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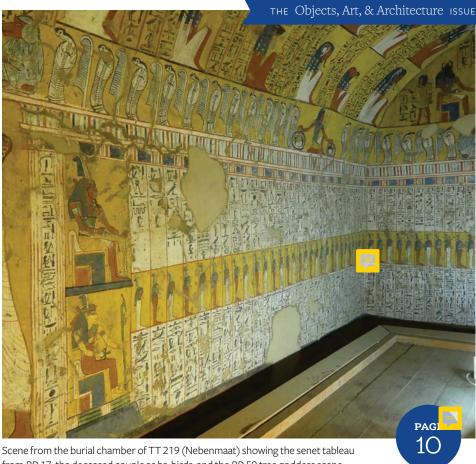
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from BD 17, the deceased couple as ba-birds, and the BD 59 tree goddess scene PHOTO: HEATHER LEE MCCARTHY



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A gold stick surmounted by a statuette PHOTO: A.J. VELDMEIJER/E. ENDENBURG



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The external face of the South Portal of the Red Monastery after conservation

PHOTO: THEO GAYER-ANDERSON

SCRIBE

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Sally El Sabbahy
Editor In-Chief

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

Objects, Art, and Architecture

n our last issue of *Scribe*, we explored the concept of sustainable heritage. This issue, we're sharpening our thematic scope to examine the tangible elements that compose much of Egypt's historic remains, and the nuanced, highly technical expertise that is required to not only conserve them, but to interpret and present them to modern audiences and users. Accordingly, our Spring 2020 theme revolves around 'Objects, Art, and Architecture,' and the often painstaking but largely unseen efforts that go in to ensuring their survival.

It's one thing to tell others that a building has been conserved, its architectural integrity protected, and its structure made sound. It's another thing completely to show someone the nitty gritty behind that effort, to effectively express the many variables, considerations, and challenges – financial, physical, and otherwise – that go in to such undertakings. The same can be said of conducting original research; how many times do we stop to wonder how many hours or years were spent to produce a single academic publication or larger body of work?

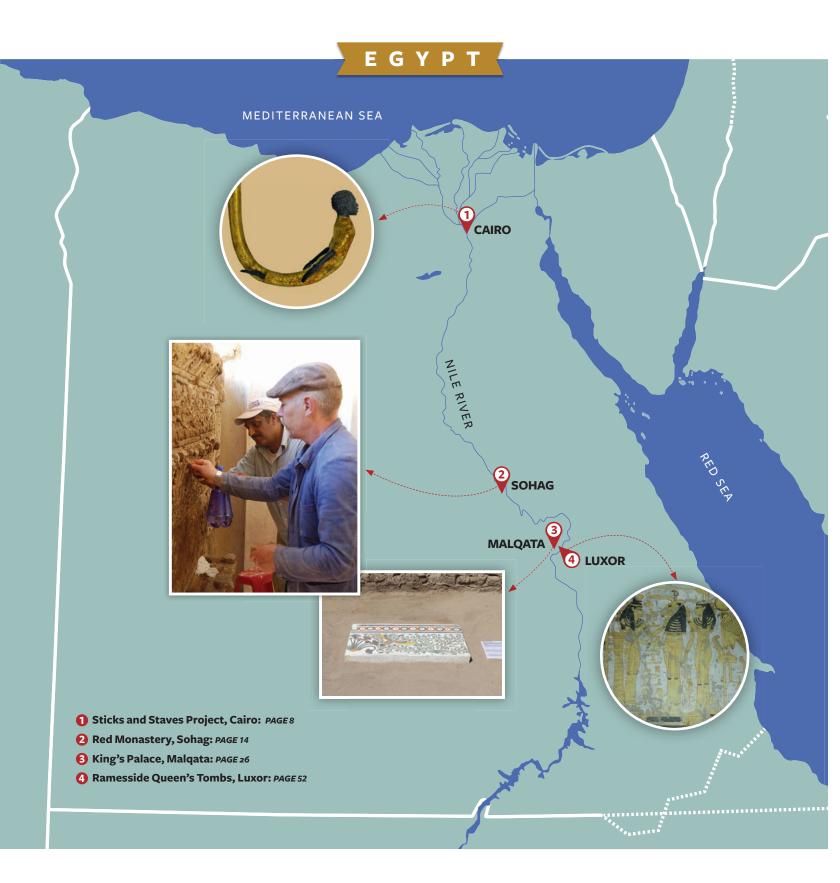
Who knew that among the many dazzling objects that Carter pulled out of Tutankhamun's tomb was a collection of walking sticks – some veritable works of art in themselves – many of which had not been formally documented until one of the project teams highlighted in this issue decided to put in the time to do so? Good work, whether it's from behind a desk or on top of a dune in the desert, takes time. To borrow from my generational slang, the undercurrent in this issue of *Scribe* is all about 'showing your work.'

Accordingly, we've elected to make the content in this issue more technical than in our previous ones, partially also because of the timing of its release. Many of you will be reading this during the Annual Meeting, ARCE's yearly gathering that brings together scores of academics and practitioners to share their findings and contributions in the field of Egyptian cultural and historic studies. We want *Scribe* to reflect this same energy of discovery and devotion to research, and so we are giving a direct voice to the project directors and researchers that are doing extraordinary and valuable work in the field every day.

From ARCE's final season of conservation in the nave of the Red Monastery in Sohag, to a conservation project in the King's Palace in Malqata, to the documentation of sticks from Tutankhamun's tomb, and finally, to a past fellow presenting her research from Luxor's Valley of the Queens; this issue of *Scribe* is dedicated to the labor intensive and passion-driven work of the scholars that make ARCE what it is.

Best of all, it's presented in their own words.

Locate the fieldwork, historic sites, and other key places featured in this issue of Scribe



Updates on excavation, conservation, and research projects developing across Egypt



Dr. Louise BertiniExecutive Director

Nicholas Warner, project director of the final season of conservation at the Red Monastery, guides the 2019 Member Tour through active work in the nave

New Projects, a Symposium, a Member Tour, and More

t is that time of year again when ARCE's Annual Meeting takes over a North American city and fills its streets and hotel rooms with Egyptologists, archaeologists, and all manner of Egyptian studies students, practitioners, scholars, and enthusiasts. For those of you that have received Scribe in your Annual Meeting goody bag, welcome to the 2020 installment of ARCE's biggest programmatic event! For those of you reading this at home, in your university library, or elsewhere, we hope you will join us at next year's meeting.

Since last fall we've seen a number of projects start and finish, exciting events occur, and a new cohort of fellows (see page 40), research associates, and Antiquities Endowment Fund (AEF) grant recipients begin their work in the field. I am especially pleased

that, for the first time, we have a dedicated section in *Scribe* for updates on our AEF projects (see pages 48-51). We've had a busy year, and it's always wonderful to share our news with our dedicated donors, members, and supporters.

In my last update, ARCE was gearing up for our Member Tour to Egypt, which took place from October 20-November 4, 2019 (see page 38). Our 17 participating members were an absolute joy to travel with, bursting with energy at every early morning wake-up call, and eager to explore Egypt through ARCE's eyes. Our first day kicked off at the paws of the Sphinx with Dr. Zahi Hawass, and the next two weeks took us to Historic Cairo, Luxor, Aswan, Sohag, and Edfu. Some of my favorite highlights include our private dinner in Luxor Temple, cruising from Luxor



RIGHT: The entrance to the Rabbi Haim Cappoussi portion of the Basatin Cemetery

BELOW: The 2019 Member Tour posing for a group photo in the Mammasi in the Dendera Temple complex

to Aswan, and the delicious meal we all shared one night at a cozy Lebanese restaurant around the corner from the ARCE Cairo Center. Owing to the success of the 2019 tour, we have already begun planning for a very special 2020 tour and tailoring in even more sites and guest speakers. Members, take note!

You may also recall from Scribe Fall 2019 that ARCE received a U.S. Ambassador's Fund for Cultural Preservation to clean, document, and propose a management plan for the remaining portions of the Basatin Jewish Cemetery in Cairo. On-site cleaning began in the late winter of 2019 with substantial amounts of modern debris removed from the site,





FROM L-R: Amina Elbendary and Dina Bakhoum speak during their panel on popular history and living religious heritage during the Symposium on Egyptian Popular Culture PHOTO: MOSTAFA ABDEL ATY



and photo documentation and surveying taking place. On January 21, the project was officially inaugurated with a reception graciously hosted by Ambassador Jonathan Cohen at the U.S. Embassy premises in Cairo. We will continue to work on the project over the summer, and will deliver a management and proposed development plan before the end of the year.

Another exciting project we are currently rolling out is a regional workshop to strengthen the capacities of involved stakeholders to effectively combat illicit antiquities trafficking, which will take place in subsequent sessions in Cairo, Amman, and Tunis.

From February 22-23, ARCE hosted a kick-off strategic planning session at the Cairo Center with the directors of all regional American overseas research centers. In this session, we identified our commonalities, priorities, and objectives for the regional workshop, and addressed the logistics of undertaking such a transregional effort. The first installment of the workshop is scheduled to happen in Amman, Jordan, later this year.

The Red Monastery in Sohag also underwent its final season of conservation work in the fall of 2019, wrapping up in time for the new year (see page 14). With more than 16 years of ongoing and dedicated efforts to conserve this incredible monument under ARCE's cap, it was somewhat bittersweet to see our last season of conservation end. However, thanks to the immense generosity of our supporters and members that donated to ARCE's end-of-year campaign, we do not have to say goodbye to the Red Monastery quite yet! The proceeds of our 2019 fundraiser will go towards preserving an adjacent archaeological zone at the Red Monastery, and improving its overall site management in order to encourage visitation at the site.

Closer to home in Cairo, we also hosted a very successful symposium on Egyptian popular culture from January 17-18 (see page 39). The ARCE Cairo Center saw leading practitioners such as the artist Khaled Hafez and museographer Karim Shaboury, conservators like photographic curator Heba Farid and architect Dina Bakhoum, and thought leaders including ArabLit's M. Lynx Qualey and El Beit magazine's Sawsan Ezzelarab, come together to discuss and debate the production, consumption, and conservation of Egyptian pop culture. It was a whirlwind two-day event that generated thoughtful and reflective conversations - and best of all, saw the active participation of ARCE fellows, past and present. For more on this symposium from the perspective of our brilliant outgoing fellow, N.A. Mansour, who played a pivotal role in its planning, flip to page 64.

On the U.S. side, we will soon be gearing up for Dr. Zahi Hawass's 2020 lecture tour. With Dr. Hawass as a member of ARCE's President's Advisory Council (PAC), you can rest assured that ARCE will be along for the ride with him as he makes his way across the United States. The first lecture will take place on May 4 in Los Angeles, and we hope to see many of our West Coast members there!



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Tutankhamun's Sticks and Staves

The Importance of Deceptively Simple Objects

BY ANDRÉ J. VELDMEIJER AND SALIMA IKRAM

Transporting some of the sticks from the permanent exhibition in the Egyptian Museum to the lab for study PHOTO: A.J. VELDMEIJER

he abundance of sticks in ancient Egyptian two and three-dimensional art, their mention in texts, and the many actual examples found are clear indications of the importance of these objects in the secular and sacred lives of the ancient Egyptians, whether they were peasants or pharaohs. Sticks have been found in many tombs, and do not necessarily indicate infirmity as they serve a variety of other purposes in addition to being supports: tools, weapons, status symbols, and elements of regalia.

Of the several tombs in which actual sticks were found, one stands out: that of Tutankhamun (KV62), which contained over 130 examples of these objects. The king's sticks range from simple pieces of polished wood to ones that are elaborately decorated and enhanced with gold, silver, and inlays of different sorts.

Although nearly 100 years have passed since the discovery of the tomb, most of its contents remain unpublished, which was one of the reasons to initiate the 'Tutankhamun's Sticks and Staves Project' (TSS), conducted by an international team of scientists, in close collaboration with the Ministry of Antiquities and Tourism, the Egyptian Museum, and the Grand Egyptian Museum Conservation Center (GEM-CC). The work was supported by a generous grant from ARCE's Antiquities Endowment Fund.

Into the Sticks

The project's goal was to document and describe the sticks and staffs of office both verbally and visually,



to identify the materials used to create them, to analyze the technologies used to produce them, to try to identify their uses, to understand their role and position in Tutankhamun's tomb, as well as in his life (both sacred and secular), and in death. This was part of a larger study to understand the roles of sticks in the lives and culture of the ancient Egyptians through documenting and analyzing visual, textual, and archaeological evidence.

At the project's inception, the sticks were held in the Egyptian Museum, but during the course of the project, many were moved to the GEM-CC, so the work took place in both museums. The first step in the study was to create an initial list of these items using Howard Carter's excavation notes and lists, and Harry Burton's photographs,

all of which have been generously and efficiently made available on the Griffith Institute's website.

url is: www.griffith. ox.ac.uk/ discoveringTut

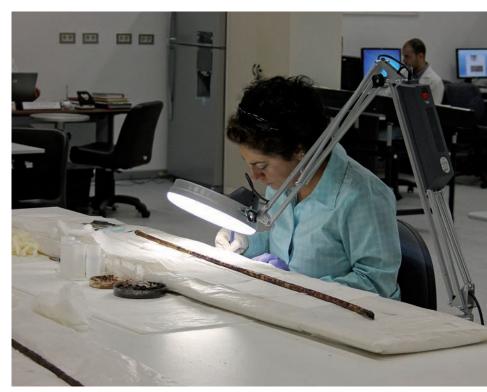
This provided the TSS team with a basic knowledge of the material, as well as their find spots,

which might have ritual implications linked to the king's resurrection. A study tying the type of stick to its location and interpreting it will constitute the final part of the project.

The sticks themselves were studied macroscopically and microscopically and a verbal description was written. They were then photo-documented and drawings were made, together with a catalog of decorative motifs that appear on the sticks. Insofar as any archaeometrical analysis was permitted, it was carried out in an effort to identify the materials that were used to make or decorate the sticks.

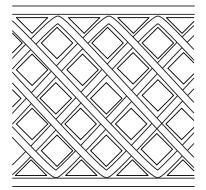
Preliminary Observations

The condition of the sticks and staves varied greatly. For example, those made of (mainly) gold with inlays are in good condition. However, those made of more perishable materials, such as wood and leather, were in much worse condition due to the deterioration that was caused, among other factors, by the high humidity levels in the tomb. Carter writes extensively about the damage in his notes, and explains why some heavy-handed consolidation using paraffin wax-which was standard procedure at that time – had to be carried out.









TOP: Diagram of some of the designs that are part of the motif catalogue **LEFT:** Carter Number 230: This stick is one of the best-preserved sticks, showing colorful and intricate designs

DIAGRAM: E. ENDENBURG/AJ, VELDMEUER

PHOTO: A.J. VELDMEIJER/E. ENDENBURG



The first-aid consolidation and conservation by Carter and his team has greatly helped them to survive until today, but the melted paraffin wax has also caused problems over the years, such as discoloration and adherence of dirt. In addition, some of the sticks have warped, adversely affecting their decoration. Insects have also played a role in the destruction of some of the sticks. The different way that various materials have reacted to the environment within the tomb (and post-excavation), and the wide variety of materials on each stick makes conservation a very challenging and complicated affair, which the GEM-CC staff is dealing with efficiently.

