

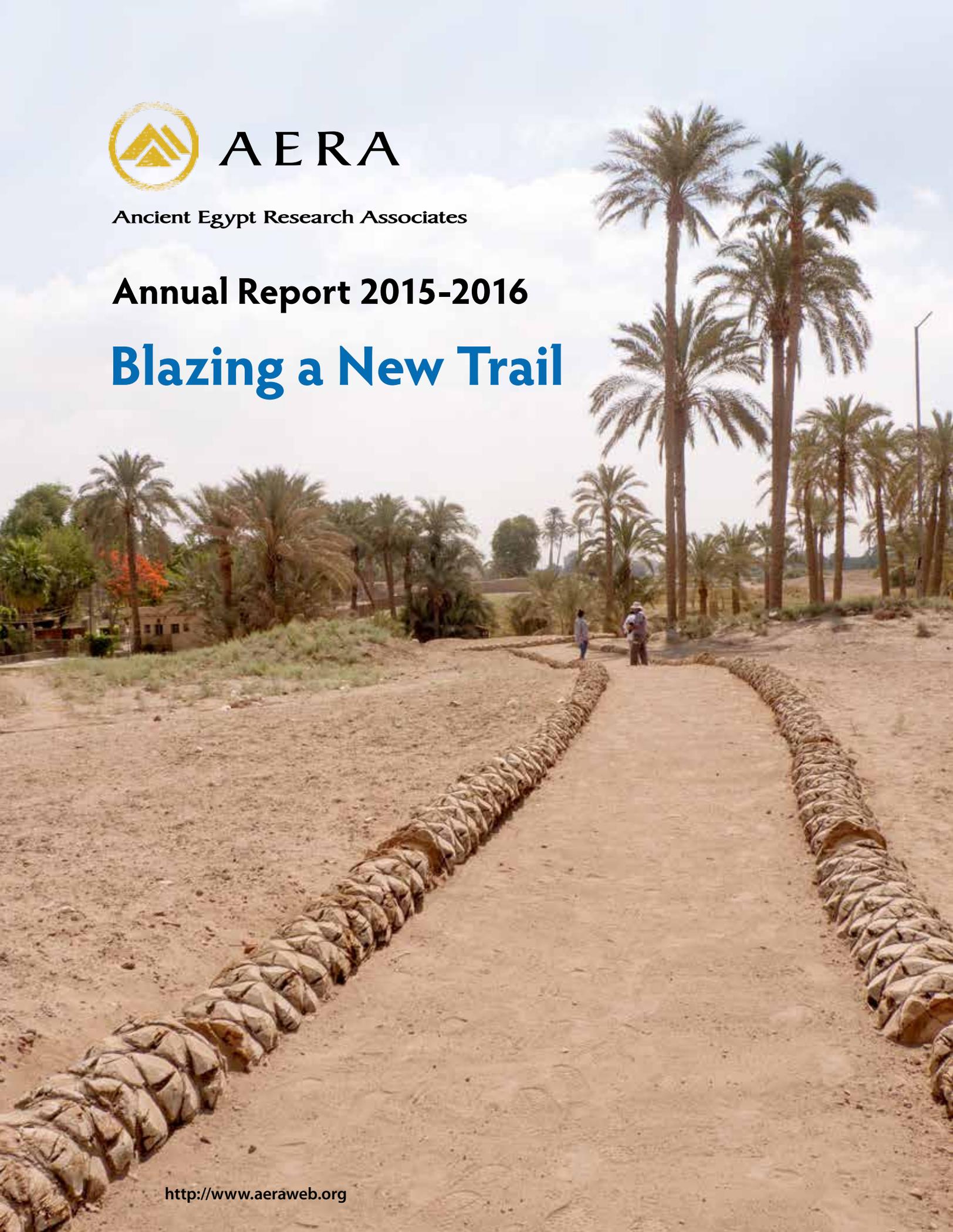


A E R A

Ancient Egypt Research Associates

Annual Report 2015-2016

Blazing a New Trail



AERA: 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 question: What is the origin, nature, and development of the Egyptian state, one of the earliest states of the ancient world.

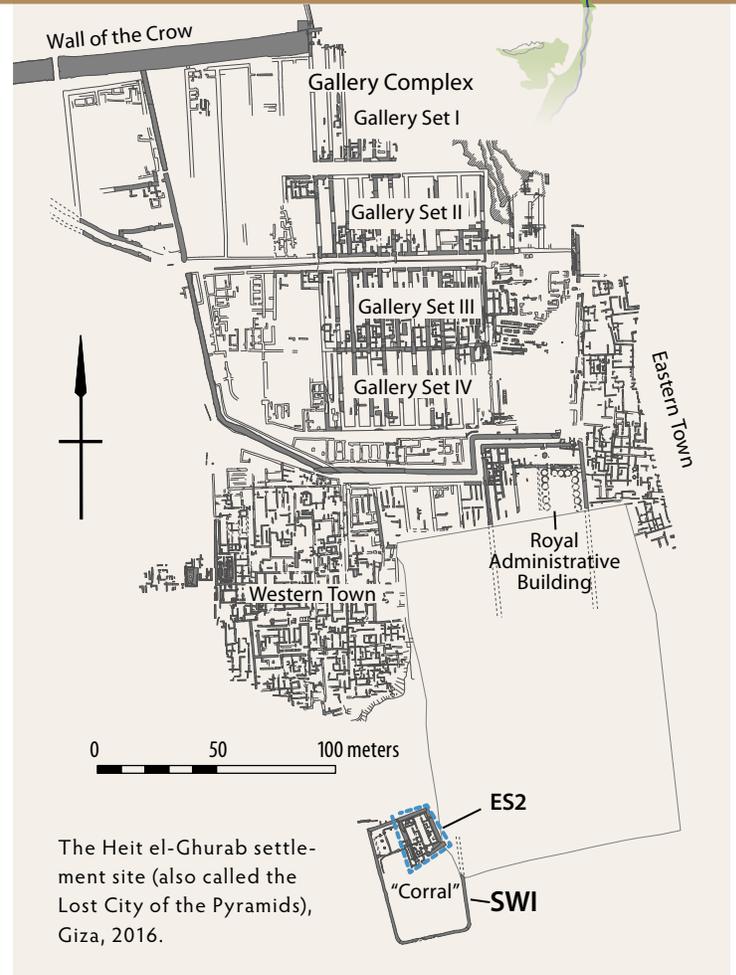
We seek answers in our excavations of three ancient settlements at the base of the Giza Plateau: the "Lost City of the Pyramids" (also called Heit el-Ghurab) and the communities associated with the tombs of the pharaoh Menkaure and queen Khentkawes. Through multi-disciplinary analysis and rigorous archaeological 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 Inspectors in the Egyptian Ministry of Antiquities. In 2015 with a grant from USAID, we began a two-year program at Memphis, the capital of ancient Egypt, to both improve the site for a better tourist experience and to train Inspectors in site preparation and management and in community outreach.

