

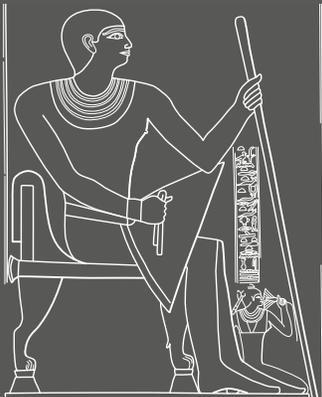
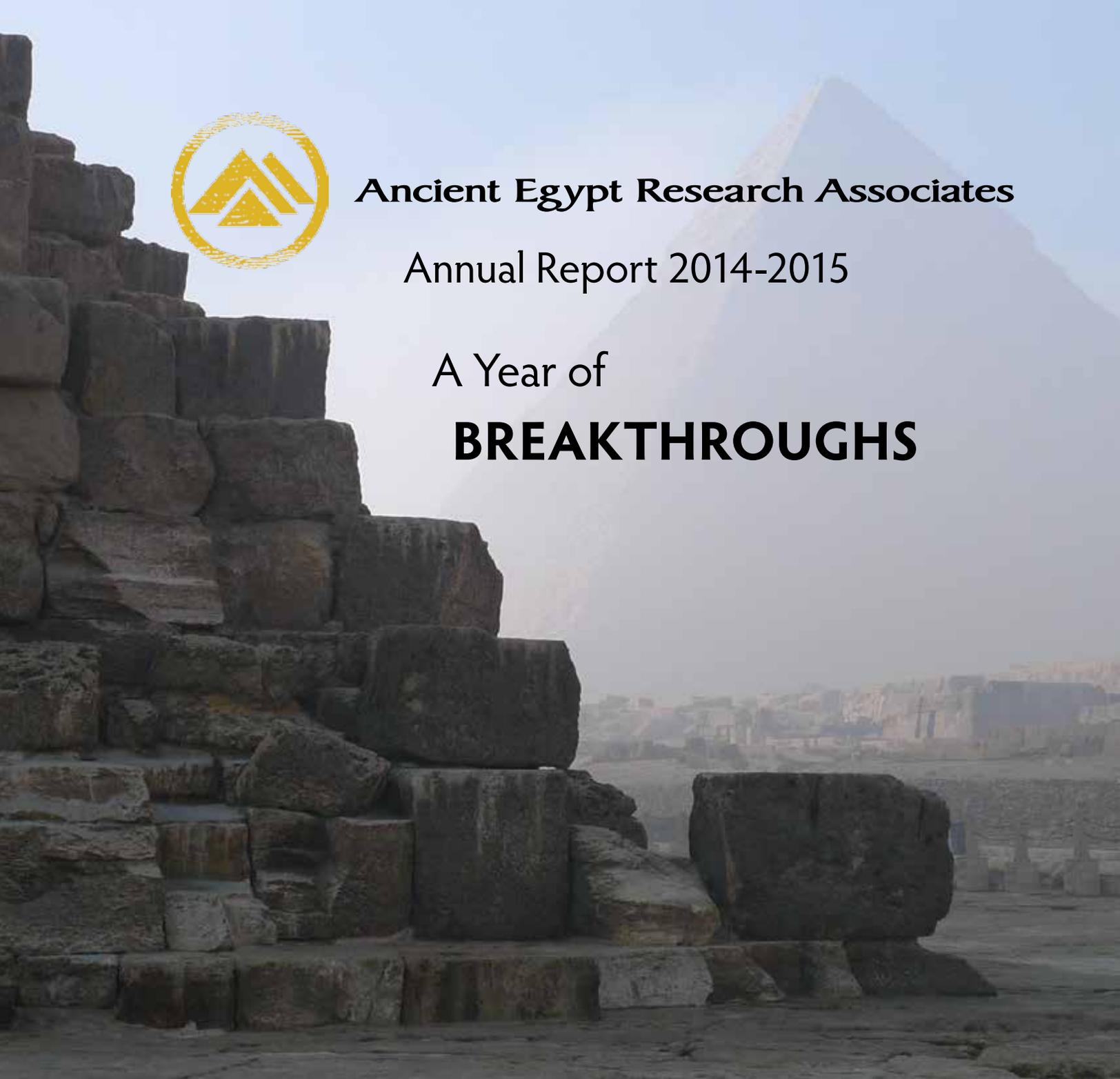