The sticks fall into several well-known categories, such as so-called straight staff; curved handle awt sticks; crook-like tsw staffs; mdw staffs resembling tent poles; was and djam scepters with their animal head and forked tips; forked tipped *abt* staffs; bulbous Ams staffs; ceremonial mks staffs with a papyrus umbel located along its length; awt staffs that are forked at the top; double *pedj-aha* staffs; and papyri-/loti-form wadj staffs. There are also more enigmatic, shorter sticks that curve and probably fall more properly into the category of weapons, though they can certainly double as staffs. Clearly, Tutankhamun's sticks were used for different purposes and occasions.

Most of the sticks are made of wood, but a few are made of precious materials, one of silver and another of gold, both adorned with a statuette of the youthful king (Carter No. 235a, b). Others were elaborately decorated with gold and inlays of glass and semi-precious stones, as well as ivory. Some of the more mundane materials of which the sticks are made include reeds and palm ribs. The latter, however, also carry a strong iconographic message, as they echo the hieroglyphs for year and frequently figure in group-symbols indicating that the king would rule for millions of years. Perhaps these acted in part as props when the king appeared before the people, creating a living glyph.

Unfortunately, most of the wood could not be identified as it was either covered with decoration or masked by old conservation work. Moreover, without destructive sampling, it is often difficult to identify wood accurately. The sticks were decorated in a variety of ways. A simple but elegant group consisted of those that were straight, with gold, silver, or electrum handles

and ferrules. A large group were elaborately decorated with bands of different decorative motifs made out of a vast variety of local and imported materials, such as birch bark, ebony and/or African hardwood, ivory, gold, silver, electrum, leather, rawhide, insect wings, faience, semi-precious stones, and glass.

The motifs included garlands, petals, simple bands of alternating colors, zigzag, and wavy lines, checkerboard patterns, diamonds, four-pointed stars, chevrons, feather/scale patterns, nets, rosettes, plants, and detailed depictions of bound enemies. Brief inscriptions with the king's titulary and cartouches adorn several of the sticks, as well as longer inscriptions appearing on a select few. While some knob-handles were made of faience, ivory, or metal, the majority of the lotiform or papyriform knobs were made of a strip of leather wound around in layers and secured with adhesive. This was then covered with bark or metal, and adorned with appliqués, generally consisting of a rosette or the royal name.



This was part of a larger study to understand the roles of sticks in the lives and culture of the ancient Egyptians through documenting and analyzing visual, textual, and archaeological evidence.

Carter Number 098. Detail of the stick's elaborate gold decoration PHOTO: A.J. VELDMEIJER/E. ENDENBURG





A particularly curious feature of some sticks is a red wash covering the gold, imparting a coppery hue to the material; this has been noted (by Ikram) in some of the coffins found in KV63, and on the coffins of the fetuses from Tutankhamun's tomb (Carter No. 266g) too. The color is more that of the red ball of the sun at sunrise or sunset, rather than the yellow of the sun at other times of the day. Perhaps the choice of this color is a result of, or influenced by, the Amarna period and Akhenaten's aesthetic choices.

Curious Curves

Five of the most elaborate, yet enigmatic sticks had three-dimensional images of the enemies of Egypt depicted as arching backward. These look as if they form the handle, with the king's hand being placed over them and thus controlling them. However, the other end of the stick is surmounted by lotiform of papyriform knobs inscribed with the king's cartouche. Clearly, these could not have been on the ground and thus must have served as the handle. Thus, it would seem that the king would grasp the stick from the

floral knob, and with each stride, crush the body of Egypt's enemies into the ground.

A more unlikely way of using these sticks (there are two pairs) would be for the king to put his feet in the curve formed by the enemies' bodies and walk on them. This would require practice and good balance, and it is improbable that the king would take a chance of walking thus in public if there were the

slightest chance of him stumbling or falling. Perhaps these particular sticks were used in specific rituals where the enemies were stamped on, one at a time. The bodies of the enemies do not show evidence of much abuse or use. Thus far, the TSS team has found no texts or images relating to these sticks, but research is ongoing, and an answer might yet emerge to clarify the mystery.

Comparisons in decoration on similarly constructed objects from within the tomb, such as the bows, are also being made in order to establish if single workshops were producing all of these objects. The technology and some of the materials and motifs are similar enough to suggest that the decorators of many of the sticks and the bows were the same.

One of our particular points of research was to document signs of wear on the sticks, particularly at the tips. Although some wear has been found, it is surprisingly little, with most sticks, including the simplest and sturdiest, showing no evidence of hard use. Of course, for sticks with metal ferrules, wear would have been limited; however, many of the sticks that have gilding on the tip are fairly intact. This suggests that these sticks were not used as supports, and were more likely ceremonial accessories/objects that did not hit the ground frequently. Of course, if used indoors it is possible that they had contact with mats rather than earthen or plastered floors, although regular use over time should leave some impression. Thus, it does not seem as if Tutankhamun leant heavily for support on the sticks that have been found in his tomb.

More to Learn

The assemblage of sticks and staves from the tomb of Tutankhamun provide a unique opportunity to learn about the use and function of these objects in the private and public lives of kings, most particularly Tutankhamun. Particularly poignant is Carter No. 229 that has an inscription stating that it has been specifically made by the king: "A reed which His Majesty cut with his own hand."

This group of objects also elucidates the extensive trade networks in place at the time that allowed for the import of such diverse materials as birch bark, silver, and ebony/African hardwood, and provide an insight into the different technologies used by the ancient Egyptians when making a variety of wooden objects.

The absence of wear on the tips of the sticks suggests that the king was stronger and more able-bodied than has been suggested, not needing a stick as a walking aid, but using it more as a stylish accessory or as part of his royal regalia, as would have been the case for any other pharaoh.

And still, Tutankhamun's sticks provide conundrums that remain to be solved, by introducing new types of objects that are not seen in two or three-dimensional representations. Clearly, Tutankhamun's tomb and its contents still provide scope for decoding the physical and metaphysical lives of ancient Egyptian royalty.

RECOGNITION

The Tutankhamun's Sticks and Staves Project team are grateful to the American Research Center in Egypt's Antiquities Endowment Fund for their continuous support during the years that this project was underway. We would like to thank the Ministry of Antiquities and Tourism, the Egyptian Museum, the Grand Egyptian Museum, and their curators and conservators for their collaboration. We would also like to particularly thank Tarek Tewfik, Mohamed Mostafa Abd el-Maguid, Mamdouh El Damaty, Mahmoud el-Helwagy, Mohammed Ismail, Hany Abu El Azm, Hassan Mohamed, Husein Bassir, Mohammed Ibrahim, Halla Hassan, Medhat Abd el Rahman, Hussein Kamal, Christian Eckmann and Erno Endenburg, as well as The Griffith Institute in Oxford.





Wrapping the Monastery

ARCE'S LONGEST RUNNING

PROJECT NEARS COMPLETION

BY NICHOLAS WARNER

ince 2003, ARCE has been documenting, conserving, and studying the late 5th century Red Monastery church in Sohag, Upper Egypt. As a result of this work, the monument is now recognized as one of less than ten early Byzantine churches worldwide to have survived with a large portion of its original decoration intact. In the last months of 2019, the 16-year undertaking entered its final phases, with the project team focused on completing the conservation of the nave of the church and the recording of both

The work was extremely diverse in scope, ranging from 'heavyweight' interventions such as finalizing the architectural reconstruction of the granite columns in the basilica of the church to more delicate interventions such as the conservation of the two outstanding 5th century carved limestone portals of the church, as well as a remaining area of untreated medieval plaster belonging to a now lost staircase that once led to the roof of the building.

Both the church and the archaeological area around it were recorded through high-resolution photography and 3D laser scanning. Smaller details, such as re-used pharaonic blocks, were also drawn

The nave after completion of anastylosis

the church and its surrounding archaeology. PHOTO: NICHOLAS WARNER

RIGHT: The external face of the North Portal after conservation

PHOTO: PIETRO GASPARRI



by hand to supplement the project's digital records. This required the coordination of five separate teams of specialists that included: a building team to set up the columns, a stone conservation team to clean the portals, a plaster conservation team, a cleaning team for the archaeological area and, finally, a documentation team.

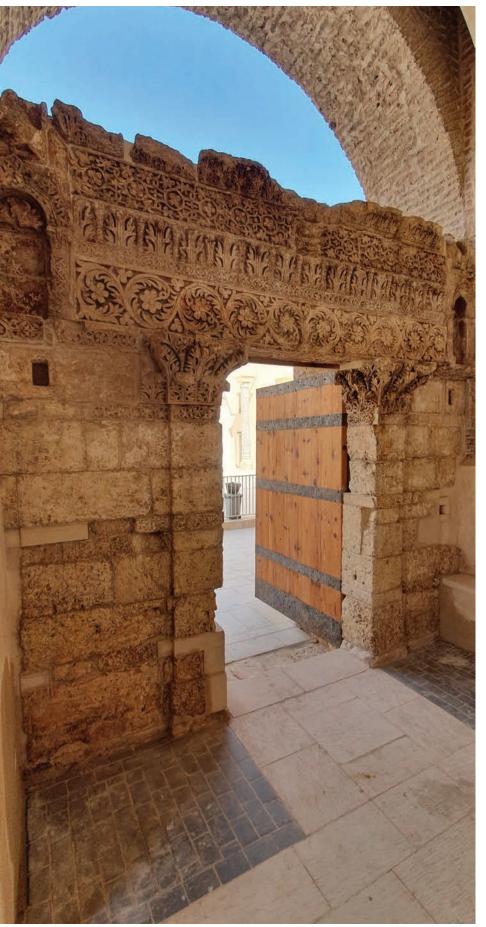
Reconstructing the Ruins of the Nave

Although the 2019 on-site activities started in mid-October, the journey there began some six months earlier in the Tura limestone quarries of the Muqattam Hills east of Cairo. Here, new bases for three column fragments from the nave were cut and shaped before their transport south to Sohag. Also pre-fabricated in Cairo were the stainless steel fixtures needed to support the column shafts from the nave colonnade, which had only survived in their upper sections. The lime to be used for all conservation mortars was slaked at the same time, sieved, and then transferred into barrels to await its eventual use in the church.

For the first two weeks of the project, the nave of the church resounded to the sounds of the rattling steel chain and ratchet of the hand operated block and tackle as it raised and lowered limestone bases and granite shaft fragments, often weighing several tons, into place. Once balanced on their stainless-steel supports, the lower sections of the columns could be completed 'in the round' with fired brick masonry.

Gaps between the top plates of the supports and the often irregular and broken ends of the columns were also filled with molten lead. Pouring these lead fills inside temporary protective metal sleeves was one of the most skilled operations to be performed on site, although the considerable effort and cost are all but invisible. Finally, the masonry of the columns was plastered with a plain lime plaster, matching the profile of the nave's original column shafts.

One of the reasons for expending so much time and care on the arrangement of the nave colonnades' original columns and column fragments is to provide the necessary point supports for a future protective





ABOVE: Detail of the South Portal PHOTO: THEO GAYER-ANDERSON **LEFT:** The South Portal PHOTO: THEO GAYER-ANDERSON

shelter intended to shade the newly-conserved medieval period paintings in the nave. A computer-modeled sun-shading analysis, carried out early in 2019, revealed that the optimal placement for the shelter is in the original location of the gallery that would have once run above the aisles of the nave.

However, discussions with the Ministry of Antiquities and Tourism have shown that there is official hesitation about the introduction of the shelter. It is hoped that permission will be forthcoming in order to protect the paintings in the nave from exposure to the intense sun of southern Egypt.

Doorways to the Past

The two carved limestone portals by which access is gained to the church are located in its northern and southern walls. They are part of the original 5th century foundation of the building and are remarkable examples of early Christian stone carving, derived from classical models but with significant variations. Abundant vegetal scrolls, acanthus friezes, floral and geometric patterns, and animal motifs enliven the entablatures of both doors. Until 1912, the heavily carved face of the South Portal – the more impressive of the pair as it was the main entrance to the church, framing a massive single-leaf door - was completely invisible, being covered by the construction of an abutting medieval period tower.

At this time, the *Comité de conservation des monu- ments de l'art Arabe* removed part of the masonry at the
bottom of the tower to expose the door and introduce
light into the entrance area. At the end of the 19th
century the North Portal was not in use, having been
blocked with a random collection of spolia including
column drums and cornice blocks, which the *Comité*





removed in 1909. In 2015, as part of phase two of the ARCE project at the church, structural repairs including limestone block replacements were made on both portals, and new timber doors were installed, but full conservation was delayed to 2019.

Close visual inspection showed that both elevations of the South Portal were suffering from sulphation, which resulted in a dark brown insoluble crust forming on the surface of the stonework. This had caused significant damage to the surface of the stones' fabric due to its historic interaction with ground water. The lintels and top sections of the doorjambs were also found to have hydrocarbon accretions associated with the incomplete combustion of oil lamps or candles, resulting in the formation of a black sooty layer with tar products penetrating the substrate of the stone.

As cleaning progressed, it became clear that there were traces of paint on most of the carved details, as well as fragmentary polychromy on surviving sections of plaster. On the carved details, polychromy was applied both directly to the surface of the stone as well as on a white ground. Red, black, and yellow ochre were the colors used for the decorative scheme. The qualitative difference in carving and decorative approach between the different elements of the portal suggest that some of the blocks may be reassembled or adapted from other architectural installations, while others were purpose-made for this context.

Carvings of animals located above the niches to either side of the portal were also tentatively identified as lions, on the basis of other surviving fragments of carving that resemble a lion's mane. Relief-carved lioness-headed goddesses can also be seen on the underside of the lintel of the door (a piece of pharaonic spolia), which may lead one to speculate as to the possible apotropaic use of this particular piece of stone in this important location.

Other interesting features emerged from a close study of the North Portal. The external lintel of this portal bears historic traces of having been scraped to collect stone powder for use in sympathetic magic – a practice more often associated with ancient Egyptian temples. The capitals and the decorative frieze were all treated at some point in history with an oil or varnish,

Moving a carved limestone column base in the Tura quarries PHOTO: NICHOLAS WARNER seemingly postdating the traces of polychrome that were discovered during conservation work.

Stone conservators Theo Gayer-Anderson and Hani al-Taiyyib were responsible for the conservation of the portals, both of which were treated using broadly the same methodology: dusting and light washing with water and sponges; careful removal of modern cement pointing using tungsten tipped chisels, preliminary cleaning; secondary cleaning to even the levels of cleaning; deep pointing with a pozzolanic lime-based mortar; repointing open joints and completing missing areas of plaster with lime-based mortars.

The Importance of Plaster

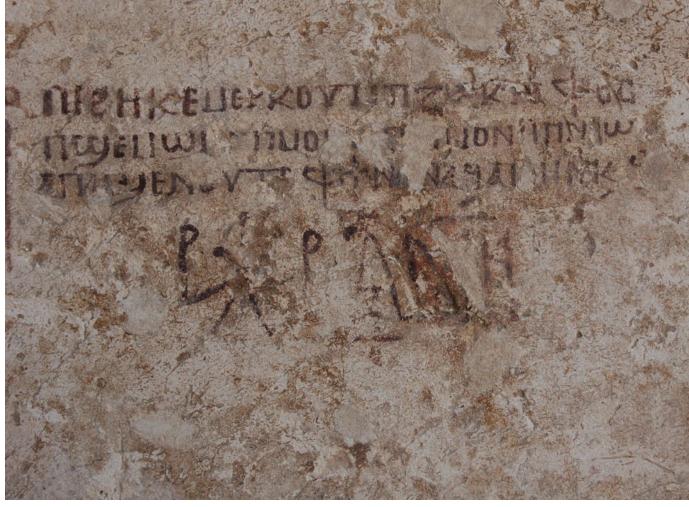
The last remaining area of un-conserved plaster within the church was located on the south side of the west wall of the nave. This section of the west wall provides valuable architectural evidence for the structure of the staircase that once occupied the southwest corner of the church, as well as a group of six Coptic inscriptions made by people who would have stood on the staircase or its landings. These graffiti, executed in black and red pigment, are now

RIGHT: Bianca Madden consolidating a loose edge of plaster on the west wall of the church PHOTO: NICHOLAS WARNER



BELOW: One of six new inscriptions on the west wall of the church after conservation

PHOTO: NICHOLAS WARNER



the subject of study as they may contain information pertinent to the history of the church.

