

THE ORIENTAL INSTITUTE
ANNUAL REPORT

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COVER: This copper alloy mirror artfully depicts a young woman associated with Hathor — a goddess of love, dance, music, and fertility — through the particular attention to sexuality and her hairstyle with curled ends (Qustul, Egypt, Dynasty 18, New Kingdom, ca. 1390–1352 BC). Similar mirror handles from the Nile Valley were commonly associated with Hathor. The back of the mirror is shown on the back cover. Part of the OI Museum collection (front: D. 15831; back: D. 15834), this mirror is also featured in the recent publication, *Highlights of the Collections of the Oriental Institute Museum*, edited by Jean M. Evans, Jack Green, and Emily Teeter (2017); purchase or download the free PDF here: <https://oi.uchicago.edu/research/publications/misc/highlights-collections-oriental-institute>.



LEAFLETS: The pages that divide the sections of this report feature images from some of the notable events that have occurred over the last academic year: The publication of our much-awaited Museum guidebook, *Highlights of the Collections of the Oriental Institute Museum*; The special event Book of the Dead: Becoming God in Ancient Egypt, and its corresponding publication; The 14th annual Oriental Institute Seminar titled Outward Appearance vs. Inward Significance; Addressing Identities through Attire in the Ancient World; The Franke Institute for the Humanities conference, The Connected Iron Age: Interregional Networks in the Eastern Mediterranean, 900–600 BCE; and the bilingual Dari-English publication, *Preserving the Cultural Heritage of Afghanistan: Proceedings of the International Conference Held at Kabul University, November 2014*.

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INTRODUCTION

CHRISTOPHER WOODS

I am delighted to share with you the Oriental Institute's Annual Report for 2017–18. This year saw the continuation of our primary field projects, despite the turmoil that continues to disrupt the Middle East and hurdles of various kinds that threaten to hinder our work in several countries. In 2017–18 the OI conducted excavations, research, and cultural heritage preservation projects in Afghanistan, Egypt, Iraq, Israel, Jordan, and Turkey, investigating periods that span the Chalcolithic (sixth millennium BCE) through the Middle Byzantine (early second millennium CE) periods. In Egypt, Nadine Moeller and Grégory Marouard continued excavations at Tell Edfu in Upper Egypt, which presents an unparalleled opportunity to understand the development of urbanism in the third millennium BCE, while in Lower Egypt the Giza Plateau Mapping Project, under the direction of Mark Lehner, excavated three locations at Giza. In Turkey, we maintain a wide-ranging research program, with excavations at Zincirli (David Schloen), Kerkenes Dağ (Scott Branting), and Çadır Höyük (Gregory McMahon). In Iraqi Kurdistan, Gil Stein completed his fifth field season at Surezha, a site that promises to advance our knowledge of the distinctive urban evolution of northern Mesopotamia. Yorke Rowan and Morag Kersel continued work on the two major archaeological projects in Israel and Jordan, respectively, under their direction — the Galilee Prehistory Project, which traces the dramatic changes that took place in the Galilee between the fifth and early fourth millennia, and the Eastern Badia Archaeological Project, which aims to better understand the diachronic use and occupation of the Black Desert of Jordan. In Israel, David Schloen engaged in the second season of excavations at the Canaanite and Phoenician city of Tell Keisan, while Don Whitcomb launched a new expedition to investigate the early Islamic levels at Khirbet al-Karak on the Galilee. In Afghanistan, the OI and the National Museum of Afghanistan completed the sixth year of their remarkable cultural heritage partnership under the direction of Gil Stein. Finally, much progress has been made this year towards resuming excavations at Nippur in Iraq after a hiatus of twenty-eight years. We hope to conduct a preliminary field season, our first since the outbreak of the first Gulf War in 1990, in the 2018–19 academic year.

Our text-oriented projects also reached major milestones this year. Ray Johnson and his team completed the ninety-fourth season of the Epigraphic Survey at Chicago House in Luxor, Egypt. Beyond the primary objective of documenting the reliefs of Luxor Temple, Medinet Habu, and Theban Tomb 107 — and doing so by continuing to implement state-of-the-art digital methods — the portfolio of projects increasingly includes architectural restoration, conservation, and training programs. Much progress has been made on the Epigraphic Survey's next folio publication, *Medinet Habu Volume X: The Eighteenth Dynasty Temple, Part II. The Façade, Pillars, and Architrave Inscriptions of the Thutmoside Peripteros*, which is nearing completion. The efforts of the *Chicago Hittite Dictionary*, led by Theo van den Hout and Petra Goedegebuure, were directed to completing the final fascicles of the letter Š, and, particularly, to hosting the 10th International Congress of Hittitology, which was held in Chicago with great success at the end of August. On a more somber note, we report the retirement of Oğuz Soysal, senior research associate of the *Chicago Hittite Dictionary* after a remarkable tenure of twenty-three years at the OI. The *Chicago Demotic Dictionary*, edited by Jan Johnson and Brian Muhs, having completed its original hard-copy mission, has made progress in making the necessary conversions of its files, a necessary step towards advancing the long-term goal of producing an interactive and

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flexible web-based dictionary. The Nubian Expedition Publication Project, under the direction of Bruce Williams, has three volumes nearing completion and on the cusp of publication. Most notably, this year also saw the happy conclusion of the *Rubin et al. v. Islamic Republic of Iran et al.* litigation with the Supreme Court's unanimous favorable ruling in February, which ended the legal threat to the thousands of cuneiform tablets on loan to the OI that are at the core of the Persepolis Fortification Archive project.

A new research project, Coping with Changing Climates in Early Antiquity (3CEA), was launched this year under the direction of Hervé Reculeau and Nadine Moeller and in collaboration with the University of Michigan and Purdue University. Funded by a grant from the Andrew W. Mellon Foundation, 3CEA investigates, from a comparative perspective, the social and cultural perceptions of, and experiences with, climate change in the Bronze and Early Iron Ages. Aleksandra Hallmann joined the OI this year for a two-year term as our most recent postdoctoral fellow. In March, Aleksandra organized a highly successful two-day conference, the fourteenth in our annual seminar series, Outward Appearance vs. Inward Significance: Addressing Identities through Attire in the Ancient World, which brought together an international panel of experts to take measure of the meaning and significance of attire in the ancient world, from various theoretical and methodological perspectives, in order to arrive at a better understanding of the intersection between dress and the many facets of identity.

The OI Museum, led by Chief Curator Jean Evans, continued to make excellent progress with its Gallery Enhancements Project — a large-scale endeavor funded by an anonymous donor, to update most of our galleries and enhance visitor experience by replacing many of the original free-standing cases, improving lighting, and updating the displays and text. The Museum staff was also occupied earlier this year with the opening of *The Book of the Dead: Becoming God in Ancient Egypt*, curated by Foy Scalf, which ran from October through March and was acclaimed by many to be one of the OI's most successful and well-conceived special exhibits. Our Education Department, with the addition of Tasha Vorderstrasse, as our university and continuing education program coordinator, expanded its efforts to offer hybrid adult education courses, which can be taken either on-site at the OI or remotely, online.

We are saddened to report the loss several cherished members of our community this year, including: Robert McCormick Adams, a monumental figure of Near Eastern archaeology, who served as director of the Oriental Institute, dean of the Social Sciences Division, and provost of the University; former faculty member Lawrence Stager; former student Eugene Cruz-Urbe; and Nancy Gerson, a Life Member of the Advisory Council and dedicated volunteer. Each made a distinctive impression upon the OI and each will be deeply missed.

The pages that follow detail the extraordinary scope of the research projects and programs currently supported by the Oriental Institute. As you read through the descriptions of each, I am sure you will share my deep appreciation and gratitude for all of the efforts of our faculty, researchers, and staff.

IN MEMORIAM

ROBERT MCCORMICK ADAMS was a towering figure of Near Eastern archaeology and a pioneer of landscape archaeology methods, who left a deep imprint on the Oriental Institute and the University of Chicago. He received both his bachelor and doctorate degrees from Chicago, and served on the faculty of the OI, NELC, and Anthropology from 1955 to 1984. During that time he was named the Harold H. Swift Distinguished Service Professor (1975–84), served as director of the OI (1966–68 and 1981–83) and dean of the Division of Social Sciences (1970–74), before being appointed provost (1982–84). Bob left the University to become the ninth secretary of the Smithsonian Institution (1984–94). There is a brief obituary on the Smithsonian website (<https://siarchives.si.edu/history/robert-mccormick-adams>).



One of the Oriental Institute's former students, **EUGENE CRUZ-URIBE**, passed away on March 12, 2018. Eugene Cruz-Urbe received both his BA and PhD in Egyptology from the Department of Near Eastern Languages and Civilizations at the University of Chicago. His dissertation, "Saite and Persian Demotic Cattle Documents and Their Use in the Legal System in Ancient Egypt," was completed in 1983 and later published as a monograph in 1985. He held a variety of museum and university faculty positions before becoming professor of history at Indiana University East in Richmond, Indiana, in 2013. In May 2017, he retired from his position but continued his scholarly studies and publications. He worked extensively in Egypt, and his scholarly contribution to the field survives in the form of numerous articles and monographs, including particularly his work on Demotic graffiti

published in the 1988 volume *Hibis Temple Project*, volume 1: *Translations, Commentary, Discussion, and Sign-List*, 1995; *Hibis Temple Project*, volume 2: *The Demotic Graffiti of Gebel Teir*, 2008; *Hibis Temple Project*, volume 3: *The Graffiti from the Temple Precinct*, and the 2016 *The Demotic Graffiti from the Temple of Isis on Philae Island*. He was also the editor for several years of the *Journal of the American Research Center in Egypt*. Eugene Cruz-Urbe is fondly remembered here at the OI as a fun and inspiring colleague who will be greatly missed.

IN MEMORIAM

NANCY GERSON was a Life Member of the Advisory Council (formerly Visiting Committee) at the Oriental Institute and a committed volunteer for decades, beloved wife of Isak Gerson. Nancy grew up with the Oriental Institute. She lived nearby on 58th Street for years, and from the time the Museum opened, she was a regular visitor. Nancy graduated from the University of Chicago with an AM in human development. She later studied anthropology at Northwestern University and taught non-Western civilization and psychology to high school students. Nancy was among the first docents at the Oriental Institute and then went on to serve as a docent with the Field Museum. Nancy and her husband Isak, who is also a Life Member of the OI Advisory Council, first became involved with the OI when Gustavus Swift was director of the Museum in the 1970s. Nancy was also on the Visiting Committee of the Music Department at the University of Chicago, and was a member of the Women's Boards of the University of Chicago, the Art Institute, and the Field Museum. Her many contributions to the Oriental Institute, the University of Chicago, and other notable nonprofit institutions in Chicago were greatly valued and appreciated. She will be missed.



LAWRENCE ("LARRY") E. STAGER, formerly a professor of archaeology in the Oriental Institute and a leading figure in the archaeology of ancient Israel and the Levant, passed away on December 29, 2017, at his home in Concord, Massachusetts. Larry was born on January 5, 1943, in Kenton, Ohio, county seat of rural Hardin County in the western part of the state. He grew up on a farm and was the first of his family to attend college, enrolling at Harvard in 1961, where he was introduced to biblical archaeology by leading scholars of the subject and graduated with a BA magna cum laude in 1965. He continued his studies at Harvard under the tutelage of the noted scholars G. Ernest Wright and Frank Moore Cross, among others, earning his MA in 1972 and his PhD ("with distinction") in 1975. From Harvard, Larry came to the Oriental Institute, first as an instructor (1973–74) and then as assistant professor (1974–76), associate professor (1976–85), and full professor (1985–86) of Syro-Palestinian archaeology. In 1986, he returned to Harvard University, to an endowed chair, as the inaugural Dorot Professor of the Archaeology of Israel and Director of the Harvard Semitic Museum. In 1970 he married Susan J. Simmons, who survives him, as do his children Jennifer and David.

Since his student days in the 1960s, and well into his retirement, Larry was active in archaeological fieldwork in the Mediterranean region, digging every summer at one site or another. From 1966 to 1971 he served as an area supervisor at Tel Gezer, the leading American project in Israel at that time.

From 1970 to 1973, he was a field supervisor at Tell el-Hesi in southern Israel while also conducting a survey of ancient agricultural terraces in the highlands (1972–73) and a survey and soundings in the Buqê'ah Valley in the Judean wilderness (1972) to gather data for his doctoral dissertation. From 1974 to 1980 he was the co-principal investigator (with Anita Walker) of the American Expedition to Idalion, Cyprus, serving as field director there from 1971 to 1974. He then turned his attention farther west, directing the Punic Project at Carthage in Tunisia on behalf of the Oriental Institute, from 1975 to 1980, where he excavated the *tophet* — a burial precinct in which was found evidence of child sacrifice. In 1985, he initiated the long-running and large-scale Leon Levy Expedition to Ashkelon in Israel, which trained generations of students and ended in 2016 after thirty seasons of annual fieldwork. In addition to excavation reports, Larry was the author of numerous journal articles on a wide range of topics and was co-author (with Philip J. King) of *Life in Biblical Israel*. But beyond his publications, Larry's intellectual acuity and creativity, and his outgoing personality, made an indelible impression on those who knew him. He will be greatly missed by his many friends, colleagues, and former students.



PROJECT REPORTS



OVERLEAF: A symbol of Afghanistan culture, the Giant Buddhas of Bamiyan once stood tall. Destroyed by the Taliban in 2001, stabilizing and preserving their remnants has been a key part of the cultural restoration that is happening there. The OI has been closely involved in the cultural restoration of Afghanistan, partnering with the National Museum of Afghanistan (see the "Cultural Heritage Work in Afghanistan" project report, *infra*). Pictured is the moving of large fragments fallen from the Western Buddha statue (photo: Bert Praxenthaler). This photo was also published (2017) in the recent OI book, *Preserving the Cultural Heritage of Afghanistan: Proceedings of the International Conference Held at Kabul University, November 2014*, which is available bi-lingually in Dari and English as a free PDF download: <https://oi.uchicago.edu/preserving-cultural-heritage-afghanistan>.

ÇADIR HÖYÜK

GREGORY McMAHON

The Çadır Höyük site (fig. 1) is located in the Yozgat Province of central Turkey. We are three weeks into the 2018 season, following up on the great discoveries made in the 2017 season. All of our recent seasons have benefitted from the presence of University of Chicago graduate students and alumni. With us in 2017 was Tony Lauricella who is a senior field supervisor. Also with us was Stephanie Selover, now in a tenure track position at the University of Washington, a proud Oriental Institute graduate. We were in touch on a regular basis with Josh Cannon, who is currently working on completing his dissertation on our second millennium BCE Hittite-period ceramics.



ABOVE: Figure 1. Çadır Höyük site.



ABOVE: Figure 2. Stephanie explains her trench to the team.

JUNE THROUGH AUGUST 2017

Hasan Şenyurt remains the director of the Yozgat Museum, the regional museum which oversees our work. He has been of immense help to us over the years and we are happy that he remains at the Yozgat Museum. In the 2017 season we benefitted from the help of our government representative Nezir Arı. We had a nearly eight-week season, extending from mid-June until early August. During the season we partially or fully opened a total of nineteen 10 × 10 m trenches, hosted thirty-five researchers, and employed thirty-eight workers at the site. Trenches spanned the Late Chalcolithic (mid-late fourth millennium BCE) to the final century of the Byzantine occupation in the early centuries of the second millennium CE. The trenches featuring the prehistoric periods are on the southern slope of the mound. Here we have seven trenches offering Late Chalcolithic (ca. 3800–3100 BCE) architectural remains. Two of these, USS 9 and USS 10, are supervised by Stephanie Selover (fig. 2). Stephanie's trenches are quite important because they are helping us to understand how the fourth millennium residents used the mound. She, in conjunction with the supervisors in the lower town area, have demonstrated over the last several seasons that our Late Chalcolithic settlement was “terraced” with a lower town and an upper town (the latter in Stephanie's trench). In previous seasons she has articulated the Early Bronze I occupation in that area which was primarily industrial and likely existed on the edge of the EB town which had receded after the more robust Late Chalcolithic settlement. The 2018 season has seen Stephanie proceeding with her excavations. Her goal is to discover whether the Late Chalcolithic remains in her trench are primarily domestic in nature, showing the transition from domestic to industrial over the course of the change in millennia.

In the lower trenches (SES 1–2, LSS 3–5) is the major expanse of our Late Chalcolithic occupation (fig. 3). These trenches are supervised by Laurel Hackley (Brown University) and Burcu Yıldırım



ABOVE: Figure 3. The lower trenches (SES 1-2, LSS 3-5), the major expanse of our Late Chalcolithic occupation.

(Middle East Technical University). Both supervisors have carefully documented a number of phases of occupation spanning the early fourth millennium to the abandonment of the area at the end of, or just after the end of, the fourth millennium BCE. Perhaps the most remarkable discovery of the 2017 season was that which was uncovered in the last two days of the season. A sloping “patio” in one of Burcu’s trenches proffered three openings which contained three young child burials (figs. 4–5). Each of these was either covered by, or lying within, a ceramic vessel (broken). Though we have had many infant and some child burials in this level, these stand out because of the burial goods interred with the children. Each had at least five separate metal items including rings, bracelets, and hair slides. Prior to this discovery, only one burial (out of more than two dozen) had any metal contributed as a burial good, and in that case it was a single earring. These were certainly special burials. The 2018 season is being devoted to locating any additional burials in this level, and determining the reason for the placement of these burials in what appears to be a courtyard.

RIGHT AND MIDDLE:
Figures 4–5. Three
young child burials
found in Burcu's
trenches. BELOW:
Figure 6. Tony
excavates a feature.



We opened ten 10 × 10 m trenches on the mound summit, all offering mainly Byzantine remains, with some exposure of Late Iron. Tony Lauricella is the area supervisor on the summit and was also directly in charge of three of these trenches. It was a “problem solving” season for Tony. He uncovered a variety of features in his three trenches, including a headstone of a bishop, a tabun and stone platform, and a degraded storage building (fig. 6). Our 2017 excavations on the summit led us to understand that there were three phases of occupation near the end of the Çadır settlement. The tenth–eleventh century settlement was one continuing from earlier centuries in which the summit was used in a casual fashion for storage and other activities, but not really for domestic occupation. In the late eleventh or perhaps into the twelfth century, there seems to have been a rapid movement of people onto the summit, constructing makeshift rooms, building tabuns, and bringing their household equipment. The final stage of occupation, discovered in 2016 and reported on last year, was by the Selçuks, who appear to have rebuilt the eastern part of the mound for what was likely a short-lived occupation.



ABOVE: Figures 7-8. Ringed interior rooms on the western side of the mound (LEFT) and a plastered gateway (RIGHT).

The other summit trenches were also productive. Previous seasons have demonstrated that the tenth-century defensive wall builders ringed the interior rooms, some seeming to be storage or related to guard duties. The 2017 excavations confirmed that this trend continued on the western side of the mound where we opened SMW 6 (fig. 7) supervised by Emrah Dinç (Bilkent University). On the southern end of the summit Jordan Dills (Trent University) supervised USS 1, which offered a surprise. We expected to find the continuation of the tenth-century Byzantine wall and interior rooms (as were found in USS 2 in 2016). However, Jordan came down on a plastered gateway (fig. 8) that likely dates to the earlier building phase on the summit (ca. seventh or eighth century CE). This is a beautifully constructed gateway flanked by a cross etched onto a brick on the western arm of the gate. The tenth century (larger) wall builders apparently used this gateway until it was blocked by a massive pile of mudbrick, perhaps just before the arrival of some perceived threat (Selçuks or possibly mercenaries known to be in the area). We are continuing investigation of this structure in our 2018 season. The final trenches investigated in the 2017 season were on the northern slope. These provided both more information on the tenth century Byzantine wall as well as glimpses of the Late Iron Age architecture underpinning the wall. We are in the process of investigating this as well in this 2018 season.

We had a surprise visit near the end of our season from a Yozgat television crew wanting to tell their audience about our excavations. Gregory McMahon, the project director, gave a twenty-minute interview in the blazing sun of a quite hot day (fig. 9). We didn't see the piece air, but we were pleased that the television station took time to send a team out.



ABOVE: Figure 9. Gregory McMahon giving an interview.



ABOVE: Figure 10. Drone photo of Çadır Höyük taken by Emre Şerifoğlu. FAR RIGHT: The Çadır Höyük 2017-18 team.



Our 2017 season came to a close in early August with our final photos and excellent drone photos (fig. 10) taken by our assistant director Emre Şerifoğlu (Bitlis Eren University). We had an exceptionally productive 2017 season with our excellent team (fig. 11), and we were eager to return in 2018. Thus far our 2018 season has proven equally successful, and we look forward to reporting on it next summer.

CHICAGO DEMOTIC DICTIONARY (CDD)

BRIAN MUHS and JANET H. JOHNSON

with the assistance of JONATHAN WINNERMAN, ARIEL SINGER,
BRENDAN HAINLINE, THERESA TILIAKOS, and JOEY CROSS

The Chicago Demotic Dictionary continues to prepare for final publication as PDF files and hard-copies. During the 2017–18 academic year, the CDD staff continued the vital but tedious task of converting all of the text files to a Unicode font named Gentium Plus, which Tom Urban, the head of the Publications Office, modified to include every letter or symbol we need for preparation of any entry in the Dictionary. The staff also carried on extracting every image (whether photo scan or scan of a hand copy of a Demotic word or phrase) from the Microsoft Word text files in the form of high-resolution PNG files, which will be converted to TIFF files. We are transferring every text file from Microsoft Word, in which the files were originally composed, to (Adobe) InDesign, which handles images better than the more recent versions of Word, after which the TIFF image files will be reinserted into the text files.

The staff this year has consisted of Jonathan Winnerman (through the summer of 2017, after which he left for Chicago House and the finishing of his PhD dissertation), Ariel Singer (who also spent the winter of 2017–18 working at Chicago House but continued her invaluable work on reformatting dictionary pages while she was there), Brendan Hainline and Theresa Tiliakos, Egyptology graduate students, working here in Chicago on reformatting, and Jan Johnson and Brian Muhs as editor and associate editor. Joey Cross, a graduate student in Egyptology and Northwest Semitic philology, has continued expanding and correcting the Dictionary entries that include Northwest Semitic vocabulary. In addition, we continue to profit from the expert assistance of several other members of the OI staff, including Sandy Schloen and Miller Prosser, of Ochre Data Services, who handled the font conversions for us; Tom Urban, editor and head of the Oriental Institute Publications Office, and Charissa Johnson and Alex(andra) Cornacchia, his associates. Knut Boehmer, the OI IT guru, has been available and solved problems for us all year long, as usual. We express our deep thanks to all of these colleagues.

Sandy and Miller handled the font conversions to Gentium Plus, while Jonathan, Ariel, and Theresa finished extracting the approximately 40,000 images from the text files, and the Publications Office is arranging for conversion of all extracted images from high-resolution PNG files to the TIFF files that are used by InDesign. Ariel has also been working with Tom and Charissa, in the Publications Office, on establishing style sheets for transferring and reformatting the text files in InDesign, while Ariel, Brendan, Theresa, and Alex in the Publications Office, are working on the actual reformatting, which goes slowly since every line of text in the Dictionary must be reformatted, and every image moved. But the final results will produce pages that are far superior to the old pages in legibility and ease of access. We have the first “mock-ups” of how the new pages will look and are very pleased; the volume(s) will be 11” × 14”, which will allow for large enough type-face to make the pages easily legible and it will be possible to manipulate the images for legibility, as well.

As of the middle of June, 2018:

- All 41 text files have been converted to Tom's Gentium Plus
- All 40,000 image files have been extracted as high-resolution PNGs
- 19 of 41 text files contain Northwest Semitic to be checked by Joey:
 - 4 files have been checked by Joey and formatted in InDesign (ʕ-1,F, M-1 & M-2);
 - 1 file has been checked by Joey but not yet formatted in InDesign (H2-part 4);
 - 14 files are still waiting for final checking by Joey and formatting in InDesign (ʕ-2, ʕI-1, ʕI-2, ʕ, W-1, W-2, R, H, H2-1, H2-2, H2-3, H3-1, H3-2, H4)
- 22 of 41 text files do not contain Northwest Semitic:
 - 5 files have been formatted in InDesign (B-1, N-1, N-2, P-1, Q)
 - 3 files are being formatting in InDesign (B-2, P-2, G)
 - 14 files have not yet been formatted (Y, S-1, S-2, S-3, Š-1, Š-2, K, T-1, T-2, T, D, days of the month, months, numbers)

The Publications Office is currently recording the length of time needed for Alex to reformat one of the text files (P-2), so that it will be possible to estimate how long it will take to finish reformatting the remaining text files in InDesign. This will allow the Publications Office and the CDD to determine whether it will be necessary to hire additional staff to handle the reformatting. Once the reformatting is done, the CDD staff will be switched to proof-reading the reformatted version of the entire manuscript before final publication as PDF text files online, and in hard-copy for libraries and individuals who so desire.

We are also looking forward to the goal of creating an interactive web-based dictionary in database format using the new Unicode text files and TIFF image files. In preparation for another round of fund-raising to achieve this goal, we spoke with Chris Woods, the OI director, and Jimmy Gurchek, the OI's chief financial officer, about problems of financing the preparation of and especially the long-term storage and delivery of the OI's digital projects. We were pleased to find a receptive audience to our suggestions that some digital expenses be considered communal "OI expenses" across digital projects to avoid costly and unnecessary duplication, and that the OI consider expanding our already very valuable IT staff to deal with shared problems among digital projects.

CHICAGO HITTITE DICTIONARY (CHD)

THEO VAN DEN HOUT

Last year between August 28 and September 1, we, the OI Hittitologists, hosted the 10th International Congress of Hittitology. Over 100 scholars from literally all over the world convened here on Campus, attended the lectures at Breasted Hall and at Saieh Hall (across the street from the OI), and we took them on a boat tour on Lake Michigan. Everybody seemed very happy and agreed the conference was a big success. This was due to the work of many, and we thank Chris Woods, our director of the OI, the Development staff, Brittany Mullins and Kiran Webster, and our students and volunteers. For a full report with photos I refer the reader to the OI's *News & Notes* of winter 2018, pp. 11–14. Still on display at the lower level of our Institute is a panel exhibit about the history of Hittite and Anatolian studies at the University of Chicago. This exhibit was specially prepared for the purposes of the conference by Richard Beal, senior research associate at the CHD, and Oya Topçuoğlu, then recent graduate. Our next task is preparing the volume with printed versions of the papers presented at the conference.

Once the conference was over we returned to the CHD and worked very hard on finishing the letter Š we have been working on for many years now. We incorporated the comments and suggestions of our outside consultants and went over the material several times and finally, I am happy to report, sent it off to our Publications Office, to Thomas Urban and Charissa Johnson. They will put it in the usual two-column format of the printed CHD and we will start the proofreading process. Obviously, this is not the most exciting stage in producing our dictionary, but it is always gratifying because it really is the final stage before the actual printing. This last fascicle comprises all words starting in *šm-* and then jumps to all those in *šu-*. The Publications Office projects it at about 200 pages.

A sad moment this spring was saying goodbye to our Senior Research Associate Oğuz Soysal. Oğuz came to Chicago in 1995 and has been extraordinarily productive. First of all, he has literally written hundreds of drafts for entries in the CHD. Second, there is his “landmark” reference work on the Hattian language (*Hattischer Wortschatz in hethitischer Textüberlieferung*, Leiden-Boston, Brill 2004), that documents everything you might want to know about it. Hattian was spoken in Central Anatolia and is only transmitted through the Hittite cuneiform sources. As a language, it is completely isolated with no known relatives. Hattian civilization had a great influence on the early Hittite kingdom and the language may have been spoken for a longer time than we used to think. Third, Oğuz has been very active on the front of publishing the thousands of fragments of the first four excavation seasons at Boğazköy (between 1906 and 1912) that after a full century mostly still remain unpublished. Originally, the tablets were sent from Turkey to Berlin and eventually ended up in what became East Berlin. Our East German colleagues did a good job of churning out hand-drawn copies of the fragments in their possession, but publication of the remaining unpublished ones stalled completely when the tablets returned to Turkey more than thirty years ago (1987). Oğuz has single-handedly revived this undertaking and is responsible for two already published volumes in our CHD Supplements series, a third is currently in production, and more are to follow. What is very helpful is the fact that he is very good at finding so-called joins and duplicates. Oğuz is the ultimate philologist, meticulous and precise. With this he provides a great service to the international Hittitological scholarly community and we are proud that the OI is publishing these texts. Besides this, he has regularly contributed to our field with articles. Oğuz is now moving to Germany to concentrate on the further publication of

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ABOVE, FROM LEFT: Farewell of Oğuz: Richard Beal, Oğuz Soysal, Robert Marineau, and Petra Goedegebuure. Note the chocolate cake in front.

the Boğazköy fragments, and we wish him luck in this endeavor! We had a internal CHD farewell ceremony with chocolate cake (“Death by Chocolate”) and a real reception will be held in his honor in September.

The regular reader of these Annual Reports on the progress of the CHD knows that an important part of our work consists of keeping up our lexical files. It is an essential task, the basis of all our dictionary writing. This has been an arduous task, especially since in the last ten to fifteen years a lot of new text material has been published. Students do most of this work

and we have again been very fortunate to have an excellent group of them around. This year graduate student Thalia Lysen oversaw the work of Katherine McFarlin, and MA students Antonio Cruz-Urbe and Ryan Schnell. Having graduated from our College, Katherine, who concentrated on Egyptology but also took a full year of Hittite language instruction, will now take a year off to take part-time classes in order to pursue a master’s degree in object conservation. Having completed the NELC MA program in Ancient Near Eastern studies, Antonio will now concentrate on applying to other graduate programs this fall while Ryan has been accepted into the PhD program at the Institute for the Study of the Ancient World and will move to New York.



Because of the rapid publication of Hittite texts, we had built up something of a backlog in filing them, and we were contemplating whether there might be different, that is, digital ways of processing new texts. We were therefore extremely pleased when in the spring we received, through the collegial generosity of our colleagues in Mainz, a full set of digital cards of the missing volumes. This means that in one fell swoop our files are now almost complete! This does not mean that suddenly our students are out of work; on the contrary, there is still a lot to do and we are thinking of ways to give them more exciting and meaningful ways to employ them for the dictionary. Next year Robert Marineau, back from his year in Würzburg, Germany, and Thalia Lysen will be the first to profit from this new approach.

As happens every year, we had some visitors. Guglielmo Inglese, a linguist from the University of Pavia in northern Italy, stayed for three months to work on his dissertation and to consult with Petra Goedegebuure. Guglielmo also presented a wonderful lecture in a workshop organized by the University of Chicago Department of Linguistics. Another visitor was Professor Craig Melchert, one of the CHD's Outside Consultants. He came to teach a one-day workshop on Hittite paleography and text dating. Since the 1970s Hittitologists have been studying the development of the shapes of cuneiform signs and established an increasingly detailed system that enabled us to date tablets and fragments sometimes within a fifty-year period. At least that is what we thought. Although still widely used until today, since the early 2000s several scholars have raised serious doubts as to the validity of our text dating principles and it is time to critically review the system. Professor Melchert's workshop was part of this undertaking and it was a learning experience for the six students present and a wonderful opportunity for Goedegebuure and van den Hout to discuss the dating problems in our field.

Finally, it is always a pleasant task to thank our most loyal supporters: Mr. Philip Elenko, the Güterbock family, and Mr. Audrius Plioplys.



LEFT: Group photo of the 10th International Congress of Hittitology. Photo by David Turner.

COPING WITH CHANGING CLIMATES IN EARLY ANTIQUITY (3CEA)

Comparative Approaches between Empiricism and Theory

HERVÉ RECULEAU and NADINE MOELLER

Academic year 2017–18 saw the launch of a new collaborative research project, Coping with Changing Climates in Early Antiquity: Comparative Approaches between Empiricism and Theory (3CEA), involving faculty and graduate students from the University of Chicago, the University of Michigan, and Purdue University. The project proposal was submitted in October 2017 to the competitive research initiative “The Work of the Humanities in a Changing Climate” offered by The Humanities Without Walls consortium (<http://www.humanitieswithoutwalls.illinois.edu/>), which is funded by a grant from the Andrew W. Mellon Foundation and is based at the Illinois Program for Research in the Humanities (<http://www.iprh.illinois.edu/>). In January 2018, 3CEA was awarded approximately \$136,000 over the course of three years (2018–2020) through the Franke Institute for the Humanities (<http://franke.uchicago.edu/>), the consortium’s partner institution at the University of Chicago.

3CEA investigates, in a comparative perspective, the social and cultural perceptions of, and experiences with, climate change in the Bronze and Early Iron Ages (third to first millennium BCE), through a multidisciplinary approach that convenes archaeologists, bioarchaeologists, and text specialists focusing on three key geographic areas: Egypt and Nubia; the Eastern Mediterranean and Anatolia; and Mesopotamia. Fostering interdisciplinary collaboration between the three partner institutions and between faculty and graduate students, the project uses ancient texts, archaeological and paleoenvironmental data (including ancient skeletal remains), and geospatial analysis to address a set of interrelated research questions:

- What kind of societal change can be identified at a fine-grained level of analysis (local/regional scale and decadal/centennial time frame) for the periods usually associated with episodes of abrupt climate change and civilizational collapse (such as the “4.2 ka event” that allegedly brought an end to the Akkadian empire in Mesopotamia and the Old Kingdom in Egypt around 2200 BCE, or the “Late Bronze Age crisis” around 1200 BCE that saw the demise of the Egyptian New Kingdom, Mycenaean Greece, the Hittite empire, and several city-states in the Eastern Mediterranean)?
- Can similar or divergent patterns of change, response, and adaptation be identified, for these periods, between and within the three regions?
- Given that “abrupt” climatic episodes often span decades, if not centuries, was there any perception by the members of ancient societies that the climate around them (environmental, but by extension, the social and political) was changing? What were the modes of representation or cultural forms with which they expressed these perceptions?
- Do the material, environmental, skeletal, and textual records attest to changes in practice or lifestyle (political system, habitat, dietary practices, mobility, etc.) that could be understood as responses to or experiences directly relating to these perceived environmental shifts? In

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what ways were these changes driven (or imposed) by the socio-political elites, as opposed to the agency or resilience of small communities, households or even individuals?

The project members held their kickstarting workshop on May 17–19, 2018, at the University of Michigan (Ann Arbor, Michigan), where they presented their respective work on the topic and discussed the modalities of their collaboration at two levels: area-study groups that focus on key episodes of (assumed) climate change for the three chosen geographic areas; and comparative studies that place these analyses into the broader frame of the Early Ancient World, allowing for inter-regional and multi-data comparisons for some of the key periods identified in the different datasets.

Hervé Reculeau (assistant professor of Assyriology), who acts as the project's principal investigator, joined forces with Jay Crisostomo (assistant professor of Assyriology, University of Michigan) to study ancient cuneiform evidence of social response to climate change in Assyria over the *longue durée* of the Late Bronze and Early Iron Ages (fifteenth–tenth century BCE). They seek to address issues such as agricultural production and agrarian strategies as a proxy for coping mechanisms to climate-induced changes in the environment, but also investigate changes in social networks, literary references to catastrophes and famines, representations of the weather in ancient written sources as possible indicators of climate change, and — more importantly — the way ancient



ABOVE: 3CEA project members on the occasion of the workshop in Ann Arbor, May 18, 2018. FROM LEFT TO RIGHT, UPPER ROW: Catherine Kearns, Timothy Leonard, Émilie Sarrazin, Katie Whitmore, Hervé Reculeau; FRONT ROW: Jay Crisostomo, Thalia Lysen, Gary Beckman, Michele Buzon, Nadine Moeller. © G. Marouard.

Assyrians perceived (or not) these changes. In a similar way, the group of Hittitologists composed of Gary Beckman (George C. Cameron professor of ancient Near Eastern languages and cultures, University of Michigan) and graduate students Thalia Lysen (NELC, Chicago) and Timothy Leonard (Michigan) addresses the perception of environment and climate in Hittite culture and religion and study the assumed role of climatic degradation in the demise of the Hittite empire and its Syrian vassal city-states at the end of the Late Bronze Age (fifteenth–twelfth century BCE). This topic is also being investigated for the Eastern Mediterranean by Catherine Kearns (assistant professor in classics, University of Chicago), who will analyze patterns of climatic change, shifts in agropastoral economies, and new political formations in the context of semiarid insular environments on Cyprus, combining spatial analyses with archaeological fieldwork on rural settlements of the early first millennium BCE. Finally, Egypt and Nubia are the main focus of the group composed of Michele Buzon (professor of anthropology, Purdue University), the OI's own Nadine Moeller (associate professor of Egyptian archaeology) and graduate students Katie Whitmore (Purdue) and Émilie Sarrazin (NELC, Chicago). Using human skeletal remains from Egypt and Nubia (modern Sudan) and archaeological data from the ongoing excavations at the ancient cities of Tell Edfu and Dendara in southern Egypt (see the respective Projects Reports), they investigate the patterns of climatic, political, and cultural changes as people cope with and adapt to the changing climate and political/cultural landscape. Three possible key-periods have been identified for this research, starting with the early third millennium BCE, followed by the so-called 4.2 ka climate event and the Late Bronze Age period. The aim is to bring together different sources of archaeological and proxy data, and to further investigate the dynamics and mechanics that might shed new light on the particular characteristics of these climatic changes and their effects on the ancient Egyptian population and settlement system in the Nile Valley and Delta, as well as in Nubia.

The workshop was also the occasion to discuss one of the key components of 3CEA: the syllabus of a joint two-quarter (or one-semester) seminar, which will be offered in the winter and spring quarters of 2019 to graduate students at the three partner institutions, using video conferencing and shared online pedagogical resources. Additional points of discussion have been the long-term prospects in academic achievements (with a conference and its subsequent proceedings scheduled for 2020) and public outreach (with the forthcoming launch of a dedicated website aimed at disseminating the project's work and offering accessible information on studies of climate change in Antiquity). 3CEA was introduced to the University community with an interview of Hervé for the Division of Humanities Newsletter (<http://humanities.uchicago.edu/articles/2018/02/interdisciplinary-approach-climate-change>) and to our Alumni on the occasion of the Oriental Institute Research fair on June 1, 2018 (see our flyer on https://ochre.uchicago.edu/sites/ochre.uchicago.edu/files/uploads/Reculeau_OI_Fair_2018_Brochure_v2.pdf). An interview of Hervé by Anthropologists Dominic Boyer and Cymene Howe can also be found on Cultures of Energy, the podcast of the Center for Energy and Environmental Research in the Human Sciences (CENHS) at Rice University (<http://culturesofenergy.com/127-ancient-civilizations-climate-change-feat-herve-reculeau/>).

DENDARA SETTLEMENT SITE

GRÉGORY MAROUARD

Since 2012, the Oriental Institute reinvestigates the settlement site at Dendara, Upper Egypt, with a particular focus on the urban evolution during the third millennium BCE, from the Predynastic Period (ca. 3400 BCE) until the early Middle Kingdom (ca. 2000 BCE). This project is welcomed on the archaeological concession of the French Archaeological Institute in Cairo (IFAO), which allowed the OI team since 2015 to work on the extensive settlement remains situated inside and outside of the main sanctuary enclosure wall.

Because of a significant delay in the deliverance of the security clearance by Egyptian authorities, our last year fieldwork season at Dendara, originally scheduled between early September and mid-October 2017, was unfortunately canceled. The fourth campaign was postponed to next fall 2018 and will focus on two of the main areas excavated since 2015 and 2016 at Zone 1 (Late Naqada II to Old Kingdom periods), near the temple of Hathor, and Zone 4 (First Intermediate Period to early Middle Kingdom periods), outside of the main precinct of the sanctuary.

Nevertheless, this was the occasion to reorganize in Chicago all the field data, to process the photogrammetric documentation and to prepare all the plans and stratigraphic profiles in the perspective of our next operation at the site. New research has been conducted in various collections and contacts established with the Petrie Museum and the Penn Museum archives which preserve a vast and partially unpublished documentation of the first excavation campaign carried out at the site by F. Petrie (Egypt Exploration Fund) and Chr. Rosher (American Exploration Society) in 1898. An unpublished map of the site was rediscovered on this occasion and will be presented soon considering the important data recorded on this document about the topography of sanctuary and the urban area at the end of the nineteenth century.

The results of previous OI campaigns at Dendara have been presented in two international colloquia, in Milan in July 2017 at the 7th Old Kingdom Art and Archaeology (OKAA) conference and in Munich in September 2017 at the conference *AcrossBorders: From Microcosm to Macrocosm: Individual Households and Cities in Ancient Egypt and Nubia*. Two joint articles co-signed with the Tell Edfu Project (cf. Edfu report *infra*) have been submitted in March 2018 and June 2018: “The Development of Two Early Urban Centers in Upper Egypt During the 3rd Millennium BC: The examples of Edfu and Dendara” and “Two sister-sites at the beginning of the Old Kingdom: Recent results on the settlement excavations at Tell Edfu and Dendara.”

Another short overview about the recent discoveries of the Pre- and Early Dynastic contexts at Dendara have been published in ASOR journal *Near Eastern Archaeology* 80.3 (“Dendara at Its Origins. New Evidence for a Pre- and Early Dynastic Settlement Site in Upper Egypt,” pp. 166–75).

Preliminary results of photogrammetry survey assisted with a drone were shortly presented in the *OI News & Notes* 235 (“Dendara from another Perspective. The Use of Remote Technologies in the Field in Egypt,” pp. 12–15).

EPIGRAPHIC SURVEY

W. RAYMOND JOHNSON

On October 15, 2017, Chicago House opened its doors for the 2017–18 archaeological field season, in collaboration with the Egyptian Ministry of Antiquities (MoA). Like many of our colleagues, we received our state security clearance several weeks late this year, but by November 15 we were able to resume on-site work. Chicago House's documentation, conservation, restoration, and training activities during this 94th field season took place at three major sites: Luxor Temple, Medinet Habu, and Theban Tomb 107. Work finished for the season on April 15, 2018, and the team returned home to process data, translate texts, ink penciled drawings, organize digital files, and put the final touches on our next folio publication, *Medinet Habu Volume X: The Eighteenth Dynasty Temple, Part II. The Façade, Pillars, and Architrave Inscriptions of the Thutmoside Peripteros*.

LUXOR TEMPLE

JAMES HEIDEL, BRETT MCCLAIN, and RAY JOHNSON

Epigraphic work in Luxor Temple in 2017–18 involved two main areas of focus: the cataloguing, photography, drawing, and collation of fragments in the blockyard, undertaken by Jay Heidel, Hilary McDonald, Gina Salama, and Brett McClain; and the facsimile copying of the Late Roman fresco paintings in the Imperial Chamber (Room V), by Krisztián Vértés, with digital photographic assistance from Owen Murray. Each of these programs is the continuation of work in progress from the previous seasons. Our work in Luxor Temple was supervised by MoA Inspectors Mina Fahim Rezk, Mahmoud Abd el-Rahim Salman, Ahmed Mohammed Hashim, Wael Abd el-Satar, Medhat Ramadan Mahmoud, Lamiaa Gahlan Hussein, and Esraa Ahmed el-Taher.

In the Roman Imperial Cult Chamber, Krisztián Vértés finished digitally recording the Roman frescoes on the west wall of the chamber and the west half of the north wall. Remaining to be drawn are the apse, depicting the Tetrarchs, and the chamber's pharaonic reliefs. Owen Murray created a 3-D photogrammetric model of the west and north wall, from which he generated digital drawing enlargements for Krisztián's drawings. This revolutionary technique will also be used for modeling and creating computerized drawing enlargements for the chamber's pharaonic reliefs.

Krisztián and Ray also selected a test scene from the pharaonic wall reliefs to explore our evolving digital drawing techniques. The purpose of this test was to take a scene through all stages of our epigraphic process (photography, penciling, inking, collation, and director's check) using only digital/electronic means. This allowed an evaluation of the digital techniques and workflow as compared against pre-digital, tried-and-true methods. The chosen scene (Nelson no. LD 177) shows a kneeling Amenhotep III being blessed by Amun. The drawing, collation, and director's check were completed this season, with Ray and Jonathan Winnerman acting as epigraphers. All parts of the experiment were successful, and the experience of this test will be published by Krisztián on our new *Digital Epigraphy* website (see below). Included in this case study will be a special section dedicated to digital conservation assessment of the wall (undertaken by conservator Hiroko Kariya), plus an additional section dedicated to digital color documentation and enhancement using various software tools (developed by Hilary McDonald and Tina Di Cerbo) for study of the extant wall graffiti.



ABOVE: Saoud, Sayid, Mohamed, Jay, and Hiroko preparing blocks, January 26, 2018. Photo by Ray Johnson.



LEFT: Krisztián and Jonathan, during epigrapher and artist consultation, digital collation. RIGHT: Digital collation sheet of LD 177. Photos taken January 26, 2018, by Ray Johnson.

At this time, I am pleased to announce that *Digital Epigraphy* is growing so quickly that we are taking the digital drawing manual online. *Digital Epigraphy*, the website, is scheduled to go live on November 1st at this link:

<http://www.digital-epigraphy.com>

The website will incorporate all of the information in the first edition of *Digital Epigraphy*, as well as an enormous amount of additional material that was originally planned for the second and third editions. The website has the benefit of being able to change as fast as we do, with instant access to new methods and equipment as we learn about and test them, and it will allow us to continue leading the way in cutting-edge epigraphic documentation. In recognition of the enormous contribution Krisztián has made to the Epigraphic Survey's digital epigraphy program, he is now officially designated senior artist along with senior artists Margaret De Jong and Susan Osgood. Bravo, Krisztián!

As a result of the successful LD177 test, planning is now underway for digital photography and drawing of the adjacent offering chamber immediately to the south of the Roman chamber, just north of the bark shrine. This room is Nelson Number LE VIII. At the beginning of next season, Owen will photograph the walls, create a 3-D model, and generate digital drawing enlargements for the east wall of the chamber, preparing the lowest register of decoration first (LE 69-72). When this is ready, Jay will begin penciling these scenes.

PROJECT REPORTS | EPIGRAPHIC SURVEY

This year the work in the Luxor Temple blockyard remained focused on development of the Luxor Temple Fragment database and documenting the blockyard holdings. The field checks proceed mastaba-by-mastaba and will continue until all previously numbered/studied fragments have been accounted for and all new fragments deemed important to the fieldwork have been added to the database.

Digital photographer Hilary McDonald, assisted by chief 3-D model/image builder and field assistant Gina Salama and Photo Archives registrar Ellie Smith, continued our fragment documentation project, incorporating the photogrammetry technique. Hilary and Owen have pioneered a technique whereby completely square, orthogonal, aspective (that is, without perspectival diminution) images of carved wall and fragment surfaces can be extracted from a digital 3-D model created using the computer program Agisoft Photoscan. Continuing last year's work, Hilary used this technique on the corpus of Akhenaten Karnak *talatat* blocks stored in the Luxor Temple blockyard, capturing the data for 3-D models of the carved faces. Since starting work on November 20, 2017, she has completed the base photography (from which the 3-D model is created) for 1,360 *talatat* or — since some are decorated on more than one side — about 1,600 decorated faces. Since many of the fragments do not have to be removed from their stacks on the storage *mastabas*, and since the photos taken to create the 3-D model need not be square to the surface or taken at any particular scale, this kind of field documentation increases the number of fragments that a photographer can shoot in a day to approximately thirty, depending on conditions. As with film-based photography, after shooting there are many work hours devoted to processing the gathered data and putting it into the required format. For film-based photography, this means developing the film and generating prints. With the digital

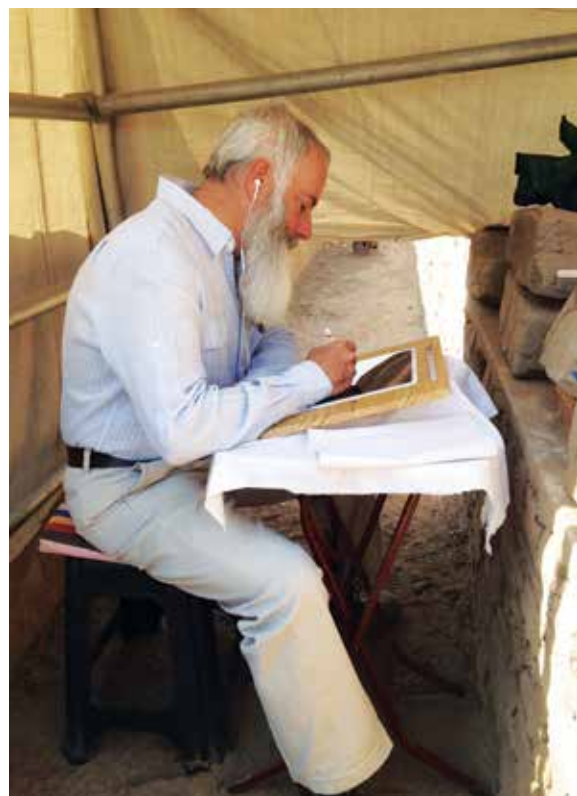


FROM LEFT TO RIGHT: Hilary taking photos for photogrammetry, *talatat* magazine (March 14, 2018); Brett working on digital collation of Bentresh blocks (March 15, 2018); Jay and Gina tagging blocks (March 24, 2018); Jay digitally penciling on iPad Pro (March 14, 2018). Photos by Ray Johnson.

photography, it means processing the field photographs into 3-D models and extracting orthogonal digital images of the carved surfaces. With both methods, the amount of processing time and effort is similar, but with the digital method the work can be done anywhere on a laptop; no darkroom is needed. Two *mastabas* filled almost exclusively with *talatat* having decoration on more than one side required extra time, since rows of blocks had to be dismantled to capture the information. Altogether, since we began last year, approximately 3,960 *talatat* have been photographed using this method.

In the last year the speed of our processing the field data into 3-D models and orthogonal digital images has increased thanks to Gina Salama's efforts. Gina continued building models and creating rectified photos this summer and entered the 1,050 images that have been processed into the Luxor Temple Fragment database. In addition, the data for these initial 1,050 *talatat* (the field photography, the 3-D model, the high-resolution TIFF and the low-resolution JPEG files) have all been handed over to digital archivists Alain and Emmanuelle Arnaudière for incorporation and permanent storage in the new Chicago House Digital Photo Archive. The Arnaudière have designed the database and begun entering test groups of material (including our *talatat*), refining the design as they go. As the fragment data are entered into the Digital Archive, they will subsequently be securely stored in the permanent archive at the Oriental Institute. There they will be available for study, analysis, and virtual reassembly by scholars in the future.

Gina also affixed 2,455 aluminum inventory number tags to the blocks and fragments in the field, including seven *mastabas* of Amenhotep III sanctuary material at the southern end of the blockyard, which we will begin to photograph next season. Additionally, to the west of the Luxor Temple offering



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LEFT: First digital collation review with Sue, Ariel, Margaret, Dominique, and Ray (December 8, 2017). Photo by Jay Heidel.

RIGHT: Krisztián in front of LD 177 for digital director's check phase (February 22, 2018). Photo by Ray Johnson.



chamber is a locked magazine, comprising rooms indicated by Nelson numbers LE IX, X and XXIII, that contains approximately 3,000 more *talatat*. We obtained permission to enter the magazine this season, where Gina did a rough count and Hilary photographed the entire magazine for overall 3-D maps of the *mastabas*. Hiroko Kariya inspected the fragments to plan conservation for next season, when we will begin photography of this group.

In addition to coordinating the Luxor Temple work, Jay also continued drawing the Bentresh/Ptolemy I fragment group using a transitional digital drawing technique whereby the fragments are being drawn with an iPad Pro using a scanned large-format film negative as a background. The Bentresh inscription is contained on a subset of 39 of these fragments that have been inked and are currently being digitally collated by first epigrapher J. Brett McClain, who completed 22 this season. Of the remaining 141 fragments, Jay digitally penciled 46 last season and the remaining 95 this season, completing the penciling of the Ptolemy I corpus.

Conservator Hiroko Kariya worked in the blockyard between January 22 and March 26, 2018. With Hilary, she opened the “hospital” *mastabas*, sealed for the last ten years, so that the *talatat* and other fragments therein could be tagged, photographed, and cataloged. Hiroko also did spot cleaning, condition checking, photo preparation, and emergency treatment, and supervised the transfer of many *talatat* in fairly good condition out of the hospital *mastabas*, while other *talatat* and various fragments in bad condition were transferred into these covered storage platforms. She also worked on Open Air Museum maintenance and arranged the replacement of damaged canvas covers for the fragment shelf storage areas.

From March 18th to 20th, structural engineer Conor Power conducted his annual condition study of the Luxor Temple structure, finding no evidence of movement or instability. The temple structure remains stable and sound, thanks to the USAID-sponsored groundwater lowering project inaugurated in 2006.



LEFT: Margaret drawing a reused stela column base (February 2018). Photo by Dominique Navarro. RIGHT: Medinet Habu small Amun temple, Sue checking drawing corrections (February 28, 2018). Photo by Ray Johnson.

MEDINET HABU

EPIGRAPHY

BRETT MCCLAIN, JEN KIMPTON, and RAY JOHNSON

The epigraphic team in the small Amun temple of Hatshepsut and Thutmose III, under the supervision of senior epigrapher J. Brett McClain and senior artists Margaret De Jong and Susan Osgood, continued to work on the drawings for *Medinet Habu XI* and *XII*, while Tina Di Cerbo and Richard Jasnow continued their digital documentation of Coptic graffiti in the northern Ptolemaic annex. Our work was supervised by MSA Inspectors Rasha Mohammed Abd el-Karim, Mahmoud Abd el-Gawad, Sanaa Yousef Ahmed Ali, Mahmoud al-Azab Abd el-Raziq, Saudi Salah Said Hussein, and Abd el-Baset Ahmed Eid Sultan. New epigrapher Ariel Singer began her training in the small Amun temple with the team, while artist Dominique Navarro worked on a gate from the time of Taharqa located immediately to the north of the Kushite pylon, to be published in *Medinet Habu XIII*. Brett and photographers Sue Lezon and Yarko Kobylecky produced the final photographs for *Medinet Habu X*, now in production in Chicago. Epigrapher Jen Kimpton, assisted by Anait Helmholz, resumed the cataloging and analysis of blocks and fragments from the destroyed Medinet Habu Western High Gate, while artist Keli Alberts continued the facsimile drawing of selected fragments and groups, and Ariel helped collate some of the drawings. Jen and Keli continue to make numerous joins of fragment groups within the corpus, furthering our knowledge not only of the exterior and interior scenes of the destroyed gate, but also of the architecture of the gate itself. The catalog was unexpectedly expanded this season with an additional 262 entries, due mainly to the influx of new material emerging from the cleaning undertaken by the conservation team in preparation for the installation of pavement west of the mortuary temple. In particular, 179 decorated fragments have thus far been recorded from the cut made in an artificial berm erected in the 1930s above the inner enclosure wall; an estimated 50 additional fragments from that cut will be recorded next season. Additional new fragments cataloged this season came from other areas cleared by the conservation team and from the archaeological cleaning within



ABOVE: Dominique drawing Taharqa gate reliefs (January 2018). Photo by Ariel Singer.

the Western High Gate. The catalog now contains 1,418 entries, representing 1,318 separate objects (the difference between the two numbers is due to the practice of dedicating a separate entry in the catalogue to each decorated surface). All fragments included in the catalogue are provided with identifying numbers, reference photographs, dimensions and basic descriptions. Photographer Yarko Kobylecky continued to generate large-format film documentation of the blocks and fragments, while Owen Murray continued his digital recording of the western area for photogrammetric mapping. Archaeologists Nadine Moeller and Grégory Marouard coordinated the clearance and documentation of the foundation trenches of the northern tower; Greg rejoined the team for two weeks in March in order to finish the northern foundation work. Since the architecture and decoration of the Western High Gate, an integral part of Ramesses III's mortuary complex, has remained almost wholly unpublished since its discovery, it is intended that a future volume in our Medinet Habu series will be devoted to the presentation thereof.

Yarko, assisted by Ellie, also generated large-format film negatives in the God's Wives Chapels from the Twenty-fifth and Twenty-sixth Dynasties in preparation for publication; we will study and publish these funerary chapels while we document the Twenty-fifth Dynasty additions to the small Amun temple, since they were part of the same building program. Yarko developed an innovative "rail" system on which he mounted his camera, allowing seamless overlapping photographs of entire registers of the beautiful offering scenes inside the chapel. Aleksandra Hallmann, current OI post-doctoral fellow, joined us this season to continue her documentation and study of the chapels; it's always a pleasure to have her with us.

What follows is a tally of the drawing enlargements that passed through all stages of the Chicago House method during the course of the 2017–18 season:

Penciling completed: 74 drawing enlargements
 Inking completed (including summer 2017): 81
 Transfer check completed: 7
 Director check completed: 3



ABOVE: Keli and Sue discussing block drawing from the Western High Gate (February 24, 2018).
Photo by Yarko Kobylecky.

RIGHT: Yarko photographing in the God's Wife Amenirdis chapel (February 2018).
Photo by Dominique Navarro.



ARCHAEOLOGY

Survey of the Ay and Horemheb Mortuary Complex and Exterior of the Medinet Habu Precinct

GRÉGORY MAROUARD and NADINE MOELLER

In December 2017, Nadine Moeller and Grégory Marouard conducted a preliminary survey of the external areas of the mortuary complex of Ramesses III at Medinet Habu, in order to determine the current state of preservation of the vestiges in those sectors and the archaeological potential for conducting a geophysical survey and resuming some excavation work in the near future. The complete delineated surface was fully explored in several days. It covers about 15 ha and matches the original limits of Chicago House's archaeological concession from the 1920–30s.

On the northern side of the Ramesses III precinct, a complete survey of the mortuary temples of kings Ay and Horemheb was conducted. These monuments were dismantled quite early after their abandonment (in the course of Nineteenth Dynasty), and only a very small part of Horemheb's temple is still preserved *in situ*, mostly the central part and western rooms. Those remains were fully exposed during a single campaign conducted by archaeologist U. Hölscher between November 1930 and spring 1931 (OIP 21, 1934, pl. 33; and OIP 41, 1939, pp. 63–11). Most of the vestiges recorded at that point are still in place today and, except for some of the mudbrick walls, which have suffered from rain and wind erosion, the site has remained relatively well preserved during the last eighty years of exposure.

Despite the previous Oriental Institute excavations of the main sanctuary buildings, the front quarter — ca. 1 ha — of the late Eighteenth-Dynasty complex was left completely unexcavated. The 2017 survey focused particularly on this area, which is deeply covered by the excavation dumps of previous work conducted inside the precinct of Medinet Habu temple by Georges Daressy and then by U. Hölscher. Most of this debris consists of pieces of mudbricks and red bricks, mixed pottery sherds from various periods (dating from the New Kingdom to the Coptic period), limestone pebbles, and small to medium fragments of sandstone. A few blocks with fragments of decoration and partial hieroglyphic inscriptions have been systematically recorded, but without identifying any clear relationship, so far, to Horemheb and Ay's temples or to Ramesses III's temple. A clean-up of the entire second pylon of the Horemheb temple is planned for next season, which will allow for a better evaluation of the presence of *in situ* structures under this thick level of mixed material.