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.

Ancient Egypt Research Associates, Inc.
26 Lincoln Street, Suite 5
Boston, MA 02135-2608 USA
E-mail: info@aeraweb.org
Website: <http://www.aeraweb.org>

© 2016 Ancient Egypt Research Associates



The Heit el-Ghurab settlement site (also called the Lost City of the Pyramids), Giza, 2016.

Founded in 1985, AERA is a 501(c) (3) 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 (ARCE).

Cover Photo

One of the new paths for our walking circuit at Memphis, created by trainees and team members during the first year of our Memphis Site and Community Development project. Story on pages 4-5.

Photo Credits

Photos in our annual report were taken by Mark Lehner, Freya Sadarangani, Dan Jones, Sayed Salah Abd el-Hakim, Claire Malleon, Ashraf Abd el-Aziz, and Amel Ewieda.

PRESIDENT'S MESSAGE



As we “Boomers” now coast into our “later years,” we are pried with prescriptions for staving off the ravages of time. One of them commands us to “go outside your comfort zone.” Well, AERA in its 30th year did just that.

With a grant from USAID and additional support from our generous donors, we launched a project in August 2015, not at Giza, but at Mit Rahina (ancient Memphis). This two-year Memphis Site and Community Development (MSCD) project focuses primarily outward rather than down into the ground. It emphasizes outreach rather than diving deep into archaeological data. We are blazing a new trail for AERA.

Our USAID-Egypt grant comes through the agency's initiative to support programs that “conserve, preserve and promote...effective management of Egypt's cultural heritage resources with the aim of enhancing cultural tourism potential.” To that end, our MSCD team is developing a walking circuit at Memphis for visitors, which is adding seven sites to the single one currently open, replete with comprehensive guide books, signage, catalog, and other materials. We aim to bring to life this once-great city, Egypt's administrative capital through much of Pharaonic history.

While we worked on the walking circuit, we also trained Ministry of Antiquities Inspectors. With Dr. Sara Perry, from the University of York, taking the lead, we taught young Inspectors how to prepare sites for tourism, enhance the visitor experience, and engage the local community.

The first year of the MSCD proved challenging (as described on page 5). But this foray outside our comfort zone sparked growth and wrought positive “mutations” in AERA'S DNA. We finished Year 1 with new awareness, understanding, and more resilience. We turn our thoughts to how best to present sites to convey their stories and how visitors might view them. We think about the living communities adjacent to archaeological sites and how to engage them in their heritage.

The MSCD staff deserves the greatest credit for accomplishing so much in the project's first year, in spite of significant challenges, with special mention of Field Directors Freya Sadarangani and Mohsen Kamel, Archaeology Supervisor Dan Jones, and Grants and Financial Manager Safinaz Ouri. I am truly impressed with their flexibility, determination, and resilience.

In February, we were back in research mode for another excavation season at our flagship Heit el-Ghurab site at Giza. We resumed work in Area sw1, where we discovered in 2015 the office-residence of a high official. This season we learned that food production and storage were important foci within the house. We also found more evidence of the official's high status.

With the Glen Dash Foundation Survey, AERA also returned to the Great Pyramid, where we had surveyed the base of the monument in 2015. This season the team focused on the array of marks left by the builders that offer insights into their methods.

I hope you enjoy our annual report and update on our work over the past year. And I thank all our supporters for making this work possible.


Mark Lehner



Sara Perry, of the University of York, regularly brought field school students to Memphis for a practicum after lectures at our AERA-Egypt Center in Giza. Here in the Ptah Temple West Gate, the class discusses how to design graphics to explain the site and set it in its ancient context.



Co-Field Director Freya Sadarangani records information about an inscribed panel in the hypostyle hall at the Ptah Temple West Gate.

Co-Field Director Freya Sadarangani (lower right) orients a visitor to the Ramesses II Chapel, while local workmen continue to clear the ruins of dirt and vegetation.



BEFORE CLEANING - reed infested

RESEARCH: BLAZING A NEW TRAIL

MEMPHIS SITE AND COMMUNITY DEVELOPMENT

Memphis (modern Mit Rahina), situated just 14 miles south of Cairo, was the administrative capital of Egypt during much of Pharaonic history and a major urban center that once spanned 23 square miles. Yet today, the only site open to visitors is the Memphis Museum, a sculpture garden exhibiting pieces from various areas of the city.

We are working to change that—to broaden and enrich the visitor’s experience—through our Memphis Site and Community Development (MSCD) project, led by Co-Field Directors Freya Sadarangani and Mohsen Kamel. Launched in August 2015, funded by a generous USAID-Egypt grant and AERA’s private donors, the project is developing the Memphis Walking Circuit for visitors, within a wider heritage and outreach training program for Inspectors in the Egyptian Ministry of Antiquities (MoA).

In carrying out the MSCD project, we are also blazing a new trail for AERA, taking on new challenges. While we have run field schools since 2005, including two at Memphis, we are new to heritage archaeology, community outreach, and site management for tourism. Thus we teamed up with a specialist in heritage archaeology, Sara Perry, of the University of York.

Our first year of the MSCD was challenging, stimulating, and productive. We selected eight sites that would offer visitors the opportunity to see and learn about some of the most important components of “downtown” Memphis, such as the Great Temple of Ptah and the Apis House. Thinking of sites in terms of a visitor’s experience rather than their research significance required looking at them in a new way. But preparing the sites for visitors, which we accomplished in our first year, was familiar work: cleaning, surveying, mapping, digitizing data in a GIS (geographic information system), and extensively documenting.