Conservators Bianca Madden and Mustafa 'Abd al-Latif were responsible for the conservation of the plaster in this area. First, the masonry substrate around the window opening from the staircase was consolidated prior to re-plastering. This was followed by cleaning the surfaces in order to remove a build-up of dirt deposits, encrustations, modern red paint, and splattered cement; securing detaching plaster layers associated with areas of loss and delamination from the substrate; repairing plaster losses to secure the areas and to avoid leaving dust/dirt traps and areas for birds to roost; and toning in new repairs to match existing treatments and to reduce their visual impact.

Wall plasters that had become detached were secured using a lime-based grout specially developed for the consolidation of wall plaster. Further stabilization was carried out using edge repairs as well as fills using lime mortars. Ammonium carbonate was employed in gel form to remove and reduce the dirt deposits and encrustations, and all surfaces were manually cleared of solubilized dirt, deposits and gel residues using brushes, sponges, and water sprays.

Where necessary, in areas of heavier dirt/deposits, once the surface was thoroughly dried, cleaning was repeated using the same methods to achieve an even result. Following the stabilization, cleaning, and repairs of the plaster, final presentation was undertaken. The new repairs were toned as necessary, using earth pigments in water, to achieve a final appearance that was visually sympathetic to the surrounding areas of original plaster.

Archaeological Findings

The work in the adjacent archaeological area of the Red Monastery comprised cleaning in preparation for 3D laser-scanning. Gillian Pyke, the field director of the Yale University Monastic Archaeology Project based at the neighboring White Monastery, kindly supervised the operation, working with a team of Egyptian assistants to carry out the cleaning in a very limited window of time.

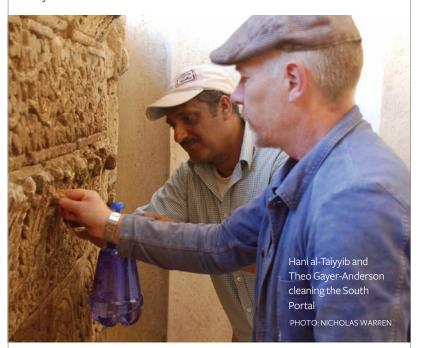
Throughout the site, all loose bricks, stones and ceramic, as well as a moderate amount of modern refuse, were removed, while walls, floors, and other features were cleaned with soft brushes. Pyke also carried out a visual assessment of the ceramics found in previous excavations by the local Antiquities inspectorate, paying particular attention to the date range of this material.

The ceramics were found to be predominantly of Byzantine (5th-7th century) date, with rarer examples

BACK STORY

Theo Gayer-Anderson, a stone conservator, has worked in Egypt since the early 1990s, when he first met the Red Monastery's project architect, Nicholas Warner. Theo made a major contribution to the conservation of ARCE's project at Bab Zuwayla from 1998 to 2002 and during that time met brothers Mahmoud and Hani al-Taiyyib.

Mahmoud, a builder with many skills, is the man who made sure that the gates of Bab Zuwayla could swing open and close again, and Hani acquired his stone conservation skills from Theo on the dizzying scaffold of the mosque of Muayyad's minarets. Theo, Mahmoud, and Nicholas collaborated closely on renovations to Theo's grandfather's house, the Bayt al-Kritliyya/Gayer-Anderson Museum, from 2000 to 2005, as well as on another ARCE project at the Roman South Tower at Babylon in 2011.



The 2019 project at the Red Monastery offered the chance for all three to come together once again, with the addition of Hani, to complete the stone conservation component. Bianca Madden, a plaster conservator, first worked with Theo, Mahmoud, and Nicholas on the Gayer-Anderson Museum in 2005 fixing cartonnage mummy cases for a new display of pharaonic objects sponsored by ARCE.

Archaeologist Gillian Pyke first collaborated with Nicholas and Mahmoud in 2015 on an ARCE Antiquities Endowment Fund conservation project at the White Monastery, where she is the field director for the Yale University Monastic Archaeology Project. Pieter Collet, an archaeological surveyor and illustrator, has worked with Nicholas in the Kharga Oasis since the mid 2000s.

Before this season, the architect Pietro Gasparri had collaborated with Nicholas on the 2015 laser scan of the Red Monastery, and with Nicholas and Gillian on the scan of the White Monastery in April 2019. Most importantly, 2019 was the sixth consecutive year that Mahmoud and Nicholas have persevered with the architectural conservation effort at the Red Monastery, using the same core team of skilled workers throughout this time. Such are the sustained relationships that guarantee the quality of ARCE's landmark projects in Egypt.

After 16 years of rediscovering the Red Monastery, it seems that there still may be more left in store.



of later pottery generally consisting of transport vessels of early medieval (9th-10th century) date. The date range of these finds is consistent with what is known about the main periods of activity at the monastery.

Drawing and 3D Scanning

Pietro Gasparri, a veteran from the 2015 digital documentation project at the church, successfully re-scanned the complex with his two assistants Massimo Carderi and Edoardo dalla Palma. The scanning was accompanied by high-resolution photography and a topographic survey, carried out for the first time on the archaeological site and for the first time since all conservation work on the nave and the tower was completed.

Two different levels of detail were used in the scanning: a high level for the internal elevations of the north and west walls of the church (a resolution of 1 mm/pixel) and a medium level for the other parts of the archaeological area as well as the main church (a resolution of 2 mm/pixel). Three complementary pieces of equipment were used to integrate the digital information: a phase shift laser scanner, a topographic total station, and a high-resolution digital camera. The work was carried out not only from ground level but also from higher levels in order to survey all surfaces not directly visible from the ground.

Inside enclosed areas, a combination of artificial and natural light was used during the photographic recording in order to optimize the color and shadow balance within these spaces. Outside it was desirable to avoid strong contrasts in light, and so early mornings and evenings were chosen as the optimal times to carry out the recording work.

While the collection of raw data in the field survey – which includes 300 individual scans and 5,200 photographs – took only one week to complete, it will take a further three months of painstaking work to process this data. The final result will ensure the 'digital preservation' of the whole Red Monastery complex to the highest degree currently possible, and will also provide an extremely valuable benchmark for any future monitoring of the site.



Massimo Carderi and Eduardo Dalla Palma shading the laser scanner during operation PHOTO: NICHOLAS WARNER

Sometimes, though, even the most sophisticated digital technology cannot provide the representations needed for certain objects or surfaces and so the eyes and hands of humans still have a part to play in this process. This is especially the case where clear line drawings are needed for publication purposes.

To this end, the project was fortunate to have the services of a veteran archaeological illustrator, Pieter Collet, who recorded a variety of material ranging from inscribed pharaonic blocks re-used in the structure of the church to loose or re-assembled decorative limestone architectural pieces from the church, to a remarkable – and almost invisible – collection of graffiti depicting what appear to be panthers or lions holding crosses (see the back cover of this issue), or in one case, a pennant, incised into the plaster on the north wall of the church. Such details offer us a rare insight into the history of the later use of the church in the medieval period.



BRIGHAM YOUNG



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Enriching the Visitor Experience

Russian nuns, Ethiopian priests, German professors, English residents of Luxor, diaspora Copts from Australia, Canada, and the US: all have visited the Red Monastery church during the past period of work, and all have come away enriched by the experience of walking into one of the best preserved early Christian painted churches anywhere in the world. To help these and other visitors, notably the steadily increasing stream of Coptic pilgrims from all over Egypt, certain provisions were made during the 2019 on-site work to provide information for visitors in a variety of ways.

Bilingual illustrated panels relating to 'Monastic Life and the Traditions of the Church,' 'The Wall Paintings in the Nave,' and 'The Construction of the







ABOVE: One of the rooms on the ground floor of the tower re-used for a display of archival photographs of the church and a video presentation

PHOTO: NICHOLAS WARNER

Church' were installed at key points around the complex. Two rooms on the ground floor of the tower were re-used for an exhibition of archival photographs of the Red Monastery, as well as images of the ARCE conservation project from its inception to the present.

Additionally, a monitor playing a video loop of a 3D 'fly-through' of the church – created by Pietro Gasparri in 2015 – was installed in the tower. This will soon be updated with a new 'fly-through' showing the post-conservation condition of the entire church and tower.

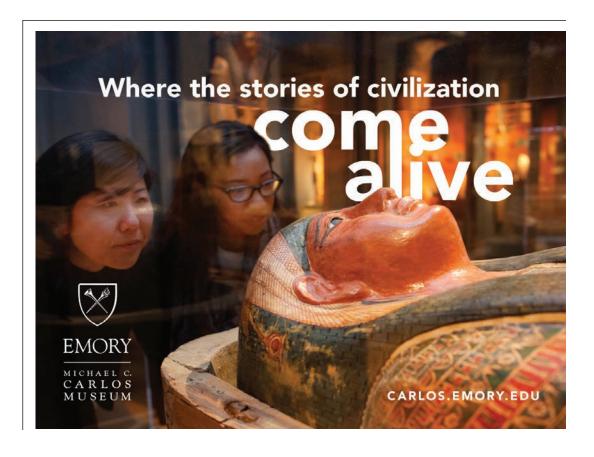
The Future

As ARCE's work at the Red Monastery enters its 16th year, all may be forgiven for asking the question "when will it ever end?" At one level, in fact, conservation work never does end – ideally it morphs into maintenance and monitoring, in this case by local representatives of the Coptic Church and the Ministry of Antiquities and Tourism.

The construction of new places of worship in other areas of the monastery has fortunately taken a lot of the pressure off of the historic church, which is today used sparingly for special services. It also benefits from daily cleaning by a dedicated staff, especially in all the external spaces of the monument.

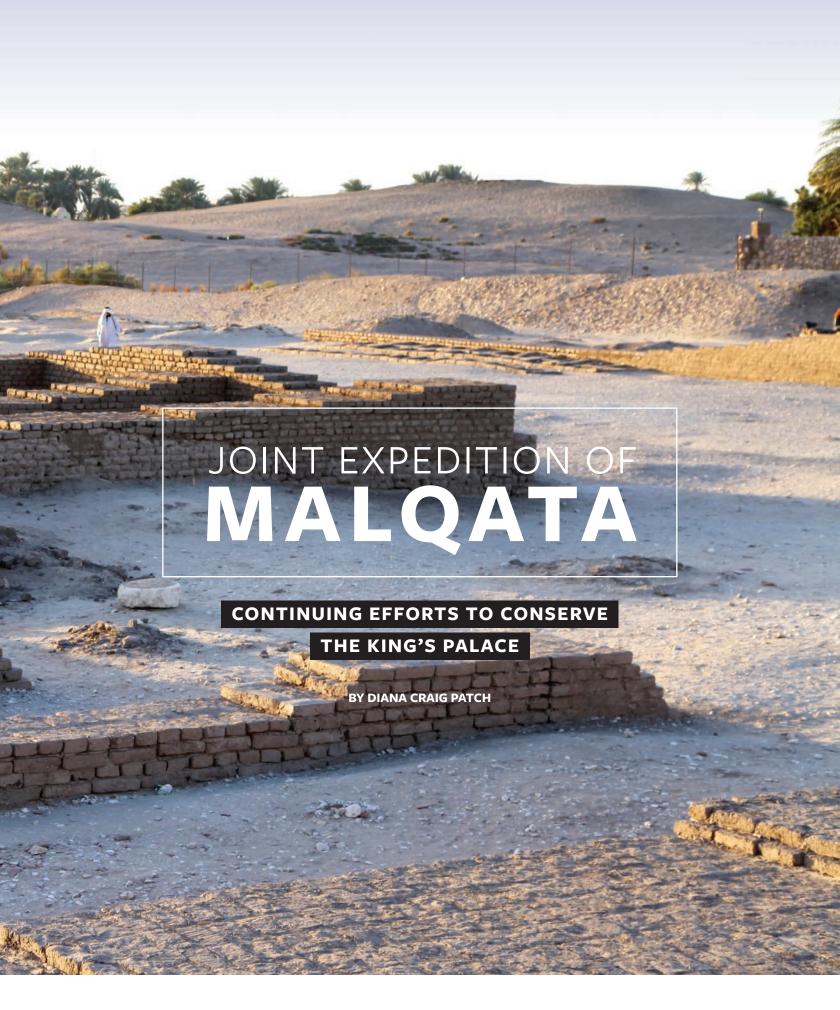
Only three major tasks at the Red Monastery still await implementation by ARCE. These are the construction of the shelter to protect the fragile medieval paintings in the nave, the protection of the archaeological site adjacent to the church, and finally the full publication of the results of the past five years of work that have brought to light a significant volume of information relating to the later history of this remarkable complex.

While ARCE's successful campaign to raise funds for the protection of the archaeological site will assist in completing this portion of the work, the rest will remain contingent on permissions, grants, and above all, persistence. After 16 years of rediscovering the Red Monastery, it seems that there still may be more left in store. •



The King's Private Apartments at the end of the 2018 season, looking southeast





algata, once a festival-city, is now an expansive archaeological site encompassing a variety of locales - harbor, temple, palaces, villages, platforms, industrial zones, and a massive open-air desert construction - all of which date to the last years of Amenhotep III's reign (ca. 1360-1352 B.C.). The northern-most surviving structure, the Amun temple, begins roughly a quarter mile (half a kilometer) south of Ramses III's temple at Medinet Habu. The various areas of Malqata continue to appear until the "Cleared Strip," the open-air construction, which ends the urban sprawl some four and half miles (seven kilometers) to the south. Except for the harbor itself, all of Malqata's locales lie within about half a mile (one kilometer) to the west of the floodplain's juncture with the low desert.

Beginning in 1910 and continuing through the 1920 season, The Metropolitan Museum of Art excavated at Malqata, uncovering and planning many of the structures found at the site's different locales: the King's Palace, the Queen's Palace, the Amun temple, the Pavilion (a platform), the North Village, and the West Villas. As the excavators uncovered each area, good plans were drawn and a topographic map of the locales central to Malqata – including the northern mounds of the Birket Habu – was made. Subsequent

research at Malqata by other expeditions uncovered more of the King's Palace, but no expedition worked on protecting the standing walls. Over the past century, exposure to wind and rain took their toll and the once significantly preserved mudbrick walls, often with surviving mud plaster paintings, deteriorated.

Organized in 2008, the archaeological team composing the Joint Expedition to Malqata (JEM) set out to take a comprehensive look at the numerous structures that create Malqata, not just at the individual locales. This vast area, comprising many structures, can be understood as a conceptualized landscape created by a single ruler, one of Dynasty 18's most celebrated pharaohs, Amenhotep III. He planned Malqata as the site for the festival that would rejuvenate his reign and by studying each structure or locale as part of a planned city rather than as an independent area, JEM hopes to better understand Amenhotep III's vision for Malqata.