The survey also included a close examination of the areas situated immediately to the north and the west of the temples of Ay and Horemheb in order to detect the presence of possible remains of the town from the mid-Eighteenth Dynasty, for which several houses were discovered during previous OI and French Institute excavations (near the funerary complex of Amenhotep, son of Hapu). Due to a very irregular topography and leveling operations from the late Eighteenth Dynasty, these remains seem to be covered with a thick layer of gravel and limestone pebbles and are therefore al-





ABOVE: Overview of Ay Horemheb temple complex. By Nadine Moeller.

most inaccessible. An extensive campaign of coring and a geomagnetic or Ground Penetrating Radar survey will be needed here in order to verify the hypothesis of an extensive earlier urban settlement, probably linked to the reign of Amenhotep III and his significant construction projects in the area.

On the north side of the elite tombs and on the rear side (west) of Ay and Horemheb temples, another zone of about 3000 sq m was extensively studied. Recent satellite images and early aerial photographs available for this area indicate the presence of an east–west oriented building, as yet unexcavated, measuring at least 40 m wide × 50–65 m in length. This sector is covered by a thick layer of pebbles and limestone gravel, but it shows a significant elevation above the surrounding natural ground, which might suggest here a construction that had been built on an artificial terrace or on a small hill. In several parts of the central area, the foundation trenches of numerous rooms and thick mud floor levels appear to be preserved *in situ*, as well as the remains of mudbrick walls



ABOVE: General view of the still-standing part of the mortuary temples of Ay and Horemheb, from the south. Photo by Grégory Marouard.

visible only on few courses. A deep shaft, excavated at a later time, and a sandstone sarcophagus indicate the presence of later burial activity in the area. Unfortunately, recent work, including the passage of a bulldozer, and modern garbage dumps prevent a good reading of the remains, and currently no visible element on the surface allows us to specify the function and chronology of this installation.

CONSERVATION and RESTORATION

LOTFI HASSAN, FRANK HELMHOLZ, and RAY JOHNSON

Senior conservator Lotfi Hassan continued to supervise the Medinet Habu conservation program, including the capping of Ramesses III-era mudbrick walls along the stone pavement around the Ramesses III mortuary temple with new bricks, as well as supervising our ongoing Egyptian conservation-student training program. Twenty-five Egyptian conservators participated in the grant-funded work this season, including nine students. Lotfi supervised the brickmaking for the mudbrick wall restoration work and also coordinated the careful cleaning and preparation of the areas to be restored. In February and March, Lotfi and his team stabilized the two southern columns of the main hall of the House of Butehamun and made them vertical, and the team has been experimenting with compressed mudbrick paving slabs and protective rope fencing around the house that will allow visitors to view the installation from the outside. Master mason Frank Helmholtz continued to supervise the restoration of Ramesses III-period paved walkways on the southern, western, and northern sides of the mortuary temple with new, thick sandstone slabs. These restored walkways are already facilitating public access to the western precinct, the House of Butehamun, and a future open-air museum in the area of the Western High Gate. The paved walkway now extends along the entire length of the southern side of the mortuary temple and has turned the southwest corner, where restoration is now proceeding along the western side. During this season, 170 paving stone were laid, with a path length of 56 m and approximate surface area of 197 sq m. This includes newly laid stones as well as partially preserved historic pavement, restored and completed with new stone. We gratefully acknowledge here a grant from USAID Egypt that currently supports the development and restoration of the southern and western sectors of the Medinet Habu precinct.



ABOVE: Frank, Saber, and Johannes laying stone slabs (February 27, 2018). Photo by Ray Johnson.



MIDDLE LEFT: Medinet Habu Butehamun House work (January 24, 2018). Photo by Yarko Kobylecky.



MIDDLE BELOW: Brick forming (February 27, 2018). Photo by Ray Johnson.

BELOW: Medinet Habu conservation team, including conservation students and assistants 2017-18 season (March, 2018). Photo by Frank Helmholz.





ABOVE: Group photo of the Medinet Habu conservation, stone, and documentation teams 2017-18 season (March 2018). Photo by Frank Helmholz.

THEBAN TOMB 107

BRETT McCLAIN, BOYO OCKINGA, and RAY JOHNSON

In late January, Boyo Ockinga and Susanne Binder supervised the archaeological cleaning of the inscribed portico of TT 107, the Theban tomb of Nefersekheru, steward of Amenhotep III's jubilee palace at Malqata. The work this season included the removal of blocking and debris in the entryway of the unexcavated broad hall and insertion of a steel security door in a brick frame. During the clearance, an *in situ* larger-than-lifesize raised-relief figure of the tomb owner Nefersekheru was revealed in the western door thickness, preserved from the waist down, facing out of the tomb. Additional inscribed fragments of the destroyed limestone doorjambs and portico wall were also found and were consolidated and joined where possible by conservator Hiroko Kariya, in preparation for photography and drawing. Senior epigrapher J. Brett McClain continued first collations of the facsimiles of the portico façade reliefs, drawn by senior epigraphic artists Margaret De Jong and Sue Osgood, while Ray Johnson, Jonathan Winnerman, and Ariel Singer resumed the second collations of the drawings. Sue Osgood did digital drawings of the new fragments found last season for integration with the wall-relief drawings; Ray director-checked some of her earlier digital fragment drawings for integration with the wall drawings, and, in late March, debris from the archaeological cleaning work was removed by the Chicago House workmen, supervised by Reis Badawy Muhammad Abd el-Rahman. Our work at TT 107 this season was supervised by MoA Inspectors Shaimaa Abd el-Kareem Gad el-Rab and Safaa Badawy Hassan.



ABOVE: TT 107, overview of site (February 1, 2018). Photo by Ray Johnson.

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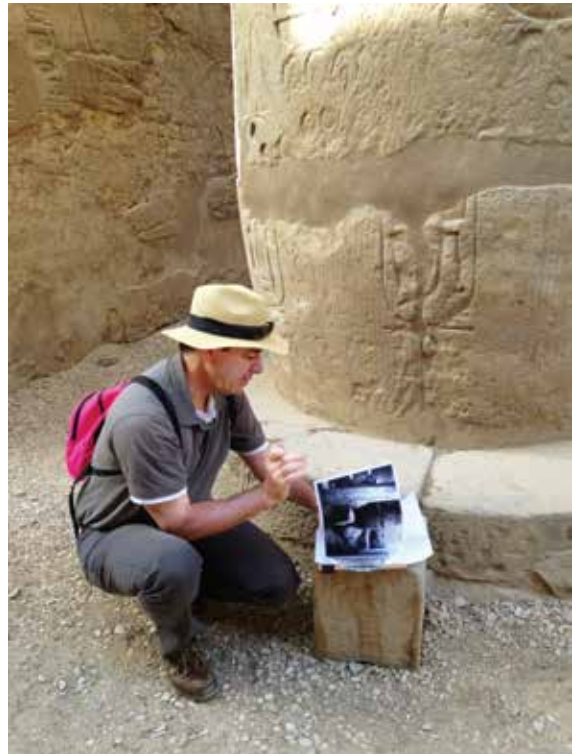


CLOCKWISE FROM TOP LEFT: TT 107 — New Nefereseckheru door thickness relief; Owen photographing tomb entrance (February 1, 2018); Sue and Hiroko at work (February 14, 2018); Assistant librarian Martina and husband assistant administrator Samwell (March 30, 2018). Photos by Ray Johnson.

CHICAGO HOUSE

Tina Di Cerbo arrived in September to start opening the house and carrying out the repairs and maintenance work that are difficult to do during the field season, when the house is occupied. In addition to the enormous task of cleaning the facility after its summer sleep, Tina and our workmen continued repairs and painting in the main house, replaced water tanks, floor tiles, and water pipes throughout the complex, and had the place ship-shape by the time the team arrived on October 15. Kudos and thanks to her and our amazing workmen for their extraordinary efforts on our behalf.

The Chicago House Marjorie M. Fisher Library opened on October 20, 2017, and closed for the season on April 6, 2018, under the capable direction of head librarian Anait Helmholtz, assisted by Martina Roshdi. We had almost 1,000 library patrons during the course of the season, including numerous Egyptian graduate students and members of foreign missions, who used over 5,000 books. We added 220 new titles to the library collection, including 66 journals and 20 periodicals. Of the received titles, 45 were gifts from: Philippe Collombert; Helen and Nigel Strudwick; Riccardo Manzini; Michael Morris; Francisco Martin-Valentin, Teresa Bedman & Instituto De Estudios Del Antiguo Egipto; AUC Press; Roger O. De Keersmaecker; Christophe Thiers; The Getty Conservation Institute; Patryk Chudzik; Christian Leblanc; Luc Gabolde; CFEETK; Florian Ebeling and Christian Loeben; Rob Demaree; Richard Spiegelberg; Wafaa El Saddik; the Netherlands-Flemish Institute in Cairo; Marjorie Fisher; Daniel Polz and the DAI; Daniela Rutica; Zbigniew Szafranski; and Neal Spencer. We offer sincerest thanks to them all. Work continued on the digital library catalog, with approximately 1,300 titles entered; during the season the digital catalog for the whole collection of the periodical (L20) monographs was completed. Martina also made a full list of the folio volumes in the locked cases, after which Anait revised the catalog cards with the full information about each folio, a project that will



Chicago House photo archives. ABOVE: Gina scanning dictionary cards (November 1, 2017). BELOW: Alain checking photograph locations at Luxor Temple (April 4, 2018). Photos by Ray Johnson.

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be completed next season. In April we finally revived our bookbinding program and sent 168 volumes to Cairo for binding. Many thanks to Anait and Martina for their wonderful work! Congratulations are also due to Gina Salama, who successfully completed the scanning of all 40,000 Chicago House dictionary cards this winter, a labor of love and a major accomplishment.

In the Tom and Linda Heagy Chicago House Photo Archives, registrar Ellie Smith numbered and entered into the database 341 new large-format film negatives generated by Yarko, primarily from the Western High Gate and God's Wives Chapels. She also labeled data from the Ted Brock Photographic Archives, processed by Tina, including 75,375 slides from

Ted's archive that Tina scanned. Photo archivist Sue Lezon worked from December 20 to January 22 along with Brett and Yarko on the final photographs for *MH X*, and again from March 2 to March 14. Photographer Amanda Tétréault, one of Sue's former students, arrived in Luxor on January 5 and

stayed with us until the 16th. While at Chicago House she reviewed our photography operations on both sides of the river and was indoctrinated into the mysteries of the film photography studio by Sue and Yarko. Amanda will be joining us for a full six months in 2018–19 to continue her training and to assist Yarko with our large-format film photography. Welcome Amanda!

BELOW: Frank, Jay, Amenhotep III, and Chris Woods (November 5, 2017). Photo by Ray Johnson.



Alain and Emmanuelle Arnaudès were with us from November 18 until December 3, and again from March 18 until April 7, working on the new Chicago House Digital Photo Archive storage system. We have come to realize that film photography and digital photography must be maintained in perpetuity at Chicago House for complete documentation and archiving of the primary temple and tomb sites in Luxor. That said, we are utilizing digital photography more and more in documentation programs — including drawing — and the Arnaudès have designed a storage system that can properly accommodate the enormous amount of data being generated. This season they entered 5,023 images in the digital database, including 884 orthomosaic photographs produced by Hilary. In the large-format collection database, they recorded 341 photographs (making a grand total of 23,024 large-format images in our



ABOVE: Chicago House staff photo (March 12, 2018). Photo by Sue Lezon.

own collection), 523 bibliographical references (total 5,270), and 469 PDF files in the digital library (total 3,151). Emmanuelle also did a survey of our Luxor Temple photographic archive in order to give us an idea of what has not yet been photographed, and she generated a detailed report of what still needs to be done. I am pleased to announce that on December 16 Emmanuelle successfully defended her PhD defense at the Sorbonne. Congratulations Dr. Emmanuelle! Since I am now discussing the achievements of our staff, I must also congratulate Jonathan Winnerman on his successful PhD defense on July 12 and also for his new teaching position in UCLA. We will miss him in Luxor.

Finally, I am very happy to announce that, in July, Brett McClain was appointed assistant director of the Epigraphic Survey, Chicago House. I would like to take this opportunity to extend my heartfelt congratulations to Brett, who is receiving long-overdue recognition for the hard work, high standards, and responsibility that he brings to the Epigraphic Survey. I can say in all honesty that the caliber of the epigraphic work and publications produced by Chicago House today under his supervision continues to define “excellence” in epigraphic recording. Brett has been functioning as *de facto* Chicago House assistant director for many years now, and I am delighted that our friends and colleagues at the Oriental Institute and University of Chicago have acknowledged this and formally awarded him this title; he has earned it. Many congratulations, dear Brett!

The Epigraphic Survey professional staff this season, besides the director, Ray Johnson, consisted of J. Brett McClain as assistant director, Jen Kimpton, Christina Di Cerbo, and Jonathan Winnerman as epigraphers; Ariel Singer as student epigrapher; Boyo Ockinga and Susanne Binder as archaeologists/epigraphers; Margaret De Jong, Susan Osgood, and Krisztián Vértés as senior artists, and Keli Alberts and Dominique Navarro as artists; Jay Heidel as architect/artist/data manager; Gina Salama as Luxor Temple assistant; Yarko Kobylecky as chief staff photographer; Owen Murray and Hilary McDonald as photographers; Susan Lezon as photo archivist and photographer; Elinor Smith as photo archives registrar and photography assistant; Carlotta Maher as assistant to the director; Essam El Sayed as finance manager; Samir Guindy as administrator; Samwell Maher as administrative assistant; Anait Helmholtz as CH head librarian and Medinet Habu blockyard assistant; Martina Roshdy Maher as librarian assistant; Frank Helmholtz as master mason; Johannes Weninger as mason; Lotfi K. Hassan as Medinet Habu conservation supervisor; Hany Diab, Al Azab Ahmed, Nehad Badry, Skina Oraby, Safaa Nuby, Anhar Hassan, Fatma Ahmed, and Neema Ahmed as Medinet Habu conservators; and Hiroko Kariya as Luxor Temple conservator. Alain and Emmanuelle Arnaudès worked on the Chicago House Digital Archives database. We owe a particular debt of gratitude to Nadine Moeller and Grégory Marouard for their wisdom and assistance with our archaeological work. And special thanks must go to our forty full-time Egyptian workmen, the core of the house and temple staff, our family in Luxor.

ACKNOWLEDGMENTS

As always we extend our sincerest thanks to the Egyptian Ministry of Antiquities and the Supreme Council of Antiquities (SCA), Minister of Antiquities Dr. Khaled el-Enany, SCA Chairman Dr. Mustafa Waziri, and all of our friends and colleagues in Egypt for another productive collaboration during this season. Special thanks must go as well to the many friends of the Oriental Institute whose generous support allows Chicago House to maintain its documentation, conservation, and restoration programs in Luxor, especially to USAID Egypt for the grant that now supports our restoration and site development work at Medinet Habu. We also offer our heartfelt thanks to the Rockefeller Brothers Fund (RBF) for supporting the Ramesses III southern well conservation project up until last year. We are grateful to the US Embassy Chargés d’Affairs Thomas Goldberger; to the former US Ambassadors to Egypt the Honorable R. Stephen Beecroft, the Honorable Anne Patterson, the Honorable Margaret Scobey; to Sherry Carlin, mission director of the United States Agency for International Development in Egypt; former USAID Egypt directors Mary Ott, Walter North, Jim Bever, Hilda (Bambi) Arellano, Ken Ellis, and Bill Pearson; Zeb Simpson and Sylvia Atalla, USAID Egypt; Curt Ferguson and Coca Cola Egypt (Atlantic Industries); to David Rockefeller, Sr.† and Marnie Pillsbury; to Ward and Diane Zumsteg for launching our new endowment campaign; Dr. Marjorie M. Fisher; David and Carlotta Maher; O. J. and Angie Sopranos; Misty and Lewis Gruber; Nassef Sawiris; Mark Rudkin; Nicole Williams and Larry Becker; Kitty Picken; Daniel Lindley and Lucia Woods Lindley; David and Allison Harley; Eric and Andrea Colombel; Piers and Jenny Litherland; Dr. Fred Giles; Tom Van Eynde; Marjorie B. Kiewit; Nancy N. Lassalle; Tom and Linda Heagy; Shafik Gabr, ARTOC Group, Cairo; Judge and Mrs. Warren Siegel; Alice Sgourakis; Barbara Breasted Whitesides and George Whitesides; Miriam Reitz Baer; Andrea Dudek; Beth Noujaim; James Lichtenstein; Jack Josephson and Magda Saleh; Priscilla (Peppy) Bath; Charlie Secchia; Emily Fine; Nan Ray; Anna White; Janet and Karim Mostafa; Waheeb and Christine Kamil; Caroline Lynch; Polly Kelly; Louise Grunwald; Lowri Lee Sprung; Andrew Nourse and Patty Hardy; Kate Pitcairn; Dr. Lorna Straus; Dr. William Kelly Simpson†; Jerry J. Felmley; Dr. Ben Harer; Dr. Roxie Walker; Tony and Lawrie Dean; Mr. Charles L. Michod, Jr.; Jane Zimmerman, Dr. Louise Bertini, Dr. Michael Jones, John Shearman, and Mary Sadek of the American Research Center in Egypt; and all of our friends and colleagues at the Oriental Institute. I must also express our special gratitude to British Petroleum, the Getty Grant Program of the J. Paul Getty Trust, LaSalle National Bank, Mobil Oil, Vodafone Egypt, the Rockefeller Brothers Fund (RBF) and the World Monuments Fund (WMF) for their past support of our work. Sincerest thanks to you all!

ADDRESSES OF THE EPIGRAPHIC SURVEY

October through March:

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April through September:

The Oriental Institute
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EXCAVATIONS AT SUREZHA 2017

Erbil Plain, Kurdistan Region, Iraq

GIL J. STEIN

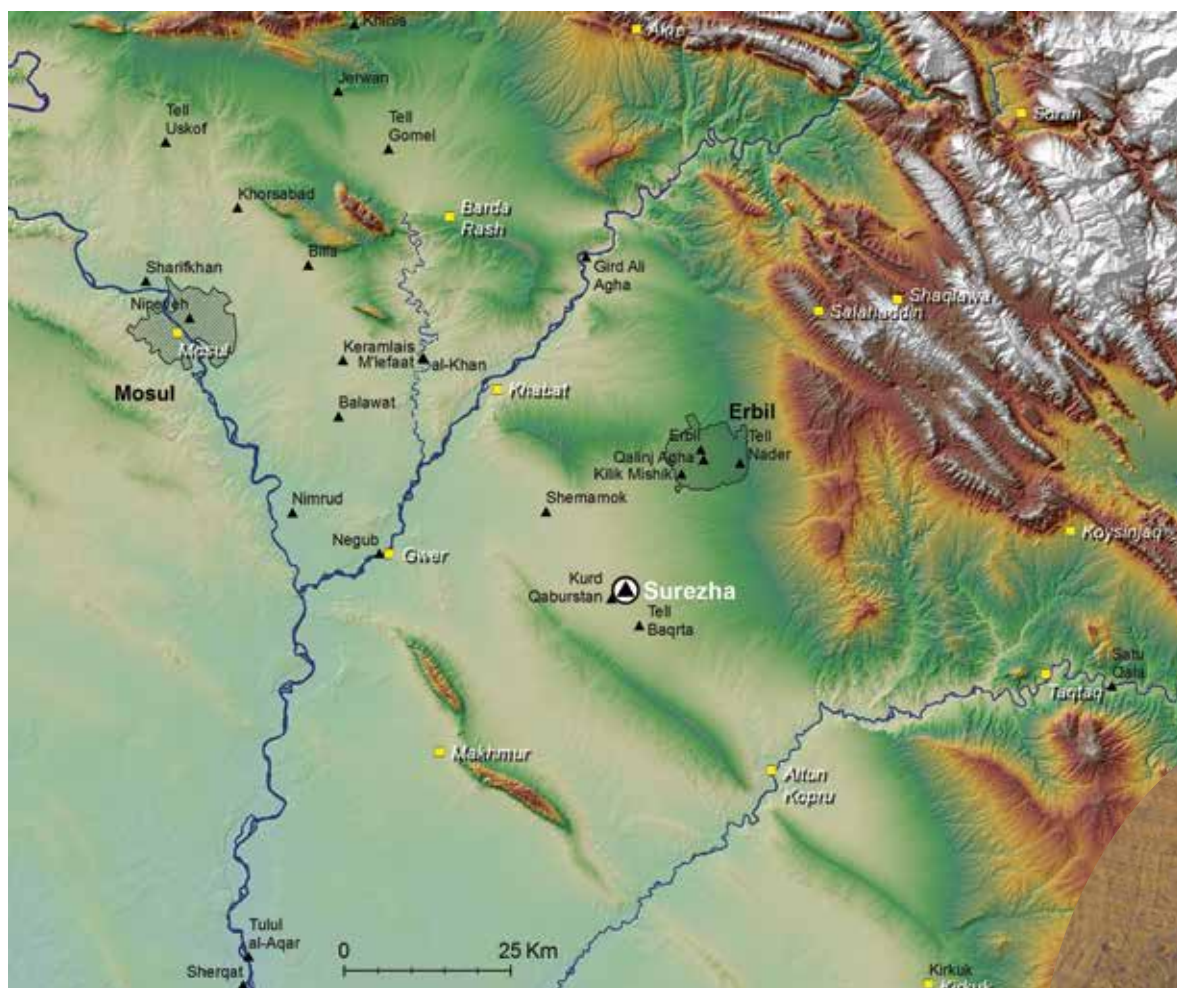
The Surezha excavations investigate the key phases in the origins of towns and later cities in Northern Mesopotamia during the sixth–fourth millennia BC Chalcolithic period. Surezha is an ideal site to define the Chalcolithic chronology and developmental sequence of the Erbil Plain in the Kurdistan region of northeast Iraq, because the high mound at the site is largely prehistoric, with only limited later occupation from the Middle Assyrian period and the Iron Age.

The Chalcolithic period, from 5500 to 3100 BC, is the time when the world's first urban civilization developed in Mesopotamia. The development of towns and cities is best known from the Ubaid and Uruk periods and their associated material cultural styles in southern Mesopotamia, at sites such as Eridu, Ur, and Uruk/Warka. We are only now beginning to understand the earliest stages in the development of urbanism in northern Mesopotamia and especially in Iraqi Kurdistan.

In the 2013 through 2017 field seasons, our plan has been to define the chronology and cultural developments in northern Mesopotamia, especially on the fertile and strategically located Erbil Plain during the Ubaid 3–4 (5300–5100? BC), Late Chalcolithic 1 or LC1(5100?–4500 BC), Late Chalcolithic 2 or LC2 (4500–3850 BC), and Middle Uruk (= LC3–4 periods ca. 3850–3400 BC) periods. The LC 1–5 sequence and terminology are used for northern or upper Mesopotamia in order to recognize the fact that cultural developments were not identical between the northern and southern parts of Mesopotamia. The 2017 field season marks a shift in strategy away from vertical excavations focused on defining site chronology toward an emphasis on broader horizontal excavations aimed at understanding economic and political organization in the LC1 period.

The 2017 field season took place from July 10 to August 21, 2017. The excavations were directed by Gil J. Stein, with Michael Fisher as associate director. Project staff consisted of John Alden (University of Michigan), Suay Erkesuz (University of Chicago), Taos Babour (Sorbonne University), Michael Fisher (associate director, University of Chicago), Sam Harris (University of Chicago), Monica Phillips (University of Chicago), Lucas Proctor (University of Connecticut), Bastien Varoutsikos (CNRS-Nanterre), Victoria Wilson (University of Chicago), and Ramin Yashmi (Tehran).

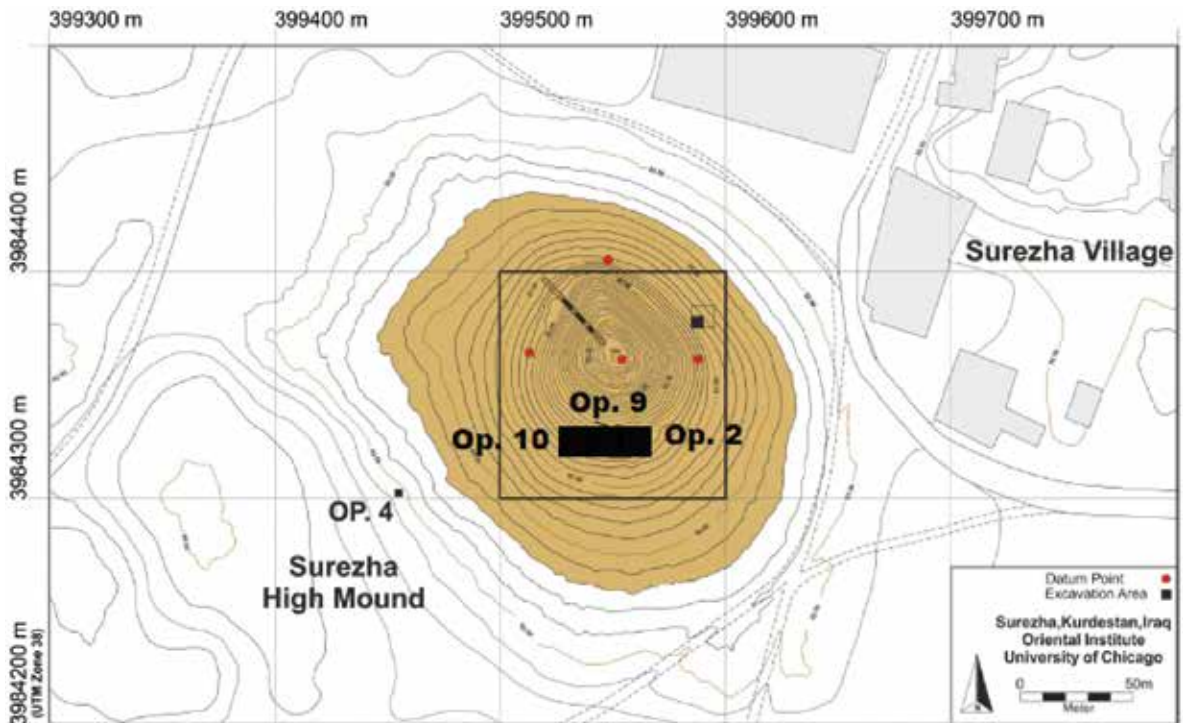
Field excavations were carried out by twenty workers from the Erbil Museum and from the village of Surezha. Our government representatives from the Kurdistan Regional Government (KRG) directorate of antiquities for the Erbil Governate were Rozhgar Rashid, and Nader Babakr, on-site and in the Erbil Museum. We express our deep appreciation to Mr. Mala Awat Abu Bakr Othman, director general of antiquities for the KRG, and to Mr. Nader Babakr, director of antiquities for the Erbil Governate. We thank Maghdid and Samira Maghdid, our host family in the village of Surezha. Financial support for the Surezha excavations came from the National Science Foundation (grant number 0917904), the Oriental Institute of the University of Chicago, and the generosity of private donors, notably Mr. Harvey Plotnick.



ABOVE: Figure 1. The Erbil Plain in the Kurdistan region, east of the Tigris River in Northeast Iraq, showing the location of Surezha (map courtesy of Jason Ur and the Harvard University Erbil Plain Archaeological Survey-EPAS).

SITE DESCRIPTION

Surezha is a mounded settlement of 22 ha, located next to the modern village of Surezha, approximately 20 km south of the modern city of Erbil in the Kurdistan region of northern Iraq (fig. 1). The site was first recorded by Jason Ur and Harvard University's Erbil Plain Archaeological Survey (EPAS) in 2012. The ancient site has three parts: a) the high mound; b) the terrace; and c) the lower town. The conical-shaped high mound measures approximately 188 m NW-SE and 150 m from SW to NE, with an area of approximately 2.8 ha. The high mound rises to a height of 16 m and is surrounded by a terrace on all sides. The terrace slopes gradually down to the lower town which extends out from the terrace in all directions. Our excavations have focused almost entirely on the high mound and terrace, where the prehistoric settlement of Surezha was located (fig. 2). Systematic surface collections across the site and excavation of step trench Op. 1 on



CIRCLE INSET: Figure 2. Drone photograph of Surezha high mound, showing operations 2, 9, and 210 in area B at the south end of the Surezha high mound (photo: Jason Ur and Harvard University-EPAS).

ABOVE: Figure 3. Topographic map of Surezha high mound, terrace, and lower town.

the high mound indicate that the Chalcolithic occupations of the Surezha high mound included the following sequence:

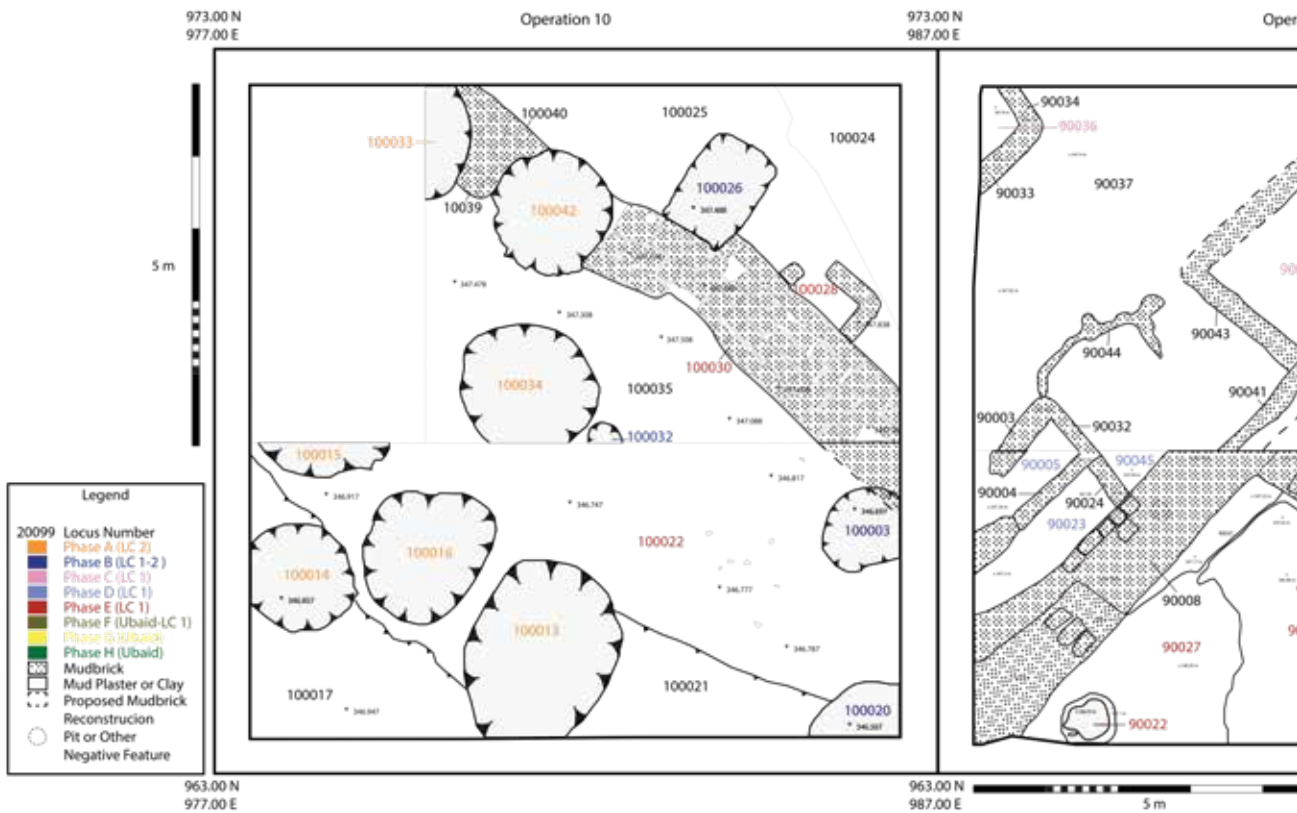
Late Chalcolithic (LC4)	ca. 3700–3400 BC (= Late Middle Uruk Period)
Late Chalcolithic (LC3)	ca. 3850–3700 BC
Late Chalcolithic (LC2)	ca. 4500–3850? BC (= Early Uruk period)
Late Chalcolithic (LC1)	ca. 5100–4500? BC
Ubaid	ca. 5500–5100? BC
Halaf	ca. 5800–5500 BC?

Our main goal in 2017 was to expose as broad an area as possible of the little known Late Chalcolithic 1 (LC1) period occupation of Surezha. This period immediately follows the Ubaid period when larger and more complex town-sized settlements with diverse populations first developed in the Near East.

Excavations took place in three contiguous 10 × 10 m trenches oriented east–west in Area “B” at the south end of the Surezha high mound: Operations 2, 9, and 10. At the juncture between the base of the high mound and the surrounding sloping terrace,

LC1 deposits are accessible immediately beneath the surface. This easy accessibility of fifth millennium BC deposits made the south base of the high mound an ideal place for broad horizontal exposures of the LC1 settlement and its Ubaid antecedents (fig. 3).

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ABOVE: Figure 4. Surezha area B: composite top plan of LC1 architecture in operations 2, 9, and 10.

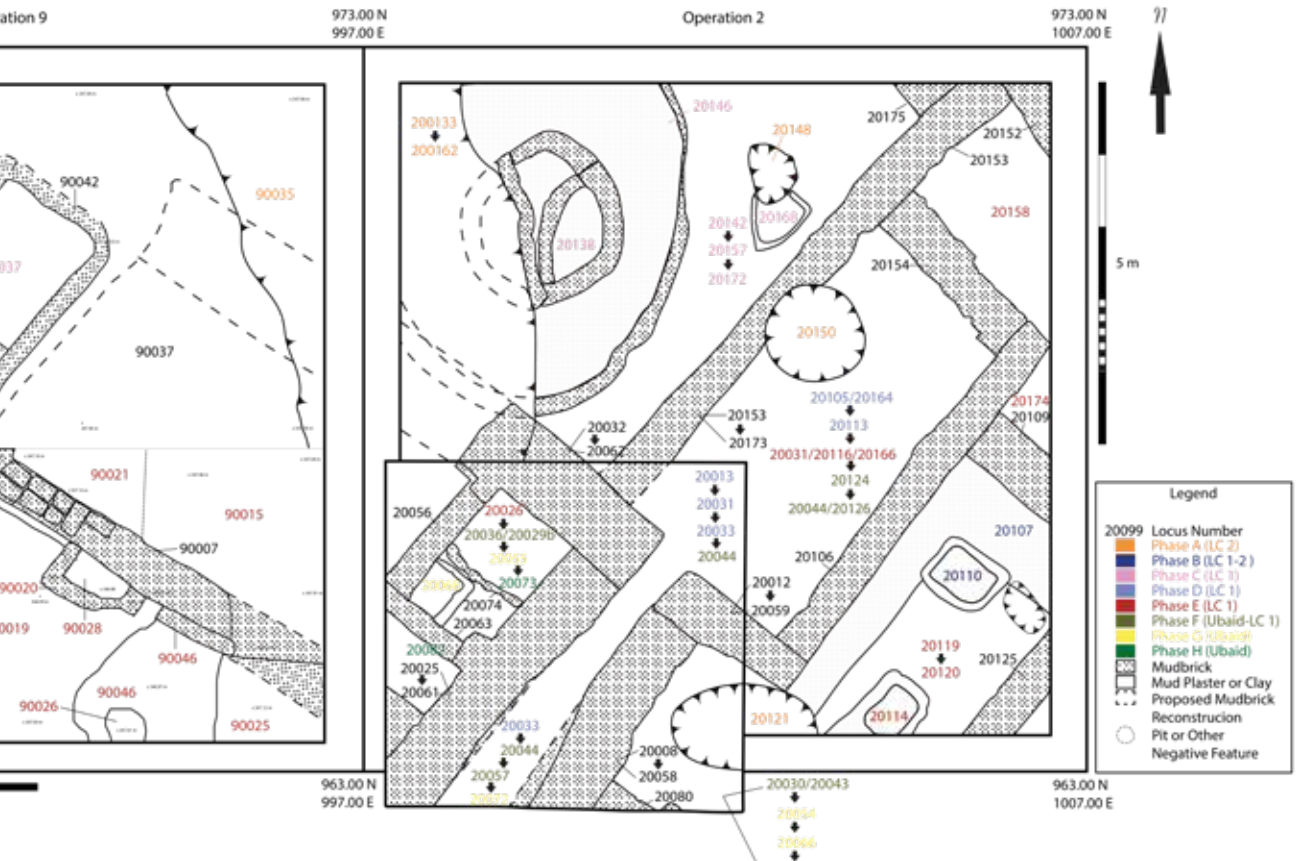
EXCAVATIONS

Excavations in the three trenches of area B exposed multiple phases of LC1 mudbrick architecture largely oriented NE–SW as the uppermost preserved stratigraphic phase immediately beneath the surface. Excavations in area B have now documented what we believe is the complete LC1 sequence at Surezha, starting with the Ubaid-to-LC1 transition and continuing through to a localized abandonment phase at the end of the LC1.

OPERATION 2

MICHAEL FISHER and RAMIN YASHMI

Operation 2 is a 10 × 10 m trench at the southern base of the high mound. Excavations begun here in 2013 recovered well-preserved remains of two (and possibly three) mudbrick houses oriented NE–SW, with a narrow alley between them and two large courtyards to the northeast (fig. 4). We were able to define a continuous sequence of occupation of houses and other architecture from the Ubaid through the end of the LC1 period. The “east house” and “west house” are both multiple room houses with ca. 90 cm thick exterior walls three to four courses wide, subdivided into interior rooms with smaller, thinner walls. The houses underwent at least one major rebuild, in which the exterior walls of the later construction phase were built on the same lines as the earlier walls.



Radiocarbon dates and ceramics associated with these houses show that they were continuously occupied for hundreds of years — in both the earlier Ubaid period and in the succeeding Late Chalcolithic 1 or LC1 period. Our evidence suggests that the transition from the Ubaid to the LC1 was gradual, with many stylistic continuities between the two periods. The floors of the east and west houses were generally clean; however, at least some prestige artifacts such as a fragmentary stone palette recovered in the earlier 2016 field season suggest that higher status individuals inhabited these structures. These houses continued in use in both the Ubaid and the early LC1 periods.

In the middle phase of the LC1 occupation of Op. 2 (phase D), the domestic architecture was filled in with trash and with deliberately laid mudbricks. These leveling activities provided the foundations for phase C — the late LC1 occupation, with a small mudbrick platform on which an enigmatic oval structure was constructed. A series of ash-filled pyrotechnic features surrounded the oval structure. The function of this feature or structure remains unclear.

In the final LC1 occupation phase B, this part of Op. 2 seems to have been an open area or outdoor surface with pits, pyrotechnic features, and a domed clay oven. At this point, the area seems to have been abandoned, as we can see from the accumulation of wash layers that were eventually cut through by an erosional gully. The deposits that accumulated in the gully contained largely late LC1 ceramics with a few examples of later LC2 pottery. We can interpret this as the end of the LC1 occupation and the erosion downslope of deposits from the earliest LC2 occupation at the south end of the site.

OPERATION 9

SAM HARRIS and SUAY ERKESUZ

Operation 9 is a 10 × 10 m trench excavated immediately to the west of Op. 2. The trench was excavated in two 5 × 10 m “steps,” with the 10-m long axis oriented east-west. The upper step was located in the northern half of the trench and the lower step was downslope in the southern half. All cultural deposits exposed in Op. 9 during the 2017 season dated to the middle (phase F) and late phases (E3-1) of the LC1 period in area B. Based on the stratigraphy of the adjacent Op. 2, it is likely that deposits dating to the earliest LC1 and to the Ubaid period are present in the as-yet unexcavated strata at the base of Op. 9.

The mudbrick walls exposed in Op. 9 align well with those of adjacent trenches, and wall 7 appears to link across into the walls of the “west house” in Op. 2 to the east (fig. 4). Operation 9 architectural phases F (earliest) through E1 show great continuity in wall orientation and location. Wall 8 — a large mudbrick wall 5 courses wide — continued in use from its construction in phase F through phase E2. Wall 8 may have formed the western wall of the “west house” in adjacent Op. 2, most likely enclosing the open air courtyard of that house. In the later LC1 phase E2, the courtyard was subdivided by the construction of smaller 2-course wide mudbrick wall 7. At this point, a series of thin, 1-course wide mudbrick walls were built to the west of the long-standing wall 8, possibly forming small outdoor bins. This is the uppermost preserved architecture in Op. 9.

In phases E1 and D, the larger courtyard walls and small bins were filled up and covered over with mudbrick collapse.

In the final phases C and B, the area of Op. 9 was completely abandoned, and thick, silty wash layers sealed off the LC1 architecture. These deposits match the sediments found in adjacent Operations 2 to the east and 10 to the west in showing that the area of the three trenches in area B was abandoned for an undetermined interval between the end of the LC1 period and the beginning of the later LC2 period occupation at the south end of the Surezha high mound.

OPERATION 10

TAOS BABOUR, VICTORIA WILSON, and LUCAS PROCTOR

Operation 10 is a 10 × 10 m trench immediately to the west of Op. 9, and was the westernmost trench excavated in area B during the 2017 field season. It is located at the southwest edge of the high mound, so that the present day ground surface slopes down to both the west and south. As with adjacent Op. 9, Op. 10 was excavated in two east-west oriented steps measuring 5 × 10 m. The lower step at the south end of the trench was badly eroded with the result that the only preserved in situ features were the bases of later pits and installations cut down from later surfaces that are no longer preserved.

Excavations identified three main stratigraphic phases in Op. 10. The earliest occupation reached in 2017 is Phase C, which dates to the LC1 period. This is represented by locus 28–30, a large mudbrick wall 1.25 m wide, constructed of five rows of bricks and is preserved at a height of 0.9 m. Wall 28–30 extends for about 6 m from NW–SE and extends into the east baulk section of Op. 10 (fig. 4). This is the same orientation as the walls in Operations 2 and 9. The wall was constructed on top of a compact clay outdoor surfaces locus 22. This appears to be a large-scale enclosure wall surrounding an outdoor surface or courtyard. Potsherds incised with distinctive “herringbone” and “chevron” patterns, and deep comb incised sherds, allow us to date the wall and courtyard to the earliest phase of the LC1 period. The presence of several superimposed clay surfaces suggests that the wall and courtyard were in use for an extended period. At some point in the middle or late LC1 period, the wall and courtyard were abandoned and filled in with mudbrick collapse and wash.

The next phase of occupation — phase B — is represented by a series of pits (loci 3, 20, and 45), a plastered basin (locus 26), and an infant jar burial (locus 32) dug down from a higher surface that is no longer preserved. These pits are difficult to date with precision, but apparently belong to the end of the LC1 or the early LC2 period. Plastered basin 26 is particularly noteworthy because it contained two ceramic types that are extremely rare on the Erbil Plain, but occur more frequently at Tepe Gawra and west of the Tigris River in northwest Iraq and the Syrian Jazira. The first of these was a jar whose painted motifs seem to be a local version of “sprig ware” (fig. 5), generally dated to the LC1–2 periods. The second type is a plain fine ware bowl of “blister ware” (named for the presence of air pockets inside the vessel walls, creating clear bulges or blisters on the surface) found in both plastered basin 26 and pit 3 (fig. 6, drawing 5); this too is a ceramic form datable to the late LC1–2 at sites such as Hamoukar in the Syrian Jazira. These pits and installations were overlain by the same wash layer that seals LC1 deposits in all three trenches of area B and apparently signals the abandonment of this part of the site.

After a hiatus lasting about three millennia, the final occupation phase of Op. 10 consists of a series of seven large bell shaped pits 1.2 m in diameter (loci 13, 14, 15, 16, 33, 34, and 42) possibly used for grain storage. These pits can be dated by their ceramics to the Middle Assyrian period/Late Bronze Age, in the second half of the second millennium BC. Due to extensive erosion, only the bottoms of these pits were preserved.



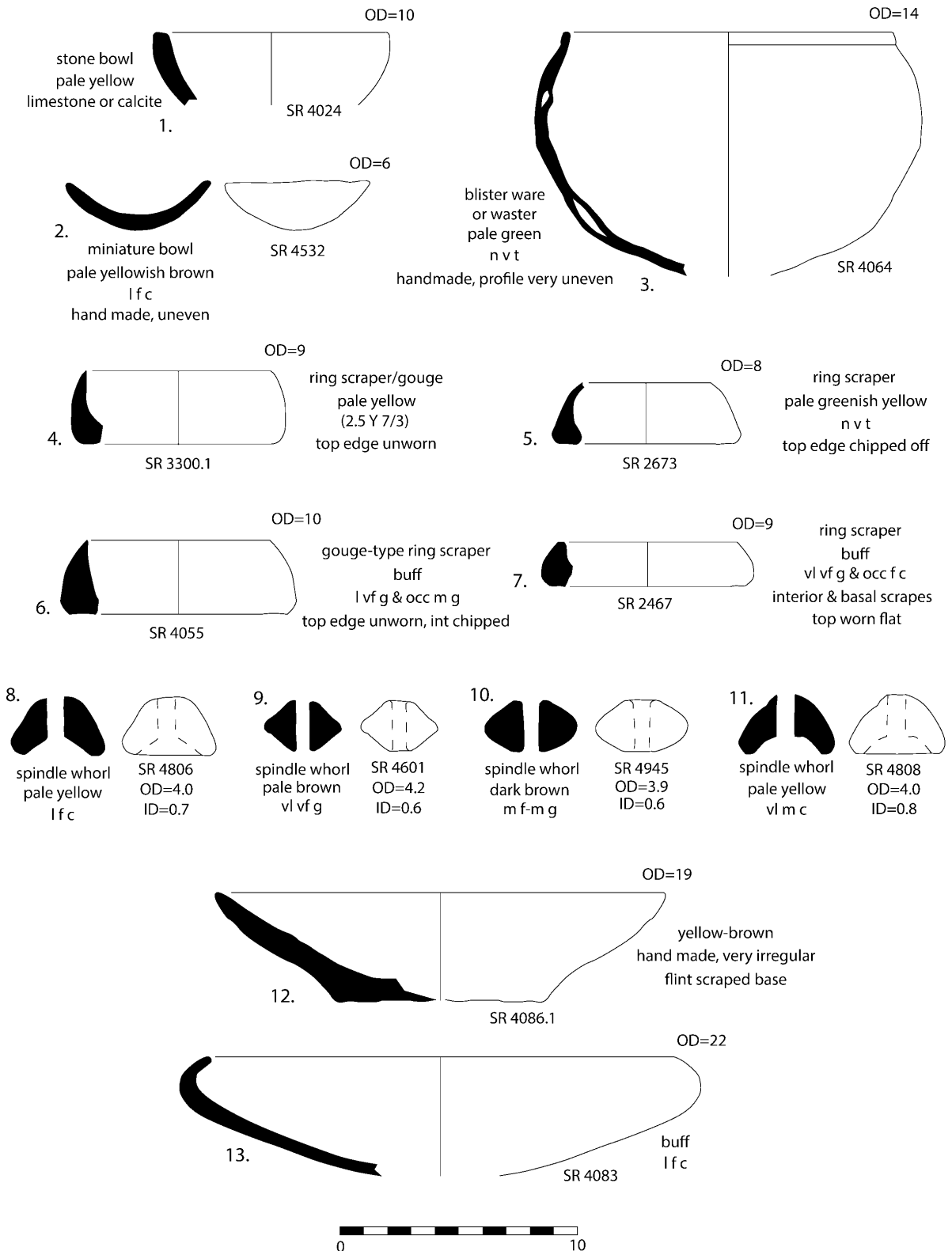
ABOVE: Figure 5. Globular jar from Surezha Op. 10 with local Erbil plain version of “sprig ware” — an LC1–2 pottery style found in northern Mesopotamia at sites such as Tepe Gawra, Shelgiyya, and Hamoukar.

ARCHAEOBOTANICAL ANALYSES

LUCAS PROCTOR

To understand agricultural production and consumption patterns at Surezha, Lucas Proctor (University of Connecticut) processed and analyzed the Surezha archaeobotanical samples. The processed samples were examined at the University of Connecticut Archaeobotany Laboratory. These examinations are ongoing. Processing and analysis of 41 samples recovered nearly 9,000 seeds. Cereal grains and chaff represented the vast majority of carbonized botanical remains in the examined samples. Two-row barley and emmer wheat both appear to have been heavily exploited at Tell Surezha. Barley was the more common of the two. This emphasis on heat and drought tolerant cereals is consistent with Tell Surezha’s location on the hot, semiarid Erbil Plain. Legumes such as lentils are present as well, but are significantly less common than cereals. Flax seeds also common, probably as a source of fiber for textile (linen) production, and perhaps secondarily for oil. The Surezha data closely match the pattern of cereal remains recovered from other Ubaid/Chalcolithic sites in Northern Mesopotamia, especially Tell Zeidan and Kenan Tepe.

PROJECT REPORTS | EXCAVATIONS AT SUREZHA



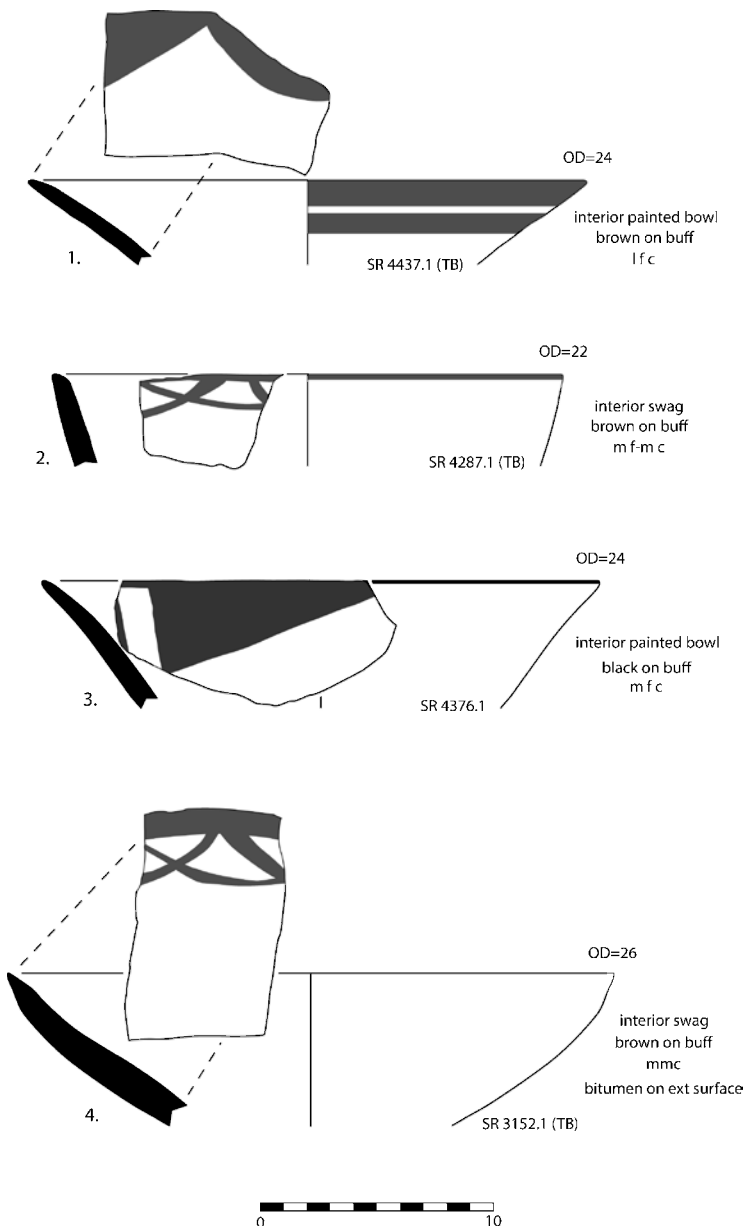
ABOVE: Figure 6. Ceramic objects from Surezha including “blister ware” pottery characteristic of LC1-2 (drawing 3), ceramic ring scrapers (4-7), and spindle whorls (8-11).

CERAMIC ANALYSIS

JOHN ALDEN

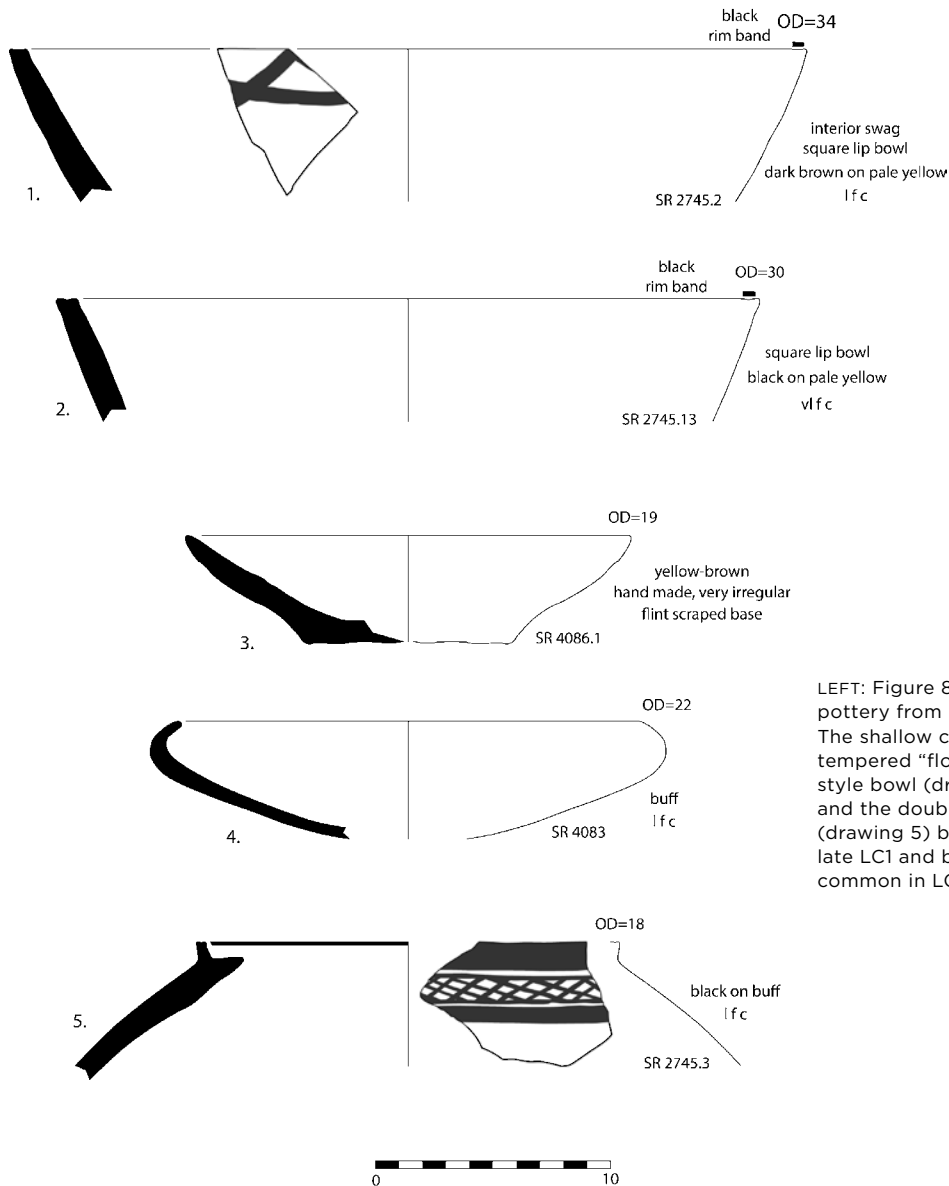
Analyses of the ceramics was conducted by John Alden (University of Michigan). During the 2017 field season, 1,861 diagnostic sherds from Chalcolithic contexts in operations 2, 9, and 10 were sorted and recorded. Key categories were rims, bases, painted body sherd, incised body sherds, and other miscellaneous diagnostics (handles, lugs, spouts, etc.). John drew 311 diagnostic ceramics with assistance from Taos Babour (Sorbonne). This analytical data set is essential for the development of the Surezha Chalcolithic ceramic chronology and typology, being conducted by Gil Stein. Ceramic analysis in the 2017 field season focused on defining the poorly known LC1 ceramic assemblage.

Incised decorations such as horizontal deep-comb incision, shallow-incised herringbone, and chevrons are proving to be especially useful stylistic elements to identify the earliest phases of the local LC1 ceramic assemblage on the Erbil Plain. However, it has become increasingly clear that the Ubaid tradition of brown-painted bands and geometric designs continued to be an important element of the design repertoire throughout the LC1 period on the Erbil Plain. The painted motifs — such as hanging “swags” on bowl rims — continue the Ubaid tradition. However in the LC1, these swags overlap each other and are often painted on the rim interior, rather than on the exterior (fig. 7, drawings 1, 2, and 4; fig. 8, drawing 1), as had the practice in the preceding Ubaid period.



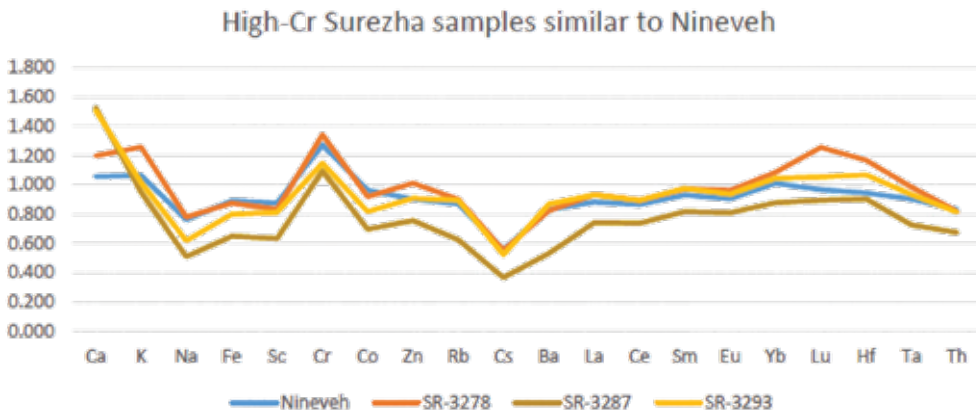
LEFT: Figure 7. Surezha LC1 bowls continuing the Ubaid painted pottery tradition with key differences — the painted “swags” are overlapping, and they are placed on the bowl interior instead of exterior (drawings 1, 2, and 4). LC1 painted wares are also chaff tempered rather than mineral tempered as in the Ubaid.

