time Warner implemented targeted technical interventions designed to ‘dry out’ Carter House’s immediate environs. “What people may not immediately realize is that when the house was built it was in full desert. There were no trees, not a blade of grass, and there was very little water”. The earlier-modern introduction of a lush garden around the house was likely intended to offer some respite from the desert heat, but it ultimately posed a significant risk to the mud brick structure of the house, which showed visible signs of water damage during a pre-project assessment in 2021.

“Part of the solution to this problem”, Warner explained, “was to push back the grass and greenery further away from the house and to introduce drainage points where any surplus water from the surface could be removed”. To achieve this, Warner designed and oversaw the installation of a ventilated French Drain

along the house's elevated northern boundary with the garden, creating a 'buffer zone' by removing the trees and shrubbery within the immediate vicinity of the house and covering the ground with a layer of limestone chips. This created a clearly visible physical demarcation zone that re-established the boundaries of the garden away from the house. To further allow the house's mud bricks to 'breathe,' a modern white plastic paint was removed from its exterior and replaced with mud plaster. This also served the dual purpose of returning the house back to its original brown color, as it would have appeared originally when Howard Carter lived in it.

As a final precaution, rainwater spouts were installed on the roof and all water and waste pipes were entirely removed from the historic areas of the building. With these major undertakings completed, Warner turned his attention to improving visitor access to the house, both in terms of physical access and with respect to access to information. A large, street level sign with the name of the house was installed on the main road that runs directly behind the property, and outdoor lighting (previously absent) was installed



**ABOVE, BEFORE:** The kitchen contained a mishmash of period and modern furnishings and was in need of a refresh.

**BELOW, AFTER:** The staging in the kitchen evokes a sense of what the process of preparing food without electricity or running water would have been like. It also contains items that allude to the household staff that Carter would have relied on for such tasks.

PHOTOS: SALLY EL SABBABY



# “What we wanted to do was remind people that there was more to Howard Carter than the tomb of Tutankhamun and more to Tutankhamun than gold”

– Tom Hardwick, Egyptological consultant.



**ABOVE:** Archival footage of the discovery fashioned in the style of early 20th century silent films is on view in the study. View to southwest. PHOTO BY: SALLY EL SABBAHY

to illuminate the house at night. Existing sandstone walking paths leading to and around the house were either repaired or altered, and an accessibility ramp was installed in the parking lot. Finally, Warner designed and installed shading structures, outdoor seating, and purpose-designed shelters to house the new visitor information panels that were installed in October.

## A Curatorial Feat

In parallel with the external works, Tom Hardwick, the project’s Egyptological consultant, assessed the presentation of the house and its existing visitor information resources and then began hashing out a new curatorial plan. By the end of February, Hardwick and Sally El Sabbahy, ARCE’s Heritage Outreach and Planning Manager, had begun drafting new texts for the bilingual Arabic/English panels, which now provide engaging and comprehensive information describing the global impact of the discovery of the tomb of Tutankhamun, the significance of the particular architecture and design of Carter House and its various spaces, and the peculiarities of life on the early 20th century West Bank. “What we wanted to do was remind people that there was more to Howard Carter than the tomb of Tutankhamun, and more to Tutankhamun than gold” explained Hardwick. To assist with the considerable research required to achieve these tasks, Mena Melad, founder of the *Luxor Times* came on board as a historic and archival expert.

“Before [the project] there were just some small panels with brief information about Carter and his sponsor Lord Carnarvon and that was it. Our goal was to introduce more information about the house so people could be educated about the history of the discovery itself, and really bring Egypt into the equation” Melad explained. By April 2022, a total of 58 informational panels, labels, and wayfinding signs had been drafted and manufactured, which included everything from information on the house’s photographic laboratory and the role of photography



**BEFORE:** An inset storage cabinet in the house at the start of the project.

PHOTO BY: SALLY EL SABBAHY



**AFTER:** The same cabinet now houses a variety of food and drink and household items from the early 20th century.

PHOTO BY: SALLY EL SABBAHY

in the discovery, to descriptions of each room, to an in-depth timeline of the discovery and its local and global impacts, beginning from the time of Carter's arrival in Egypt in 1891. The majority of the interpretative panels were mounted outside the house itself so as not to detract from the impression that it was actually a historic home. Additional interpretive highlights include a 'Rogues Gallery' featuring portraits of eight key Egyptian and foreign players involved in the discovery of Tutankhamun, incorporating a QR code that links directly to their biographies online and a detailed map of the West Bank showing where Carter worked, courtesy of the Theban Mapping

Project. Finally, the digital resources include a virtual tour of the house made available for self-guided or armchair visitors, produced with a Matterport scanner by Andreas Kostopoulos, ARCE's Archive Manager, and a video showing archival footage from the time of the discovery presented in the style of an early 20th century silent film.

Equally as important as the visitor information was the presentation of the house, and that was essentially its own separate project. An earlier renovation project team had introduced inappropriate furnishings including a refrigerator and a gas stove made long after Carter's death! They had also mis-identified

Reproductions of Carter's watercolors of Egyptian landscapes and pharaonic objects dot the walls of the studio.

PHOTO: OWEN MURRAY



Carter's personal photographic laboratory gives visitors an insight into the photographic development process.

PHOTO: OWEN MURRAY



A reproduction of an oil painting of Howard Carter by his brother William hangs in the dining room.

PHOTO: OWEN MURRAY

# “We tried to return Carter House to the original color scheme that Howard Carter commissioned for it and to fill it with objects that he would have recognized”

**BELOW:** Lord Carnarvon's Bretby Brick on display in Carter House.

PHOTO: NICHOLAS WARNER



rooms, turning Carter's bedroom into his study. Beginning in the spring, Hardwick and Warner set about acquiring period objects, furnishings, and high-resolution scans of Carter's own artwork, as well as artwork produced by his family. In May, Warner began preliminary finishing of the interior in order to have it prepped for 'move in' from September to October. Much of this work focused on installing unobtrusive lighting in the house and correcting its color scheme. "We tried to return Carter House to the original color scheme that Howard Carter commissioned for it and to fill it with objects that he would have recognized, either because they are replicas of paintings he made, objects he excavated

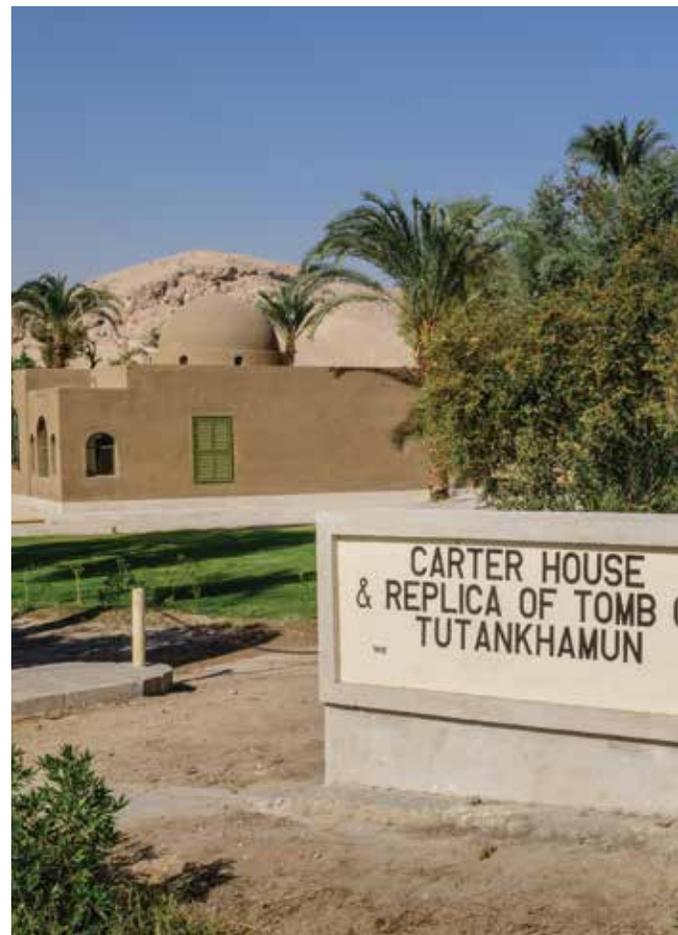


**ABOVE:** The passageway to the photographic laboratory features a case with period cameras and photographic tools.

PHOTO: SALLY EL SABBAHY

**RIGHT:** A new street-level sign draws the attention of visitors to the location of Carter House.

PHOTO: OWEN MURRAY



or owned, or domestic or archaeological equipment from that time,” Hardwick said. The most prominent change is in Carter’s study. An adequate number of photographs of that room have survived from Carter’s time to allow a plausible reconstruction of it to be completed, including the finishing of the walls with mud plaster and a drab olive color for the woodwork, based on paint scrapes that have been recovered, and which is appropriate to the period. In October, the team descended upon Carter House to begin installing the new panels, objects, furnishings, artwork, and most importantly: to dust it! The result is a richly immersive, period feel that runs throughout the house and lets visitors feel closer to Carter and better appreciate his life in Luxor.

### The Future of Carter House

Carter House was successfully relaunched as a house-museum on November 4th, 2022, but the work is not quite over yet. Warner has his sights set on a phase two development that will see the construction of a cultural and educational center located adjacent to the house by the path that leads to the replica of KV62 manufactured by Factum Arte and installed to the north of the house in 2014. This phase, which



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will create a structure provisionally named the ‘West Bank Archaeology Center’, will function as a hub for community outreach and cultural and academic activities and include a children’s edutainment space incorporating a simulated archaeological dig where children can learn the fundamentals of excavation. There is presently no such public space linking culture, heritage, community outreach, and education on the West Bank, and the relatively modern Carter House property is an excellent candidate for hosting such a venue. 🌸

**LEFT:** Luxor team members Shaban Mohamed (L) and Mohamed Saleh (R) pose with an archival photograph of Carter standing at the entrance of his house, designed to offer visitors the opportunity to take a selfie with Carter.

**BOTTOM:** The newly installed timeline in the courtyard provides visitors with historic and social context leading up to, during, and after the discovery of the tomb of Tutankhamun.

PHOTOS: NICHOLAS WARNER





The northern façade of the house and the front door. PHOTO: OWEN MURRAY

## It took a village to make this house!

The Carter House project would not have been possible without the support of multiple partners. Foremost, ARCE would like to recognize the immense generosity of the Adina Lei Savin Family Trust, whose generous gift facilitated the physical conservation of Carter House and without which the project would not have been possible. The United States Agency for International Development-funded ‘Integrated Management of Cultural Tourism’ program also provided essential funding to develop key visitor infrastructure and signage. The Houston Museum of Natural Science seconded Tom Hardwick and also provided funds to be used for the interior refurbishment.

ARCE would also like to recognize the Ministry of Tourism and Antiquities for their cooperation in this project, with special thanks to Dr. Fathy Yasin, Baha’a Gaber, Mohamed Khalil, and Emad Abdallah, as well as Dr. Bassem Ibrahim and his team in the Ministry’s Site Management office, and Dr. Hany Eltayeb and his team in the Ministry’s Scientific Office.

Other critical partners were the Griffith Institute and the Peggy Joy Egyptology Library, who provided archival photographs for the house and its information panels, the Worcester Art Museum, who provided high-resolution scans of Carter family artwork to create reproductions for the house, the Oriental Institute and the Metropolitan Museum of Art, who provided archival film footage, Chicago House, who provided period furniture and objects, and the British Embassy in Cairo, who funded a ceramic “blue plaque” commemorating Carter’s life at Carter House.

The work on site was directed by Dr. Nicholas Warner and executed by Hagg Mahmud al-Taiyyib and his team from Saqqara. Curatorship of the presentation was carried out by Tom Hardwick, Mena Melad, and Sally El Sabbahy. Special thanks are also owed to ARCE’s Luxor team, Shaban Mohamed and Mohamed Saleh, and Hagg Sayyid Farag for his hospitality.



Link to virtual tour:  
[matterport.com/discover/space/z9BED2iDNRW](https://matterport.com/discover/space/z9BED2iDNRW)

# For the Love of Egypt and ARCE

BY VIRGINIA BARRETT, CYPRESS, CALIFORNIA

*Virginia Barrett and her husband Conrad have been dedicated ARCE members for decades, supporting both the ARCE Orange County Chapter lectures and ARCE's ongoing Egyptological projects. We are honored that Virginia has shared her experience with ARCE, and her lifelong interest in Egyptology as part of our Donor Spotlight series.*

**VIRGINIA: For the past 25 years, my husband and I have had the pleasure of attending monthly lectures** of the Orange County, CA Chapter of ARCE held at the Bowers Museum in Santa Ana.

My interest in all things Egyptian began in middle school when I found an illustrated children's book called *A Camel for a Throne* by Eloise Lowmsbery at the library. The novel drew me to more books on the culture, stories, myths, and history of Egypt. I had discovered a highly mythopoetic culture that spoke to me in metaphors and symbols, the language of the soul. The myths were multi-faceted gemstones polished by the passage of time. The mysteries of life and death were boldly presented in elaborate stories, rituals, and art.

When I was in high school, I started a neighborhood study group for kids. We sewed our own costumes and met once a week on my family's patio to learn the myths and stories of Egypt. There were rituals, art projects, and even a home-made tarot deck for fortune telling. The boys took the names of gods or pharaohs, the girls were named for queens or goddesses. Even my cat, Khemi, wore a collar and tin foil earrings. After seeing the movie "Cleopatra" with Elizabeth Taylor, we were inspired to make a home movie of the Osiris and Isis

myth. We created film sets in my backyard and shot scenes on location in Balboa Park and Mission Valley in San Diego. We corresponded with each other in English using a hieroglyphic alphabet.

I went on to study ancient history and three years of Latin in high school. I majored in English and Latin in college and took a master's degree in the teaching of Latin at the University of Massachusetts at Amherst. For thirty years I served as a founding member, editor, Treasurer, and then Chair of the American Classical League's National Committee for Latin and Greek, which promotes the study of classical languages from elementary school through university level ([www.promotelatin.org](http://www.promotelatin.org)). Following our two trips to Egypt, I wrote a collection of fifty poems called *Sandals: A Journey from Aswan to Alexandria* to keep the places we visited vivid in my memory.

My husband, Conrad Barrett, received a doctorate in Classics at the University of Southern California. He went on to become a Classics Professor at Cal State University, Long Beach, where he developed some large enrollment courses to help fund the smaller classes in ancient Greek and Latin languages. The Classics program has grown from a faculty of two to six professors and lecturers.

Thanks to ARCE and the ARCE Orange County chapter, we have attended ARCE annual meetings, and learned from noted speakers at chapter events who are engaged in excavation, conservation, and restoration projects. The lectures transport the audience, and it is as if we are on-site as new discoveries are made.

At times, we helped sponsor chapter speakers with the privilege of meeting and having lunch with the speaker and local ARCE board members. *Scribe* magazine helps us stay abreast of recent discoveries, exhibits, and research in Egyptology.

We have become ARCE members and donors to help fund needed training programs for future Egyptologists and the ARCE-sponsored excavations and restoration projects. We are also including ARCE in our estate plan.