In 2017, JEM, through The Metropolitan Museum of Art, was awarded a generous grant from the Antiquities Endowment Fund (AEF) to continue the restoration work of the King's Palace. As a crucial team member of JEM, Peter Lacovara began this important project in 2010. This season's work started on February 1, 2018, with workmen clearing the site of the windblown sand and garbage from the nearby villages that had collected over the past year. The

Mason capping the west wall of Room T, the King's Bedroom



team consisted of myself as director, Catharine H. Roehrig, and Janice Kamrin, who are curators in the Department of Egyptian Art at The Met. We were joined by Janet Picton of the Petrie Museum, University College London and Serenela Pelier, a graduate student at the University of Florida, who served as site archaeologists.

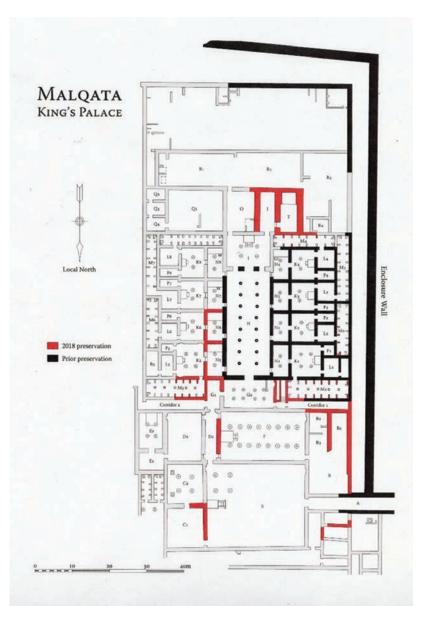
For the 2018 season, there were also essential specialists: Anthony Crosby (mudbrick conservator), Susan J. Allen (pottery specialist), Pieter ('Piet') Collet (architect and surveyor), Joel Paulson (surveyor), Gina Salama (architect), Hiroko Kariya (conservator), and Alexandra Winkels (conservator specializing in plaster). Hassan Mohamed Ali served as the field manager, facilitating the work in the King's Palace. Inspectors Waleed Abdel Rahim Mohamed and Mohamed Salim from Luxor represented the Ministry of Antiquities and Tourism for the season, and Gabr Mohamed Ahmed and Salah Salem Sayed participated as restorers from the Department of Conservation and Restoration in Luxor.

Preserving the King's Palace

In 2018, with the oversight of mudbrick conservator Anthony Crosby, we set out to finish capping walls south and west of the colonnaded hall (Room H), the perimeter wall just south of the gate, Room B, the foundation of the staircase attached to Room G, and walls in the suites of rooms east of the colonnaded hall. The surface of each wall was brushed and the brick bonding pattern identified. Then Jan Picton, Piet Collet, or Gina Salama planned each wall before the capping phase began. These wall plans were connected to the greater plan of the King's Palace that Peter Lacovara and Piet Collet had made over the two previous seasons, enhancing and correcting The Met's original 1910 plan.

Five professional masons were hired to lay brick and approximately 70 workers carried mudbrick and mortar during this season. The team's work this year protected over 300 linear feet of wall (90 meters), using approximately 21,000 mudbricks in the process. The modern mudbrick used in the palace reconstruction was made the summer before the 2017 season. The bricks are a mixture of mud and sand and each one is stamped with "JEM" so as not to be confused with the palace's ancient bricks in the future.

Brick sizes in the palace vary depending on the type of wall in which they were used and the modern ones chosen for reconstructing a wall follow the pattern and size that survive in the ancient wall. The bonding pattern of the bricks in the palace walls is often meticulous, but there are also walls where



the laying of the courses is haphazard, employing a mixture of brick sizes in their construction as well as leaving gaps or loose fill between bricks.

The first step was to plan the walls in the king's apartment, including the ones between Room O and Room J, Room J and the King's Bedroom, and the latter room's north and west walls. The south wall of this area had already been planned. After planning, bricklayers set to work and capped each exposed and planned wall with new mudbricks: all four walls of the king's bedroom, extending the capped north

The capping of each wall requires that at least two rows of bricks, and sometimes more, be used over the ancient bricks. Given the inconsistency in the preservation of each wall, the addition of new rows of bricks on top of the walls that are preserved

wall into Room R4; and the wall separating Room O

from Room J.

Plan of the King's Palace showing work completed in 2018 (red)





TOP: West side of the staircase. The first step (covered by sand) is ancient and two steps have been recreated with loose bricks to indicate the possible rise and run of the staircase. These bricks can easily be removed if a different treatment is decided upon next season

BOTTOM: Facsimile of the floor decoration installed in colonnaded hall, room H

to a greater height than adjoining ones requires that in some locations along a wall, the level of bricks must be stepped down to from a higher point to the lower courses in order for the newly preserved walls to join in a manner that will present the palace to visitors in the clearest way possible. For example, the south wall of the King's Bedroom is also the south wall of Room J. Its total height after reconstruction was just under 5.5 feet (1.65 meters), but that needed to be stepped down to four feet (1.23 meters) directly behind the King's Bedroom because only the foundation bricks survive in this section of the wall. The reconstruction of much of the king's private apartment was completed this season. The walls here were deliberately reconstructed to an overall height greater than the "western" suites, which were finished in previous years. This was done to make this important section of the palace stand out from other sections so that visitors would realize these rooms possessed a special significance.

Room B chambers are just south of the palace gate and this area was another focus of our preservation work. The B rooms are interesting because

on the southwest portion (called B here) of this complicated space there is a raised mud plastered brick floor. We protected this fragile mud plaster floor by piling clean sand over the surface before working on capping the mudbrick walls of Room B. The sand was left in place at the end of the season as a continued source of protection. Then the east, west, and south walls were planned so that they too could be capped.

Rooms B2 and B3 refer to two small rooms east of Room B. While clearing the east wall of Room B for planning, Crosby identified a pile of debris that he needed removed in order to proceed. As he worked, it became clear that the debris was not drift sand or loose rubble from previous excavators, but was actually an unexcavated mud plaster structure abutting the east side of the east wall of Room B, that is the wall that separated Room B from the two smaller rooms, B2 and B3. The structure was built on top of a sandstone slab. The mud plaster formed a trapezoid-like structure around a wood pole, now missing. The shape of the post could be determined because there is a round void completely preserved in the mud plaster. A patch of white gypsum lime plaster, a surface that once must have covered the entire threshold, was preserved only under this same circular void, so the pole must have protected the plaster after the palace was abandoned, thereby recording the pole's shape and diameter before its ultimate decay or removal.

The sandstone slab had a rounded depression that looks to be a socket; it still retained a small amount of hard packed mud at the bottom. This depression would have held the door post, which would pivot against the wood pole forming the door jamb. The slab then formed threshold for a door between Rooms B2 and B3.

The two rooms were connected as the mud plaster that covered the threshold under the gypsum plaster continued onto B3 to create a mud plaster floor, which covered a laid brick floor found there. Additionally, a low curtain wall, much of which was still standing, separated these two spaces so that when someone was standing in the doorway the individual could not see directly into B3 but had to go left around the curtain wall to enter B3 from B2.

Moving east and then south into B3, more interesting architecture was discovered beneath small amorphous piles of debris, which turned out to be *in situ*. It was a surprise to find so much *in situ* debris in an area that was supposed to have been previously excavated. In the center of this small room, a floor of eight rows of laid mudbricks abuts the north wall and probably the east wall (this still needs to be completely

excavated), but not the south and west walls. A pebble substrate, an ancient layer of bedding, is visible between some of the horizontal rows of bricks in the floor, but not in between individual bricks in any single row. The shallowness of the bricks suggest that the floor had been left abandoned for a period, allowing the bricks to erode. Subsequently the bricks were covered again with a heavy mud plaster layer, another sign suggestive of the palace's restoration between festivals.

The finished edge of the mudbrick floor ended about three feet (one meter) from the south and west walls and that space was filled with only loose dirt. This area forms an L-shape, almost as if there had been a mastaba of some type against these two walls. However, there is no surviving structure supporting this interpretation, except for the form created by the absence of mudbrick flooring along these walls. Possibly if the pattern does reflect mastaba-like structures, they were made from non-permanent materials like the *gereed*-benches common today in Egyptian villages. Along the south and east walls, pieces of ceiling collapse were left *in situ* for the next season as removing them without more planning would have been detrimental to their survival.

The walls that support a staircase located at the west end of Room G were also capped; Lacovara

had planned the staircase's outline in a previous season. The interior of the staircase was excavated this season. It contained compacted tumble and mud plaster, possibly the original fill under the staircase, although the compact fill was missing at the north end where it was loose down to desert surface.

Anthony Crosby's work always considers not only conservation, but presentation. This is why the king's private apartment, a significant location, has higher walls than other parts of the palace; why reconstructed walls must step down smoothly to connect with walls preserved at a lower height; and why some walls have unfinished ends at doorways or intersecting walls. These are decisions about how to communicate missing information about the structure accurately to the viewer in a way that is cohesive but not visually jarring.

In thinking about the presentation of the Room G staircase for future visitors to Malqata, we considered the possibility of trying to reconstruct a small portion of the staircase so people would be able to envision the original structure; as currently presented there are no signs of stairs. Height and width of the staircase were known variables, but the number of steps were in question. Crosby had to decide how high each step had to be in order to create enough steps to reach the

Jan Picton and workmen cleaning floor in Room B2 in preparation for drawing



RIGHT: Plaster fragments of a rosette ceiling decoration found in room B₃



BELOW: Facsimile of the painting of a calf on one of the piers in room M4, where the original painting was found



roof height. The rectangular outline of the staircase allowed for a run from the floor to a landing where the stairs would have made a turn to the left providing for a second run to the roof.

A study of the stairs in the Amun Temple and Kom el-Samak indicated their treads were too shallow to be used as a model for this particular staircase, but several staircases were recorded on the early Museum plan of the palace, and important information from Amarna, a chronologically and culturally comparable site provided additional information so that Crosby was able to calculate the height of the tread, some 6.7 inches (17 centimeters). Based on this information, a mock-up of two additional steps of the stairs was done with dry laid bricks in order to understand

how a restoration would appear. These bricks may in the future be re-laid with mud mortar and the side walls will extend along the edge of the treads and risers to protect the reconstruction.

The Ministry, however, was unwilling in 2018 to commit to a more substantial reconstruction using plastered mudbrick. Perhaps in the future, permission might be granted to reconstruct a small portion of the staircase, so that visitors could understand where and how people accessed the palace roof.

We also planned and capped east walls in the colonnaded hall (Room H), Room F, and Room G. In the eastern suite of rooms, the north and east walls of N5, N6, and N7 were finished as well as the south wall of N7. The west, north and south walls of M5 were also completed. In addition, this season we added several courses to the east end of the south perimeter wall to improve its presentation.

The piers in Rooms M2, M4, and M5 were capped for protection, which is especially important because they are very narrow and seriously eroded. Additionally, wherever lower courses of ancient mudbrick were found to be eroding and endangering the stability of the wall above, new mudbrick and mortar were inserted to provide support and aid in preventing a future collapse. At the season's end, we used 17 truckloads of clean sand to bury small-uncapped walls to prevent further deterioration until they can be drawn and capped.

Installing Floor and Wall Facsimiles

In 2016, Peter Lacovara arranged with skilled Chicago House artist Keli Alberts to have her precisely copy two mud plaster paintings excavated in the palace more than a century ago. On two newly-made concrete palettes, Alberts created these facsimiles from color photographs and carefully matched the colors to the originals: the marsh scene was completed in acrylic paint and mineral pigments were used for the background plants in the scene with a leaping calf, but only acrylic pigments were employed for the bovine as mineral pigments did not create a strong enough color. The two different paint types were used because no one knows how the intense Egyptian sun will affect the longevity of the pigments on the facsimiles. It is possible that one type might survive longer than the other so we will evaluate the marsh facsimile's pigments each season to understand if one works better than the other.

The frolicking calf was originally painted on a pier on the north wall of Magazine 4 at the doorway between M4 and L4. The original resides in the collection of The Metropolitan Museum (MMA

Subsequent research at Malqata by other expeditions uncovered more of the King's Palace, but no expedition worked on protecting the standing walls. Over the past century, exposure to wind and rain took their toll and the once significantly preserved mudbrick walls, often with surviving mud plaster paintings, deteriorated.

11.215.453). The other was a part of a marsh scene that was used to decorate the floor in the colonnaded hall (Room H) and was uncovered during the excavations of Georges Daressy; the original hangs in the Egyptian Museum, Cairo (TR 3/5/27/6).

A Ministry committee composed of Dr. Mohamed Abdel Badia Harab, Dr. Mohamed Abdel Aziz, Mr. Talat Abdel Aziz, Mr. Fathi Yasin, Dr. Baha Al Gabry, and Mr. Mahmoud Moussa studied the paintings and reviewed the locations where the two pieces were to be installed. JEM was given permission to carry out our plans to install both facsimiles as close to their original locations as possible under the supervision of the Ministry's Department of Conservation and Restoration. Mr. Gabr and Mr. Salah Salem joined JEM for the second half of the season to oversee this restoration project. Under their direction, the two facsimiles were installed. Their work included drilling the palettes (thick slabs of concrete), cutting and epoxying stainless steel rods into the palettes, and then setting them into the new concrete slabs.

The marsh scene was installed on a horizontal slab of concrete slightly smaller than the painting so the mount would not be seen. Two stainless steel rods anchor this painting to the concrete palette embedded into the ground below where the original floor once lay. The concrete mount was angled slightly to keep rain from pooling on the painting. The calf, however, required a vertical installation and to keep that palette in place a T-shaped concrete structure was created. The bar of the T was embedded several inches below ground surface, while the vertical element was made just slightly smaller than the calf's palette. The calf painting was anchored to the T-shaped concrete structure by two stainless steel rods in the base and two in the back.

Temporary labels were installed next to each facsimile clearly identifying each painting, discussing the meaning of each scene, and clearly stating that these paintings are facsimiles of original paintings found during different excavations: the calf by The Metropolitan Museum of Art in 1911 and the marsh scene by Georges Daressy, working for the Egyptian Antiquities Service in 1888.

Installing Temporary Signage

Developing and implementing signage for Malqata has been a goal of JEM since the first field season. After consulting with the Qurna Inspectorate, this year we produced a panel on sun-proof film with wood backing and metal trim. The sign discusses the layout and meaning of the King's Palace. The text is written in both Arabic and English, one language on either side of a floor plan of the palace. This separation of the two languages makes for easier reading of the sign. The reconstructed palace walls are highlighted and a dotted line on the plan indicates the path through the palace that the ancient visitor would have followed if granted an audience with the pharaoh (Room I). This is a temporary panel that will test how well these materials survive. The results will help determine what materials we use for the permanent signage.

After consultation with the above-mentioned committee, the Ministry agreed that the sign could be installed at the north end of the palace just after one enters through the reconstructed gateway (reconstructed in 2015 under Lacovara and Crosby's direction); the visitor would face south, looking towards the colonnaded hall (Room H). The sign's structure – metal legs supported by a mudbrick installation – is at a 45° angle so that one can look



Stepped walls in the area of the King's Bedroom (Rooms J and T), looking southwest

at the King's Palace while reading about its plan and meaning.

Preserving Painted Mud Plaster Fragments

During the cleaning of the walls, we were also surprised to find several places, four this season, where a significant amount of mud plaster wall painting survives *in situ*. In all places the painting is badly eroded but still adheres to the mudbrick wall. In consultation with Hiroko Kariya, our conservator, we have followed the same process as developed in previous seasons under Kariya's and Lacovara's supervision:

- 1. A protective mudbrick wall is constructed in front of the decorated mud plaster surface, leaving a gap of about four inches (10 cm).
- 2. A sheet of cardboard is centered inside the space created by the modern mudbrick wall.
- Fine sifted mud is poured on the side of the cardboard facing the mud plaster painting until it is higher than the preserved decoration.
- 4. Sand is poured in the space between the cardboard and the modern protective mudbrick wall.
- The cardboard is then removed and the surface of the sand and mud barrier is covered with large pebbles to keep the sand and mud from blowing away.