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LEFT: Figure 8. Late LC1 pottery from Surezha. The shallow chaff tempered "flower pot" style bowl (drawing 3) and the double rim jar (drawing 5) begin in the late LC1 and become common in LC2.

Another key difference is that LC1 painted horizontal bands are very wide and crudely executed, while the Ubaid period bands are thinner and more carefully painted. Even in the later phases of the LC1, painted wares are often 50% of the diagnostics in many loci. This is significant, because it means that the local LC1 ceramic traditions east of the Tigris differ from the local LC1 tradition as seen at sites in North Syria such as Tell Zeidan and Mashnaqa. In North Syria, the frequency of painted decoration declines rapidly. It becomes very rare in the middle and later phases of the LC1 period, and is completely absent in the following LC2 period. When viewed in regional context, we can see that the LC1 was a period where there was great regional variation in the local expressions of the broader ceramic traditions of northern Mesopotamia.



ABOVE: Figure 9. Instrumental Neutron Activation Analysis (INAA) of the chemical composition of Surezha LC1 ceramics show that at least five or six vessels were imported from Nineveh. Source: Figure 6 in Leah Minc, 2017. “Assessing Compositional Variation in Ubaid and LC Ceramics from Surezha, Kurdistan: Results of Instrumental Neutron Activation Analysis.” Corvallis, OR: Oregon State University Radiation Center.

GEOCHEMICAL ANALYSES OF SUREZHA CERAMICS

LEAH MINC

Leah Minc (Oregon State University) conducted a geochemical analysis of thirty-two selected ceramics from the Ubaid through LC3 occupation periods at Surezha, using Instrumental Neutron Activation Analysis (INAA) as a way to identify the distinctive geochemical profile of different component elements in the clays used to manufacture ceramics at Surezha. By identifying the unique “chemical fingerprint” of the local Surezha ceramic clays, it becomes possible to identify ceramics that were traded in from other regions based on the differences in clay composition. The analysis measured the amounts and relative percentages of twenty-seven different elements in the ceramic clays. Twenty-five of the thirty-two sampled sherds had highly similar elemental profiles, indicating that they derived from the same local clay deposits at Surezha. However, six of the thirty-two ceramic samples were statistical outliers, significantly different in chemical composition from the local Surezha clays. These outliers are ceramics that may have been manufactured elsewhere and arrived at Surezha as trade goods. Comparisons of the Surezha outliers with the clay compositional groups from the contemporaneous nearby sites of Tepe Gawra and Nineveh suggest that at least four of the Surezha ceramic samples were trade goods produced at Nineveh (fig. 9). At least one sample (SR 3293, dating to the LC3 period) had a chemical compositional profile with high chromium levels characteristic of Nineveh. Five of the outliers date to the LC2 and LC3 periods, possibly indicating an increase in regional trade after the LC1 period.

CHIPPED STONE LITHIC ANALYSIS

BASTIEN VAROUTSIKOS

Bastien Varoutsikos conducted the analysis of the excavated chipped stone artifacts (tools and industrial debris). In 2017 he examined 521 (out of an estimated 3000–4000 total) pieces from all major prehistoric periods at the site. Analysis of the lithic assemblage focused on several key types of information: a) the types of raw materials used to manufacture the tools; b) techniques of tool production (the “chaîne opératoire”) and the ways these changed over time; c) spatial and temporal patterning of the different main types of stone tools.

PROJECT REPORTS | EXCAVATIONS AT SUREZHA

The three most common classes of raw material for chipped stone tools are chert from cobbles or pebbles on the Erbil Plain, quartzite (also probably collected locally), and small amounts of obsidian — black volcanic glass imported from the area around lake Van in what is now eastern Turkey. Examination of the “Chaines opératoire” or production sequences indicate that techniques of lithic tool manufacture became increasingly complex over time. As one might expect in an ancient rural agricultural community, sickle blades of various types are the most frequently occurring tool type. The proportion of sickle blades increases three-fold

over the course of the Surezha occupational sequence from 5.56% at the earliest Halaf–Ubaid levels excavated up to 17.14% in the LC3 period of the early fourth millennium BC (table 1).

The vast majority of the chipped stone tools and manufacturing debris indicate local tool production and use of flake tools at the site. Cortical flakes and flake cores indicate that the people of Surezha collected chert and quartzite cobbles or pebbles from nearby stream beds and used them to manufacture most of their own tools in what appears to be a system where each household produced its own tools (fig. 10, drawings 7–8, 11–14).

Two forms of chipped stone were not produced on-site, but were instead obtained through trade. Geochemical analyses by Lamy Khalidi and Bernard Gratuze from the French Centre Nationale de la Recherche Scientifique (CNRS) show that obsidian at Surezha was procured from the Nemrut Dag obsidian source in the Lake Van area of Eastern Anatolia (modern Turkey). The tools were then traded over hundreds of kilometers to reach communities such as Surezha on the Erbil Plain.

The second class of chipped stone that was procured through trade was sickle elements made from “Canaanite” chert blades (fig. 10, drawings 4–5). These wide, thick, and long prismatic blades require large, carefully prepared cores to make the tool, and great expertise in pressure flaking as a manufacturing technique. For that reason, Canaanite blade sickle elements were produced by expert craft specialists and traded from some other location to Surezha. Once on site, the blades were snapped into smaller pieces and hafted into bone or wood sickles, using locally available bitumen as the adhesive that glued the blades into the sickles. Perhaps the most interesting discovery about Canaanite blades is that they show a major shift in patterns of production and trade. In the Ubaid, LC1–2 periods, a rudimentary form of Canaanite blade was made locally at Surezha. However, in the LC3 period (ca. 3800 BC), a major shift took place in which the people of Surezha stopped making their own Canaanite sickle blades and instead started to import large amounts of these tools from an as-yet undetermined location.

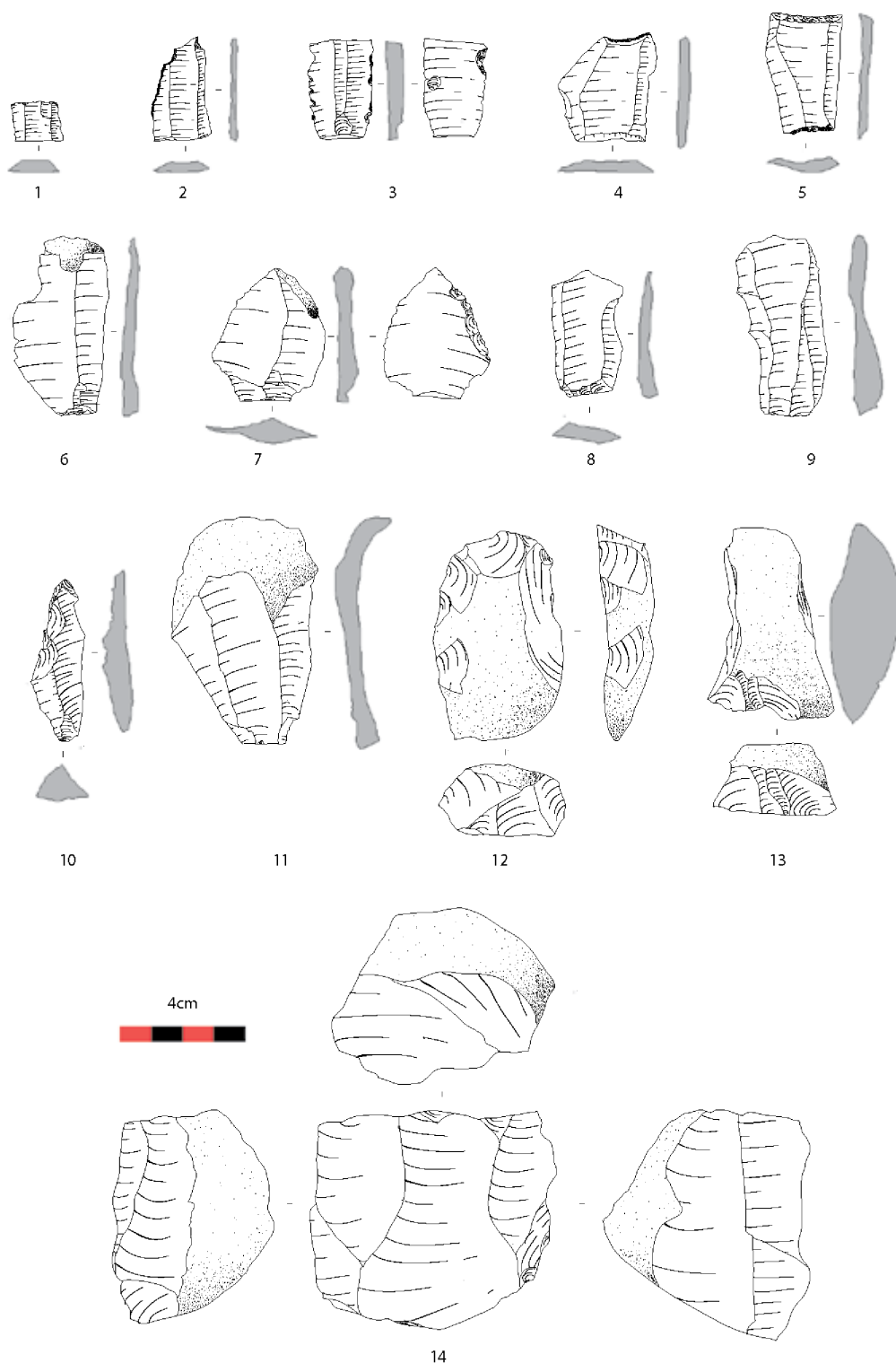
Table 1. Surezha Sickle Blades by Period

<i>Period</i>	<i>N Total</i>	<i>N Sickle</i>	<i>% Sickle</i>
Halaf-Ubaid	36	2	5,56
Ubaid	106	9	8,49
Ubaid-LC1	204	24	11,76
LC1	76	8	10,53
LC2	29	0	0,00
LC3	70	12	17,14
Total	521	55	10,56

MICRO-ARCHAEOLOGICAL SAMPLING OF HOUSE FLOORS

SAM HARRIS

In 2017 we initiated a program of micro-archaeological sampling. The garbage that archaeologists find on house floors was almost always deposited *after* the houses were abandoned. Usually, when archaeologists excavate houses, they find very few in situ artifacts, since the ancient inhabitants swept the floors periodically and kept their houses clean. However, the very smallest artifacts (<1cm) were often missed in cleaning, and were trampled into the earthen house floors, thereby preserving them as an



ABOVE: Figure 10. Chipped stone objects from Surezha: 1. Blade segment (SR 30572); 2-3. Retouched blade segments (SR 2080 and 0871); 4. Truncation on blade (SR 0903); 5. Double truncation on blade (SR 2740); 6. Cortical bladelet (SR 52725); 7. Retouched cortical flake (sidescraper) (SR 3218); 8. Retouched bladelet (endscraper) (SR 2968); 9. Blade (SR 5725); 10. Crested bladelet (SR 5725); 11. Overshot cortical bladelet (SR 2203); 12. Roundscraper on cortical flake (3192); 13. Adze on cortical flake (SR 2717); 14. Blade-like flake core (SR 2968).

PROJECT REPORTS | EXCAVATIONS AT SUREZHA

in situ record of the kinds of activities that took place within the house. To understand what economic activities took place inside the houses, doctoral student Sam Harris laid out a 1-meter grid across the interior floors and collected micro-archaeological samples of the floor matrix in each sample square. The samples were then sifted through very fine mesh screens to recover beads, small figurines, and other artifacts so small that they were generally missed in everyday house cleaning. Eighteen micro-archaeology samples were collected in this way and analyzed at the University of Chicago. The initial findings are that micro-artifacts of ceramic and bone were common, but chipped stone micro-debris was rare, probably because flint tool manufacture and maintenance generally took place outside the houses, in the courtyards. In future seasons we plan to expand micro-archaeological sampling to include both indoor and outdoor surfaces as a way to map activities of daily life in Chalcolithic households at Surezha.



RADIOCARBON (C14) DATES AND CHRONOLOGY

In 2017, we continued our radiocarbon sampling program aimed at defining an absolute chronology for the Chalcolithic ceramic assemblages on the Erbil Plain.

Ten samples of seeds and charcoal were processed by Accelerator Mass Spectrometry (AMS dating) by Beta analytic Laboratory in Florida (table 2). One of these (SR4879) had modern contamination, however the remaining nine samples are consistent in showing surprisingly early dates for the LC1 period.

Table 2. Surezha 2017 Radiocarbon Samples

Sample no.	SR no.	Op. no.	Locus no.	Lot	BC Cal. Min.	BC Cal. Max.	Deposit Class	Deposit Type	Period
1	4546	2	119	38	5081	4935	Primary	Room/floor deposit	LC 1
2	4916	2	126	51	5209	5002	Tertiary	Ashy buildup	Ubaid-LC 1
3	5260	2	133	73	5002	4840	Tertiary	Gully Cut	LC 1-2
4	4999	2	138	69	5084	4961	Feature	Indeterminate	LC 1
5	5333	2	144	87	4992	4831	Tertiary	Mudbrick collapse	LC 1-2
6	5594	2	156	120	4943	4781	Tertiary	Mudbrick collapse	LC 1
7	5875	2	157	139	5209	4992	Feature	Floor/indoor surface	LC 1
8	4789	9	8	61	1990 AD	1994 AD	Feature	Mudbrick wall	LC 1
9	4880	9	17	76	5184	5057	Feature	Mudbrick pavement	LC 1
10	5179	9	18	92	4998	4836	Tertiary	Leveling fill	LC 1



ABOVE CENTER: Figure 11. Iranian style “Dalma Impressed Ware” ceramics found in the uppermost LC1 deposits at Surezha.

CULTURAL CONNECTIONS:

The Erbil Plain, like the broader Assyrian heartland east of the Tigris, has historically had close cultural connections with the neighboring regions of Anatolia, Iran, and southern Mesopotamia. Material culture items like the painted ceramics and baked clay “mullers” show that the Erbil Plain had close economic and cultural ties with southern Mesopotamia in the sixth–fifth millennium Ubaid period. The evidence for long distance trade in obsidian shows that the Erbil Plain had economic links with Anatolia and other regions to the north. The remaining big question concerned relations to the east — through the mountain passes into Iran. One of our most exciting discoveries in 2017 was the recovery of the first clear evidence for cultural (and possibly trade) ties

between the Erbil Plain and Iran. At the end of the LC1 period at Surezha (ca. 4200 BC) we can now see evidence for the sudden appearance of a distinctive Iranian ceramic type — “Dalma Impressed Ware” — from the neighboring Urmia region in the Iranian Zagros (fig. 11). Taken together, the evidence shows that Surezha and other communities on the Erbil Plain were intensifying their economic and cultural connections in every direction during the fifth millennium BC, and this seems to have played a role in the emergence of the earliest urbanism and social stratification in the Assyrian heartland.

CONCLUSIONS

The 2017 field season at Surezha enabled us to recover important information to identify and date the local Chalcolithic cultures of the Erbil Plain in the Kurdistan region, east of the Tigris River in northeastern Iraq. In particular, we can now start to define, recognize, and give absolute dates to the ceramic assemblages of the Halaf, Ubaid, LC1, LC2, and LC3 periods on the Erbil Plain. These periods are important because they span the crucial time when social stratification, states, and urban societies first developed in Mesopotamia. We can also better understand the distinctive local LC1 ceramic tradition of the Erbil Plain. Finally, we can now see evidence for increasingly complex economic systems of agricultural production, herding, craft production, and trade in the communities of the Erbil Plain. These economic changes seem to have given rise to the beginnings of social stratification. With this baseline, we can start to understand the early development of towns and cities in this important, but so-far poorly known region of the Fertile Crescent.

GALILEE PREHISTORY PROJECT

Excavations at Tel Nes (Tell es-Sanjak)

YORKE M. ROWAN, MORAG M. KERSEL, and AUSTIN “CHAD” HILL

In 2016, a variety of sites were considered for the next phase of the Galilee Prehistory Project. Our interest was to select a site contemporaneous with Marj Rabba, representing a different environmental zone or a different functional purpose. After visiting a number of sites and many discussions with archaeological colleagues, the site of Tel Nes (Tell es-Sanjak) was selected for preliminary investigation.

Tel Nes (originally, Tell es-Sanjak) is located near the modern community of Elifelet, Israel, on the IAA Rosh Pina Map No. 18 (Site No. 241), Lat. 32°57'29.23", Long. 35°33'36.74" (Israel Grid: SW - Easting 252681, Northing 762508 to NE - Easting 252833, Northing 762780). The volcanic cone of Tel Nes is situated in a large basalt region (geographical unit #5 on Stepansky's survey), a barren and rocky zone in the southern section of the Rosh Pina survey map. Tel Nes stands out in the local landscape and, as noted by Stepansky, there is a fortification extending around the top of the hill ca. 100 × 200 m (fig. 1).



ABOVE: Figure 1. GoPro image of Tel Nes, looking north.

PROJECT REPORTS | GALILEE PREHISTORY PROJECT



LEFT: Figure 2. Photo of fortification wall along edge of Tel Nes.



RIGHT: Figure 3. Initial opening of squares F1 and F2 on lower southern slope of Tel Nes.

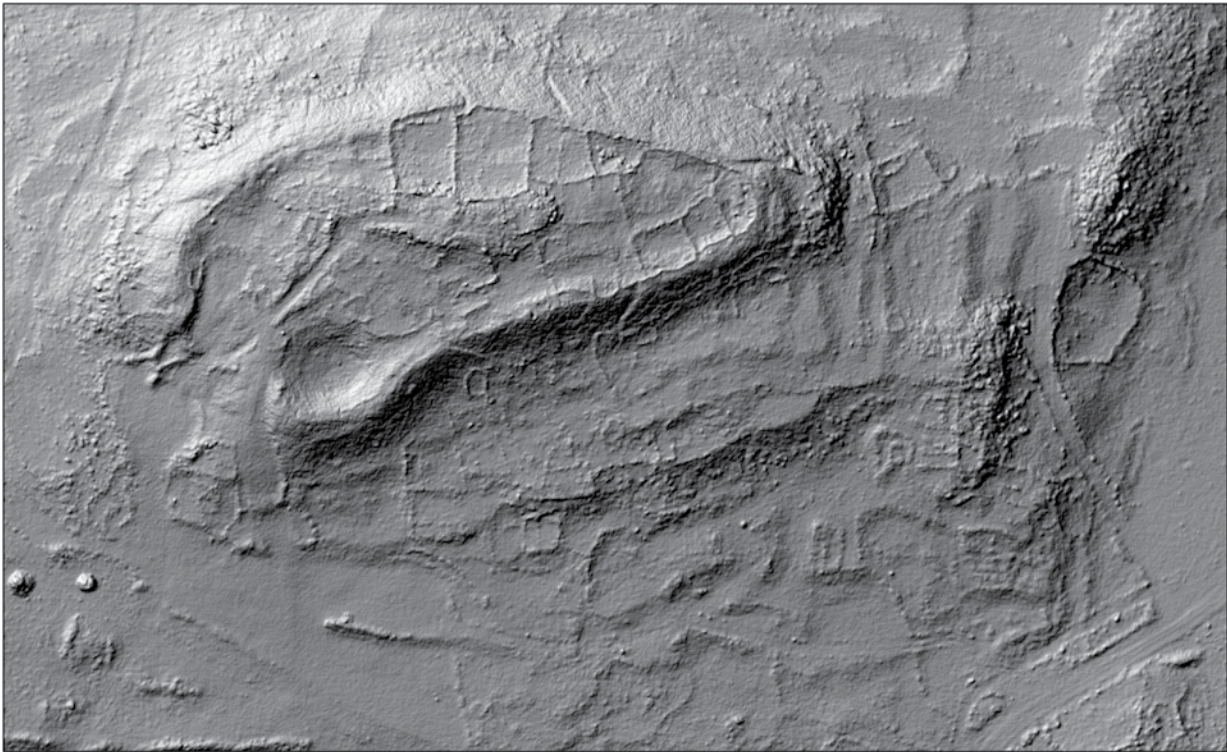
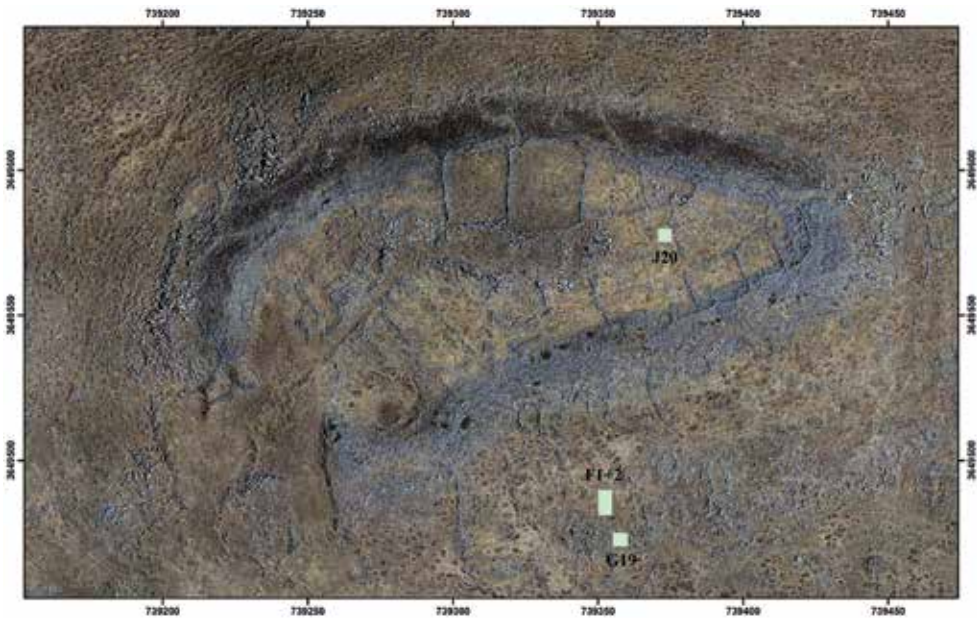
This well-constructed wall is still visible in places, particularly on the northern aspect, and is thought to date to the Iron Age (fig. 2). The Iron Age identification is based on sherds recovered during the IAA survey by Stepansky and colleagues. Other major features of the site include a large pool or cistern, visible in the digital elevation model (fig. 4), a bulldozer cut on the southwestern side of the mound, and walls of rectangular features on top and along the shoulders.

Our interest in the site was primarily focused on the southern slopes of the hill, where various walls are visible, including possible terrace walls, courtyards, and rectangular structures suggestive of the Chalcolithic period based on size and shape. Chalcolithic sherds of dark red ware with basaltic inclusions (i.e., “Golan ware”) were notable in this area, although they are also common atop the hill. Lithic finds on the surface were very rare, and few were clearly late prehistoric.

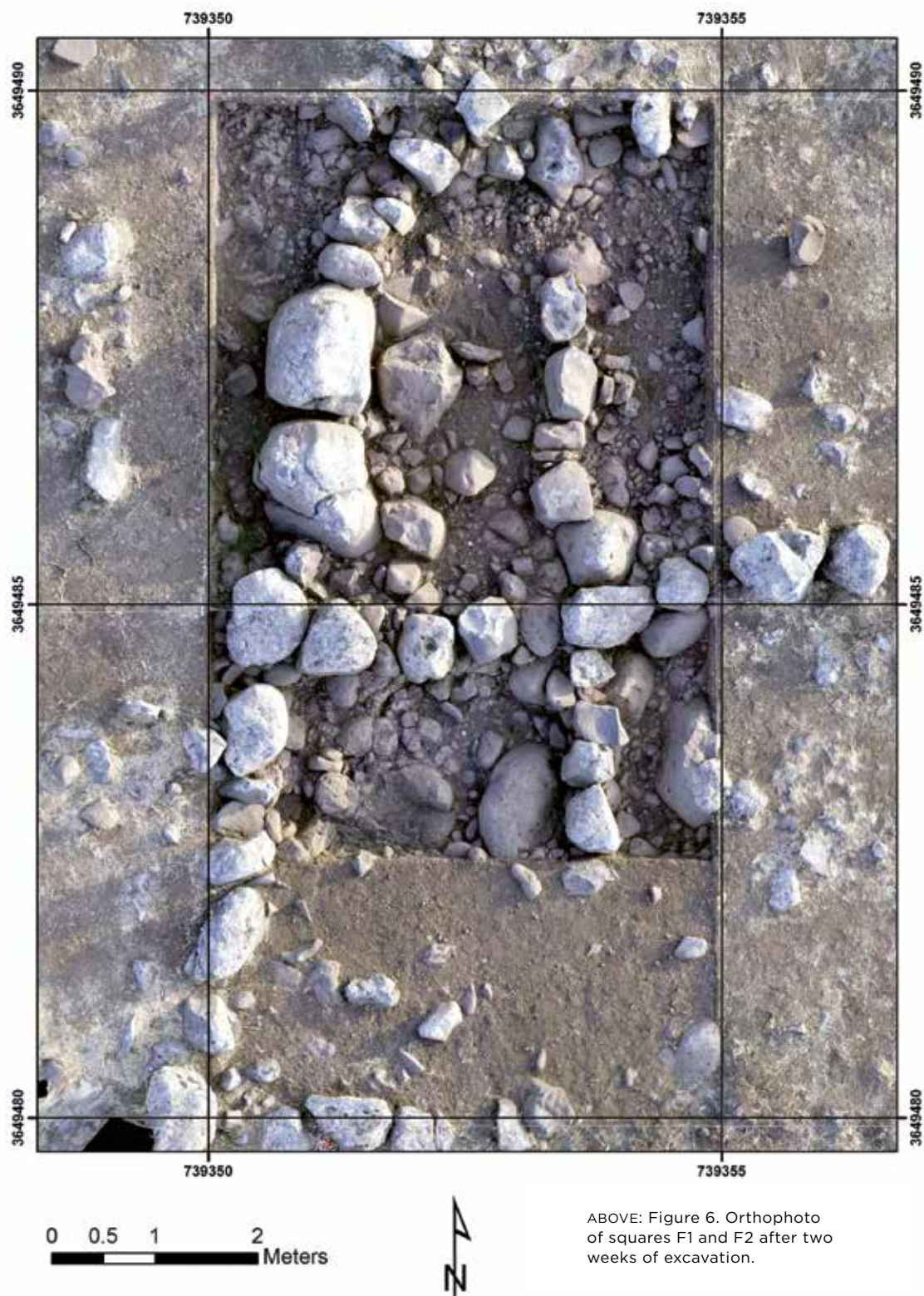
In preparation for the excavation season, we visited the site with two RTK GNSS receivers (EMLID REACH RS). The units allow point collection at approximately centimeter accuracy so that we could establish benchmarks and collect other data points. In addition, this enabled the quick collection of data on ground control targets we set around Tel Nes. These targets allow us to accurately georeference orthophotographs and digital elevation models (DEMs) generated from imagery collected by a drone, which was flown over the hill for four flights (figs. 4–5). Using the Emlid Reach units, we established benchmarks, a grid system, and laid out corners for excavation squares. This was completed prior to the planned excavation field season.

For this exploratory season, our field team was small, with a total of eight people (including directors Rowan and Kersel). This included project members with previous experience working with GPP and the Eastern Badia Archaeological Project (Heidkamp and Hanson), and two University of Chicago Metcalf Interns, Jennifer Feng and Nathaniel Downey. Ms. Feng also represented the GPP at the Oriental Institute Research Fair on June 1, when Yorke Rowan was already at Wisad Pools, Jordan, for the Eastern Badia Archaeological Project field season.

On July 6th, our first day in the field, we opened two 5 × 5 m squares, F1 and F2, clearing vegetation, and then beginning excavation of the disturbed topsoil with picks and hoes (fig. 3). Although total retrieval of archaeological material is the goal, we did not sieve the first few centimeters of disturbed loose topsoil in favor of expediency. Throughout our excavations we found preservation of bone material to be extremely poor and virtually no preserved carbonized remains that might allow for radiocarbon dating. After a few centimeters of digging, we began to sieve all excavated matrix. Excavation of these disturbed sediments continued for the next week in L.004 (F2) and L.005 (F1), removing rocks and sediment that became increasingly blocky and dense with greater



ABOVE: Figure 4. Digital Elevation Model (DEM) of Tel Nes highlighting walls atop and along lower slopes. BELOW: Figure 5. Orthophoto of Tel Nes with excavation squares.



ABOVE: Figure 6. Orthophoto of squares F1 and F2 after two weeks of excavation.

depth. This sediment included Chalcolithic sherds as well as sherds from other periods: Iron Age and later. Very few flint tools or debitage, and no animal bones, were recovered.

In sq. F2, between the north-south wall #1 and #2, locus L.008 was a similar rocky matrix to that found throughout the square, with Chalcolithic sherds mixed with other, later period sherds, many of them worn and smoothed. Despite the absence of change in the matrix, L.008 was created as a distinct locus because of the depth from the ground surface and possible appearance of bedrock. On the eastern side of wall #2, to the eastern baulk of the square, a similar matrix was given locus number L.009 (fig. 6). Many fist-sized rocks are found throughout the sediment.

In sq. F2, L.006 was assigned in the northwestern section of the square, between the eastern baulk and to the west of the NS wall #1, where a debris layer of sherds and small cobble rubble was identified. L.007 was the excavation of a layer sloping downward from north to south (following the general slope of the hill), with a series of battered, small stones and large pottery sherds embedded in a denser matrix (fig. 7). This matrix seems to directly rest over, and on, sloping and uneven bedrock. A similar phenomenon appears in the northern sections between the two walls, #1 and #2, below L.008. This same phenomenon appeared in the eastern section of the square, where Chalcolithic sherds were exposed (fig. 8; L.007) and left in situ with the small cobbles, a large cylindrical pestle (?) of basalt, a small handstone, and to the south, a metal object that appears greenish and uncorroded (fig. 9). The metal copper colored object may have a broken tip, but the lack of typological similarity to prehistoric artifacts (e.g., a chisel or awl) and precise symmetry suggests that it is much more recent than the Chalcolithic in date, probably historical. This layer did not appear to be an original surface or floor, but the result of collapse or a destroyed feature redeposited downslope, possibly on the uneven and highly eroded bedrock. Although some ceramics appear likely to be Chalcolithic, others are likely later in date. Similar processes were also likely the cause of the deposits exposed on the northern aspect of the square. Embedded in a deep crevasse of this bedrock/small cobble area, a shattered ceramic vessel appeared wedged in between the bedrock and these small fist



ABOVE: Figure 7. Sherds embedded in rocky matrix next to shallow wall. MIDDLE: Figure 8. Chalcolithic "Golan ware" pottery sherds. BOTTOM: Figure 9. Metal object in situ, possibly historical or recent.



ABOVE:
Figure 10. Smashed
vessel wedged close to
wall 2, resting on bedrock.

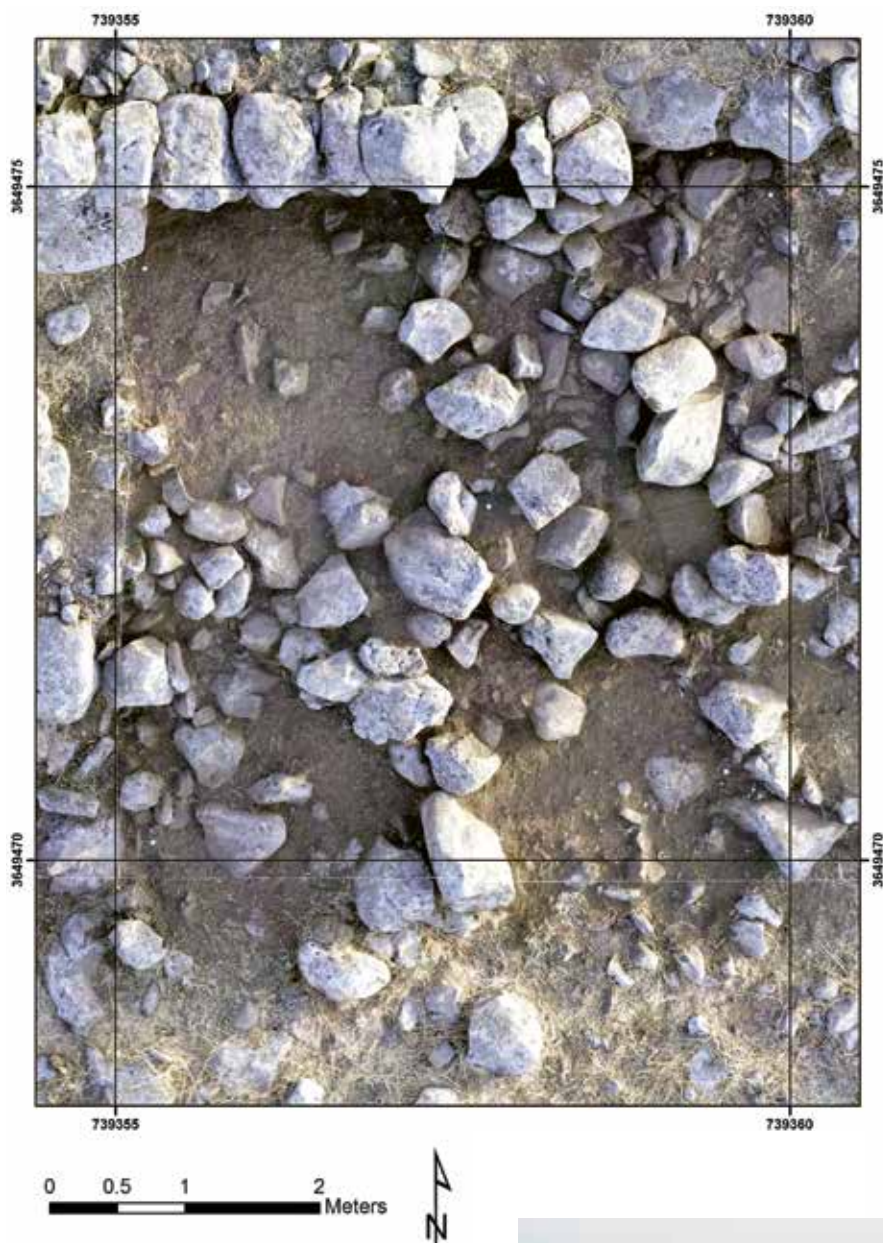
sized cobbles in L.010 (fig. 10). The vessel (L.010 B.1061), possibly a Middle Bronze (?) holemouth, is a pale undecorated and very soft ware, apparently broken in this spot. It is extremely friable and fragile. One fragment of a possible human phalange was recovered during excavation and will be examined by a physical anthropologist for confirmation.

Excavations in squares F1 and F2 both suggest that walls 1, 2, and 3 do not have additional courses, and that the deposits are relatively shallow. Wall #3, in particular, may be part of the terrace wall system. The function of north-south walls #1 and #2 remain unclear, although they seem contemporaneous with each other and wall #3. The walls rest primarily on sediment and exhibit little attention to construction detail, continuing across the slope rather than meeting to form the corner of a room as originally suspected. Thus they do not seem to be part of walls that had a substantial superstructure, nor do they seem part of domestic structures.

A new square was opened directly below the prominent terrace wall (wall #4) to the south of squares F1 and F2. Square G19, a 5 × 5 m square laid out during the pre-season survey, was selected as a possible spot where we hoped earlier deposits may be preserved by the overburden when the terrace wall was created. A second terrace wall (wall #5) comprised of a series of large boulders bisecting the middle of the square was identified. An abundance of volunteer wild wheat may be the legacy of terrace farming suggested by the manipulated landscape. As with squares F1 and F2, vegetation was first removed across the area. Ample material remains, from Chalcolithic pottery, to glass, metal, and a few lithics were recovered. The base of a Chalcolithic cornet (L.012 B.1052) was recovered when sieving began, and a large amount of pottery was recovered. Many rocks — from small to large — were removed, and some large boulders appeared. Where excavation was possible around the large boulders, we continued to discover mixed cultural material. Much of this material was Chalcolithic, but not all of it was prehistoric. Few stone tools were recovered in the small number of chipped stone finds recovered, although analysis is not yet complete. In the final days, there was little evidence for in situ deposits of any kind, and certainly no Chalcolithic features or deposits (fig. 11).

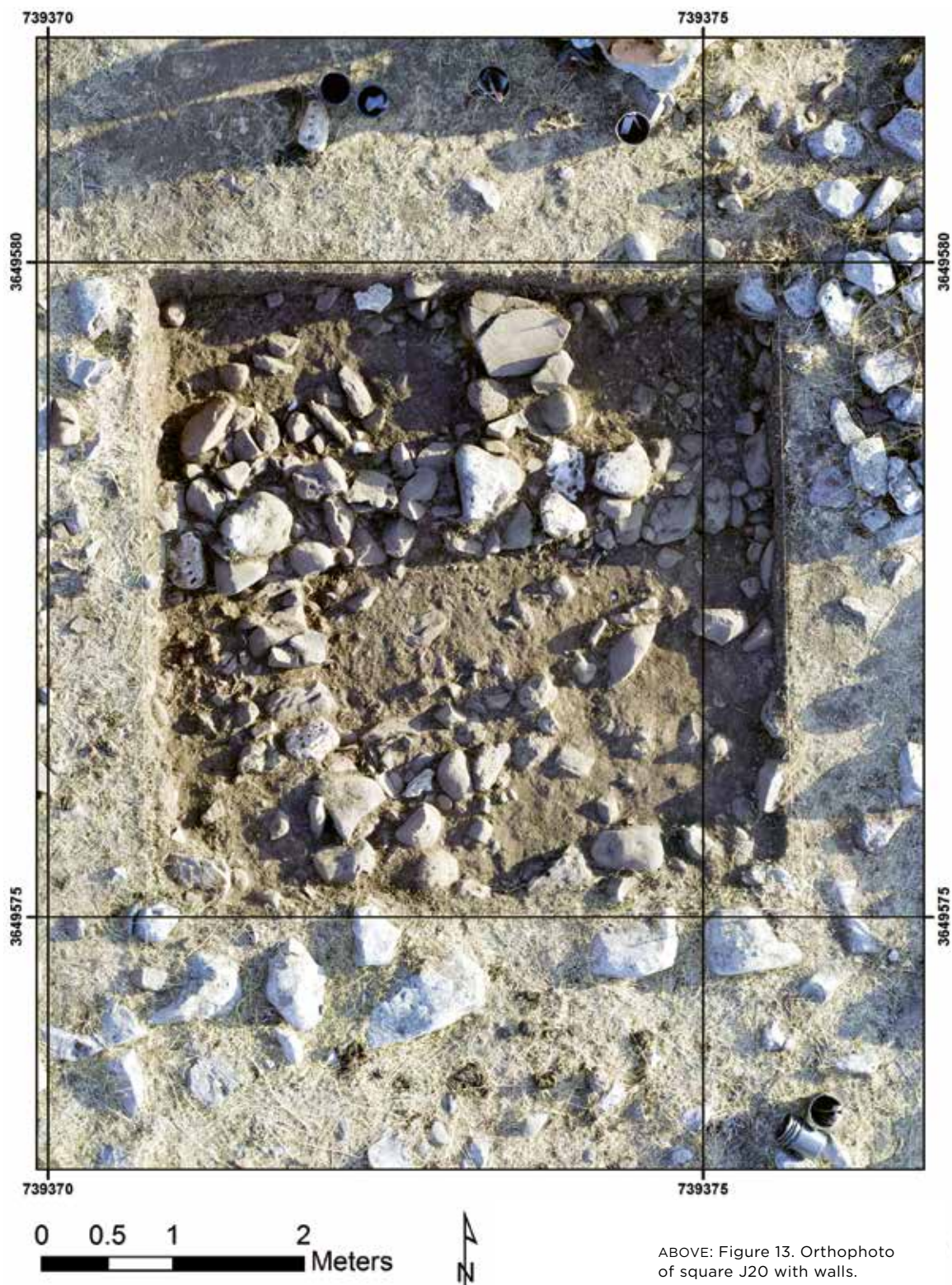
With these limited in situ cultural features on the lower slope, the decision was made to open a square atop the hill. Square J20 (5 × 5 m) was situated along the edge of a line of stones on the south aspect of the summit. After removing vegetation and manure, excavation of topsoil began in L.014 (fig. 12). Sherds were plentiful, both Chalcolithic and later periods. Unlike squares F1, F2 and G19 downslope, many chunks of burned brick were recovered, suggesting more in situ cultural deposits than discovered in the other squares.

Excavation of L.014 in square J20 quickly produced features and walls just below the ground surface. One feature included chunks of burned or fire-hardened brick material, along with a few flat stones aligned north-south. The fragment of a clay figurine animal (L.014 B.1078) was found in the center of the square. Additional rocks appeared as we excavated, and a wall (wall #6) was identified running east-west (fig. 13). With that wall, new loci were defined. On the northern side of



ABOVE: Figure 11. Orthophoto of square G19 along terrace wall on lower slope of Tel Nes. RIGHT: Figure 12. Opening square J20 on top of Tel Nes, Blair Heidkamp (graduate student, University of Cincinnati) and Nathan Downey (University of Chicago Metcalf intern).





ABOVE: Figure 13. Orthophoto of square J20 with walls.



ABOVE: Figure 14. Dense broken pottery with ceramic loomweight. BOTTOM: Figure 15. Ceramic loomweight found with broken ceramic vessel. Photograph by Nathaniel Downey.

the wall, a dense area of broken pottery (L.015 B.1094), more than one vessel, was discovered in the northeastern corner of the square, north of wall #6 (fig. 14). One large pottery vessel (L.017 B.1095, 1096) was found in the area of L.016, to the west of wall #7. The vessel was found with at least two ceramic loomweights (L.016 B.1097; fig. 15); large sherds of the vessel remain in the western profile after excavation.

On the northern side of wall #7, a possible wall (wall #8) may have also continued to the north. These walls are quite shallow and probably represent the basal foundations destroyed by their proximity to the surface.

By our last day of excavation, cultural deposits clearly continued below the levels we achieved. This square, and area, has great potential for future excavation, with much better preservation of features and artifacts. This should be of great interest to specialists in the Iron Age.

Few in situ walls or features were found during the excavations at Tel Nes. Most wall stones in squares F1, F2, and G19 were exposed from the ground surface, and do not require reburial. As

there are no in situ ancient cultural features, and the excavations were shallow, there is nothing to preserve. On top of Tel Nes, the wall (or possibly, two) exposed in sq. J20 would erode if left exposed, and might attract looters. As a consequence, this square was backfilled with sieved sediment, covering all walls and features.

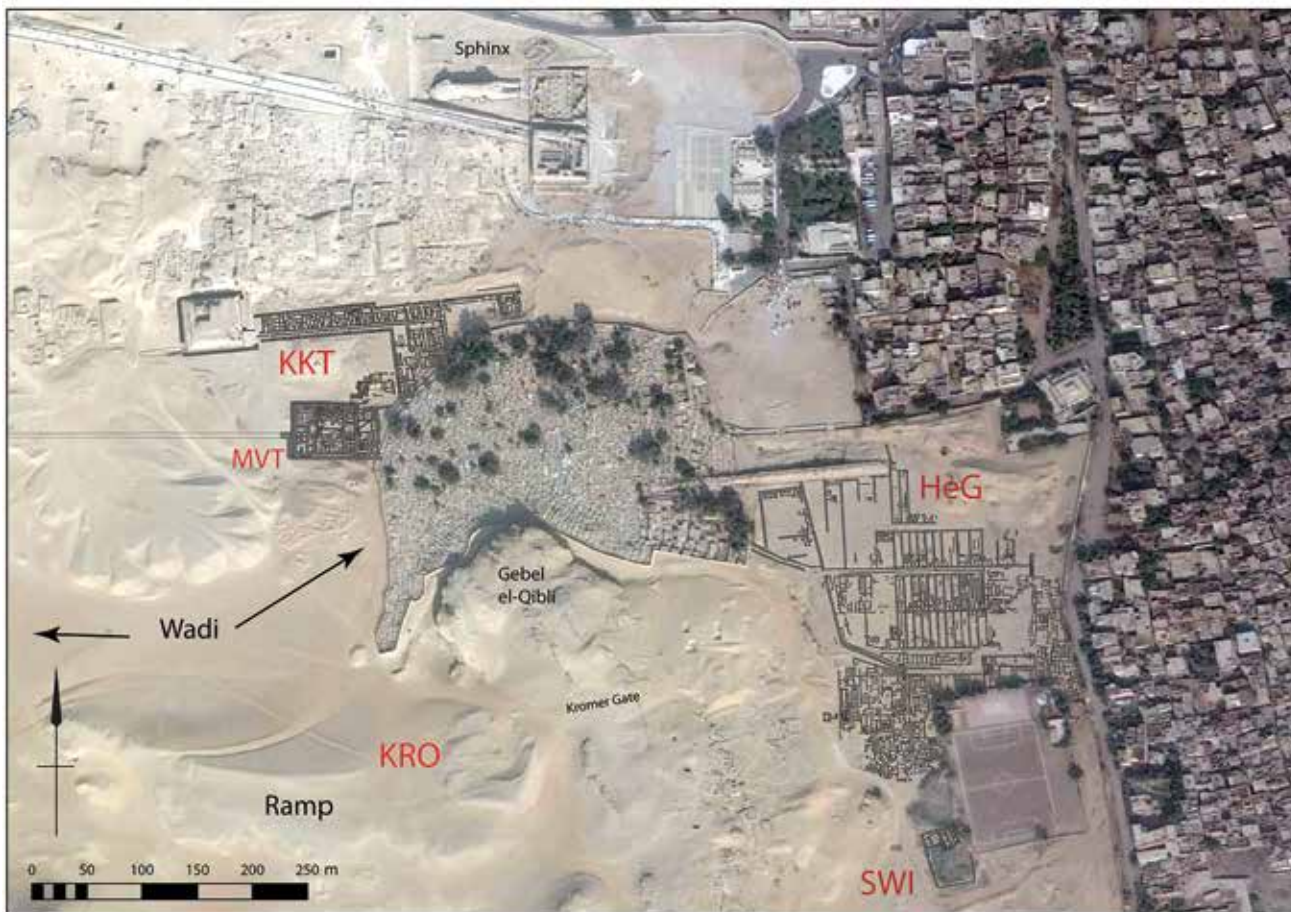
The poor condition of ceramics, low frequency of diagnostic Chalcolithic material culture, and absence of in situ prehistoric remains indicates that the lower slopes of Tel Nes are not promising for future research into the prehistory of the site. Although the Iron Age remains atop the hill are in a good state of preservation, with promising in situ features just below the ground surface, this should be conducted by a scholar with expertise and interest in this period.

GIZA PLATEAU MAPPING PROJECT

MARK LEHNER | ANCIENT EGYPT RESEARCH ASSOCIATES

During field season 2018 (February 17 through April 14) Ancient Egypt Research Associates (AERA) excavated in three locations at Giza: the Heit el-Ghurab (HeG) settlement site, the Khentkawes Town (KKT), and the dump site excavated by Karl Kromer (KRO) on the western slope of the Gebel el-Qibli.

Eight Ministry of Antiquities inspectors trained in our AERA-ARCE Advanced Field School while embedded in our excavation, survey, and lab teams, funded by a grant to Richard Redding from the Antiquities Endowment Fund (AEF) of the American Research Center in Egypt (ARCE). Mohsen Kamel, AERA-Egypt executive director, and Daniel Jones, senior archaeologist, supervised site excavations. Students graduated from this session at a ceremony attended by Moustafa el-Waziry, general secretary of the Supreme Council of Antiquities (SCA), and Louise Bertini, ARCE Cairo director.



ABOVE: Figure 1. Satellite view of southeastern Giza Plateau showing three areas of AERA's Season 2018: KKT = Khentkawes Town; MVT = Menkaure Valley Temple; KRO = Kromer's Dump; SWI = Standing Wall Island; HeG = the Heit el-Ghurab, Arabic for "Wall of the Crow."

PROJECT REPORTS | GIZA PLATEAU MAPPING PROJECT

RIGHT: Figure 2. ES1 (Enclosure South 1) showing the older, inner enclosure; view to the south. Rabee Eissa and Ahmed Hamad examine one of the inner walls (upper right). Ashraf Abd el-Aziz, Said Abdul Ahmed (top center), Shaimaa Abd El-Raouf, and Hoda Osman (center left) examine cuts through the thick stone wall that divides ES1 from ES2. ES2 remains covered under the protective sand of our backfill (upper left).



HEIT EL-GHURAB SITE: SWI (STANDING WALL ISLAND)

In the first part of season 2018, all eight students and supervisors of our advanced field school practiced excavation and recording skills on an ancient walled enclosure, ES1 (Enclosure South 1), in the northern end of the bigger compound we call Standing Wall Island (SWI), so-named because in 2004 we found its outer fieldstone wall standing up to a meter high.

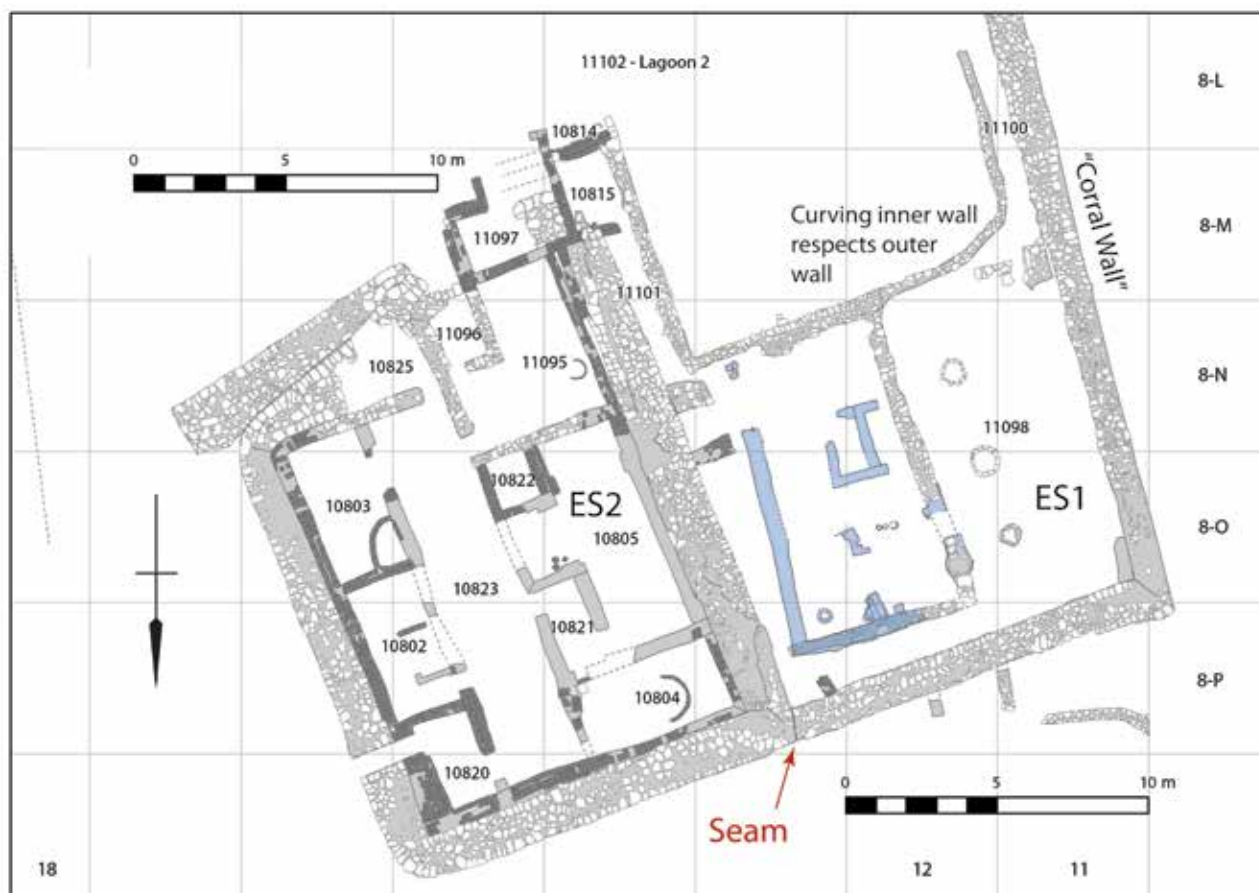
On the north, the thick outer SWI wall frames two smaller enclosures, ES1 and ES2, then continues south, turns a rounded corner to run east, then runs back north, leaving a broad corridor on the east. The whole paper clip pattern encloses a big empty area in which our deep trenches revealed only clean sand. When we found the outer loop in 2011, faunal analyst Richard Redding laid down the compelling hypothesis that it was a corral.¹ The paper clip pattern matches corrals depicted in ancient Egyptian art, ancient corrals found in Egypt and elsewhere, and even some aspects of modern corrals (like the rounded corners).

When we returned to SWI in 2015, we hypothesized that enclosures ES1 and ES2 provided shelter for slaughtering and butchering. But here we found an elite residence perhaps for the person in charge of the whole SWI compound.² In 2016, we honed our understanding of the house in ES2.³

Already in 2011, we knew the outer wall, which gives us the pattern of a corral, was the last thing built on SWI. The “house” was composed of mudbrick in ES2 before builders threw a thick, stony girdle around it. Afterward, they attached the corral wall to the northwest corner (labeled “seam” in figure 3) and looped it around to the south not long before people abandoned the compound, at a time when sand was already starting to invade. Only then was ES1 enclosed on the north and west. So ES1 may not have existed before the “corral wall” surrounded and defined it as an enclosure.

However, our 2018 excavations revealed an earlier enclosure within the ES1 enclosure (fig. 3). This inner set of walls existed before the outer corral wall. The western wall of this inner enclosure is what we took as a center, dividing wall in our 2015–16 map of ESI, as shown in figure 3. Perhaps because it is older, this inner enclosure does not share the orientation of ES1 and the larger SWI enclosure wall; it is twisted slightly more east of north.

The question is whether ES1 was enclosed on the north and west by an earlier version of the corral wall. One fact suggests that there may have been an older, outer corral wall. The thin, south-



western wall, attached to the southern corner of the inner ES1 enclosure, curves around to “respect” the line of the corral wall (fig. 3). And this thin wall lies deeper, embedded in an older settlement surface than the foundation of the corral wall. So maybe the corral wall replaced an earlier boundary or barrier that kept animals contained.

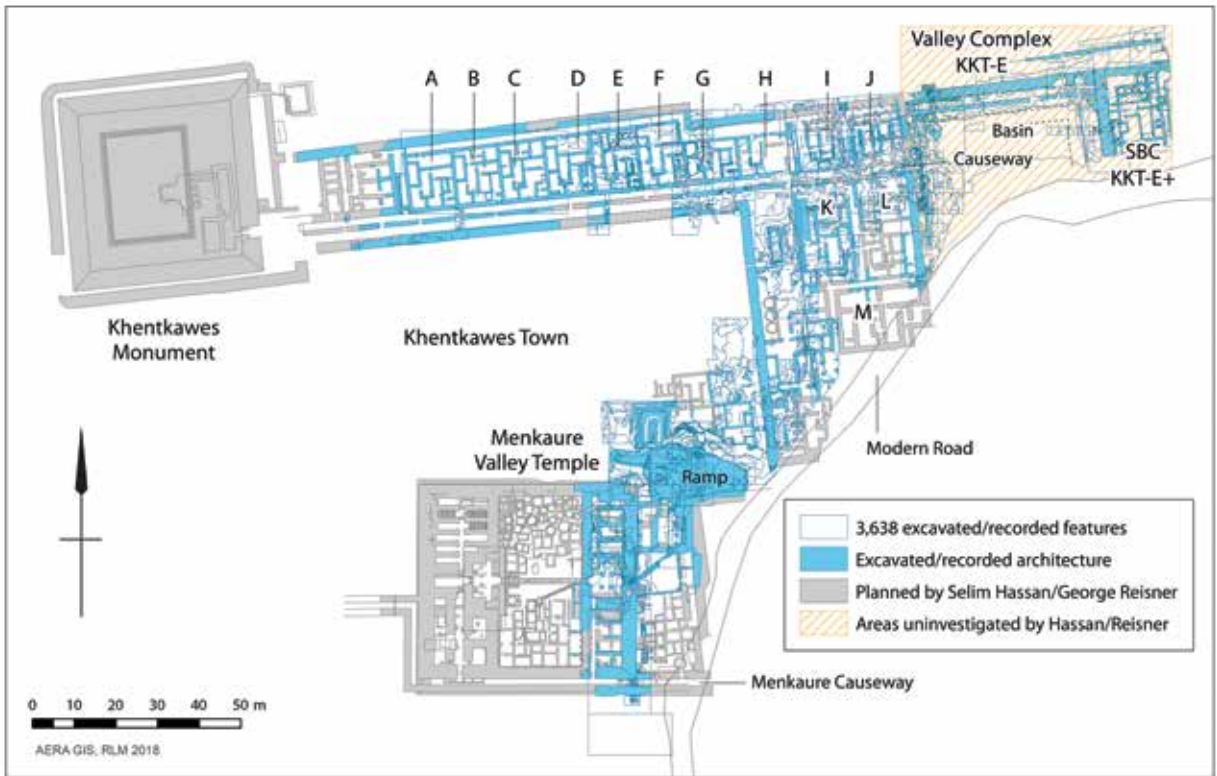
The older, smaller enclosure, defined by the walls mapped this season (fig. 4), is certainly different from the thick, formal walls giving the room structure of the “house” in ES2. And it is possible this older, smaller enclosure had something to do with processing animals.

Also, we looked again at certain curving walls that we had begun to map in prior seasons embedded in the settlement ruins outside and north of the ES1 and the corral wall (fig. 4). Do these define pens and smaller enclosures for keeping animals?



ABOVE: Figure 3. ES1 and ES2 at the northern end of the SWI compound. The curve of the inner south wall of ES1 respects the outer “corral wall” of ES1, although it lies deeper and belongs to an older phase. The “corral wall” might have replaced an older enclosure wall. Walls of an inner, older enclosure, found by Field School 2018, are highlighted in blue. Plan by Rebekah Miracle from AERA GIS.

BOTTOM: Figure 4. Curving walls north of Enclosure 1 and the late-phase “Corral Wall” at the edge of “Lagoon 1” (filled with our backfilled sand on the left), which may remain from an ancient put-in bay for the delivery of commodities and animals; view to the east.



ABOVE: Figure 5. A plan of the Khentkawes Town and Menkaure Valley Temple, showing parts that AERA excavated and recorded, as well as Selim Hassan's and George Reisner's earlier work in the area. Plan by Rebekah Miracle from AERA GIS.

KHENTKAWES TOWN (KKT) HOUSE D

When Selim Hassan excavated the Khentkawes Town (KKT; fig. 5) in 1932 he found modular houses attached to a 150-m long causeway leading to the monument of Queen Khentkawes I, who ruled at the end of the Fourth Dynasty. Her titles, etched in the red granite doorjambs at the end of the causeway, tell us Khentkawes was “Mother of Two Kings.” The town was apparently planned for officials who would serve as priests of the deceased queen mother.