Cleaning these sites, however, posed challenges far more daunting than those we have encountered

at Giza. Reeds and camelthorn grew rampantly over some of the sites and reemerged soon after being cut. Standing water plagued some areas of our circuit, partially submerging ancient ruins and making for difficult working conditions. Modern garbage—great accumulations of trash around the sites—had to be collected and hauled away.

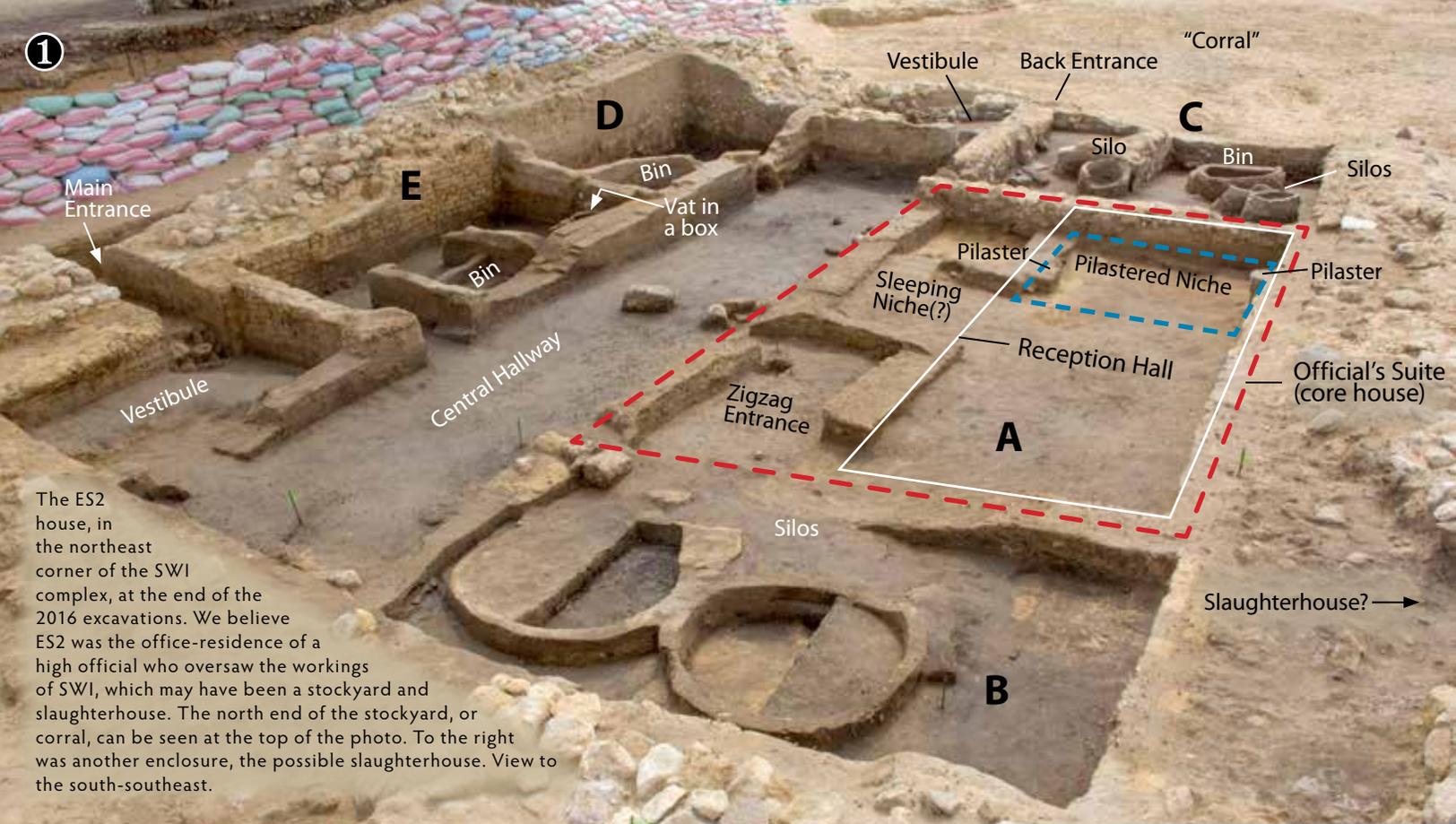
While our site work was progressing, Sara Perry ran two sessions of the MSCD training program, teaching 32 students an ambitious syllabus. It included guide book writing, social media promotion, interviewing local people involved in Memphis, use of focus groups, path design, visitor flow, signage, and more.

The students, working with team members, produced information packets on ancient Memphis and for the circuit sites, prepared signs, and developed test pathways (see cover). With Memphis Museum officials they created content in English and Arabic for websites and social media. Unfortunately they were unable to implement some of the community outreach plans as the MoA could not grant permission for this work.

Despite the setbacks and the challenges of our first year, we made important contributions to Egyptian archaeology and tourism. We created an invaluable, detailed record of the circuit sites, which augments the Survey of Memphis’s work in the 1980s and 1990s (directed by David Jeffreys for the Egypt Exploration Society). We pulled together a vast trove of information from excavation reports, historic records, and old maps and created a historical environmental record of Memphis. Once our Memphis Walking Circuit opens with its accompanying signage and brochures, it will help visitors appreciate the city and grasp its significance, making Memphis a more inviting tourist stop.

Our MoA students left the MSCD with valuable skills in site preparation, documentation, and management—skills that they will put into practice at their home inspectorates across Egypt.