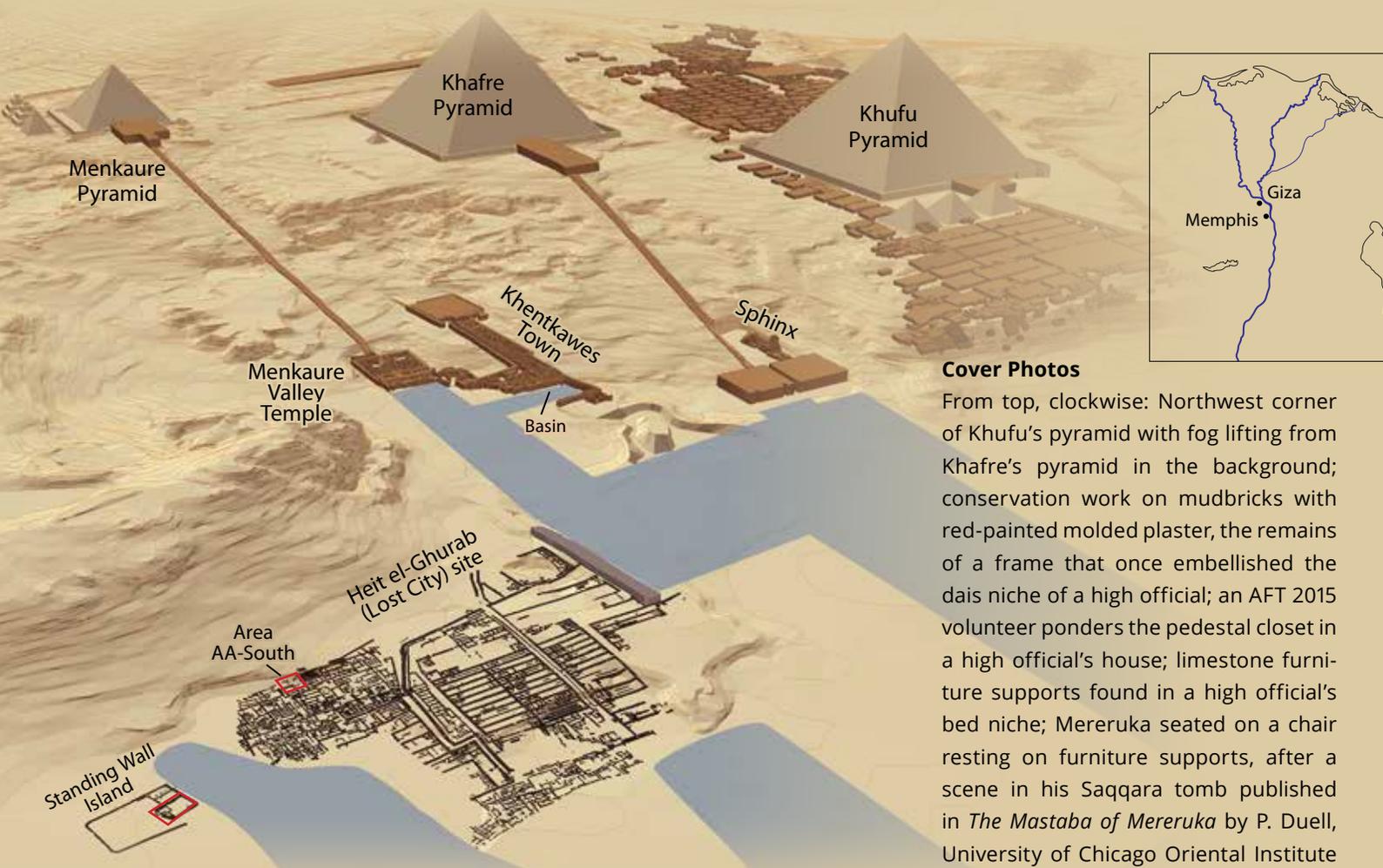
Ancient Egypt Research Associates

Annual Report 2014-2015

A Year of

BREAKTHROUGHS





Cover Photos

From top, clockwise: Northwest corner of Khufu’s pyramid with fog lifting from Khafre’s pyramid in the background; conservation work on mudbricks with red-painted molded plaster, the remains of a frame that once embellished the dais niche of a high official; an AFT 2015 volunteer ponders the pedestal closet in a high official’s house; limestone furniture supports found in a high official’s bed niche; Mereruka seated on a chair resting on furniture supports, after a scene in his Saqqara tomb published in *The Mastaba of Mereruka* by P. Duell, University of Chicago Oriental Institute Publications 31, Chicago: University of Chicago Press, plate 96, 1938.

Photo Credits

Photos in our annual report were taken by Mark Lehner, Sayed Salah, Yaser Mahmoud, Claire Malleson, Ashraf Abd el-Aziz, Ahmed Gabr, and Kirk Roberts.

Founded in 1985, AERA is a tax-exempt, nonprofit research institution located in Boston and Giza, fully registered in Egypt as a foreign NGO. AERA-Egypt owns and maintains the AERA-Egypt Center in Giza. Our scientific and educational missions are supported by philanthropic individuals and foundations and USAID government funding in collaboration with the American Research Center in Egypt.

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Who We Are

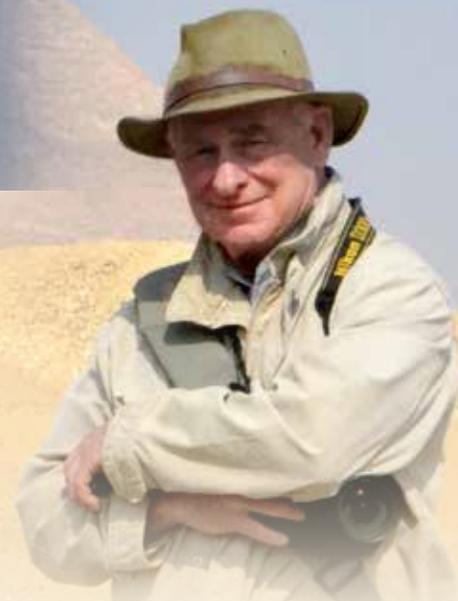
For over 25 years Ancient Egypt Research Associates (AERA) has brought together archaeologists and specialists from around the world to address the questions: What is the origin, nature, and development of the Egyptian state, one of the earliest states of the ancient world.