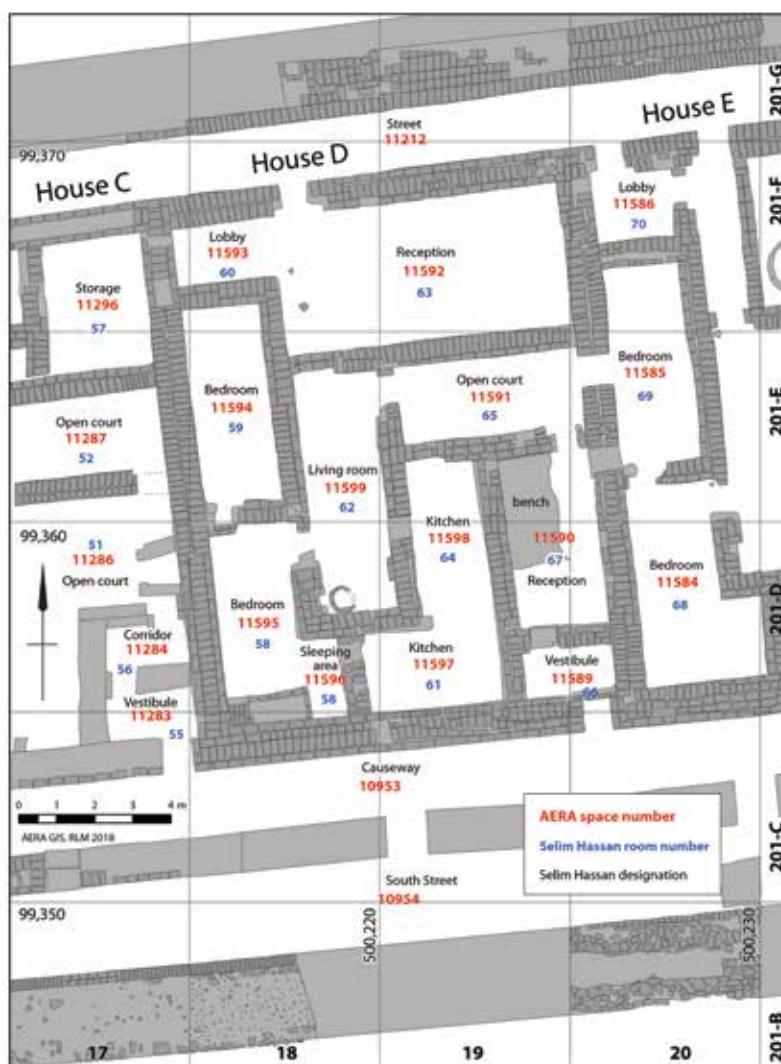
Since 2005 AERA teams have re-excavated what remains of the KKT after it had been left exposed to the elements for seventy-three years following Selim Hassan's excavations of 1932. During this time the ruins of the town served as a major track for visitors on horses, camels, and horse-drawn carriages from the Sphinx to the desert. The town is worth saving, conserving, and presenting. Selim Hassan's plan became a standard template for studies of the history of urbanism and town planning.

Except for House D, the focus of season 2018, and Building M (figs. 5–7), we have now re-excavated and thoroughly documented what Hassan exposed of the KKT, except a part that lies under the modern road on the east and south. In 2011, we restored House E as follows: After burying the original walls in protective clean sand, we reconstructed the lower parts directly above the original walls with bricks that match the original bricks, an innovative conservation method that preserves the original, shows its former structure, and is reversible.⁴ We worked out this conservation procedure in 2005 at the Eastern Town House (ETH) in the HeG site with a prior AEF grant.⁵ This season we excavated any remaining ancient deposits and recorded House D as the first step of a larger, three-part agenda of fieldwork, conservation/reconstruction, and ultimately conservation of the full block of KKT housing, with pathways and signage.



ABOVE: Figure 6.
Work in House D
during season 2018.
House E, with walls
reconstructed and
extruded in 2011,
flanks House D on
the east; view to the
northeast.

RIGHT: Figure 7. Map
of House D (structure
15,260) showing the
AERA space numbers
(red), Selim Hassan's
room numbers (blue)
and grid squares. Grid
squares are 5 m. Plan
by Rebekah Miracle
from AERA GIS; room
designations (e.g.
"kitchen") are Selim
Hassan's.



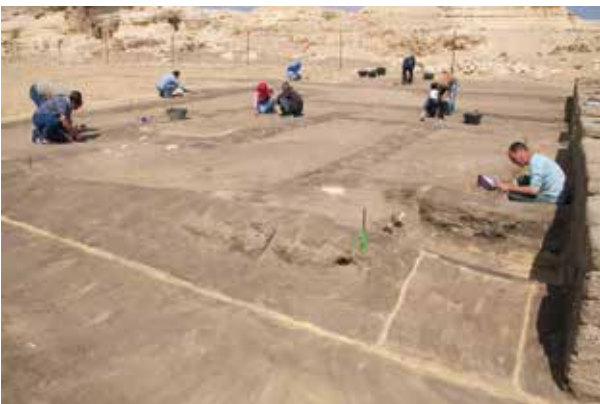
Dan Jones and Rabee Eissa supervised the work. With Shaimaa Abd El-Raouf, Hoda Osman Khalifa, and El-Sayed Ahmed Shoura they focused on House D after moving from Area SWI in the HeG site. In 1932 Hassan's workers mostly emptied the rooms down to the original floor surface and in some places down to the underlying foundation material. Our team excavated a thick layer of contaminated sandy silt from the deterioration of the mudbrick walls, with embedded modern garbage. However, team members also excavated some ancient deposits and cultural features that Hassan's team had left. They also carefully documented blocked doorways, which crucially attest to changes in house use and proprietorship.

One blocking closed access between space 11,598 (the "kitchen") and space 11,599 (the "living room") in the center of the house (fig. 7). A second blocking closed access between space 11,589 (the southeastern entrance vestibule) and space 11,590 (which Selim Hassan referred to as his narrative as a water storage area). This blocking went in after the southeastern entrance to the house was also blocked. This shut the original, main access into the house from the Khentkawes causeway made the vestibule a dead space.

As I have discussed before in annual reports, these blockings, many of which we have recorded for the first time in the Khentkawes, are crucial for understanding the changing use of the settlement over time. The ruling narrative for the purpose of the town, especially the houses along the north of the causeway, is that it housed funerary priests who, by their privileged access through the southeastern doorways to the causeway leading straight to the queen's chapel, enjoyed rights to the offerings that came with their offices. The modular repetition of layout indicates a parsing out of these duties and attendant privilege (fig. 5). But in House D, masons blocked and plastered over the "front" door onto the causeway at the southeastern corner of the house (fig. 8), during a time when they also raised and renewed the floor and plaster of the causeway.⁶

Brick masons also blocked the southeastern doors on other houses. So, while maintaining and renewing the causeway, they radically changed the orientation and use of these buildings. Principal access was now from the northern doorways, opening onto a path that ran between the town and the quarry-cemetery (Central Field East) to the immediate north. Meanwhile, the original main entrances, with their zig-zag way in, became dead spaces, as we see clearly in House D. Hassan noted that in the first house (A) on the west, "the southern entrance had been bricked up in ancient times, and the resulting room (No. 28) seems to have been used as a stable for some animal, as can be proved by the presence of a limestone tethering-block set in the floor against the southern wall."⁷ The organization of the KKT must accordingly have changed.

Also, while we have approached our own examination of KKT on the basis of singular, modular houses (so Houses D, E, F, etc.), it became apparent to us that through blocking original doorways and opening new access, the inhabitants "intermingled" the houses, expanding some units into others, and restricting parts of other individual units.⁸ Thus, while central authorities may have planned to accommodate six to ten proprietors in the modular houses north of the Khentkawes causeway, in the end perhaps only a few officiated from their "intermingled," expanded houses.



ABOVE: Figure 8. Southeastern access from the Khentkawes causeway into House D, blocked with mudbricks and plastered over at some point after the initial layout of this house; view to the north-northwest.



LEFT: Figure 9. House D, central pilaster-niche room (space 11,599 = room 62) after cleaning, excavation, and recording during season 2018, view to the north. RIGHT: Figure 10. The niche defined by pilasters in the southern end of the central room (62 = space 11,599) in House D, view to the north.

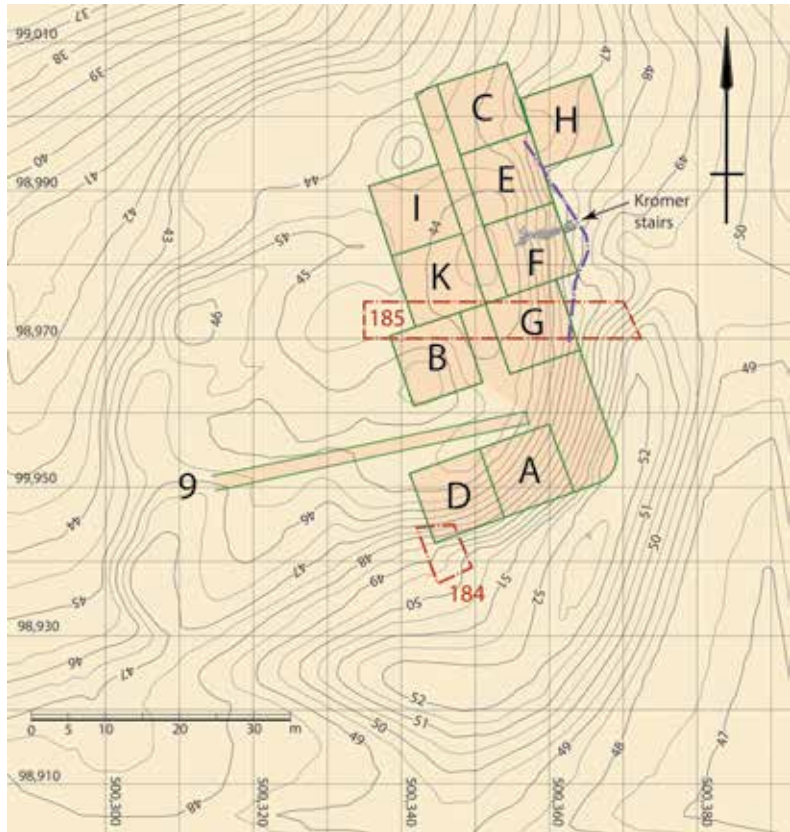
But, then, we also see indications that the nature of officiating itself changed. First, we have followed Felix Arnold who saw the central oblong, north-south oriented rooms, with southern pilasters (probably topped by an architrave) framing a niche (see fig. 7; space 11,599 = room 62) as the formal, official reception place, where proprietors held audience and conducted business (fig. 9).⁹ We have found very similar rooms in the large houses of the Western Town and Area SWI in the Heit el-Ghurab site. Our discovery in 2015 of limestone furniture supports along with collapsed red-painted molding between the pilasters in the large house of ES2 reinforced Arnold's idea.¹⁰ We could then highlight all the houses with pilaster niche rooms as nodes of household-based administration, including the large houses of the Khentkawes Town.¹¹

However, in House D we found evidence that the inhabitants repurposed the very niche in which the proprietor was supposed to have conducted business. They put half-bricks to either corner of the western side of the niche (for a low stand or shelf?), leaving a narrow slot (25 cm wide) and they installed a semicircular mudbrick feature, about one cubit in diameter (55 cm), perhaps some kind of socket for a bowl or basin (fig. 10). A stain of burnt earth and ash spreads into the room from between the pilasters. Intended to frame the lord and master of the house, the niche seems to have devolved into a lowly place to cook or keep warm.

THE KROMER SITE: FOURTH DYNASTY SETTLEMENT DUMP

Between 1971 and 1975 Karl Kromer, an Austrian prehistorian, excavated a massive, crescent-shaped mound of settlement debris immediately southwest of the Gebel el-Qibli, the escarpment running along the western edge of HeG (fig. 1). Here, during the time of Khafre, and possibly beginning in the reign of Khufu, people dumped settlement waste, demolition debris, and quarry waste on a downward slope of around 8 degrees to the west-northwest. The accumulated cultural material spreads over 5.1 ha and up to 6.5 m thick. Inscribed sealings tell us ancient Egyptians did this during the reign of Khafre. Kromer found sealings of Khufu and Khafre, builders of the first and second Giza pyramids. On the HeG site we find sealings of Khafre and Menkaure, builder of the third Giza pyramid. We hypothesized workers brought this material from the HeG when Khafre reorganized and restructured the site. If so, this debris would offer insights into an early phase of the settlement and provide comparative material for studying any remains from the older levels.

RIGHT: Figure 11. Map showing Kromer's 10 × 10 m squares (A-I and K) and 2018 Sondages 184 and 185 (red). Purple line: Kromer's west-facing section after collapse, and as found in 2018, with broken limestone stairway (black and white). From survey by Mohamed Abd El-Basat, Amr Zakaria, Mohamed Helmy, Mohamed Abd el-Maksud, and Ahmed Hamad; adapted by Mark Lehner from plot by Mohamed Abd el-Basat.



Kromer excavated 1,550 cu m of cultural debris in a series of 10 × 10 m squares and some additional oblong trenches, with a total depth of 6.5 m, leaving a kind of L-shaped trough 60 m north-south × 25 m east-west (fig. 11). He found debris from the demolition of buildings — fragments of mudbricks and painted plastered walls; objects of everyday life such as copper needles, spatulas, fishhooks, and faience beads; small figurines; and clay sealings impressed with formal, official designs naming Khufu and Khafre. Some of Kromer's Khafre sealings match those we have found in the HeG.¹²

We first resurveyed the area, staked out grid squares, and located Kromer's original survey points and trenches. The ancient dump was clear on the surface, but decades of drifting sand had covered the area, and, unfortunately, Kromer's map includes errors.

Supervised by Mohsen Kamel, Aude Gräzer Ohara, and Virag Pabeschitz, the AERA team excavated two trenches, a small one, Soudage 184, and a larger trench, Soudage 185 (fig. 12), both in the upper edge of the crescent-shaped ridge left by Kromer's excavations. In these trenches we tried to locate the rough section he cut into the ancient debris. But we abandoned Soudage 184 after finding nothing but concentrated crushed limestone quarry waste.

Soudage 185 overlapped Kromer's Squares B, G, and K and extended beyond his excavations to both the east and west, allowing us to sample portions of the mound that remained untouched, for a total length of almost 40 m (37.09 m long on the south side and 34.43 m long on the north; fig. 12). We were also able to dig 75 cm deeper in Kromer's Square B before having to stop due to time constraints.



ABOVE: Figure 12. Sondage 185; view to the east.
Photograph by Aude Gräzer Ohara.

UPPER LEFT: Figure 13. Upper east end of Sondage 185, south (north-facing) section. Overseer Sayed Saleh points to the boundary between features 35,518 and 35,512, shortened to last three digits; view to the south.



UPPER CENTER: Figure 14. High eastern end of Sondage 185, south (north-facing) section during excavation of 512; view to the southeast. We designated as 512 two sequences that should have been distinguished.

BOTTOM CENTER: Figure 15. Aude Gräzer Ohara checks the concentrated marl limestone bedrock (35,529 shortened to 529) in a small probe at the bottom of Kromer's section; view to the southeast.

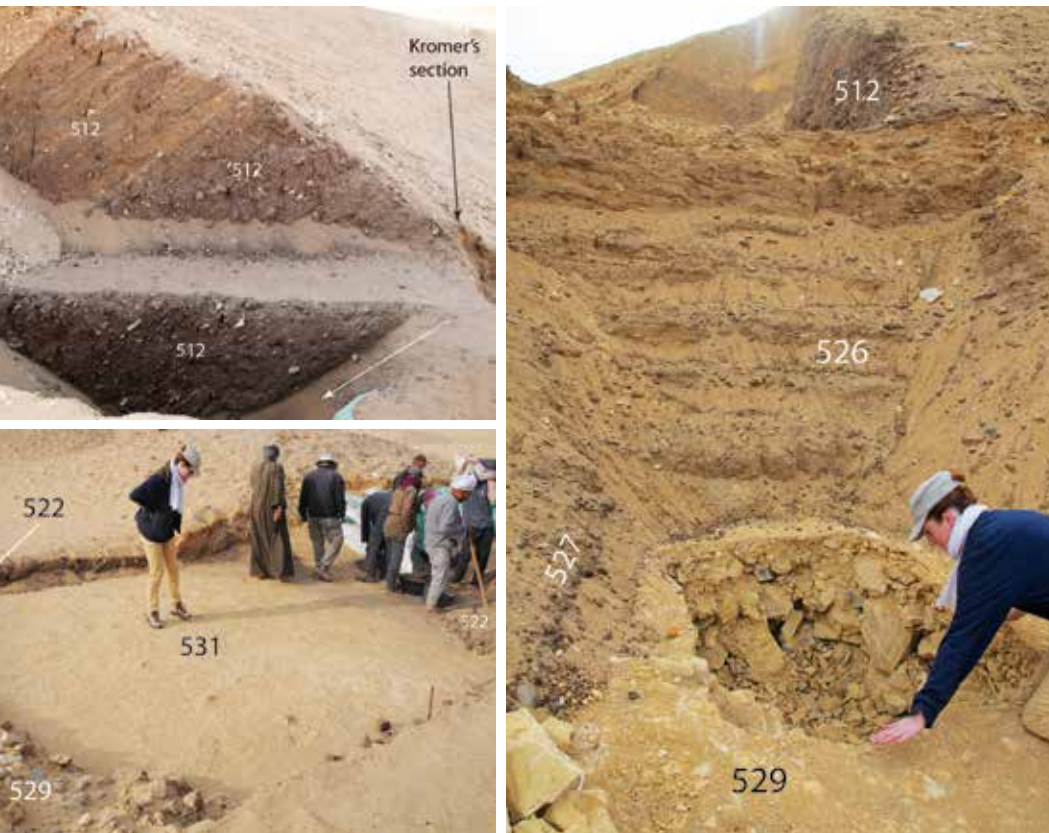
FAR RIGHT: Figure 16. Aude Gräzer Ohara stands on the level "floor" of marl limestone (531, *tafla*) after the workers excavated an overlaying thin dark layer with mudbrick debris (522), which prior to excavation, formed a bank with a shoulder of limestone debris (529) left by Kromer between his squares G and B; view to the southwest.



While we tried to pick up the eastern side of Kromer's excavations with the eastern end of our Sondage 185, we ended up nearly 10 m north of it, as Aude Gräzer Ohara ascertained by studying Kromer's published photographs and by finding a crude stairway Kromer made in his square F to ascend the slope. Kromer's cut falls along the dashed purple line in figure 12. This west-facing section of his squares E, F, and G curves somewhat because of the continual collapse of the soft material, which we also experienced at the high end of Sondage 185.

Because we began to excavate a good 10 m north of Kromer's eastern limit of excavation, we cut into massive layers of undisturbed settlement debris built up over time as ancient workers dumped basket after basket (fig. 13). In the section we can see successive dumps, close in time, even individual basket dumps, varying in color and composition (more or less rich in limestone chips, sand, and/or mudbrick fragments). Some thin layers show a surface occasionally hardened by moisture (rain?). It quickly proved impossible to remove these thin, individual deposits in sequence because they are so loose. So, in the upper eastern portion of Sondage 185, we excavated major sequences together.

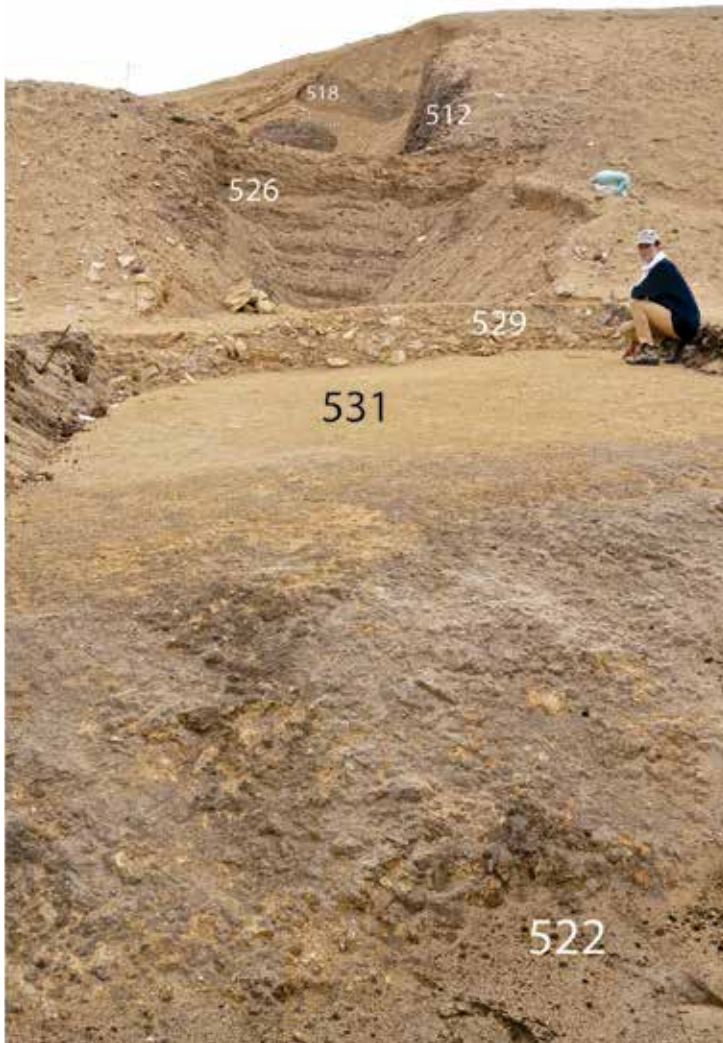
At the top of Sondage 185 (fig. 13), we found more quarry waste (511 and 514) identical to the ancient debris we abandoned in Sondage 184, but mixed with trash dating from the 1940s to the 1970s. (In the photographs, I shortened feature number to the last three digits.) Underneath, we found undisturbed ancient quarry debris of crushed limestone (516). Next, a sequence of light brown layers proved rich in cultural material: fragments of pottery; fragments of mudbricks; clay sealings for bags, boxes, jars, and doors; sealings impressed with hieroglyphic patterns; charcoal, shells; textile fragments, even a big tuft of wool flock; a blue tubular bead; an unworked piece of cornelian; and large



quantities of animal bone. The dry environment of the KRO site, at an elevation between 44 and 52 m above sea level (m asl), allowed the survival of wood and plant remains, like reed, straw, and palm fronds, which could not survive in the damp HeG site, between 15 and 16 m asl.

We next excavated a sequence of intercalated bands of dark sand and sandy silt (512). Gräzer-Ohara noted: “This sequence was even richer in cultural material, notably with a concentration of degraded mudbricks, and possibly ashes, which gave it its particularly dark color”¹³ (figs. 13–14). For safety, we stepped back 1.50 m to the north at an arbitrary level, and continued to excavate down another meter into 512 for a width of 2.40 m (fig. 14). We did not reach the bottom or the eastern end of this material, which slopes down to the east over the surface of an underlying sequence (fig. 14, arrow). We were hampered by the collapse of the section above 512 and the danger of working at such a depth in loose material.

Having now determined the eastern limit of Kromer’s excavations, the team exposed and cleaned the west face of his eastern cut, which descended much deeper than where we stopped excavating 512. Because the lower material showing in his cut (526) was so soft and ready to collapse, we cut back the face of the section in steps to sample and record it (fig. 15). The deposits consisted again of intercalated silty sand with sand that included much less silt, but overall the whole sequence is sandier, much lighter in color, and looser than 512 just behind it (figs. 14–15). It is the surface of this older sequence that we were following on its downward dip to the east as we excavated 512. The most dense, darkest layers of Nile-rich settlement waste — 512 — are thus bracketed by sandier sequences, 518 (and the upper part of 512) above and 526 below.



ABOVE: Figure 17. Sondage 185; view to the east. Foreground: the downward slope of “floor” 531, stained dark by overlying deposit 522.

RIGHT: Figure 18. The western end, northern side, of Sondage 185, showing the cut of Kromer’s west limit of excavation (his square K; see fig. 11). Layers higher slope down to the west; view to the northwest.



At the bottom of the 526 sequence, we found a splayed deposit (527) of mudbrick fragments in a sand matrix (fig. 15). Kromer left this bit as he excavated down to a compact surface of concentrated, broken marl limestone (529) of the local Maadi Formation bedrock. After documenting and removing the broken mudbrick deposit (527), the team excavated a small probe down into the packed limestone to check for lower settlement waste and found none to a depth of about half a meter.

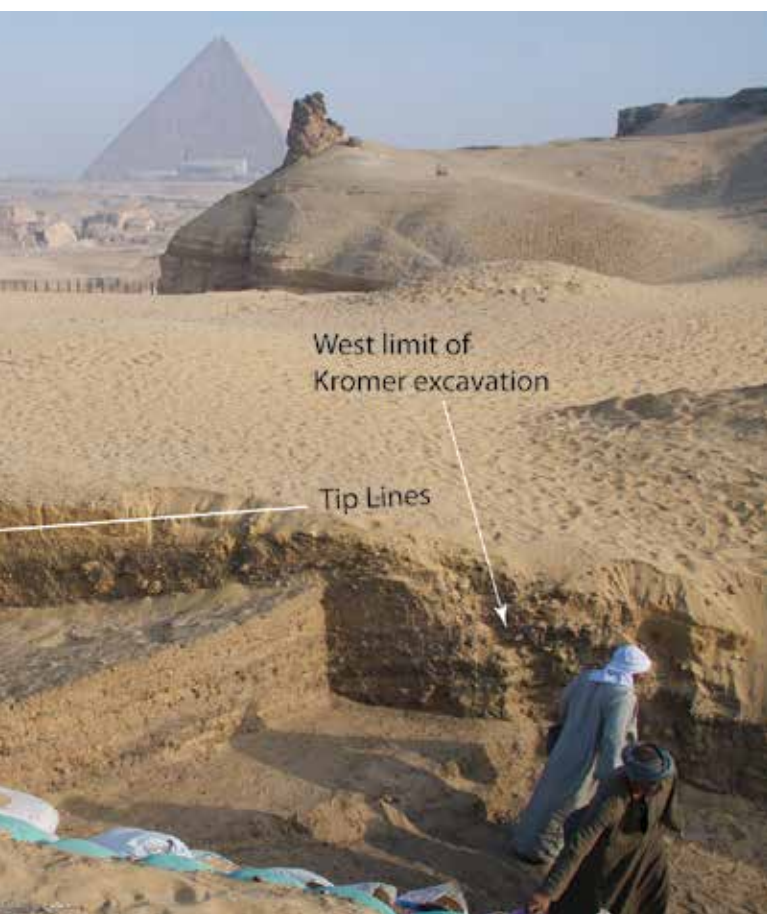
We were now at the bottom of Kromer's excavation in his square G (see fig. 11), on the surface of marl limestone debris (531). We cleared this "floor" from post-Kromer sand west to a low, raised bank that Kromer left between his squares G and B. The east side of the bank consisted of a shoulder of raised limestone debris (529). The rest of the bank consisted of another dark debris layer full of mudbrick fragments, which we peeled away from the limestone debris shoulder and excavated toward the west (522). This dark, bricky deposit overlay a floor of *tafla* limestone (531) so flat and even that it gave the impression of a true artificial floor (fig. 17).

Several meters farther west, we came to the western limit of Kromer's excavations. As on the east, Sondage 185 extended beyond the limits of Kromer's digging. Here we cut across the northeast corner of his square B. The compact marl limestone "floor" (531) begins to slope down quickly to the west (fig. 17). The overlying bricky deposit (522) continues down this slope and becomes thicker. Here, Kromer left a sequence of higher, overlying, thin layers of sand intercalated with very dark, thin layers of ash and Nile silt (fig. 18).

All these layers on the west of Sondage 185 slope down to the west — the opposite of the eastward slope of the "tip lines" in the 512 sequence at the higher, eastern end of the trench (figs. 14–15). Dark Nile silt and black ash layers show more distinctly than the lenses and layers in the higher eastern

sequences. Because they are all soft and sandy, and range from continuous layers to short lenses (single basket dumps), it was not easy to excavate each deposit individually, but given how much more distinct these deposits are than those in the high eastern sequence (512), we tried. We decided to take a large sample of the totality of each deposit as we cut each layer back to a section north–south across the trench.

We did not find the bottom of this vast dump of quarry and settlement waste. On the west, as on the east, the dumped material continues deeper, apparently over a shoulder of bedrock. More can be said about the wider context of this dump in relation to quarries and settlements at the southeastern zone of the Giza Necropolis. We also need to think more about this cultural material and the events it reflects. Here I offer a few preliminary finds and thoughts.

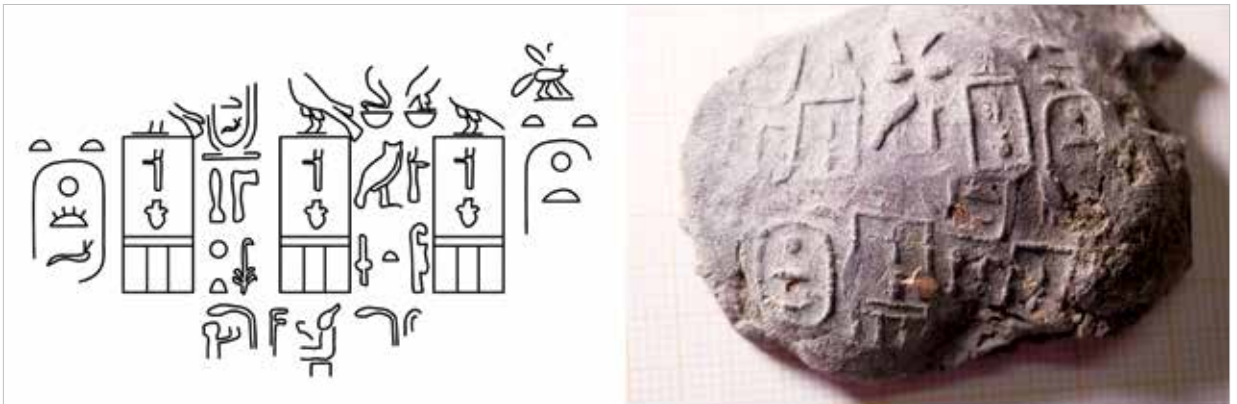


FINDS FROM KROMER 2018

Like Kromer, we found in this ancient dump a wide range of material culture: pottery, mudbricks, sealings, charcoal, shells, beads, flints, large quantities of animal bone, and organic material like wood, fiber, and linen. We have so far found no sealings of Khufu. All the sealings impressed with a royal name that we have so far found bear Khafre's name.

We found broken mudbricks throughout the different layers and sequences. Some layers have more of a concentration. We need to check the relative frequencies. If the dump derives from a single demolition of a settlement, we might expect a single concentration of mudbricks. So, do the mudbrick fragments scattered throughout the Kromer dump reflect a one-time demolition, or do we see them mixed with waste from everyday life because of ongoing refurbishing? Here, in the high desert, we do not have many of the yellow bricks of calcareous, marl desert clay — *tafla* in Arabic — as opposed black Nile silt, characteristic of the flood plain. *Tafla* is all around the Kromer site. Gebel el-Qibli is partly composed of *tafla* layers, which Fourth Dynasty masons used to plaster walls in KKT and HeG. Nile silt in most of the dumped, broken bricks is one of several indications that we are dealing with waste from a settlement on, or in proximity to the Nile floodplain, and not a settlement in the desert quarries south of the pyramids.¹⁴ If we do not see enough bricks or brick fragments for one massive demolition, it could be that masons reused bricks for rebuilding. We have seen bricks that masons obviously reused in the middle of the walls of the Galley Complex in the HeG.

We found pieces of different components of mudbrick buildings — roofs, floors, corners, and hearths — which suggest that the dump does include debris from the demolition of whole buildings. Kromer found fragments of a hard gravel screed flooring.¹⁵ This conglomerate of coarse, silty, pebbly sand and fired clay appears very similar to modern cement. When I first saw a piece, I wondered if we had contamination from a modern cement structure. But we saw it come up from sealed, ancient deposits. Kromer understood such hard floors as substitutes for stone paving, and as evidence of



LEFT: Figure 19. Sealing 5844 from Sondage 185, feature 35,522 (see figs. 16-17 where the feature is abbreviated to 522), photo by David Jeřábek; (left): theoretical reconstruction drawing by Ali Witsell. The sealing bears both the Horus name, *Wesir Ib* (Stout Hearted) and cartouche name, Khafre, of the king who built the Second Giza Pyramid, in the title *Hem Netjer Khafre*, "Servant of the God, Khafre," or "Priest of Khafre."

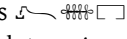
RIGHT: Figure 20. Sealing 5848 with the term *Setep Za* (adze and cattle hobble), under the remains of a *serekh* (paneled rectangle above) and beside the figure of a running king (left) wearing the tall crown of the south.

very high status. He inferred these pieces may derive from the floor of a royal road house, or small palace, at Giza.

We found fragments of white plaster, broken from walls, throughout the sequence. Some show bands of red, black, gray, and lighter shades of pale red or orange. Kromer reported plaster painted black, white, deep red, rusty red, rose, orange, brown, light gray, and beige.¹⁶ We might think that such décor stems from “elite” residences of socially superior individuals, as Kromer thought.¹⁷ He found most of the painted plaster in squares F, B, and G, just where we cut through with Sondage 185. This is where Kromer also found sealings most abundant.

Ali Witsell, who heads our sealings team, reports that we have so far found no sealings of Khufu.¹⁸ Kromer found only five sealings bearing Khufu’s name and thirty-eight of Khafre.¹⁹ Kromer’s numbers are very low for six full seasons of excavation. He must have thrown away a good number of sealings. From only six weeks of excavation, Ali and the team retrieved at least forty formal (with king’s name and official’s titles) and forty-three informal impressed sealings. And they have yet to fully reexamine and register all the possible sealing material from Sondage 185.

One of the largest formal sealing fragments (number 5844) from sequence 522 (figs. 17–18) bears both Khafre’s Horus name, *Wesir Ib* (Stout Hearted), and his cartouche name, as part of the title, *Hem Netjer Khafre*, “Servant of the God, Khafre,” or “Priest of Khafre.”

Perhaps the most important sealing this season will prove to be number 5848, a small fragment from feature 35,522, showing the bottom of a Horus name and, underneath, the hieroglyphs  for *Setep Za*, literally, “choosing a za”²⁰ (fig. 20). *Setep Za* written, as here, with the house determinative, , makes it securely a place noun, a reference to the palace. In his study of *Setep Za* in the Old Kingdom, Ogden Goelet found no attestation of the term written with the house , therefore signifying the palace, before the Middle Kingdom.²¹ Now, sealing fragment 5848 from Sondage 185 (fig. 41) may be the oldest known writing of *Setep Za* with the house sign, thereby designating the palace.

POINTERS BACK TO THE PALACE HYPOTHESIS



Setep Za was where the king sat to receive counsel and make decisions. Goelet found that Old Kingdom texts containing the phrase “in the *Setep Za*” have to do with the king making decisions, in consultation with his advisers, about craftwork, building, or construction.²²

Our 2018 finds from the Kromer site bring us back to an idea, fairly old in Egyptology,²³ that we took into our first excavations at Heit el-Ghurab: the palace hypothesis,²⁴ the idea kings built a residence near their pyramids, and that the food production facilities we were finding in 1991 and 1995 attached to a palace. The idea faded in my mind when we found none of the signature architectural elements of a palace (such as a niched-decorated gate or large audience hall).

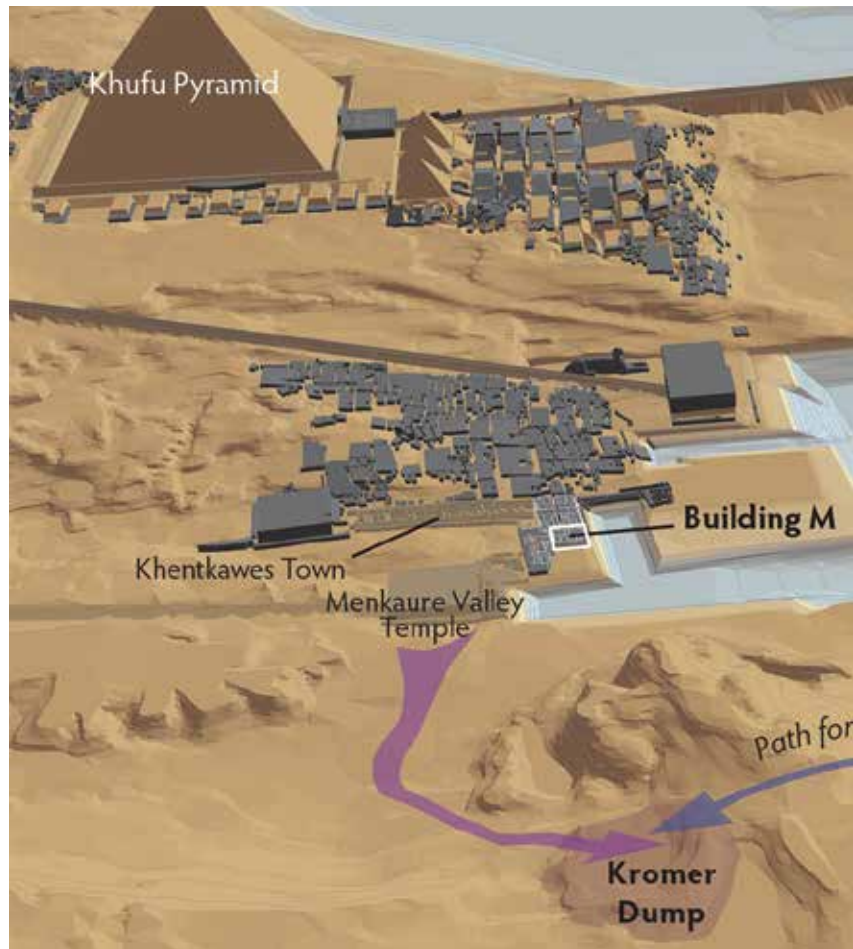
Then, in 2005 we found a large corpus of official sealings in another trash dump, Pottery Mound, beside the large, elite House 1 of the so-called Western Town of HeG, with titles that inspired John Nolan to reconsider the proximity of a palace, because they included some of the highest-ranking titles of this time, held by members of the royal house and prominent Fourth-Dynasty families. As the bureaucracy rapidly evolved, these officials could enter service as young men. Certain titles from the Pottery Mound corpus reflect a “palace education system.” Nolan suspected that a royal residence nearby served as “a sporadic, periodic royal presence...rather than a perma-

nent, on-going residence... more in common with a temporary royal 'resthouse' rather than a permanent, central palace."²⁵ From the material he found, Kromer suggested something similar, and he located this putative road palace — where the king stayed when he came to the royal construction site — at the place where Menkaure later built his valley temple.²⁶

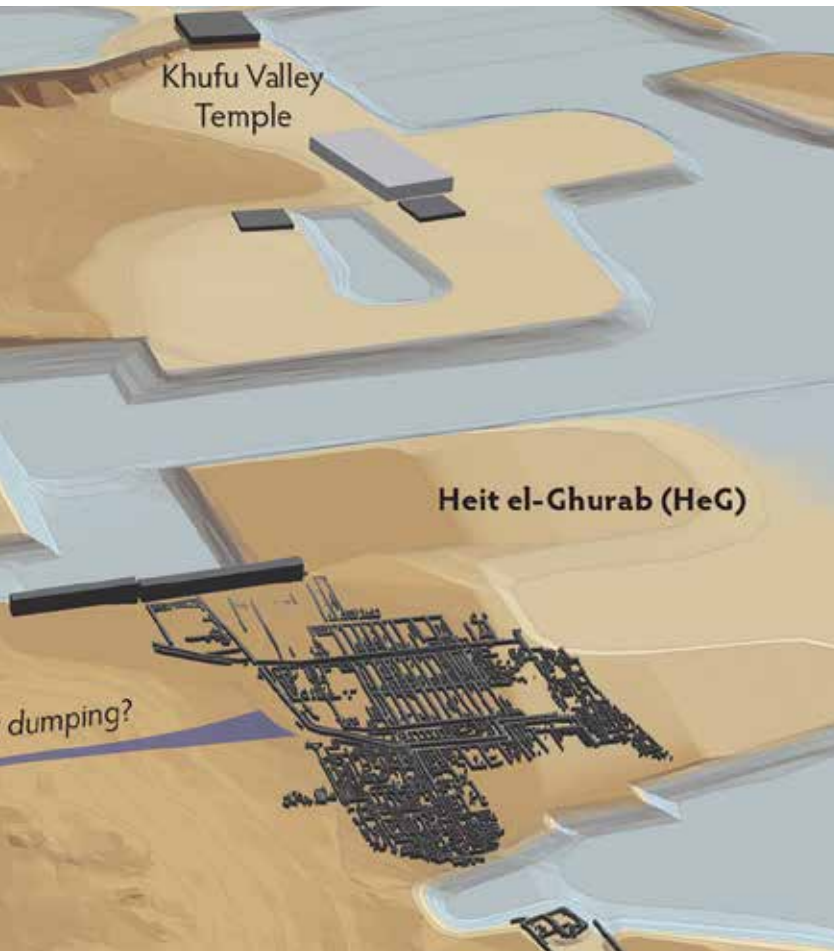
In fact, at that place we now look to a specific building that was later incorporated into the Khentkawes Town (KKT): Building M in the foot end of the Khentkawes Town, a palace-like structure with thicker walls, painted plaster, and an audience hall, typical of central halls in other large houses of administrators in the Khentkawes Town (see above for House D) and in the Western Town district of HeG. These halls are always oriented north to south and feature a niche in the southern end set off by pilasters that were once part of a formal frame around the niche, where the master sat and received visitors.²⁷

The walls of Building M are thicker than the walls of the other KKT houses. This building contains three pilaster-niche rooms and once featured painted horizontal bands of black, white, and red paint (like painted plaster from the Kromer site),²⁸ while such rooms in HeG houses are whitewashed or painted black. Building M may have been just another such large house, but in addition to its thicker walls, it bears the same elements as a (road, or regional?) palace of the First Dynasty that our German colleagues recently identified at the very ancient Delta site of Buto: storage magazines flanking the audience hall; production facilities for bread and other food in open courtyards; long and narrow corridors framing the core house; plastered and painted walls; and winding access routes into the audience hall. The Buto palace may have been a temporary residence "when the court came to Buto during the king's journey across the country."²⁹

We know from work of prior seasons that structures occupied the eastern foot of the KKT, west of a (harbor?) basin, before being rebuilt and incorporated into the settlement for Khentkawes I.³⁰ Building M, in both an earlier and later phase, may have been a king's "road house" for sovereigns when they came to the pyramid site. Menkaure's builders may have demolished part of Building M be-



ABOVE: Figure 21. Model of the southern base of the Giza Plateau, with reconstructed waterways and the Heit el-Ghurab (HeG) site, showing the possible directions of dumping in the Kromer site: from the east, HeG, or from the north and west, the area of the Khentkawes Town and Menkaure Valley Temple. Model designed by Mark Lehner, prepared in AERA GIS by Rebekah Miracle.



fore they erected his pyramid's valley temple, and dumped the debris upon the Gebel el-Qibli. We need to know if Building M shows older and newer phases. As the only KKT building we have not re-examined, Building M becomes a target for season 2019.

While we are still processing the 2018 finds from Kromer, it appears that most of the formal sealings, and perhaps most of the painted plaster and other high-status indicators, come from the lower, western end of Sondage 185 (especially feature 522, see figs. 16–17). Kromer found and removed most of the painted plaster and sealings in just this area, in his squares F, G, and B,³¹ which our trench crossed, leaving us to find what he left behind. Here the tip lines dip down to the west, indicating that people came and dumped from the east, the direction of the HeG. In the eastern, higher

— and probably chronologically later — layers, the tip lines slope in the opposite direction, dramatically down to the east (figs. 13–14), indicating that people came and dumped from the west. If they came first from the north, the area of the later Menkaure Valley Temple and KKT, they carried their baskets around and up the Gebel el-Qibli (fig. 21).

In those higher, eastern layers (especially 512) we found extraordinary quantities of animal bone, predominantly sheep and goat, in contrast to more cattle in 522. Many of the long bones had the ends cut or broken off, where they made a joint with another bone (the epiphysis), and some bore knife marks. (Ironically, here we found the kind of evidence we sought in SWI to support the hypothesis that this compound served as corral and abattoir, see above). Other long bones had been split, or had holes bored in the ends, to suck out marrow. We infer that butchers sent the higher quality meat from these long bones to people of higher status, while assigning the ends for protein- and fat-rich soups and stews of gelatin and cartilage, a form of consumption that could feed many more people, possibly lower status folk.³² While we further analyze and think about this rich material from the Kromer site, we could infer that these upper waste deposits derive more from provisioning a workforce.³³ If so, we would have expected that this material to come from HeG, a.k.a. the Workers' Town. So, for now, our two hypotheses for the origins of the Kromer dump material — palace (Building M location) to the west and north, workforce (HeG) to the east — stand in opposition to the nature of the material and the dumping direction at the east and west ends of Sondage 185.

Recent years have seen increased discussion and publication on ancient Egyptian palaces, or “buildings we call palaces.”³⁴ Manfred Bietak points out that Egyptian palaces, in addition to their large features of public display, “also included offices, especially of the chief administrators of the state” — Western Town houses? — “barracks and arsenals for troops” — the Gallery Complex? — “and... considerable storage areas for collecting and distributing commodities...”³⁵ In HeG we have only part of a Fourth Dynasty proto-urban settlement that once extended far to the east and north along the base of the plateau. More royal structures assuredly lie under the modern urban sprawl. Perhaps all along we have been a bit like the seven blind men and the elephant. All the major structures we have been exposing, including the HeG barracks and bakeries, could have been parts of one gigantic palace, a kind of Old Kingdom Egyptian equivalent of Versailles, or, better, New Kingdom Amarna or Malqata, and like those royal layouts, included in its two major phases various royal apartments, halls, and institutions.

NOTES

¹ OI 2011–12 *Annual Report*, pp. 52–53; Redding 2011, pp. 2–5.

² OI 2014–15 *Annual Report*, pp. 74–96.

³ OI 2015–16 *Annual Report*, pp. 82–99.

⁴ Tavares 2011, pp. 16–19.

⁵ Lehner, Kamel, and Tavares 2006, pp. 81–84.

⁶ These changes are detailed in Lehner et al. 2011.

⁷ Hassan 1943, p. 38.

⁸ Tavares and Yeomans 2009.

⁹ Arnold 1998.

¹⁰ Lehner 2015; 2015/2016; Aeragram 2016; Wetterstrom 2016.

¹¹ OI 2014–15 *Annual Report*, p. 83, fig. 8.

¹² Nolan 2010, pp. 155, 199, 313.

¹³ Gräzer O’Hara and Pabeschitz 2018.

¹⁴ Such as the settlement that Abd El-Aziz Saleh excavated southeast of the Menkaure Pyramid, on the rim of the quarry that furnished stone for that pyramid’s core. There, the builders made walls of broken stone and *tafla*, not of Nile silt bricks; Saleh 1974, pp. 131–54.

¹⁵ “Splittestrich,” Kromer 1978, p. 106, Abb. 35.

¹⁶ Kromer 1978, p. 105.

¹⁷ “...sozial höher gestellten Personen,” Kromer 1978, p. 101.

¹⁸ Witsell 2018b.

¹⁹ Kromer 1978, p. 92.

²⁰ Goelet 1982, pp. 97–98.

²¹ Goelet 1986, pp. 95–98.

²² Goelet 1986, p. 90.

²³ For example, Winter 1957 against the idea; Stadelmann 1981, pp. 76–77 for it.

²⁴ Lehner and Wetterstrom 1997.

²⁵ Nolan 2010, pp. 404–05.

²⁶ Kromer 1978, p. 115.

²⁷ OI 2014–2015 *Annual Report*, pp. 79–83; Nolan 2010, pp. 155, 199, 313.

²⁸ Hassan 1943, p. 41.

²⁹ Hartung 2018, p. 108.

³⁰ OI 2013–14 *Annual Report*, pp. 71–72, fig. 6.

³¹ Kromer 1978, p. 115.

³² Witsell 2018a for a preliminary report on these faunal features; Yeomans 2011 for parallel faunal findings from HeG.

³³ Witsell 2018a, p. 8.

³⁴ Tzonis 2018.

³⁵ Bietak 2018, p. 23.

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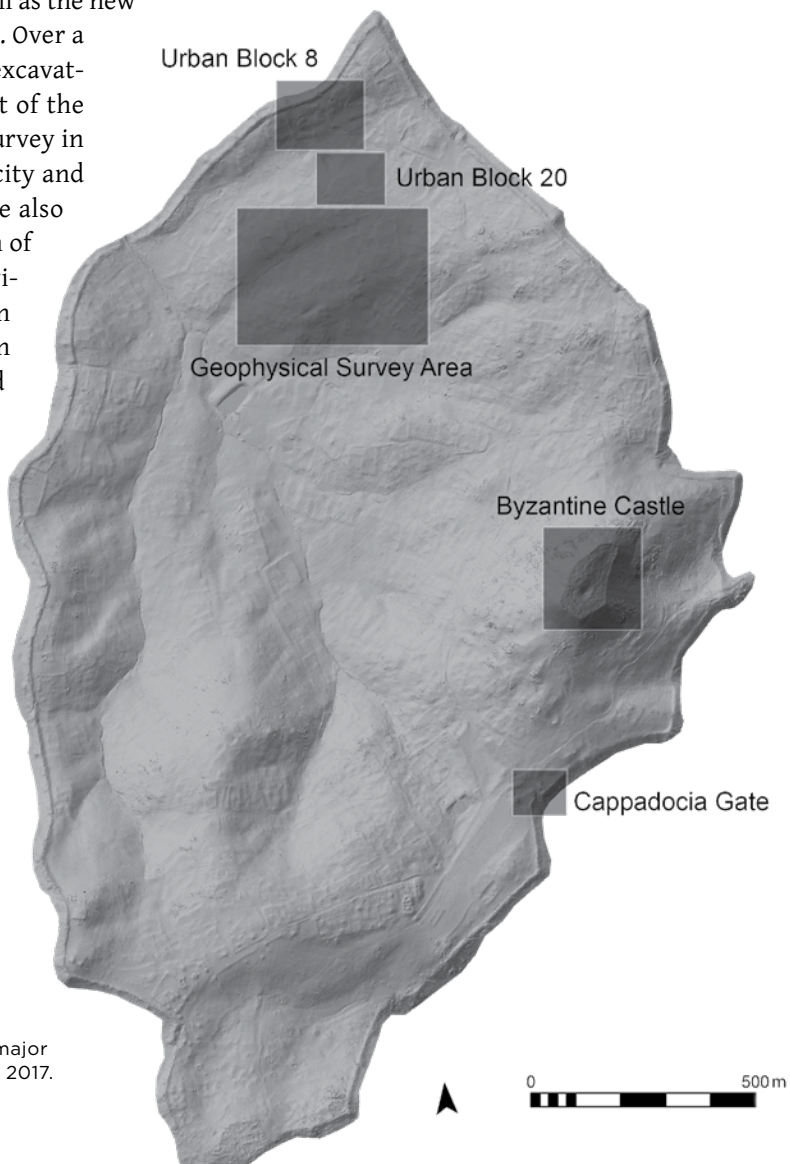
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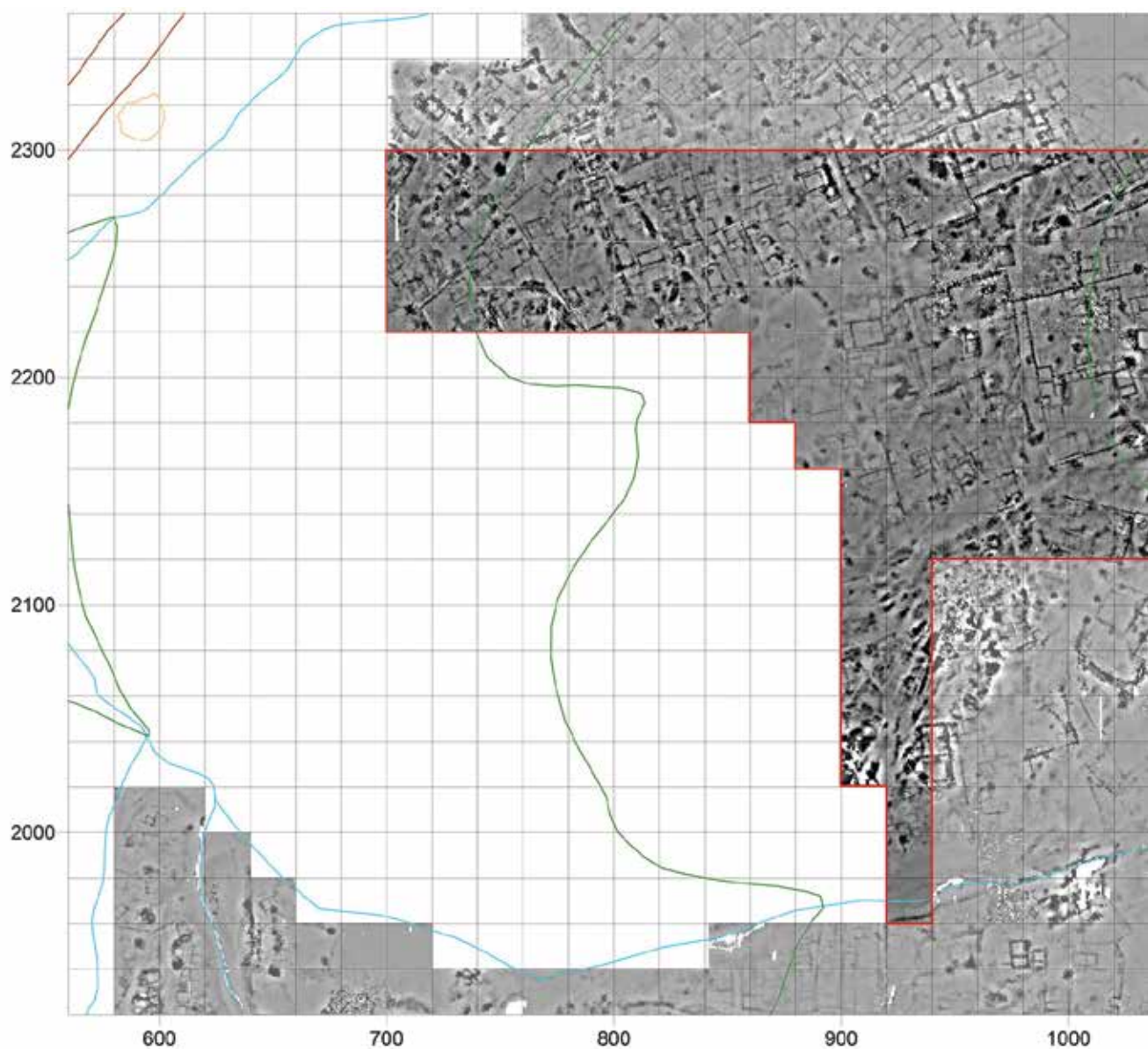
KERKENES PROJECT

SCOTT BRANTING | kerkenesproject.org

The 2017 season at Kerkenes marked twenty-five years of exploration of this very important late Iron Age city in central Anatolia by the current project. During this quarter century of research, the large-scale geophysical surveys and the development and use of innovative technologies by the project have received global recognition. This continued in 2017, the first full season undertaken with funding from both the Merops Foundation and the National Science Foundation as well as the new Kerkenes geophysical field school. Over a two and a half month season, we excavated two areas of the northern part of the city and undertook geophysical survey in the north-central portion of the city and in the Byzantine castle (fig. 1). We also continued our important program of monitoring and maintaining previous restoration work, undertaken with Oriental Institute support, in the southern part of the city and finished preliminary analysis of future restoration plans. This on-site work complimented post-excavation analysis by a growing team of specialists, cleaning and care of excavated materials by our conservation staff, and a program of infra-structural improvements within the excavation compound. In addition, expanding outreach and student involvement are but some of the highlights from this very productive season.



RIGHT: Figure 1. Map of the locations of major work at Kerkenes in 2017.



ABOVE: Figure 2. Results of the 2017 geophysical survey in the north-central portion of the city.

GEOPHYSICAL SURVEY

During the beginning of the 2017 season, we accomplished twenty-seven days of geophysics at Kerkenes during the months of May and June. A total of 64,800 sq m (6.48 ha) was surveyed by our team aided by the new geophysical field school (fig. 2). The main area of survey with the city this year connects two large areas of earlier resistance surveys. The first of these, in the central portion of the city, has been the focus of recent seasons of survey. The second is an area in the far northern portion of the city, around the urban block that has been the focus of our excavations since 2011. Joining up these two areas allowed the project to develop a more expansive building-by-building plan of the city around the ongoing excavations, particularly in areas where the burning during the final destruction of the city was less intense.