We thank ARCE and all ARCE chapter speakers and officers for giving us the opportunity to visit their archeological sites through their lectures, and to learn more about the history, art, and culture of ancient Egypt.



# ARCE Member Spotlight: Annelise Baer

BY CATHERINE REED, ARCE DEVELOPMENT ASSOCIATE



*Archaeologist, producer, and ARCE member Annelise Baer has gone viral on TikTok for posting videos about archaeological research and news. Her most-watched video has over three million views, and she has over 130k followers on the app. You can follow her account @annelisethearchaeologist.*

**ANNELISE: I've known I wanted to be an archaeologist since I was 8 years old.** I would read anything I could get my hands on about ancient Egypt and other ancient cultures. As I got older, my history classes in school were not up to the level that I needed, so my mom signed me up for the Los Angeles ARCE chapter when I was in high school and I began attending lectures regularly. ARCE gave me an outlet to learn about things that I was actually interested in through the lectures and the people that I met.

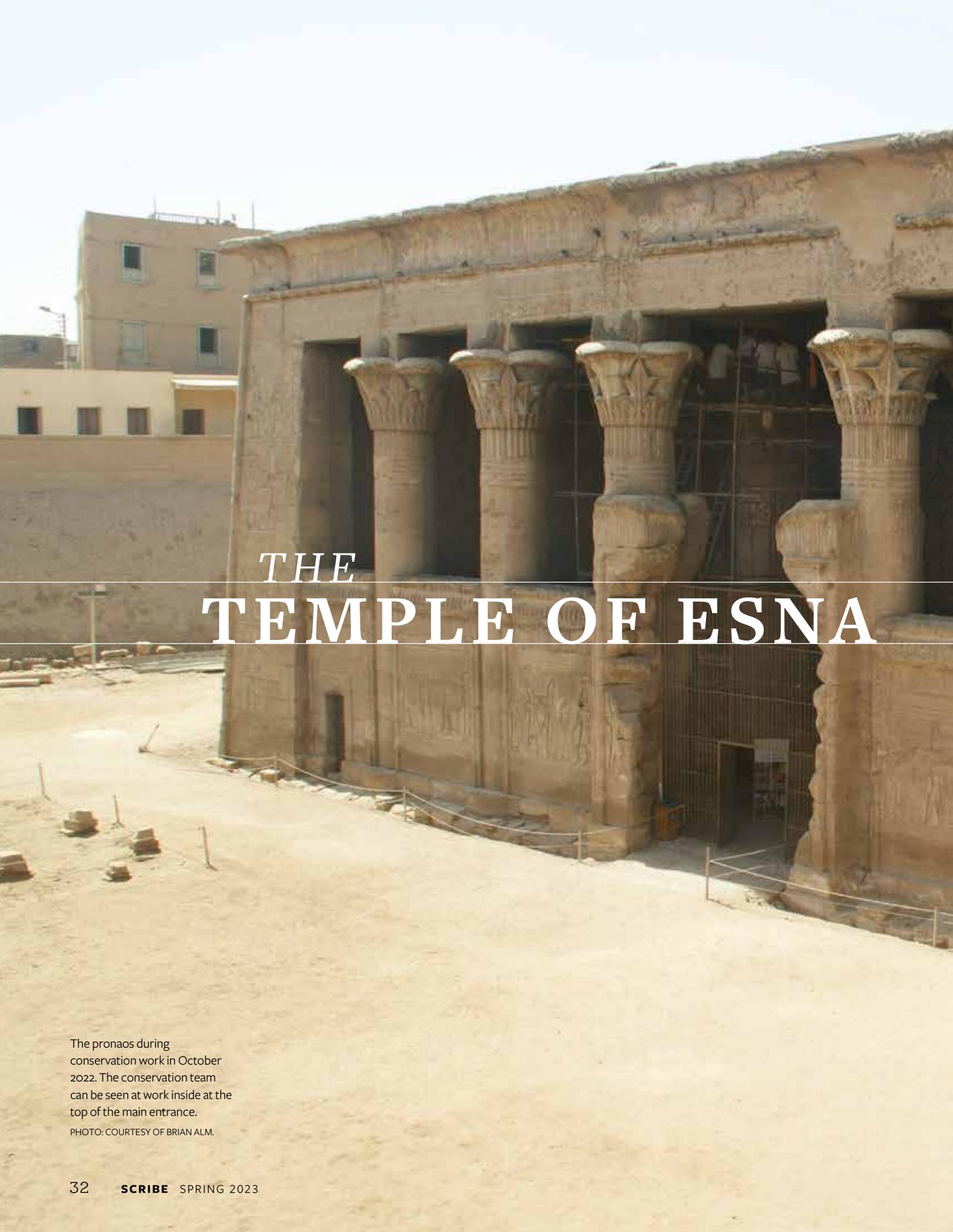
I went on to get a BA in Classical Civilizations with a minor in Archeology from Loyola Marymount University, and an MA in Archeology for Screen Media from the University of Bristol. Now, I work in TV production and I am a member of the ARCE Vancouver chapter. My day-to-day work does not often allow me to use my archeological background, so I am thankful

that ARCE keeps me connected to what is going on in the archeology and Egyptology communities.

I downloaded TikTok after it started gaining popularity in the US. I noticed that TikTok was becoming the main place for people of all ages to get and share information, especially during the COVID lockdown. There are many upsides to this form of media but I noticed right away that misinformation and pseudoscience videos were some of the most popular videos on the platform and people, especially young people, were taking this information at face value—even if it was blatantly untrue.

The archeology space on TikTok needed some proper content. I waited to see if someone from the field would step up, as there are a lot of really good and prominent faces in the archeology world who already had established themselves on sites like Twitter and Instagram, but when no one did, I decided to create and upload a couple of videos and they did really well.

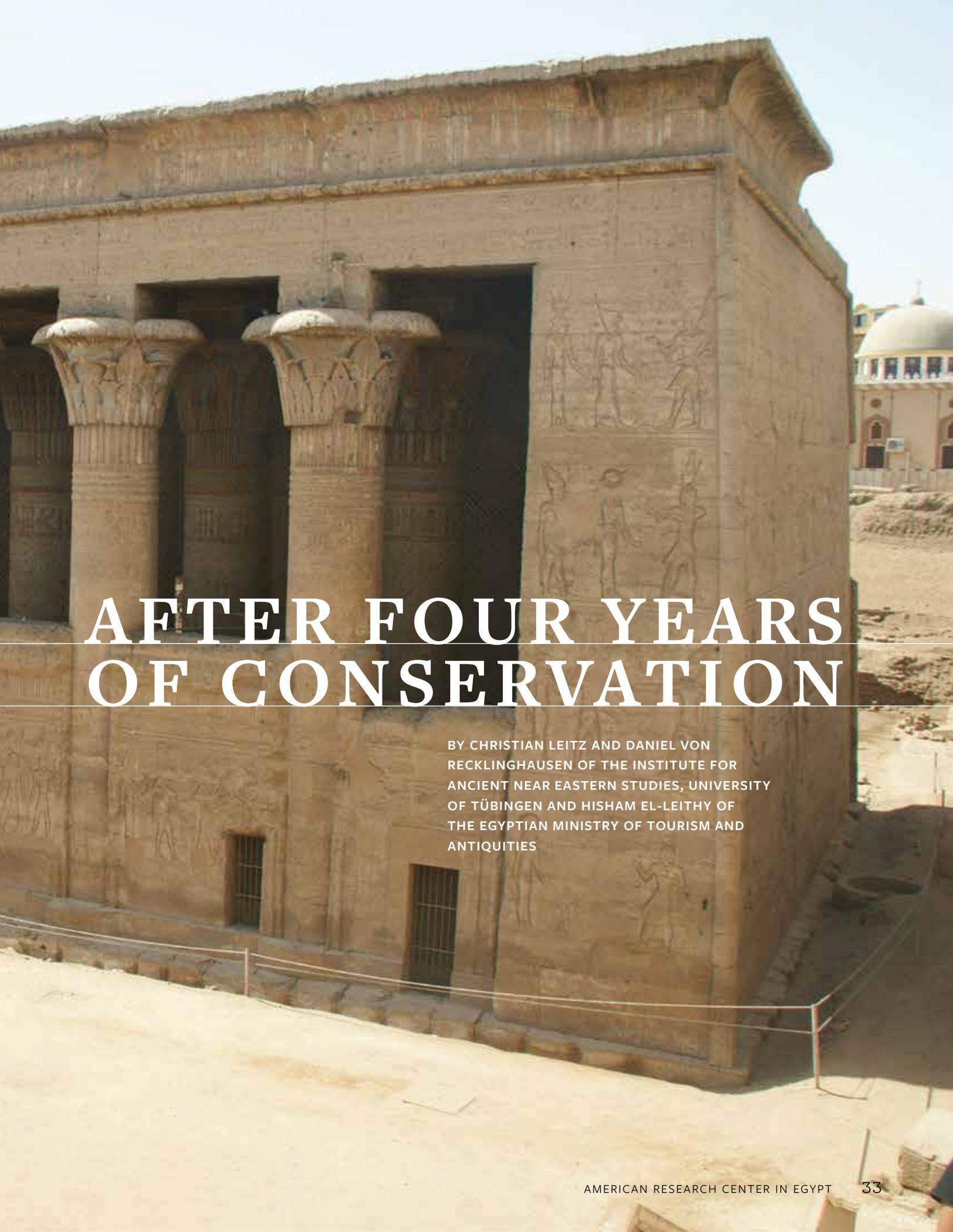
TikTok has made archeology more accessible to the general public. I think it is a tool that can and should be used as much as possible. People are so curious, and they want to learn. I get so many questions about things that are decades out of date because many of the things that we know as archeologists never made it out to the general public. Now there is a wonderful community of archeologists on TikTok from all over the world and in all different fields who can reach millions of people. It is the ultimate engagement tool, and I think it can only help our field.



# *THE* TEMPLE OF ESNA

The pronaos during conservation work in October 2022. The conservation team can be seen at work inside at the top of the main entrance.

PHOTO: COURTESY OF BRIAN ALM.

A photograph of an ancient Egyptian temple facade. The structure is made of light-colored stone and features two large columns with papyrus capitals. The walls are covered in hieroglyphs. In the background, a modern building with a dome is visible. The sky is clear and blue.

# AFTER FOUR YEARS OF CONSERVATION

BY CHRISTIAN LEITZ AND DANIEL VON  
RECKLINGHAUSEN OF THE INSTITUTE FOR  
ANCIENT NEAR EASTERN STUDIES, UNIVERSITY  
OF TÜBINGEN AND HISHAM EL-LEITHY OF  
THE EGYPTIAN MINISTRY OF TOURISM AND  
ANTIQUITIES

**T**he temple of Khnum in the town of Esna is located approximately 27 miles / 45 km south of Luxor. It has been famed for the beauty of its location and the magnificence of its architecture since antiquity. It was dedicated to

the ram god Khnum, his consorts Menhit and Nebtu, their son Heka, and the goddess Neith, and it is one of the very last examples of ancient Egyptian temple architecture ever built. It was constructed using red sandstone and is well known for its prominent pronaos built from six rows of four columns, each adorned with a uniquely-styled lotus-leaf capital. The pronaos was mostly decorated during the Roman Period (1st to 3rd centuries) but that is only the front part of a temple complex that originated during the Ptolemaic Period. The Ptolemaic temple proper has mostly been destroyed, but the pronaos survived because it was used as an industrial storage facility for cotton during the nineteenth century. The surviving walls and columns are famous for the complex programs of hieroglyphs, associated scenes, and colorful iconography that adorns

them. Serge Sauneron published the texts displayed in the Esna temple between 1963 and 1975, with the final volume released posthumously in 2009, despite the fact that cleaning and restoration remained incomplete. In 2018, the University of Tübingen launched a new documentation and restoration project in conjunction with the Documentation Center of the Ministry of Tourism and Antiquities under the direction of Hisham El-Leithy and financed in part by a generous grant from ARCE's Antiquities Endowment Fund.

The current project's main objectives are twofold. The first objective is to continue the cleaning and conservation work started by the Department of Conservation under the direction of Gharib Sonbol, head of the Central Department of Restoration and Conservation of Antiquities some years ago. All of these activities are now carried out by a team of Egyptian conservators led by Ahmed Emam.

The second objective of the project is to compile a full photographic documentation record set recording the current state of preservation of the architecture. The photographer responsible for carrying out this work is Ahmed Amin. In the long term we intend to publish plate volumes of all of the decoration in

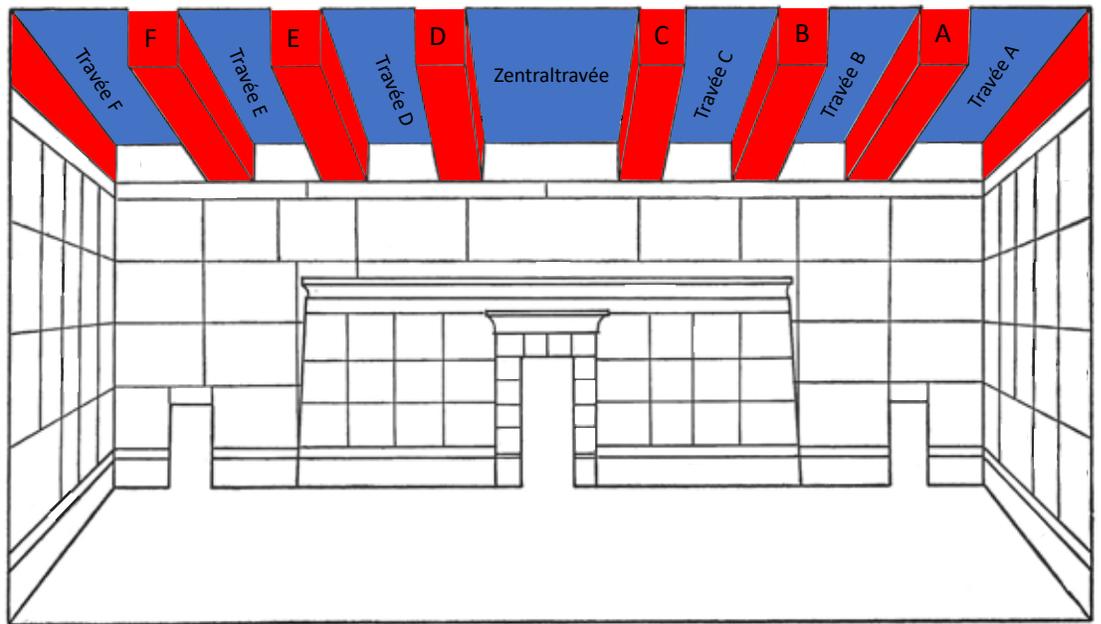
**BELOW:** The capital of column 5. In the background above is band D as it was before conservation. On its left is the bark with the scarab and the newborn sun god just visible.

PHOTO: COURTESY OF AHMED EMAM AND THE MOTA.



**RIGHT:** Modern naming convention used to refer to components of the ceiling of the pronaos, with the most northerly on the right.

PHOTO: COURTESY OF OLEXANDRA DOLDE, IANES, UNIVERSITY OF TÜBINGEN.