Each season, the protection is checked. So far, this protocol has been very effective in protecting wall surfaces. Sadly, it is not an elegant system, but the

mud plaster can neither be moved nor left exposed. The process has the advantage of being inexpensive and easy to remove, and causes no damage to the decorated mud plaster.

During cleaning of the walls for planning and then restoration, we discovered many pieces of painted mud plaster. None of these pieces is in its original context; during cleaning, many fragments were discovered lying face down on top of eroded walls. It appears that someone, probably archaeologists working during the 20th century, who did not have any other way of preserving the remains of painted decoration, carefully placed them on top of these walls to protect them. Based on the type of decoration, the vast number of pieces are from ceilings; little that once decorated the palace walls has been found as loose fragments. The current protocol for protecting these fragile and highly fragmentary pieces, whose original location will never be known, is discussed below. This protocol was the result of much consultation among the archaeologists, conservators, and local and senior members of the Ministry. No permanent storeroom is allowed at Malqata and the Carter Magazine is unwilling to accept small friable mud plaster fragments.

Very shortly after a mud plaster fragment is collected from the site (usually along the top of or along the base of a mudbrick wall), the friable edges of the pieces begin to crumble. As moisture leaves the fragment in Egypt's arid climate, the process of disintegration rapidly continues. After consultation

with Mr. Mahmoud Moussa and Mr. Ramadan Ahmed Ali of the Qurna Inspectorate, as we have in previous seasons, the decision was taken to rebury these small and fragile pieces in one of the large abandoned pits that are part of the palace compound. These are massive pits, 9-12 feet (3-4 meters) deep and completely dry. This is the same procedure the Inspectorate instructed JEM to use in previous seasons. The following steps were taken this season for the safety of the plaster fragments:

- 1. Catharine H. Roehrig photographed each fragment of painted mud plaster with a scale and color gage.
- 2. A layer of clean sand was laid down in the pit.
- Groups of pieces from the same location were placed together, face up on the sand, and the general find location identified.
- 4. A row of modern mudbricks was set around each group of pieces to separate one group of fragments from other.
- 5. The fragments were then covered by fine sifted disintegrated mudbrick, which lies in abundance around the site, to protect the painted surface. The conservators stated that the fine mud is not abrasive like sand and will not damage the painted surface.

- 6. A thin layer of clean sand is then poured over the mud protected fragments.
- 7. This sand layer was covered by geotextile so in the future, archaeologists, retrieving these fragments for study, will know where the pieces are located and can proceed with caution. In addition, photographs and depths were taken, which will aid in any future recovery.
- 8. A thick layer of clean sand was laid over the geotextile.
- 9. On top of the sand, we positioned modern mudbrick to prevent the sand's disturbance.
- 10. Finally, some light dirt hides the mudbrick from view.

During future seasons, the JEM team plans to continue fieldwork at the King's Palace. Work will include: improving signage and planning; conserving and presenting exposed mudbrick walls of rooms on the east side of the colonnaded hall; continuing to protect the north perimeter wall; planning and reburying the exposed casemates that leveled the palace's north end along the wadi's sloping edge; and continuing to clear and protect in and adjacent to Room B.

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







1-2 ARCE Members on the Woven Interiors Tour on November 6, 2019

3 Hanging with depiction of Virgin and Child, Egypt, 6th century, The Cleveland Museum of Art 1967.144. Leonard C. Hanna, Jr. Fund

Woven Interiors, Furnishing Early Medieval Egypt

n November 6, 2019, ARCE Members were honored with a private tour of the exhibition *Woven Interiors: Furnishing Early Medieval Egypt*. The exhibition, housed in the unique and captivating George Washington University Museum, Textile Museum in Washington, D.C., showcased rarely displayed textiles from late antique to early medieval Egypt (300-1000) that unveiled the aesthetics of interior spaces and the significance of textiles in early medieval Egypt.

Textiles had an imperative role in defining interior spaces and serving as decorative, symbolic, and functional objects in early medieval Egypt. Vibrant textiles were ubiquitous in interior spaces; they embellished palaces, places of worship, villas, and humble homes, infusing interior spaces with auspicious symbolism and comfort—many textiles served as cozy bed cloths, cushioned hard surfaces, or adorned walls, and were often a household's most prized possessions. A few hanging textiles on display have loops and other evidence

that suggest they were not purely decorative but also functional; potentially hung to provide protection from the elements and/or to reveal and conceal as needed. It is interesting to note that none of the 45 textiles on display were discovered in their original context. Many textiles were often re-used as shrouds in burials, as evident in a body decay stain on one of the wall hangings on display.

Artifacts showcasing the everyday lives of historical peoples do not often survive to the present day, making the textiles on display in Woven Interiors something of an oddity, but also a treat for the historically curious, offering viewers a chance to experience an intimate perspective of early medieval Egypt.

The exhibition was organized with Harvard University's Dumbarton Oaks Research Library and Collection. It featured artworks from The Textile Museum Collection and Dumbarton Oaks, with loans from The Metropolitan Museum of Art; Museum of Fine Arts, Boston; The Cleveland Museum of Art; and The Art Institute of Chicago.

Ministry Delegation Visits ARCE

On Friday, December 6, 2019, ARCE's office in Old Town, Alexandria received a special delegation from the Ministry of Antiquities and Tourism. The group was part of the International Visitor Leadership Program (IVLP), sponsored by the U.S. Department of State and included:

Ms. Yasmina Ali Abdelhalim Abdel Fattah

Archaeological Inspector, Minister's Office of General Administration of Repatriated Antiquities

Ms. Marwa Mohamed Saber Ahmed Ellboudy

Inspector of Archaeology, Department of International Organizations for Cultural Heritage and International Cooperation

Ms. Gehad Salah Hussien El Rawy

Supervisor, Department of International Organizations for Cultural Heritage and International Cooperation

Ms. Fatima Almutawakel and Dr. Galal El Nahal

Simultaneous Arabic interpreters

The IVLP is the U.S. Department of State's premier professional exchange program. The goal of the IVLP is to provide firsthand knowledge about U.S. society, culture, and politics, while cultivating professional relationships. The Meridian International Center arranged the visitors' program in the U.S. from December 5-13. It included visiting ARCE, as well as several museums in Washington D.C. and New York, to facilitate dialogues on improving MOUs, building relationships between the different stakeholders in the cultural heritage protection field, and learning the latest and best practices in conservation, curation and regulation of monuments.

During their visit to ARCE, the group had a three-hour meeting with Dr. Fatma Ismail, ARCE's U.S. Outreach and Programs Director. They discussed how to bring American and Egyptian expertise together to





protect Egyptian cultural property. The group learned about ARCE's role as a private non-profit working to support research and strengthen American-Egyptian cultural ties. They also discussed how ARCE's grants, fieldwork, and field schools facilitate partnerships with Egyptians and contribute to the shared goal of cultural heritage preservation.

The delegation was very enthusiastic to learn about ARCE's ongoing efforts to list the Red Monastery in Sohag as a UNESCO World Heritage Site, as well as the regional workshop that ARCE is organizing to fight illicit trade in cultural property, which will take place in Egypt, Tunisia, and Jordan. Ending the meeting on a fun note, the Arabic interpreter accompanying the group, Dr. Gala El Nahal, revealed to the group that he received an ARCE fellowship in 1979 for his research on Ottoman Period Egypt!

TOP L-R: Ms. Fatima Almutawakel, Ms. Yasmina Ali Abdelhalim Abdel Fattah, Ms. Gehad Salah Hussien El Rawy, Dr. Fatma Ismail, Ms. Marwa Mohamed Saber Ahmed Ellboudy, Dr. Galal El-Nahal

BOTTOM: The delegation meeting with Dr. Fatma Ismail

2019 ARCE Member Tour of Egypt

In October 2019, ARCE organized an exclusive member-only tour for a once in a lifetime experience with world-renowned Egyptologists, archaeologists and architects, including Zahi Hawass, Nairy Hampikian, Marcus Mueller, and Nicholas Warner. From iconic sites such as the Great Pyramid in Giza and King Tut's tomb in the Valley of the Kings, to behind the scenes tours of the currently under construction Grand Egyptian Museum, the active archaeological site of Arthribis, and a private dinner at Luxor Temple, this tour led by Dr. Louise Bertini was filled with awesome ancient wonders and adventure.

After a wonderful experience in Luxor, the 17 tour members hailing from Arizona, British Columbia, Massachusetts, New York, and the Washington, D.C. area - took a luxurious cruise down the Nile. Along the way, members stopped and visited the Temple of Horus in Edfu, the Temple of Kom Ombo, and then went on to Aswan. Later, they stayed at the Old Cataract Hotel in Aswan and visited the Temples of Ramses II and Queen Nefertari.

Due to the immense success of the 2019 tour, planning for the 2020 tour is already underway! For more information, check this issue's inside front cover.

High praise to all the members of the ARCE team for their huge effort in offering a members' tour of Egypt. I was delighted with the itinerary and was surprised at the things I found most memorable - the workers' tombs across the mountain from the Valley of the Kings, Queen Nefertari's tomb, the Nobles' tombs and

the Abu Simbel temples of Ramses II and Nefertari. Nairy Hampikian made Coptic Cairo come alive, especially at Bab Zuwayla. Likewise, for the Red and White monasteries with Nicholas Warner, and John Shearman at the Khonsu temple. And Zahi Hawass himself at the paws of the Sphinx!! We were lucky indeed to be members of ARCE and part of this trip. - Carole Malcolmson





TOP: Visit to Historic Cairo with Nairy Hampikian, a past ARCE project director

BOTTOM: The group poses at the site of Arthribis

ARCE at 2020 AIA ArchaeoCon

ARCE was pleased to be a part of the AIA's 2020 ArchaeoCon event held in Washington, D.C. in early January. ARCE's U.S. office and D.C. Chapter hosted a table at the Activity Fair portion of the event. Carol and Craig Boyer, D.C. Chapter President and Board member, respectively, graciously volunteered their time to represent the D.C. Chapter. The ARCE table featured VR (virtual reality) head-sets, which held several 3D scans of ARCE project sites, including the Tomb of Menna, Aslam al Silahdar Mosque, Monastery of Saint Anthony, and the Bab Zuwayla.

The objective was to showcase a few of ARCE's incredible projects, and the VR presentations were sponsored through the generous support of Walbridge. The ARCE table proved very popular, and many event attendees waited in line to try the VR head-sets. The event



was well attended and included many children who were excited to experience history so visually. Hopefully their interest in Egypt will continue to grow! ARCE staff also highlighted the ways that membership allows

people to directly support amazing projects in Egypt, and that donations to ARCE help to further discovery, preservation, and education in archaeology. The ARCE team can't wait to see where VR technology leads next, and how it can generate better awareness and excitement about the history and monuments of Egypt.

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

ARCE Goes Pop

rom January 17-18, the ARCE Cairo Center hosted the Symposium on Egyptian Popular Culture: Produce, Consume, Conserve. The symposium brought together academics, conservators, and practitioners in serious conversation about how their work addresses the question of what is popular, how it is consumed by the Egyptian public, and how we can preserve material for a changing public.

Over 100 interested attendees registered for the symposium, with an additional 50 registering for a Friday morning Downtown Cairo walking tour provided by event partner, Al Ismaelia for Real Estate Investment. The American University in Cairo (AUC) Press provided a pop-up shop at the Cairo Center for the full two days of the symposium, as well as Karma founder and designer Dina Hafez, who showed off her artistic home goods and decor in a curated display.

ARCE would like to thank the Council of American Overseas Research Centers (CAORC) and the U.S. Department of State, Bureau of Educational and Cultural Affairs, for their generous support, without which this event would not have been possible.









- 1 Dr. Yasmin El Shazly, ARCE's Deputy Director for Research and Programs, addresses the audience during her panel on museums
- 2 Attendees chat during a break in between panels
- **3** Symposium attendees browse the books on offer at the AUC Press pop-up shop
- **4** The audience engages in a discussion with speakers during the panel on modern art
 PHOTOS: MOSTAFAABD ELATY

FELLOWS IN ACTION



Current ARCE fellow Samaa Elimam ARCE catches up with outgoing fellow N.A. Mansour at the Cairo Center's Symposium on Egyptian Popular Culture, January 17-18, 2020. Elimam's dissertation research is titled, 'On Site: Engineering, Empire, and the Geography of Modern Egypt.' PHOTO: MOSTAFA ABD EL ATY



Former fellows come back to ARCE for the Cairo Center's Symposium on Egyptian Popular Culture, January 17-18, 2020. Mohamed Elshahed (ECA 2010-11; NEH 2017-18), and N.A. Mansour (ECA 2018-2019; Pre-dissertation Travel Grantee 2017-18) deep in discussion in their round table with M. Lynx Qualey, editor-in-chief of the ArabLit cooperative.

PHOTO: MOSTAFA ABD EL ATY



Taylor Deane poses with Sheikh Mahmoud, chief guardian of Middle Qurna, after opening Theban Tomb 48 PHOTO: HAZEM HELMY SHARED



Fellows Brooke Norton and Taylor Deane reenact a smiting scene at Medinet Habu PHOTO: HAZEM HELMY SHARED

ARCE In 3D

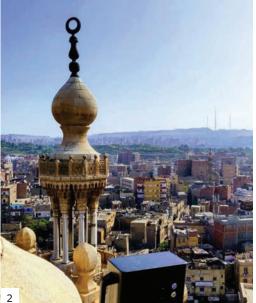
During the fall season of 2019, ARCE resumed its efforts to build a digital archive of 3D scans and high-quality imagery of the organization's past projects. Luke Hollis, Archimedes Digital founder and engineer, flew in from Boston to lead the scanning and was accompanied by Andreas Kostopoulos, ARCE's Project Archives Specialist and Mary Sadek, ARCE's Deputy Director for Government Affiliations.

Scanning kicked off at the Sabil Farag Ibn Barquq, located in Historic Cairo. Kostopoulos and Hollis used a Matterport camera to fully scan the monument. Following the visit to Sabil Farag Ibn Barquq, the team flew to Luxor, where they photographed and scanned the stunning Tomb of Menna (TT69) in the West Bank. Ayman Damarany, an inspector with the Supreme Council of Antiquities, greatly assisted with facilitating the documentation efforts in TT69.

After returning to Cairo, the team then drove to their third destination: Saint Anthony's Monastery, located in Suez. There, they scanned the church's wall paintings and museum exhibits, which were conserved and developed, respectively, by ARCE between 1996 and 1999. The final site that the team scanned was the imposing Bab Zuwayla in the heart of Historic Cairo, one of ARCE's largest restoration projects to date. Hollis photographed and scanned the monument starting from its massive wooden gate all the way to the very top of its sky-high minarets.