1



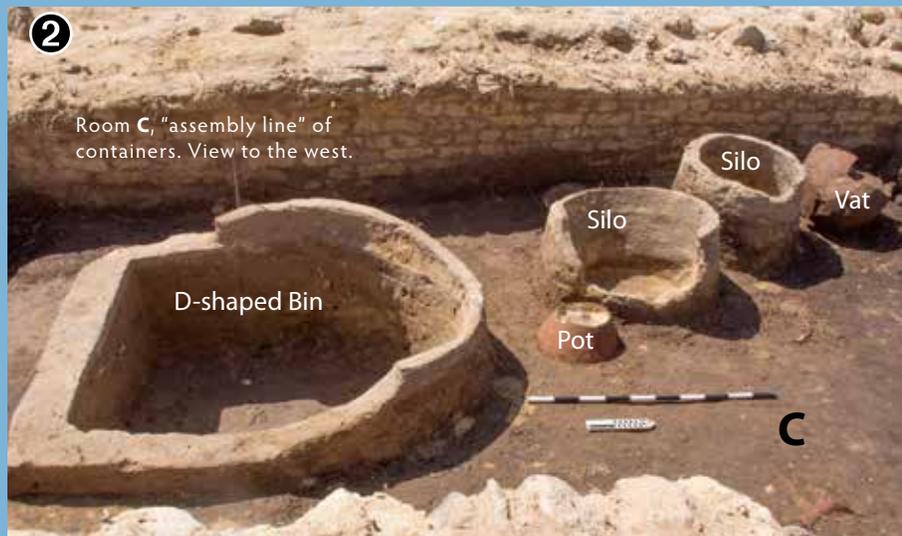
The ES2 house, in the northeast corner of the SWI complex, at the end of the 2016 excavations. We believe ES2 was the office-residence of a high official who oversaw the workings of SWI, which may have been a stockyard and slaughterhouse. The north end of the stockyard, or corral, can be seen at the top of the photo. To the right was another enclosure, the possible slaughterhouse. View to the south-southeast.

3



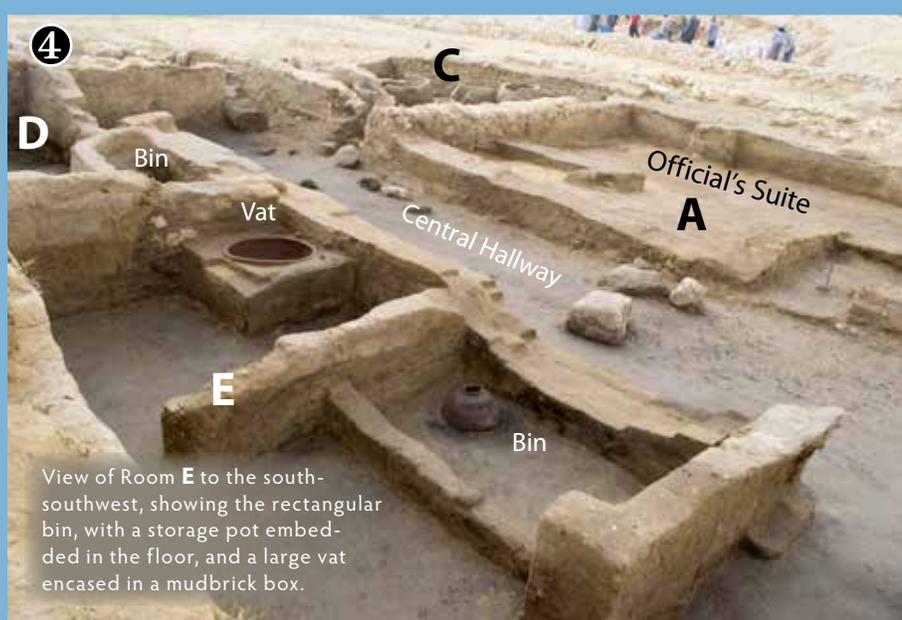
View of Room D to the north-northwest, showing the deep bin and the remains of the poorly preserved oven. Senior Archaeologist Dan Jones photographs Room E.

2



Room C, "assembly line" of containers. View to the west.

4



View of Room E to the south-southwest, showing the rectangular bin, with a storage pot embedded in the floor, and a large vat encased in a mudbrick box.

RESEARCH

FOOD STORAGE, FOOD PREPARATION: STANDING WALL ISLAND EXCAVATIONS

This past February we were eager to return to the Heit el-Ghurab (HeG) settlement site and resume work in Standing Wall Island (swi) (map on page 2), where in 2015 we made a major breakthrough in understanding the community structure. We realized that large houses, as office-residences of high officials, served as organizing nodes for the whole HeG site. The officials each oversaw an operation or facility for the town and royal building works.

Our insight into HeG's organization came during excavations in a compound we designated ES2 at the north end of swi (photo 1 on facing page). We concluded that it was the office-residence of the official who managed the workings of swi, the purpose of which we believe was supplying meat to the town. We had hypothesized in previous seasons that swi was a slaughterhouse and stockyard, based on its configuration. More than half of the swi complex is a large, corral-like enclosure with features remarkably similar to livestock pens depicted in ancient Egyptian art; hence we dubbed it the OK (Old Kingdom) Corral.

The clincher for the office-residence was a chamber we uncovered in the center of ES2 (**A** in the photos on the facing page). It bore the hallmark of an official residence: a long chamber with a niche at the south end framed by pilasters—the audience hall where the master received visitors and conducted business. In addition, we found collapsed pieces of a red-painted frame that once decorated the niche, as well as limestone furniture supports that would have stood under the legs of a high-ranking person's chair or bed. The reception hall was part of a suite that also included a second niche—perhaps for sleeping—in addition to a closet and a zigzag entrance.



Hanan Mahmoud excavates the contents of a large vat in a mudbrick box in Room **E** (see photos on facing page).

During 2015 we partially cleared all of the rooms in ES2. This season, led by Field Director Mohsen Kamel, we went down to the final floor level, opening a window onto the activities and the people who worked here.

Food seems to have been a major focus. ES2 was crammed with built-in food storage and preparation facilities, as well as food preparation tools. The largest storage facilities, probably used for grain, were two mudbrick silos, nearly 5 feet wide and perhaps originally 6 feet high, filling Room **B**.

A courtyard (**C**) featured four more silos—but small affairs built of clay—and an ad hoc silo, a pot partially buried upside down in the floor, bottom removed, as well as a large D-shaped bin. The built-ins along the west side of the courtyard stood in a row like stations in an assembly line (photo 3). Some of these containers may have held ingredients, such as malt, dried fruits, or legumes, which were probably removed

in measured quantities, as suggested by two ceramic “calibration” pots we found lying in the bottom of one of the silos (photo facing page, bottom left). These types of vessels were used to measure specific volumes of goods. The ingredients stored here may have been combined in a very large, deep vat at the north end of the “assembly line.” This type of vat appears in tomb relief scenes depicting bread production and has turned up in bakery rooms in HeG.