We seek answers in our excavations of three ancient settlements at the base of the Giza Plateau: the “Lost City of the Pyramids” and the communities associated with the tombs of the pharaoh Menkaure and queen Khentkawes. Through multi-disciplinary analysis and rigorous archaeological field methods we open windows on the everyday lives of Egyptians who built and administered the Giza Pyramids and Sphinx during the 4th–5th Dynasties (circa 2543–2306 BC) of the Old Kingdom.

Publication and educational outreach are central to our mission in Egypt. In 2005, with the sponsorship of the American Research Center in Egypt (ARCE) and the generous funding of USAID through ARCE, we began an archaeological training program for young archaeologists who safeguard their country’s heritage as Inspectors in the Egyptian Ministry of Antiquities. With the launch of our AERA Field Training (AFT) program this year, we opened our field school to international students, who train side by side with Egyptians and receive college credit through our partnership with the American University in Cairo (AUC).

The AERA-Egypt Center, located a few blocks from the entrance to the Pyramids, serves not only as a year-round center for our excavations and field school, but also offers library and meeting facilities that are an integral backdrop for open archaeological dialogue and cultural exchange.

A Message from the President



This has been a breakthrough year for AERA. Not a big-bang breakthrough with shooting fireworks, rather, a subtle breakthrough to new insights and understandings. Discoveries this year brought together information that we had painstakingly captured through prior years, even decades, lifting the fog of time surrounding the pyramids and helping us answer big questions.

Community Organization

In our excavations of Standing Wall Island on the Lost City site (Heit el-Ghurab or HeG), a number of discoveries combined to give us the architectural signature of an official residence. We then saw how this building genotype repeated in houses across the HeG and Khentkawes Town sites. Highlighting these houses, the social and community structure lit up like a Christmas tree.

Waterways

In post-field season analysis, we combined evidence gathered over 30 years into a contoured model of water transport infrastructure at Giza—the harbors and waterways that place the Lost City and Khentkawes Town sites into the major Nile port of its time. We now see both the Lost City site and the terraced basin east of the Khentkawes Town as part of a greater Giza port.

Survey

AERA and the Glen Dash Foundation carried out the definitive survey of the Great Pyramid, clarifying the pyramid's exact size and orientation, while documenting many of the traces left in the bedrock by the human hands that honed in with extraordinary exactitude on the pyramid's baseline. How did the Egyptians build the pyramids? Our work this year sheds new light on this question.

Training

This was a breakthrough year for AERA's growth and legacy. Archaeological training remains one of our core commitments. In Fall 2014 we carried out a Mit Rahina Field School training session in post-excavation analysis in the heart of the ruins of Memphis, Egypt's ancient capital. At Giza, in January we launched the Archaeological Field Training program in partnership with the American University in Cairo.

Generous grants from the Antiquities Endowment Fund of the American Research Center in Egypt supported both programs.

On March 21 many of the hundreds of field school alumnae and teachers, and colleagues from the Ministry of Antiquities, gathered at the AERA-Egypt Center in Giza to celebrate ten years of AERA's archaeological field schools.

Transitions

It saddens me to note the passing on February 9 of Jon Jerde, a best friend, mentor, and a founding member of the AERA Board. Jon's passing is a sad milestone for AERA. We are working hard to develop programs that sustain AERA as a lasting legacy to Jon's trust in founding AERA and to the trust and long-term support of all our generous benefactors.

Memphis Grant

Through the year, AERA team members developed a proposal to USAID-Egypt for a site improvement, maintenance, and training program in Mit Rahina. With our colleagues in the Ministry of Antiquities, we are confident this program will enhance this major archaeological site for archaeology, tourism, and the local communities. USAID awarded AERA the grant in June. Now we are meeting challenges to launch this program in September in collaboration with the Ministry of Antiquities.

We cannot adequately express our gratitude for your support in helping us achieve these breakthroughs. From houses of high administrators to the greater Giza port, this year has given us a bigger picture of how people lived and worked in the Lost City of the Pyramids, 4,500 years ago. Thank you for your help in making all this possible.

~ Mark Lehner

Mit Rahina Field School 2014 (MRFS 2014)

In our field school program we stress the absolute necessity of publishing the results of excavations. Accordingly, we offer a course aimed toward publication in our comprehensive four-part cycle of field schools. Last September we held such a field school at Memphis (modern Mit Rahina) with an eye toward publishing the material that our Mit Rahina Beginners Field School had excavated in 2011. The MRFS 2014 students—Inspectors in the Egyptian Ministry of Antiquities—trained with three Instructors who are all inspectors, AERA field school grads, and veteran field school teachers. Students learned advanced ceramic analysis or archaeological illustration, while contributing to the publication goals of the program. At the same time, seven alums of the 2011 MRFS team worked on a preliminary site report and articles on the faunal remains, sealings, and objects.

The publications coming out of the MRFS 2014 will contribute to our understanding of ancient Egypt. They will open a window unto life in a residential district in the oldest known part of Memphis—the administrative capital through much of the Pharaonic period.

Ana Tavares and Mohsen Kamel directed MRFS 2014. Other team members are listed on the back cover. The program was made possible by an ARCE (American Research Center in Egypt) Antiquities Endowment Fund grant, a generous donation from David Koch, and other AERA donors, listed on page 11.



AERA Field Training (AFT)

For the first time since beginning our field school program 10 years ago, we opened admission to non-Egyptians. Two foreign students joined 12 Egyptians, inspectors in the Ministry of Antiquities, for rigorous training in the AFT Beginners Field School held at our flagship Heit el-Ghurab site at Giza.