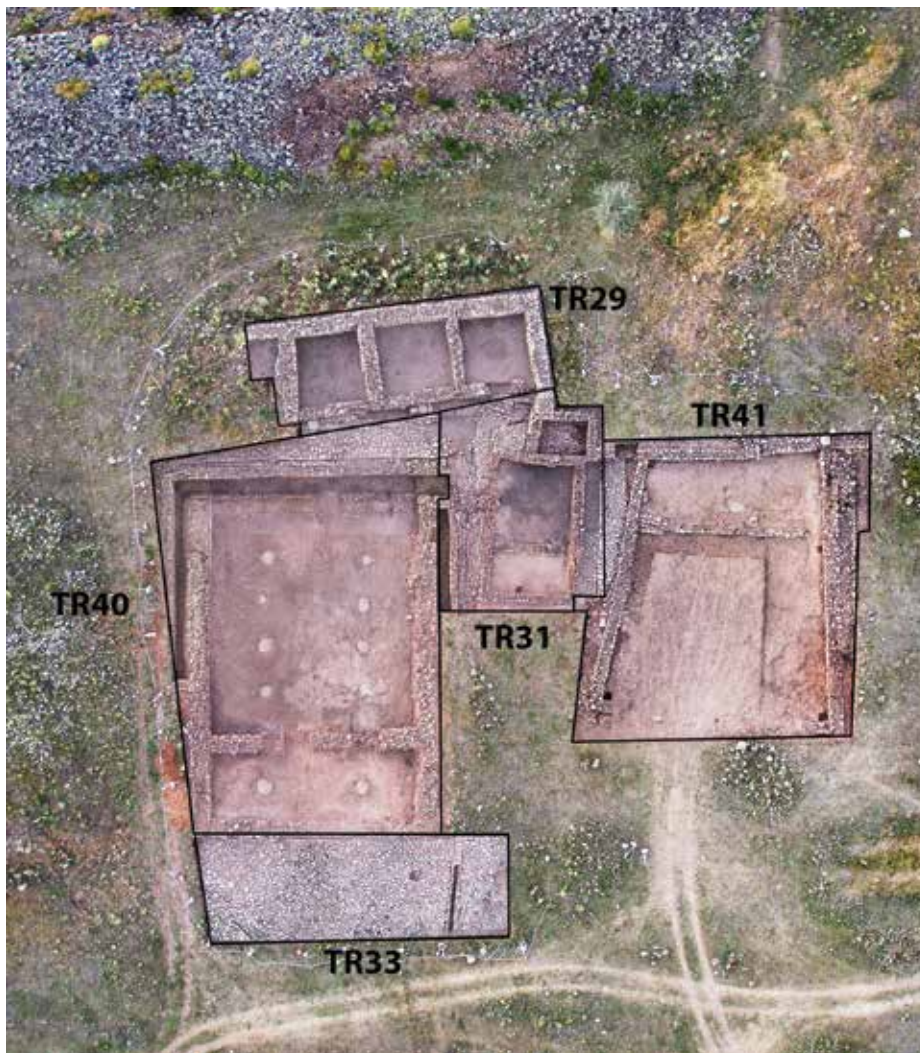
In addition to this work in the main city, we also undertook one day of survey high up on the Byzantine castle. This portion of the site had not previously seen geophysical survey. We used this small area of resistance survey to test the potential of Electrical Resistance Tomography (ERT) methods for revealing information about the shape and depth of the underlying bedrock. While the resistance survey test did not prove as successful in mapping the plan of the interior of the castle as it has within the Iron Age city, the ERT methods we hope to employ in future seasons do appear to have a good chance of mapping the bedrock and the earthen fill that provided a foundation for the castle. We plan to use ERT in transects across the castle in 2018.

We also were able to assist the Uşaklı Höyük team, lead by Stefania Mazzoni, by providing our resistivity equipment and expertise to them for resistivity surveys on their high mound in early May. Facilitating the work of other archaeological projects, as well as the work of the Yozgat Museum as we did last year in a nearby Roman bath complex, has been a hallmark of the Kerkenes Project since 1993. We are proud to be able to continue that tradition of collaborative outreach.



EXCAVATION

Excavations at Kerkenes took place over two months in 2017 and in four different trenches: Trench 40 (TR40), Trench 31 (TR31), Trench 41 (TR41) (figs. 3 and 4), and Trench 42 (TR42) (figs. 4 and 5). TR40, TR31, and TR41 are all located within Urban Block 8 while TR42 is located 130 m away in Urban Block 20. All four of the trenches are located in the northern portion of the city. Within Urban Block 8, excavations have now encompassed a total contiguous area of 1,500 sq m, a quarter of the total 6,000 sq m extents of this urban block. The full clearance of this entire urban block, in conjunction with the ongoing program of extensive soil sampling, would provide us with a much better understanding of how people lived within one of the 757 urban blocks, the range of activities they undertook on a daily basis, and how they used the buildings and outside spaces. During excavation in each of the four trenches, photogrammetry continued to be used by our excavators to develop 3-D models for recording purposes. The use of 360° cameras this year helped to make this process more efficient, allowing daily 3-D models to be generated throughout the excavation season.



LEFT: Figure 3. Aerial photograph of the excavation areas of Trenches 29, 31, 33, 40, and 41.



ABOVE: Figure 4.
Aerial photograph
of the excavation
areas of both
Urban Block 20
(foreground) and
Urban Block 8.

LEFT: Figure 5.
Aerial photograph
of Trench 42.



ABOVE: Figure 6. Stone-edged bin to the west of the western wall of the large building in Trench 40.

TR40 covers nearly the full extents of a very large columned building within Urban Block 8. It is one of the largest buildings known in the ancient city. Work in 2014, 2015, and 2016 had uncovered the entire floor area in both the 75 sq m antechamber and the 260 sq m inner room. Excavation in 2017 concentrated on two areas in the back of the inner room, in a 1.5 m wide bin area discovered in 2016. We knew in 2016 that this 30 cm deep bin area continued through an extension of the line of the inner faces of the eastern and western walls of the building beyond their northernmost extents. It was unknown how far the bin extended past the line of the inner faces of two walls, how the bin related to these sidewalls of the building, or what was the purpose of the bin.

The continued excavation of the bin through the western wall of the large hall revealed several answers to these questions. The bin, with its sloping stone edge, continued across the 1.2 m northern end of the western building wall and then curved down along the outer edge of the wall, with plastering of the outward face of the wall noted above the top of the bin. It then continued south, along the outer edge of the wall for 13 m before ending in an east-west cross wall that abutted the western wall of the building (fig. 6). Mean-

while, the northern terracing wall, located on the northern side of the bin, reaches a corner just beyond the northwestern corner of the western building wall. It continues from there to the south, defining the western edge of the bin, at least as far as the east-west cross wall. The terrace wall does not now appear to be the outside edge of the building, but instead bounded a lower leveled space within which the building was constructed. The bin may have functioned as a channel to divert run-off water, coming from the surrounding terrace fill, around the large hall's walls and floors. Further analysis in 2018 of the systematic soil samples collected in 2016 and 2017 from across the large hall and the bin should help to confirm or refute this interpretation. They also may allow a better understanding of whether or not the bin area was covered.

Within this western section of the bin area a number of objects were discovered. These included a number of carved objects in ivory, bone, and antler. At least seven carved antler rosettes were found lying flat along a surface in the bin (fig. 7). Additionally, numerous pieces of small worked bone cylinders were found across the area and a carved ivory palmette (fig. 8) was uncovered and pieced together. Portions of several ivory plaques were found including a plaque with a winged mythical beast (fig. 9), at least one plaque with a floral design, and a strip of worked ivory that may have been



ABOVE LEFT: Figure 7. One of the antler rosettes found in the western section of the bin area in Trench 40.

ABOVE RIGHT: Figure 8. A carved ivory palmette found in the western section of the bin area in Trench 40.

BELOW: Figure 9. Fragmentary ivory plaque with a winged mythical beast from the western section of the bin area in Trench 40.



PROJECT REPORTS | KERKENES PROJECT



ABOVE: Figure 10. A carved ivory disk from the western section of the bin area in Trench 40.

an inlay. Ivory discs were also found with compass drawn decorated circular banding (fig. 10). These have parallels in discs found in a cache from the Temple of Artemis at Ephesus, a link strengthened by worked astragali also discovered in the antechamber of this same building at Kerkenes during an analysis of the bone recovered in 2014. Finally, a portion of a shallow ivory bowl or mirror with squared areas for inlays around the edge was discovered in the northwestern corner of the bin area (fig. 11). The inlay areas exactly match two small gold inlays discovered this season from the same area of TR40 and one gold inlay discovered in 1996 within the doorway of Room 1 of the long multi-roomed building

directly to the north of this large hall. A notch out of the corner of the inlay from 1996 may even be from an individual prying the inlay free during the destruction of the city, prior to dropping and losing it in the doorway. The connection between the bowl and this inlay suggests that at least some of the ivory pieces found within the bin may have originally been stored within Room 1, a room that also yielded the famous ivory plaque discovered in 1996.

The excavation of the continuation of the bin to the east through the line of the inner face of the eastern wall of the building yielded a slightly different result. The bin to the east also continued 2.5 m, along the northern end of the eastern building wall. However, at least in the last phase of the building, it did not curve down between the outer edge of the eastern wall and the northeastern corner in the terracing wall. Instead, an east-west cross wall was constructed flush with the northern most end of the eastern wall, effectively blocking off a narrow 1 m wide stone paved slot just outside the eastern wall. A portion of the slot was excavated this year within TR31. This narrow slot may have been used to direct water away from the wall and floor of the hall, as a narrow drain ran down through the stone paving (fig. 12). However, it is quite different in composition from the bin running down the outer face of the western wall. A flat stone floor was found in the base of the bin and there is no evidence for the sloping bin stones found elsewhere in the bin area. Instead the outer face of the eastern wall continues down to the floor and was plastered to the floor. Within the extension of the bin to the north of the east-west cross wall, pottery and bone, similar to that noted in this portion of the bin that was uncovered in 2016, was found amongst the burning from the destruction of the city. In addition, a copper alloy arrowhead, copper alloy disks, an ivory inlay, and a fragment of a sandstone bowl were found in this eastern bin area. Within the slot outside the eastern wall in TR31 there were additional sherds along with a small bent iron sickle and fragments of grinding stones. Work in 2018 will continue the excavation of the slot to the south and may clarify the drainage situation along the eastern side of the large building.

RIGHT: Figure 11. A partial ivory bowl or mirror from the western section of the bin area in Trench 40.



Additional excavation was undertaken in TR31 within Room 4, the smallest room excavated thus far within Urban Block 8. In 2012 the threshold to this room was uncovered and in 2016 the entire 3.26×2.36 m extents of the room were defined. It is located just down from Room 3, which has been identified as a food preparation area. In 2017 excavations were completed in this room uncovering an original stone paved surface, as well as later reworking of the room (fig. 13). This later phase saw the replacement of the stone floor with a partially plastered floor noted about 16.5 cm above the stone paved surface. Only a few pieces of pottery, including a portion of a trefoil jar, and bone were found in this room. Additional analysis of the collected soil samples in future seasons may yield more evidence for how this room was used.



ABOVE: Figure 12.
The stone-paved
slot excavated in
Trench 31.

BOTTOM RIGHT:
Figure 13. Room 4
fully excavated
within Trench 31.





ABOVE: Figure 14. Trench 41 as seen from the southwest.

TR41 was situated to the east of TR31, beyond Room 5 and a paved area outside of it, which both were uncovered in 2016. The remainder of this paved area was excavated in 2017 as part of TR41. The entire 18×20.9 m extents of TR41 continued to the east from this paved area, across a long northeast-southwest orientated wall, and over a large multi-level outside space running up to a terracing wall that appears to define the easternmost extents of the urban block (fig. 14). The northern end of TR41 was defined by an east-west wall running across the urban block roughly in line with the northern terrace wall first encountered in TR40. Within this wall, a threshold was excavated in the northwestern corner of TR41. This threshold appears to allow access from the paved area in TR41 and TR31 to an as yet unexcavated area to the north of TR41.

The large open area beyond the long northeast-southwest wall, which forms the majority of TR41, was comprised of two distinct areas of different elevation connected by a four stair stone staircase. The staircase is located at the western end of a shorter east-west terracing wall that supports the 12.8×5 m upper area. Little of the surface of this upper area was preserved, but the irregular bedrock that protrudes up into this area in places does suggest that the terracing was an attempt to provide a fairly level surface for activities despite the uneven bedrock in this area. Where the stretches of surface were preserved in the northeastern corner bone, ceramics, and wood were found. Two sandstone blocks, ca. 45×30 cm and 35×30 cm, were found lying flat just in front of the western wall of the area, 1 m from the top step of the staircase. Excavations in the larger lower elevation area, to the south of the terrace wall, were started in 2017 and will be completed in 2018.

Finally, TR42 was opened within Urban Block 20, an urban block just to the south of Urban Block 8. This excavation will provide comparative information, using the same methodology, on the use of space within a different type of urban block. Urban Block 20 appears in the geophysical data to show a more haphazard arrangement of buildings, including structures that may be spilling out of the urban block over the course of the life of the city. In 2017, a 7×7.5 m area of Urban Block 20 was excavated as TR42 (fig. 5). It was situated to investigate a two roomed building located adjacent to a longer wall that marks a change in elevation within the urban block. None of the floor surfaces of the two rooms were preserved, but clusters of pottery as well as an iron dart were recovered.

CONSERVATION AND LABORATORY ANALYSIS

Conservation remains a key priority of the Kerkenes Project, both within the current excavations and in attempting to maintain structures from excavations undertaken by earlier teams. A major focus of this work is developing a conservation plan to try and maintain portions of the Cappadocia Gate, which was excavated and partially restored a decade ago with the Oriental Institute's financial support. This work has always been complex due to the intense fires that destroyed the gate in antiquity, with the internal wooden support structure of the walls and towers completely burned away. This has allowed the rubble core of the walls and towers to spill past the large facing stones that still stand over 3 m high in places. The only reason the walls survived thousands of years is because the entire area was backfilled by the collapse of the wall and upper portions of the towers at the time of their destruction.

Different methods of restoration were tried in four sections of the gate in 2009–10. This restoration work requires yearly maintenance with the replacement of smaller fitting stones to prevent loss of stones, bulging, and eventual collapse. Unfortunately, for two years in 2012 and 2013, when we were not issued a permit, no such maintenance was performed. Between 2014 and 2015, the current team performed the yearly maintenance under the museum permit, but noticed bulging already in the restored stonework from the lack of maintenance in the two intervening years. Since 2016 and the issuance of the new excavation permit, the project has performed the yearly maintenance and has used photogrammetric methods developed in 2014–15 to closely monitor changes in the restoration. In 2017, we extensively cleaned the entire gate area alongside the yearly maintenance process. In addition, we developed a preliminary plan for the stabilization of areas of the gate in collaboration with restoration architects in our team leadership from Abdullah Gül University. This plan is based on the photogrammetric data and is currently being discussed with engineers. We plan to finalize and submit the plan for the commission's approval in 2018–19.

Additional areas of the site were also the focus of conservation efforts in 2017. We cleaned the old excavation areas in the palace and made repairs to the fence. We also constructed and installed new sign panels, used to direct tourists to areas of the site, in the southern part of the city after winter winds had sheared off two of them. Our conservation staff also removed election graffiti that had been painted by unknown individuals on stones just outside the city walls. This work was in addition to our annual maintenance of restored walls in the city. Within the excavation depots, our trained conservation staff pressed on with the conservation and preservation of new and existing objects and materials. This includes a major effort of repacking, for long-term storage in new depot rooms, the pieces of stone carvings excavated between 2003 and 2011. We also continued to repack iron material within the depot to help in their long-term stabilization.

Team specialists working on floral, faunal, ceramic, metal, and dendrochronological analysis were also present on the site this year. Work in each of these areas was required based on materials recovered by the excavations and our long-term research design. Of particular note was the dendrochronological samples collected from TR40 in 2016 and 2017. These samples have sufficient tree rings to be further analyzed to try and date the city and to help anchor a broader dendrochronological based dating system for all of Turkey. We are currently working with the Ministry of Tourism and Culture and with the Yozgat Museum to export these dendrochronology samples for this further analysis. University students working with the project, from both Turkey and abroad, spent time with not only the excavations but also with these different specialists and with the conservation team.

FACILITIES AND INFRASTRUCTURE IMPROVEMENTS

We made significant improvement to the facilities within the excavation compound in Şahmuratlı Köyü in 2017. We installed a system of security cameras in the excavation house in 2017, at the request of the Turkish Ministry of Tourism and Culture. In addition, within the depots we installed new shelving in several storage rooms, rooms that were then used in the rehousing effort of the stone fragments excavated between 2003 and 2011. This allowed a reorganization of the large upper room of the stone depot into areas for specialists working with the current excavations, which in turn freed up areas within the main depot for conservation team activities and instrumentation. Finally, we installed a rain barrel to collect water, which can then be used by the project's flotation machine for the recovery of botanical and faunal material from excavated soil samples. This will help the project to better deal with water issues that are an annual problem in the village.

In addition to these improvements, we constructed a new garage in the main excavation compound, with ample storage rooms for project tools and equipment. This has been a need for several years. Other improvements we made during the 2017 season include emergency repairs to the roof of the Erdoğan Akdağ Visitor Center, replacement of some of the project's solar panels, and repairs to the new road leading up to site. The Yozgat Governor and the Sorgun Regional Governor were of great help this season in several of these improvement efforts.

OUTREACH

During the 2017 season, presentations on Kerkenes were made to local school children in Sorgun at the Mehmet Akif Ersoy Ortaokulu and at the Yavuz Selim İlk Okulu. We also coordinated with the Kültür 2000 Koleji school from Istanbul as they researched and then visited Kerkenes, as their class project for the year. They plan to present on Kerkenes in Istanbul and around the world in the coming year. We also collaborated with the Yozgat Tourism Bureau providing recordings for a mobile application to guide tourists through Yozgat's cultural sites. Finally, as has been the case at Kerkenes for many years, the project actively incorporated both Turkish and foreign students to train a new generation of archaeologists on the cutting edge techniques developed and used by the project.

ACKNOWLEDGMENTS

We are very grateful for the support of the Ministry of Tourism and Culture during the 2017 season. In particular, we are indebted to Necip Becene of the Yozgat Museum who served once again as the Ministry Representative. We received excellent advice from Hasan K. Şenyurt, Director of the Yozgat Museum, and the entire museum's staff helped to facilitate this work. In addition, we received support from the Yozgat Governor Kemal Yurtnaç, the Sorgun District Governor Dr. Mustafa Altınpınar, the Sorgun Mayor Ahmet Şimşek, the Şahmuratlı Mayor Turan Baştürk, and the Sorgun Administrative Director Metin Kayhan. Financial support of this work was received from the Merops Foundation, the National Science Foundation (NSF) Grant Award #1624105 "Investigation into the Social Organization of an Early City," the University of Central Florida, and private donors. We are always happy to welcome new partners in this important long-term research effort. No work would have been possible without our dedicated team included collaborators and students from around the world and throughout Turkey.

MUMMY LABEL DATABASE (MLD)

FRANÇOIS GAUDARD

During the past academic year, the editors and collaborators of the Mummy Label Database and Death on the Nile projects continued to make progress with various tasks, including completing the database, tracking lost mummy labels, and preparing text editions of unpublished ones. Moreover, they also kept working on subjects related to death in antiquity. For information on these joint projects of the Universitat Pompeu Fabra (Barcelona), the Universidad Complutense (Madrid), and the Oriental Institute of the University of Chicago, readers can consult previous annual reports, available online in Adobe Portable Document Format (PDF):

<https://oi.uchicago.edu/research/projects/mummy-label-database-mld>

On September 20, 2017, Raquel Martín Hernández delivered a lecture entitled “La experiencia de la muerte como proceso iniciático. El caso de los misterios griegos,” as part of the summer course “Morir antes de morir: sociedades y experiencias iniciáticas a lo largo de la Historia,” at the UNED (Madrid). In addition to conducting research at the Universidad Complutense, she is supervising a PhD thesis entitled “La identificación del muerto con Osiris en el Egipto ptolemaico.”

Alba de Frutos García (Universidad Complutense) is currently finishing her PhD thesis, entitled “Profesionales de las necrópolis en el Egipto ptolemaico” (“Funerary Workers in Ptolemaic Egypt”), under the supervision of Sofía Torallas Tovar (University of Chicago) and Alberto Bernabé (Universidad Complutense). It consists of a study of all the family archives belonging to funerary workers, in order to understand the social context in which they lived. Alba also gave the two following lectures: “Los profesionales de las necrópolis en el Egipto ptolemaico,” delivered on June 30, 2017, at the IV Jornadas de Doctorandos de Filología Clásica, Facultad de Filología, Universidad Complutense; and “¿Quién entierra al enterrador? Sobre las costumbres funerarias de los profesionales de la muerte en el Egipto ptolemaico,” delivered on July 14, 2017, at the VII Jornadas de Papirología, Universidad del País Vasco (San Sebastián).

Drawing up a list of lost mummy labels and updating it, as well as contacting museums and private collections around the world to track such labels, took a significant amount of time for Klaas Worp and François Gaudard. They also contacted Trismegistos (<https://www.trismegistos.org/>) to share the results of their investigations. At this point, they still expect to hear from various institutions. The most difficult labels to track include those which were part of private collections, were sold at private auctions, or disappeared, for example, during WWII. In this regard, François established interesting contacts for the MLD by attending the annual meeting of CIPEG (International Committee for Egyptology), dedicated to “The Role of Curators in Museum Research and Exhibits: Tradition, Change, and Looking to the Future,” and held at the Oriental Institute of the University Chicago from September 5 to 8, 2017. He also continued to work on the edition of the Oriental Institute Museum funerary shrouds from the Graeco-Roman period.

RELATED PUBLICATIONS BY TEAM MEMBERS

The following articles have been published, submitted, or are in press:

- Sofia Torallas Tovar, “A lexical Note on the Life of Pisentios.” In *Labor omnia uicit improbus: Miscellanea in honorem Ariel Shisha-Halevy*, edited by Nathalie Bosson, Anne Boud’hors, and Sidney H. Aufrère, pp. 373–380. *Orientalia Lovaniensia Analecta* 256. Leuven; Paris; Bristol, CT: Peeters, 2017.
 - Raquel Martín Hernández, “Faience Mummy Labels Written in Greek,” to be published in the forthcoming issue of the *Zeitschrift für Papyrologie und Epigraphik* (submitted).
 - François Gaudard, “A Greek-Demotic Mummy Label in the University of Cambridge Museum of Archaeology and Anthropology.” In *Hieratic, Demotic and Greek Studies and Text Editions. Of Making Many Books There is No End: Festschrift in Honour of Sven P. Vleeming*, edited by Koenraad Donker van Heel, Francisca A. J. Hoogendijk, and Cary J. Martin, pp. 309–13. *Papyrologica Lugduno-Batava* 34. Leiden, Boston: Brill, 2018.
 - François Gaudard, “Funerary Shrouds from Dendera in the Oriental Institute Museum of the University of Chicago, Part I: OIM E4786,” to be published in a Festschrift honoring a colleague (in press).
 - François Gaudard, “Funerary Shrouds from Dendera in the Oriental Institute Museum of the University of Chicago, Part II: OIM E4789,” to be published in a Festschrift honoring a colleague (in preparation).
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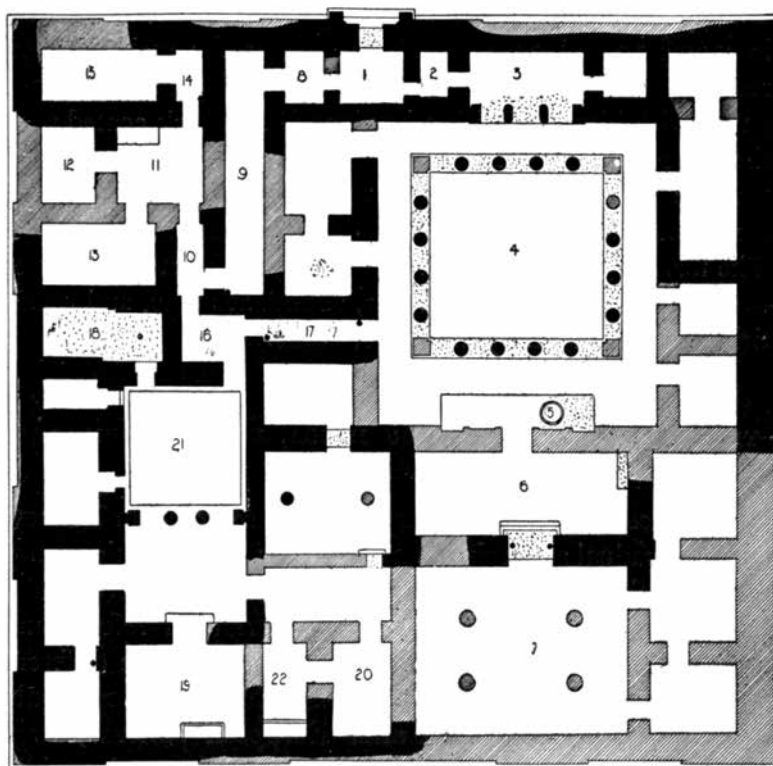
NIPPUR

MCGUIRE GIBSON

Well, we have gathered a team and are planning to resume research at Nippur in the fall of 2018. The effort is not just a simple matter of going there and laying out squares and beginning to dig holes. Our last season at Nippur was in 1990, and our ten-year plan to open up a large exposure around the Gula Temple in Area WA, did not get started because of the Kuwait Crisis and the Gulf War, followed by ten years of sanctions that made it impossible for us to work. Then, of course, 2003 and ISIS kept us away. The result has been that, although the site has not been damaged extensively by looting, most or all of our survey markers have been dislocated, partly by boys having fun, but probably mostly from the natural processes of wind and water erosion that eat away at the mound. This erosion has made it difficult to recognize some of the areas we worked in before 1990. One of the first things we will have to do is to position ourselves on the site plan, using GIS and more traditional equipment.

This coming season we will start on a modest basis, probably working in an area that, we hope, will make it possible to investigate the earliest occupation of the site (the Ubaid period, ca. 6000 BC). We know from potsherds that we find on the surface that the site was occupied in this period but neither the Pennsylvania expedition of the 1890s nor the Oriental Institute since 1948 has succeeded in reaching this level. We also may open a new trench in Tablet Hill, an area of houses near the ziggurat that has yielded thousands of cuneiform tablets in the past. Of course, the situation when we get to Nippur may require adjustments in our plan, but we have always been flexible where plans are concerned.

I had the dig house extensively repaired a couple of years ago, and the fabric of that unbaked brick structure (built by Jim Knudstad in 1964) is now sound, but there are a few things that need to be done. For instance, although the most important parts of



ABOVE: Nippur Villa with Court of Columns plan.



the plumbing system were installed, there are additional pipes that need to be connected and a few sinks to be bought and installed. We will also have to buy a new generator, since electricity is reliable for only four hours a day. We also need to buy new kitchen equipment, which, even if it had not disappeared, would not be usable today. Other items that have disappeared are wooden tables and chairs, built especially for the house in 1964. I see a lot of plastic in our future. Things like sheets, pillowcases, and towels have deteriorated, even though they have been in storage in Baghdad. Much of the digging equipment (picks, shovels, wheelbarrows, etc.) have walked away from the house and will have to be replaced. Except for the generator and kitchen equipment, most items mentioned here are fairly easily bought today, even in the nearby town of Afak. In the past, we would have to go to the provincial capital Diwaniyah, or even Baghdad, to find much of this equipment, although some would be in the market in Afak. But the situation is different now. Afak that we knew until 1990, with about 3,000 people and a one-street market, has grown into a town of 50,000 people. And costs have gone up greatly, and I am sure that I will be shocked and chagrined often in shops. The cost of labor has certainly increased dramatically, which is another factor that has to be entered into our season as it unfolds.

One of the changes that has occurred on the mound is the departure of almost all of the sand dunes that nearly completely covered the site in the 1950s and even when they gradually diminished in the 1970s and 80s, they still perversely lasted exactly on places where we wished to work. In the late 1980s, when we decided to open Area WG on the highest part of the West Mound, to the west of



FAR LEFT: WA with dune looming over it and hiding a villa. 1974, taken from northeast. MIDDLE: Nippur Villa with a Court of Columns high up above Area WA, 1992, from southeast. Much of the dune has dropped into Area WA, where the Gula Temple lies. ABOVE: Removing sand from WA.

WA, I was surprised to see that the blowing away of the great dune that hung over Area WA had left exposed the rounded baked-brick pillars of the “court of columns,” which was a feature of a huge Parthian villa that Penn had dug in the 1890s. I had seen these columns when I was first at Nippur as a student archaeologist in 1964. I did not take a photo of them at that time, and when I took over direction of Nippur in 1972 and opened Area WA, the dune had completely hidden them. Because I knew that the court was in this area, I mistakenly thought that a small area with a few baked bricks, which was located to the northeast and about 6 m lower in the mound, was all that was left of the court.

Besides opening excavations on the site, we will begin a new surface survey of the area around Nippur, especially to the east. Our former students, Carrie Hritz (University of Maryland) and Clemens Reichel (Toronto) will carry out the survey, along with Carrie’s former student Zaid Ibrahim. It will not be as easy to do survey as it used to be because much that had lain as desert since about AD 1300 has now been brought under cultivation. But they will be able to bring new remote-sensing techniques to the work to get a better record of ancient occupations at sites just because many of them have been looted and a much greater sample of sherds from the different levels of the site are now on the surface. They will also be able to gauge the damage done in the area by the looting.

One last thing: I can report that the Inanna Temple publication, much anticipated since the 1960s, continues to make progress in the editorial office and I hope that the efforts of Richard Zettler, Karen Wilson, and Jean Evans will finally be manifest within about a year.

ORIENTAL INSTITUTE CULTURAL HERITAGE WORK IN AFGHANISTAN

GIL J. STEIN

In 2017–18 the Oriental Institute continued its cultural heritage preservation work in Afghanistan. We completed the sixth full year of the partnership between the University of Chicago’s Oriental Institute (OI) and the National Museum of Afghanistan (NMA). This partnership and its related projects are funded by the US Department of State and the US Embassy in Kabul, with several key goals: a) developing a bilingual objects management database, b) conducting a full inventory of the NMA’s holdings, c) doing conservation assessments for the objects, d) rehousing the objects in archival quality containers, e) restoration of sculptures from the early Buddhist monastic complex of Hadda (fig. 1), e) museum outreach programming (the “Mobile Museum” grant), and f) training the NMA staff in conservation, database management, and artifact curation procedures. The inventory of all objects in the museum and other storage areas is now essentially complete. However, we are continuing with the Hadda sculptural restoration project, with our “Mobile Museum” outreach project, and in training and capacity building for the staff of the National Museum in object conservation, database management, and best practices for object curation.

In addition to our work with the National Museum, the OI is also conducting the “Afghan Heritage Mapping Project” (AHMP) in partnership with the Afghan Institute of Archaeology to train the staff and concurrently develop a geospatial database whose ultimate goal is to use remote sensing data to document all the main archaeological sites in Afghanistan.

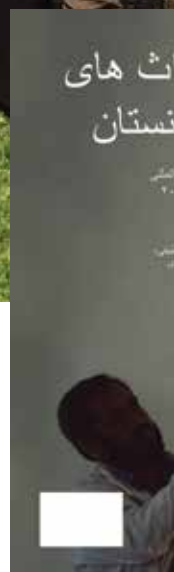
RIGHT: Figure 1. Partially restored Gandharan style early Buddhist sculptures from Hadda. Photo by Gil Stein.





ABOVE: Figure 2. The OI Kabul and Chicago team: (left to right) Gil Stein, Ahmed Bilal, Alison Whyte, Alejandro Gallego-Lopez, Amanda Watts, Fabio Colombo, and Brendan Bulger. Photo by Gil Stein.

RIGHT: Figure 3. Bilingual Dari-English publication of *Preserving the Cultural Heritage of Afghanistan: Proceedings of the International Conference Held at Kabul University, November 2014*.

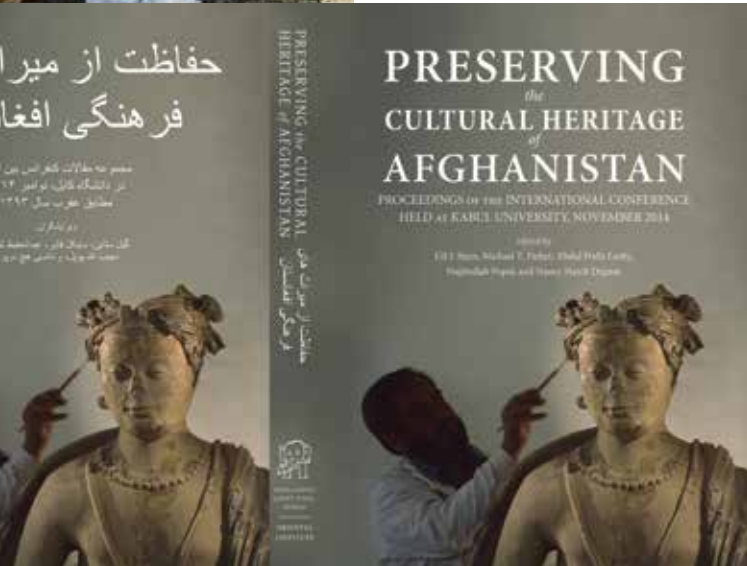




The OI component of the partnership with the NMA consists of two parts. The “Chicago team” consists of Gil Stein (PI), Brendan Bulger (grant planning, administration, and budgeting), and Alison Whyte (conservation). Our “Kabul team” consists of Field Director Alejandro Gallego-Lopez, Head Conservator Fabio Colombo, and Assistant Conservator Amanda Watts (fig. 2). We have worked closely not only with the National Museum of Afghanistan and its Director Fahim Rahimi, but also with local partners, and most importantly, with the US State Department and the US Embassy-Kabul. Local logistical support for our project is provided by ACHCO (a Kabul-based non-governmental organization that specializes in cultural heritage projects in Afghanistan); our close partners have been ACHCO founder Jolyon Leslie, and Ahmad Bilal, who has worked closely with Brendan Bulger on accounting, budgets, and logistics. At the US State Department, our key partners have been Laura Tedesco, the Cultural Heritage program manager at the Office of Press and Public Diplomacy, responsible for Afghanistan and Pakistan, while the State Department’s financial management of the grant is overseen by Grachelle Javellana. At the US Embassy-Kabul, we especially thank Cultural Affairs Specialist Alia Sharifi.

This past year, the work of our partnership with the National Museum was highlighted in the publication in 2017 of the OI co-sponsored conference *Preserving the Cultural Heritage of Afghanistan: Proceedings of the International Conference Held at Kabul University, November 2014*; Gil J. Stein, Michael T. Fisher, Abdul Hafiz Latify, Najibullah Popal, and Nancy

Hatch Dupree (eds.), Chicago: The Oriental Institute (fig. 3). The book was published bilingually in Dari (one of the two national languages of Afghanistan) and English. It is available as a free downloadable PDF on the OI website to make it accessible to readers everywhere, especially in Afghanistan.



THE OI-NMA INVENTORY

Our main priority for the past six years has been to conduct the first full inventory of all the holdings of the National Museum. The museum had been devastated by the Afghan civil war (1989–95). During the subsequent period of Taliban rule, Taliban forces entered the museum in March 2001 and smashed hundreds of priceless sculptures and figurines, including some of the world's most important examples of Early Buddhist (second–seventh centuries CE) Gandharan art from the Buddhist Monastery complex of Hadda in southeast Afghanistan near the Khyber Pass. An estimated 70% of the museum's holdings were either looted or destroyed, and 90% of the museum's artifact registration records were burned. The OI-NMA Partnership's inventory is now complete, with 136,131 pieces inventoried in 45,795 records. These figures include both the objects in the museum and the highest value objects stored in the vaults of the Presidential Palace. The inventory continues to grow as the museum acquires new objects — most notably from the ongoing rescue excavations by the Afghan Institute of Archaeology at the ancient city of Mes Aynak in nearby Logar province.

CONSERVATION ACTIVITIES AND THE HADDA SCULPTURAL RESTORATION PROJECT

Object conservation and conservation training form a second key element in the OI-NMA Partnership. Our project conservators in Kabul, Fabio Colombo and Amanda Watts, worked closely with the staff conservators of the National Museum to train and assist them in condition assessment, stabilization, and restoration of museum objects. Much of the hands-on conservation training in the past year has taken place as an integral part of our Hadda Sculptural Restoration Project (fig. 4).

The 1,500 year-old sculptures from Hadda in the NMA's holdings were recovered in excavations conducted by DAFA (Delegation Archeologique Francaise en Afghanistan) in several periods of fieldwork from 1926 to 1978. The approximately 3,000 sculptures Hadda at the National Museum of Afghanistan and in the Musée Guimet in Paris form one of the most important collections of Early Buddhist (Gandharan) art in the world. The sculptures at the National Museum were systematically smashed by the Taliban over three months from January to March 2001. At great personal risk, the NMA staff secretly collected and stored the smashed fragments of these sculptures. The Hadda Sculptural Restoration Project is designed to assess, stabilize, and restore as many as possible of the Hadda sculptures in the National Museum. Last year, our Kabul team Head Conservator Fabio Colombo, assisted by Amanda Watts and OI Museum Conservator Alison Whyte, conducted a one-year program of assessment, analysis, and documentation of the Hadda fragments to develop a detailed work plan for their conservation, restoration, and eventual public display. Based on that initial assessment, we have started the actual work of sorting, stabilizing, and starting to re-assemble the sculptural fragments.

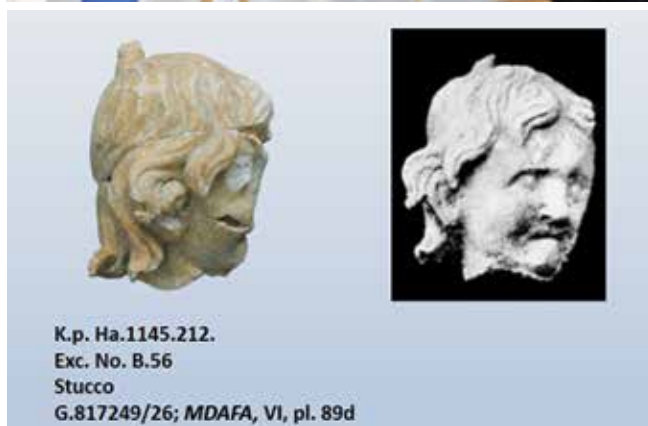
In the first stage of this process, Fabio and his team have been working to determine how many original sculptures are represented by the 6000 plus preserved fragments. In the past year, the team was able to locate 332 pieces with fully preserved catalog numbers written on them, indicating that — at a minimum — 332 sculptures from Hadda were smashed.

Once the fragments had been laid out as a group in the National Museum's Conservation Laboratory, they were cleaned and the reconstruction phase of the project could begin. In spring 2018 we were able to find multiple joins between fragments and at least partially re-assemble our first seven sculptures. This definitively proves the feasibility of the overall project, and we can expect and increasing number of joins. Better still, Fabio and OI Kabul Field Director Alejandro Gallego Lopez were able to match the partially re-assembled fragments with specific catalog entries in Fancine Tissot's 2006 partial catalog of objects in the National Museum (fig. 5).

THE MOBILE MUSEUM GRANT

The National Museum of Afghanistan Outreach Initiative (NMAOI, also known as the “Mobile Museum Project”) is a three-year collaboration between the Oriental Institute and the National Museum. This project will develop the first national-scale program of outreach education to raise awareness of the National Museum among school children (grades 6–12) through in-class presentations in twenty-four schools in six cities across Afghanistan — Kabul, Herat, Mazar-I Sharif, Bamiyan, Kandahar, and Jalalabad. Presentations materials will also be made at five of the US Embassy’s Lincoln Learning Centers across the country, and at two orphanages in Herat. The grant combines innovative digital technology, “object-based learning,” and traditional educational tools in multiple pathways of engagement with students to create a “Mobile Museum.” In this past year, we focused on developing three aspects of the in-school program for the Mobile Museum: a) the introductory video, b) 3-D scanning, and c) developing a curriculum/lesson plan for the program.

Project Manager Jalil Yousufi worked with Kabul Field Director Alejandro Gallego Lopez to produce the introductory video for the in-school programs. The video is intended to introduce students to the National Museum — what it is, why it is important, what kinds of objects are represented in its collections, and what these can tell us about the history of civilizations in Afghanistan. Most importantly, the video emphasizes that the museum and its collections are public property that belongs to the people of Afghanistan (fig. 6). The video will set the stage for the interactive and object-based learning part of the classroom program.



ABOVE: Figure 4. National Museum of Afghanistan conservators stabilizing sculptural fragments from the early Buddhist monastery complex of Hadda. Photo by Fabio Colombo.

MIDDLE: Figure 5. Partial reconstruction of seven Hadda sculptural fragments (left) allowed them to be matched to entries in Francine Tissot’s 2006 catalog of selected holdings of the National Museum of Afghanistan (right). These matches enabled the OI project to determine that the sculptures in question had been smashed by the Taliban, and not looted, as had previously been believed. Photo at left: Alejandro Gallego Lopez. Photo at right: Francine Tissot/UNESCO.

BOTTOM: Figure 6. Screenshot from the introductory video produced for the “Mobile Museum” project, showing of NMA Director Fahim Rahimi describing the museum and its significance for Afghanistan.

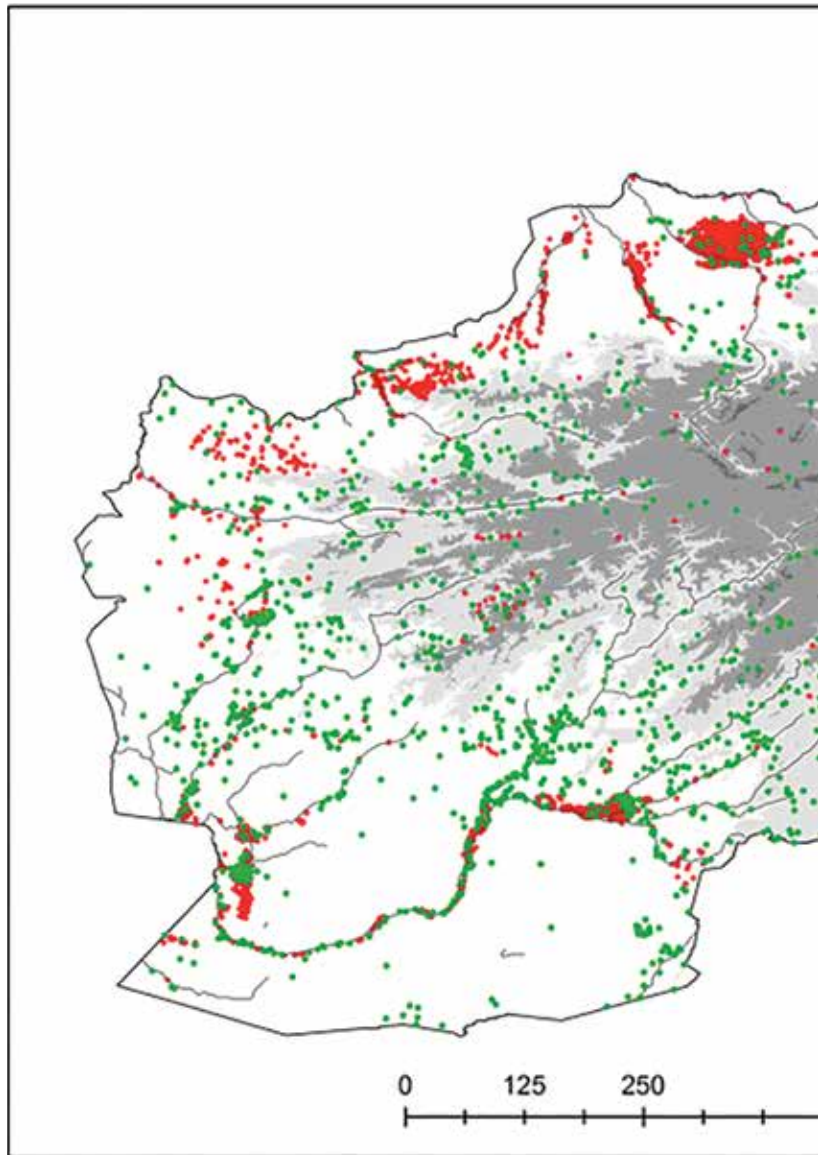
Alejandro used the OI-NMA computer-based inventory to select twenty-five objects from the NMA collections for 3-D scanning. Once completed, the scans will be used to produce 3-D prints of the objects. Including these replicas of actual artifacts from the NMA in the school program will enable us to bring the museum to the provincial cities through object-based learning. Students will be able to handle objects and compare them in order discover a) what is in the NMA, b) what were the main civilizations that characterize the history of Afghanistan, and c) how they can use these objects to better understand the history of their country.

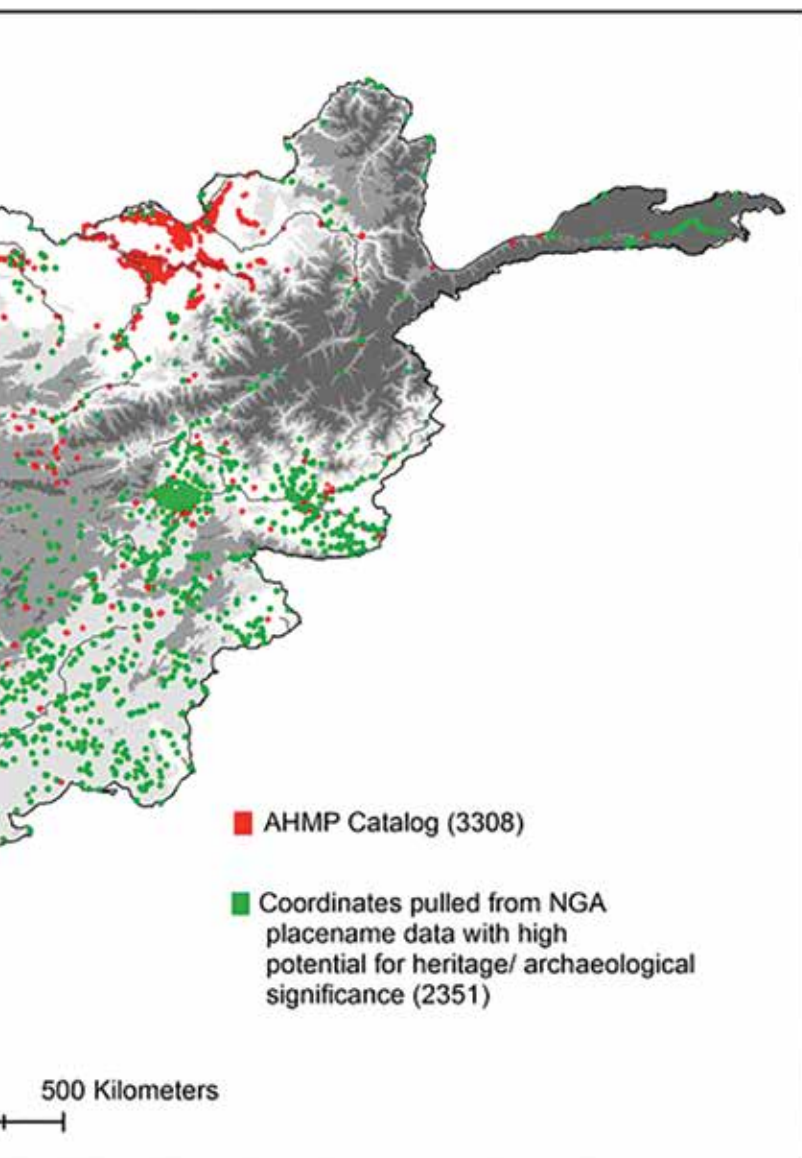
In spring 2018, Alejandro and Jalil met with representatives of the Afghan education consulting company “Hikmet Research and Scientific Studies Organization” to work cooperatively in developing the actual curriculum and lesson plan for the school program.

THE AFGHAN HERITAGE MAPPING PROJECT (AHMP)

Our third heritage preservation grant supports the “Afghan Heritage Mapping Partnership” (AHMP). The work of the AHMP is conducted in parallel in Chicago and in Kabul. In Chicago, the project draws on satellite imagery and other geospatial technologies to build a comprehensive geographic information systems (GIS) database of identifiable archaeological sites across Afghanistan. The goals in creating this database are to:

1. Inventory and map known and previously unknown archaeological heritage sites, especially in areas threatened by future mining development, urban expansion, and looting;
2. Document the current state of archaeological site preservation and analyze spatial and temporal patterns in looting;
3. Create a planning tool that will allow heritage protection to be incorporated into mining, economic, and urban development projects.





ABOVE: Figure 7. Afghan Heritage Mapping Project (AHMP) map of confirmed (red) and probable (green) archaeological sites in Afghanistan located by analysis of remote sensing images. The project now has over 6,000 heritage sites in its database. Image courtesy of Oriental Institute Afghan Heritage Mapping Project.

In Kabul, AHMP focuses on building capacity and infrastructure. We have developed a partnership with Kabul Polytechnic University (KPU), where KPU faculty and foreign archaeologists have been teaching intensive classes to train a cohort of Afghan heritage professionals at the Afghan Institute of Archaeology (AIA) and other organizations in the use of GIS technology for cultural heritage management and especially the location and documentation of archaeological sites.

Under the supervision of Project Manager K. Franklin, the Afghan Heritage Mapping Project (AHMP) continued with a two-pronged mission: a) the use of satellite imagery, historical maps, and other geospatial technologies to build a comprehensive GIS database of identified archaeological sites and monuments across Afghanistan, and b) capacity building through the construction of training modules and management tools (including a spatial data archive), and the training of local Afghan heritage professionals in the use of these tools. As of the end of June 2018, the AHMP databases contained confirmed or potential coordinates for nearly 6,000 places in Afghanistan (fig. 7).

CONCLUSION

The OI's cultural heritage preservation projects in Afghanistan are conducting outreach programs, documentation, and training Afghan heritage professionals through hands-on work in conservation, object curation, database management, and the use of GIS technology. Our ongoing efforts focus on developing a well trained, well equipped cohort of Afghan professionals who will be responsible for the stewardship of the unique historical treasures of their rich history of civilizations.

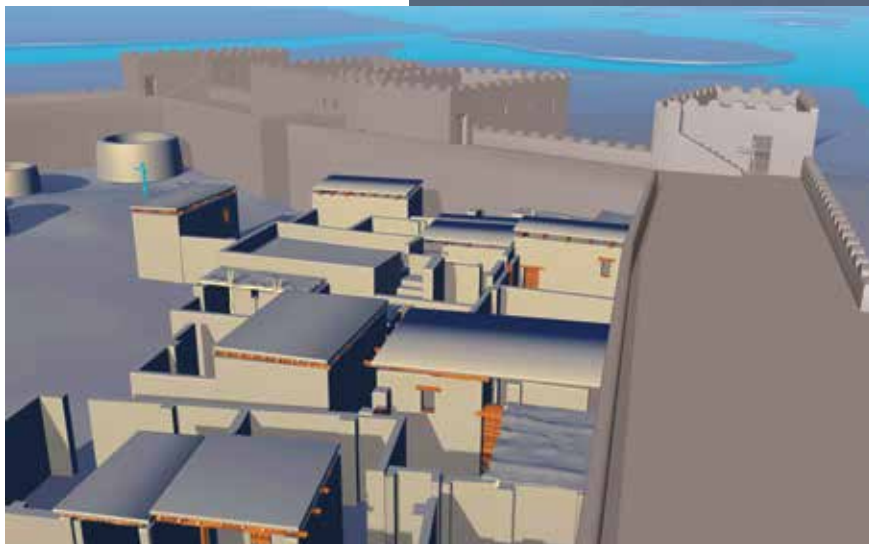
ORIENTAL INSTITUTE NUBIAN EXPEDITION (OINE) PUBLICATION PROJECT

BRUCE WILLIAMS

Volume 14, *The Second Cataract Fortress of Dorginarti*, has been edited and is undergoing final review and formatting in the Publications Office. Volume 12, *Cerre Matto, the Churches, Houses, Workshops, and Cemetery* is now being edited, while Volume 13, *Cerre Matto, the Christian Period Pottery, Small Objects, Glass, and Texts*, and Volume 16, *Beads from Excavations at Qustul, Ballana, Adindan, Serra East, and Dorginarti Part 1: A-Group, Post A-Group, C-Group, N-Type, P-Type, Pan Grave, Kerma, Middle Kingdom, and New Kingdom Beads* has been submitted and passed on to the Publications Committee. Preparations for the Dorginarti-Serra East database are underway, with much of the registered pottery photographed for upload into a FileMaker Pro database. The construction of the 3-D model for Dorginarti is also nearing completion, expected by September 2018 (figs. 1–2). At this point we turn attention to other major efforts.



ABOVE: Preliminary reconstruction of the Levels III-IV fortress, looking northwest towards the west bank of the Nile.



LEFT: Preliminary reconstruction of the interior buildings by the West Gate, looking southwest.

VOLUME 16. BEADS FROM EXCAVATIONS AT QUSTUL, BALLANA, ADINDAN, SERRA EAST, AND DORGINARTI PART 1

The main objective of this publication project, begun in 2012, was the creation of an illustrated catalog of Lower Nubian beads and pendants from past OINE excavations in order to study the history of beads in Northeast Africa. Beads contribute to the study of trade networks in Northeast Africa, with many of them showing links not only to the Mediterranean but also to Southeast Asia.

The collection was first divided chronologically into the main periods of Nubian archaeology, and then next according to cultural units, beginning with the A-Group and ending with modern times. The first volume, just submitted, includes almost 360 numbered bead and pendant objects from Early Nubian (fig. 3), Middle Nubian (figs. 4 and 5) and New Kingdom (fig. 6) sites. In each unit the results of bead studies are presented within their cultural background. A detailed chronology is provided for the variety of beads, beadwork types are discussed, and both an anthropological overview and materials analysis are given along with references to parallels known from literature and museum studies. An illustrated catalog is provided at the end of each cultural unit. The first volume contains some features of special interest. For example, evidence exists that the stones used for beads were not only obtained from places within Nubia, but that they were processed, heat treated, and made into beads at Ballana directly across the river from Qustul, the site of the A-Group's royal cemetery. So Nubia was a source of high-quality bead manufacturing in the A-Group, a reversal of its old assumed role as a mere source of raw material but not the final production of beads.



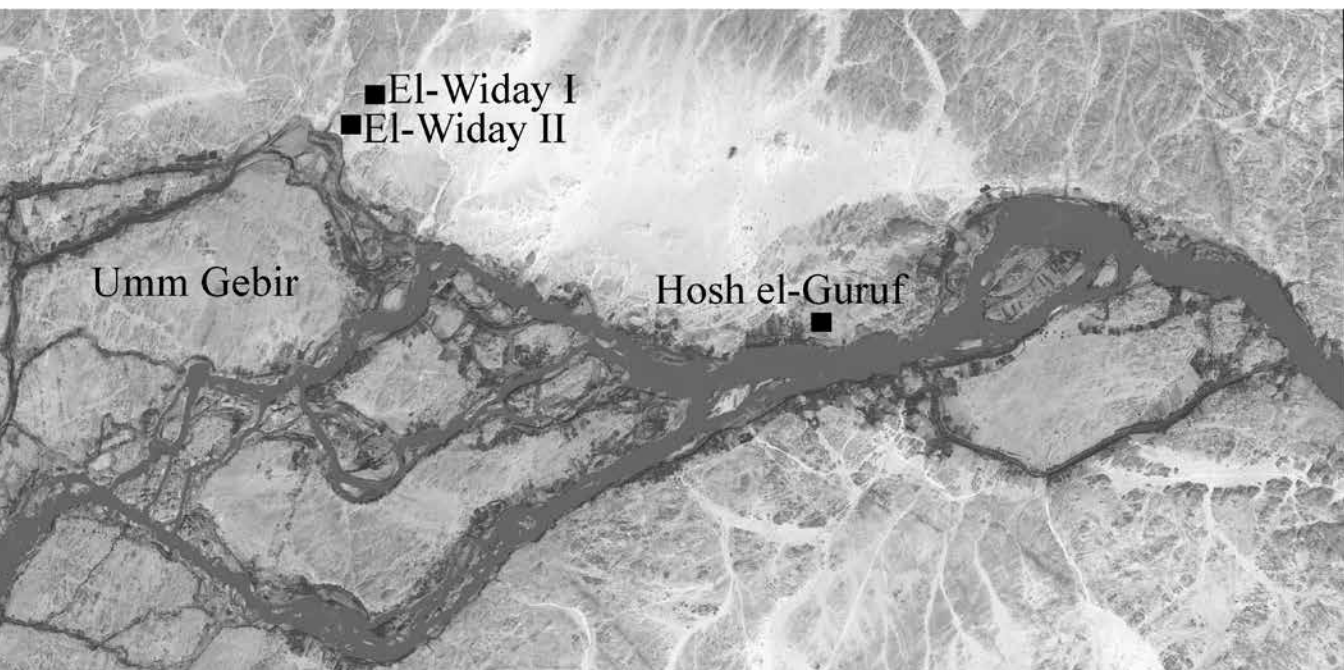
A second volume covering the beads and pendants of the Napatan, Meroitic, post-Meroitic, Christian, Islamic, and modern periods is in process, and will include the results of the laboratory analyses of the glass beads. In fall 2017, a sample of 114 beads and pendants were selected for laboratory analysis. The results of the chemical composition analysis, run by Laure Dussubieux of the Elemental Analysis Facility at Chicago's Field Museum, should confirm the South Asian origin of some of the glass beads from post-Meroitic assemblages, that is, from the Blemmyan and Nobadian remains.

THE ORIENTAL INSTITUTE IN THE FOURTH CATARACT

In 2007 and 2008 the Oriental Institute Nubian Expedition excavated and surveyed in the region of the Nile's Fourth Cataract, an area upstream from the almost-finished Merawi Dam and which has since been covered by the reservoir's water. While numerous expeditions participated in the salvage efforts, almost no final reports have been completed and published to date. The Oriental Institute's participation in this project, directed by Geoff Emberling and Bruce Williams, included the only substantial cemetery from the period 1850–1550 BCE (Old Kush or Kerma Period) to be completely

BELOW: Figures 3–6 (from far left to right). Carnelian and garnet beads and pendants from Late A-Group royal tomb L17 at Qustul, OIM E23663A-D; Electrum ibis amulet from C-Group tomb B47 at Serra East, OIM E19693; Nacre wristlet plaques, ostrich eggshell and faience beads from Pan-Grave tomb C2 at Serra East, OIM E24426; Carnelian and glass scarabs from post-Amarna dated grave R94 at Qustul, OIM E23520A, B.





ABOVE: Figure 7. Aerial view of the Fourth Cataract Oriental Institute concession.

excavated, a unique gold-processing center dating to the same period and reused at later times, and an unusual cemetery contemporary with Egypt's New Kingdom, among other sites (fig. 7).¹

The material from the 2007 and 2008 excavations has been loaned to the Oriental Institute by the Sudan's National Corporation for Antiquities and Museums for a ten-year period and for the purpose of publication,² and thus is available for laboratory analysis by Emberling, Williams, Heidorn, Aaron de Souza, Jim Harrell, and Carol Meyer. De Souza visited the museum for research in early 2018, and part of his time was spent studying the Pan-Grave related material from Al-Widay (figs. 8–9), Hosh el Guruf, and Umm Gebir. This research activity was supported by a substantial reorganization of the excavation records. These had all been digitized, but the sources, categories, and types of documentation, records, registers, photographs, drawings, had not been organized by category, which is now done.

One grant proposal has already been submitted in hopes of the funding needed for the detailed analysis of the archaeological material, photography, and the drawing of plans, maps, and artifacts, with the search for other sources of funding ongoing at the present time.

VOLUME 11. THE MIDDLE KINGDOM FORTRESS AT SERRA EAST "REPELLING THE MEDJAY," SECOND INTERMEDIATE PERIOD AND NEW KINGDOM REMAINS

Kathryn Bandy and Susan Penacho have been working on a complete re-analysis of seal impressions from the fortress, its most revealing set of documents. With new drawings and photographs, the chapter will show more clearly not just the seals and their designs, but their uses.