**ABOVE:** Part of the second register of column 5 showing the litany for the goddess Menhit and the three stages of the conservation process, running from the original state on the left to completion at the right.

PHOTO COURTESY OF AHMED EMAM AND THE MOTA.

the pronaos in order to provide a set of images that complement the text volumes of the temple inscriptions so meticulously edited by Sauneron. This work will complete the publication of this famous temple.

Together with the temple of Hathor at Dendera, the temple of Khnum in Esna is a rare example of a greco-roman temple incorporating a large astronomical ceiling in the pronaos. As at Dendara, the ceiling is subdivided into three segments (bands) north and south of the main axis, separated in the middle by a larger section decorated with a double row of no fewer than forty-six vultures, twenty-four representing Nekhbet of Elkab as a crowned goddess of Upper Egypt and twenty-two representing Wadjet of Buto as the crowned goddess of Lower Egypt. Both goddesses

bear different heads and crowns appropriate to their domains. Nekhbet has a white hedjet crown on her vulture head, while Wadjet wears a red deshret crown on her cobra head.

Each section of the ceiling has its own subject matter. The main theme of band A, the most northern band, is the waxing and waning of the moon. It includes twenty-eight lunar gods representing the days of the lunar month, but many constellations are also depicted. Most of them are not attested elsewhere on ancient Egyptian material. Sauneron was able to make drawings of all of the sections but since a thick layer of dark, black-brownish soot was covering the whole ceiling it did not make sense at that time to publish a complete photographic documentation record. This situation has now changed and during the conservation process many hitherto completely unknown ink inscriptions came to light, many revealing the names of the constellations. In band A alone more than seventy hidden inscriptions were brought to light. Most of them are now easily readable although some require a special computer program named DStretch that can enhance particular colors. The result of this work was that some lost inscriptions became readable, at least in part. This does not necessarily mean that the constellations can now be identified with groups of stars in the night sky, but at least the names of the strange beings depicted are now known. There are almost no parallels with these entities, with the exception of those in the tomb of Iufaa in the Saite-Persian cemetery in Abusir, which was explored many years ago by a Czech mission from Prague University. That relationship is nevertheless significant since it might indicate that what we are dealing with

in Esna is a set of genuine Egyptian constellations rather than partly Greek ones as at Dendera, or, for example, Mesopotamian constellations.

The subjects of band B are the so-called decan stars that marked out time in the night sky. Each decan stands in a bark and there are thirty-four in all. There are more typically thirty-six so that two are missing, perhaps indicating a lack of space. Decans are known in ancient Egypt from the coffins of the Middle Kingdom onwards. One finds them in the tombs of the kings of the New Kingdom, on Late Period stone sarcophagi, as well as in Greco-Roman temples. Decans served as parts of a celestial star clock used to measure out the twelve hours of the night. Every star appeared in the same position from one night to the other, but rose approximately four minutes earlier each night. Every hour was marked out by the appearance of a new star. Each decan hour lasted about forty minutes so that each star served to indicate the same hour for a period of ten days. Ten is deka in Greek and this is the origin of the name decans. Theoretically, one can choose any position of a star in the sky to mark off the passage of the star for such a clock system. The rising time, the setting time, or the culmination of the star at its highest position in the sky, exactly due south, can

be used to check off the hour. What position the ancient Egyptians used is part of an ongoing debate amongst specialized egyptologists and it remains to be determined if the same position was used over the centuries. Some other difficulties can be mentioned that arise when using such a star clock. First, since 12 hours of 40 minutes equals only 8 hours of 60 minutes there can be a considerable part of the night that is not measured by this clock. In addition, the ratio of night length to day length for Lower Egypt during the winter is 14 : 10, while in Upper Egypt the ratio is about 13.5 : 10.5. In summer, the correlation is of course better. In Lower Egypt there are around 10 hours at night, while in Upper Egypt there are about 10.5 hours. The next difficulty arises from the number of stars. Some decan hours consist of just one star, although that is quite rare. Some of them have three or four stars and some even twelve stars. Normally the decans are composed of several stars. Which star is relevant for the use of the star clock? It seems that the Egyptians had to choose between a brighter star whose position did not fit very well and fainter stars with potentially better fitting positions, but which had the disadvantage of being not so easily recognizable. In conclusion, it is unlikely that such a star clock system was very precise.

**BELOW:** The lower side of architrave D during the conservation process with so far untranslated painted inscriptions.

PHOTO COURTESY OF AHMED EMAM AND THE MOTA.



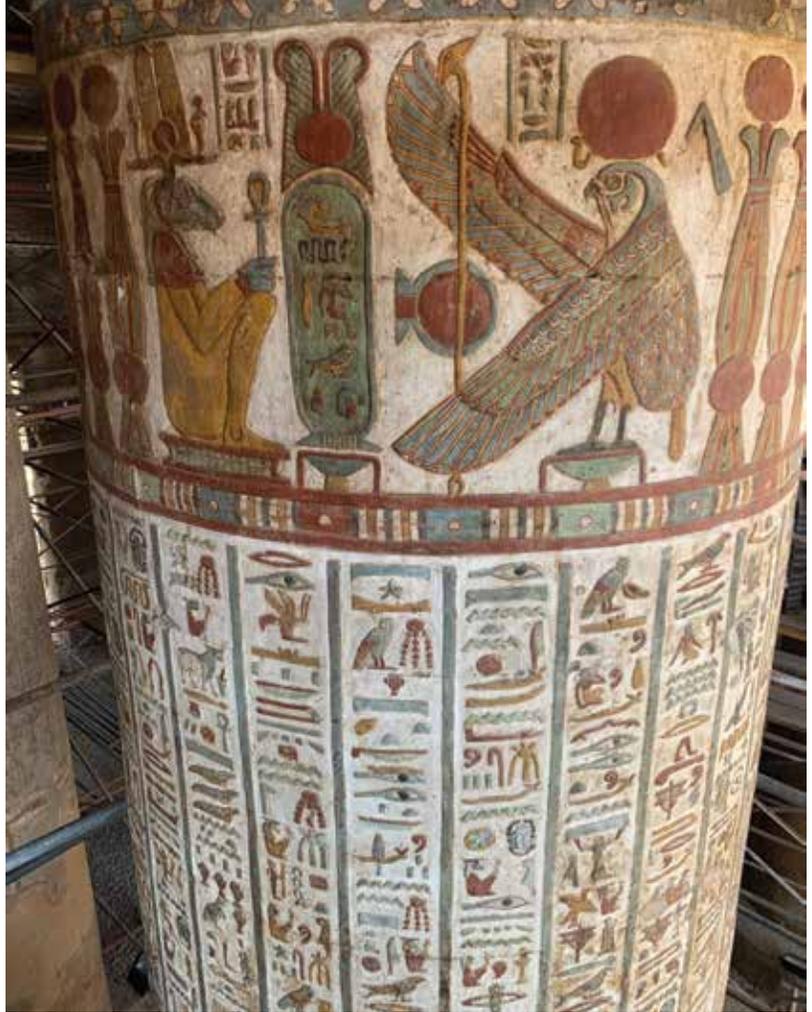
In the south east of the decan band, Osiris is shown as a representation of the constellation Orion standing in a bark, turning his face back towards his wife Isis, who wears the headdress of the goddess Seshat. In other temples such as in Dendara these two main deities of the southern sky are standing in two different barks. The astronomical reason for Orion turning his head back is that, while the corresponding stars (Sothis = Sirius and Sah/Osiris = Rigel) follow nearly the same path across the sky, Sothis/Isis in fact follows her brother Osiris/Orion, at a distance of approximately 1 h 45 minutes of arc.

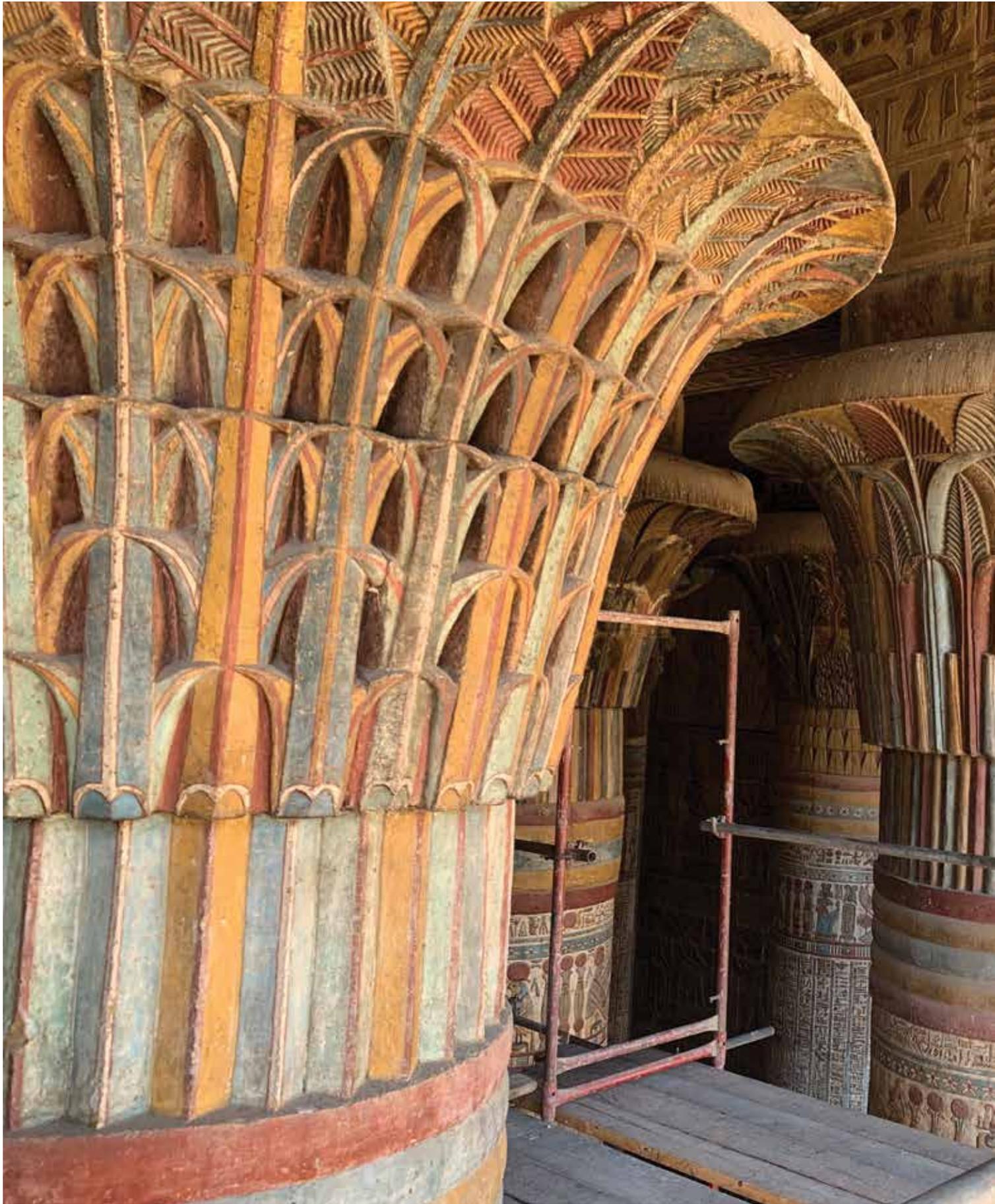
In the northeast, another well known and securely identified constellation is depicted. It is named Mesekhtyw. It is represented by the foreleg of a bull and has been identified with the seven stars of the Big Dipper or Plough, part of the constellation

**RIGHT:** Column 4 after conservation. The cartouche in the frieze contains the name of the local child god Heka who is designated as the first born of the god Khnum (sitting to the left). Below are parts of the litany for Khnum.

**BELOW:** Eastern abacus of column 3 with newly mounted spikes as protection against birds (mostly pigeons).

PHOTOS COURTESY OF AHMED EMAM AND THE MOTA.







**ABOVE:** Two of the forty-six vultures of the central band. Above is the goddess Wadjet of Lower Egypt with the head of a cobra and the red crown, below is the goddess Nekhbet of Upper Egypt with the head of a vulture and the white crown.

**LEFT:** The capitals of the northern part of the pronaos after conservation. Note also the undersides of the architraves with painted inscriptions that were covered by soot and not readable before conservation.

PHOTOS COURTESY OF AHMED EMAM AND THE MOTA.

Ursa Major meaning the great bear in Greek. This constellation is a circumpolar constellation meaning that the seven stars are so close to the Celestial North Pole that they never set or passed below the horizon, even though they could not be seen during the day. Mesekhtyw was identified in Egyptian mythology with Seth, the brother of Osiris, who murdered him and then tried to harm the mummified Osiris who was ruler of the netherworld. The overall position of the stars changes very slowly over time, but over centuries the cumulative effect of the displacement can become significant. Over the course of Egyptian dynastic history some stars in Mesekhtyw moved further away from the Northern Celestial Pole so that these stars could set for some hours, especially when observed from the southern parts of Upper Egypt. At some point during the New Kingdom it seems that the priests then created a new myth of a hippopotamus goddess who prevented Mesekhtyw from entering the netherworld with a chain and a mooring post, or more precisely, the stellar goddess prevented Mesekhtyw entering too far into the netherworld.

Band C is dedicated to the movement of the sun. The depiction starts in the northeast with the rising sun represented as a child on a throne in a bark. He is worshipped from the left side by six rekhyt birds with praising hands. In this section, many painted and



**LEFT:** The eastern part of band B. Above are the main constellations of the southern sky, Orion and Sothis, below is the foreleg of a bull (the Big Dipper), the main constellation of the northern sky. A hippopotamus goddess prevents it from entering the netherworld. To the left are two rows of the so-called decans.

**BELOW:** The eastern part of band C. To the right (upper register) the new born sun god is adored by two gods and six rekhyt-birds. To the left are the first hours of the day with their names painted before their heads. In the lower register is the sun scarab with painted inscriptions above the bark. The hours of the night are to the left.

PHOTOS COURTESY OF AHMED EMAM AND THE MOTA.

previously unknown ink inscriptions came to light revealing the names of the twenty-four hours of the day and the night as well as lines of text running above the barks of the sun god. It remains unclear why some parts of the texts were carved and others in the immediate vicinity were only painted.

The northern register of band D is dedicated to the moon god, while the southern one is again devoted to the sun god. He is shown in three stages, as a child in the morning, as a four-headed ram god at noon, and as a ram headed god in the evening.

Apart from the capitals, all of the architraves carrying long astronomical texts are undergoing conservation treatment. The carved inscriptions are well known but it became clear



that some parts were only painted so that the new conservation work revealed both the original colors and also new texts. The undersides of the architraves were almost entirely painted and were covered by such a thick layer of soot that Serge Sauneron was unable to read or integrate these texts into his famous edition.