During the program, running from January 31 to March 28, students excavated for five weeks with professional archaeologists in our 2015 operations, SW1 and AA-s (described on pages 5 and 6). They spent another week working on burials in the Late Period Cemetery at Heit el-Ghurab. One week in the Giza Lab gave them an introduction to archaeological photography and illustration, ceramic analysis, and the study of plant and animal remains. Students also attended lectures and tutorials, took quizzes, and gave presentations throughout the demanding course. At the end of the program they prepared final reports on their excavation areas.

The AFT was not all work. On Saturdays students and staff visited other archaeological sites and places of special interest, such as a potters' village in the Fayum.

As they developed basic excavation and recording skills, AFT students made valuable contributions to our research goals. They



also acquired an understanding of research design and hypothesis testing. They enjoyed the thrill of discovery as well as the opportunity for cultural exchange. The foreign students received college credit through our AFT partner, the American University in Cairo.

Ana Tavares and Mohsen Kamel directed the AFT 2015. We list staff and students on the back cover. An ARCE Antiquities Endowment Fund grant and contributions from AERA donors, listed on page 11, supported the AFT.

Excavations

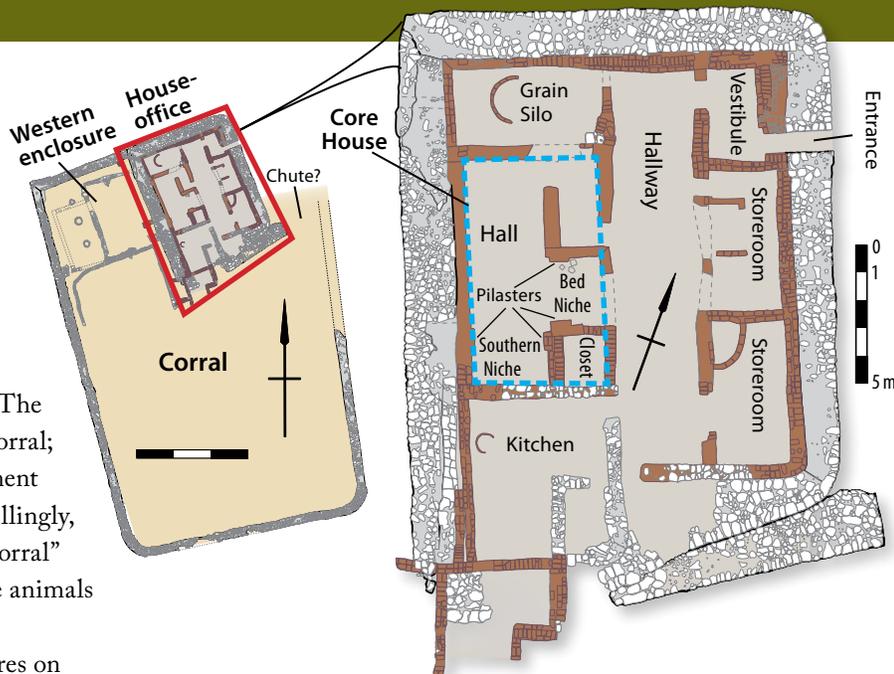
Area Standing Wall Island (SWI)

When we discovered this “island” at the far south end of the Heit el-Ghurab site in 2004, we were perplexed. This isolated compound rose above depressions on the north and south and had no obvious function. Then, in 2011 we tracked a stone wall that ran south from the compound and swung around the southern depression. The rounded corners at the south end suggested this was a corral; such corners are standard practice in livestock management today and in the past. Cattle negotiate round corners willingly, but freeze in their tracks before squared corners. The “corral” features a chute on the east side, like those used to drive animals into enclosures.

If this was indeed a stockyard, then the two enclosures on the north must have been an abattoir. We set out to test that hypothesis this season. In the eastern enclosure we found no definitive evidence of a slaughterhouse. Instead, we discovered the home and office of a high official—a discovery that proved to be a breakthrough for understanding how Heit el-Ghurab was organized.

The official’s house-office includes a vestibule, hallway, storerooms, a kitchen, and, at its center, a core house, where we found the clues to its significance. Here two niches framed by pilasters, preserved to only a few inches high, open unto a large hall, 8.5 × 16.5 feet. Fragments of red-painted plaster and mudbrick on the floor of the southern niche indicated that it was once embellished with a red frame. We believe the niche framed a dais for the master, setting him apart, establishing formality and decorum when he received visitors on business.

The multiple functions of this hall came further into focus with another discovery. In a second niche on the east we found three small limestone furniture supports in the form of truncated pyramids. Along with a missing fourth pyramid, they most likely stood under a bed in the eastern niche.



Similar furniture supports have been found in the residences of high-ranking individuals at other ancient Egyptian settlement sites, such as the governor’s palace at ‘Ayn Asil, Dakhla Oasis, and in houses at Amarna. We see just such furniture supports in tomb scenes, such as the one of Mereruka, vizier under King Teti, shown on the cover.

Another clue to the significance of the house-office emerged when we panned back on our map of SWI. The ground plan is the ancient Egyptian glyph for “estate:” a large rectangle with a small rectangle in one corner, representing a walled compound with a house. This is a coincidence, but it seems likely that SWI was an urban estate. The high official residing in the house oversaw its operations, probably meat production for the town. The slaughterhouse may have been in the western enclosure, but we have not yet excavated enough there to say how it was used. We have, however, found large flint knives, like those depicted in cattle slaughter scenes in Old Kingdom tombs.