During his visit to study Pan Grave-related pottery from the Fourth Cataract excavations, Aaron de Souza also studied related material from quarries and the fortress at Serra East, a study aimed at detailing relations with the appearance of this culture in Egypt, where he has been excavating.

CONCLUSION

Many years ago, the series Harvard African Studies started each volume with the quote from Pliny the Younger: “Quid novi ex Africa?” Everywhere the Oriental Institute has worked, there have been surprises. Sometimes they have been great works of art, such as the amazing New Kingdom caryatid mirror on display in the Nubia Gallery. Sometimes they have been major texts, such as the Coptic book with two apocrypha, including a Stauros Text, from the monastery at Qasr el-Wizz, or the longest text in Old Nubian from Serra East. At other times we find the one major coherent site in all of Nubia that illuminates the first centuries of the first millennium BCE. OINE 2 gave us the first good look at a material culture for the much mythologized and even feared Blemmyes. And, of course, Qustul’s early royal cemetery rocked the relations of Nubia and Egypt to their foundations. Now, the first volume on beads will rock them some more.

In past publications, we have hinted at changes in our perceptions of northeast Africa that will arise from the Oriental Institute work on the Fourth Cataract archaeological materials. We are now sure, more than ever, that these changes are of fundamental importance to the study of history and culture in this region. Read more about it next year.



ABOVE: Figure 8. Pan-Grave type bowl from Cemetery al-Widay I of the Old Kush II/Middle Kerma Period. RIGHT: Scarab from Cemetery al-Widay I from a tomb of the Old Kush II Period. It originally belonged to an Egyptian officer of the Thirteenth Dynasty, *šmsw n rmn-tp Nb-Swmnw*, Officer or captain of the First Battalion, Neb-Sumenu (a local form of Sobek in Upper Egypt).



NOTES

¹ A preliminary description of the Oriental Institute's work at the Fourth Cataract is presented in Emberling and Williams 2010. Emberling, Williams, Ingvolstad and James 2014, Meyer 2010, and Harrell 2010.

² Three boxes of samples not included were requested by Williams during a stay in Khartoum this year, and after obtaining permission to export, have now been arranged for shipment to the Oriental Institute.

ORIENTAL INSTITUTE SEMINAR (OIS)

Outward Appearance vs. Inward Significance

ALEKSANDRA HALLMANN

The 14th Annual University of Chicago Oriental Institute Seminar Outward Appearance vs. Inward Significance: Addressing Identities through Attire in the Ancient World, took place on March 1–2, 2018. Thanks to the generous and ongoing support of Arthur and Lee Herbst it was possible to organize a venue for a dialogue leading to a multidisciplinary and comparative approach to clothing studies in the ancient world, focusing on dress as an analytical tool used to inquire about the identity of the wearer. It brought together eighteen scholars from three continents (see the list of participants) who use different research methodologies and work on clothing-related studies within a wide geographical and chronological spectrum, all while pursuing common themes in their scholarship.

Non-verbally, attire conveys important meaning that must be decoded through various methodological approaches, be it an artifact or a visual- or text-oriented approach. The fragmentary corpus of evidence available to assist in the study of ancient costume in different geographic areas justifies searching for crosscultural patterns in dress behavior. These different approaches were demonstrated thanks to gathering researchers with a geographical focus on the ancient Near East, including Egypt, along with the larger Mediterranean world and the ancient Americas, who are studying ancient attire from different perspectives and applying different methodologies. The goal of the proposed conference was to construct definition(s) of the clothed self and to investigate multiple trajectories of the dress' role in the construction of various identities in the ancient world.

The conference took place in the Oriental Institute in Breasted Hall. It was divided into six thematically oriented sessions organized crossculturally, and not separated by region, culture, or period. The sessions were chaired by Janet Johnson, Susanne Paulus, and Emily Teeter from



ABOVE: Oriental Institute Seminar Poster, 2018.

the Oriental Institute, and grouped topics: clothing and the imperial identity; distinctive and associative function of dress; construction of royal and religious dress; textiles and identity: value, status, prestige, and trade; transformative nature of dress and construction of various identities. The last session was followed by a panel, wherein four respondents (Ann C. Gunter, Brian Muhs, Jean Evans, and Rita Wright) summarized and commented on the evidence presented. Their responses led to a final roundtable discussion conducted by the organizer. It elaborated on one of the principal goals of the conference: constructing a definition or definitions of the clothed self and pointed toward the multiple trajectories of clothing's role in the construction of various identities in the ancient world. Ancient attire was set in a broad socio-cultural perspective, wherein the meaning of dress in terms of various social, political, ethnic, or religious identities was questioned. The vivid discussions after each lecture and during the round table panel stressed an awareness of the status, critiques, and advances of dress studies within the broader field of ancient studies and fostered a renewed discourse directed towards new strategies to investigate the subject. All those papers are now in the process of preparation for the forthcoming proceedings that will be published in Oriental Institute Seminar Series Volume 15 in 2020.

A few special events accompanied the conference. The participants were welcomed by the specially organized Persian dinner held in the Robert and Deborah Aliber Persian gallery of the OI Museum. This was proceeded by a tour

of the Museum collection led by the Jean Evans and Kiersten Neumann. The next day, all participants and attendees were treated with a night reception in the Edgar and Deborah Jannotta Mesopotamian gallery. The farewell dinner was held at a local French restaurant, La Petit Folie, and all of our lunches were held in the magnificent OI director's office.



ABOVE: OIS reception in the Robert and Deborah Aliber Persian gallery. Photo by Aleksandra Hallmann.





ABOVE: Oriental Institute Seminar 2018. Photos by Charissa Johnson.



ACKNOWLEDGMENTS

I would sincerely like to thank Christopher Woods, Gil Stein, James Gurchek, Petra Goedegebuure, and the entire postdoctoral committee for their interest in this topic. The organization of the entire conference, including special events, would not be possible without the tremendous help of colleagues from the Oriental Institute: Mariana Perlinac, Polina Kasian, D'Ann Yoder Condes, Nate Francia, Jean Evans, Kiersten Neumann, and our student volunteer Catie Witt. Warm thanks go to Knut Boehmer, our IT expert, who has been of inestimable help with all technical matters during the entire event, as well as to our editors Charissa Johnson and Tom Urban. Particular thanks go to Charissa Johnson for not only designing the stunning poster and conference program, but also for making photographic documentation of our event.



ABOVE LEFT: Round table discussion with participants (from left to right): Aleksandra Hallmann, Benjamin Foster, Claudia Brittenham, Megan Cifarelli, Jean Evans, Ann Gunter, Ran Boytner, Robert Ritner, Tasha Vorderstrasse, Brian Muhs, Marie Louise Bech Nosch, Allison Thomason, Laura Gawlinski, and Rita Wright. Photo by Charissa Johnson.

RIGHT: Participants, respondents, and OI attendees enjoying a special reception in the OI Museum. Photos by Charissa Johnson.



PARTICIPANTS AND RESPONDENTS (*) OF THE CONFERENCE

- Aleksandra Hallmann (Oriental Institute, University of Chicago)
- Allison Thomason (Department of Historical Studies, Southern Illinois University, Edwardsville)
- Ann C. Gunter (Department of Classics, Northwestern University, Chicago)*
- Benjamin R. Foster (Department of Near Eastern Languages and Civilizations, Yale University)
- Brian Muhs (Oriental Institute, University of Chicago)*
- Claudia Brittenham (Department of Art History, University of Chicago)
- Hans Barnard (Cotsen Institute of Archaeology, UCLA)
- Jana Mynářová (Czech Institute of Egyptology, Charles University in Prague)
- Jean Evans (Oriental Institute, University of Chicago)*
- Laura Gawlinski (Department of Classical Studies, Loyola University, Chicago)
- Margaret C. Miller (Centre for Classical and Near Eastern Studies of Australia, University of Sydney)
- Margarita Gleba (McDonald Institute for Archaeological Research, University of Cambridge, UK)
- Marie Louise Bech Nosch (The Saxo Institute, University of Copenhagen, Denmark)
- Megan Cifarelli (The Art History Department, Manhattanville College, NY)
- Ran Boytner (Institute for Field Research, UCLA)
- Rita Wright (Department of Anthropology, New York University)*
- Robert K. Ritner (Oriental Institute, University of Chicago)
- Tasha Vorderstrasse (Oriental Institute, University of Chicago)
- Ursula Rothe (Classical Studies Department, Open University, Reading UK)



Participants and respondents of the OIS conference:

FIRST ROW FROM THE LEFT: Catie Witt, Tasha Vorderstrasse, Aleksandra Hallmann, Rita Wright, and Ann Gunter.

SECOND ROW FROM THE LEFT: Petra Goedegebuure, Marie Louise Bech Nosch, Ursula Rothe, Allison Thomason, and Brian Muhs.

THIRD ROW FROM THE LEFT: Emily Teeter, Ran Boytner, and Margaret Miller.

FOURTH ROW FROM THE LEFT: Claudia Brittenham, Megan Cifarelli, Robert Ritner, and Jean Evans.

FIFTH ROW FROM THE LEFT: Benjamin Foster, Jana Mynářová, Laura Gawlinski, and Margarita Gleba.

Photo by Charissa Johnson.

PERSEPOLIS FORTIFICATION ARCHIVE PROJECT

MATTHEW W. STOLPER

If you are interested enough to read this, you probably already know the year's big news: the legal process that has put the future custody of the Persepolis Fortification tablets in doubt since 2004 has come to an end (fig. 1).

On December 4, 2017, the Supreme Court of the United States heard oral arguments in the case of *Jenny Rubin et al. v. The Islamic Republic of Iran et al.* (transcript: https://www.supremecourt.gov/oral_arguments/argument_transcripts/2017/16-534_if5n.pdf; audio: https://www.supremecourt.gov/oral_arguments/audio/2017/16-534). On February 21, 2018, the Court handed down its ruling against the plaintiffs, hence in favor of the University of Chicago, the Oriental Institute, and the Islamic Republic of Iran. The vote was 8–0 (Justice Elena Kagan, who had submitted briefs in the case when she was Solicitor General, did not participate in the proceedings). Justice Sonia Sotomayor wrote the terse and unequivocal opinion (https://www.supremecourt.gov/opinions/17pdf/16-534_6jfm.pdf).

The ruling does not treat the broad question of whether cultural materials as such are subject to legal attachment. It decides a comparatively narrow point of foreign sovereign immunity law, so the benefits for other cultural heritage cases are uncertain. For the Oriental Institute this ruling removes the legal obstacle that has blocked returning the Fortification tablets to Iran. For the Persepolis Fortification Archive Project it means changes of emphasis. On one hand, we allocate new effort to completing, correcting, and preparing the data that we have collected as we prepare the objects for return. On the other, we learn how to negotiate the necessary licenses, customs requirements, insurance, shipment, and the unknown unknowns — all that is needed for a smooth transfer.

Awaiting these developments during 2017–18, the Persepolis Fortification Archive Project continued to pursue its often-stated aims: to



(Slip Opinion)

OCTOBER TERM, 2017

1

Syllabus

NOTE: Where it is feasible, a syllabus (headnote) will be released, as is done in connection with this case, at the time the opinion is issued. The syllabus constitutes no part of the opinion of the Court but has been prepared by the Reporter of Decisions for the convenience of the reader. See *United States v. Detroit Timber & Lumber Co.*, 200 U.S. 321, 337.

SUPREME COURT OF THE UNITED STATES

Syllabus

RUBIN ET AL. v. ISLAMIC REPUBLIC OF IRAN ET AL.

CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE SEVENTH CIRCUIT

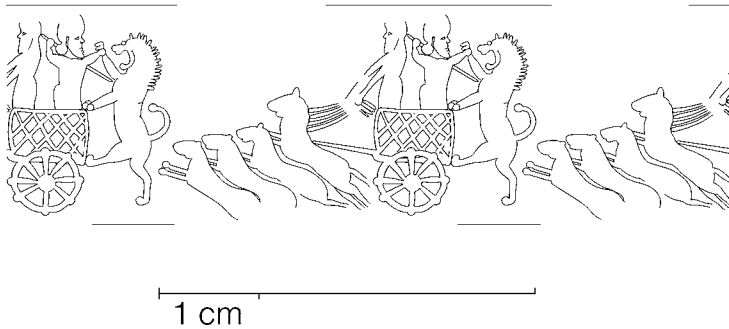
No. 16–534. Argued December 4, 2017—Decided February 21, 2018

The Foreign Sovereign Immunities Act of 1976 (FSIA) grants foreign states and their agencies and instrumentalities immunity from suit in the United States and grants their property immunity from attachment and execution in satisfaction of judgments against them, see 28 U.S.C. §§1604, 1609, but with some exceptions. Petitioners held a judgment against respondent Islamic Republic of Iran pursuant to an exception that applies to foreign states designated as state sponsors of terrorism with respect to claims arising out of acts of terrorism. See §1605A. To enforce that judgment, petitioners filed an action in the District Court to attach and execute against certain Iranian assets—a collection of ancient clay tablets and fragments housed at respondent University of Chicago. The District Court concluded that §1610(g)—which provides that certain property will be “subject to attachment in aid of execution, and execution, upon [a §1605A] judgment as provided in this section”—does not deprive the collection of the immunity typically afforded the property of a foreign sovereign. The Seventh Circuit affirmed.

Held: Section 1610(g) does not provide a freestanding basis for parties holding a judgment under §1605A to attach and execute against the property of a foreign state; rather, for §1610(g) to apply, the immunity of the property at issue must be rescinded under a separate provision within §1610. Pp. 4–15.

(a) Congress enacted the FSIA in an effort to codify the careful balance between respecting the immunity historically afforded to foreign sovereigns and holding them accountable, in certain circumstances, for their actions. As a default, foreign states have immunity from the jurisdiction of the courts of the United States and of the States. §1604, but there are express exceptions, including the one at issue

ABOVE: Figure 1. The syllabus of the Supreme Court's decision upholding the Seventh Circuit's ruling against the plaintiffs in the case of the Persepolis Fortification tablets.



LEFT: Figure 2. Back to the future at Persepolis: Erin Daly's collated drawing of PFUTS Q250 (impressed on at least two unscribed Fortification tablets and also on the Demotic document illustrated in the annual report for 2016–17, p. 155, fig. 1), depicting a hunt from a quadriga: “just crazy,” comments Mark Garrison, “like something out of the 4th century.”

compile an exhaustive record of the PFA, and to make the results available through online presentation of work in progress, through academic publications and presentations of studies arising from these results, and eventually through authoritative editions of all categories of Fortification documents.

On the long march to these definitive editions, the PFA Project editors continued the tasks described in previous annual reports.

Annalisa Azzoni (Vanderbilt University), finalized or improved readings of Aramaic epigraphs on cuneiform texts (about 250 identified until now), monolingual Aramaic documents (about 840), and Aramaic seal inscriptions (about 80).

Elspeth Dusingberre (University of Colorado Boulder), assisted by graduate student Erin Daly (Classics, University of Chicago), completed a draft catalog of the seals on the monolingual Aramaic documents, including final collated drawings (about 570 seals specific to the Aramaic documents, and about 145 that co-occur on Elamite and unscribed documents). Mark Garrison (Trinity University, San Antonio) began to review and edit this draft for consistency with other work on PFA seals.

Mark Garrison also continued to supervise student workers supported by an ongoing grant from the Roshan Cultural Heritage Institute. Erin Daly, in addition to her work on the Aramaic tablets, identified seals on about 80 unpublished texts first recorded by Charles E. Jones (Pennsylvania State University) and about 50 first recorded by me, identifying almost 50 previously unknown seals (fig. 2). Emma Petersen (University of Minnesota) recorded about 100 of the unscribed tablets between June and August 2017, documenting 100 new seals along with identifiable impressions of almost 100 previously cataloged seals. During summer 2017 and short visits in autumn and winter, Christina Chandler (Classical and Near Eastern Archaeology, Bryn Mawr), working on the ca. 175 inscribed PFA seals that are the topic of her doctoral dissertation, made final collated drawings of 25 seals, final copies of 30 seal inscriptions, and draft catalog entries of about 110 seals. Garrison and student workers continued to update and correct a FileMaker database of thematic seal types, currently including thematic identifications and drawings or sketches of more than 3,500 analytically legible seals (along with numbers assigned to another 730 illegible seals).

Wouter F. M. Henkelman (École Pratique des Hautes Études, Paris) continued to collate, recollate and annotate about 2,500 unpublished Elamite texts first recorded by the late Richard T. Hallock, about 80 first recorded by Charles E. Jones, and about 2,100 Elamite texts fastidiously published by Hallock in 1969 and 1978 but now in need of much updating on the basis of new knowledge.

I recorded about 45 new Elamite texts and fragments (most of them registers from the late stages of information-handling at Persepolis), and collated and corrected my first-draft editions of about 340 of the journals and accounts recorded in previous years. Teagan Wolter (Near Eastern Languages and Civilizations, University of Chicago) entered 195 of the new draft editions, glossed and parsed for presentation in the On-Line Cultural and Historical Research Environment (OCHRE). Rhyne King (Near

Eastern Languages and Civilizations) corrected many glossary entries from about 755 collated texts. After training by King, Yanxiao He (Near Eastern Languages and Civilizations) entered corrections for 12 collated texts. The backlog of newly read texts to be entered in OCHRE has shrunk to under 100. The backlog of collated texts to be corrected — often drastically corrected — has swollen to over 500.

Ami Huang, Alexandra Hoffmann, and Eric Aupperle (all Near Eastern Languages and Civilizations) and Thomas Chiodini (Center for Middle Eastern Studies, University of Chicago) made, edited, and uploaded to OCHRE conventional images of about 80 new Elamite tablets and fragments (fig. 3). Kimia Maleki (School of the Art Institute of Chicago) re-edited conventional images of about 40 previously photographed items. Young Bok Kim and Theresa Tiliakos (both Near Eastern Languages and Civilizations) made dynamic Polynomial Texture Mapping (PTM) image sets of about 220 new items and high-resolution scans to supplement earlier images of about 50 Aramaic items. Monica Phillips (Near Eastern Languages and Civilizations) oversaw post-processing of PTM sets until Ashley Clark (History, University of Chicago), returning from research travel abroad, succeeded her in autumn 2017. Aided by Oliver Nataranj (Williams College), Clara Dandy (University of Chicago Laboratory School), and Matthew Foster (unaffiliated) they processed and uploaded to OCHRE PTM images of about 700 more items, reducing the long-standing backlog of unprocessed images from about three years to about fourteen months.

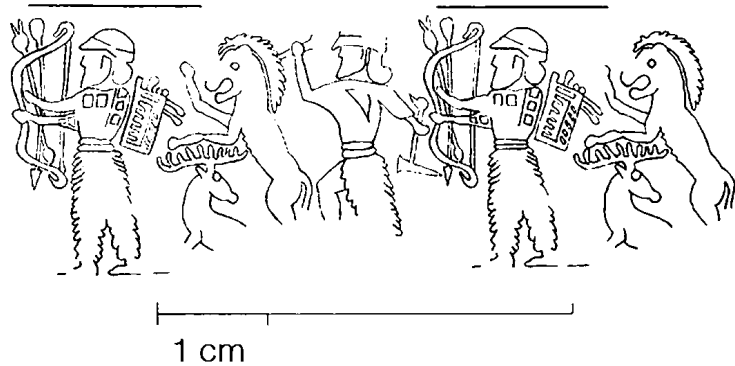
After the Conservation Laboratory's portable x-ray fluorescence (pXRF) scanner was repaired in January 2018, Thomas Chiodini scanned about 80 more Persepolis tablets (fig. 4), concentrating on documents composed at way-stations along the routes that passed through Persepolis, including a sample of the Aramaic documents and Elamite records of outlays of travel rations.

Noteworthy among eighteen public and academic presentations of PFA-related material and results are a joint presentation by Azzoni, Chandler, Daly, and Garrison on the inscribed seal PFS 535*, at the meeting of the American Schools of Oriental Research in Boston, in November 2017



LEFT AND ABOVE: Figures 3–4. Thomas Chiodini photographs a newly cataloged Fortification tablet (left) and positions a Fortification tablet on the Bruker x-ray fluorescence scanner (right).

RIGHT: Figure 5. Emma Petersen's collated drawing of PFUTS 0311, an innovative seal design with an extraordinary combination of iconographic themes.

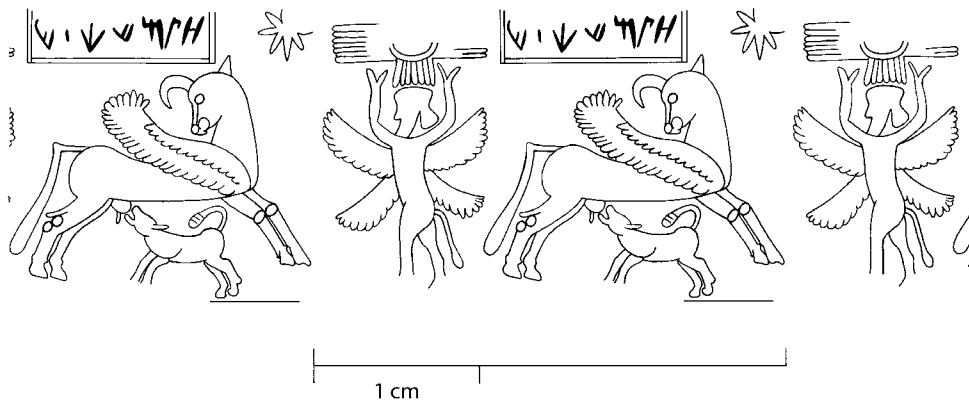


(their proposed presentation on the inscribed seal PFS 981* has been accepted for the program of the November 2018 meeting); Garrison's invited lecture on glyptic imagery from the PFA, at the *Societas Iranologica Europaea* Conference in Naples, December 2017; Henkelman's presentations on Achaemenid elites at the same conference, on the Persian funerary cult at the Iran Heritage Foundation in London (October 2017), on Elamite and Achaemenid topics at the Academy of Persian Language and Literature and Pārs University in Tehran (February 2018), on Achaemenid palaces and the institutional network at the 11th International Conference of the Archaeology of the Ancient Near East in Munich (April 2018); Azzoni's invited lectures on PFA Aramaic at the Universities of Buenos Aires and Córdoba in Argentina (May 2018); and King's paper on Lycians under the Achaemenid empire at the Association of Ancient Historians in Williamsburg, VA (April 2018). Noteworthy new PFA-related publications are Henkelman's essay connecting Achaemenid evidence with Neo-Elamite religious imagery in the catalog of a magnificent exhibition on the fruits of archaeology in Iran (in Hellwing [ed.] 2017: 214–19); a joint treatment by Garrison, Jones, and me on the text and seal on an isolated Achaemenid Elamite administrative tablet in the British Museum (Garrison et al. 2018); and Dusinberre's interpretation of a newly found seal from pre-Achaemenid Sardis (Dusinberre 2017).

Indicative of the future of PFA-related scholarship are Emma Petersen's BA paper on the seals PFUTS 0311 and 0923 (accepted December 2017; fig. 5); Rhyne King's PhD dissertation proposal on satrapal households in the Achaemenid empire, including the holding of a satrap of Arachosia attested only in the PFA (defended January 2018); and Tytus Mikołajczak's completed dissertation on the accounting texts and seals in the PFA (supported by grants from the Roshan Cultural Heritage Institute, defended December 2017).

The Project weblog (<http://persepolistablets.blogspot.com>), maintained by Charles E. Jones (Pennsylvania State University), added eleven new postings in the past year, for a cumulative 255 entries (including the annual reports of the PFA Project), 217,927 page views since 2010, 90 subscribers, and 1,300 followers on Facebook and other social media.

Accounts of the year-to-year accumulation of PFA Project data of now-familiar kinds can be dismally repetitive, so I ask Project workers to mention surprises and discoveries that can enliven these progress reports. Some of these discoveries are dramatic, like the unique Old Persian tablet illustrated in the Project's annual report for 2006–07, the seal of prince Arshama discussed in the report for 2012–13 and illustrated in the report for 2014–15, or the Demotic tablet announced in the report for 2016–17. Others, though, seem like inside baseball — findings that warm the heart of a tablet nerd (as the report for 2015–16 puts it) but of real interest only to people who are immersed in the details, struggling to connect or interpret them. Who else really cares about a new reading, a new



lexeme, a new document form, a new seal identification, a new bit of administrative procedure, and so on?

And yet new findings, connections, and interpretations accumulate, sometimes tentative and sometimes unsettling. Azzoni reports a probable second Demotic tablet (being prepared for joint publication with Oriental Institute Egyptologists Janet Johnson and Brian Muhs) and reading the Aramaic transcription of the name of the deputy director of the Persepolis administrative institution in the inscription on the seal PFS 0083* (Garrison 2017, pp. 339–49; fig. 6). Henkelman reports unraveling the administrative relationship between Hystaspes (Elamite *Mišdašba*), satrap in Hyrcania, and Hydarnes (Elamite *Miturna*), satrap in Media, both players in early Achaemenid history attested in the apologia of Darius at Bisotun (a solution he first reported in his presentation at the conference of the *Societas Iranologica Europaea* mentioned above). And I sometimes find joins among fragments, in fact, more joins in the last six months than in the ten years preceding. One such join produces a tablet of an unfamiliar kind. Its shape and handwriting standing out instantly from the ordinary range of Fortification tablets (fig. 7). It is nearly complete, but also nearly incomprehensible, except for a clear reference to an order issued by Aspathines (Elamite *Ašbazana*), another eminent Persian named by Darius, who succeeded to control of the Persepolis administrative institution in the last attested years of the PFA. The order was given in year 35, May 487 BC, six and a half years after the latest dated text of the PFA. This indicates that the highest level of the Persepolis administrative institution continued to consult the PFA after the Archive as we have it was closed and deposited.



TOP: Figure 6. Mark Garrison's corrected collated drawing of PFS 0083*, showing Annalisa Azzoni's full reading of the Aramaic inscription, which represents the name of the deputy director of the Persepolis administration, Elamite *Ziššawiš*, Iranian **Čiçava(h)uš* as Aramaic *Ššwš*. ABOVE RIGHT: Figure 7. Joined fragments of an exceptional Fortification document from 487 BC or later, well after the closing of the preserved PFA: Fort. 1270-101+1348-103, obverse and lower edge.

After the Supreme Court ruling came down, our legal team applied to the Office of Foreign Asset Control for the export license required by ongoing sanctions on the Islamic Republic of Iran. I began to review tablets selected for the first installment to be returned, checking images for completeness, prioritizing the processing of PTM images, completing some catalog information, updating some readings, and adding and correcting some glossary items and parses. Miller Prosser and the OCHRE team are preparing to export this information to accompany the tablets in a form that can be easily accessed in Iran. We aim to return not just a collection of mute clay artifacts, but also a working body of data and research tools. As the tablets leave the custody of the Oriental Institute, the National Museum of Iran will have the means to become the world center for ongoing primary research on the most important body of new information on all aspects of the Achaemenid Persian empire, the Persepolis Fortification Archive.

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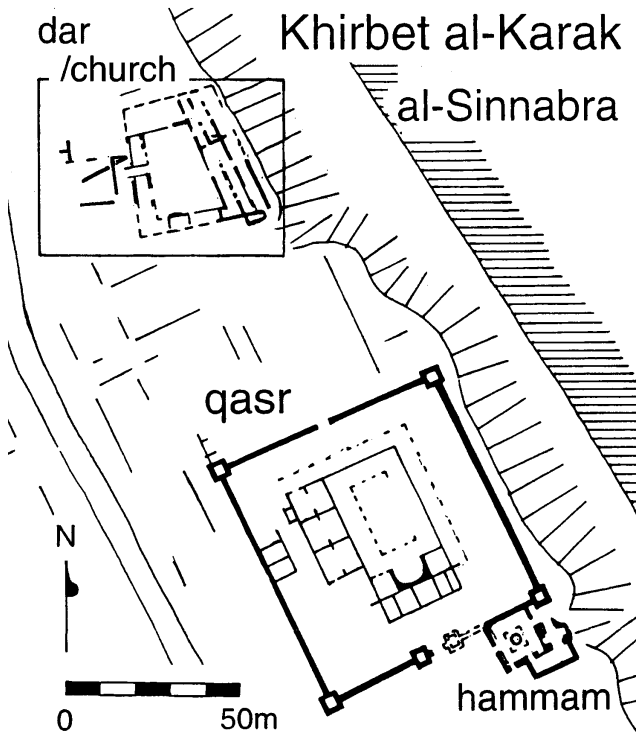
SINNABRA (OR KHIRBAT AL-KARAK) DONALD WHITCOMB

In 1952 two young professors from the OI decided to begin a new excavation in the young state of Israel; this was to be at Khirbat al-Karak, a pleasant place high on a bluff above the Sea of Galilee. Around this site, the river Jordan begins its long, historic flow southwards. They were primarily interested in a newly discovered Bronze Age settlement, but in order to keep their new director, Carl H. Kraeling, interested, they shifted the focus to a nearby early Byzantine church. This excavation and that on the main site were carefully recorded (fig. 1) with attention paid to the stratigraphic remains in the church and especially above that building, where its ruins were replaced a stables complex of the Umayyad Caliphs.

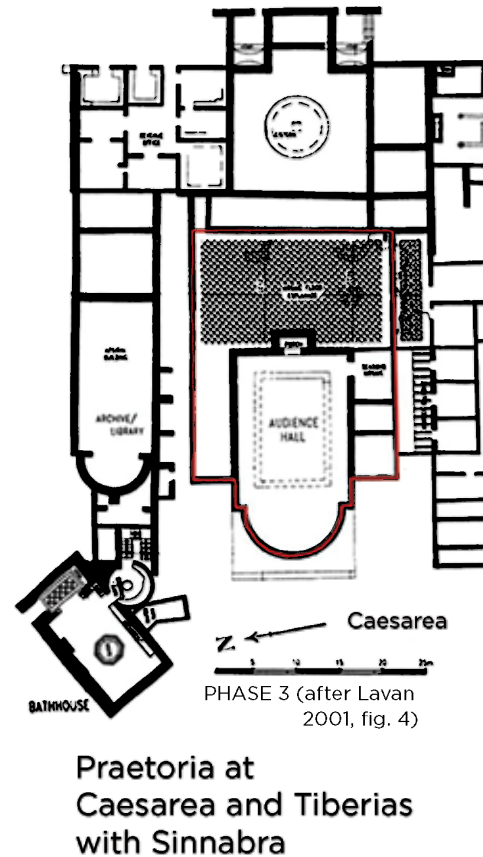


ABOVE: Figure 1. The Islamic building, Delougaz and Haines 1960, pl. 51A.

Helene Kantor and Pihas Delougaz did not realize that the eighth-century Caliphs, Mu'awiya, Abd al-Malik, and others, stabled their horses just north of the winter palace that was called Sinnabra. Some fifty years later, there was a paper by Ronny Reich stating that the main site could not be a synagogue inside a Roman fort, as had been assumed. Then, what was it, I pondered; I realized that this building must have been a *qasr* (pl. *qusur*), a palace of the early Islamic period. My short paper in 2002 has become rather famous for the identification of the palace called Sinnabra with the site of Khirbet al-Karak (fig. 2). This historical connection is due to the discussion of as-Sinnabra by L. A. Mayer, whose geographical notes leave little doubt as to the name.



ABOVE: Figure 2. Plan of the Khirbat al-Karak complex (after Whitcomb 2002).



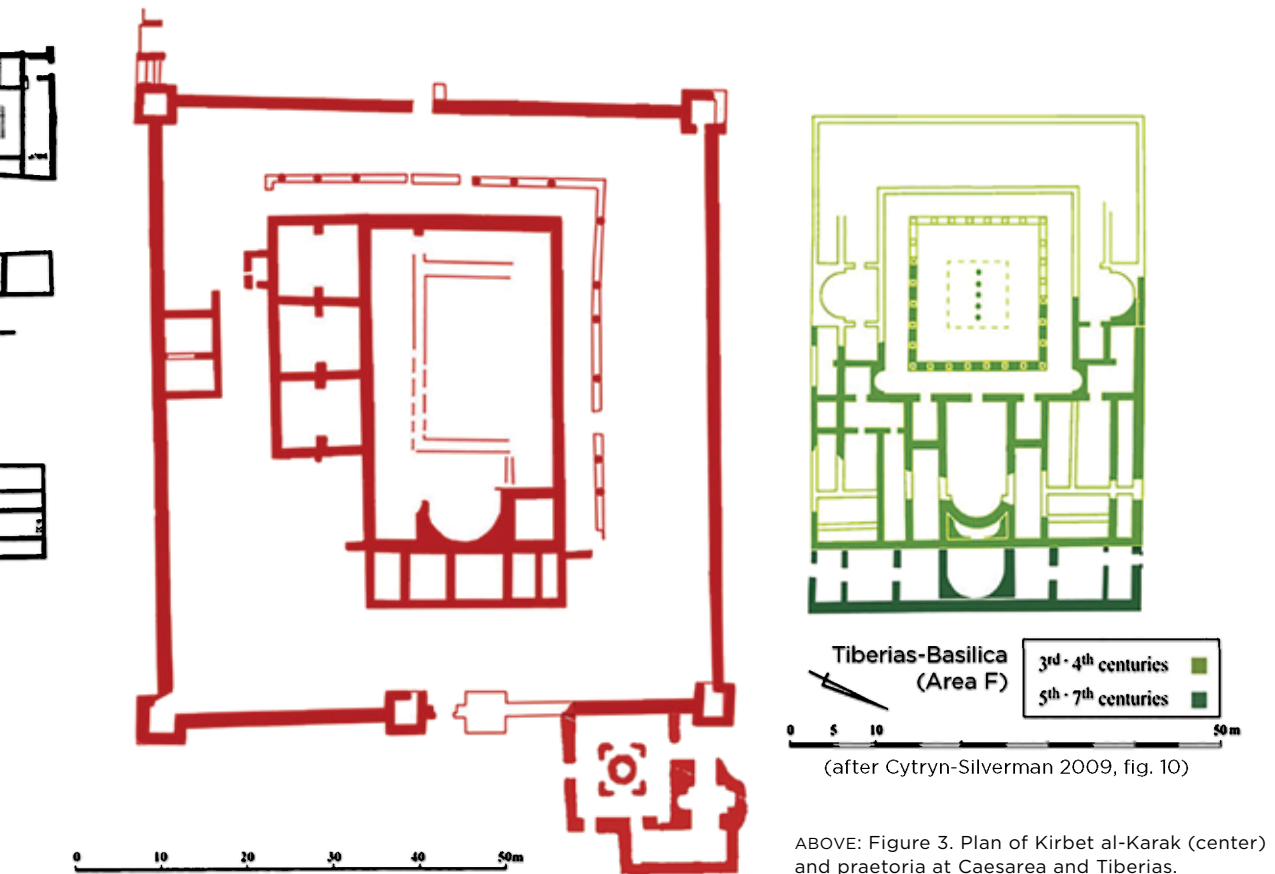
Praetoria at Caesarea and Tiberias with Sinnabra

The building has recently been described in a monograph by Raphael Greenberg and Tawfiq Da'adli (2017) as a "fortified basilica," which still does not assist in understanding its function. Rather one may turn to other basilical structures, among which is the praetorium at Caesarea is perhaps the most interesting. Caesarea was the Byzantine administrative center conquered by Mu'awiya, who would have seen its audience hall, rooms, and bath hall. Likewise, there was the praetorium at Tiberias, about 10 km away, which had a new set of rooms and apse added in the early Islamic period (fig. 3). Each of these buildings was adorned with fine mosaics, similar to those found at Sinnabra.

The functional equivalent of the praesidium, the administrative palace complex, was the *dar al-imara*, found in most early Islamic cities. One of the spatial constants in early Islamic cities was

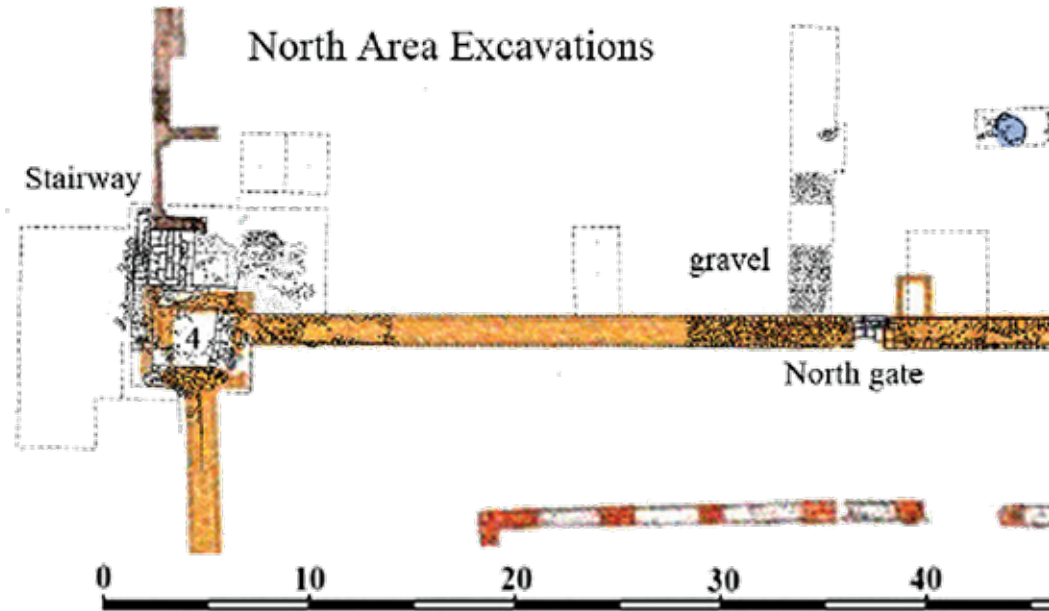
that the *dar al-imara* was located immediately behind, that is on the *qibla* side, of the congregational mosque. In the case of Sinnabra, the mosque should be located just north of the “fortified basilica.” This was the hypothetical basis for organizing a new excavation at Khirbet al-Karak, informally characterized as the search for Mu’awiya’s mosque.

This hypothesis interested Tawfiq Da’adli, who is now a professor at The Hebrew University. He had done some excavations within the basilica building and found coins beneath the floors proving early Islamic *ex post facto* dating for the building (2017). The instigator for new research is Prof. Rafi Greenberg, known to many at the OI from his residence here a few years ago. He has been involved



at Bet Yerah, as the site is known at his Tel Aviv University, for over twenty years of research and excavations. His interest is the exceptionally important Bronze Age site and, beyond this archaeology, the preservation and enhancement of the site. He has worked hard to make the site a national park featuring all the periods represented, including the Byzantine and early Islamic.

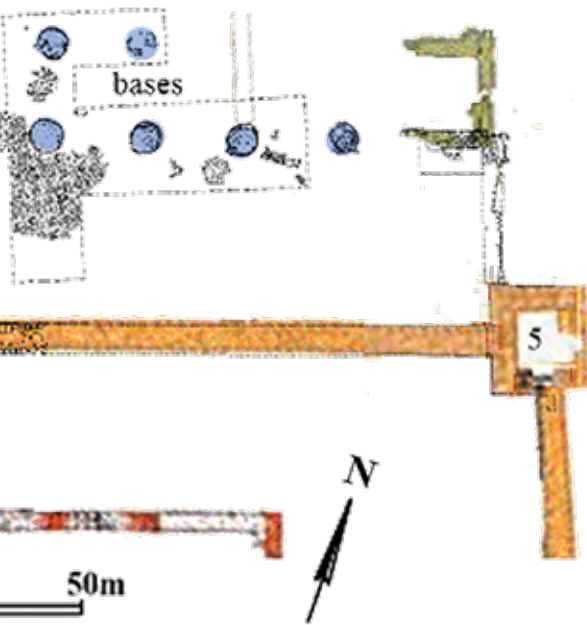
While we had talked about new excavations for many years, it was Tawfiq’s initiative in applying for and receiving a grant from the van Berchem foundation which began the process. The OI contributed a similar amount through the generosity of Gil Stein and Chris Woods. We had two research assistants in the field, Veronica Morriss from the OI, and Alon Arad from Tel Aviv University. A team of Palestinian archaeology workmen completed the excavations. We began on February 4



ABOVE: Figure 4. Veronica photographing on the stairs.

with a clean up on the site. Happily there had been a drought and only dried brush needed to be removed; we all remembered the visit two years earlier when the dense brush was head high and meant nothing could be seen.

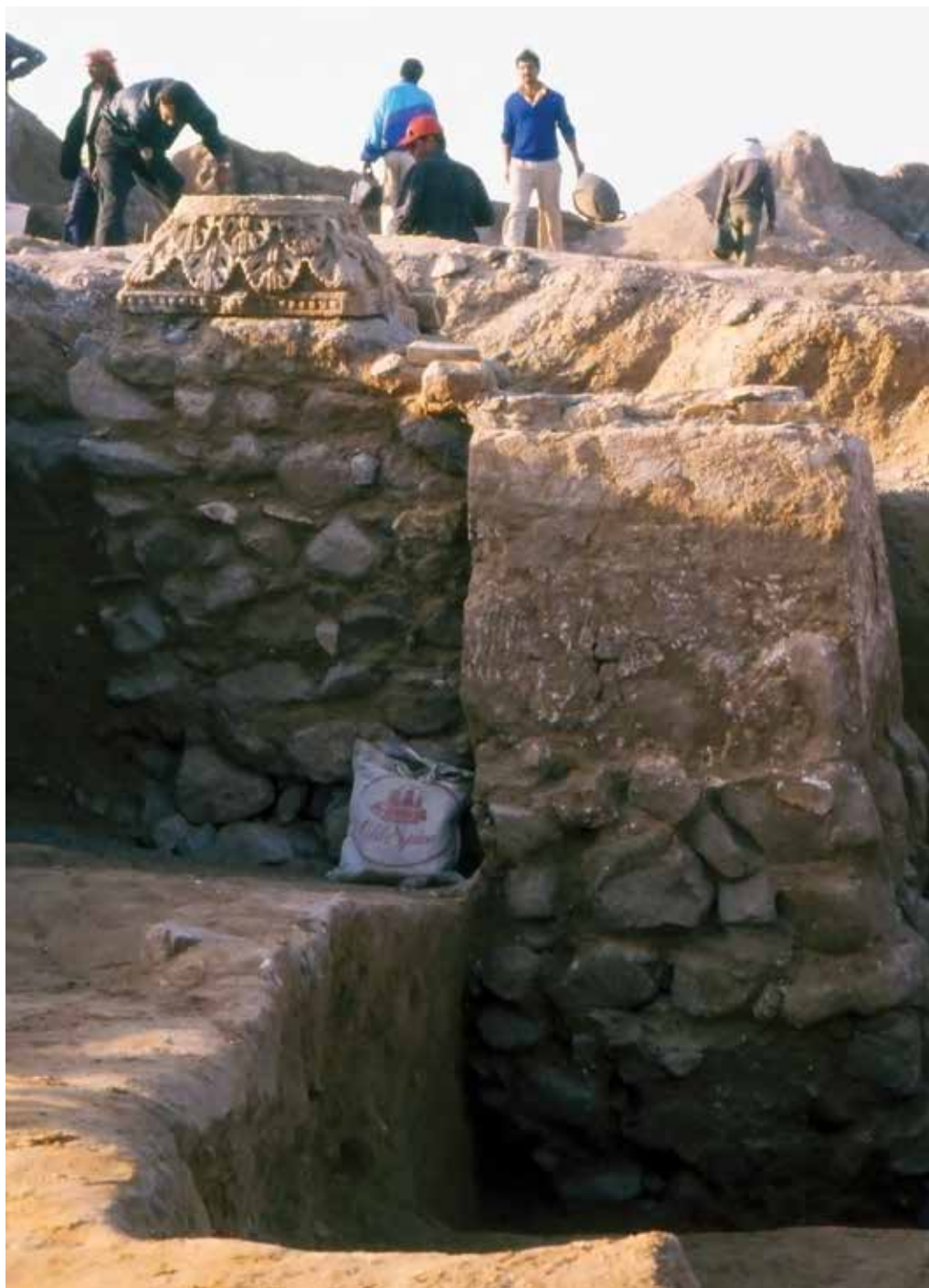
We began clearing a set of stairs that Delougaz had found some seventy years ago (fig. 4). These were attached to the exterior of the corner tower, a broad and shallow stairway descending from the west and ending with a compacted gravel surface. The stairway is curiously similar to the long staircase that we found at Mafjar, no doubt giving us two examples of Umayyad



LEFT: Figure 5. Plan of the north wall and new discoveries.
 RIGHT: Figure 6. Column bases in mosque at Tiberias.

architecture, but still another unexplained feature at both sites. The compacted gravel surface continued across the open area outside of the north wall of the site, and we started to lose a few days due to light rains.

After two weeks of digging, we moved farther to the eastern end of the north wall (fig. 5). We started clearing some cement-like masses that proved to have a common size, shape, and height. Further, they line up in rows at common distances; they immediately recall the “mushrooms” or column-bases in the mosque at Tiberias (fig. 6; as excavated by Katia Cytryn-Silverman in recent years; 2009). Not only was there a local parallel but I realized these column foundations were very similar to those that I had found in the mosque at Aqaba (fig. 7). Those foundations of the Umayyad mosque had been carefully prepared, sometimes twice, as the architects seem to have changed their plans. There is some indication of gravel surfaces laid over these bases; did the Abbasids later cancel out the Umayyad mosque? Needless to say, we had time only for final plans and photographs. Once again, an archaeological truth was proven, that the most interesting discoveries are made at the last minute.





ABOVE: Figure 7. Column bases in excavations at Aqaba.



ABOVE: Figure 8. Hypostyle building discovered this season.



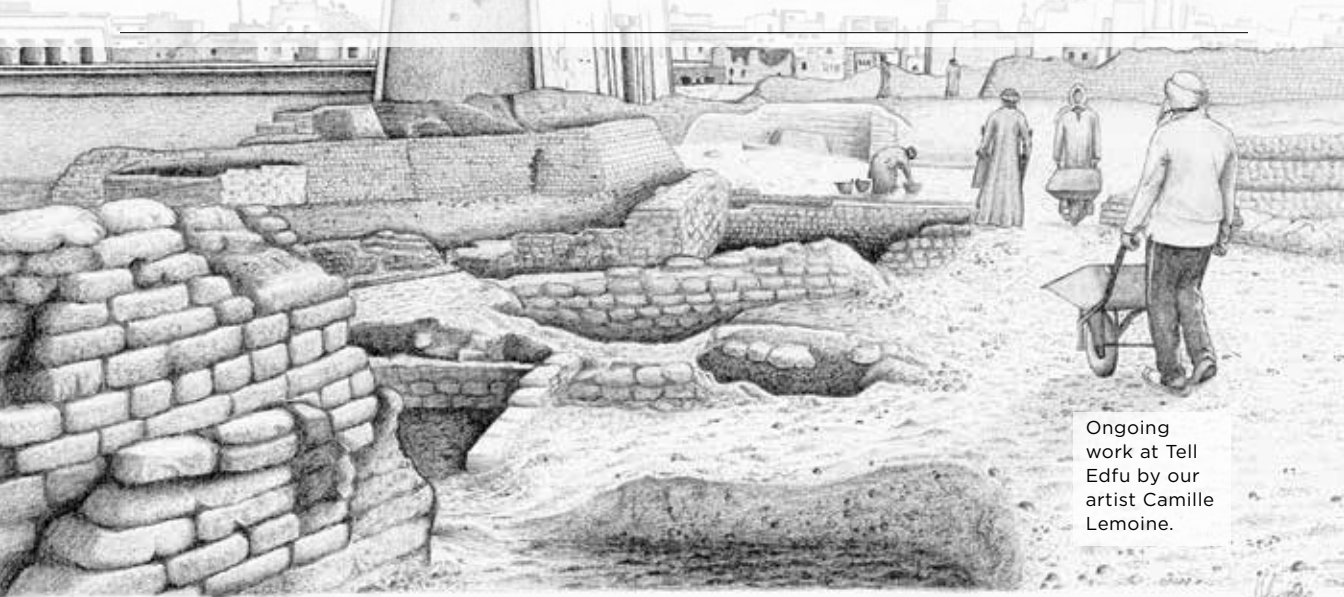
The Sinnabra project has explored an aspect of the famous site of Khirbet al-Karak, a beautiful corner of the Sea of Galilee (fig. 8). It seems that the OI keeps being drawn back to its complex antiquities. We began by exploring its role during the early Islamic period and, while we cannot claim to have found its very early mosque, the hypostyle hall that once may have stood there has its fascination and begs for someone to return.

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TELL EDFU

NADINE MOELLER and GRÉGORY MAROUARD



Ongoing work at Tell Edfu by our artist Camille Lemoine.

The ancient city of Edfu is situated on the West Bank of the Nile valley, halfway between Aswan and Luxor (fig. 1). In ancient times, Edfu was the capital of the 2nd Upper Egyptian nome and it formed an important regional center in the Upper Egypt from the middle of the third millennium BCE until the late Byzantine period.

Since 2014, one of the main research objectives of our archaeological fieldwork at Tell Edfu has been to identify the earliest traces for settlement activity and to investigate the Old Kingdom occupation which lies deeply under the actual preserved tell site. In the continuity of previous seasons, we mainly focused this year on the excavation of Zone 2, which is situated to the west of the pylon of the Ptolemaic temple (fig. 2) and which contains the earliest settlement remains at Edfu so far discovered, dating to the late Fifth Dynasty and the reign of king Djedkare Isesi (ca. 2450 BCE). Another operation was conducted on the top of the tell, on the north side of previously excavated Zone 1. It mainly consisted in cleaning and preparation operations for a new early New Kingdom settlement excavation which will be engaged next fall 2018.

The 2017 season at Tell Edfu started on November 4 and finished on December 10. The project has been conducted by Nadine Moeller (director) and Gregory Marouard (co-director). This year team members were Katarina Arias Kytnarová, PhD (Old Kingdom pottery specialist, Czech Institute of Egyptology, Charles University, Prague), Aaron de Souza, PhD (Nubian pottery, Macquarie University, Sydney), Claire Newton, PhD (Archaeobotanist, Université du Québec à Rimouski), Camille Lemoine (small finds drawings), Oren Siegel (archaeologist, University of Chicago/NELC), Emilie Sarrazin (archaeologist, University of Chicago/NELC) and Sasha Rohret (archaeozoologist, University of Chicago/NELC).

The local inspectorate of the Egyptian Ministry of Antiquities (MoA) was represented this season by Mrs. Madonna Nashaat Habib Girgis and Mrs. Amna Yussef Ali Hassan.



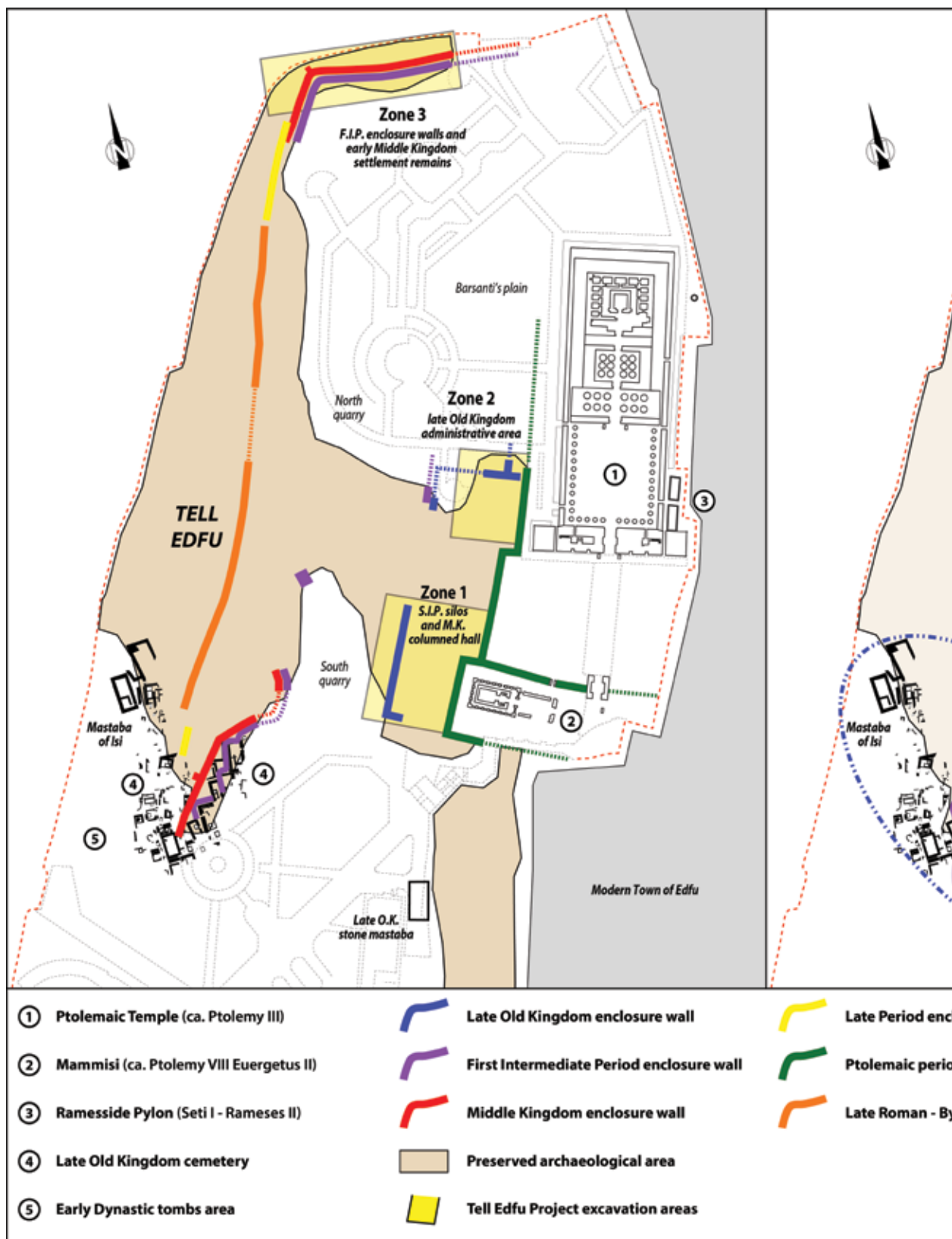
ABOVE: Figure 1. Map of Old Kingdom Egypt with the location of Edfu. Plan by G. Marouard.

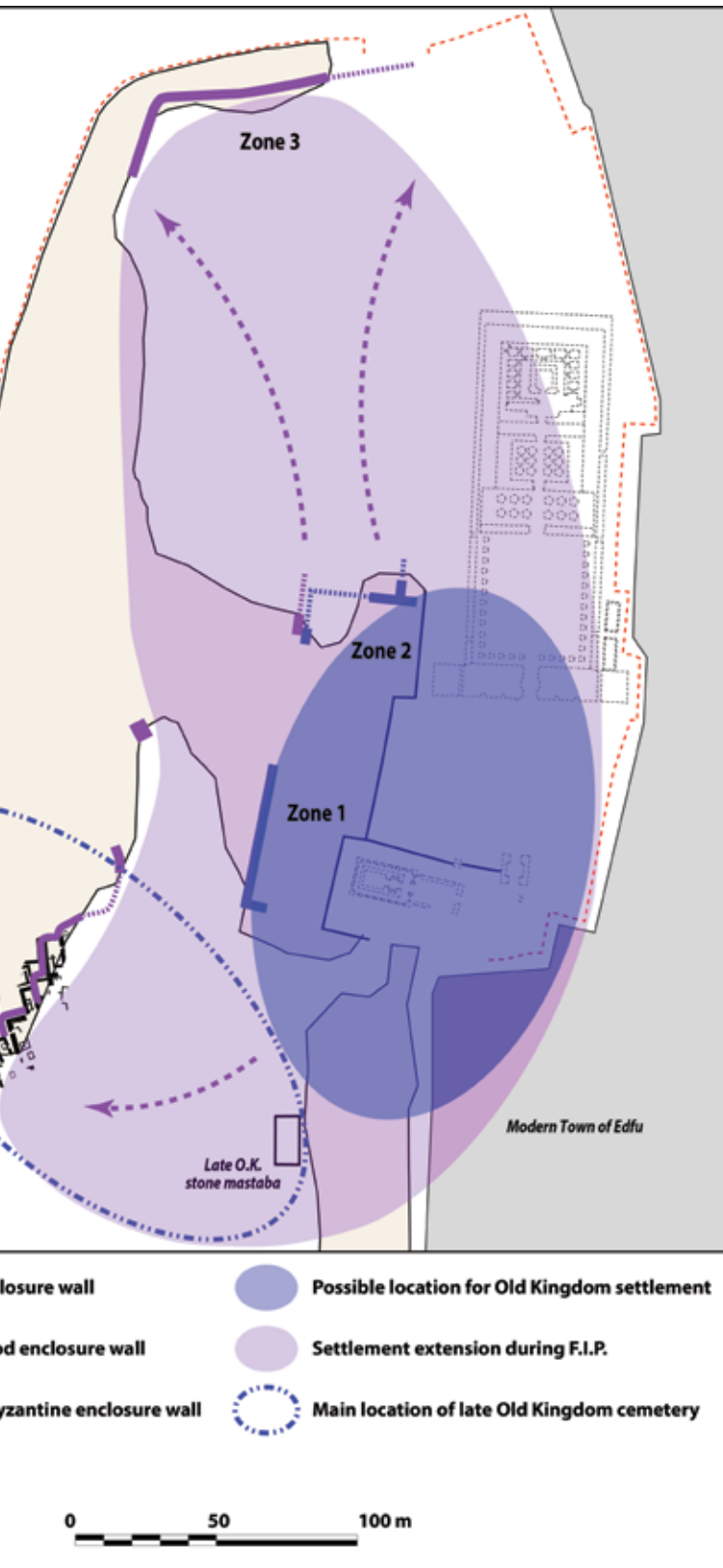


ABOVE: Figure 2. Aerial view of ongoing excavations at Zone 2 during the 2017 campaign. Photo by G. Marouard, Tell Edfu Project.

EXCAVATIONS ON THE OLD KINGDOM SETTLEMENT IN ZONE 2

The main objective of Zone 2 is to investigate an area on the northeastern side of the currently preserved tell, located only 25 m on the west of the Ptolemaic temple, which corresponds to the only parts of the site where archaeological strata dating to the Old Kingdom are still accessible (fig. 3). Much of the remains in the area had been covered by several meters of unstratified debris dumped here by *sebbakh* diggers and previous excavations conducted by the French Institute (IFAO) in the 1920s and 1930s. After several seasons that involved the removal of a thick deposition of mudbrick rubble and mixed pottery, archaeological layers which were still in situ were finally reached in 2012. These layers had also suffered from *sebbakh* digging which left deep holes cutting through the ancient stratigraphy. Over the past three seasons it has been possible to reach the natural bedrock in two areas and to follow the overall development of a settlement quarter, from the oldest layers of occupation (ca. 2450 BCE) founded directly onto the natural substratum to the last preserved remains here which date to the late First Intermediate Period (ca. 2100 BCE). It is now evident that this town sector saw several phases of drastic transformations over time.