Another type of bin stood in Room **D** (photos 1 and 3): a large, high-walled container—perhaps a fuel store for an oven that once stood along the chamber’s east wall.

Next door, Room **E** (photo 4) housed a rectangular bin, as well as another “bread” vat, like the one mentioned above, but encased in a mudbrick box (photo page 5). This room also featured two built-in storage jars, one embedded in the bin and another in the floor. In addition, we also found here a low rectangular limestone table, bearing what appeared to be knife marks, suggesting that its surface was used for cutting (photo facing page, bottom right).

The high official who presided over sw1 probably oversaw the redistribution of food stored and produced here, possibly to his entourage, the people who would have come with him to Giza. Note that the only door into the silo room, **B**, was accessed from the official suite. The silos would have been filled from the top, perhaps via a staircase on the outside of the compound, but the hatch for removing grain would have been at the bottom.

The high status of the official was further confirmed this season by the animal bones found in ES2—assuming they reflect the diet enjoyed here. Cattle—the choicest of meats—dominated, far outweighing sheep, goats, and pigs. The fish bone likewise came predominantly from high-quality species.

This overview of the season’s work is not the whole story. We also discovered that ES2 had a complex history, marked by renovations and alterations. But we have only scratched the surface with our excavation to the floor level. We look forward to next season and the chance to trace the evolution of ES2 through time.



All features around the base of the Great Pyramid were photographed and surveyed using a total station during the Glen Dash Foundation Survey. Here Amr Zakaria Mohamed holds the survey reflector over a feature, while also providing, on the board, documentary information for the photograph.

GLEN DASH FOUNDATION SURVEY 2016

The Glen Dash Foundation for Archaeological Research continued a detailed survey of the base of the Great Pyramid and further surveying on the Giza Plateau. Building on work started in 2015, the team mapped marks that the pyramid builders left in the bedrock terrace surrounding the monument—etched lines, postholes, lever sockets, and other traces of the human hand that had never been mapped before. Altogether they recorded 2,898 features. Some are quarry features, but a full 1,000 are holes cut into the bedrock floor—square, rectangular, and round and varying in size. The overall set of “tracks” offers insights into the builders’ movements and methods and helps us to understand how they constructed the Great Pyramid.



The Giza Field Lab, just west of the Great Pyramid, stores the vast quantity of materials we excavate at Giza: pottery, objects, plant remains, animal and human bone, clay sealings, and soil samples. During our field and study seasons, specialists analyze these materials at workstations scattered through the building. Here Aisha Mohamed Montaser Ahmed weighs pottery sherds from ES2.



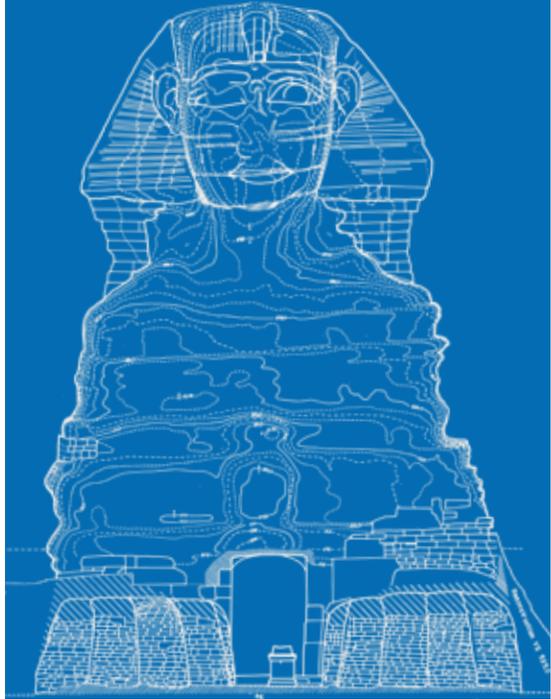
Calibration pots found in ES2 used to measure specific volumes of goods.



This limestone table found in ES2 would probably have been used to serve food. The striations appear to be knife marks, suggesting that food was also cut here. Tables holding assorted foods are common in offering scenes in ancient Egyptian tombs.

SPHINX ARCHIVE GRANT

In May AERA received an Antiquities Endowment Fund grant from the American Research Center in Egypt for the Sphinx Archive Project. The funding will allow us to conserve, digitize, and make available online the vast collection of images and data from the 1979–1983 ARCE Sphinx Project, the only systemic survey and architectural study of the Great Sphinx. We will catalog, scan, and digitize photographs, architectural drawings and maps, notes, and journal entries, which have remained largely unpublished and otherwise inaccessible to Egyptologists, archaeologists, and scholars of art history. The Sphinx Archive will become available online through Open Context, backed up by the University of California’s California Digital Library (CDL) and GitHub.

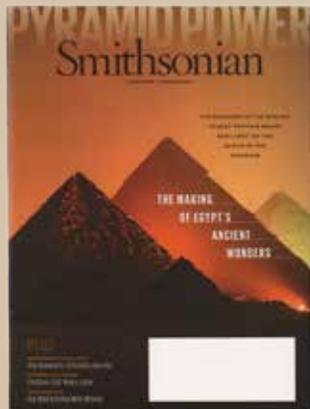
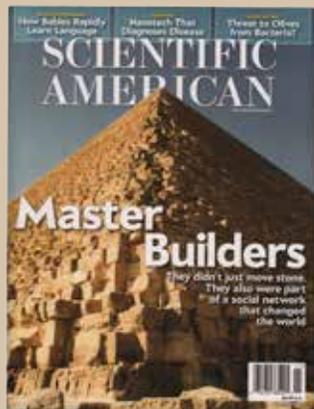


AERA Team Members Dan Jones (left) and Ana Tavares (right) orient Ambassador Beecroft to the Heit el-Ghurab site with maps.