The eighteen columns are also part of the conservation project. So far, eleven of these columns are completely restored. Esna is the only surviving temple with long texts in the second register of its columns. In all of the other temples those parts are only decorated by offering scenes. The only exception is the temple of Athribis near Sohag where fragments of a second register are preserved. The inscriptions include hymns to the gods of Esna, especially Khnum, and very detailed descriptions of the feasts held during the year. The hieroglyphs were created in three steps. The first step was drawing the texts in ink on the column, the second was carving the forms, and the final one was painting them. Sauneron's printed edition documented the second phase of the decoration but it sometimes happened that the carving was wrong and was corrected during the final phase by painting; something that Sauneron could not see. The conservation of all the columns will enable us to improve the edition of the Esna texts in this respect.

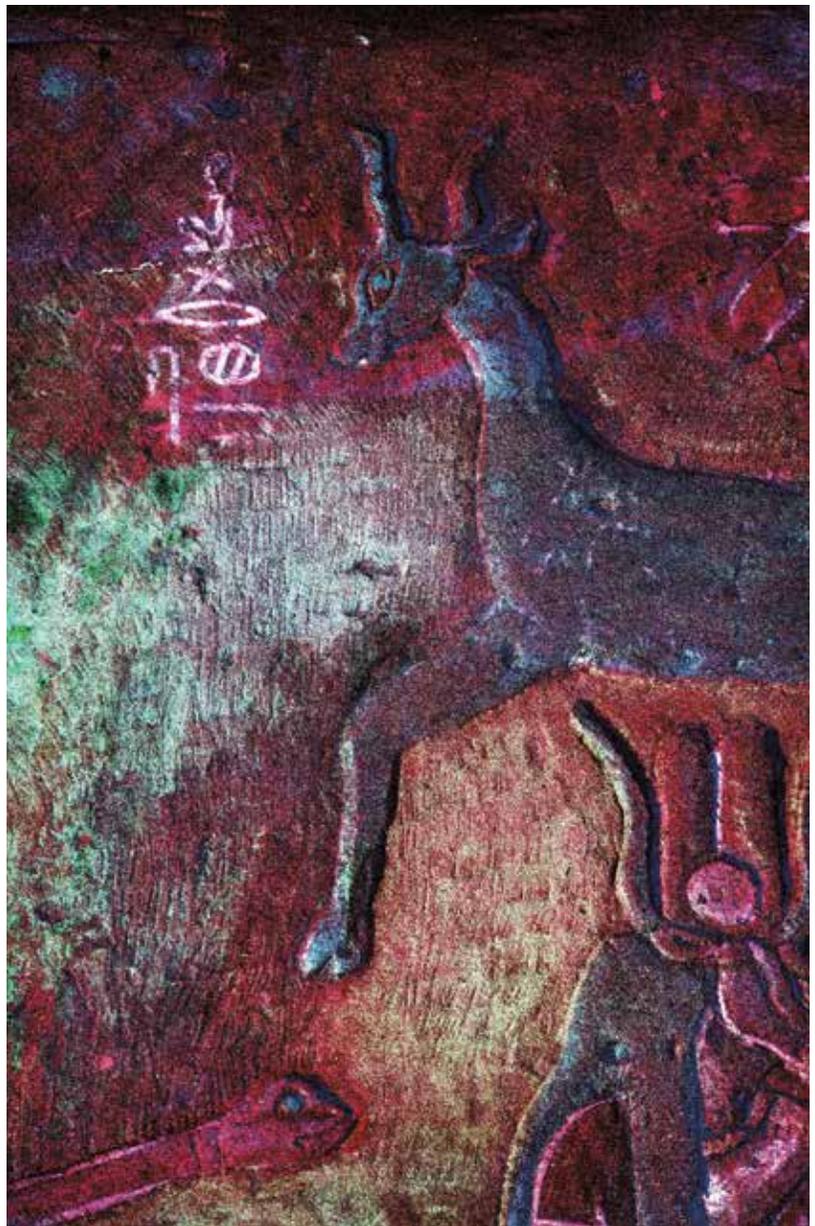
A considerable challenge for all the conservation work carried out on the columns and walls are the many birds that frequent the pronaos, most notably the pigeons. Only the ceiling and the lower sides of the architraves are protected against them. For this reason, the mission is installing metallic spikes on top of the capitals, a favourite nesting place for the pigeons.

The grand vision for the future is the complete conservation of the inner part of the pronaos. At present, two sectors of the ceiling remain to be covered (bands E and F), as well as two architraves and their lower sides, seven columns, and all of the walls. Half of the columns are already protected against birds by metallic spikes fixed on their capitals. All in all, the remaining work should require two or three years to complete, depending on the financial and human resources available. 🌸

**TOP RIGHT:** Band A. An unknown constellation of the southern sky in form of a double goat. In front of the left head is a painted inscription in red ink of its name.

**BOTTOM RIGHT:** The unknown constellation with the goat reworked using the DStretch© program.

PHOTOS COURTESY OF AHMED EMAM AND THE MOTA.







# A Tongue Twister Name & Collapsing Walls:

## CONSERVING THE MAUSOLEUM OF MANKALIBUGHA IN CAIRO

BY AGNIESZKA DOBROWOLSKA  
AND JAROSŁAW DOBROWOLSKI,  
ARCHINOS ARCHITECTURE

Work in progress in  
the mausoleum of  
Mankalibugha, May 2019.  
Note the wooden centering  
structure in place to  
stabilize the stonework  
during conservation.

PHOTO: MAHMUD BADAWY

**M**ore than a hundred gracious domes from the Mamluk period (1250 – 1517) survive in Cairo, and to a large extent they still define the skyline of the old city. The majority of them do not cover prayer halls of mosques, as they do for instance in Istanbul, but tombs. In Egyptian Arabic the word for dome – *qubba* – is synonymous with a domed mausoleum, and yet the mid-14th century tomb of Emir Mankalibugha al-Fakhri followed a different design. This remarkable structure was conserved in 2019 with funding from ARCE’s

Antiquities Endowment Fund. Rather than following the usual design for a Cairo mausoleum – a dome over a square chamber – it is a *liwan* – an open-fronted hall facing a courtyard and covered with a pointed barrel vault. The main liwan is flanked by two lower, similarly vaulted, side liwans.

Such an arrangement was not new to Cairo as it was rooted in ancient Persian architecture. The layout was used for residential buildings built soon after the city was founded in AD 641 and it remained popular in Cairene houses. It was also the basis of the “cruciform madrasa” design adopted by most Mamluk-period mosques built in the city. For a tomb, however, it was highly unusual.

**BELOW:** The Mausoleum of Mankalibugha before conservation, February 2018 (view to southeast)  
PHOTO: GEORGE FAKHRY



**RIGHT:** The blazon of a cup-bearer on the back wall of the western liwan in the tomb of Mankalibugha al-Fakhri, November 2015

PHOTO: JAROSŁAW DOBROWOLSKI



Just three years before the death of Emir Mankalibugha, an important funerary monument was erected close to the site where his tomb now stands. That was the mausoleum of Umm Anuk, the ‘mother of Anuk’, more properly known as Khawand Tughay. She was the favorite wife of the illustrious Sultan al-Nasir Muhammad and the mother of his beloved but prematurely deceased son Anuk. She was a lady of enormous wealth and power, renowned for her great beauty and for a degree of piety that led her to undertake the pilgrimage to Mecca three times. The overall appearance of her structure is that of a great vaulted liwan opening on to a spacious courtyard and with domed side appendages. The building also had an adjoining *khanqa* or Sufi convent. Princess Tughay, a victim of the Black Death pandemic that ravaged Egypt at the time, is interred under the larger of the domes.

It is entirely plausible that Emir Mankalibugha and the architect he commissioned to build his own mausoleum were so impressed with lady Tughay’s complex that they attempted to emulate the essence of its architecture. Despite its current state of disrepair, Tughay’s tomb was long held to be among the most beautiful buildings in Cairo. The nobly proportioned vaulted chamber of Tughay’s monument even comes to mind when one enters the magnificent courtyard of the mosque of Sultan Hasan, arguably the most beautiful and certainly one of the most famous mosques in Cairo.

Construction of Sultan Hasan’s mosque started eight years after Princess Tughay’s complex was completed. It is clear that Mankalibugha’s more

modest mausoleum displays none of the splendid opulence of those two buildings, but it is possible that Tughay’s grand edifice directly influenced the design of it. In the emir’s tomb, the only preserved decorative architectural feature is the hood over the *mihrab* prayer niche. The intricate stucco carvings in the nearby complex of Umm Anuk demonstrate the renewed influence of eastern and especially Persian art, whereas in Mankalibugha’s tomb the simple fluted niche with a keel-arch profile harks back to much earlier Fatimid-era architectural motifs. They remained an inspiration in some Mamluk-period buildings.

Bands of calligraphic inscriptions were typical decorative elements used in Mamluk art. In grander buildings they would be carved in stone or on stucco and were often painted or gilded. In Mankalibugha’s tomb, the inscribed band running around the interior walls was simply painted using bright colors on smooth plaster and an elegant and elaborate Naskhi script of the type that adorns many Mamluk buildings and objects.

On the back wall of the southern liwan was, until recently, a huge painted emblem of rank. This blazon symbolized the office of a Mamluk emir. Although the mausoleum is quite modest, some historical information has survived concerning the notable official who commissioned it. The era of the Mamluk Sultanate was a turbulent and often calamitous time, but one during which the writing of chronicles flourished. Details of the career of Mankalibugha al-Fakhri were recorded in the works of famous authors such as Ibn Tagribirdi, Al-Maqrizi, and Ibn Hajar. Mankalibugha was a mamluk

of Sultan al-Nasir Muhammad who was himself a son of the great Sultan Qalawun. Al-Nasir was put on the throne at the age of nine and served as a puppet of warring dignitaries. He was deposed and exiled twice before he returned from Syria to Cairo in 1310, aged twenty-four. By then he was determined to hold the reins of power with a firmer grip and so he got rid of conspiring emirs and promoted his own mamluks to high positions. Among the thirty-two officials who were made emirs of the first rank was Mankalibugha al-Fakhri. After al-Nasir Muhammad passed away in 1341, Mankalibugha survived the volatility that followed and in 1343 he was made emir *jandar* - an emir of the armor-bearers. Under Sultan Hasan, who was the seventh son of al-Nasir to take on the throne within six years of his death, Mankalibugha became one of the premier magnates of the state. By 1351, however, the conspiring emirs had dethroned Hasan and made the eighth son of al-Nasir the new figurehead sultan. Mankalibugha was arrested and died the following year.

The blazon in Mankalibugha's mausoleum depicts the sign of a *sāqi* or cupbearer and this is at first sight rather puzzling. It is known that he held a different office so this seems to be additional evidence that the rules guiding Mamluk heraldry were quite complex.

More than a hundred years later, another Mamluk emir built a domed mausoleum with an attached oratory and service facilities next to Mankalibugha's tomb. His name was Qaitbey. Soon after he built it, he became sultan and was remembered as an outstanding and long-reigning ruler. He also became a great patron of architecture. Qaitbey incorporated the small mausoleum that he built into the enormous funerary complex. It was a veritable 'royal suburb' in the area nowadays known as the Desert of the Mamluks. Lying at the heart of the complex, the mosque-madrassa and the adjoining tomb are masterpieces of mature Mamluk style, marked by a refined elegance and exquisite craftsmanship. Numerous people were kept busy in the mosque with religious observance and upkeep of the monument, while others worked for the associated charities and manned the elaborate service facilities. The staff were also provided with lodging as the cemetery was never intended to be solely for the dead.

About 1474, when the courtyard that Mankalibugha's liwan opened onto became a service area within the private section of Sultan Qaitbey's new complex, the huge arched opening was walled up. After the Mamluk Sultanate fell to the Ottomans in 1517, Qaitbey's complex gradually fell into disuse. The rooms around the service



## MISHKĀ

One of the most notable results of ARCHINOS's work in the area is the social enterprise named MISHKĀ

through which local women are trained by the project members to produce and sell handcrafted, designer-quality, leather products and jewelry using designs inspired by the neighborhood's glorious Mamluk heritage. The MISHKĀ enterprise has added an unexpected twist to the long history of Mankalibugha's mausoleum. It is now often used as a venue for photographic sessions as its richly textured stonemasonry serves as an attractive backdrop for models who present fashionable pieces inspired by the surrounding medieval architecture and crafted by the women of the neighborhood. MISHKĀ designs are sold in a boutique housed within a vaulted space opening off the street behind Qaitbey Mosque, and are also available online.

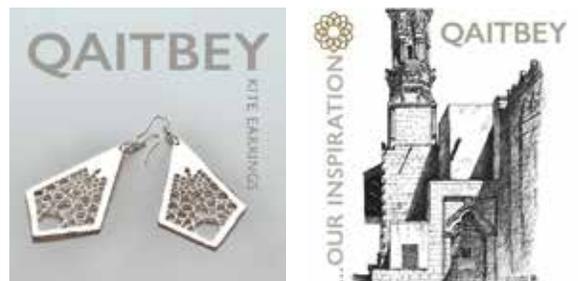


“the inscribed band running around the interior walls was simply painted using bright colors on smooth plaster and an elegant and elaborate Naskhi script of the type that adorns many Mamluk buildings”

courtyard became a burial ground and in 1523 a marble cenotaph was erected for a certain Muhammad ibn Shihab al-Din in the eastern liwan of Mankalibugha’s tomb. Quite exceptionally, the inscriptions on it mention the man buried underneath it and also the original founder of the monument.

Finally, the courtyard became a wasteland filled with refuse and rubble as the disused buildings around it deteriorated to the extent that some of them collapsed. In the second half of the twentieth century the population of Cairo skyrocketed and so did the number of inhabitants in this ‘City of the Dead’. The area – including Mankalibugha’s mausoleum — became an informal neighborhood rubbish dump.

Following a heavy rain storm in 2017, the Qaitbey-period wall blocking up the arch of the main liwan collapsed. That was a red alert warning and it soon became clear that the whole structure was in danger of collapsing. The back wall of the eastern liwan had fallen down, the masonry of the walls was critically weakened, and the brick vault of the eastern liwan was starting to crumble in places and had begun to deform. Its supporting walls were completely eroded away in places. The vault over the main chamber had been almost completely missing for a long time. In addition to this, an adjacent residential building was also on the verge of collapse. It was built in the late 19th century and was then haphazardly enlarged.



<https://www.facebook.com/mishka.handcrafts/>

<https://www.mishkahandcrafts.com/>



When a building is about to collapse, it may mean different things for different people. For our team at ARCHiNOS Architecture it always means that it's time to bring in Dr. Grzegorz Bogobowicz. He was already an experienced structural engineer when he took on his first assignment in Egypt in 1993, helping us with the conservation of the complex of Emir Kebir Qurqumas not far from Mankalibugha's tomb. Since then, he has saved many historic buildings in Cairo. Mankalibugha's tomb was his fourth project with the American Research Center in Egypt. He had previously been involved with the restoration program in the area that ARCE carried out in the 1990s and 2000s under the direction of Robert K. Vincent Jr. As has always been the case with ARCHiNOS conservation projects, the overarching principle is that the purpose of the work is to protect and preserve the existing historic material. In the words of Professor Bernard O'Kane of the American University in Cairo, "whatever we do to a monument, we will never have more of the original than we have now". It follows, therefore, that the main goal of the treatment is to conserve the historic building as it exists and not reconstruct an imaginary building

from any period in the past. Minimum intervention is the best policy, as a rule. While reconstruction of any previous condition or appearance is not the aim of conservation, replacement of missing or severely deteriorated elements is often necessary to restore structural integrity and stability. In the case of the mausoleum of Mankalibugha, which was dangerously close to collapse, this work had a high priority.