- 1 Hollis photographing the wall paintings in Saint Anthony's church
- PHOTO: ANDREAS KOSTOPOULOS
- 2 Matterport camera positioned on one of Bab Zuwayla's minarets PHOTO: LUKE HOLLIS
- 3 Hollis in the Sabil with the Matterport camera PHOTO: ANDREAS KOSTOPOULOS
- 4 Kostopoulos assisting Hollis while shooting. photos from the top of one of Bab Zuwayla's minarets

PHOTO: LUKE HOLLIS



The latest from ARCE's Chapters







- **1** NorCal's Wilcox, Thompson, and Jensen in Luxor
- 2 Dave Kuhlmann, a founding member of ARCE NorCal's Order of the Sedge & Bee, helped bake shabti cookies to raise funds for chapter programs.
- 3 NorCal chapter president Barbara Wilcox at the Red Monastery in 2019

ARCE Northern California

ARCE Northern California celebrates its silver anniversary in 2020, having begun 25 years ago as a diverse group that coalesced during Dr. Teresa Moore's Egyptology classes at the University of California, Berkeley, Extension.

Many of those charter members remain active, supporting 10 free public programs yearly at UC Berkeley, disbursing \$2,500 yearly in grants to Northern California students of Egyptology, and cosponsoring occasional events with the Phoebe A. Hearst Museum of Anthropology on the Berkeley campus.

In December, we awarded our second annual \$1,500 ARCE Northern California Eugene Cruz-Uribe Memorial Student Grant to Greco-Roman specialist Nicholas Scheidle Bartos, a Stanford University doctoral candidate who proposes to take part in excavations at the Red Sea port of Berenike. Eleven applicants from seven universities made up what has become an increasingly competitive field.

The grant honors our late chapter member Dr. Eugene Cruz-Uribe, a scholar of Greco-Roman Egypt who was editor of the Journal of the American Research Center in Egypt at the time of his death in 2018 in a bicycle accident.

A second, longtime grant awarded each spring honors the late Marie Buttery, the founding president of the chapter.

We raise money and have parties through our social auxiliary, the Order of the Sedge & Bee – an idea we adopted from the North Texas chapter with their kind permission. Members get an official Sedge & Bee pin.

Finally, ARCE Northern California applauds the PhD conferral of our immediate past president Victoria Jensen this spring, whose doctoral work at Berkeley examines non-elite burials from the 17th to 19th dynasties in the cemeteries at Deir el-Ballas.

ARCE Chicago



Chicago Chapter President, Dennis Kelley, introduces Catie Witt, doctoral student at the University of Chicago, on January 4, 2020. About 55 people attended the presentation, "The Sky's the Limit: Iron Ore Usage for Ancient Egyptian Amulets," held at the Oriental Institute.



Catie Witt (right) a doctoral student at the University of Chicago, discusses her presentation "The Sky's the Limit: Iron Ore Usage for Ancient Egyptian Amulets," with Dr. Carol Meyer of the Chicago Chapter.

ARCE-D.C.

On Saturday, May 16, ARCE-D.C. will host its Annual Party and Fundraiser at 3:00 p.m. The event highlight will be a lecture by Emily Smith-Sangster, Princeton University, titled, Body Doubles: Artificial "Reserve Parts" and the Conceptualization of Post-Mortem Bodily Completeness. Don't miss out on this exciting opportunity to mingle and support ARCE-D.C!



ARCE Pennsylvania

The ARCE-PA Chapter, located in Philadelphia, PA, features two symposia as part of the 2019-2020 lecture series. In October 2019, ARCE-PA joined with Dr. Peter Lacovara and the Ancient Egyptian Heritage and Archaeology Fund to organize and co-sponsor a symposium honoring the work of Helene J. Kantor on the occasion of her centennial. The two-day event opened with a keynote lecture by Dr. Tom Tartaron and included speakers from a variety of fields who were influenced by Dr. Kantor's work. ARCE-PA's President, Dr. Beth Ann Judas, presented on the so-called "international style" in Egypt, reflecting on the progress made in understanding artistic confluences since Kantor's initial work on interconnections between Egypt and the Mediterranean world.

Our second symposium will take place shortly after the ARCE Annual Meeting in April 2020. Titled, "The Significance of Abydos from the Predynastic to the New Kingdom," the day-long event brings together several Directors of projects based at Abydos to share how their individual work informs the bigger historical picture of Abydos history. It is sure to be an informative session and we encourage all ARCE members in the area to join us on Saturday, April 18, at 11:00 a.m. in the UPenn Museum's Rainey Auditorium.



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The latest from ARCE's Research Supporting Members



The Ancient Egyptian Heritage and Archaeology Fund

he Ancient Egyptian Heritage and Archaeology Fund is a private, nonprofit organization with a mission to support research and conservation on Egyptian history and culture. In particular, it seeks to record and publish sites and monuments at risk from agricultural and urban expansion, looting and vandalism and climate change. Our current and proposed projects include:

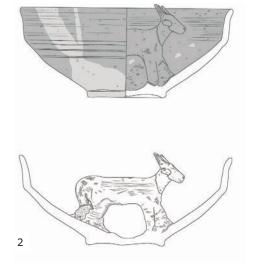
Deir el-Ballas: Excavation, Preservation and

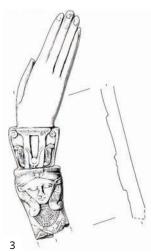
Our primary mission is to conduct excavations and conservation at Deir el-Ballas, in Upper Egypt. As the forward capital for the Theban kings during the Hyksos expulsion, Deir el-Ballas is of great archaeological and historic importance, but the site is at extreme risk from both looting and from the uncontrolled expansion of the neighboring modern town. Our fieldwork dovetails with a grant we received from the Shelby White and Leon Levy Program for Archaeological Publications to prepare the results of the original expedition conducted at the site in 1900-1901 by George Andrew Reisner working for the Phoebe A. Hearst Expedition of the University of California. The current fieldwork we are doing at the site thanks in part to a grant from ARCE's Antiquities Endowment Fund has helped us elucidate the records of the original expedition as well as preserve the site for the future. We have just completed our December 2019- January 2020 season of recording and conservation including restoration of the collapsed façade of the 'South Palace' and of the Southern enclosure wall of the North Palace along with the restoration and recording of some of the houses associated with the North Palace.

Other Publication Projects

Publication is an essential part of archeology and one of the Fund's goals is not only to publish its







own fieldwork but also to further archaeological knowledge and education through the publication and translation of important unpublished and long out of print volumes, as well. Volumes in preparation include:

Reisner's Archaeological Manual:

One of the most prolific and important American archaeologists to work in Egypt was George Andrew Reisner (1867-1942). His discoveries were legion, but

- 1 Tony Crosby supervising the reconstruction of House D beside the North Palace at Deir el-Ballas
- 2 Drawing of a votive Hathor bowl from Deir el-Ballas by Elke Schuster
- 3 Drawing of an ivory clapper from Deir el-Ballas by Andrew Boyce



A dump from Reisner's excavations at Giza

he is also remembered for his important innovations in the realm of archaeological method. Reisner was among the first archaeologists to recognize the importance of stratigraphy, as his recording methods were among the best of his day. With his assistants, he influenced the way in which the expeditions of the

Metropolitan Museum in New York and the University Museum in Philadelphia conducted their fieldwork.

Valdemar Schmidt's Sarkofager, Mumiekister og Mumiehylstre i det gamle Aegypten:

The classic work on ancient Egyptian Funerary Art has before now only been available in the long out of print Danish version. This new edition will be translated into English with an updated bibliography and preface by Peter Lacovara, edited by Sue D'Auria and formatted by Jonathan Elias.

The Oral History Project:

We also hope to continue our pivotal series on the video oral history of American Egyptology and record the memories of important figures in the field for posterity. Our interviews with David O'Connor, Christine Lilyquist, Kent Weeks and Jack Josephson are now on our website:

www.ancientegyptarchaeologyfund.com/project/ oral-history-project

Our latest interview with Donald Redford has recently been posted.

UCLA Coffins Project



Kathlyn (Kara) Cooney's ongoing research on 21st Dynasty coffins is attempting a wide scale systematic examination of coffin reuse to understand the scale and methods, concentrating on large collections of coffins in museums and research institutions. Since 2010 she and her team have examined over 300 coffins in 26 museums and research institutions in 24 cities throughout the United States and Europe. Her latest research of the Royal Cache coffins in the Egyptian Museum in

Cairo was funded by an Antiquities Endowment Fund grant, allowing study and documentation of both 21st Dynasty as well as the royal coffins of the 17th, 18th, 19th, and 20th Dynasties. Coffins represent an ideal dataset representative of elite society, allowing a study of funerary economics in the light of elite demands for public rituals using religiously charged funerary materiality. Her analysis thus far shows a reuse rate of over 60%, a rate of coffin reuse so high as to suggest the normalization of recommodification of funerary arts, at least during times of crisis. Other research questions incorporated in her study include investigating the methods of reusing another person's coffin, who reused coffins, and how funerary arts reuse and theft impacted the way that ancient Egyptians approached funerary materiality and ritual action during times of social crisis and after.



ABOVE: Photographer Remy Hiramoto documents a coffin while Egyptologist Kara Cooney takes notes on evidence of reuse

LEFT: UCLA Coffins Project team members Remy Hiramoto, Jeff Newman, and Rose Campbell photograph a coffin. Various lighting techniques are used in order to reveal hidden details that often betray evidence of reuse.

New York University

The New York University-ISAW mission had a very successful year marked by a number of exciting discoveries. An expedition led by Sameh Iskander saw the discovery of a temple-palace south of the temple of Ramses II in Abydos. Partial parts of the palatial monument were cleared, including walls, floors, and a round pillar base. In the same season, rare cartouches of Ramses II were discovered on the four corners of the temple on the sub-foundation blocks. The cartouches are painted in a bright golden yellow color.





Newly discovered cartouches inscribed on the temple's sub-foundation

The 2019 NYU-ISAW team at the temple

Brigham Young University

During 2019 the BYU Egypt Excavation Project prioritized the important aspects of archaeology that have to do with study, conservation, and publication. Both in Egypt and the U.S. we have trained students and inspectors in conservation techniques, as an integral component of our ongoing excavation and conservation of textiles, jewelry, burial objects, and pottery at the Fag el-Gamous necropolis and the Seila Pyramid. Additionally, we published substantial findings from the work of over 30 years in Excavations at Fag el-Gamous and the Seila Pyramid, Harvard Egyptological Studies vol. 7. (Leiden: Brill, 2020). We also presented academic papers or participated in workshops about the excavation in Cairo, Antwerp, Granada, Toronto, Basel, London (Canada), Copenhagen, Turin, Alexandria, Dallas, San



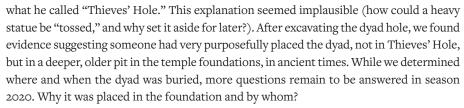
Diego, and Provo. We are grateful for our collaboration in these efforts with our colleagues in the Ministry of Antiquities and Tourism in the Fayoum and the Kom Aushim conservators. We look forward to continuing these efforts as we study and care for the responsibility with which we have been entrusted.

Textile Field School being held at Kom Aushim PHOTO: KERRY MUHI ESTEIN





In 2019 we returned to the Menkaure Valley Temple (MVT), to work on the southwestern quadrant, where George Reisner discovered the famous dyad of Menkaure and his queen (or mother) during his 1910 excavation season in the temple. He believed that "treasure hunters" set the statue aside temporarily by tossing it in



Before reaching the depths of the MVT, we spent weeks removing layers of occupational debris that Reisner dumped in the west end of the temple after excavating them from the temple's central court, where a village of small mudbrick houses had once flourished. We extensively sieved these spoils and recovered a wealth of material culture that reflected a busy, living community. This put to rest the notion that the houses were symbolic as some scholars have thought. The predominant remains—flint knives, flint fragments, and cattle forelimb knucklebones—could be physical remains of offerings once presented to the deceased Menkaure and butchered in the court. They shed light on the royal decrees that endowed the temple.

At the Sphinx Temple, our surveyors recorded surface features, while the Glen Dash Foundation Survey team conducted a Ground Penetrating Radar Survey. A Japanese team carried out a 3D survey of the Sphinx and Sphinx and Khafre Temples.





The American University in Cairo

The American University in Cairo hosted two very successful conferences this year: The Bioarchaeology of Ancient Egypt & Symposium on Animals in Ancient Egypt, organized in conjunction with ARCE, the Institute of Bioarchaeology, and the Musée des Confluences in Lyon, and the three-day Women in Ancient Egypt conference, organised by Mariam Ayad. The Amenmesses Project (KV10/KV63), directed by Salima Ikram, has finished documenting the decoration in KV10, the conservation and restoration of Takhat's sarcophagus and canopic equipment, and studying some of the ceramics from both KV10 and KV63. We are also accepting new students, and have taken the current crop on a series of exciting field trips to ongoing excavations, as well as sites that are not open to the general public. We are also pleased to announce that Dr. Fayza Haikal won a special award at the XII International Congress of Egyptology (ICE), held in Cairo.



Working in KV10 with team members, M. Ahmed, A. Stoll, L. Hassn, E. Hart PHOTO: SALIMA IKRAM

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

Conserving the Amasili Complex: A Dynamic Heritage in Rosetta





uring the medieval period, new towns emerged in the Nile Delta, some becoming important cultural and economic centers. Following the damage to the sea port of Alexandria, Rosetta ('Rashid' in Arabic) flourished. Commercial activities relocated to the town as it became the main access to the Mediterranean. During the Mamluk and Ottoman periods, Rosetta was the second most important city in Egypt after Cairo. However, the events of the last two hundred years have transformed this once prosperous city, resulting in extensive damage to its archaeological and historical heritage. Until the 1940s the town was full of Ottoman houses, but now only 22 remain and are suffering various degrees of deterioration.

At the Amasili Complex - an Ottoman house and granary - a new conservation project partially funded by the AEF is addressing the negative effects of previous restoration works to the building and will also repurpose rooms for meetings, research, and exhibitions. The intention is to transform the Amasili Complex into a hub for archaeological missions working in the area, a platform for artists and craftsmen, and a meeting point for the local population - thus ensuring its preservation.

ARCE and the Italian Ministry of Foreign Affairs are supporting the project of Padua University and



- 1 A skilled trained worker (Walid) while fixing a damaged section of a wall
- 2 Amasili House, second floor, removing the old cement plaster layers and restoration of the walls.
- 3 General view of the Amasili House in Rosetta PHOTOS: ESSAM BARAKAT

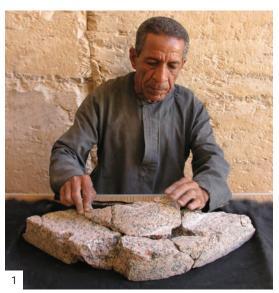
the Italian-Egyptian Archaeological Center through its first phase of interventions that will make the main building water tight and address the extensive salt damage on the plaster covering the walls of the top floor. Last September the wooden roof was exposed, and rotten wooden beams and planks were replaced and a new protective roof layer was installed.

Internally, the old cement plaster covering the walls was removed and replaced by a new plaster developed by our conservators with locally sourced materials. This new plaster follows an ancient Roman technique, whereby pow-

dered fired bricks replace the sand. Hydraulic lime (instead of cement) and gravel complete the 'recipe,' making it ideal for use in buildings experiencing high humidity levels as it allows the brickwork to breath.

Thanks goes to our fantastic team:

Michele Asolati, Sergio Calò, Luciana Carvalho, Nunzia Larosa, Mohamed Kenawi, Cristina Mondin, Maurizio Trevisan



The Takhat Sarcophagus Lid Restoration Project

The Takhat Sarcophagus Lid Restoration Project was carried out in the tomb of Amenmesse, Valley of the Kings, under the auspices of Salima Ikram, Director of the Amenmesse/KV63 Project, with Lyla Pinch-Brock the Director of the sub-project. The project was finished within the month of September 2019. This quick turnaround was thanks to the tremendous co-operation we received from the Ministry of Antiquities and Tourism, and in particular, from our colleagues in the Valley of the Kings. Our friends at ARCE Cairo and Luxor and Chicago House kindly loaned us equipment and gave us invaluable help and advice in expediting the project.