US AMBASSADOR VISITS GIZA

Ambassador Robert S. Beecroft, accompanied by staff from the Embassy and USAID, visited Giza on September 3, 2015, to see the substantial results of a joint us-Egyptian project, funded by USAID-Egypt, to lower the groundwater. The water table had risen over a period of seven years, between 2005 and 2012, threatening the monuments at the southeast base of the plateau, as well as the Heit el-Ghurab site. The dewatering project, through a system of strategically located pumps, brought the groundwater down to earlier levels, and ongoing pumping has been keeping it in check.

AERA team members Dan Jones and Ana Tavares toured the group across Heit el-Ghurab, pointing out how the dewatering project saved the mudbrick ruins from deterioration and allowed our team to return to the site after a three-year hiatus imposed by flooding, and made it possible for us to resume training Ministry of Antiquities Inspectors in settlement archaeology and burial excavation here.



AERA IN THE POPULAR PRESS

AERA's work was featured in two prominent magazines this year. In October 2015, *Smithsonian* published Alexander Stille's article "The Power and the Glory," which discusses the newly discovered 4th Dynasty port at Wadi al-Jarf on the Red Sea and the light it sheds on our work at Giza. In the November 2015 issue of *Scientific American*, Zach Zorich wrote "The Pyramid Effect" on the Heit el-Ghurab site and how pyramid-building shaped "a social organization that changed the world."

AERA IN TV DOCUMENTARIES

This past field season two film crews joined us at Giza. In February a team from TBS (Tokyo Broadcasting System Television, Inc.) filmed our excavators working in sw1 (described on pages 6–7) for "The Nile River Special" in the TBS "World Heritage" series. The program follows the Nile from its source all the way to the Mediterranean, visiting ruins along the way, including the Heit el-Ghurab site. The installment featuring Giza aired in Japan in April.

During March a crew from Windfall Films shot footage for "Unearthed: Dark Secrets of the Pyramid." The documentary, shown on the Science Channel in July, features Mark Lehner, AERA president and author of *The Complete Pyramids*, and Glen Dash, AERA board secretary and team member. This past season, and in 2015, Glen and the Glen Dash Foundation Survey team surveyed the area around the base of the Great Pyramid (discussed on page 8). The documentary can be seen on YouTube.com; search for "Unearthed: Dark Secrets of the Pyramid."

As the Windfall Films camera rolls, Glen Dash describes the remarkable feat achieved by the ancient Egyptian builders: the base of the Great Pyramid is a near perfect square.



PUBLICATIONS & PRESENTATIONS

Publications

MOHSEN KAMEL

"The Ground Plan as a Tool for the Identification and Study of Houses in an Old Kingdom Special-Purpose Settlement at Heit el-Ghurab, Giza." PhD dissertation, University of California, Los Angeles, 2015.

YUKINORI KAWAE

Excavating the Pyramid Town, Tokyo: Shinchosha Publishing Co., 2015. (This is the first book in Japanese on AERA's work at the Heit el-Ghurab site. Cover on the right.)

MARK LEHNER

"Shareholders: The Menkaure Valley Temple Occupation in Context." In *Towards a New History for the Egyptian Old Kingdom: Perspectives on the Pyramid Age*, ed. by Peter der Manuelian and Thomas Schneider, Harvard Egyptological Studies 1, 2015, Leiden and Boston: Brill, pages 227–314.

"The Giza Plateau Mapping Project," In *The Oriental Institute 2014–2015 Annual Report*, ed. by Gil J. Stein, Chicago: University of Chicago, 2015, pages 74–96.

"The Name and Nature of the Heit el-Ghurab Old Kingdom Site: Worker's Town, Pyramid Town, and the Port Hypothesis," In *The Pyramids Between Life and Death, Proceedings of the Workshop held at Uppsala University, Uppsala, May 31st to June 1st, 2012, Acta Universitatis Upsaliensis, Boreas, Uppsala Studies in Ancient Mediterranean and Near Eastern Civilizations 36*, ed. by I. Hein, N. Billing, and E. Meyer-Dietrich, Uppsala: Uppsala University, 2016, pages 99–160.

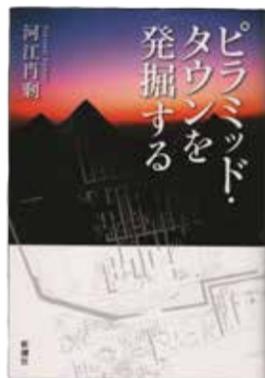
"Supporting Egypt's Archaeologists: Field Training in the Heit el-Ghurab Settlement of the Giza Pyramids," *Bulletin of the American Research Center in Egypt* 207 (Winter 2015/2016), pages 1–19.

CLAIRE MALLESON

"The Informal Intercropping of Legumes with Cereals? A Re-Assessment of Clover Abundance in Ancient Egyptian Cereal Processing By-Product Assemblages: Archaeobotanical Investigations at Khentkawes Town, Giza (2300–2100 BC)," *Vegetation History and Archaeobotany*, vol. 25 (5), 2016, pages 431–442.

"Archaeobotany of the Giza Plateau," co-authored with Mary Anne Murray, In *Science in the Study of Ancient Egypt*, ed. by S. Zakrzewski, A. Shortland, and J. Rowland, New York and London: Routledge, 2016, pages 104–107.

FREYA SADARANGANI and ALEXANDRA WITSELL (eds.) *Settlement and Cemetery at Giza: Papers from the 2010 AERA-ARCE Field School*, Boston: Ancient Egypt Research Associates. (See facing page.)



Excavating the Pyramid Town, the first book in Japanese on AERA's work at the Heit el-Ghurab site. The author, Yukinori Kawae, has worked with AERA as an excavation supervisor, photographer, and laser scanning surveyor.

ANA TAVARES, DANIEL JONES, FREYA SADARANGANI, HANAN MAHMOUD, MOHSEN KAMEL, RABEE EISSA, HUSSEIN RIKHABY, ALEXANDRA WITSELL, SHERIF ABD EL-MONEIM, MAHMOUD EL-SHAFFEY, NERMEEN SHABAN ABA YAZEED, RUDEINA BAYOUMI, RICHARD REDDING, CLAIRE MALLESON, and EMMY MALAK

"Excavations East of the Khentkawes Town in Giza. A Preliminary Site Report," *Bulletin de l'Institut français d'archéologie orientale* 114, 2015, pages 519–562.