Emergency shoring had to be installed first, with care taken to adjust new steel props without causing vibrations or shocks. This work continued in parallel with the removal of refuse from the interior areas. A wooden centering (a temporary wooden structure used to hold a vault or arch in place) was then constructed under the fragile vault of the western liwan and carefully fitted to evenly support its curvature. The masonry of the walls was repaired by filling in joints where mortar had eroded away between stones and bricks. Missing and completely crushed or powdered stone blocks were replaced and wooden pieces strengthened and treated. Subsequently, the missing sections of the vault were filled in and cracks in its brick shell repaired. The missing back wall of the western liwan was rebuilt to restore rigidity to the weakened structure.

**ABOVE:** The Mausoleum of Mankalibugha after conservation, May 2020

PHOTO: JAROSŁAW DOBROWOLSKI



**ABOVE:** The eastern liwan after conservation, November 2019

PHOTO: GEORGE FAKHRY

When the structural repairs had rendered the building stable and safe, conservators of building fabrics moved in to clean and consolidate the plaster and finish the pointing of the joints. The decorated plaster in the western liwan posed a particular problem. When the wall that had blocked off the main liwan since the 1470s finally collapsed in 2017, it sent a shock through the structure that knocked plaster off the stone wall. The render, including a painted band with an inscription and a heraldic blazon, fell on the ground and disintegrated into small pieces. When conservation by ARCHiNOS started in 2019, these pieces were collected and a highly experienced conservator attempted to piece them back together. Alas, it was too late. The damage had progressed so far that restitution of the decorated plaster proved impossible. The fluted conch over the mihrab prayer niche was also on the verge of being irretrievably lost. Its extremely weathered plaster had begun to detach from the wall. Here, however, conservators arrived in time to consolidate and protect the fragile section. The adjacent tall building looming precariously over the site could not be allowed to collapse onto it, so it was also

repaired and reinforced. This was a delicate task that required supporting the structure with a massive steel emergency shoring. Its masonry was then repaired and reinforced in incremental steps until the building was sound enough to safely stand on its own. Throughout the conservation process, a “soft approach” was the rule. Wherever practicable, the repairs were carried out using traditional techniques and local materials as similar to those used during the original construction work as possible.

Most of the work was carried out by a local workforce. The importance of this aspect of historic preservation is easy to overlook. Each reinforced wall, re-laid floor, and repaired roof contributes to the conservation of a historic building, but also to the livelihoods of local households. In underprivileged neighborhoods where jobs are scarce and unemployment rates are high, people are particularly vulnerable to economic disruptions such as those caused by the Covid-19 pandemic. Working on a conservation project can be a lifeline for a local family in an underprivileged neighborhood. In this way, ARCE has contributed to much more than tending to bricks and mortar. The immediate purpose of the work carried out

**BELOW:** Project director Agnieszka Dobrowolska and site manager Mahmud Badawy discuss the conservation, March 2019

PHOTO: JAROSŁAW DOBROWOLSKI

by ARCHiNOS with ARCE funding at the tomb of Mankalibugha was to avert the impending collapse and preserve it for posterity. It is indeed an important if unassuming building that documents aspects of the distant past, but there were broader reasons for embarking on the task.

Since 2014, ARCHiNOS has been working in the Qaitbey neighborhood of the Desert of the Mamluks on various historic buildings and architectural spaces,

and the conservation of Mankalibugha's mausoleum dovetailed into this effort. The involvement started as a project primarily funded by the European Union within its program aimed at promoting proper management of cultural heritage projects to achieve economic growth and social development. This policy is in perfect conformance with our conviction at ARCHiNOS, acquired after many years working in historic preservation in Egypt, that historic buildings



cannot be preserved effectively if they are treated in isolation from the local communities around them. As a result of our work in the neighborhood, two conserved buildings within Sultan Qaitbey's complex have been adapted and are now used as a cultural hub where various events are staged, including concerts, theatrical performances, contemporary art installations, lectures, and exhibitions. Diverse forms of art are thereby introduced into an underprivileged



neighborhood where inhabitants would otherwise have had limited access to artistic culture, and the events are very enthusiastically received. They also bring a more diverse audience in from outside, which helps refute many misconceptions that are in circulation concerning the 'City of the Dead'. Importantly, it helps counter the social stigma often undeservedly associated with its inhabitants.

Bringing cultural tourism to the area is an important objective of the project. The *maq'ad* (reception hall) and the adjacent mausoleum known as al-Gulshani's are both outstanding examples of mature Mamluk architecture and are now also venues for a wide range of activities focusing on the local community. Language courses and other educational classes are taught. Creative and "life skills" workshops for children and youth are held as well as sporting events, other competitions, and much more. Reintegrating historic built heritage into the everyday life of the local community benefits both the people and the monuments. The Covid-19 pandemic seriously impeded this work, but never stopped it. More programs and events are bound to develop there and the project has attracted the interest of new donors, most notably the DROSOS Foundation, which has enabled a significant expansion of the social development component.

ARCHiNOS continues to conserve more historic buildings and spaces in the Qaitbey area with the objective of making them useful for the local community and thereby ensure their continued maintenance. This effort includes the quarter where sultan Qaitbey reposed during his visits to the cemetery that incorporated Emir Mankalibugha's courtyard. The longer-term objective is to open the whole area including Mankalibugha's mausoleum to the public as an archaeological park functioning alongside the neighboring cultural and educational hub. The work has not yet been completed but it is well underway.

To the west of the area so-far cleared and restored stands another mausoleum built before Sultan Qaitbey's complex, for a man who also bore an unusual name: Ibn Ghurab – Son of a Crow. An emergency intervention by ARCHiNOS in 2019 financed by the Barakat Trust averted its impending collapse, but the building was still urgently in need of conservation. The work was carried out from July 2021 - November 2022 with funding again coming from the Antiquities Endowment Fund of the American Research Center in Egypt. We are looking forward to writing about that project for *Scribe* very soon.

**See more on the interactive website at:**  
[www.aliveinthecityofthedead.com](http://www.aliveinthecityofthedead.com) 🌸



# A TOUR AROUND THE Great Pyramid Temple

The Great Pyramid  
Temple Project 2020

BY ZAHİ HAWASS, MARK LEHNER, AND DANIEL JONES



**T**he construction of the Great Pyramid of Khufu was an outstanding human achievement and it is now the most famous icon from antiquity. It was the largest pyramid ever built and the tallest structure in the world for nearly 3,800

years. Khufu's pyramid has a monumentally striking presence, yet few of the visitors who have walked or ridden a horse or camel across the temple at the center of the eastern side of the pyramid realized that they were contributing to the erasure of the central focus of the whole Great Pyramid complex. As well as the pyramid, Khufu's site included the pyramid temple, a valley temple, a causeway, five boat pits, a satellite pyramid, and three queens' pyramids. Although less visible today, all of these secondary elements were impressive in design and construction and had an important role to play in the death, burial, and commemoration of the god-king.

For nearly fifty years, an asphalt road ran along the eastern side of Khufu's pyramid, right across the temple. In 1995 it was removed by Dr. Zahi Hawass, then Director of the Giza Pyramids, and a team from the Giza Inspectorate who pulled it up as part of their

comprehensive clearing of what Egyptologists call the Eastern Field. This area includes mastaba tombs of the king's immediate family. In the twenty-five years that followed, visitors, souvenir sellers, camels, horses, and horse-drawn buggies travelled over the temple every day and it developed into an ad-hoc parking lot for their animals.

To conserve Khufu's pyramid temple for the future and make it comprehensible for visitors, we launched the Great Pyramid Temple Project (GPTP). Thanks to support from ARCE's Antiquities Endowment Fund (AEF), and the Giza Inspectorate under the direction of Mr. Ashraf Mohamedin, the GPTP team initiated this project in September 2020. Working with archaeologist Dan Jones, surveyor Mohammed Helmi, and archaeologist and overseer of the workers (Reis) Sayed Salah Abd el-Hakim, we first wanted to compile a detailed documentary record of the extant temple remains. Next, we built a controlled access walkway that will help conserve what remains of the temple. Finally, we installed signage to help visitors understand the significance of this temple as part of the Great Pyramid complex. These show that it is an integral part of the last survivor of the Seven Wonders of the Ancient World, and that it is an important piece of Egypt's cultural heritage.

**BELOW:** Painted and relief carved decoration showing booths lined up for the sed festival above a black band studded with stars.

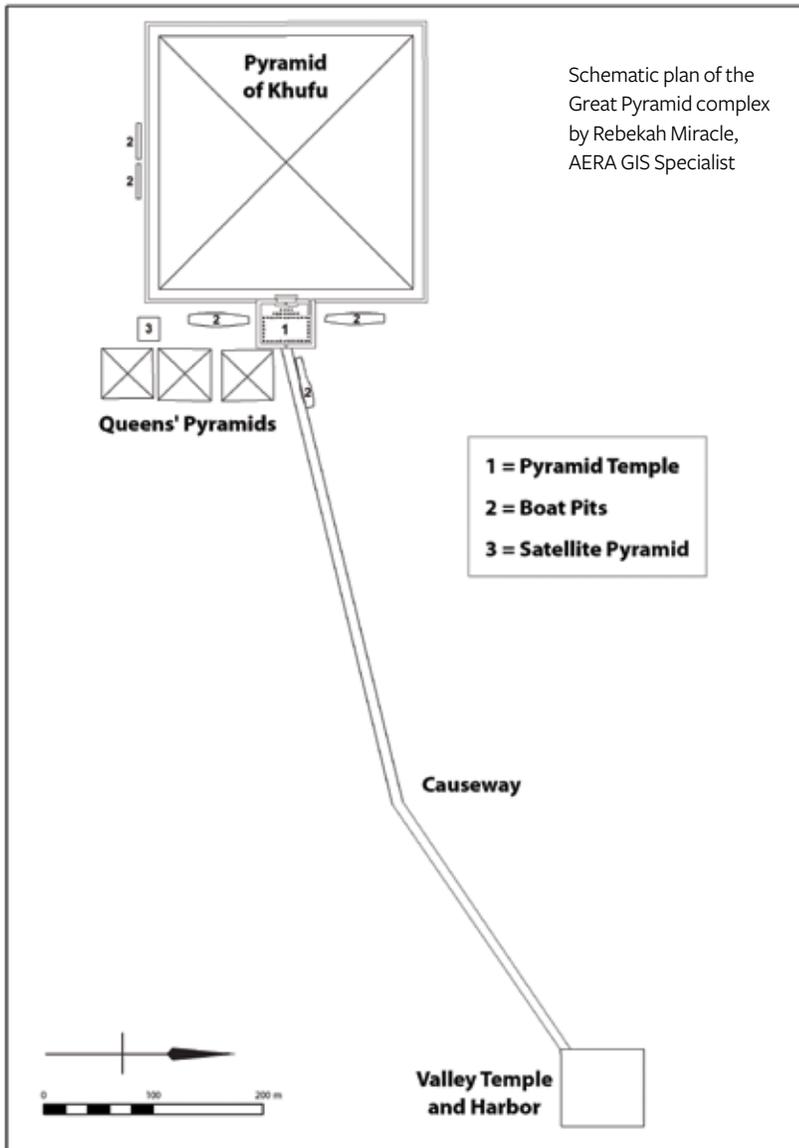
PHOTO: AERA and the MoTA.

**OPPOSITE PAGE**

**BOTTOM:** A beautifully carved head of the falcon god Horus discovered in the material filling of the pillar sockets of Khufu's pyramid temple.

PHOTO: AERA and the MoTA.





**ABOVE:** The asphalt road running over the Great Pyramid temple c.1985.

**BELOW:** The Great Pyramid c.1995, with its distinctive black basalt pavement, shown after the removal of the modern road and clearing of the area by Ala' Shehat for the Giza Pyramids Inspectorate under Dr. Zahi Hawass.

### The Temple That Once Was

The most striking feature of the Great Pyramid temple now survives as a prominent island of black basalt pavement that has been visible since the early 19th century. As remarkable as this pavement is, it is hard to visualize what the temple surrounding it may have looked like or how it was built. In 1995, Mark Lehner surveyed and drew up a detailed plan of the temple remains and we used this as our template to “ground truth” the remains still visible to us twenty-five years later. We used methodology developed by Museum of London Archaeology (MoLA) known as single context recording. Ancient Egypt Research Associates (AERA) has employed and refined this method over the past sixteen years in excavations at Heit el-Ghurab, Khentkawes Town, and the Menkaure Valley Temple. We assigned a “feature number” to each physical feature that reflects a process or event and we located each feature on a ground plan and made a textual and photographic record of it. We recorded all visible archaeological features, such as holes and other features that Khufu’s quarrymen cut into the bedrock to the south, north, and east of the



temple. A number of these features were left from activities carried out prior to the construction of the temple. Other features reflect the initial setting out of the building. We also recorded features that resulted from the dismantling of the temple, such as the location of displaced blocks, and more recent features like trenches cut for electric cables. By doing this, we were treating all the archaeological remains from different periods equally, which is crucial to understanding the sequence of events that occurred at the site of the temple over its entire history. Features not drawn in 1995 were either hand-drawn to a scale of 1:100 or surveyed using a Total Station. All our recorded data was collated into GIS by AERA's GIS specialist Rebekah Miracle.