Our restorer, Lotfi Hassan, and his skilled and highly-experienced team of associates and workmen, rapidly pieced together the more than 250 fragments of the lid and brought the beautifully-carved and inscribed pink granite sarcophagus back to its original form, where it probably once rested, in the burial chamber of Amenmesse (KV10). One of the lid fragments was found far from the tomb! Recently identified by Dutch archaeologists at the Monastery of Mari Girgis, a short distance from Luxor, it had apparently been taken from the tomb by Coptic monks for re-use as a millstone. Thanks to the Ministry, we were able to obtain this important large part of the foot end and add it to the restoration.



- 1 Nubie abdul Basset assembling sarcophagus parts for restoration PHOTO: L.P. BROCK
- 2 The whole team at work in the Burial Chamber PHOTO: ABLAA ABDEL HAKK AHMED
- 3 Illustration by Brock of the restored painted plaster scene showing Baketwerel, and (r) the decoration remaining on the tomb wall PHOTO: L.P. BROCK & GEORGE B. JOHNSON

Finally, credit must go to Edwin C. Brock and Otto Schaden (both deceased) who discovered, identified and did the preliminary research work on the lid. Lyla Pinch Brock, Ted's wife, took up the sword and applied to ARCE for an AEF grant to assemble all the pieces. And now, thanks to ARCE, that monument will not be lost to history.







- 1 Cleaning the exterior wall of the mausoleum
- 2 Attendees at the inauguration event
- 3 Vault shoring the structure
- 4 Inauguration attendees inside the mausoleum

al-Shurafa Mausoleum **Conservation Project**

The conservation project of al-Shurafa Mausoleum kicked off in November 2019, and by the beginning of 2020 had successfully cleared away almost 3,500 cubic feet (100 cubic meters) of waste and debris from the interior of the monument, commissioned reports on the structural condition and material testing of stone and mortar, and finished the shoring of the structure and preliminary cleaning of the walls.

The Athar Lina initiative, which received an AEF grant to carry out the work at al-Shurafa, is finalizing the detailed documentation and condition survey of the mausoleum, and has also finished the conservation of the two textile shrouds of the cenotaph. After the cleaning was complete, Athar Lina held a public inauguration event that included a guided tour of the neighborhood and its monuments and a khiyamiyya (patchwork) workshop in which the women of al-Hattaba (a neighborhood north of the Citadel in Historic Cairo, where the mausoleum is located) taught attendees traditional Egyptian patchwork techniques.

This event is part of a sister project supported by Landscapes of Hope, which consists of one participatory workshop and two public events where the women of al-Hattaba join a designer and a khiyamiyya artisan to





design and implement a communal patchwork khiyamiyya hanging that tells the history of al-Hattaba from their perspective. The workshop builds on women's basic skill in khiyamiyya. The story will be disseminated further through a short film on the making of the quilt. It is planned to hang the patchwork in al-Shurafa Mausoleum after the completion of Athar Lina's AEF project by the end of 2020.

The Ramses III (KV11) Publication and Conservation Project

The goal of the KV11 Project is to document, preserve, and publish the tomb of pharaoh Ramses III in the Valley of the Kings. The KV11 Project team was lucky to receive an AEF grant last year and we are deeply grateful to the American Research Center in Egypt for their generous support! The winter campaign 2019/2020 served as a necessary preliminary phase for our future work. We carried out some urgent measures, recordings, and surveys in order to develop a plan to restore and publish the tomb of Ramses III, which has been destroyed in its rear section by past flooding.

Rain water has caused immense damage to the tomb, mainly to the burial chamber and its eight pillars. It was necessary to identify whether or not the so-called 'Esna Shale,' which is highly water absorbent, has been responsible for the deterioration of plaster reliefs on the walls. Petrologist Judith Bunbury carried out a geo-archaeological survey in and above the site in order to estimate the distance between the tomb's ground level and the shale. We determined that the shale is in fact a safe distance from the original floor level and therefore cannot be responsible for the deterioration of the plaster wall reliefs.

Oxford Archaeology East, represented by Gareth D. Rees, also carried out an additional photogrammetry and a Total Station Survey. The result will be a high-resolution 3D model of the tomb, which includes cracks and fissures in walls and ceilings for developing a plan for future treatment. Our head conservator, Karin Schinken, was then able to work with low-resolution ortho-pictures for damage mapping and restoration records. She is now working to generate a catalog of measures to implement in our upcoming work. Her work also included preventive conservation measures like climate control and stability checks.

While cleaning the area in the burial chamber from limestone and debris, we established a sophisticated numbering system in order to distinguish diagnostic stones, which are replaceable, from irreplaceable debris. We received immense support by our field school members during each field of study.

Furthermore, we carried out preliminary work for our future excavations, including a sondage, or





test pit, in and around a recent disturbance. The goal was to get a clearer idea of the amount of sediment and debris masses that will need to be lifted from the rear part of the tomb. However, the test pit surprised us by revealing the original floor level of the chamber for the first time in more than 100 years, and brought a number of interesting finds to light. We look forward to continuing our work in this important tomb and to sharing our results soon with the wider ARCE and archaeological community.

TOP: The conservator proving the stability in Room L

BOTTOM: Preliminary work undertaken by the team members during the winter season 2019/2020

FELLOWS FORUM

Highlights from ARCE fellows, past and present



Ramesside Queens' Tombs

The Book of the Dead and the Development of the Deir el-Medina Iconographic Tradition

BY HEATHER LEE MCCARTHY

he start of the 19th Dynasty (circa 1292 BC) not only marked the beginning of a new ruling line, the Ramessides, but it was also a time of remarkable innovation that developed, in part, as a complex reaction to the dramatic cultural and religious changes brought about by Akhenaten during the Amarna period and as a means of politically legitimizing a new dynasty with non-royal origins. This early Ramesside creative spirit impacted the spheres of religion, art, as well as the ideology of Egyptian kingship and queenship, and the funerary realm was one of the chief settings for this upsurge of new ideas. Seti I, the second king of Dynasty 19, effectively redesigned the architectural and decorative template of pharaohs' tombs, a model that was largely followed, though with variations,



Valley of the Queens
PHOTO: HEATHER LEE

At the very start of the 19th Dynasty, beginning with the tomb of Sat-Re, the first queen of the Ramesside period, the way royal women were buried changed abruptly and significantly.

additions, and amendments, for the rest of the New Kingdom. For the first time, the tombs of royal sons became a distinct category of royal funerary monument. Private tombs were adorned with more explicitly religious schemes than had been the case in the 18th Dynasty, and Ramesside non-royal tomb owners were frequently depicted among the deities, directly worshiping gods and goddesses.

Some of the most dramatic early Ramesside innovations concerned the location, architectural plans, and decoration of royal women's tombs. At the very start of the 19th Dynasty, beginning with the tomb of Sat-Re, the first queen of the Ramesside period, the way royal women were buried changed abruptly and significantly. A desert valley at the south end of the western Theban mountain range, a wadi known anciently as Ta Set Neferu (usually translated as "The Place of the Beautiful Ones") and now called the Valley of the Queens, was deliberately re-purposed as a separate, discrete cemetery for many of the highest-ranking royal women of the Ramesside period (1292-1075 BC). Most of these queens bore the "great royal wife" title, which appears to have been an important, though not exclusive, criterion for burial in this prestigious cemetery, and each woman was interred in an elaborately decorated, independently owned, rock-cut tomb.

The tombs of Ramesside royal women were larger and more elaborate than those of their 18th Dynasty predecessors, who were typically buried, singly or in groups, in undecorated chambers within kings' tombs or in separate, undecorated tombs in and around the pharaohs' necropolis, the Valley of the Kings. However, in the Ramesside period, the Valley of the Queens was a true queenly equivalent to the kings' necropolis. At the level of individual tombs, the complex, multifaceted Ramesside period enhancement of royal women's burials involved the

design and execution of new decorative schemes, each comprising scenes and texts specifically tailored to the gender, status, and role of the royal female tomb owner. The most impressive and best preserved of these is QV66, the tomb of Nefertari, the most important great royal wife of Ramses II.

Among the scenes developed for and employed in these tombs were new vignettes and new arrangements of pre-existing vignettes from the Book of the Dead, a New Kingdom compendium of spells, typically combining texts and illustrations, intended to provide the dead with highly specialized, esoteric knowledge to guide them through the netherworld. One example of such a newly created vignette is the well-known Book of the Dead Spell 180 "Re-Osiris" scene employed in Nefertari's tomb. The people at the center of this concentrated creative activity were the artists, stonecutters, scribes, foremen, and guards who lived with their families in the village of Deir el-Medina, a special, purpose-built settlement founded in the early 18th Dynasty. These Deir el-Medina inhabitants were tasked with the immense responsibility of cutting, decorating, and maintaining the security of the New Kingdom royal tombs in western Thebes.

The village was located only 0.6 miles (one kilometer) north of the Valley of the Queens, and the artists and other personnel traveled to and from their work at the site via a path through an adjacent wadi, the Valley of the Dolmen, which lies immediately to the south of Deir el-Medina. In the early 19th Dynasty, the Deir el-Medina villagers developed a rich iconographic tradition of their own, which was impacted by the newly designed and executed programs of the Ramesside queens' tombs and which they applied to the decoration of their own tombs in the village necropolis and to funerary equipment such as the coffins, sarcophagi, and *Book of the Dead* papyri buried with them.

Research Objectives

My research project examines the creative nexus between these two sites, the Valley of the Queens and Deir el-Medina, and their respective tombs during Dynasty 19. Its overarching aims are to explore how early 19th Dynasty Ramesside royal women's tombs influenced the development of Book of the Dead spells/ vignettes subsequently incorporated into the Deir el-Medina iconographic tradition and to trace the specific paths of transmission from these queens' tombs to Deir el-Medina. This work builds upon my 2011 PhD dissertation, which deals with the architecture and decorative programs of Ramesside royal women's tombs in the Valley of the Queens, as well as more recent research elucidating the complex patterns of scene dissemination from Ramesside queens' tomb programs to those of subsequent kings' tombs and also to private tombs and papyri.

The project is centered upon a dataset comprising the total repertoire of *Book of the Dead* spells/vignettes employed in 19th Dynasty royal women's tombs—BD 1, 15, 16, 17, 18, 82, 94, 125 (the "Weighing of the Heart"),

125B (the "Negative Confessions"), 138, 144, 146, 148, 151, 161, 180, and 186. In the preliminary stages of my research, in order to determine areas of overlap and possible influence, I identified twenty-one Deir el-Medina tombs (TT 1-3, 5-6, 10, 211, 214-216, 218-219, 265, 290, 292, 323, 335-336, 356, 359-360) adorned with Book of the Dead spells/vignettes from my dataset.

My 2018-2019 ARCE postdoctoral fellowship allowed me to carry out a crucially important aspect of my study, a 2019 field research season to examine Deir el-Medina tomb programs at first hand and to photograph the scenes relevant to my research. During my work in Egypt, I closely examined and photographed programs in the aforementioned twenty-one, decorated Ramesside private tombs at Deir el-Medina, most dating to the first half of the 19th Dynasty. The majority of these tombs comprise both aboveground chapels, decorated either in painted relief or painting alone, and all have subterranean, rock-cut chambers for burials. The latter typically have multiple chambers with one or two decorated rooms, their scenes executed exclusively in paint.

View of Deir el-Medina village from outside TT3, the tomb of Pashedu, in the western cemetery PHOTO: HEATHER LEE MCCARTHY



In the current phase of my research, I am analyzing my gathered data and determining the stylistic, iconographic, and textual/orthographic affinities and differences between scenes in both groups of tombs. Furthermore, I am evaluating the pictorial and textual variations between royal and non-royal versions of the same *Book of the Dead* spells in order to establish how differences were determined, such as by rules of decorum related to gender or status. In addition, I continue to investigate paths of transmission from queens' tombs to private tombs and papyri, as another aspect of my research involves the study of Deir el-Medina textual records and prosopographic studies in order to determine, where possible, which artisans, scribes, and other staff worked in which tombs.

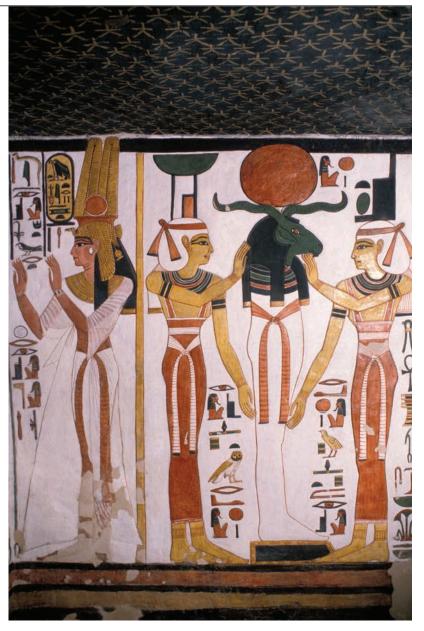
Though I am focusing primarily on tombs of the early 19th Dynasty, which marked the most creatively fruitful period of scene development in the Valley of the Queens and Deir el-Medina, I am also documenting the histories of selected spells' use into the 20th Dynasty.

Rationale

Previous scholars have acknowledged the link between the Ramesside queens' tombs and the Deir el-Medina iconographic tradition, but there has not been an in-depth exploration of the specific pathways and patterns of transmission from the royal women's tombs to those of the villagers. Likewise, the role of queens' monuments as loci for the creation and dissemination of ideas has not been given the attention it merits. Rather, scholars have tended to focus on the flow of ideas "downward" from kings' monuments and funerary literature to non-royal material culture and on the reverse movement "upward" from the private sphere to the royal domain, which, in the context of past studies of cultural dissemination across social strata, typically has been considered the realm of kings.

Preliminary Observations

The influence of early 19th Ramesside royal women's tomb programs upon the decoration of the non-royal Deir el-Medina tombs is complex and manifested in diverse patterns of scene use. In some cases, *Book of the Dead* vignettes employed in Deir el-Medina tombs resemble those in Ramesside queens' tombs in terms



of content as well as layout. Even some grammatical and orthographic idiosyncrasies from queenly originals appear to have been copied. There are also significant formal differences that distinguish private tomb scenes from those in queens' tombs. These include execution of scenes in paint rather than painted relief, especially in burial chambers; occasional use of the predominantly golden yellow "monochrome" style, an artistic convention primarily used in private tombs at that time, in contrast to the polychromy typically employed in contemporary royal tombs; religious iconographic variations; smaller scale scenes in some instances; and also a reduction in scene complexity that either resulted in the fragmentation of a large, complex vignette, such as *BD* 17, into component

The *BD* 180 Re-Osiris vignette in the tomb of Nefertari (QV 66) on the north flank of the Valley of the Queens

PHOTO: GUILLERMO ALDANA. © 1992 J. PAUL GETTY TRUST



ABOVE: *BD* 180 Re-Osiris scene in TT335, the tomb of the relief sculptor Nakhtamun. This version was executed in the monochrome style and also exhibits significant pictorial and iconographic differences from the version in Nefertari's tomb

PHOTO: HEATHER LEE MCCARTHY

BELOW: Scene from TT290, the tomb of Irynefer, showing the illustration of *BD* 109 combined with text from *BD* 180

PHOTO: HEATHER LEE MCCARTHY



images that were used individually, or resulted in the reduction of a scene to an abbreviated form.