Lectures & Conference Presentations

MARK LEHNER

"How Do We Know What Happened? A Lost Port City of the Giza Pyramids," Carl Engelhardt's History Class, Lakeside School, November 19, 2015.

"The Lost Port City of the Giza Pyramids: Builders, Bakers, and Seafarers," Beginnings of Eternity: Ancient Egypt's Old Kingdom, Egyptian Study Society and Boulder Public Library, October 17, 2015.

"The Lost City of the Giza Pyramids: Archaeology as Diplomacy," Highland City Club and Egyptian Study Society, Boulder, Colorado, October 16, 2015.

With Freya Sadarangani and Mohsen Kamel, "AERA Work in Giza and Memphis 2016," Archaeological Missions: First Annual Meeting 2015–2016, Ministry of Antiquities, May 26, 2016.

CLAIRE MALLESON

"Modeling the Economy of Bread Production in the Old Kingdom," International Congress of Egyptologists, Florence, Italy, August 27, 2015.

RICHARD REDDING

"The Co-Relationship Between the Origins of Writing and Accounting," Kelsey Museum of Archaeology and Ross School of Business, University of Michigan, Ann Arbor, July 23, 2015, December 17, 2015.

“Research Design in Archaeology,” Ross School of Business, University of Michigan, Ann Arbor, November 4, 2015.

“What an HR Manager Could Learn from Staffing an Archaeological Project,” Ross School of Business, University of Michigan, Ann Arbor, February 4, 2016.

“The Giza Plateau: The Human Side of the Pyramids,” Centerline Middle School, Centerline, Michigan, March 24, 2016.

“Body Part Distribution: Modeling Expectations,” Society for American Archaeology Annual Meeting, Orlando, Florida, April 8, 2016.

“35 Years in Egypt, 20 Years at the Pyramids: What I Have Learned,” Michigan Archaeological Society, Clinton Valley Chapter, Ann Arbor, May 19, 2016.

FREYA SADARANGANI

“Memphis Site and Community Development Project: The

objectives and Training Programme,” Whose Archaeology Workshop, Giza, May 10, 2016.

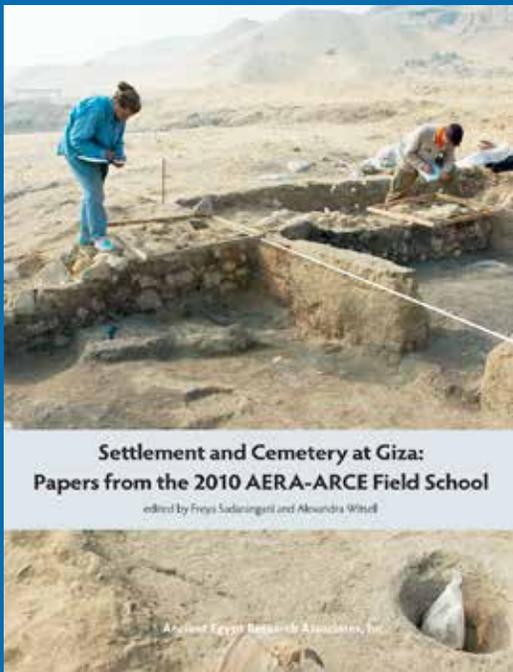
ANA TAVARES

“Architecture of Hegemony: the Heit el-Ghurab Settlement at Giza,” North East Egyptology Society, Newcastle, UK, July 18, 2015.

“Living in a Liminal Zone: the ‘Town’ of Queen Khentkawes in Giza,” Essex Egyptology Society, Witham, UK, March 6, 2016.

“Archaeological Field-Schools and Heritage Projects: Giza, Memphis, Luxor – Egypt,” Igbo Visiting Scholar’s Workshop, McDonald Institute for Archaeological Research, University of Cambridge, UK, April 20, 2016.

“Reading a Town: A Pyramid Builder’s Settlement at Giza, Egypt,” Ely and District Archaeological Society, Ely, UK, May 16, 2016.



SETTLEMENT AND CEMETERY AT GIZA PAPERS FROM THE 2010 AERA-ARCE FIELD SCHOOL

This 300-page+ volume is the culmination of the AERA-ARCE Analysis and Publication Field School held in 2010. After preaching during all

of our field schools, starting with the first one in 2005, that it is imperative—a moral obligation—to publish the results of one’s work, we finally offered a publication field school for our students, who are inspectors in the Ministry of Antiquities. The course guided them through the entire process of analyzing their data, writing it up, and preparing the manuscript for publication. Students prepared preliminary reports on excavations carried out by field school teams at the Heit el-Ghurab site and specialist reports on material largely from field school excavations.

In 2013 the students completed and polished their papers for inclusion in *Settlement and Cemetery*, edited by Freya Sadarangani and Alexandra Witsell and released in February 2016. We are proud of our students’ hard work and proud that their papers make an important contribution to the corpus of Giza data in addition to enriching our understanding of Old Kingdom and Late Period Giza.

Settlement and Cemetery can be downloaded for free at our website: aeraweb.org.

Scenes from 2015-2016



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.