Elsewhere at Heit el-Ghurab we have found large houses with pilastered niches in long chambers like that in the eastern enclosure. They take on new significance in light of the insights gained from SWI. It seems likely that each of these large houses was the seat of a high official who directed an operation or facility for the town and king’s building works. The king may have invited these powerful men to Giza to help build his mortuary complex. They arrived from the countryside with followers and relatives, built their house-offices and facilities for their work, and then managed an institution such as a brewery/bakery, or granary/distribution center, or, as here, in SWI, the institution that provided an abundance of meat, as evidenced by cattle, sheep, and goat bones across the site.



Area AA-South (AA-S)

In our second excavation area on the western edge of Heit el-Ghurab, we discovered another high official's house-office, just as in SWI (previous page). This residential office lies immediately south of a complex that included the Pedestal Building, a bakery, and possibly a brewery.

Our excavation squares in Area AA-S did not encompass the entire house, but fortuitously took in part of a long hall with a pilastered niche, the hallmark of a prominent person's office-residence. Like the niche in the SWI house, it spans the width of the south end of the hall. Excavators found no evidence of a painted niche frame like the one in SWI, but uncovered other signs of high rank. A wide dado decorated the walls. A low platform inside the niche may have been a dais.

Most of what we exposed in AA-S appears to be facilities that maintained the household. An open courtyard, over 17 feet long, offered a sunlit work area. In three interconnected chambers on the north side of the court, household staff baked, cooked, and stored goods.

A small closet tucked into the southeast corner of the courtyard probably held commodities. It housed a set of small pedestals such as we have found elsewhere at the site. Here two bins, or other boxy containers, probably sat in the compartments on top, straddling the gaps between the pedestals. Embedded in the floor in front of one gap, we found a ceramic bowl. A hole at the base of the other gap probably once held a similar vessel. We

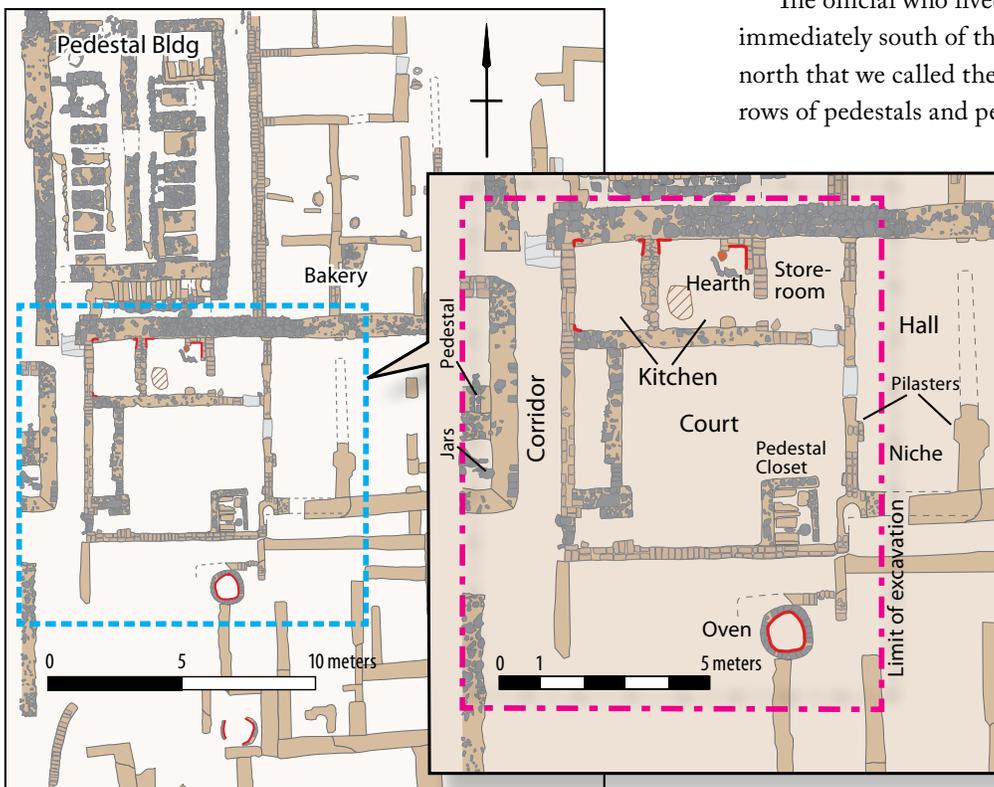


can imagine stored goods pouring into the bowls when the containers were opened and then being scooped into another vessel.

We have found other small pedestal closets, but this is the most complete. Yet we still do not know what goods might have been stored on these pedestals or if these enigmatic features served some other function. Whatever the case, more than one function or commodity was involved, as suggested by the fact that we have found jars, rather than shallow bowls, standing in front of other pedestals. Moreover, cleanliness seems to have been paramount for whatever was involved; the AA-S pedestal closet was scrupulously maintained with repeated plastering and repairs.

The official who lived here probably managed industries immediately south of the house and in the large structure on the north that we called the Pedestal Building, named for its two rows of pedestals and pedestal closet very similar to the one in the house. A corridor that passes around the Pedestal Building runs along the west side of the house to connect to the industrial zone on the south, where we found much ash and two ovens. With internal diameters of nearly 3 and 3.5 feet, these ovens would have been more suited to institutional rather than domestic use. Perhaps they were kilns that dried sprouted grain for brewing. And perhaps the high official who lived in the AA-S house managed a brewery and bakery.