In addition, I have observed patterns within the Deir el-Medina tombs in which images and texts from distinct, though thematically similar, spells are re-combined into a single vignette. This "mixing and matching" of different spell constituents not only indicates a degree of fluidity concerning the conception of *Book of the Dead* spells at Deir el-Medina, but it also suggests a theologically informed improvisational approach to the presentation of these spells. My direct examination of tombs also allowed me to identify more occurrences of *BD* scenes from my dataset than were indicated in the scholarly literature, especially variant versions of *BD*

17 and *BD* 161. Thus, my field research revealed that the Deir el-Medina tombs in my study share even more scenes in common with royal women's tombs than I had thought previously. This observation not only further reinforces the notion of influence of queens' tombs upon those at Deir el-Medina, but it also enhances our understanding of the history of selected *Book of the Dead* spells/vignettes.

BD 180 Re-Osiris Scene: Transmission and Variation

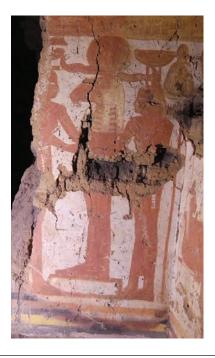
The history of use of the BD 180 Re-Osiris scene, which depicts the critically important syncretistic union of the sun-god Re and of Osiris, god of the dead, provides an especially clear example of transmission from the Valley of the Queens to Deir el-Medina. Although the BD 180 spell text originated in the 18th Dynasty - when it was employed in papyri as a textual composition - a largely pictorial version of BD 180 illustrated with the Re-Osiris scene first appears in QV66, the previously mentioned, early 19th Dynasty tomb of Nefertari, the great royal wife of Ramesses II. The QV66 Re-Osiris vignette was then subsequently used in the tombs cut and decorated for several of Ramesses II's daughter-wives: Nebettawy, the owner of QV60; Merytamun, who was buried in QV68; and an unknown daughter for whom QV74 was prepared but never used (it was later usurped by Duatentipet, a 20th Dynasty queen). The BD 180 Re-Osiris scene was also adopted for use in TT335 and TT336, the neighboring tombs of the brothers Nakhtamun and Neferrenpet, two relief sculptors who likely worked in QV66 and were also the brothers-in-law of the scribe Huy, who is connected to the work in Nefertari's tomb by an ostracon found in the Valley of the Queens.

Both of these Deir el-Medina versions of the *BD* 180 Re-Osiris vignettes were clearly differentiated from those used in queens' tombs, probably for reasons of decorum. The Deir el-Medina scenes were rendered in the monochrome style, and there are also noticeable iconographic variations, particularly evident in Nakhtamun's version. Figures of the deities Wadjet and Re-Horakhty were added, Re-Osiris is shown with a rearing cobra on his head rather than his red solar disk, and Isis and Nephthys wear tripartite wigs rather than their usual *afnet*-hair coverings.

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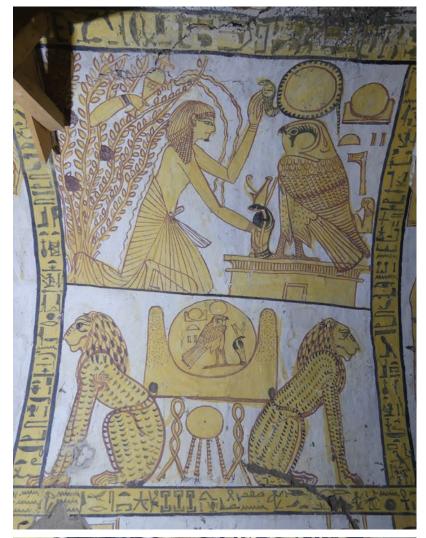
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Additionally, the vertical texts that appear on each side of the Re-Osiris figure in QV66 and declare his syncretistic nature, namely, "This is Re who rests as/in Osiris, [this is] Osiris who rests as/in Re," were combined into a single column in TT335. The TT335 caption therefore lacks the symmetry of the versions in the tombs of Nefertari and other queens. Neferrenpet's version of *BD* 180 in TT336 is a simplified, streamlined monochrome style vignette (now discolored red by exposure to heat) that includes no text other than the characteristic hieroglyphic name insignia worn on the heads of Isis and Nephthys.



LEFT: BD 180 Re-Osiris scene in TT336, the tomb of the relief sculptor Neferrenpet. Like his brother, Neferrenpet had a version of the BD 180 Re-Osiris scene in his tomb. This version was also executed in the monochrome style (now turned red by exposure to heat), and it lacks the text ordinarily associated with the BD 180 Re-Osiris scene.







LEFT: Vaulted ceiling from the sarcophagus chamber of TT5, the tomb of Neferabu. One panel is adorned with the *BD* 17 *rwty*-lions PHOTO: HEATHER LEE MCCARTHY

BELOW: Scene from TT290, the tomb of Irynefer, showing the illustration of *BD* 109 combined with text from *BD* 180 PHOTO: HEATHER LEE MCCARTHY

Fragmentation, Abbreviation, and Recombination

Book of the Dead 17 is a multi-tableaux spell/vignette appearing frequently in Deir el-Medina private tombs, where it was nearly always reduced to one or two essential component scenes. This spell identifies the deceased with the creator god Atum, discusses the relationships of deities to each other, and describes and depicts the deceased undergoing the various afterlife transformations that will allow them to emerge from her tomb like the sun reborn from the netherworld. It appears in the antechamber of the tomb of Nefertari, QV66, where the series of small tableaux comprising the illustration adorn the uppermost register on the local west half of Nefertari's antechamber, with the spell's text arranged in vertical columns below it. The hieroglyphs have a retrograde orientation, so that the text is read outward, towards the tomb entrance, thereby evoking solar rebirth.

The one Deir el-Medina tomb decorated with the long version of *BD* 17 is TT265, the burial place of the royal scribe Amenemopet, a high-ranking resident of the village. *BD* 17 appears in TT265's antechamber, and it is similar to the QV66 version in terms of content, location, and layout; it even exhibits the same retrograde orientation of the hieroglyphs. However, TT265's scenes are executed solely in paint, rather than painted relief.

Elsewhere in Deir el-Medina, the *BD* 17 vignette is severely abbreviated, with only selected scenes employed. Sometimes multiple scenes from *BD* 17 are shown in a single tomb, though not always in close proximity to each other. The tableau used most often is that depicting the two back-to-back *rwty* lions of the eastern and western horizons,

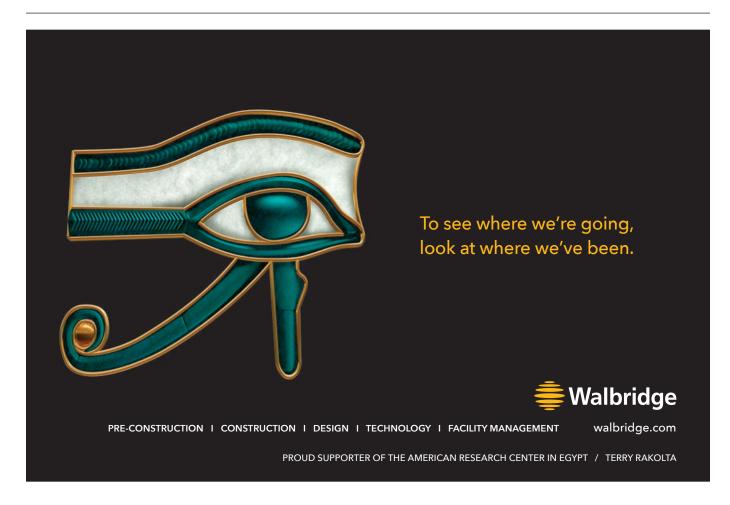
which appears to be the "default" shorthand pictorial expression of *BD* 17 at Deir el-Medina. Other components of *BD* 17 often used at Deir el-Medina include a bovine image of the goddess Mehit-Weret, who reclines on a rectangular pool of water; a senet game involving the deceased or deceased couple, which has been interpreted as a summary of both the *BD* 17 spell and the successfully completed afterlife journey as a whole; and the representation of the deceased tomb owners as ba-birds, often shown as part of or adjacent to the senet game scene.

BD 161 is another spell that appears more frequently in Deir el-Medina tombs than has been indicated in scholarly literature. As with BD 17, there are multiple variant versions of the vignette. BD 161 first appears in the mid-18th Dynasty and was often employed on the sides of coffins and sarcophagi. According to Book of the Dead scholarship, it rarely appeared in tomb programs, and its most notable use in that context is as a pair of pendant wall scenes in QV40, the tomb of an unknown queen dating to the reign of Seti I. However, BD 161 often appears on the sarcophagus chamber ceilings of 19th Dynasty Deir el-Medina tombs and

was used in seven of the twenty-one tombs I examined. These *BD* 161 vignettes take the form of a single panel adorned with an abbreviated, variant version of the scene, or they appear as a series of panels depicting Thoth, the four sons of Horus, and sometimes also Anubis.

Scholarly Contribution

It is my hope that my research project and its resulting publications will elucidate the relationship between the tombs of the 19th Dynasty royal women in the Valley of the Queens and those of the contemporary and later Ramesside inhabitants of Deir el-Medina, determining and defining with greater clarity the paths and processes by which ideas were transmitted. I also hope to articulate the role of royal women and their monuments in the development and dissemination of funerary/religious art and ideas. In addition, I hope to contribute to *Book of the Dead* scholarship, as my study of individual compositions involves little known, previously unpublished versions, thereby fleshing out their history of use and presenting an opportunity for an enriched understanding of them.



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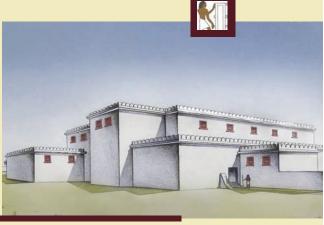
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Statement of Financial Position

AT JUNE 30, 2018 AND JUNE 30, 2019

All amounts in U.S. Dollars	2019	2018
ASSETS		
Cash and cash equivalents	2,635,882	3,041,917
Short-Term Investment	4,010,493	3,767,689
Other receivables and prepaid expenses	63,605	218,574
Pledge receivable	83,365	90,386
Grants receivable	64,312	236,188
Deferred sub-grants - AEF	1,576,152	1,581,153
Investments at quoted fair value	79,099,883	77,341,933
Property, Plant and equipment, net	34,281	38,098
Intangible Assets, net	68,556	-
Library collection	835,440	835,440
Deferred rent	36,450	48,600
Total Assets	88,508,419	87,199,978
LIABILITIES		
Pension	549,474	434,084
Accounts payable and accrued expenses	153,637	245,054
Grants payable - AEF	565,373 516,	
Refundable advances and custodial funds	19,096	19,614
Deferred revenue	131,922	40,845
Assets held in trust for others	14,083,076 13,701,17	
Employee benefit plan obligation	9,088	-
Total Liabilities	15,511,666	14,957,024
NET ASSETS		
Without Donor restriction	4,462,355	4,446,107
With Donor restriction	68,534,398	67,796,847
Total Net Assets	72,996,753	72,242,954
TOTAL LIABILITIES AND NET ASSETS	88,508,419	87,199,978

Statement of Activities

FOR THE YEAR ENDED JUNE 30, 2019

All amounts in U.S Dollars	WITHOUT DONOR RESTRICTIONS	WITH DONOR RESTRICTIONS	TOTAL
REVENUES AND SUPPORTS			
Grants	488,106		488,106
Membership dues	92,272		92,272
Contributions	107,531	10,540	118,071
Meetings, lectures and publications	107,361		107,361
Investment income	164,131	1,448,195	1,612,326
Net unrealized and realized gain / (loss) on investments	151,452	2,165,910	2,317,362
Other	6,581		6,581
Total Revenues and Supports	1,117,434	3,624,645	4,742,079
NET ASSETS RELEASED FROM RESTRICTIONS			
Satisfactions of grants released from restrictions			- 0
Satisfactions of investment income released from restrictions	2,887,094	(2,887,094)	- 0
	2,887,094	(2,887,094)	- 0
Total Revenues and Other Support	4,004,528	(2,149,543)	4,742,079
EXPENSES			
Program services:			
Conferences/seminars	(224,859)		(224,859)
Fellowships	(227,544)		(227,544)
Library	(85,765)		(85,765)
Public education	(38,990)		(38,990)
Publications	(62,751)		(62,751)
Restoration and conservation	(1,339,487)		(1,339,487)
Total program services	(1,979,396)	- 0	(1,979,396)
Supporting services:			
Management and general	(1,318,766)		(1,318,766)
Membership development	(251,065)		(251,065)
Fundraising	(384,510)		(384,510)
Total supporting services	(1,954,341)	- 0	(1,954,341)
Total Expenses	(3,933,737)	-	(3,933,737)
CHANGE IN NET ASSETS BEFORE FOREIGN EXCHANGE	70,791	(2,149,543)	808,342
Foreign exchange (Loss) & gain	(54,543)		(54,543)
CHANGE IN NET ASSETS	16,248	(2,149,543)	753,799
Net assets at beginning of year	4,446,107	67,796,847	72,242,954
NET ASSETS AT END OF YEAR	4,462,355	65,647,304	72,996,753



rtists don't really own anything anymore. In the social media age, we seize upon popular culture – be it music, film, architecture, celebrity lives – and we make it our own. Everyone has to have an opinion on something. Everything becomes an object, even in a digital form, for us to consume.

In theory, this was the essence of Produce, Consume, Conserve: A Symposium on Egyptian Popular Culture, which ARCE held from January 17-18, 2020. And in reality, that's what conspired at the symposium in real time: participants batted their opinions on popular figures and topics back and forth across the room – sounding off on characters like Umm Kulthoum, rapper Mohamed Ramadan, the increasing popularity and gentrification of spaces like the *zawiyya* (Sufi lodge), and even the development of film in Egypt.

There's always a degree of trepidation before organizing an event like this. Will it generate ideas and foster connections the way you hope, and the way you've engineered? Will people walk away inspired? Then the event happens and you're consumed with glee when a (civil) fight breaks out in the Q&A session because it means ideas are happening; you've succeeded, in some small part.

Another conversation at Produce, Consume, Conserve that kept coming up was whether or not we should conserve everything; how do we judge what is worthy to conserve? One answer that emerged is that we don't. As a society, we decide organically by consensus

what is worth preserving and what is not. And at times, it is beyond our control. Pop culture is withdrawn from public view, be it by the producer themselves or by other means. Buildings are demolished. Songs are removed from our streaming services.

The divide between 'elite' and 'pop' cultures reinforces this: what is popular is deemed vulgar and not worth preserving when it in fact can tell a more accurate story of what society experiences writ large. But then, as the symposium's conversation on film – facilitated by historian Ifdal Elsaket and actress Rosaline Elbay – demonstrated: what if popular culture shows the world a side of ourselves we might not like? What do we do then? Reject it? Curate it away?

It is my sincerest hope that Produce, Consume, Conserve lives on beyond the symposium itself, and that it inspires ideas, and those ideas inspire writing, and then in turn, action. We'll keep the momentum going by producing a podcast of the events at the symposium and an essay roundtable at the online publication, the Maydan. But these are things that were planned in advance; what I am really hoping is that the symposium inspired spontaneous connections and ideas that will take flight and have an impact, pushing people to really produce, consume, and conserve Egyptian culture.

N.A. Mansour is a PhD candidate at Princeton University and an outgoing ARCE fellow. She was a key organizer of the symposium.

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