With this detailed dataset of the site in hand, we began to formulate more grounded narratives about how Khufu's builders conceived and constructed his pyramid complex. The dataset is invaluable when we consider how important Khufu's pyramid temple is for the history of architecture. It is the second oldest, large, stone (pyramid) temple in ancient Egypt, after the temple attached to the north side of Djoser's Step

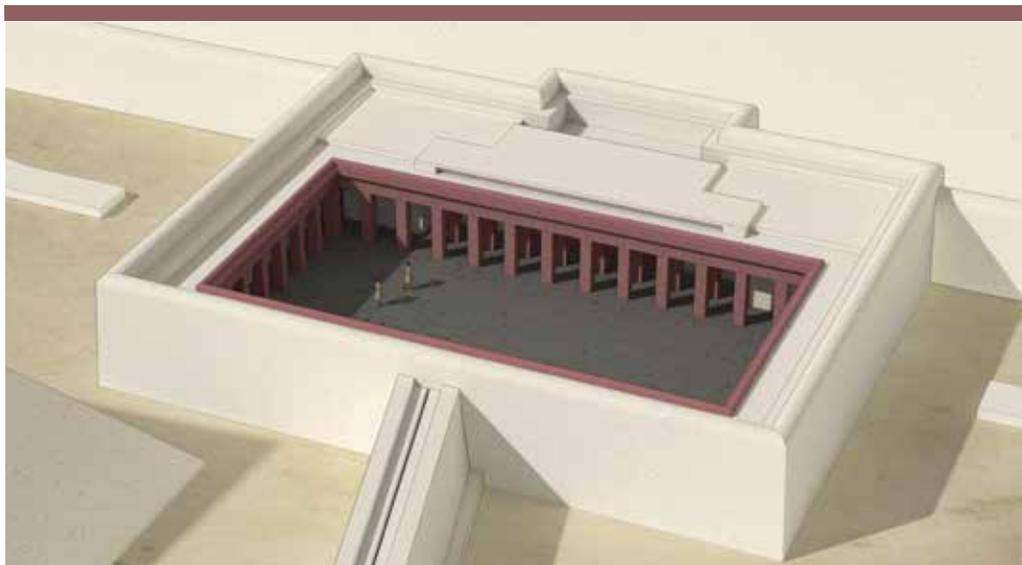
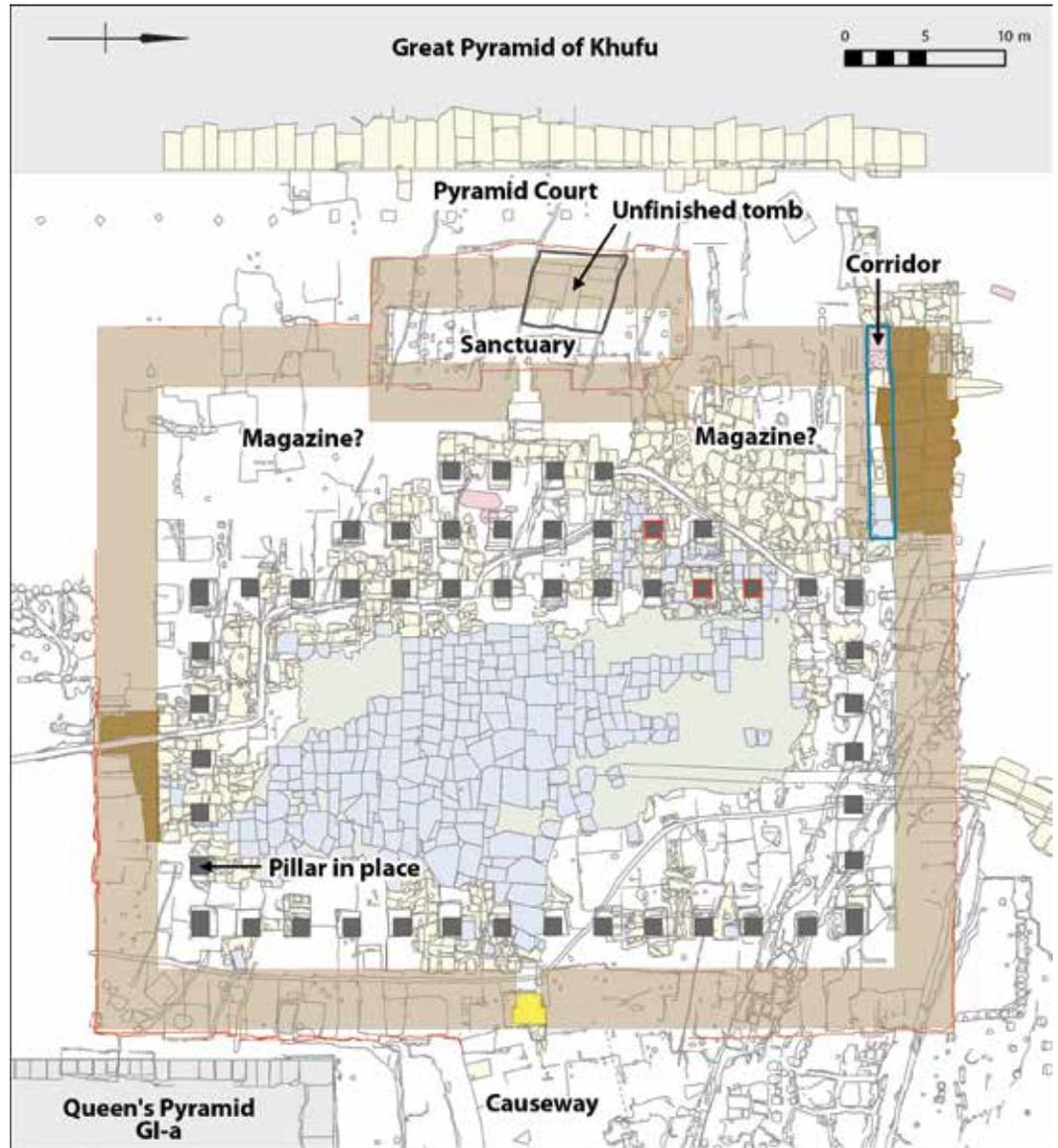
Pyramid. If you visited the temple in Khufu's time, you entered through a two-leaf wooden doorway (highlighted in yellow on our map) on the center of its east side, after walking 850 meters through a causeway that led up onto the plateau from Khufu's valley temple down near the floodplain. Inside the temple, sunlight blazed down onto the polished black floor, and reflected off acres of the pyramid's white casing. If the causeway was roofed, it was most-likely lit only by a narrow skylight gap running along its roof as found in later pyramid causeways. On arrival at the temple then, the full light would blind your pupils, dilated during the journey up the long, semi-dark passage. It was a gigantic special effect, wrought in stone.

As you crossed the basalt court, an orderly forest of square red granite pillars surrounded you, another first in Egyptian architecture. Part of one of these pillars, 1.06 m (2 cubits) square, is still in its socket in the southeast of the court. The builders probably framed long, narrow magazines into the thick masonry of the northwest and southwest corners of the temple. At the center of the western side of the temple near the pyramid, the walls receded into a stepped bay. Two rows of pillars

**BELOW:** A pillar socket showing the location of the pillar, the original mortar, remains of a packing stone, and the pillar insertion slope.



**RIGHT:** The Great Pyramid temple site showing all the features recorded and our proposed reconstruction (light brown) of the temple walls. Dark brown indicates limestone pavement laid down as foundation for the outer wall. By Rebekah Miracle from AERA GIS.



**Reconstruction of Khufu's Pyramid Temple**

from the *Great Pyramid Operations Manual* by Franck Monnier and David Lightbody (2019). The red granite pillars from Aswan can be seen, as can the black basalt pavement made from stone most likely brought from the Widan el Faras quarry north of the Faiyum.

COURTESY OF FRANCK MONNIER

stood aligned in front of the recessed western wall of the main temple, which is now lost. This western side possibly incorporated five niches containing statues of the pharaoh facing east, gazing out through the spaces between the pillars. Like statues that once sat against the walls of Khafre's valley temple, these statues of Khufu would have been illuminated only by light coming in from the court, or from slits at the tops of the walls. The statues would have appeared to exist in the liminal zone between dark and light, chthonic and celestial, emerging from the netherworld.

But beyond the recessed western bay, what did the builders create inside the inner sanctuary? All that remains of the foundation of the sanctuary is a broad, irregular depression cut into the bedrock. This sunken bedrock foundation steps back to the west, and protrudes into the pyramid court, bringing the temple sanctuary closer to the pyramid.

We do not know what Khufu installed in the inner sanctuary of his temple. Was it another set of



**ABOVE:** Fragment of painted, carved relief depicting the back and arm of a person wearing a sash and hanging emblem of the goddess Bat, a frontal perspective female face with cow's ears and inward-curving horns. The emblem signifies the bearer as a Kherep Ah, a "Controller of the Palace."





**ABOVE:** A stretch of basalt pavement and its limestone bedding at the northwest corner of the Great Pyramid temple. View to the north.



**LEFT:** Project surveyor Mohammed Helmi (left) assisted by Emad (right) recording features with the Total Station. Project director Mark Lehner (center) hand-drawing features.

statues “coming forth” from small chambers or niches, or a “false door” such as we see in temples of later pyramids, for the dead king to come forth from his tomb to receive offerings and commune with the living, or possibly a pair of false doors like those found in the chapels of Khufu’s queens’ pyramids, or a pair of tall, round-topped stelae flanking an offering slab, like the stelae found in front of Snefru’s pyramids built at Dahshur South and Meidum. It doesn’t help that long after Khufu’s time, probably 2,000 years later in the Saite dynasty (26th), someone dug a huge, deep tomb shaft (unfinished), into the center of this sunken foundation. We hired a crew with a motorized winch to take out many years of accumulated trash and clear the shaft to its bottom, which was found at 14 meters deep.

A corridor in the northwest corner of the temple gave access from the temple court into the courtyard that surrounded the pyramid. The corridor ran between an eastern threshold of black basalt and a western threshold of red granite. Pairs of pivot sockets in each threshold show that people once crossed through double swinging wooden doors, about two cubits (1.05 m) wide, like the double-leaf door at the temple’s entrance. We can only guess why the builders chose these different hard stones for the respective thresholds, but one guess is that the black basalt represented the living “black land” (Kemet) of Egypt, while the red granite represented the west, the desert, and the transitional zone of death and resurrection.



**LEFT:** The walkway construction team from Noor el-Rahman.

[1] See Dorothea Arnold “23. Scenes from a King’s Thirty-Year Jubilee,” in *Egyptian Art in the Age of the Pyramids* (1996), New York: The Metropolitan Museum of Art, p. 196.



### Surprise Find in the Open Court

Sometime between the late 1950s and the early 1960s parts of the basalt pavement of the open court underwent restoration (highlighted green on our map). The restorers used displaced stones from the pavement and added gray cement. This restoration covered three of the pillar sockets (highlighted in bright red on our map) located in the northwest of the court. To complete our documentation, the General Director of Giza, Ashraf Mohamedin gave us permission to remove the restoration work built over these sockets. As we took up the restored sections, we found sandy debris filling these sockets. We needed to remove this material to see the sockets and to our surprise the fill of each of the three sockets contained limestone pieces decorated with the remains of relief-carved decoration. One face of a piece, 80 centimeters long, retains an exquisite low relief depicting shrines and a row of stars, still colored with traces of paint. This must come from the inner walls built around the courtyard. There can be no mistaking that this delicate, low relief dates from Khufu’s time, as similar pieces are known from several other fragments found during earlier excavations carried out nearby, and in the core of the Middle Kingdom 12th dynasty pyramid of Amenemhat I at Lisht, where they were reused some 600 years later. This indicates that Khufu’s temple must already have been among “the decaying Old Kingdom pyramid precincts” in Amenemhat I’s time [1].

Above a band of typical, Egyptian, five-pointed stars representing the heavens, the block shows a row of

booths patterned after Predynastic reed “tent shrines.” These booths are lined up most likely for a special festival called the *sed*, traditionally a celebration of a king’s 30-year jubilee when he renewed his physical and magical powers. Another fragment of Khufu’s jubilee scenes turned up when we removed further debris from the pillar sockets. It shows the torso and arm of a person wearing a sash hung with an emblem of the goddess Bat – a female face with cow ears and horns that sweep up and curve inward towards one another. In later times, craftsman made *sistra* in Bat’s image. The Bat emblem, with its harness-like arrangement of crossed straps and *sistrum* pendant, incorporates a counterpoise, which can be seen in our fragment. A braided rope ends in a tassel that hangs between the arm and the small of the back of the person. The front-forward, cow-eared face is similar to common depictions of the cow-goddess Hathor, the mother of Horus, although Hathor’s horns curve in and then outwards. Eventually, Bat and Hathor merged in the minds of the Egyptians. The edge of a thick staff, held vertically can be seen along the right edge of the limestone fragment. Yet another fragment we excavated shows a beautifully carved head of the falcon god Horus. It appears that the material filling these pillar sockets was never excavated before being covered with the restoration works. It makes us wonder whether more unexcavated material lies below the rest of the restored areas.

When we cleaned the sand and stones from all the pillar sockets, we could see the original mortar

used during the process of installing the red granite pillars and packing stones. Impressions in the mortar indicate the original position of the pillar. In some cases, original limestone packing pieces remained where the builders had inserted them to secure the granite pillars in their sockets. In one socket, we found the remains of the red granite pillar itself – a complete stub embedded in one of the sockets in the southeastern corner of the temple. A number of the pillar sockets had an angle, or slope, carved on one side, indicating the direction from which the pillar was inserted into the socket. All these original features were remarkable to see. They helped us better understand how the temple was constructed in the first place.

**BELOW:** A teacher (left) with his students in tow on the walkway.

Our working hypothesis is that once the decision had been taken on where to locate the temple, the

builders cut a level foundation into the limestone bedrock. The step down from the higher, uneven bedrock surface can still be seen on the east side of the temple. Next, they cut rectangular sockets into the bedrock for the fifty pillars and the thresholds of the corridor that led to the court around the pyramid. They cut the pillar sockets to different depths, suggesting they made the sockets to accommodate granite pillars of different lengths, or heights when stood up. This means that the pillars had not all been cut to a specific length before delivery and the builders had to cut the sockets below to various depths so that the tops of the pillars arrived at the same level when they were stood up to meet the spanning roof slabs.

The slopes cut into the sides of the sockets show us that the builders inserted the pillars outwards from





**ABOVE:** Khufu's pyramid temple walkway early in the morning.

within the court. They first placed the pillars with one side resting on the slope and then raised them into place with levers. Once the pillars were in place, the builders set about laying down the basalt pavement. Basalt is a magmatic or igneous rock and therefore extremely hard to work. When the magma flow cooled and hardened into black rock, it fractured in conchoidal scallop-shell-shaped or angular surfaces. Quarrymen took pieces from natural cleavages with angular facets. At Giza, Khufu's masons did not want to cut the basalt more than they had to, so they left those angular

facets on the undersides of the pieces as they carefully trimmed the upper edges to make the level but complex, jig-saw-like pattern we see today. Because they left the undersides with trapezoidal shapes, they could not just lay the basalt directly onto the bedrock surface. To create a level surface on top, the builders laid down an intervening "bedding" of limestone and gypsum, which we see extending in from around the edges of the pavement today. The builders used different sizes and shapes of limestone to custom cut and fit individual basalt pieces into place using mortar.



The masons' method was similar to the way they approached the pillar installation. They custom cut sockets for the pillars just as they made a bedding for individual basalt blocks. This was the first temple built on this scale to have freestanding granite pillars and a basalt pavement and as they executed the design, they improvised. Once they had laid in the pavement, the builders could then work on the outer walls and parts of the temple that would be roofed.

Because they built these parts in limestone, they drew on generations of knowledge and experi-

ence cutting and shaping it, not to mention during their time building Khufu's pyramid, and so this last phase of heavy work probably went smoothly and efficiently.

### **Khufu's Pyramid Temple Walkway**

With our documentation complete, we set about installing the new visitor walkway around the pyramid temple. To carry out this work, Mr. Waa'dallah Abu Ala'lla, Head of Sector of Projects at the Ministry of Tourism and Antiquities (MoTA) and Dr. Zahi Hawass secured the services of Mohammed Hassan and Kamel Hassan and their team of carpenters from the company Noor el-Rahman.

To make the temple's form more comprehensible for visitors, and to reduce the traffic running over the remains, we designed a wooden walkway that follows the line of the outer wall of the temple. The walkway does not have a fence around it to stop people from entering the temple but during its installation we observed that rather than walk across the uneven temple remains, visitors migrated to the walkway of their own accord, because it provided a level path to follow. People were naturally curious about why the walkway was there and what it enclosed. To complement the walkway and improve the visitor experience, we installed three information panels around the temple. One panel explains the layout of Khufu's pyramid complex, the second describes the pyramid temple itself, and the third describes the sanctuary and unfinished tomb shaft.