The oldest remains so far unearthed are part of an ex-nihilo foundation, which is probably the result of the gradual westward expansion of the town (fig. 3). The currently available archaeological evidence and preliminary geo-morphological observations suggest that there was a steady expansion from southeast to northwest, with the origins of the town that would have first been settled on a sandstone island, delimited by a significant cliff on the eastern side which probably marks the position of the course of the Nile at a period that is not yet determined. The bedrock formation underlying the settlement is not uniform and during the excavations in different locations of the site both natural Nile sand deposits and a sandstone outcrop were reached. The settlement site gradually expanded during the late Old Kingdom period and by the end of the third millennium BCE it was occupying the totality of this natural rock terrace, which forms a more or less steep slope from northwest to southeast.

In Zone 2, the oldest constructions belong to a settlement phase that has been provisionally designated as “monumental” because of two sizeable buildings that do not show any of the characteristics of domestic architecture.

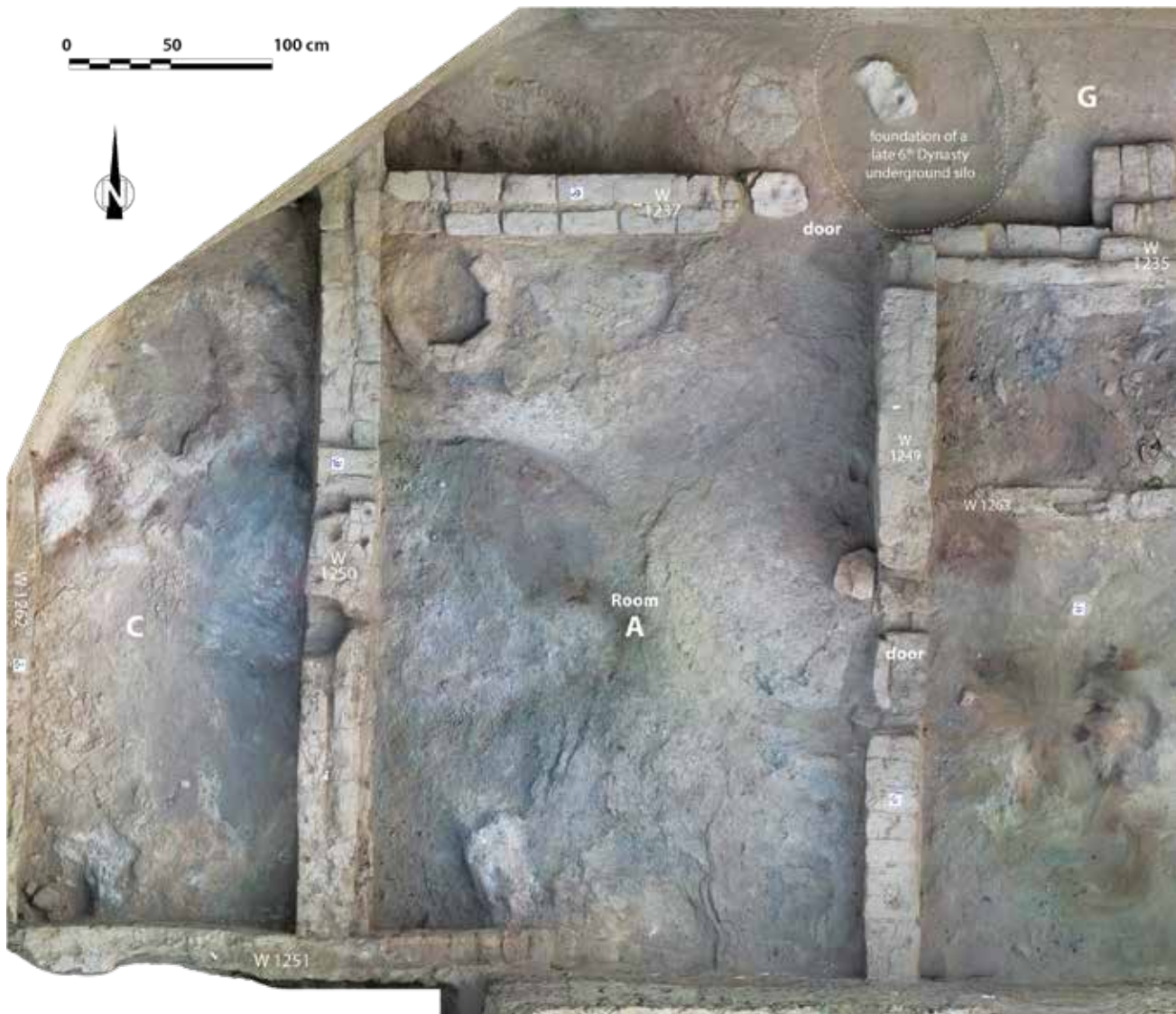
LEFT: Figure 3. Schematic plan of Tell Edfu showing excavation areas, sections of enclosure walls, and an attempt to reconstruct the evolution of the settlement between the Old Kingdom and the First Intermediate Period. Plan by G. Marouard, Tell Edfu Project.

In 2017 we completed the excavation of four large rooms on the northern side of Zone 2 (fig. 4), which corresponds to the limits of preserved remains that have not been completely destroyed by *sebbakh* diggers. The central room (A) measures 2.75 m wide and 3.80 m long. It had two doorways, one linking it on the eastern side to an open courtyard, and another door on its northern side led probably into a kind of corridor (G). Two stones with door sockets have been found at both doors which further confirms that the central room once was a closed room with two entrances. Much of its eastern half has been marked by layers of ash on the floor from a massive fireplace used for a relatively long period. In the northwestern corner a small round bin made of single mudbricks was found. The large room (B) to east of the central room was a courtyard according to its dimensions and the numerous traces for fireplaces. It measures 3.80 m in length and 3.05 m in width and it was always used as an open space throughout the occupation of this area. Adjacent on its eastern side, some thinner walls are present, only one mudbrick wide, which belong to several small rooms (D, E, F) without a direct connection to the courtyard but their full extent is not visible farther to the east and south since the later enclosure wall is covering these remains. A corridor (G) can be seen on the northern side, stretching along the full length of both the central room and the courtyard. Again, this space is also incomplete since farther north the archaeological remains were destroyed by the *sebbakhin*. The last space exposed is a narrow room (C) to the western side of the central room (A). Its width is only 1.45 m while its length is 3.80 m, and it must have connected to the corridor on the northern side.

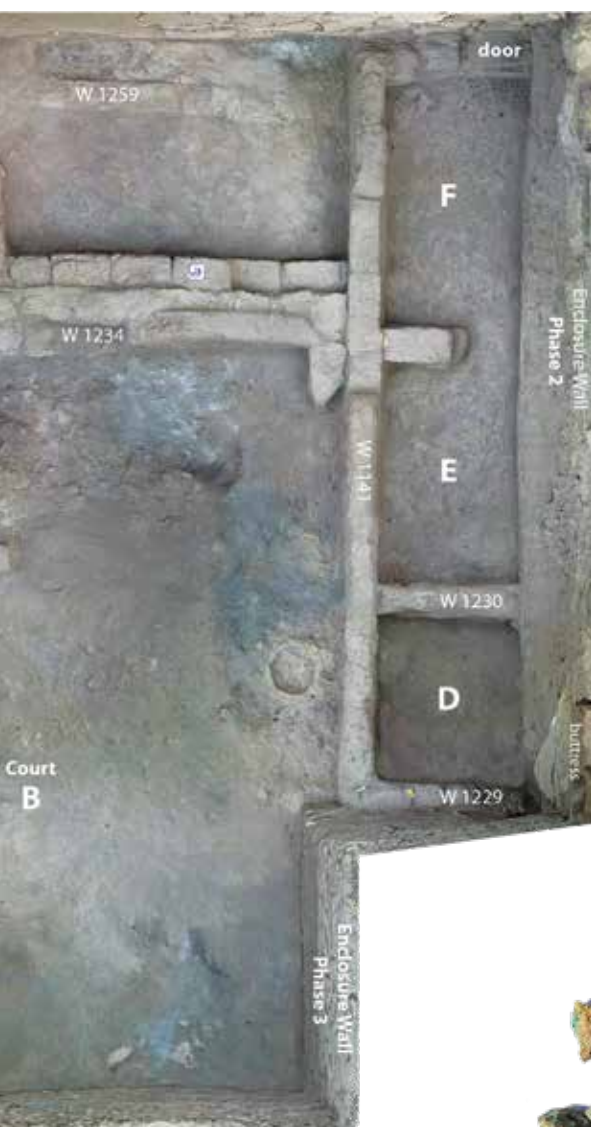
RIGHT: Figure 4. View of the workshop installations in northern part of Zone 2, from the east. Photo by G. Marouard, Tell Edfu Project.







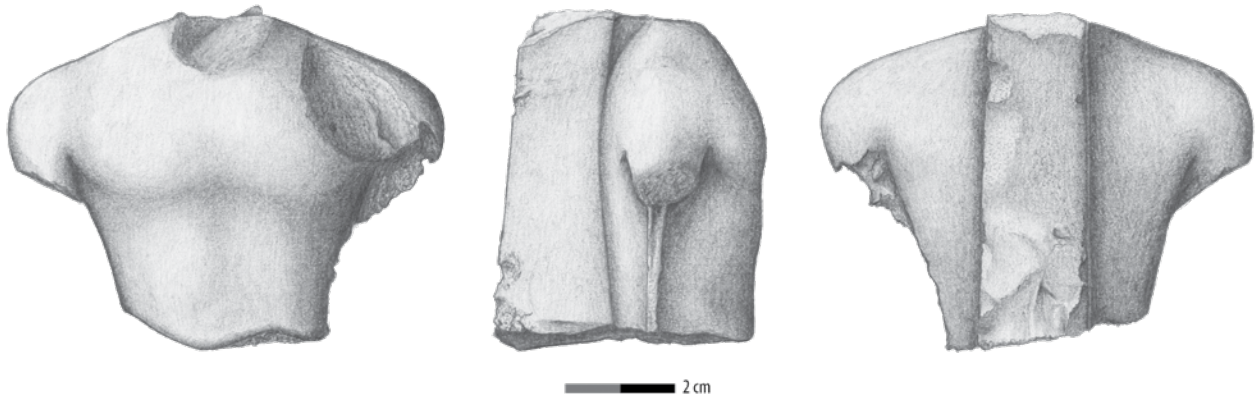
Since 2016, several layers of occupation covering the floor levels have been excavated within these spaces that contained numerous traces of fireplaces with ash deposits (fig. 5) in addition to important quantities of Fifth Dynasty bread molds (with a *bedja* shape) and beer jars. In the courtyard the archaeological contexts were the richest and the only ones that contained, in several successive layers of occupation, a large amount of broken clay sealings from jar stoppers and other commodities such as bags, baskets, and boxes. Some of them discovered in 2016 and 2017 show traces of seal impressions and the best-preserved one (fig. 6) is marked by a cylinder seal impression naming the titles of a priest and the Horus name in a *serekh* of king Djedkare-Isesi, *Djed-Khaw*, the penultimate ruler of the Fifth Dynasty (ca. 2475–2450 BCE). Also associated with the occupation of these rooms are regular traces of metallurgical activity such as crushed slag pieces, fragments of copper ore (fig. 7), and pieces of crucibles covered with green copper splashes.



2 cm



ABOVE LEFT: Figure 5. Orthophoto of the workshop installations along the northern limit of Zone 2. Orthophoto by N. Moeller, Tell Edfu Project. ABOVE RIGHT: Figure 6. Clay sealing with a cylinder seal impression showing the *serekh* of Djedkare-Isesi. Photo by N. Moeller, Tell Edfu Project. BOTTOM RIGHT: Figure 7. Fragments of copper ore (malachite) discovered in the northern workshop area of Zone 2. Photo by G. Marouard, Tell Edfu Project.



ABOVE: Figure 8. Drawing of one of the two limestone figures found in the workshop area. Drawing by C. Lemoine, Tell Edfu Project.

These installations along the northern limit of Zone 2 indicate the presence of workshops linked to official and administrative contexts as can be seen by the presence of broken clay sealings, the fragments of limestone figurines (fig. 8), and the traces of metallurgy which are typically carried out by highly skilled craftsmen who were working to supply the elite and higher officials with copper. Those components are not usually part of any kind of domestic household activities. The processing of copper in particular during the Old Kingdom was almost exclusively conducted under the supervision of official institutions and the exploitation of this kind of raw material was exclusively organized by the central state under the charge of a high official personage sent by the king.

Based on the discovered activity areas, it can be considered a workshop area dating primarily to the late Fifth Dynasty (ca. 2450–2400 BCE), which has close parallels to the larger installation of workshops at the town of Elephantine in the First Cataract region. As mentioned previously these structures can be considered the first installations in this part of the settlement at Edfu and they were founded *ex-nihilo*, directly on the natural Nile sand deposits. Only a few light installations, small trash pits, occasional fireplaces, and postholes were observed on the surface of the natural sand. However, the pottery assemblages of these older levels are not chronologically different from the workshop facilities and might correspond to the immediately preceding construction phase.

After three seasons in a row of very fine-level excavation and a detailed recording of all the floor levels using photogrammetry, these rooms and the courtyard were all covered with yellow sand and all of the area was back-filled in order to protect those fragile remains.

THE NORTHERN BUILDING 1

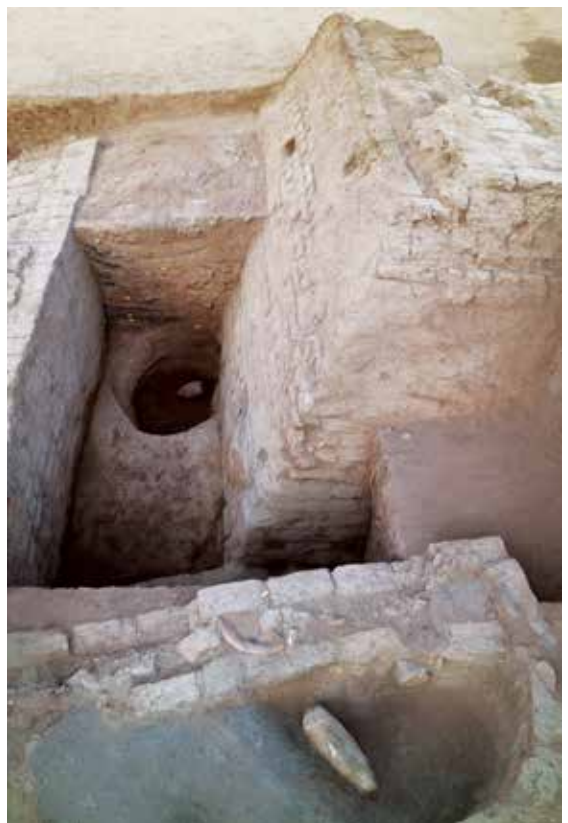
Underlining the non-domestic character of this late Fifth Dynasty *ex-nihilo* foundation town quarter are two large buildings discovered along the western side of the Zone 2.

The massive exterior walls and the main eastern entrance of an important unusual mudbrick building had been exposed on the central western limit of Zone 2 (fig. 9). Its eastern, northern, and southern outer walls have been preserved only to a small extent but on a significant elevation of about 2.2 m above the functioning floor level. The Northern Building was originally orientated east–west and only its eastern façade including the main entrance door is preserved, which consists of the wooden lintel and door found still in situ during our 2012 season (OI *Annual Report* 2013,



ABOVE: Figure 9. General view of the southern part of Zone 2 with the two large mudbrick buildings (late Fifth Dynasty) emerging from later courtyard levels (early to mid-Sixth Dynasty). BOTTOM RIGHT: Figure 10. Southeastern corner of Northern Building 1 showing its façade with the distinctive slope. Photos by G. Marouard, Tell Edfu Project.

pp. 118–19). The majority of the interior to the west was unfortunately destroyed by the *sebbakh* diggers but it seems very likely that the lost part of this construction was already noticed by French archaeologist M. Alliot during its excavation of the upper part of the tell in ca. 1932–33. The northern and southern walls have respectively a width of 2.3 and 2.8 m. The eastern exterior façade stretches 9.2 m from north to south and probably more than 10 m at its base which has not been reached yet. On the three sides of this building the façade presents a fairly steep slope (fig. 10). A phase of renovation was noted on the southern wall during the excavations in form of a second mudbrick layer built against the original wall covering its lower courses, with a stone foundation at the southeast corner.



As has been the case with the northern area, the Northern Building 1 was founded directly on the natural Nile sand deposits; it constitutes therefore the first planned installation here, which seems to be contemporary and probably directly connected with the workshop area. Unfortunately, no object that would provide any precise indication about the function of Building 1 has come to light so far. In 2014, a trench was dug along the interior of the entrance in order to reach the corresponding floor level, which is situated 1.8 m below the lintel (OI *Annual Report* 2015, pp. 158–59, fig. 8). This permitted us to observe a system of an entry room in the southeast corner that led to two rooms to the west and the north. The only activity recognized in this small room was a fire-place used for smelting copper which was installed a short time before the building was abandoned (OI *Annual Report* 2014, p. 158, fig. 8). The massive trash layers that had covered the small entrance space seems to have filled up quickly with debris containing not only late Fifth Dynasty and early Sixth Dynasty pottery but also pieces of copper slag and crucible fragments attesting again metallurgical activity in the area even after the abandonment of the structure.

The architectural features are rather unusual and have no parallels in the currently known archaeological record. A purely funerary function, such as a *mastaba* tomb, can also be excluded because of the lack of finds that would be typical for mortuary cult activities (i.e., offering and model vessels, stone elements such as stelae, or offering table fragments). The cemetery during this same period is already attested to the southwest of the tell, more than 150 m from Zone 2.

Furthermore, it was possible during the excavations in the fall 2016 season to uncover a 1 m thick perimeter wall (W 1210) that is located to the south of this building, once again built directly on natural sand deposits. This well-built wall also has faces with a slight slope and it runs east–west for about 12.5 m along the southern side of the Building 1 (fig. 11). It is then linked on the east to a second wall of identical dimensions (W 1170) which runs north–south over a distance of at least 9 m. These two long walls were used as a delimitation for a very large space which covers an open area of at least 100 sq m on the eastern side of the Building 1, possibly a vast courtyard. The excavation of





ABOVE: Figure 11. General view of ongoing excavations in the central part of Zone 2 showing the thick perimeter walls (W 1170 and W 1210) which separates the Northern and the Southern buildings and delimited their eastern courtyards. Photo by G. Marouard, Tell Edfu Project.

this outer zone that occupies most of the central part of Zone 2 will be the focus of next season excavations. The area is still marked for the moment by a series of small domestic courtyards which date back to the beginning of the Sixth Dynasty (fig. 9).

THE SOUTHERN BUILDING 2

Another massive mudbrick building was discovered in 2016 on the south side of perimeter wall W 1210, which seems to have separated these two large constructions from each other. Walls W 1210 and W 1170 thus formed the northern and eastern boundaries of this Building 2 complex, which also had a large courtyard area to the east (fig. 11). No door, nor any direct connection to the area of Building 1, or any opening to the east has been discovered so far. Building 2 is also incomplete in its preservation and most of its interior, which would have stretched towards the west has disappeared due to *sebbakh* digging. Only the northeastern corner of Building 2 has been unearthed and its opposite angle to the south is still masked by more than 8 m of in situ stratigraphy. The northern face is preserved on 4.1 m in length and its eastern façade stretches along a distance of 6.4 m; its preserved elevation exceeds 1.9 m. Although its brick

materials and modules are the same, it differs architecturally from Building 1 since its exterior walls are less thick (only about 0.9 to 1.0 m in width) and they do not show the same slope but a vertical face. No entrance has been identified for the moment. Internal spaces were only briefly explored with a test trench that has not yet reached the internal floor level. Nevertheless, the external levels show us one more time that this construction was built directly onto the natural Nile sand substratum. It is interesting to note that both of the large Buildings 1 and 2 are also perfectly aligned and separated by the same perimeter wall W 1210 that divides the area into two large square spaces. They clearly form part to the same construction project and all the components belong to the same contemporaneous building complex.



ABOVE: Figure 12. General view of the courtyard east of Southern Building 2, from the south, showing some of the smaller walls that were added later to this initially open space. Photo by G. Marouard, Tell Edfu Project.

CIRCLE INSET: Figure 13. Deep trash pit cut into the original floor of eastern courtyard Southern Building containing complete beer jars and *bedja* bread molds typical for the late Fifth Dynasty. Photo by G. Marouard, Tell Edfu Project.



In fall 2017, the entire exterior of Building 2 was excavated (fig. 12), revealing intense cooking activities (bread and maybe beer production) and the presence of storage facilities (one granary and multiple large storage jars) mainly associated with several secondary rooms that were gradually installed in the vast space that had been marked originally by an open area to the eastern side, similar to the open courtyard east of Building 1. During the very first phase of occupation, this area was a single open space, which was characterized by a thick brown organic layer (animal bedding) with multiple fireplaces and deep trash pits often containing complete beer jars and *bedja* bread molds (fig. 13).

More importantly, numerous broken clay sealings have been excavated (fig. 14), which were mainly found in one of these pits that had been cut into the first phase of occupation when this area was still an open courtyard. These sealings show again multiple impressions mentioning the



LEFT: Figure 14. Broken clay sealings freshly excavated from the open courtyard of Southern Building 2. Photo by G. Marouard, Tell Edfu Project. RIGHT: Figure 15. Three sealings showing the *serekh* and cartouche of Djedkare-Isesi in addition to the *sementiu* (far right). Photo by N. Moeller, Tell Edfu Project.



cartouche and *serekh* with Horus name of King Djedkare-Isesi (fig. 15), which confirms the contemporaneity to the workshop area along the northern side of Zone 2. They also suggest that administrative activities formed an important component here. The backtypes of the sealings show evidence for papyrus fibers, woodgrain, basket, and tissue fiber imprints pertaining to the multitude of commodities (letters, boxes, baskets, and bags) that were opened here. The extremely fine imprints of the cylinder seals attest to the use of high quality seals that are usually associated with activities of high officials in the Memphite region who received particular tasks assigned to them by the king. Most interesting is the fact that on a large number of sealings a particular group of prospectors is mentioned, the *sementiu* (fig. 15), in addition to the rare title of “Overseer of the *Sementiu*,” who are usually associated with official expeditions and mining activities. As the evidence stands right now, it seems that King Djedkare-Isesi might have sent an important official from Memphis to Edfu with the task to administer mining expeditions and the collection of raw material (gold, copper, and precious stones) in the Eastern Desert area. This also fits to Tell Edfu’s strategic location in the Nile valley placed near the main access routes and wadis which lead to the Eastern Desert and offered a direct access to several major mining sites (Wadi Baramiya) and to the Red Sea shore.

More excavations in Zone 2 are certainly necessary to confirm this current working hypothesis and the aim for future fieldwork is to find out more about the precise function of these late Fifth Dynasty complexes, which belong to the earliest phases of occupation in the city’s history so far uncovered at Tell Edfu. The discovery of more than 200 official sealings and the architectural features exclude a domestic context here. The various characteristics that mark both buildings, such as the ex-nihilo construction, the presence of monumental mudbrick architecture, a common perimeter wall, and the adjacent large open courtyards and workshops, make the presence of some kind of official and administrative complex the most plausible interpretation with regard to their function at this current stage of research.



ABOVE: Figure 16. General view of the three phases of enclosure walls of the early Sixth Dynasty, which enclosed the buildings of the late Fifth Dynasty and covered the workshop installation. Photo by G. Marouard, Tell Edfu Project.



Furthermore, it appears that the two massive mudbrick buildings were not leveled or dismantled after their abandonment. Those remained quite important features in the area even after they had fallen out of use, which can be seen to the north of Zone 2 by a sequence of three phases of massive enclosure walls (fig. 16). The architectural analysis and stratigraphic study of those three successive mudbrick precincts have been conducted by Oren Siegel in the context of his current PhD research at the University of Chicago. This work permitted to obtain more information about the particular construction details of the third and second phases, which are characterized by the addition of small square buttresses on their exterior faces and by a steep slope for the second phase. These elements seem to have served more of symbolic/decorative purpose of the enclosure walls which had nevertheless no real defensive function here. Based on the stratigraphic evidence, these early Sixth Dynasty walls clearly post-date the earlier settlement phase (they cover the workshop installation along the northern limit of Zone 2) and seem to have been intentionally avoiding Building 1 by constructing the walls in a peculiar way that makes it turn in several right angles towards the north and east. The older structures, Buildings 1 and 2, were thus deliberately included inside this newly enclosed area that “faithfully” preserved their main orientations. This might further attest to a likely symbolic importance for this complex and a close connection to the main temple of Horus from the Old Kingdom period cannot be excluded, traces of which are probably situated right underneath the later Ptolemaic temple of Horus that stands only 20 m to the east.

Later, the entire area clearly served as a large open dump, and only after official Building 1 and 2 began to be covered up and were no longer visible in the urban landscape, the space was gradually colonized by various small courtyards whose character is clearly of domestic nature (fig. 9). After this radical change in function, it seems that this sector has subsequently kept exclusively a domestic purpose for quite a significant time from mid-Sixth Dynasty until the early First Intermediate Period.

THE EARLY NEW KINGDOM SETTLEMENT AREA NORTH OF ZONE 1

At the same time as excavations continued in Zone 2, a new area of about 1,000 sq m has been opened on top of the tell, north of the Second Intermediate Period silo courtyard and late Middle Kingdom governor's palace previously excavated between 2006 and 2012 (Zone 1). The work mainly consisted in cleaning and preparation (fig. 17) for a new excavation which will be started next season 2018.

This part of the site was previously excavated around 1933–34 by M. Alliot for the French Institute in Cairo (IFAO). Most of the visible walls and granaries in the area belong to several Third Intermediate Period and Late Period domestic installations (ca. 800–600 BCE), mostly from the Twenty-fifth and Twenty-sixth Dynasties (fig. 18). Those remains are badly preserved today and were not carefully recorded. After more than eighty years of exposure, many of the walls have already collapsed and all are completely disconnected from any archaeological context. Several rectangular underground silos, similar to those previously excavated in Zone 1, are still preserved but all have already been cleared from their filling and are now disconnected from their original circulation layers and functioning floors.

A lot of modern trash, unstratified debris, and previous excavation dumps were cleared this season in order to re-expose those walls and silos with the aim to prepare an accurate mapping operation using photogrammetry next fall 2018. Many of those installations have been built on



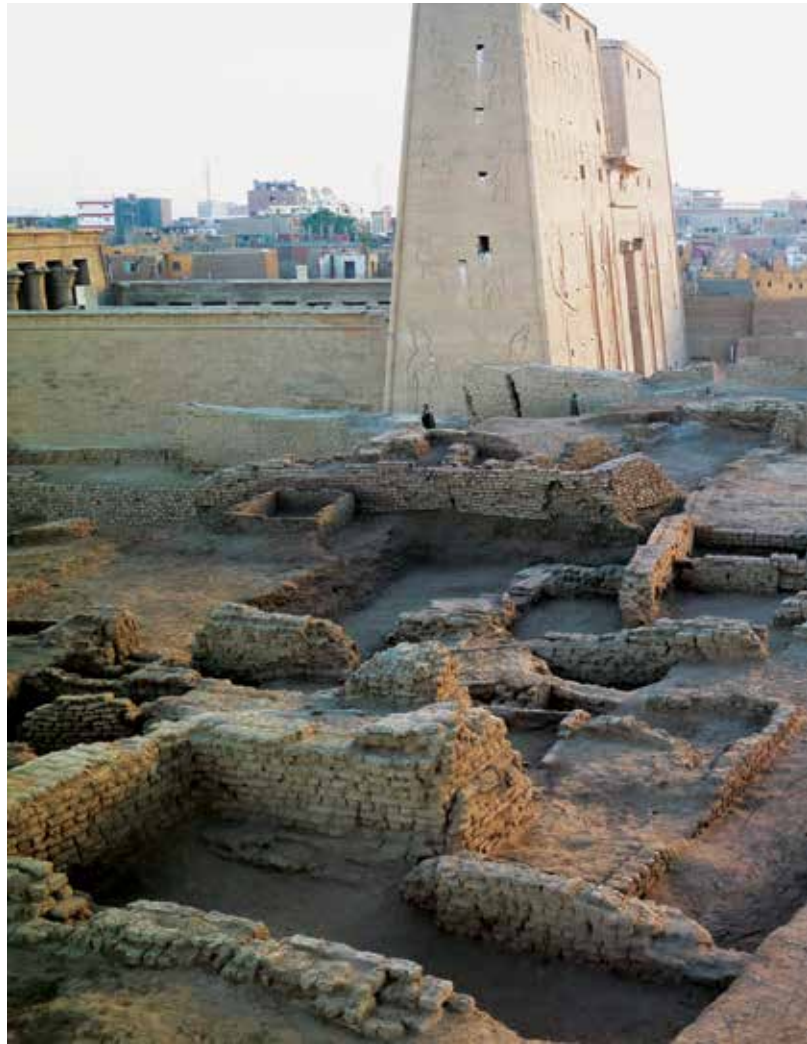


ABOVE: Figure 17. Aerial view of the new early New Kingdom settlement area north of Zone 1.
Photo by G. Marouard, Tell Edfu Project.

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the top of a large settlement phase from the early New Kingdom period (early and mid-Eighteenth Dynasty) which is the main goal of this new area. This level, which is characterized by well-constructed and very thick walls, constitute the extension of a large New Kingdom building that was partially excavated farther south during the 2015 season (OI *Annual Report* 2015, pp. 153–54, fig. 5). Interpreted as a domestic house at first, it could actually be a much larger building whose function remains to be determined.

Settlement installations of the Eighteenth Dynasty known in urban context and excavated at archaeological tell sites are particularly rare. The excavation of this area might produce entirely new information about Edfu's history during the early New Kingdom period which still remains peculiarly silent. A possible relationship of these constructions with the synchronous large production dumps, which completely filled and covered the silos courtyard excavated farther south, could also bring important information and finally a better architectural framework for hundreds of written accounts on ostraca previously discovered in Zone 1.



ABOVE: Figure 18. View of the new early New Kingdom area after the cleaning operations conducted in 2017 showing the Late Period walls and silos excavated by French archeologist M. Alliot in 1933–34. Photo by G. Marouard, Tell Edfu Project. FAR RIGHT: Figure 19. Zone 2 pottery storage area under study by Katarina Arias Kytnarová. Photo by G. Marouard, Tell Edfu Project.

CERAMIC ANALYSIS

We were joined this season by Katarina Arias Kytnarová, an expert for the pottery of the Old Kingdom, who is a member of the renowned Czech Institute of Egyptology and Charles University excavation project at Abusir, that focuses on the Fifth Dynasty royal necropolis located between Giza and Saqqara. She was able to process a large part of the pottery discovered in the Zone 2 excavations this season (fig. 19) and to build a close comparison for the Fifth and Sixth Dynasty pottery from both sites at Abusir and Edfu. It shows many parallels in the shapes and manufacturing details; the main difference lies in the fabrics used for the pottery vessels, indicating an important local production at Tell Edfu which, however, follows the general morphological types of the northern regions of Egypt.



Aaron de Souza, from the Macquarie University, Sydney, continued his study of the Nubian and C-Group pottery material excavated during the previous seasons in Zone 1, which date to the late Second Intermediate Period and the early New Kingdom (fig. 20). He also studied numerous new pieces of Nubian A-Group and possible Eastern Desert ware pottery from the late Old Kingdom contexts found in Zone 2. The presence of these ceramics, especially in the contexts presented above and dated from the time of King Djedkare-Isesi, highlights possible contacts and exchanges with the populations from Eastern Desert regions with whom the mining expeditions sent from Edfu had to regularly interact.

ARCHAEOBOTANICAL AND FAUNAL ANALYSIS



With the support of the FIRE fund for innovation and archaeological research in Egypt, Claire Newton, an archaeobotanist from the University of Quebec at Rimousky, was able to join us for a first season. She started a new study of the plant and organic remains from the Old Kingdom and First Intermediate Period settlement phases in Zone 2 and Zone 3. She tested several contexts and sorted multiple samples from the northern workshop area and the eastern courtyard of the Southern Building in Zone 2. Organic

remains (grain, seeds, charcoal) are very well-preserved in general in this area. She noted a relatively typical assemblage for pharaonic Nile valley sites in terms of crops, with a clear predominance of six-row barley compared to emmer wheat, a point which needs to be clarified. Cereal straw is nearly absent and, combined with the fact that barley “ears” are generally present, she hypothesized that the grain arrived on site in the form of complete, unthreshed ears harvested by cutting just below the ear. Claire also noticed flax seeds, cucumber/melon, or lentils for annual crops. She noted significant quantities of wild grasses (*setaria*, *enarthrocarpus*) that grow on the banks of the Nile valley and canals. Seeds and leaf fragments of acacia are omnipresent and were probably integrated in the assemblages with the fuelwood. She also carried out a preliminary anthracologic study and



looked at the charcoal residues and sampled the charred construction of wood regularly found during excavations.

Sasha Rohret (University of Chicago) worked intensely on the analysis and recording of the animal bones from Old Kingdom contexts from Zone 2 (fig. 21) in the perspective of her future PhD research that starts next year. Among the more unusual results, she was able to recognize some bones from a juvenile hippo leg that showed several cut marks. A significant portion of fish bones in addition to sheep and goat were present as well.

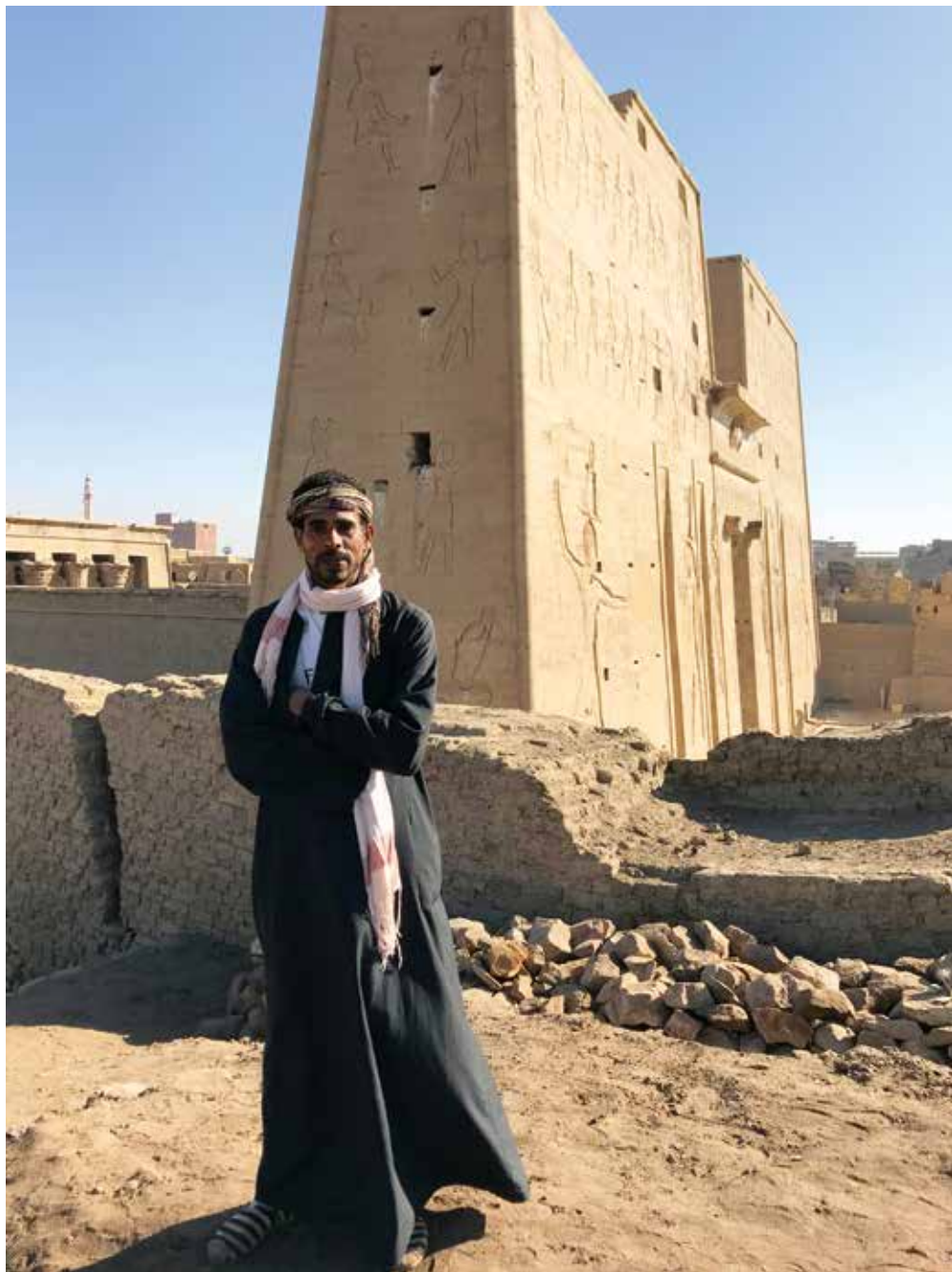
SCIENTIFIC COMMUNICATIONS

The project directors gave several lectures about recent results at Tell Edfu (put into perspective with the OI fieldwork at another settlement site at Dendara), in July 2017 at the OKAA (Old Kingdom Art and Archaeology) conference in Milan and in September 2017 at the AcrossBorders conference (“From Microcosm to Macrocosm: Individual Households and Cities in Ancient Egypt and Nubia”) held in Munich. These communications will be soon published in two volumes of proceedings. Other lectures were given in winter and spring 2018 at the University of Wisconsin Lacrosse, Yale University, and at Columbia University, New York. A press release from the Egyptian Ministry of Antiquities (MoA) officially announced in January 2018 the discovery of a late Fifth Dynasty settlement quarter at Tell Edfu from the time of King Djedkare-Isesi.

ABOVE LEFT: Figure 20. Nubian and C-Group pottery material from Zone 1 under study by Aaron De Souza. BOTTOM LEFT: Figure 21. Sasha Rohret working on the analysis and recording of the animal bones from Old Kingdom contexts from Zone 2. Photos by G. Marouard, Tell Edfu Project.

TOP RIGHT: Figure 22. Nadine Moeller analyzing the newly discovered Djedkare Isesi clay sealings discovered in Zone 2. MIDDLE: Figure 23. Small finds artist Camille Lemoine drawing a Nubian sherd from Zone 1. BOTTOM: Figure 24. Emilie Sarrazin using a Artec Space Spider handheld 3-D scanner to digitize a clay sealing in three dimensions. Photos by G. Marouard, Tell Edfu Project.





ABOVE: Figure 25. Raïs Yasser Mohamed Hassan posing in front of the Horus Temple at Edfu. Photo: G. Marouard, Tell Edfu Project.



ABOVE: Figure 26. The 2017 Tell Edfu Project's team.
Photo by G. Marouard, Tell Edfu Project.

ACKNOWLEDGMENTS

The directors and entire Tell Edfu team would like to thank the Edfu inspectorate for their help and collaboration this year, especially Susi Samir Labib (chief inspector), Ramadan Hassan Ahmed, Dr. Sami and of course Madonna Nashaat Habib Girgis and Amna Yussef Ali Hassan, our two inspectors. We would also express our gratitude to Mr. Nasser Salama, former General Director of Aswan and Nubian Antiquities Council, and Mohamed Abd el-Moneim, the new General Director of Aswan Inspectorate. We also express our gratitude to Mary Sadek (ARCE Cairo office) for their help with the paperwork and MoA related matters. This 2017 campaign was funded with the support of the Oriental Institute and its director, Chris Woods, and the FIRE fund for innovation and archaeological research in Egypt. We would like also to thank all of our generous donors and enthusiastic supporters of the Tell Edfu Project who have been following our work for many years.



INDIVIDUAL RESEARCH



OVERLEAF: Divine guardian before a netherworld gate as part of BD 146 from Papyrus Hynes (OIM E25389H, D. 19871). This photo recently appeared in the *Book of the Dead: Becoming God in Ancient Egypt* (Foy Scalf, ed., 2017), which was published in conjunction with the OI's special exhibit, *Book of the Dead: Becoming God in Ancient Egypt*. The exhibit ran from October 3, 2017 to March 31, 2018, and was curated by Foy Scalf. It included over fifty objects that explored what the Book of the Dead was, what it was believed to do, how it worked, how was it was made, and what happened to it. To purchase or download the free PDF of the book, visit: <https://oi.uchicago.edu/research/publications/oimp/oimp-39-book-dead>.

INDIVIDUAL RESEARCH

ABBAS ALIZADEH submitted to the publication office the final report of his excavations at three urban settlements of Abu Fanduweh, Chogha Do Sar, and Beladiyeh in lowland Susiana in the modern province of Khuzestan, southwestern Iran. The results of those excavations, conducted as part of the Oriental Institute Iranian Prehistoric Project, have provided a clear history of the development of the major types of the fourth millennium BCE ceramics for the three important stages of socioeconomic and political development of the early state and urbanism in the region.

He is now preparing the manuscript on his excavations of four prehistoric settlements (Tall-e Bakun A and B, Tall-e Jari and Tall-e Mushki) in the plain of Persepolis. The latter fieldwork has provided the hitherto unavailable absolute radiocarbon dates for these key settlements in the region as well as stratified sequence of the local pottery and evidence of subsistence economy from ca. 6800 to 4000 BCE. In addition to these works, Alizadeh is working on a manuscript for the Robert and Deborah Aliber Persian Gallery and an article on the contributions of Oriental Institute's archaeologists to Iranian archaeology from 1931 to the present.

Alizadeh's new project is "the Archaeology of Apprenticeship," in which the processes through which craftsmen (primarily potters) learned their crafts are documented using various categories of archaeological collections both in the Oriental Institute and the National Museum of Iran. The model for this project was provided by the ethnoarchaeological works of M. A. Harding on the contemporary potters in southwest of the United States. Alizadeh also plans to travel to Iran to conduct an ethnoarchaeological survey of the modern-day pottery workshops in Hamadan (ancient Ecbatana) and in Khuzestan to document the way modern-day potters train their young apprentices.

RICHARD H. BEAL spent much of his time copyediting the final fascicle of the letter Š, which was, at the time of writing, just submitted to the Publications Office. More was spent revising the entries in the L volume (published in 1979) for inclusion on the electronic e-CHD. This means looking for newly found or newly published references, new studies on the works we have already cited, adding new or differently understood meanings, adding dates to texts not previously dated, and rearranging the articles in accordance with the way we did things in later volumes.

Toward the beginning of the academic year he gave a lecture on the origins of Hittite, Anatolian, and cuneiform studies at the University of Chicago at the 10th International Congress of Hittitology, hosted by the Chicago Hittite Dictionary and held at the Oriental Institute the last week of August 2017. This lecture included information and illustrations from the Oriental Institute and University archives and some personal reminiscences. It showed that ancient Near Eastern studies were taught at the very founding of the University of Chicago, with founding president William Rainey Harper (Hebrew), Robert Francis Harper (Akkadian), Ira Price (Sumerian and Hebrew), George S. Goodspeed (history), and Carl Darling Buck (Indo-European linguistics). Texts from Ḫattuša/Boğazköy were first taught in classes, soon after the German team published them, by Daniel David Luckenbill, founder of the Chicago Assyrian Dictionary. In 1926, Breasted, thinking that the Hittites were the least studied of all ancient Near Eastern empires, hired Hans Henning von der Osten to survey Anatolia and to

INDIVIDUAL RESEARCH

choose a site to excavate in Anatolia. Tales published in von der Osten's semi-popular reports of each season of explorations in the Oriental Institute Communications (OIC) series gave this section of the Congress lecture the heading "When Anatolian Studies Were a Little Too Exciting." It was amazing the amount of pressure to publish that Breasted put on von der Osten and his co-excavator of Alishar Höyük, Erich Schmidt, and the rapid series of publications that resulted. Breasted's intent to found an Oriental Institute branch in Ankara and continue excavations after 1932 in Anatolia foundered on a shrinking budget due to the Great Depression.

Meanwhile, in 1928 Breasted appointed controversial Swiss/German Hittitologist, Emil Forrer, as associate professor of Hittite. Unfortunately for the Oriental Institute, Forrer spent the three years of his contract avoiding showing up in America; not surprisingly his contract was not renewed. So in 1932 the editorial assistant of the CAD, Assyriologist and Hittitologist Arnold Walther, was promoted to assistant professor of Hittite and Hittite pedagogy at the Oriental Institute and began in Autumn 1932 with 9 am classes in OI 318. After Walther's too-early death, Hittite philology was continued through Ignace Gelb, Hans-Gustav Güterbock, Harry Hoffner, to today with Theo van den Hout and Petra Goedegebuure. A condensed version of this lecture is scheduled to appear as part of the Oriental Institute's Centennial volume.

In conjunction with the Hittite Congress, together with Oya Topçuoğlu — the CHD's then-senior lexicographic assistant (and now after getting her PhD, a lecturer at Northwestern) — Richard put together a condensed version of the lecture to form a temporary exhibit; this exhibit is currently installed in the lower level vestibule outside the LaSalle Banks room. He also contributed to discussions over the information to be displayed in the reinstallation of the Museum's Anatolian gallery.

Richard and his wife, JoAnn Scurlock, are editing the papers from a one-day Midwest American Oriental Society conference at St. Mary's University in Notre Dame, Indiana. The book is tentatively entitled *What Difference Does Time Make? Ancient, Biblical and Islamic Middle Eastern and Chinese Studies Celebrating 100 Years of the Midwest Branch of the American Oriental Society*.

In September Richard and JoAnn spent a month on a self-created tour of Iran. As on their previous two trips to Iran, they continued to build a photo archive of Iranian monuments and sights. While on their second self-planned trip to Iran, they had concentrated on Elamite, Achaemenid, Arsacid, and Sassanian rock-reliefs, this trip concentrated on Seljuk, Il-Khanid, and Timurid buildings. As before, other things were not neglected, such as Qajar houses and bathhouses, ethnographic museums, and villages. The highpoint was probably the vertical-axis windmills of Naštifan, perhaps the oldest windmills in the world. Our visit made the local newspaper.

ROBERT D. BIGGS continued to serve as co-editor of the series *Die babylonisch-assyrische Medizin in Texten und Untersuchungen* published by De Gruyter in Berlin. He spent much of the fall of 2017 reading the manuscripts for volume 9, that has now appeared as *Assyrian and Babylonian Scholarly Text Catalogues: Medicine, Magic and Divination*, edited by Ulrike Steinert. He continues to study cuneiform texts, mainly from the Third Dynasty of Ur, from small private and institutional collections.

The most satisfying event this year for **FRED M. DONNER** was his successful sponsorship of Michael C. A. Macdonald for the award of the honorary degree of Doctor of Humane Letters by the University of Chicago. Macdonald, who has for decades been the central figure in the study of pre-Islamic North Arabian inscriptions, was able to come from his home in Oxford to receive his honorary

degree at the University convocation in June, at which time he was able to meet numerous colleagues from the Oriental Institute and the University and participate in the gala ceremonies associated with the award of honorary degrees. Donner is grateful to his colleague Rebecca Hasselbach-Andee and others at the University and elsewhere who enthusiastically supported the nomination of Macdonald.

Besides his usual teaching — with courses on “The Rise of Islam and the Caliphate” and “Readings in Islamic Ritual Law” in autumn quarter and “Introduction to the Middle East” and “Islamic Origins” in the spring quarter — Donner spent a good deal of time preparing and giving lectures, mostly for specialized audiences. These included: “The Conquests of the Arabian Believers’ Movement as Historiographical Concept and Historical Reality” at a conference on the Battle of Yarmuk (636 CE) held in Tübingen, Germany, in June; “An Inscriptional Context for the Qur’an?,” delivered at the 2nd international conference of the International Qur’anic Studies Association in Tunis, in July; “Das sich entwickelnde Bild des frühen Islams und seine Bedeutung für die Geisteswissenschaften,” a plenary address to the Islamicists of the Deutsche Morgenländische Gesellschaft at its triennial conference in Jena, Germany, in September; “Early Islam and the Community of Believers: Cohesion and its Limits,” delivered at a workshop on Religion and Ethnicity held in Vienna, Austria, in January; “The Earliest Extant Arabic Letter? Some Problems in Search of a Solution,” plenary lecture for the International Society of Arabic Papyrology quadrennial conference, in Berlin, in March; and “New Directions in the Study of Islam’s Origins,” the Inaugural Donald M. Little Memorial Lecture at McGill University in Montréal, in April. His lecture on “Early Arabic Epistolography” for a workshop on documentary typologies in Zürich, Switzerland in January had to be delivered by a colleague when Donner could not attend for personal reasons. He also gave a short presentation on “Periodization” at the Early Modern graduate workshop at Chicago in April, and in March spent a pleasant week at the University of Leiden, Netherlands, participating in workshops on early Islamic history and Arabic papyrology.

Donner served as outside evaluator for tenure or promotion reviews for several universities this year, including Duke, Florida State, Ohio State, and The American University of Beirut. He evaluated one project proposal for the Union Académique Internationale (Brussels). He reviewed article manuscripts for *Journal of Near Eastern Studies*, *Der Islam*, *al-Qantara* (Madrid), *Islam and Christian-Muslim Relations*, *Bulletin of the School of Oriental and African Studies* (University of London), and book manuscripts for Edinburgh University Press, Macmillan Publishers, and the Oriental Institute. And he chaired the Oriental Institute’s search committee for a senior scholar of Ancient Iranian Studies — a search that did not result in an appointment this year, but will be continued at some time in the future.

This year Donner published a major article entitled “Talking About Islam’s Origins” in the *Bulletin of the School of Oriental and African Studies*, and shorter pieces on “The Status of the Jews of Khaybar,” “In Memoriam: Günter Lüling (1928–2014),” and “The Maturing of Medieval Islamic and Middle Eastern Studies,” in the online journal *Al-‘Uṣūr al-Wuṣṭā: the Bulletin of Middle East Medievalists*. He has also been engaged in editing for publication the papers from last year’s conference, “Scripts and Scripture: Writing and Religion in Arabia, ca. 500–700 C.E.,” which he organized with Professor Rebecca Hasselbach-Andee. It has been a busy year!

Donner was pleased to be honored, in January, by being named to the Peter B. Ritzma Professorship at the University. He will be eligible for sabbatical leave next year (2018–19), and was happy to receive fellowships in support of work on Arabic papyrology from the American Council of Learned Societies and the American Academy in Berlin (the “Berlin Prize”); these will allow him to spend January–May of 2019 researching Arabic papyri in the Berlin museums.

FRANÇOIS GAUDARD completed his twenty-fourth year as part of the Oriental Institute scholarly community. He spent a productive year, including visits to various museum collections for research purposes, and he continued to work on his two OI projects: the edition of the Oriental Institute Museum funerary shrouds from the Graeco-Roman period and the Mummy Label Database (MLD) (see separate report), as well as on several of his own text edition projects.

The OI shrouds revealed more interesting features, such as this unusual writing of the word *hnk.t* “beer” as $\text{𓆎} \text{𓆏} \text{𓆐}$ instead of $\text{𓆎} \text{𓆑} \text{𓆐}$, the latter being a Graeco-Roman variant of the common spelling $\text{𓆎} \text{𓆑} \text{𓆐}$ (see *Wb.* III, 169). The sign 𓆑 , which usually reads as *g*, is used here with the value *k* (see, e.g., D. KURTH, *Einführung ins Ptolemäische: Eine Grammatik mit Zeichenliste und Übungsstücken*, Teil 1, Hützel, 2007, p. 426, no. 24. Note that *k* and *g* are also interchangeable: see, e.g., *ibid.*, p. 534, §27), while the sign 𓆏 , which usually reads as *nw*, is used here with the value *n* (see, e.g., *ibid.*, p. 428, no. 37). Moreover, we are dealing with a permutation of the signs 𓆏 and 𓆑 (see, e.g., S. CAUVILLE, *Dendara: Le fonds hiéroglyphique au temps de Cléopâtre*, Paris, 2001, p. 7).

François kept contacting museums and private collections around the world in order to track lost mummy labels and complete the Mummy Label Database. From September 5 to 8, 2017, he attended the annual meeting of CIPEG (International Committee for Egyptology), dedicated to “The Role of Curators in Museum Research and Exhibits: Tradition, Change, and Looking to the Future,” and held at the Oriental Institute of the University of Chicago. As always, François served as an editorial consultant for Egyptology articles published in the *Journal of Near Eastern Studies* (JNES) and the *Journal of the American Research Center in Egypt* (JARCE). He has also been working on various articles, including the following ones, which have been published, are in press, or are in preparation:

- “The Camel as a Sethian Creature.” In *Essays for the Library of Seshat: Studies Presented to Janet H. Johnson on the Occasion of Her 70th Birthday*, edited by Robert K. Ritner, pp. 41–52. *Studies in Ancient Oriental Civilization* 70. Chicago: The Oriental Institute, 2017.
- “A Greek-Demotic Mummy Label in the University of Cambridge Museum of Archaeology and Anthropology.” In *Hieratic, Demotic and Greek Studies and Text Editions. Of Making Many Books There is No End: Festschrift in Honour of Sven P. Vleeming*, edited by Koenraad Donker van Heel, Francisca A. J. Hoogendijk, and Cary J. Martin, pp. 309–13. *Papyrologica Lugduno-Batava* 34. Leiden, Boston: Brill, 2018.
- “Funerary Shrouds from Dendera in the Oriental Institute Museum of the University of Chicago, Part I: OIM E4786,” to be published in a *Festschrift* honoring a colleague (in press).
- “Funerary Shrouds from Dendera in the Oriental Institute Museum of the University of Chicago, Part II: OIM E4789,” to be published in a *Festschrift* honoring a colleague (in preparation).
- “A Demotic Accounting Text from the Ptolemaic Period” (in preparation).

He also furthered his research on several of his long-term publication projects mentioned in earlier annual reports.

Like every member in the Egyptological community, François was stunned and deeply saddened by the sudden passing of Eugene Cruz-Urbe on March 12, 2018. As an expert in the study of Early Demotic texts, Demotic graffiti, as well as the Hibis temple, Cruz made numerous major contributions to the field of Egyptology. Besides being the best colleague, he was also the most loyal friend, always so generous, helpful, and inspiring. François will never forget his kindness, good mood, unmistakable humor, and, above all, his unfailing friendship, not to mention his knowledge and many scholarly skills. Fortunate are those who have known Cruz. He will be sorely missed.

MCGUIRE GIBSON has finished the last of the manuscripts devoted to English translations of Iraqi archaeologists' excavations. Not as elaborate as the Nimrud Queens' Tombs volume, the present work will encompass two separate but connected reports on sites located in the Diyala Region, east of Baghdad. The Oriental Institute dug four sites in that area in the 1930s, including Tell Asmar, which was ancient Eshnunna. Eshnunna was an important capital of a local dynasty at the time of Hammurabi of Babylon and his predecessors. One of the reports in the present volume, by Hussain Ali Hamza, records a small site called Muqdadiya, which was a dependency at some periods of Eshnunna. The second report, by Salah Rmeidh, is concerned with new excavations carried out by him at Tell Asmar itself. This volume is being submitted to the OI editorial office in the next week or two. He has already turned his attention, once again to the manuscripts of his own backlog of reports on work done at Nippur and elsewhere.

An important event during the past academic year was the conference organized and chaired by Gibson at the Neubauer Collegium on May 23–24, 2018. Entitled Long-Term Environmental and Social Change in Mesopotamia Integrating Evidence from Ancient Texts, Archaeology, and Natural Science, this conference reported on the results of a research grant given by Neubauer to Gibson and a group of collaborators in the US, UK, and Iraq. The project included the taking of sediment samples in Iraq by Iraqis, coordinating with Mark Altaweel and Stephen Lintner (University of London) through Jaafar Jotheri (University of Qadissiya, Iraq). Other sediment samples that had been collected and stored in the US by Lintner in the 1970s, when he was part of the Nippur team, were also analyzed by Anke Marsh (London), and the combined samples gave great new information on environmental conditions in southern Iraq. This information was put into a broader context by the work of Dominik Fleitmann (University of Reading), which results in the best environmental record ever derived for Iraq over more than 10,000 years. Cuneiform scholars involved in studies of irrigation and land management — Hervé Reculeau (Chicago), Stephanie Rost (NYU), Stephen Cole (Northwestern), and Magnus Widell (Liverpool) — presented complementary data, and two specialists in the Ottoman period — Isacar Bolanos (Ohio State) and Faisal H. Husain (Georgetown) — showed that research within administrative records of any period could give great insights in traditional methods and administrative oversight.

PETRA M. GOEDEGEBUURE presented the final results of her work on the rise of split-ergativity in Hittite as key note speaker at the 29th West Coast Indo-European Conference, Los Angeles (The Universal Packagers *-ant-* and *-a-*, and Split-Ergativity in the Anatolian Languages). She argues that the reorganization of Hittite syntax into a split-ergative system was the result of the reanalysis of a morpheme that originally turned masses and collectives into individuals into an ergative case marker for neuter nouns. The study of split-ergativity is part of a larger project, Expressing Agency and Point of View: The Core Cases in the Ancient Anatolian Languages, 1700–300 BCE, awarded an ACLS (American Council of Learned Societies) fellowship for academic year 2018–19. Hittite morphology and syntax was also addressed in two works in progress (article: “Studies in Hittite Syntax: The Old Hittite Genitive on *-an* and the Local Adverb *tapuša* ‘alongside’”; conference presentation: “*kuit=a* ‘but as for’, Old Hittite Marker of Extra-Clausal Constituents”).

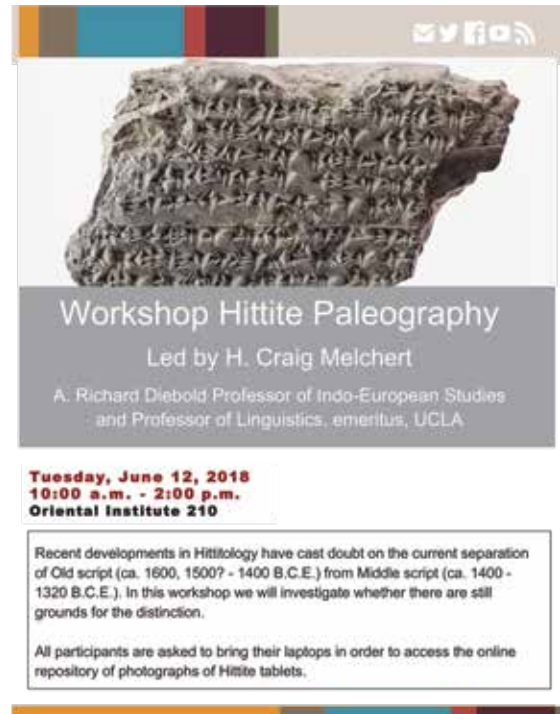
The latter study will be published in the proceedings of the Xth International Congress of Hittitology, held in Chicago, August 28–September 1, 2017. This triennial conference was organized by the members of the Chicago Hittite Dictionary Project and the graduate students of the Anatolian Studies program. Petra created the conference website, and handled registration and accommodation, but also almost all correspondence. Together with the students she worked on the program

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and the book of abstracts. As part of the preparations for the conference, Petra fulfilled advisory roles for a mini-exhibit in the Henrietta Herbolsheimer M.D. Syro-Anatolian gallery of the Oriental Institute Museum, connecting artifacts and dictionary entries; the refurbishing of the Alişar case in the Syro-Anatolian gallery; and the refurbishing of the writing case in the same gallery.