Excavations next field season expanding outward from this year's in AA-S may reveal what this high official oversaw.



Glen Dash Foundation Great Pyramid Survey

A succession of Egyptologists and surveyors since the 1880s have measured what remains of the original baseline of the Great



Pyramid and estimated its original size and orientation, but with somewhat different results. Another attempt seemed in order, so this last February the Glen Dash Foundation and AERA undertook a comprehensive survey (team members listed on the back page).

Mapping the base of this iconic monument is more difficult than it might seem, as most of the original limestone casing was removed centuries ago. Aside from the few remaining casing stones, identifying what remains of the original baseline—the place where the casing met the carefully sculpted pyramid platform—are subtle and require an expert eye.

Mark Lehner, with his 30 years of experience on the Giza Plateau, provided that eye. He walked the perimeter of the pyramid and identified points on three sides. The south side, however, bore no trace of the original baseline. But some remaining casing stones offered a well preserved top outer edge, from which the team could project down to where the slope of the casing would have met the platform to form the baseline.

Using a total station, the survey team determined the exact location of 84 baseline points. They numbered and photographed each point, then plotted them on AERA's GPMP survey grid of the Giza Plateau, established in 1984 by David Goodman and Mark for the Giza Plateau Mapping Project.

The pyramid is approximately 230 meters on a side. The points encompassed only 154.7 meters of the platform or about 17% of the pyramid's total periphery.

In coming months Glen will use statistical techniques to find the lines that fit these points, then extrapolate these to locate the original corners. He will then be able to estimate the original size and orientation of the Great Pyramid.

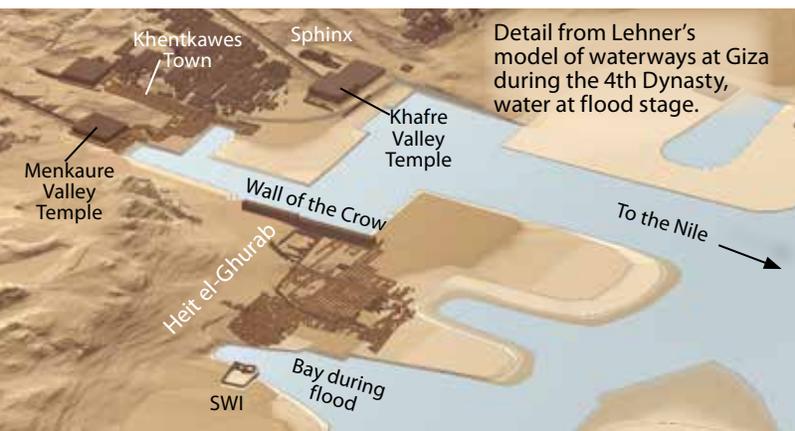
Waterways and Harbors During the Old Kingdom

The ancient Egyptians floated massive stone blocks and other materials to Giza for pyramid-building, but long gone are the waterways and harbors they dug and the ancient Nile channel that once flowed near the Giza Plateau.

Subtle traces and buried clues have accumulated over the last 30 years. Mark Lehner pulled this evidence together to develop a model of Giza's Old Kingdom floodplain. He scoured topo-

graphic maps, studied geologists' reconstructions of old Nile channels, and reviewed archaeological evidence. Data from drill cores—columns of earth extracted ahead of a waste water project in the late 1980s—provided snapshots of sediments that had accumulated over thousands of years, filling and then burying basins and canals the pyramid builders dredged deep into the floodplain. Evidence showed where waterways once flowed and structures stood dry.

With this data, informed guesswork, and some imagination, Mark contoured the ancient water transport infrastructure, the Nile channel, and openings into basins at the foot of the Giza Plateau. From Mark's model, AERA GIS specialist Rebekah Miracle rendered 3D versions at low water and peak flood level, a 21-foot difference. The Egyptians used the hydraulic lift of the annual Nile flood to deliver cattle, grain, and stone for feeding people and building pyramids.



Taking a Closer Look: Discoveries in the Lab

Discoveries in the Giza Field Lab, tucked amongst the mastabas west of the Great Pyramid, may not be as visible as those from the excavations, but the work that goes on here, under Lab Manager Dr. Claire Malleon, is crucial for understanding the sites we excavate and the people who once inhabited them. As our specialists identify, analyze, and document materials retrieved by excavators, they provide valuable insights that excavation alone cannot yield. These are some of the stories from the Giza Field Lab this season.

Another marine connection. Dr. Richard Redding, AERA archaeozoologist, made an unexpected discovery this season in his backlog of faunal material: two ear bones of the meagre, a tasty Mediterranean fish. Given Heit el-Ghurab's distance from the Mediterranean, the meagre must have been delivered salted or dried.

But ancient Egyptians did not trade for Mediterranean fish. Saltwater fish rarely turn up in ancient Egyptian sites and only at those in the Delta. After all, the Nile offered abundant fish stocks. So what was the meagre doing at Heit el-Ghurab?

The ear bones came from a trash midden adjacent to the home of an important official and a scribal workshop. The fish may have been a gift for the residents of this large house, perhaps from visitors who lived on or near the coast. Or perhaps crews returning from expeditions to the Levant brought meagre for the official.