LEADERS CIRCLE: \$100,000 and up

USAID

David H. Koch
Ann Lurie
Anonymous
Douglas Rawles and Reed Smith LLP¹
Peter Norton
Charles and Lisa Simonyi Fund
for Arts and Sciences
American Research Center in Egypt

KHUFU SOCIETY: \$10,000 to \$99,999

Glen and Joan Dash
Ed and Kathy Fries
Janice Jerde
Piers Litherland
Bruce Ludwig
Cameron and Linda Myhrvold

KHAFRE SOCIETY: \$5,000 to \$9,999

Michael and Lois Craig
Marjorie M. Fisher Fund
Ann Thompson

MENKAURE SOCIETY:

\$1,000 to \$4,999

Raymond Arce
Richard S. Harwood
Louis Hughes
Nathan Myhrvold and
Rosemarie Havranek
Jeffrey Raikes
Dr. Bonnie M. Sampsell
Craig Smith

SUPPORTING MEMBERSHIP: \$250 to \$999

Roger Atkinson
Sergio Barassi
Herbert Boudreau
Susan Davy
Frances Dilks
Florence Friedman
Kaarel Kaljot
Yukinori Kawae
Charles Keeling
Donald Kunz
Jeffrey A. Lamia
Norrene Leary
Daniel Lehner
Michael K. MacDonald
Douglas McKenzie
Tina Miracle
Rufus Mosely
Richard Redding
Charles Rigano
Peter Serchuk
Richard Vedder

BASIC MEMBERSHIP

Youssef Afifi
Frank Ascione
Thomas Breitreuz
George R. Bunn Jr., Esq.
Frank Carroll
Susan Cottman
Jay DeGraaff
Robert Dill
Greg Duncan
William Glidden
Victoria Gray

Diane Hagner
Tristine Hayward
Linda Kimball
Nicholas McAfee
Naomi Miller
Marilynn Oleck
David Pepper
Pamela Reynolds
Judith Salkovitz
Rita Satz
Penelope Urru
Sara Waldheim
Brian Wright
Ayano Yamada
Robin Young

BUILDING FUND 2012–2015

Charles Thomas Cayce
Norma Kershaw
Dr. Bonnie M. Sampsell

CAIRO CENTER PURCHASE & RENOVATION FUND 2009–2010

Dr. Marjorie Fisher
David H. Koch Foundation
Ann and Robert H. Lurie Foundation
Peter Norton and the Isambard
Kingdom Brunel Society
Charles and Lisa Simonyi Fund
for Arts and Sciences
Urban Land Institute members on
behalf of Bruce Ludwig
Waitt Family Foundation

1. AERA thanks Douglas Rawles of Reed Smith LLP for providing advice and counsel on a myriad of legal matters.

2015-2016 AERA Team

PRESIDENT

Dr. Mark Lehner

SENIOR STAFF

Dr. Richard Redding, *Chief Research Officer, Archaeozoologist*

Dr. Mohsen Kamel, *Field Director, Executive Director of AERA-Egypt*

Dr. Wilma Wetterstrom, *Art and Science Editor, Publications*

Dr. John Nolan, *Financial Manager (July 1–Nov. 13, 2015)*

Safinaz Ouri, *Grants & Financial Manager*

Alexandra Witsell, *Managing Editor, Publications, Clay Sealings Specialist*

PUBLICATIONS

Dr. Mark Lehner, *Executive Editor*

Alexandra Witsell, *Managing Editor*

Dr. Wilma Wetterstrom, *Art and Science Editor*

BOSTON OFFICE

Megan Flowers, *Business Manager (From Nov. 2015)*

GIS

Rebekah Miracle

GIZA SUPPORT STAFF

Mohamed Said, *Giza IT Manager*

Manami Yahata, *Archivist*

Sayed Salah Abd el-Hakim, *House Manager*

Amir Abdel Hamid, *Cairo Project Manager*

AERA BOARD MEMBERS

Dr. Mark Lehner, *President and Treasurer*

Glen Dash, *Secretary*

Matthew McCauley

ARCHAEOLOGISTS

Dr. Mohsen Kamel, *Field Director*

Dan Jones, *Senior Archaeology Supervisor*

Hanan Mahmoud,* *Archaeology Supervisor*

Rabee Eissa,* *Archaeology Supervisor*

ARCHAEOLOGICAL SCIENCE TEAM

Dr. Claire Malleson, *Director of Archaeological Science, Archaeobotanist*

Dr. Richard Redding, *Archaeozoologist*
Alexandra Witsell, *Clay Sealings Specialist*

Emmy Malak, *Objects Registrar & Analyst*

Nagwan Bahaa,* *Objects Assistant*

Sherif Abd el-Moneim,* *Ceramicist*

Mahmoud el-Shafey,* *Ceramicist*

Aisha Mohamed Montaser Ahmed,* *Ceramicist*

Nermeen Shaban Hassan Aba Yazeed,* *Ceramicist*

GLEN DASH FOUNDATION SURVEY

Glen Dash, *Engineer*

Dr. Joan Dash, *Assistant Surveyor*

Rebecca Dash, *Assistant Surveyor*

Mohamed Abd el-Basset,* *Surveyor*

Amr Zakaria Mohamed,* *Surveyor*

Dr. Mark Lehner, *Archaeologist*

Ashraf Abd el-Aziz,* *Archaeologist*

*Inspector with the Egyptian Ministry of Antiquities

MEMPHIS SITE AND COMMUNITY DEVELOPMENT PROJECT (MSCD)

Dr. Mark Lehner, *Project Director*

Freya Sadarangani, *Co-Field Director*

Dr. Mohsen Kamel, *Co-Field Director*

Dr. Sara Perry, *Heritage Specialist*

Safinaz Ouri, *Grants & Financial Manager*

Rebekah Miracle, *GIS Specialist*

Manami Yahata, *Archivist*

Dan Jones, *Senior Archaeologist*

Aude Gräzer-Ohara, *Archaeologist*

Hanan Mahmoud,* *Archaeologist*

Rabee Eissa,* *Archaeologist*

Amel Ewieda,* *Photographer*

Ian Kilpatrick, *Graphic Designer*

Zoe Critchley, *Field School Assistant*

Andrew Henderson-Schwartz,

Heritage Volunteer

Mohamed Adel Azziz Gabr,* *Surveyor*

Mohamed Addel el-Maksoud,* *Assistant Surveyor*

Mohammed Abd el-Basset,* *Surveyor*

Amr Zakaria Mohamed,* *Surveyor*

Mohamed el-Saidy,* *Senior Supervisor*

Mahmoud el-Shafey,* *Senior Supervisor*

Samar Mahmoud,* *Senior Supervisor*

Sara Saber,* *Senior Supervisor*

Rana Abu Odeh,* *Translator*

Sayed Salah Abd el-Hakim, *Foreman*

Dr. David G. Jeffreys (Survey of

Memphis, Egypt Exploration

Society, Director), *Consultant*

Piers Litherland

Bruce Ludwig

Ann Lurie

Dr. Richard Redding