During our time working at the temple, we got to know many of the horse and camel owners who offer rides to visitors. Because our work is going to change the way they operate around the temple, we explained to them what we were doing and why, with an emphasis on not wanting them to lose business.

To make way for the walkway, we repositioned a section of the pre-existing fence of pillars and chains to the south of the temple. This new stretch of fence blocks off access for horse and camel riders to the temple from the south. By explaining why we were doing this, and carrying it out with their cooperation, they started to change the way they conducted their business in that area. As they would no longer be able to ride over the temple to solicit trade from visitors, they began to tie-up their trusty animals on the new southern fence and would then walk into the temple area to seek customers. A win-win situation for everyone.

We believe this project will help preserve this temple for the future while improving the experience of visiting Khufu's magnificent pyramid complex. 🌸

The latest from ARCE's offices in the U.S. and Egypt



Dr. Betsy Bryan presented her lecture “Thebes from Amenhotep III to Tutankhamun: Altered, Abandoned, Mutilated, and Rejuvenated” across four cities last fall as the second installment of the Tutankhamun Centennial Chapter Lecture Tour. We were honored to be warmly welcomed by the ARCE chapters in Chicago, Kansas City, Atlanta, and Dallas. Deepest gratitude to Dr. Bryan for her participation and for sharing this exciting information with our chapters. Special thanks to the Oriental Institute of the University of Chicago, Southern Methodist University, and the Michael C. Carlos Museum for graciously hosting ARCE at their respective venues.



**ABOVE:** Dr. Fatma Ismail, Director of Outreach and Programs, and Liska Radachi, U.S. Director, attend the 100th Anniversary of U.S. Egypt Diplomatic Relations at the Library of Congress in September.

**LEFT:** Dr. Fatma Ismail, Laila Gheis, and Mrs. Hala Zahran

In October, Mrs. Hala Zahran, wife of Egyptian Ambassador His Excellency Motaz Zahran, invited Dr. Fatma Ismail to present her lecture, “Tut and Egyptomania: Celebrating the Centennial of King Tutankhamun for Egypt and the World” as her personal guest speaker at the Egyptian ambassador’s residence. The private audience was a group of esteemed women from the Washington region. Dr. Ismail’s lecture was followed by a beautiful luncheon of fine Egyptian cuisine. Traditional harp music was provided by local young harpist Miss Laila Gheis (Dr. Ismail’s daughter).

## Research Supporting Member news: The Department of Egyptian Art at The Metropolitan Museum of Art

By Dr. Janice Kamrin, curator of Egyptian art

It has been a productive year for the Department of Egyptian Art at The Met. In December 2021, Diana Craig Patch (Egyptian Art) and Alisa LaGamma (Michael C. Rockefeller Wing) opened *The African Origin of Civilization*. Featuring forty-two paired masterpieces from The Met's Egyptian and sub-Saharan collections, this exhibition highlights the extraordinary creativity of the African continent across five millennia. The juxtapositions encourage visitors to explore themes spanning time and space, uncovering deep and underrecognized histories. Made possible by The Daniel P. Davison Fund and Louise Grunwald, it will be on view through 2024.

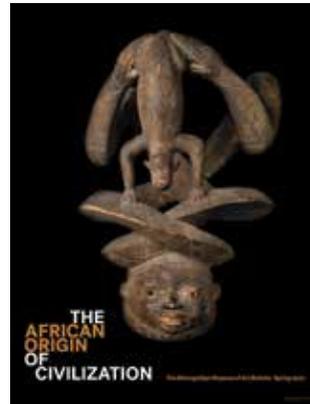
The department has recently installed *The Human Connection: Photographs from Tutankhamun's Tomb* to mark the centennial of the uncovering of the pharaoh's burial place. Curated by Isabel Stüinkel, the display features photographs taken by Met photographer Harry Burton during the excavation. Rather than focusing on objects reflecting the power and riches of the young pharaoh, this small exhibition highlights images that either provide a more personal glimpse of the young king or illuminate some of the human acts that took place during his funeral. Another event in honor of this centennial is Aude Semat's self-guided gallery tour entitled *Tutankhamun's World*. New displays and labels will help visitors explore the people, places, and lifeways that defined the Egypt of Tutankhamun's time. To access other Tutankhamun-related material, please visit "Tutankhamun: Commemorating 100 Years" (<https://www.metmuseum.org/about-the-met/collection-areas/egyptian-art>).

Over the past year, the department has hosted several fellows. Amy Butner assisted with an upcoming exhibition, and Sophie Kroft researched Predynastic decorated vessels. This fall, we were joined by Heba Khairy from the Grand Egyptian



Museum (GEM), who is studying collections management and documentation systems; Daniel González León, who focuses on the paleography of the Old Kingdom Coptos decrees; Jun Wong, who is examining the "proscription" of Hatshepsut; and Hany Ahmed, who is studying the tomb of Rashepses. Objects Conservation fellow Ahmed Tarek, also from the GEM, has concentrated on the impressive

Frame or base with the epithets of a royal woman found in the southeast extension of the South Temple, Pyramid Complex of Senwosret III, Dahshur.



Cover of *The African Origin of Civilization*, The Metropolitan Museum of Art Bulletin, vol. 79, no. 4 (Spring 2022)



Harry Burton, Plant bouquet, ca. 1923–24. Gelatin silver print. Department of Egyptian Art Archives (TAA 145)

wood statues of Merti and his wife in the Egyptian Department's collection.

The department's expedition to the Pyramid Complex of Senwosret III at Dahshur, led by Adela Oppenheim and Dieter Arnold, returned to the site in fall 2021. Work focused on the southeast portion of the South Temple, where the team found fragments of wall relief that included iconography and inscriptions related to one or more royal women, perhaps indications that aspects of queenship were celebrated in the area. In the South Temple's forecourt, recovered relief fragments included a carefully carved piece with small representations of crenelated ovals enclosing non-Egyptian place names and topped with heads of Syrians and Libyans. Key architectural finds were blocks originating from the complex systems used to drain rainwater and liquids used in rituals. The elaborate and unusual drainage system of the roof might even lead one to suggest that there was increased precipitation during the reign of Senwosret III.

*The latest from ARCE's offices in the U.S. and Egypt***ARCE Missouri Chapter Update**

*Contributed by Stacy Davidson (ARCE-MO President) and Julia Troche (ARCE-MO VP).*

The Fourth Annual Missouri Egyptological Symposium (#MOEgypt4) was a huge success, made possible by the generous support of ARCE-MO and Washington University in St. Louis' Departments of History and Art History and Archaeology where the event was hosted. This year our theme was "Egyptomania" and we included our first keynote lecture: Dr. Rita Lucarelli (Associate Professor of Egyptology, University of California, Berkeley) who spoke on "*Sun Ra, Afrofuturism, and the Reception of Ancient Egypt.*" The symposium included a dozen papers on ancient Egyptian religion and language, the reception of ancient Egypt, Egyptology and Public History, and a session on learning from coffins and mummified remains. There were presentations by numerous members of ARCE-MO and its Board. Next year our symposium will be virtual and focused on pedagogy.

ARCE-MO's Fundraising and Symposium Committee ran its first scholarship cycle, built entirely on privately donated funds from our board and their family and friends. These funds aim to support students, contingent faculty, and K-12 educators.

In our first cycle, books were purchased to assist an Egyptology MA student at Assiut University in research on Late Egyptian.

ARCE-MO was excited to launch two new lecture series at the start of 2023. Our professionalization series aims to provide practical, career-oriented opportunities. Our first professionalization talk was presented by Dr. Bryan Brinkman (Missouri State University) who walked us through best practices for indexing a book. Our first Book Chat, framed as a conversation with the author, was with Dr. William Caruthers about his book *Flooded Pasts: UNESCO, Nubia, and the Recolonization of Archaeology*.

The double-blind peer review publication of the proceedings of the Second Missouri Egyptological Symposium hosted in 2019 at Missouri State University is now available! In December 2022, this collection was published by the *Journal of Ancient Egyptian Interconnections* in a special volume entitled *Beyond Egypt: Relations and Imaginations of the Ancient Past*, edited by Dr. Bryan Brinkman and Dr. Julia Troche. Included in this volume are papers by numerous members of ARCE-MO and its board, including Stacy Davidson, Rozanne Klinzing, Lisa Saladino Haney, Julia Troche, Clara McCafferty Wright, and Ella McCafferty Wright.

Dr. Rita Lucarelli's keynote lecture at #MOEgypt4.

PHOTO: JULIA TROCHE.



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## **Basatin Cemetery, Cairo: Ceremony marks the completion of restoration works**

On November 19th 2022, ARCE was honored to host a ribbon cutting and celebratory dedication for the Garden of Remembrance at Basatin Cemetery. We were honored to welcome Ambassador Daniel Rubenstein, US Charge D’Affairs for Egypt, who provided remarks, as well as partners from the Drop of Milk Foundation. The ceremony was attended by Mr. David Ovadia, President of the Karaite Jews of America and his wife Maryellen Himell Ovadia, who represented the Karaite Jews of America. As part of the ceremony, Mr. David Ovadia and Elie Tahan, an Israeli citizen and President of the International Karaite Community, performed a rendition of the Mourner’s Kaddish, a hymn sung in Aramaic by Jewish mourners commemorating the death of a loved one. Funds for the restoration were generously provided by the KJA and the United States Ambassadors’ Fund for Cultural Preservation.



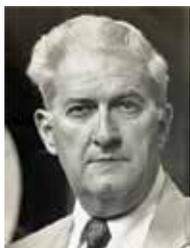
Ribbon Cutting ceremony with (L to R) Samy Ibrahim and Magda Haroun with the Drop of Milk Foundation, Ambassador Daniel Rubenstein, Mr. David Ovadia, and Dr. Louise Bertini

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# In Memoriam

## Professor John Alden Williams



John Alden Williams died peacefully on November 30, 2022 at Roland Park Place, Baltimore, MD.

He was born in Ft. Smith, Arkansas on September 6, 1928, the eldest child of Ray and Elizabeth Blair Williams. His lifelong resourcefulness, practicality and resilience were shaped by his Depression-era childhood. His early travels were through the books he read, and his first opportunity to live abroad came in 1946, when he spent two years as a Private in Japan and Korea, touring those countries as a member of the US Army's Special Services entertainment division.

John graduated Phi Beta Kappa from the University of Arkansas in 1953, after spending his Sophomore year at the American University in Beirut, Lebanon and his Junior year in Munich, Germany. His initial interest in medieval Eastern Christendom was modified by the Egyptian Revolution of 1952 and the realization that not only were new winds blowing in the Middle East but that Americans understood little about this region. It became his goal to work towards an understanding of the newly vibrant Arab world.

John attended graduate school in Near Eastern Civilizations at Princeton University (MA, 1955, and PhD, 1957). In 1954, he spent a year as a Fulbright scholar in the Nile Delta of Egypt, where he lived in a village and polished his conversational Arabic. From 1957-1959 he was the Assistant Director of the newly formed American Research Center in Egypt, while also doing post-doctoral research on Islamic Art and Architecture with Professor Sir K. A. C. Creswell. He visited and photographed the leading centers of Islamic civilization from Spain to India and Central Asia on a Rockefeller Foundation fellowship. The experience revealed to him the marvelous richness and diversity of this great civilization.

His teaching career began in 1959-1966 at the Islamic Institute at McGill University in Montreal, Canada. He returned to Egypt from 1966-1970 as the Director of the Center for Arabic Studies at the American University in Cairo (AUC). It was here that he met his wife, Caroline. They were married in the middle of the 1967 Arab-Israeli war and during their 55 year marriage they shared a love of Cairo, art, architecture, and travel.

Between 1970 and 1984, John was tenured faculty at both the University of Texas (UT), Austin and AUC, so the family moved annually between the two countries. From 1984 to 1988 he was affiliated with both UT's Center for Middle East Studies and its Art

Department. In 1988 he became the William R. Kenan Distinguished Professor in the Humanities and Religion at The College of William and Mary. He was an accomplished teacher who delivered his lectures without notes and spoke in neatly organized paragraphs, making erudite connections between seemingly disparate points and sprinkling his disquisitions with puns.

He loved traveling and eagerly tried new traditions, foods, and experiences. He was a gifted storyteller and often regaled people with witty poems he wrote for their birthdays. He also loved to sing and was a much appreciated member of the Byzantine Catholic Church's choir in Williamsburg, VA. In addition to speaking near-perfect classical and colloquial Arabic, he was also fluent in German and French, and was proficient in Japanese, Persian, Turkish and Latin. Learning languages was one of his greatest gifts and he used it to make friends and communicate with people from all over the world.

John A. Williams as a scholar of Islam enthusiastically acted as a bridge in interpreting this great world civilization for the West. He believed in the centrality of the texts in the original language and that religion was the key to an understanding of Islamic society. His book *The Word of Islam* has been regarded as the definitive introduction to Islam through its own texts, while *Themes of Islamic Civilizations* discusses the leading themes which have made up the movements of Islamic history. His translations of al-Tabari's *History of the 'Abbasid Revolution (C.E. 743-750)* and of al-Tabari's *History of the 'Abbasid Empire from C.E. 754-808* were published in the Bibliotheca Persica series, and by Cambridge University Press. He collaborated with James A. Bill on *Roman Catholics and Shi'i Muslims* in 2002. In 2005 his 1963 translation from the French of Father Henry H. Ayrout's *The Egyptian Peasant* was reissued by the American University in Cairo Press.

He is survived by his wife Caroline Hoffmann Williams, his three daughters (Emily Williams in Durham, England; Hilary Wang in Hamburg, Germany; and Felicity Turner in Baltimore); his two sons-in-law (David Wang and Bradley Turner); his four grandchildren (Henry Turner, Ruby Turner, Julian Wang and Felicity "Nutmeg" Wang); his two brothers, (James and Ray), and many nieces, nephews and godchildren. He was predeceased by his sister Nancy King.

See also: *John Alden Williams:- AUC Oral Histories and Reminiscences - Rare Books and Special Collections Digital Library: 2007*  
<https://digitalcollections.aucegypt.edu/digital/collection/p15795coll17/id/386/>

## Professor David Bourke O'Connor

ARCE is very sad to record the passing of Professor Emeritus David Bourke O'Connor (5 Feb. 1938–1 Oct. 2022) aged 84 years. David was affiliated with ARCE from his first years working in Egypt and eventually served as ARCE's president from 1987 to 1990 and then on the Board of Governors from 2009 to 2015.

From early in his life in Australia, O'Connor was interested in the ancient world. He recounted how he built a model of Babylon in the backyard and set the model on fire to emulate its ancient destiny. Shortly after, a neighbor had to help him fight the fire with a garden hose.