Confirming the pattern. New finds, like the meagre, are exciting and important for advancing our research. But finding more of the same is just as important to help verify conclusions we have reached in past seasons, as well as to reveal patterns. This season Richard found that the animal bone fragments from Area AA-S (discussed on page 6), like those from four other excavation operations we have carried out in the large houses of the Western Town, reflect a diet based on cattle as the main source of meat—the most desirable and costly meat in Old Kingdom Egypt. Western Town residents also consumed the highly desirable Nile perch.

We would expect to find these choice meats in what we believe was a district of important people.

Cattle also dominated the small sample of bone recovered in the SWI excavation trench (discussed on page 5) just outside the south end of the corral. But, consistent with the idea that SWI was a stockyard and abattoir, these specimens were all non-meat bearing, suggesting that this was a dump of butchering discards, not the remains of meals.

The plant remains recovered from this season's excavations also proved to be more of the same as in previous years: emmer wheat, barley, and common weeds of field crops that were harvested with the cereals.

However, Claire Malleon, AERA archaeobotanist, noted that the samples from AA-S included exceptionally large quantities of wood charcoal, possibly reflecting burning on a large scale, such as for an institutional brewery/bakery. The wood is probably acacia, a high quality fuel that the state most likely supplied as charcoal. We have found acacia fuel in large bakeries elsewhere at Heit el-Ghurab. An AA-S sample that was almost all charcoal came from a dump near a structure at the edge of our operation. We captured only a fraction of this building, but found evidence of storage, possibly on an institutional scale. We plan to continue work on it next season. If the rich sample of wood charcoal did indeed come from the building, this suggests it could have been a bakery/brewery.

Pigment production. This season Sarah Hitchens reviewed a backlog of mineral samples that we had accumulated over 15 years. She confirmed the importance of pigment production at Heit el-Ghurab. Hematite proved to be the dominant type, with samples filling 58 bags. Most samples were soft hematite that was ground for red ochre, rather than the hard type used to make objects. Samples of goethite/limonite, another pigment mineral, were likewise a soft type and probably intended for yellow ochre or burned to produce hematite. Ancient Egyptians used red and yellow ochre to decorate tombs and houses, including some at Heit el-Ghurab that once featured red-framed niches and dados of black, red, and white bands on the walls.

Our hematite and goethite/limonite samples came from houses and from industrial production areas, suggesting that pigments were produced at two scales: for household use and for the royal mortuary complex.



Publications and Presentations

AERA team members disseminated the results of their work in a wide array of venues

Publications

AFIFI ROHIM AFIFI and GLEN DASH

“The Discovery of Intact Foundation Deposits in the Western Valley of the Valley of the Kings,” *Current Research in Egyptology* 2014, Oxford: Oxbow Books, 2014, pages 1–2.

MARK LEHNER

“Labor and the Pyramids: The Heit el-Ghurab ‘Workers Town’ at Giza,” In *Labor in the Ancient World*, ed. by Piotr Steinkeller and Michael Hudson, Dresden: ISLET, 2015, pages 397–522.

“The Monument and the Formerly So-called Valley Temple of Khentkawes I: Four Observations.” In *Royal versus Divine Authority Acquisition, Legitimization and Renewal of Power: 7th Symposium on Egyptian Royal Ideology*, Prague, June 26–28, 2013, ed. by Filip Coppens, Jiri Janák, and Hana Vymazalová, Wiesbaden: Harrassowitz, 2015, pages 215–274.

RICHARD REDDING

“The Pig and the Chicken in the Middle East: Modeling Human Subsistence Behavior in the Archaeological Record using Historical and Animal Husbandry Data.” *Journal of Archaeological Research*. Online publication, March 2015.

Lectures and Conference Presentations

MARK LEHNER

“On the Waterfront at Giza Workers’ Town and Pyramid Port: Latest Discoveries,” Institute for the Study of the Ancient World, New York, on the occasion of International Archaeology Day, October 20, 2014.

“Neighborhood to National Network: Pyramid Settlements of Giza,” Society for American Archaeology 80th Annual Meeting, April 17, 2015.

“Harbor Heuristics: On the Waterfront at Giza,” Workshop: Ports and Harbors in Bronze Age Egypt: The Seventh International Conference on the Peoples of the Red Sea Region and their Environment, Università degli Studi di Napoli “L’Orientale,” Napoli, Procida, Italy, May 26, 2015.

CLAIRE MALLESON

“The Role of Crop-Weeds in Ancient Egyptian Agriculture: a Study of 3rd Millennium BC Archaeobotanical Remains from Giza,” American Institute of Archaeology Annual Meeting, New Orleans, January 10, 2015.

“The Role of Crop Weeds in Ancient Egyptian Agriculture,” International Workshop for African Archaeobotany, Modena, Italy, June 23, 2015.

“Modelling the Economy of Bread Production in the Old Kingdom,” International Congress of Egyptologists, Florence, Italy, August 27, 2015.

RICHARD REDDING

“Modeling Old Kingdom Animal production: The Infrastructure of Pyramid Construction.” International Council of Archaeozoology, San Rafael, Argentina, September 24, 2014.

“The Pig and the Chicken: Human Decision Making in Subsistence Behavior in the Middle East.” International Council of Archaeozoology, San Rafael Argentina, September 26, 2014.

“Why Save and Study Animal Bones: an Egyptian Old Kingdom Example,” Kelsey Museum, University of Michigan, January 28, 2015.

“Pyramids and the Old Kingdom Economy,” Ann Arbor Science and Skeptics, January 17, 2015.

ANA TAVARES

“The Heit el-Ghurab and Khentkawes Settlements: Exceptions or Prototypes?” Institut français d’archéologie orientale (IFAO), Cairo, September 17, 2014.

“Living in a Cultic Landscape: the Khentkawes Settlement at Giza,” Friends of the Petrie Museum, Institute of Archaeology, London, November 14, 2014.

“Feeding the Pyramid Builders at Giza, Egypt,” Food and Veterinary Office, European Commission, Ireland, April 7, 2015.

“Archaeological Training and Heritage Challenges: the Mit Rahina Project, Egypt,” Igbo Scholar’s Workshop, McDonald Institute for Archaeological Research, University of Cambridge, UK, May 7, 2015.

“Architecture of Hegemony: the Heit el-Ghurab settlement at Giza,” Ägyptologisches Seminars, Freie Universität Berlin, Germany, November 27, 2014. Same talk presented at Abusir and Saqqara in the Year 2015, Egyptology colloquium, Charles University, Prague, June 24, 2015, and North East Egyptology Society, Newcastle, UK, July 18, 2015.

Grants

AEF Grants

We received two Antiquities Endowment Fund (AEF) grants from the American Research Center in Egypt and USAID this year. During this past 2015 field season, ten Inspectors in the Ministry of Antiquities (MOA) were able to attend our Beginners Field School because of an AEF grant. Our Mit Rahina Field School for analysis and publication last fall was partially funded by an AEF grant.

USAID APS Grant

In August 2014, with colleagues from University of York in the UK, we submitted a preliminary proposal to the USAID/Egypt’s Annual Program Statement (APS) “Cultural Heritage Tourism in Egypt” program.

In June USAID awarded AERA this grant for work that will be carried out over the next two years. Our aim is to help preserve the site, which is threatened by development, and make its important history more accessible to both international and Egyptian tourists. We will also train Inspectors in the Ministry of Antiquities in site management, cultural heritage planning, outreach, and conservation. Our goal is to empower young Egyptian archaeologists to preserve their heritage and assure that other sites in Egypt are also conserved.

2014-2015 in Photos



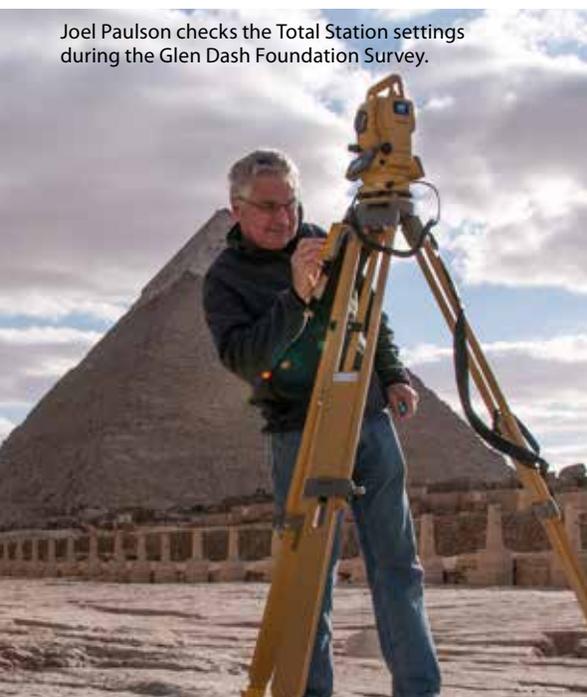
AFT student Hazem Abdel Satter Amin maps features in SWI.



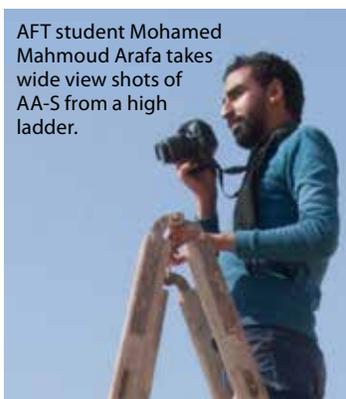
MRFS student Aisha Mohamed Montaser Ahmed Ali examines a pot sherd with a hand lens.



Supervisor Essam Mahmoud shows AFT students how to use a dumpy level.



Joel Paulson checks the Total Station settings during the Glen Dash Foundation Survey.



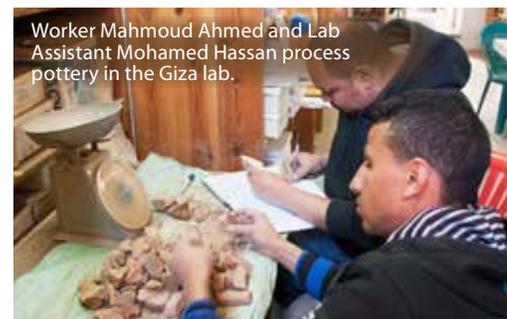
AFT student Mohamed Mahmoud Arafa takes wide view shots of AA-S from a high ladder.



AFT instructors Hanan Mahmoud and Kirk Roberts at work on their laptops at the AERA-Egypt Center.



Large chert knife found in SWI.



Worker Mahmoud Ahmed and Lab Assistant Mohamed Hassan process pottery in the Giza lab.



AFT staff and students pose after a graduation ceremony at the Ministry of Antiquities headquarters.

Thanks to Our Donors

The generous contributions of our benefactors and members have made our work possible. Every tax-deductible donation supports AERA's archaeological excavations, publication of our findings, and educational programs aimed at advancing knowledge about our common human heritage. We are extremely grateful to the following foundations, businesses, and individuals who support our work.

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