David went on to receive a BA in Archaeology from the University of Sydney in 1959, where he focused on the ancient history of Cyprus within a broader context covering the Ancient Near East. The University of Sydney did not have a specialized department of Near Eastern studies at the time, so O'Connor moved to the United Kingdom to continue his education, receiving a diploma in Egyptology from UCL in 1962 and spending three seasons working in Sudan under Walter B. Emery. There, O'Connor developed his academic studies to address the differences and interactions between Ancient Near Eastern civilizations, eventually leading to his most notable publication, *Ancient Nubia: Egypt's Rival in Africa*.

O'Connor received his PhD from the University of Cambridge in 1969 and worked as a professor of ancient Egyptian history and archaeology at the University of Pennsylvania from 1964 until 1995. There, he was in charge of curating the Egyptian collection at the university's museum.

From 1967 to 2017, David researched and excavated the ancient Egyptian city of Abydos, eventually serving as the project director for the Abydos Archaeology Project that NYU's Institute for Fine Arts still sponsors. He began working at the institute in the prestigious role of Lila Acheson Wallace professor of ancient Egyptian art in 1995 and was named professor emeritus when he retired in 2017.

He became well known for his work and research at Abydos as well as his dedication to his students. He wrote and contributed to many books about ancient Egypt but his most widely read work is entitled *Abydos: Egypt's First Pharaohs and the Cult of Osiris*.

At Abydos, he excavated the jubilee temple of Ramses II, worked in the cenotaph zone where ancient Egyptians set up monuments to honor Osiris, and in later years focused mainly on excavating, conserving, and understanding the remains of the enigmatic Early Dynastic funerary enclosures.

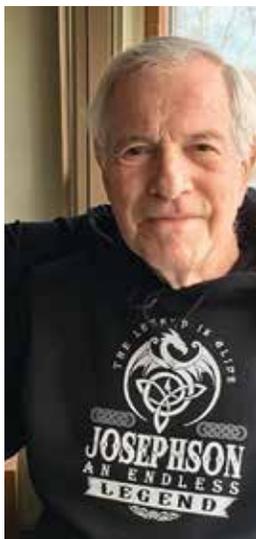
He helped many graduate students in their studies and supported them long into their careers. Dr. Zahi Hawass is one of his prodigies. He worked with David at Abydos and then travelled to study under him in Pennsylvania. Zahi recalled that, on digs 'he was a happy man and we knew he was approaching when we heard him whistling'.

David is survived by his wife, Gulbun, who similarly pursued a doctorate in anthropology, his two daughters, and his grandchildren.

# In Memoriam

## Jack A. Josephson

By Dr. Melinda Hartwig



Jack A. Josephson, a long-time friend and board member of ARCE, passed away at his Shelter Island home on October 22, 2022, at age 92. Following a very successful career, he turned his attention to scholarship and the study of Egyptology. He served as a member of the Board of Governors, and of the Finance Committee for many years. Acting on an insider tip, Jack was instrumental in

persuading the Finance committee to repatriate ARCE's Endowment, shortly before a drastic devaluation of the Egyptian pound. This action allowed the ARCE Endowment to grow and finance the conservation and documentation of Egyptian monuments, and to benefit US and Egyptian Egyptologists, students, and scholars worldwide.

Jack was a noted authority in the field of Egyptology, ranging from Late Period sculpture and ancient Egyptian engineering to Early Dynastic history and art. He authored or co-authored 26 articles, mostly in peer-reviewed journals, and several books, including *the Catalogue général of Egyptian antiquities in the Cairo Museum, Nos. 48601 - 48649: statues of the XXVth and XXVIth Dynasties with Mamdouh Eldamaty*; and *Egyptian royal sculpture of the Late Period, 400-246 B.C.*

A recipient of many honors and awards, Jack was nominated Chairman of the Cultural Property Advisory Committee by President George H.W. Bush, also serving under President Bill Clinton. He was a Trustee of the Brooklyn Museum, a Life Member of the Metropolitan Museum of Art; a Member of the Visiting Committee of the Department of Art of the Ancient World at the Museum of Fine Arts, Boston; Chairman of the International Foundation of Art Research (IFAR); Research Associate of the Institute of

Fine Arts, New York University (IFA); Corresponding Member of the German Archaeological Institute Berlin; and founder of the American Friends of the German Archaeological Institute.

Jack was a true and loyal friend during a time when personal integrity is hard to find. He lived life by his words and deeds. A child of the Depression, he grew up in poverty, watching his parents work brutal hours in their small clothing store in Atlantic City. The deprivation he experienced inspired his giving to those in need. He was a generous and private contributor to archaeological fieldwork, and academic research as well as to individuals and institutions in the US and abroad.

Jack's life was an extraordinary one, lived in three acts: as an engineer trained at the University of Michigan, Ann Arbor; as the founder of J. Josephson Inc. and Sellers and Josephson which produced wall coverings for major hotel groups; and finally, as a serious scholar of Egyptology. Jack's intellect was prodigious, and he generously shared his ideas with fellow Egyptologists and aspiring scholars, along with his impeccable selections of wine and cognac. I was lucky to call Jack a good friend for 30 years.

Jack is survived by his loving wife of 31 years, Dr. Magda Saleh; his son Paul, his daughter Eve, and his granddaughter Alexandra. He was predeceased by his first wife, Elizabeth Ann Asher, and his elder son Mark.

*Video recorded oral history interviews compiled by the The Ancient Egyptian Heritage and Archaeology Fund are available for both Jack A Josephson and David O'Connor at this following URL:*

<https://www.ancientegyptarchaeologyfund.com/project/oral-history-project/>

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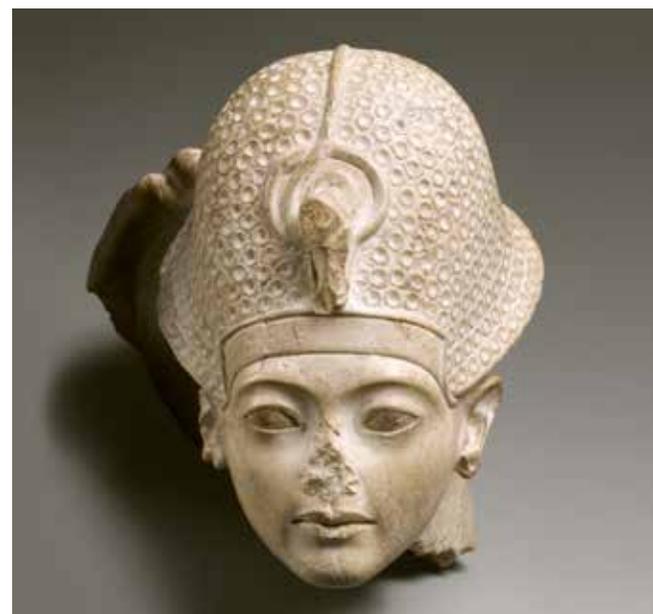
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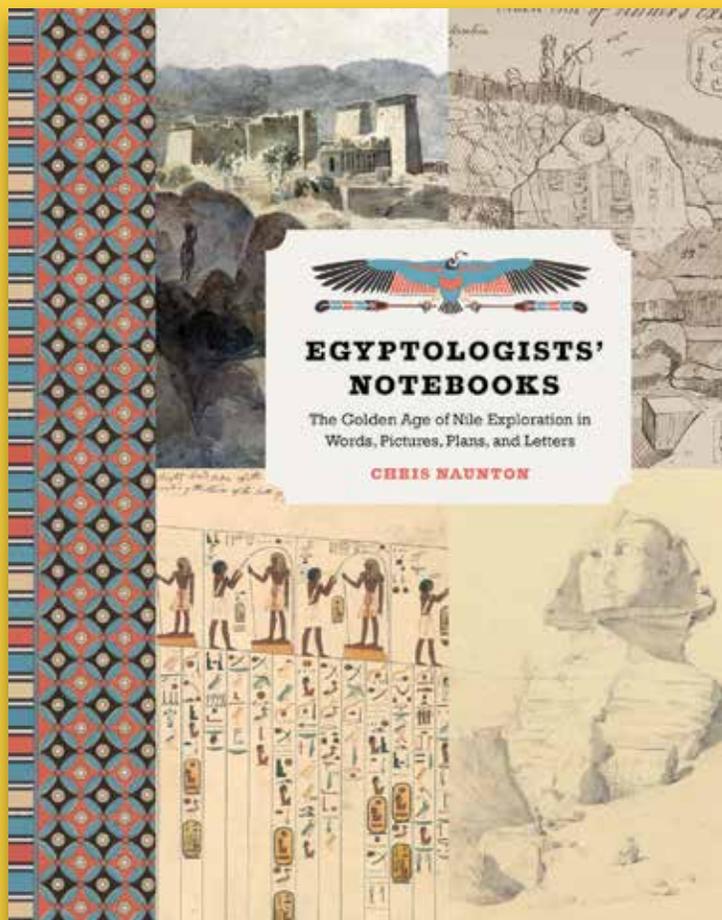
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The goddess Seshat, the divine scribe, archivist, and measurer, assisting the pharaoh in the “stretching the cord” ritual, setting out the ground plan for the construction of the new temple of Horus at Edfu. PHOTO: AMY WILSON



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The Fund is a private, nonprofit organization whose mission is to support research and conservation of Egyptian history and culture.

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The organization promotes education and training in site management and protection.

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## PROJECTS



### Deir el-Ballas Excavation

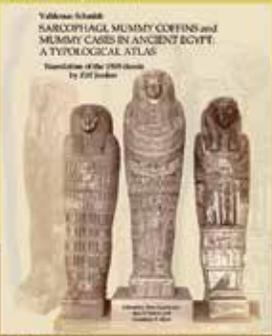
A substantially preserved town and the forward capital of Theban kings during the Hyksos Expulsion

### The Oral History Project

An archive of recorded conversations capturing the thoughts and recollections of American Egyptologists

## PUBLICATIONS

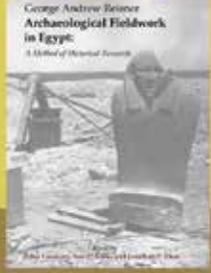
Now in Preparation



Valérie Schmidt  
SARCOPHAGI, MUMMY COFFINS and MUMMY CASES IN ANCIENT EGYPT: A TYPOLOGICAL ATLAS  
Translation of the 1980 thesis by Val Schmidt

Schmidt's Sarcophagi, Mummy Coffins and Mummy Cases in Ancient Egypt. First English Translation

Newly Published & Now Available



George Andrew Reisner  
Archaeological Fieldwork in Egypt  
A History of Historical Research

Reisner's Archaeological Fieldwork in Egypt.

## Your Support is Critical

While the Fund has received generous grants from the American Research Center in Egypt and the Shelby White and Leon Levy Program for Archaeological Publications, we rely on individual contributions for many of our projects.

www.ancientegyptarchaeologyfund.com

*The latest from ARCE's Antiquities Endowment Fund (AEF)***Soknopaiou Nesos Project.  
Conservation and Presentation of  
Dime es-Seba (El-Fayoum) Project**

PAOLA DAVOLI (UNIVERSITY OF SALENTO)

In 2021, a three-year project for the presentation and restoration of the temple area dedicated to the god Soknopaios began, funded by ARCE's Antiquities Endowment Fund (*Scribe* 9, 2022). The work was planned and carried out in collaboration with architects Nicholas Warner and Ahmed Abdelgawad in the frame of the SCA concession to the Soknopaiou Nesos Project (SNP) of the University of Salento (Italy).

Soknopaiou Nesos had its maximum period of development from the 4th century BCE to the mid 3rd century CE. The archaeological area (660 x 350 meters) is quite well preserved and lies in a beautiful

desert environment. It became one of the most visited sites in the region thanks to new paved roads and the opening of the North Lake Qarun Protected Area.

The AEF grant aims to organize the area for visitors and to preserve its impressive temple area with enclosure walls (a temenos) in white mud bricks still standing up to 15 meters in height. They are a veritable landmark in the desert, visible from the south shore of the lake in clear days.

The second year of works were focused on building new mudbrick courses of four wall-sectors of the temenos, which were severely eroded at their bases. The natural erosion, due to winds and rain, is a local phenomenon that already affected monuments and buildings in antiquity. Several areas of the temenos and the side walls of the temple buildings were restored during the Roman period.

**BELOW:** New mudbrick courses in some sectors of the temenos wall.





**1 & 2** the south gate of the temple area with restored walls in mudbrick, and the team.

**3** The full team comprised almost 50 people.

**4** The staircase of the Ptolemaic temple before and after restoration



The layout of the new courses (figs. 1-2) follows the original ones and took into consideration the thickness of the sectors, which were built separately and with alternate concave or convex courses. The new bricks are separated from the original wall by a net that will allow the two masonries to be distinguished in the future. To allow the brick layers to build on solid and not eroded parts of the walls, excavation was necessary. In some cases, the trenches were very deep and allowed the discovery of new buildings, such as the lower part of the gate in the temenos. The south gate was the main entrance to the temple area, and its walls in limestone blocks disappeared in Late Antiquity, like most of the other monuments built with this material because it was reused in other places. The mudbrick jambs of the temenos flanking the stone gate were in very bad conditions and about to collapse. After the excavation and the

consolidation, it is now possible to enter the sacred area through its original gate (figs. 1-2).

The other focus of this year's consolidation was the Ptolemaic temple built in rough local stones. The restoration started from the core of the building, where the walls are most crumbling. Room F, a staircase turning around a central pillar (fig 4) and its surroundings walls were completely consolidated with the fallen stones following the same ancient technique and materials. Two flights of original steps are still in situ and well preserved. A window on the west wall has been repaired.

A guide for visitors has been printed within the framework of the project. It can be download for free at: <http://siba-ese.unisalento.it/index.php/albstudpapier/issue/view/1904>  
The works will continue in 2023.

*The latest from ARCE's Antiquities Endowment Fund (AEF)*



**The Ancient Egyptian Heritage and Archaeology Fund in 2022-3**

PETER LACOVARA

The Fund continued its work at Deir el-Ballas thanks to a grant from the American Research Center in Egypt's Antiquities Endowment Fund. We have now largely completed the restoration of the "South Palace" which had been badly damaged by looters (see figures). Work continues on the re-excavation, documentation, and restoration of the North Palace and a number of private houses associated with it. Our efforts to preserve and protect this important site also dovetail with our project to publish the results of the original Hearst Expedition there in 1900-1901.

We have also published a number of volumes including an English translation of the classic work on Ancient Egyptian funerary art, Valdemar Schmidt's, *Sarkofager, Mumiekister, Og Mumiehylstre I Det Gam- Le Egypten Typologisk Atlas Med Indledning*, as well as G.A. Reisner's previously unpublished, *Archaeological Fieldwork in Egypt: A Method of Historical Research*, and a preliminary report on our work at Deir el-Ballas. All of these are available for purchase through Amazon:



With the sad passing of David O'Connor and Jack Josephson our Oral History of American Egyptology has become even more poignant. We hope to continue these interviews to document the life and work of leading figures in Egyptian Archaeology and Museology.

**TOP:** Deir el-Ballas south palace, 2017.

**BOTTOM:** Deir el-Ballas south palace 2023.

For details of how to apply for an ARCE fellowship, please visit [www.arce.org/fellowships-landing](http://www.arce.org/fellowships-landing)

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*Sunset over the West Bank*

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