Several manuscripts on a wide variety of topics were submitted for publication, are in press, or were published. The topics covered pure philology (“A New Join to a Hittite Festival of Thunder: KBo 31.183 + KBo 34.185 + KBo 20.61 (CTH 631),” *N.A.B.U.* 2017/2 (juin): 105–07), the decipherment of two Anatolian hieroglyphs that until now could not be read (“The Hieroglyphic Luwian Signs *128 (AVIS ‘bird’) = wa and *30 = HAPA.” Forthcoming in: *Acts of the IXth International Congress of Hittitology 2014*), history of religion (“Dynastic, State, and Popular Religion in Hittite Anatolia.” Forthcoming in Tawny Holm (ed.), *Oxford Handbook of Religions in the Ancient Near East*), and, last but not least, the submitted final volume of the letter Š of the *Chicago Hittite Dictionary*. Among other things, Petra was responsible for the conjunction šu. Petra could show that this conjunction, which hitherto was not believed to have a real meaning, marked a cause-effect relation, and should be translated as ‘so (that)’ (see further Project Reports).

The correct dating of texts based on paleography is an important aspect of writing entries for the CHD. Petra organized a workshop Hittite Paleography, featuring Craig Melchert, one of the external CHD consultants, to share the results of his recent investigations. The workshop led to a better understanding of which sign forms can be used to date texts.



Hittite Paleography workshop poster.

For **GENE GRAGG**, the principal research effort during the year has been on the data, and data-manipulating routines of the Afroasiatic Morphological Archive (AAMA). Preparation for an online Afroasiatic and Semitic Digital Humanities Conference to be held in July has prompted a deeper examination of the Afroasiatic (or AfroAsiatic or Afro-Asiatic) scope of the AAMA project, and a re-examination of the place of a project like this in the context of the current vast expansion of digital humanities resources. This motivates a reworking of its current primary web presence (still <https://aama.github.io>, now in addition linked with a video demo of the project’s web application). It has been possible now for a number of years to download project language-data files and application files, and to install an AAMA datastore on individual computers, but it is becoming clear that if AAMA is going to be in a position to interface with related digital humanities projects especially involving lexical resources, it is now essential to get an AAMA RDF datastore and its web application hosted online.

ALEKSANDRA HALLMANN joined the Oriental Institute in September 2017 as postdoctoral scholar (2017–19) just after finishing her ten-month tenure as a postdoctoral scholar at the American Research Center in Egypt, financed by the National Endowment for the Humanities. Her main task was to organize the 14th Annual University of Chicago Oriental Institute Seminar, *Outward Appearance vs. Inward Significance: Addressing Identities through Attire in the Ancient World*. The symposium, that was held March 1–2, 2018, explored dress studies in the ancient world, searching for cross-cultural patterns in dress behavior. The goal of this conference was to construct definition(s) of the clothed self and to investigate multiple trajectories of the dress' role in the construction of various identities in the ancient world.

Aleksandra spent November 2017 and March 2018 in Egypt pursuing her fieldwork related to her main research interest that is the iconography of Kushite and Saite monuments in the Theban area. The fieldwork for the project was conducted in the framework of the Epigraphic Survey of the Oriental Institute of the University of Chicago at the temple of Medinet Habu, as well as in the framework of the Mission "Osirian Sanctuaries at Karnak" and the Franco-Egyptian Center at the temple of Karnak. Her fieldwork was funded by the National Science Centre of Poland in the form of Grant Harmonia 8 (016/22/M/HS3/00354) for international cooperation between the Institute of Mediterranean and Oriental Cultures of the Polish Academy of Sciences (Warsaw) and Institut français d'archéologie orientale. The field seasons in Medinet Habu focused on making an extensive documentation of the God's Wife portrayals depicted in their mortuary chapels. The main goal was to conduct a computerized epigraphic survey of the surviving decoration using the photogrammetric software Agisoft PhotoScan and to make orthomosaics of particular scenes that will be used to make digitalized drawings of God's Wives depictions (see photo).

Aleksandra participated in the 69th Annual Meeting of the American Research Center in Egypt, held in April in Tucson, where she presented results of her project "Iconography of God's Wives: The Association between Image and Idea" that she started as an American Research Center in Egypt (ARCE) postdoctoral fellow and that she is continuing as postdoctoral scholar at the OI.

Two of Aleksandra's publications were published this year: "The Osirian Chapels at Karnak: An Historical and Art Historical Overview Based on Recent Fieldwork and Studies," co-authored with Laurent Coulon and Frédéric Payraudeau, in *Thebes in the First Millennium B.C.: Art and Archaeology of the Kushite Period and Beyond*, edited by E. Pischikova, J. Budka, and K. Griffin, (GHP Egyptology 27, London 2018): pp. 271–93, as well as "Tissu en lin peint de Sennefer," in *À l'œuvre on connaît l'artisan... de Pharaon ! Un siècle de recherches françaises à Deir el-Medina (1917–2017)*, edited by H. Gaber, L. Bazin Rizzo, F. Servajean, (SilvanaEditoriale, Milano, 2017): pp. 92–94.

One of the main foci of the academic year was ongoing work on the final version of the book manuscript based on Aleksandra's dissertation, which was accepted to be published by



Orthomosaic of the North-West wall of the cella's corridor of the chapel of Ameniridis at Medinet Habu by Aleksandra Hallmann.

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the Oriental Institute. The PhD thesis “The Representation of Private Costume in Egyptian Art from the 25th to 31st Dynasty,” was defended in June 2015 at the University of Warsaw, Poland, and won the Prime Minister’s Award of Poland for one of the best dissertations of the year.

Aleksandra is currently preparing a paper, “Unwrapping Ancient Egyptian Fashion,” for the fall edition of *Oriental Institute News & Notes*, as well as the chapter “Les divines Adoratrices: parure et iconographie” for a book *Chanteuses, adoratrices et prêtres d’Amon à Thèbes. Une société égyptienne mille ans avant notre ère. Une exposition pour le Musée des Beaux-Arts de Grenoble, en collaboration avec le Musée du Louvre*, edited by Florence Gombert-Meurice and Frédéric Payraudeau.

This academic year, **REBECCA HASSELBACH-ANDEE** was involved in organizing a conference on Akkadian Historical Linguistics at the University of Texas at Austin that convened in March 2018. The meeting was a successful two-day gathering of international scholars who share an interest in Akkadian language and linguistics.

She furthermore presented a couple of lectures at the University of Chicago, one at the Oriental Institute’s Connections Seminar series, for which she talked about multilingualism and diglossia in the ancient Near East, and the other at the Language Variation and Change workshop organized by the Department of Linguistics, where she presented a talk on a morpheme that has been suggested to reflect a Proto-Semitic dative marker. Hasselbach-Andee argued that the morpheme is not a case but an adverbial marker originally and dismissed the idea of a Proto-Semitic dative-case.

In terms of research, Hasselbach-Andee continued to work on three book projects. Two of these are volumes that she is editing, one being *A Companion for Ancient Near Eastern Languages* for Blackwell Wiley, for which she is the sole editor, and the second is the *Proceedings of the Conference on Script and Scriptures*, which she co-organized with Fred Donner last year. Both edited volumes are almost completed. In addition, she finished her translation and revision of Josef Tropper’s *Ge’ez Grammar*, the manuscript of which has been submitted to the publisher.

In addition to these academic tasks, Hasselbach-Andee continued to serve on the Oriental Institute’s Publications Committee and as associate chair for Graduate Studies for the Department of Near Eastern Languages and Civilizations.

During the academic year 2017–18, **JANET H. JOHNSON** continued work with the Chicago Demotic Dictionary (see separate report), the Handbook of Magical Texts Project (directed by Chris Faraone and Sofia Torallas-Tovar of the Classics Department and funded by the Neubauer Institute; Jan is preparing the translations of the relevant Demotic texts while her student Ariel Singer has prepared marvelous integrated transliterations of these texts indicating their use of not only demotic script but also hieratic, hieroglyphic, old Coptic, and a cryptic script), and the preparation of *Women in Ancient Egypt, a Sourcebook*, to be published by the Society for Biblical Literature in their series “Writings from the Ancient World.” For the latter she has prepared over 150 translations of texts written by(?), for, about, or including women from the Old Kingdom into the Ptolemaic Period. Each translation is accompanied by background information (date of the text, genre of the text, provenience of the text, etc.) and an analysis of the social and cultural implications of the text for the study of women in ancient Egypt.

She gave a preliminary report on this Sourcebook at the annual meeting of the American Research Center in Egypt, inviting colleagues, students, and others to send her the names of texts they would

like to see included in the volume. She was also able to speak directly with several colleagues who work extensively in Egyptian gender studies and has made arrangements for a couple of colleagues who teach introductory classes on women or gender in ancient Egypt to test the “workability” of the entries before the volume is submitted. During the annual meeting, Jan was also very privileged to receive a “Distinguished Service Award” from ARCE (American Research Center in Egypt) for her work with the organization over the years, an award of which she is very proud.

Jan remained a member of the OI Policy Committee, served on the Renewal Committee for Assyriologist John Wee, and served as an interviewer for the College for the University of Chicago finalists for Fulbright Fellowships. As has become regular, she gave a presentation on “Gender Studies, from an Egyptian Perspective” for the new MA students in their introductory course “Approaches to the Study of the Ancient Near East.” She was pleased to supervise the work of one undergraduate writing a BA paper, one MA student writing her Master’s Thesis, and one student who completed her PhD. In addition to students in NELC and Anthropology on whose dissertation committees she continues to serve, she is a member of committees for students in both Oslo, Norway, and Leiden, the Netherlands.

This year **W. RAYMOND JOHNSON** completed his fortieth year working in Egypt, his thirty-ninth full year working for the Epigraphic Survey in Luxor, and his twenty-first season as Chicago House Field director. Ray was very pleased to contribute an article “An Indurated-Limestone Sphinx Fragment of Nefertiti in the Luxor Temple Blockyard,” in *Essays for the Library of Seshat; Studies Presented to Janet H. Johnson on the Occasion of Her 70th Birthday*, ed. Robert K. Ritner, SAOC 70 (2018). Ray published more preliminary results of his Amarna Talatat Project this fall with “Fresh Evidence for an Akhenaten/Nefertiti Coregency,” in *KMT: A Modern Journal of Ancient Egypt* 29, no. 1 (spring 2018), 71–76. He also contributed his opinion to the current forensic facial reconstruction — and proposed identity — of the mummy of the Younger Lady found in KV35 in “Further Thoughts on the Younger Lady Forensic Reconstruction,” *KMT* 29, no. 2 (summer 2018); also *Nile Magazine* #14 (June–July 2018). He is currently working on “An Assessment of the Limestone Talatat Found in the Pennsylvania Talatat Magazine, Karnak: Use and Reuse,” in *The ARCE Karnak Talatat Magazine Project*, editor Jocelyn Gohary (American Research Center in Egypt, forthcoming). This summer Ray’s research associate status changed to research associate professor.

During the 2017–18 academic year **MORAG M. KERSEL** was an Oriental Institute Affiliate with the Galilee Prehistory Project (GPP). The summer of 2017 was spent investigating the site of Tel Nes/Tell Sanjak (see the GPP submission in this report) and working on publishing the excavation of Marj Rabba (2009–14) and the Wadi al-Ashert survey (2015). Through these various projects the GPP is examining the dramatic changes in villages, ritual sites, and mortuary practices during the Chalcolithic period (ca. 4500–3600 BCE) in the Galilee in Israel.

Another research focus is the presentation of the past to the public — museum exhibits of archaeological sites and artifacts. A museum under study is the Museum of the Bible in Washington, DC. Kersel’s interest led to an OI Docent book club appearance (alongside Brian Muhs) to discuss Candida Moss and Joel Baden’s *Bible Nation: The United States of Hobby Lobby* (Princeton 2017). During the lively meeting about twenty people debated various aspects of the book including the Green family (owners of Hobby Lobby) and the Museum of the Bible (funded by the Green family). Vigorous discussion over topics included the Green acquisition of thousands of biblical antiquities and the recent forfeiture of some of this material in a legal complaint with the excellent title of *United States v. Approximately Four*

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Morag Kersel and Brian Muhs discussing Moss and Baden's *Bible Nation: The United States of Hobby Lobby* with the OI book club.

Hundred Fifty Ancient Cuneiform Tablets, et al. The defendants in this case were ancient clay and stone artifacts, probably originating in Iraq, but labeled as “tile samples from Turkey,” which were stopped upon entry into the US. The docents were surprised by the Green family’s use of false declarations on the shipping label. Conversation focused primarily on the Greens/Hobby Lobby acquisition of artifacts, although the millions of dollars that the Greens spent to increase the Bible’s influence in the USA caused perhaps even greater concern among the OI readers. Every-

one agreed that the investigative reporting by Moss and Baden provided excellent insights into the Green’s efforts to modify public schools curriculum to include the Bible. The last half of the book club was spent examining the ethical issues surrounding the acquisition and public display of undocumented artifacts. This rousing examination of a thought-provoking read left people with more questions than answers and perhaps a greater awareness of ethical issues related to objects on display. The summer issue of *News & Notes* 238 includes a piece on the myriad rationales for looting archaeological sites, including the long-entrenched myth of lost gold. As a part of her larger project tracking the transnational movement of artifacts (followthepotsproject.org), Morag discusses the hunt for gold at archaeological sites and the devastating effects on landscapes, resulting in an incomplete understanding of the past. Kersel was a keynote speaker at the University of Michigan/University of Witwatersand Mellon Workshop on Decolonizing Sites of Culture in Africa and Beyond, presenting “Beyond ‘West Knows Best’: Decolonizing Archaeological Site Protection in the Middle East.” In January, she was elected as an Academic Trustee of the Governing Board of the Archaeological Institute of America, the nation’s largest archaeological organization.

GRÉGORY MAROUARD dedicated his eighth year as research associate at the Oriental Institute to his fieldwork projects in Egypt and academic research, lectures, and publications.

He spent about four months on excavations in Egypt this year. Because of a significant delay in the deliverance of the security clearance, his season on the settlement area at Dendara, originally scheduled between early September and mid-October 2017, was unfortunately canceled and postponed to next fall 2018.

Between mid-October to early December 2017, he conducted as co-director with Nadine Moeller the sixteenth season of the Tell Edfu project in Upper Egypt (see Tell Edfu report *infra*).

Then, in December 2017 he joined Chicago House and the Epigraphic Survey for about two weeks in order to conduct an archaeological evaluation with Nadine Moeller of the remains located outside of the precinct of Ramesses III mortuary temple at Medinet Habu. He mainly focused his extensive exploration on the area of the mortuary temples of Ay and Horemheb, that Uvo Hölscher had excavated between November 1930 and spring 1931 but left partially unexcavated. He also focused his observations on the remains of a settlement from the mid-Eighteenth Dynasty (period of Amenhotep III, ca. 1400–1350 BC) that still lie beneath those two buildings. The aim of this operation was also to

reactivate the former Architectural and Archaeological Survey that Chicago House and the Oriental Institute conducted in Medinet Habu area in the late 1920s and early 1930s. The renewal in the coming years of this fieldwork program is strongly necessitated in order to face the significant challenges on Egyptian heritage and increasing preservation emergencies in this specific part of the Theban West bank, for which archeological expertise is essential.

In the course of winter and spring quarters 2018, Grégory joined for a second time Chicago House and the Epigraphic Survey in order to conduct a short intervention on the Western High Gate area at Medinet Habu (a project piloted since 2014 by Chicago House Egyptologist Jennifer Kimpton). He conducted archaeological cleanings on both the southern and northern massive towers of the western gate and made numerous architectural observations about the construction techniques and foundation system of this fortified entrance of the Ramesses III mortuary temple.

Then Grégory joined his French colleagues from Paris Sorbonne University and the French Institute in Cairo (IFAO) for the eighth season of excavation at Wadi al-Jarf, the harbor of King Khufu on the Red Sea coast. He pursued his work on the workmen barracks area in Zone 5 started in 2016. Despite a shorter campaign, this excavation was very successful again and led to the discovery of the oldest occupation levels ever discovered at the site, which date back from the reign of King Snofru, first ruler of the Fourth Dynasty (ca. 2650–2600 BC) and who is well-known for his three pyramid projects at Meidum and Dahshur. It is now possible to confirm the hypothesis that this port, the oldest in the world so far, was originally founded by Khufu's father and predecessor.

Since last spring 2018, Grégory is also engaged with Nadine Moeller on a new collaborative project between the University of Chicago and Fermilab on the site of the Great Pyramid of Khufu at Giza. This ongoing work is also the occasion for an increasing scientific collaboration with the archaeological work of the Giza Plateau Mapping Project and AREA team, directed by OI Research Associate Mark Lehner (see Giza Plateau Mapping Project and personal report *infra*).

Grégory worked on multiple fieldwork reports, articles and monographs and gave several lectures this year.

Last summer 2017, Grégory submitted a contribution to the fourth volume on the Ayn Sokhna excavations (IFAO) at the Red Sea Coast, dedicated to the study of an important deposit of crucibles used during the early Middle Kingdom (ca. 2000 BC) for the transformation of copper. He significantly progressed in the preparation of the collective publication of eight seasons of excavations at the Greco-Roman settlement site at Buto, in Lower Egypt, with a manuscript that will be submitted for publication next fall 2018.

After the international conference *AcrossBorders: From Microcosm to Macrocosm: Individual Households and Cities in Ancient Egypt and Nubia*, held in Munich in September 2017, Grégory submitted with Nadine Moeller an extensive joint article about their recent archaeological work at Tell Edfu and Dendara: "The Development of Two Early Urban Centers in Upper Egypt During the 3rd Millennium BC: The examples of Edfu and Dendara." Another contribution about their excavation results at both sites has been submitted in June 2018 for the proceedings of the seventh Old Kingdom Art and Archaeology (OKAA) Conference held in Milan in July 2017.

Last fall 2017, Grégory published a short overview about his recent discoveries of the Pre- and Early Dynastic phases at Dendara in: "Dendara at Its Origins. New Evidence for a Pre- and Early Dynastic Settlement Site in Upper Egypt," *Near Eastern Archaeology* 80.3, 166–75. He briefly described his results of photogrammetry survey assisted with a drone at Dendara in: "Dendara from another Perspective. The Use of Remote Technologies in the Field in Egypt," *OI News & Notes* 235, pp. 12–15.

In December 2017, he published with Pierre Tallet a synthetic joint article in German about his archaeological work on King Khufu's harbor on the Red Sea coast: "Der Hafen des Cheops am Wadi el-Jarf," *Sokar* 35.2, 2017, pp. 14–27.

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In February 2018, Grégory was invited by the Semitic Museum at Harvard and the Harvard Museum of Science and Culture for a lecture about his archeological work on the Red Sea Coast at Wadi al-Jarf. He was also invited to give several lectures at the AIA Chapter at Toledo and at the University of Wisconsin-Lacrosse about his recent excavation work on the Red Sea and at Tell Edfu and Dendara.

Late April 2018, Grégory was invited by the Department of Classics at Cornell University to the conference *Better to Dwell in Your Own Small House: Households of Ptolemaic and Roman Egypt in Context*. He gave a lecture related to his research about the “Tower-houses of Hellenistic Period in the Delta and Fayum Agglomerations: A Solution to the Urban Pressure within Egyptian Towns and Villages.”

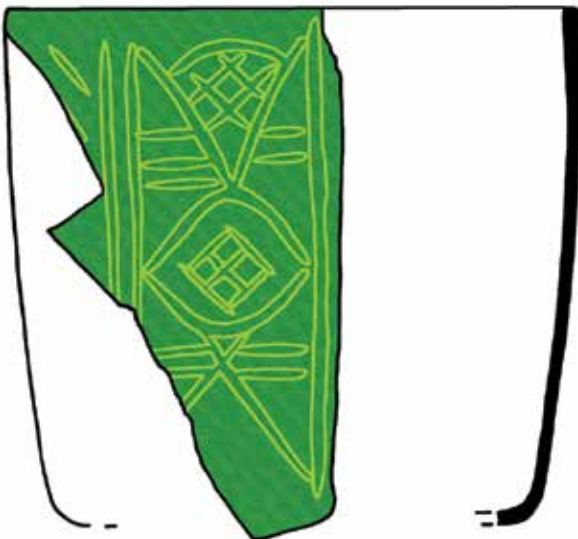
In collaboration with Pascale Ballet and Sylvie Marchand, Grégory also submitted a joint article in French about “*Mobiliers et espaces urbains dans l’Egypte Greco-romaine*” in the proceedings of the international conference *Les mobiliers archéologiques dans leur contexte, de la Gaule à l’Orient méditerranéen: fonctions et statuts*.

Lastly, at the end of June, he submitted a joint article (for the *MDAIK Journal of the German Institute in Cairo*) on the results of extensive statistical survey carried out between 2012 and 2015 on the archaeological site at Bouto, in the Western Nile Delta.

CAROL MEYER continued research on the massive corpus of glass from Aqaba. To date she has processed all the material from eight and a half out of eleven field seasons by the Oriental Institute and the University of Copenhagen for a total of 8,639 database entries or 13,129 sherds, 1,295 inked drawings, 67 photographs, and a newly added table of comparanda.

Why spend so much effort on early Islamic glass sherds? For one, after potsherds glass can be numerically the most common category of artifacts at Near Eastern sites later than the first century. It has the potential to be as useful for dating as ceramics; glass vessels generally have a shorter use life than ceramic ones. Until the recent availability of databases, however, the sheer abundance of glass sherds prevented study of anything but a few special types. Another problem has been the relative neglect of Islamic archaeology until fairly recently. The careful excavation and good stratigraphy at Aqaba (Umayyad through Fatimid times) can help narrow the dating of glass types from a vague

range of centuries. A short article in *Journal of Glass Studies* 59 (November 2017) on a group of early Abbasid glass from Aqaba was a first step in this direction. The final, large, dated typology of Aqaba glass will be a resource for excavators in the region. Secondly, glass is a good medium for trade studies. Glass vessels were manufactured at fewer workshops than pottery, and raw glass was produced at even fewer sites. For this reason, Laure Dussubieux of the Field Museum tested twenty-six examples of a distinctive, lead-rich emerald green glass by LA-ICP-MS analysis. Emerald green glass is found from Tunisia to Denmark to Java, but the Aqaba corpus is the largest one studied to date and may help determine where the raw glass came from. Meyer and Dussubieux



Emerald green cup with cut decoration.

plan to submit the results in another short article to *Journal of Glass Studies*. Not only goods but also ideas are traded — an export of technology. For instance, distillates were important in Islamic medicine and science, and the distribution of glass alembics can indicate where this technique was actually practiced. The new comparanda table added to the database will further this study.

Meyer also reviewed a major manuscript on glass for publication and assisted in the OINE publication project. Finally, the results of the Bir Umm Fawakhir excavations in Egypt are still being disseminated, most recently in e-book format by the Collège de France in French and English (<https://books.openedition.org/cdf/5185>).

In the fall quarter, **NADINE MOELLER** started chairing the Centennial Committee, which has been tasked by Chris Woods with the planning for the Oriental Institute Centennial celebrations that will take place in the academic year 2019–20. The committee has since then met several times and started working on the fundraising, gala, special events, and lectures in addition to a publication, which will all be part of the year-long celebrations of the 100 years since the foundation of the Oriental Institute.

She also gave multiple lectures this year presenting the recent research results from the excavations at Tell Edfu and Dendara together with Grégory Marouard, which started with the Old Kingdom Art and Archaeology (OKAA) conference at Milan in July. This was also a great opportunity to connect with European colleagues and discuss new research initiatives. She participated as an invited speaker in the international conference Across Borders: From Microcosm to Macrocism: Individual Households and Cities in Ancient Egypt and Nubia, organized by Julia Budka (Ludwig Maximilian University, Munich). In November, she was invited to speak at the Urban Art and Urban Forum, which is part of the Mellon Foundation Sawyer Seminar, on “Dynamics between Urban Space Art: The Role of Walls in Ancient Egypt.” This was a stimulating venue since it involved mainly colleagues from art history and provided an interesting comparison between ancient and modern art. At the end of February, she and Grégory were invited to give a lecture at the University of Wisconsin at La Crosse on the recent discoveries at Edfu and Dendara. Later in March, Nadine traveled to the East Coast and gave two lectures in New York: one at the Aegean Colloquium at the Institute of Fine Arts on the Ahmose Tempest Stele and its implications for the absolute chronology of Egypt in relation to the Thera eruption, and a second lecture at Columbia University on the discovery of the Khayan sealings at Tell Edfu and the history of the Second Intermediate Period (ca. 1700–1550 BCE) in Egypt. The last lecture of this academic year Nadine gave was in April at Yale University where she also attended a conference on New Perspectives in Environmental History. Towards the end of April, she joined the Annual Meeting of the American Research Center (ARCE) at Tucson, Arizona, where she participated in multiple meetings in her capacity as a member of the Board of ARCE.

As far as publications and editing work are concerned, Nadine spent a week in Munich in July working with Karen Radner and Daniel Potts on the *Oxford History of the Ancient Near East* volumes which will be published by Oxford University Press. The main task during this meeting involved inviting the potential contributors for three of the five volumes. She and Grégory also prepared two long articles focusing on the origins of the early cities at Edfu and Dendara for the proceedings of the OKAA and Across Borders conferences respectively. The edited volume (together with Irene Forstner-Müller, Austrian Archaeological Institute, Cairo) on the workshop revising the reign of the Hyksos ruler Khayan is finally in press and will be published by early fall 2018.

In terms of archaeological fieldwork, Nadine spent some time in October and December participating in the ongoing fieldwork at Tell Edfu, even though her time on site was more limited this year

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because of administrative work that needed to be done in Chicago. In December, she carried out a first brief survey together with Grégory at the mortuary temple of Aye and Horemheb in Egypt, which is a concession still held by the Oriental Institute. This preliminary survey had the aim to get a better idea about the current state of the site and its potential for a future fieldwork project there that would complement Hölscher's work during the 1930s.

Early December, Nadine received the good news about the award of a new collaborative research project *Coping with Changing Climates in Early Antiquity: Comparative Approaches between Empiricism and Theory*, led by Hervé Reculeau. This award is part of the research initiative *The Work of the Humanities in a Changing Climate*, which has been promoted by the Humanities Without Walls consortium (for further details see H. Reculeau, N. Moeller, *Coping with Changing Climates in Early Antiquity*, this volume).

And last but not least, in the spring quarter, Nadine was officially informed by Robert Zimmer, president of the University, and John Boyer, dean of the college, that she had been awarded the Llewellyn and Harriet Manchester Quantrell Award for Undergraduate Teaching. This award is based on letters of nominations from students. She was also elected interim chair of the Department of Near Eastern Languages and Civilizations for the next academic year 2018–19 replacing Franklin Lewis. In addition, she was offered the position of academic director of the UChicago Paris Center for one year (for the academic year of 2019–20), which she was happy to accept.



Nadine, awarded the Llewellyn and Harriet Manchester Quantrell Award for Undergraduate Teaching.

BRIAN MUHS published one article, “Ancient Egyptian Cuisine,” in the *Oriental Institute News & Notes* 237 (spring 2018), pp. 12–16. He submitted two more articles, namely “Imprisonment, Guarantors, and Release on Bail in the Ptolemaic Fayum,” (eds.) Sandra Lippert, Marie-Pierre Chaufray, Ivan Guermeur, Vincent Rondot (eds.), in *Proceedings of the Conference, ‘Le Fayoum: Archéologie, Histoire, Religion,’ held at Campus CNRS, Montpellier France, 26–28 October 2016*, pp. 89–99 (Wiesbaden, Harrassowitz, to appear in 2018); and “Military Land Allotments in Ancient Egypt,” to appear in *Vestnik Drevney Istorii*, based on a paper presented in 2015.

Brian gave two lectures illustrating how legal markets for antiquities also threaten cultural property, “William Randolph Hearst’s Papyri: Collecting and Commoditizing Cultural Heritage,” at CIPEG (International Committee for Egyptology), Chicago, September 5–8, 2017; and “Papyri in Private Collections, Afterlife or Second Death? The Case of William Randolph Hearst,” at the 69th Annual Meeting of the American Research Center in Egypt, Tucson, Arizona, April 20–22, 2018. He was also a respondent at the 2018 OI Postdoctoral Symposium, *Outward Appearance vs. Inward Significance: Addressing Identities through Attire in the Ancient World*, March 1–2, 2018.

Brian collaborated with Foy Scalf on a survey of the Ayer collection of ostraca, which was split in 1903 between the Field (Columbian) Museum and the OI (Haskell) Museum, and he used the OI portion to teach a course on Demotic ostraca with the assistance of Foy Scalf, and Helen McDonald and Susan Allison in Registration. Brian also gave a four-week seminar on “Ancient Egyptian Crimes, Petitions and Trials” for the OI Continuing Education program, January 13–February 3, 2018, with both in-person and online participants, and he gave a gallery talk on “Shabtis: Servants and Substitutes” in the OI Museum Egyptian Gallery on June 7, 2018.

KIERSTEN NEUMANN, in addition to her responsibilities as curator and communications associate at the Oriental Institute, continues to do scholarly research grounded in theoretical approaches to ancient art, with an emphasis on sensory experience with respect to the visual and material culture of the ancient Near East. Her primary focus for the past year has been on her book manuscript that explores how embodied sensory experience acted as a primary contributor to processes of ritualization in the Neo-Assyrian temple. Smaller concurrent projects include articles she has written for edited volumes and journals slated for publication this calendar year. Among them is a chapter on the presentation of offerings to the gods in the Neo-Assyrian temple to be included in a volume entitled, *Distant Impressions: The Senses in the Ancient Near East*, forthcoming from Eisenbrauns. Her article on the temples of Nabu at Kalḫu and Dur-Šarrukīn, entitled “Reading the Temple of Nabu as a Coded Sensory Experience,” was accepted for publication in *Iraq*, and will appear in this year’s volume (80). She is also working on a handbook on the *Senses in the Ancient Near East*, co-edited with Allison Thomason, professor at Southern Illinois University Edwardsville. This volume draws on a three-year session at the American Schools of Oriental Research (ASOR) Annual Meeting, entitled “Senses and Sensibility in the Near East,” that Kiersten organized and chaired. Additionally, Kiersten continued to publish on objects from the OI collections, including *News & Notes* artifact highlights on a lustrous spindle bottle from Çatal Höyük, a wooden statue of the god Anubis, inscribed stone tableware from Persepolis, and the cast of the Hammurabi stela.

During the course of the year, Kiersten gave a number of public lectures, including two conference presentations and four community/campus talks. In November, she chaired the second run of the “Senses and Sensibility in the Near East” session at the 2017 ASOR Annual Meeting, in which she presented a paper on the tactile experience of the Apadana reliefs at Persepolis; she also continued as co-organizer of the “Art Historical Approaches to the Near East” session. In the same month, she was invited to give a talk — entitled “Achaemenid Art and Artisans: A Tactile Exploration of the Apadana Reliefs at Persepolis” — at the Society of Scholars of Zoroastrianism (SSZ) Conference, hosted by FEZANA in Burr Ridge, Illinois. In 2018, she attended her first ICAANE, presenting a paper on the sense of time in Assyrian temple construction in a session entitled, “Shaping the Living Space,” at the congress’ eleventh annual meeting in Munich. Kiersten also taught an introductory course on ancient Near Eastern art and archaeology in fall 2017 as part of the OI’s on-site/online course offerings.

For **JAMES OSBORNE**, the most exciting and productive aspect of this past academic year was building intellectual and professional bridges with the Aegean world, traditionally the purview of the Classics Department at the University of Chicago. Over the past several years James has come to realize that the Iron Age culture of Anatolia that he has been studying (which he has begun referring to as the Syro-Anatolian Culture Complex, or SACC) had contacts with the pre-classical Aegean world

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that have not been sufficiently recognized. Knowing that learning more about this phenomenon would require considerable background research, James first secured a grant from the Franke Center for the Humanities to co-teach a graduate seminar with Catherine Kearns in Classics dedicated to the subject of ancient Mediterranean connectivity. This provided the foundation for a two-day conference called *The Connected Iron Age: Interregional Networks in the Eastern Mediterranean, 900–600 BCE*. This event was funded with a grant from the Loeb Classical Library Foundation, along with support from the Oriental Institute. James and his conference co-organizer Jonathan Hall (Classics) invited the world's leading scholars on Mediterranean interregional interaction, all of whom gathered on campus for a remarkable two days of robust intellectual exchange. Now the hard part really begins, which is converting this exciting and dynamic event into a published volume. This process will likely take over a year to complete.

Fortunately, the upcoming academic year should provide ample time for research projects, as James was awarded a Franke Fellowship that will provide for a full academic year of research leave. Besides the *Connected Iron Age* edited volume, he anticipates that most of that time will be devoted to completing his monograph on the Syro-Anatolian Culture Complex, as well as continuing to take steps to secure a field research permit from the Turkish Ministry of Culture to allow the Oriental Institute to resume archaeological field work on the Anatolian plateau, which has not taken place in many years.

This year was also a very busy one with speaking events around the world. In the fall James was appointed the Kershaw Lecturer by the American Institute of Archaeology, which involved a lecture tour to public chapters of the AIA in Montana, Illinois, Nevada, and Iowa. He was also invited to give the A. K. Grayson Lecture on Assyrian History and Culture for the Canadian Society for Mesopotamian Studies in Toronto, in addition to lectures at the University of Wisconsin-Madison and the University of Liverpool. The academic year was rounded off in spectacular fashion with a conference devoted to *Iron Age Anatolia* that took place in Ascona, Switzerland.

This year, **SUSANNE PAULUS** was appointed as a faculty fellow at the Franke Institute for the Humanities. This fellowship gave her time to focus on her second book project, *Approaching Economic Life in Kassite Babylonia*. She worked on chapters focusing on the barley economy, loans and debts, and wealth and money in Babylonia (1350–1150 BCE). Her work profited from the interdisciplinary discussions and the friendly atmosphere of the Franke Institute.

She presented the results of her research on economic history during an invited lecture at the American Schools of Oriental Research (ASOR) Meeting in Boston in a paper titled “Investment, Debt, and Slavery.” She also presented her results during the *Rencontre Assyriologique Internationale* in Innsbruck, Austria, at a Kassite workshop which she co-organized with Elena Devecchi (Torino). This well-attended workshop focused on studies in Kassite administration and brought together junior and senior scholars studying the texts and seals of this oft-neglected period of Babylonian history. Together with Tim Clayden (Oxford), she put finishing touches on the proceedings of the first Kassite workshop; these studies will be published under the title *Studies on Babylonia under the Sealand Dynasty and the Kassites* and will include her contribution “Turn! Turn! Turn! — An Administrative Term with a Legal Connotation.”

Additionally, Susanne further developed her interest in ancient and modern forgeries, publishing a lengthy article in the *Journal of Cuneiform Studies*, titled “Fraud, Forgery, and Fiction: Is There Still Hope for Agum(-kakrime)?” This article revisits whether a potential early Kassite royal inscription is a later forgery or not. In this article, she discusses the Agum-kakrime text in the context of other Kassite inscriptions only preserved as later copies. She also completed a second article on the transmission history of the Cruciform Monument, one of the best-known Mesopotamian forgeries.

The results of her ongoing work were presented at the University of Chicago's Humanities Day and in the Ancient Civilizations workshop.

Together with Kristin Kleber (Amsterdam) and Georg Neumann (Münster/Berlin), she edited a Festschrift for her advisor and teacher Hans Neumann, titled *Grenzüberschreitungen. Studien zur Kulturgeschichte des Alten Orients*.

Finally, she has devoted much time to public engagement and the intellectual life at the OI. She gave an OI Member's Lecture on "Debt, Crime, and Prison — Daily Life in Babylonia ca. 1200 BCE," and lectured for a docent training session and the Project Archaeology Leadership Legacy Institute. She wrote "Eating like a Babylonian" for the *OI News & Notes* and gave presentations connected to her work with the Tablet Collection. She started several initiatives at the Tablet Collection to better document our tablets (see Tablet Collection report).

On sabbatical for the 2017–18 academic year, **RICHARD PAYNE** worked as a visiting researcher in the Department of Archaeology and Ancient History at Uppsala Universitet in Sweden. There he continued research and writing for a book, *The First Iranians: Religion, Empire, and Ethnicity in Late Antiquity*, a study of the relationship between empire formation and ethno-genesis and of the role of Zoroastrian institutions in providing enduring foundations for a state and its ethno-class. He also continued editing two volumes integrating archaeological and historical approaches to the history of imperial regimes in Afghanistan and the history of the Huns in Western Asia, respectively: *The Limits of Empire in Ancient Afghanistan* together with the OI's former director Gil Stein and his graduate student Rhyne King; and *The Archaeology of the Huns* together with the general secretary of the German Archaeological Institute Philipp von Rummel. His articles appeared in the following journals and books: *Bulletin of the School of Oriental and African Studies*; Marcelo Campagno, Julian Gallego, and Carlos Garcia Mac Gaw (ed.), *Capital antes el Capitalismo? Riqueza, Disigualdad y Estado en el Mundo Antiguo* (Buenos Aires, 2017); and Iris Colditz, Benjamin Jokisch, and Maria Macuch (ed.), *Spätantike Rechtssysteme im Wandel: Rezeption, Transformation und Rekontextualisierung von Rechtsbegriffen* (Berlin, 2017).

In February, he traveled to Tehran to receive the World Award for Book of the Year of the Islamic Republic of Iran from President Rouhani. During the summer of 2018, he enjoyed, for a second time, a visiting fellowship at the German Archaeological Institute in Berlin, taking advantage of the peerless library of Russophone archaeology of its Eurasienabteilung. Apart from associated talks in Tehran, he gave invited lectures at the Ruhr-Universität in Bochum, the Classical Association Conference at the University of South Africa in Pretoria, various seminars at Uppsala Universitet, the Leiden Universitet, the University of California at Irvine, the University of New Mexico, and a conference on legal pluralism and social change at Princeton University. He also organized a conference at the University of Chicago Center in Paris for graduate students from Iranian, European, North American institutions working in Iranian history, art history, and archaeology, with the goal of cultivating a more collaborative and interdisciplinary culture in the field.

Assistant Professor of Assyriology **HERVÉ RECULEAU** used his partial research leave for the autumn and winter quarters of academic year 2017–18 to complete the writing of his book *Flori-legium Marianum XVI. L'agriculture irriguée à Mari: Essai d'histoire des techniques* (Mémoires de NABU 21), Paris: Sepoa, 2018, which will be published in September 2018 by the Société pour l'Étude du Proche-Orient Ancien (<http://www.sepoa.fr>), one of the venues in charge of the publication of the

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eighteenth century BCE cuneiform archives of Mari (Syria). The book is comprised of two hard-bound volumes of 315 and 241 pages, respectively. Volume 1 presents a comprehensive study of irrigation along the “Banks-of-the-Euphrates” (the ancient name of the kingdom of Mari), with a detailed discussion of archaeological and textual evidence for large-scale canals and a systematic analysis of irrigation technology and water management (including flood control). Volume 2 offers the edition of sixty-five cuneiform tablets which, together with numerous already published documents, serve as the basis for the analyses presented in Volume 1. It is complete with indices, tables, and maps. In February–March 2018, Hervé profited of his leave to spend one month at the Collège de France in Paris, as part of an ongoing collaboration with Dominique Charpin and his team. As a result, this new material will be made available for free on the online database of Old Babylonian Archives Archibab (<http://www.archibab.fr>), in the form of lemmatized editions and high-resolution photographs.

Hervé presented his work to the OI volunteers in September 2017 with his lecture “Irrigation, a Case Study for Mesopotamian Technology,” and to colleagues and students of the University with his presentation on “Mesopotamian Water Technology, Between Texts and Archaeology” at the Ancient Civilizations Workshop in February 2018. He took part in May 2018 in the Conference on Long-Term Environmental and Social Change in Mesopotamia: Integrating Evidence from Ancient Texts, Archaeology, and Natural Science, organized by McGuire Gibson at the Neubauer Collegium for Culture and Society, with his talk “Adapting Valley Irrigation to a Changing Environment in Middle and Late Bronze Age Upper Mesopotamia.” This talk signals a return to Hervé’s long-standing interest in the study of social response to climate change in Antiquity, which he also engaged by acting as the principal investigator for the collaborative project “Coping with Changing Climates in Early Antiquity: Comparative Approaches between Empiricism and Theory” (see Project Reports). In June 2018, Hervé participated in a conference in Paris on The Old Babylonian Diyala — Research Since the 1930s and Prospects, where he presented a paper on “The Diyala Valley in the early Old Babylonian Period: New Evidence from Tell Muqdadīya.”

This year saw the publication of Hervé’s article “On Some Metrological Issues Affecting Yield Estimates in Second Millennium BCE Upper Mesopotamia,” *Journal of Cuneiform Studies* 70 (2018): 87–114 and of his review of A. E. Miglio’s *Tribe and State: The Dynamics of International Politics and the Reign of Zimri-Lim* (GSANE 8, 2014) for the *Journal of the American Oriental Society* 137/3 (2017): 611–13.

For **SETH RICHARDSON**, this year marked the start of a new multi-year project called “State and Subject in the Ancient World,” with Seth as an associate in partnership with Clifford Ando of the University’s Classics Department. The project will investigate the various dialogues of political claim and counter-claim that shaped some of the world’s first state societies. A workshop now being planned will address such concepts as political identity, personhood, and civil society in the ancient Mediterranean world. Richardson’s own near-term invited papers will also contribute towards the framing of this project through the 2018–19 year: on Mesopotamian ideas of “strangers” (Charles University, Prague, September), concepts of peace (University of Padua, November), personhood and animals in the law (Brown University, December), patronage (University of Witten, February), political participation (Freie Universität Berlin, February), taxation (Prague again, May), and citizenship (University College London, July).

In 2017–18, Seth published two articles, one note, and a book review. The first article is on changing concepts of distance and imperial knowledge entitled “‘They Heard from a Distance’: The šemû-rûqu Paradigm in the Late Assyrian Empire” (*Journal of Ancient Near Eastern History* 4/1–2: 1–33). The

second is an essay entitled “The Mesopotamian Citizen Conceptualized: Affect, Speech, and Perception,” which appeared in a major new comparative history of states entitled *State Formations* (ed. J. Brooke et al. [Cambridge, 2018]). The note appears in *Anabasis* 8, “A Note on the Name ‘Sinnaces’ and Armenian Claims on an Assyrian Royal Background”; the review is of a book about expressions of power in Assyrian royal inscriptions for the *Bryn Mawr Classical Review* (see <http://bmcr.brynmawr.edu/2016/2016-11-06.html>).

Seth gave four papers this year. First was a trip in late June to a MELAMMU conference in Blankenheim, Germany, to speak on the correlation between imperial ideology and its different uses of concepts of forever and eternity. Next, he attended the annual American Schools of Oriental Research (ASOR) conference in Boston, where he spoke on the history of community violence and issues of perception and uncertainty in terrestrial omens. He also gave a brown-bag talk at the Oriental Institute about his forthcoming work on Old Babylonian slavery.

His tasks this coming year (beyond the “State and Subject” project) include continuing work on projects such as his editions of Old Babylonian tablets; upgrades to and analyses of his personal-names index (LOB-PNI); and writing his book about presumptive states. He will also complete individual studies of piracy; on omens; and on texts concerning women in economic distress at Sippar. He looks forward to the appearance of at least four in-press articles on slavery, political concepts of legitimacy, divine emblems, and Sumerian vs. Akkadian ideas about animals, and a feature essay on ASOR’s e-Newsletter *The Ancient Near East Today*. He continues also, of course, his work as the Managing Editor of the *Journal of Near Eastern Studies* (see project reports, *infra*).

For the Oriental Institute’s exhibit catalog *Book of the Dead: Becoming God in Ancient Egypt*, edited by Foy Scalf, **ROBERT K. RITNER** published the essay “Divinization and Empowerment of the Dead” and the entry for the Roman-era “Papyrus of Shemaynefer Inscribed with a Mortuary Compendium,” a text which he is preparing for publication. Ritner’s edited volume *Essays for the Library of Seshat: Studies Presented to Janet H. Johnson on the Occasion of Her 70th Birthday* (SAOC 70) is now at the printer and will be published just after the end of this academic year. His contributions to the Institute Museum’s *Highlights of the Collections of the Oriental Institute Museum*, edited by Jean Evans, et al., appeared this past December.

Ritner’s articles now in press include the Festschrift contributions “The Origin of Evil in Egyptian Theological Speculation,” “The Supposed Earliest Hieroglyphic Mention of Israel (Berlin ÄM 21687): A Refutation,” and “The ‘God’ Ptiris and the Curses of Philae,” while a further Festschrift article is in preparation on “Jubilating Baboons and the Bes Pantheos.” With Foy Scalf, he is continuing work on “P. Michigan Inv. 1444: A Demotic Spell for Sexual Compulsion.”

For the Oriental Institute symposium *Outward Appearance vs. Inward Significance: Addressing Identities through Attire in the Ancient World*, Ritner delivered the lecture “Clothing as a Marker of Ethnic Identity: The Case of the Libyans.” He is currently preparing the text of the talk under the same title for the conference publication (OIS 15).

Ritner served on the Board of Governors and as Chicago representative of the American Research Center in Egypt. He taught five classes during the year on Middle Egyptian grammar and texts, Egyptian History, Coptic, and Ptolemaic Hieroglyphs.

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continued his two primary field projects, the Galilee Prehistory Project (GPP) in Israel and the Eastern Badia Archaeological Project (EBAP) in the Black Desert of eastern Jordan. The GPP investigated Tel Nes (Tell es-Sanjak) for a future project, discussed in the project report on the Galilee Prehistory Project. Taking a season off from fieldwork, EBAP concentrated on analysis and submitting



Yorke on tour in Jordan.

several manuscripts for publication. Currently in press, “The 2016 Excavation Season at the Late Neolithic Structure SS-1 on Mesa 7, Black Desert” will appear in *Neo-Lithics* and is co-authored with team members. Also co-authored for the *Annual of the Department of Antiquities of Jordan* (59) is “Excavation of Structure W-80, a Complex Late Neolithic Building at Wisad Pools, Black Desert.” These two publications represent the two different areas of EBAP: Wisad Pools and Wadi al-Qattafi. An additional co-authored journal article in press, “Two Glass Beads from Wisad Pools in the Jordanian Black Desert” discusses two beads found in the Iron Age tomb built on top of the Neolithic structure W-80, to be published in the *Journal of Glass Studies*. A related paper based on our research in the Black Desert is “Flamingos in the Desert,” co-authored with A. Wasse and G. Rollefson, submitted for publication in *Landscapes of Survival: Pastoralist Societies, Rock Art and Literacy in Jordan’s Black Desert*, based on a conference organized by P. M. M. G. Akkermans and A. al-Jallad held in Leiden. Also submitted and currently in press is the co-authored article “Tel Yaqush — An Early Bronze Age Village in the Central Jordan Valley, Israel” in the *Bulletin of the American Schools of Oriental Research*. A larger book project was submitted to the Cambridge University Press. Edited with Eric Cline and Assaf Yasur-Landau, *The Social Archaeology of the Levant: From Prehistory to the Present* includes thirty-three chapters, spanning the Paleolithic to recent historical periods, but including contributions on the impact of radiocarbon dating, object itineraries, and the intersection of the public, museums, and archaeology. Yorke took the lead on the introduction to this volume, and contributed his own chapter to the volume, “The Spiritual and Social Landscape during the Chalcolithic Period.” Yorke also presented papers at professional meetings, including “Droning On: UAV Survey in the Black Desert of Jordan” (with OI affiliate Chad Hill) at the annual meeting of the Society for American Archaeology in Washington, DC on April 12, 2018, and with Hill and Kersel, “Filling in the Gaps: Fifth Millennium B.C.E. Villages in the Galilee” at the Annual Meetings of the American Schools of Oriental Research in Boston on November 16, 2017. Also in fall 2017, Yorke and affiliate Morag Kersel led an Oriental Institute trip, “Journey to Jordan” that included a desert trek to Maitand’s Mesa (M-4), where the first building excavated as part of the OI’s Eastern Badia Archaeological Project is located.

The past academic year was highlighted by the opening of the special exhibit *Book of the Dead: Becoming God in Ancient Egypt*, curated by **FOY SCALF**, which opened on October 3, 2017. Accompanying the publication of the exhibit catalog, the Seminary Coop bookstore held a book launch featuring a discussion between Foy and Rita Lucarelli, assistant professor of Egyptology at the University of California, Berkeley. Segments from the in-store talk were aired on the Seminary Coop's Open Stacks podcast #25 "Books of the (Un)Dead," which remains available on the web and in iTunes. A second event was held at 57th Street Books to celebrate the closing of the exhibit on March 31, 2018, at which local writers — organized by Samantha Clark — read from original work inspired by the exhibit. The exhibit was well received and included over three dozen curator-led tours by Foy for a variety of groups, including University of Chicago Humanities Day, the office of the Provost, ARCE (American Research Center in Egypt) Chicago chapter, International Women Associates, the Newberry Library, Young Professionals, Field Museum, and many others.

Foy resurrected the series of Oriental Institute cemetery walks by leading groups through not only the very famous Egyptian revival tombs at Graceland cemetery, but also the little-known mausoleum of the Friedley family in the Naperville Cemetery. The latter features an Egyptian temple façade design flanked by two bronze Greco-Roman style sphinxes. The Friedley family formed a metal fabrication business with the Voshardt family of Wisconsin, and the Voshardts also have an Egyptian revival mausoleum in Two Rivers, WI, which likewise includes a temple façade and sphinxes. Preparing for these walks had the pleasant result of inspiring a new research project tracing Egyptian revival elements and their family connections in midwestern cemeteries — research which will be supplemented by examining the Harold Allen Egyptomania collection at the Ryerson and Burnham Libraries of the Art Institute of Chicago.

Elements of the *Book of the Dead* exhibit were covered in Foy's adult education course for fall 2017, "Hieroglyphica: A History of Egyptology." He was joined by seventeen students for an eight-week overview of the history of the discipline, including a conversation in the special exhibit gallery about the history of research on the ancient Egyptian *Book of the Dead*, as well as a visit to the Special Collections Research Center at Regenstein library to view Renaissance and Enlightenment Era volumes about ancient Egypt. In winter, twenty-seven students braved Foy's sixteen-week course "Intensive Sahidic Coptic Grammar." Students proved so enthusiastic that they requested an additional course and fourteen students continued their study in the "Readings in Sahidic Coptic Texts" course for spring 2018. For a second year straight, Foy taught at Dominican University in their graduate program for Library and Information Science, bringing back the course on "History of the Text: Early Books and Manuscripts Up to the Age of the Printing Press." Finally, he sat in on a course taught by Brian Muhs on Demotic Ostraca in spring 2018 for NELC (Department of Near Eastern Languages and Civilizations) and assisted in leading students through both published and unpublished Demotic ostraca from the OIM, which have been previously cataloged as part of the OIDO (Oriental Institute Demotic Ostraca Online) project.

In addition to editing and authoring various articles for the *Book of the Dead* exhibit catalog, Foy published articles promoting the exhibit in *Oriental Institute News & Notes* 235 and the 2017–18 issue of *KMT* magazine. Foy continued to collaborate with Brian Muhs and Jackie Jay on their book project *The Archive of Thotsutmis: An Early Ptolemaic Demotic Archive from Deir el Bahari*, which the authors hope to submit for publication sometime in 2018. The volume edits nearly fifty Demotic ostraca in the OIM collection from the archive of a mortuary worker in the necropolis of early Ptolemaic Thebes and contextualizes the importance of the provenance of the ostraca as well as their significance for studies of early Ptolemaic Egypt.

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In summer 2017, **GIL J. STEIN** directed the Oriental Institute's excavations at the site of Surezha on the Erbil Plain in the Kurdistan Region of Northeastern Iraq. This project marks the first OI excavation in Iraq since the Gulf War of 1991. The Surezha excavation results are presented in a separate section in this volume.

As principal investigator of the Oriental Institute's Partnership with the National Museum of Afghanistan (see report in this volume) Gil made three trips to Afghanistan in 2017–18 to assess project progress, coordinate with the National Museum director and to work with field director Alejandro Gallego Lopez and the Kabul team of registrars, conservators, and consultants. This included work on the Hadda Sculptural Restoration Project, and ongoing efforts to identify what objects have been looted from the National Museum. Gil is also the principal investigator for two additional grants — the “Afghan Heritage Mapping Project” (AHMP) and the “National Museum of Afghanistan Outreach-Mobile Museum” project.

Gil continued with the working with Belinda Monahan on the publication of the Late Chalcolithic Uruk and local Jazira Late Chalcolithic ceramics from his 1992–97 excavations at the fourth millennium BC Uruk Mesopotamian colony site of Hacinebi.

Gil had several publications in the past academic year:

- Stein, Gil J.; Michael T. Fisher; Abdul Hafiz Latify; Najibullah Popal; and Nancy Hatch Dupree, editors. 2017. *Preserving the Cultural Heritage of Afghanistan: Proceedings of the International Conference Held at Kabul University, November 2014*. Chicago: The Oriental Institute.
- Stein, Gil J. 2017. “International Legal Frameworks to Protect the Archaeological Heritage of Afghanistan.” In *Preserving the Cultural Heritage of Afghanistan: Proceedings of the International Conference held at Kabul University, November 2014*, edited by Gil J. Stein, Michael T. Fisher, Abdul Hafiz Latify, Najibullah Popal, and Nancy Hatch Dupree, pp. 147–50. Chicago: The Oriental Institute.
- Stein, Gil J. 2017. “The Oriental Institute Partnership with the National Museum of Afghanistan,” *Oriental Institute Annual Report 2016–17*, pp. 143–50. Chicago: The Oriental Institute.
- Stein, Gil J. 2018. “The Roots of Urbanism in Northern Mesopotamia — 2017 Excavations at Surezha.” *Oriental Institute News & Notes* 236: 15–21.

EMILY TEETER continues to work on long-term research projects dealing with material from Medinet Habu excavated by the Oriental Institute (1926–33), especially stelae that originated from Deir el-Medina. She continues to work with Virginia Davies on a catalog of seals and seal impressions from the First Intermediate Period cemetery at Naga ed-Deir. She is also researching the history of the Egyptian collection at the Field Museum, and she continues to study the links between that collection, the Oriental Institute Museum, and the Art Institute.

Her essay “The Oriental Institute, Its Museum and Collections” appeared in *Highlights of the Collections of the Oriental Institute Museum*. She submitted two essays for the Field Museum's 125th anniversary volume and an article dealing with Egypt at the Century of Progress Exposition in Chicago in 1933–34 and Lorado Taft's “Dream Museum” for an upcoming Festschrift. She is working on the final edits for a book on the Egyptian collection at the Art Institute of Chicago. Emily also served as an outside reviewer for several European scholarly journals.

Emily consulted on the Field Museum exhibit *Interconnections in the Ancient Mediterranean* that was on view from October 20, 2017, to April 29, 2018, and also on their *Mummies* show that finally returned to Chicago on February 23 following a national tour.

In January, Emily participated in a panel discussion at the Block Museum, Northwestern University, in conjunction with “Paint the Eyes Softer,” an exhibit of Egyptian mummy portraits. In October, she gave a tour in the storage rooms of the Art Institute for members of their Classical Art Society, highlighting some of the fascinating things that have been recently discovered about certain objects. In February, she gave a lunchtime tour in the Oriental Institute galleries on “Egyptian Lives” showing the level of detail that we know about individual Egyptians.

Emily coordinated the annual meeting of the International Association of Egyptology (CIPEG), a working group of ICOM that was held at the Oriental Institute September 5–9. Forty-two people from thirteen countries attended the four-day conference presenting papers on Egyptian collections and responding to the conference theme *The Role of Museum Curators in Research, and Exhibits: Tradition, Change and Looking into the Future*.

Emily continues to serve on the Board of the American Research Center in Egypt, and she attended its annual meeting in Tucson in April. She continues to be very involved in the local chapter. She is also on the Board of the Writings from the Ancient World of the Society of Biblical Literature.

In October Emily retired from her museum position after twenty-seven years. She remains an associate of the Oriental Institute and continues to be very active in the field.

Having enjoyed his sabbatical as a Guggenheim Fellow the year before, **THEO VAN DEN HOUT** returned to the usual joys and duties of teaching, research, and committee work that a regular faculty job comes with. For his work as chief editor of the Chicago Hittite Dictionary (CHD) see the separate report in this annual report. Theo finished the manuscript of his book on *A History of Hittite Literacy: Writing and Reading in Late Bronze Age Anatolia* and submitted it to Cambridge University Press. Hopefully, after the usual peer-review, they will accept it for publication.

Theo submitted an article to the *Festschrift* of a colleague on the Hittite compound *arḫa uwe-* “to come away” as well as a written version of the paper he presented earlier this academic year (September 2017) at the conference *The Scribal Mind: Textual Criticism in Antiquity*, organized at the Institute for the Study of the Ancient World (ISAW) in New York. He also submitted a review to the *Canadian Journal of History*.

Particularly exciting he found his work on what is known as one of the most elaborate pieces of Hittite art, a silver vessel in the shape of a kneeling stag. Around its body it has a frieze depicting two deities and three worshipers. Probably found in the early 1960s and published in 1974, it has been on display in the Metropolitan Museum of Art in New York since 1983. Because the vessel stems from illicit excavations it has no archaeological context, which means that a lot of information has been lost. The elegantly shaped cup has two small, round, gold decorations with Anatolian hieroglyphs on them that thus far had been taken as “captions” identifying the two deities portrayed. The reading and interpretation of the two roundels, however, have always been debated and there is no consensus as to their meaning. Theo has now proposed an entirely new interpretation and was able, through the generosity of the Met, to study the object up close. The Met also kindly provided two radiographs of the roundels confirming his reading. Meanwhile, the Met has accepted his article for the *Journal of the Metropolitan Museum of Art*, due out at the end of this year.

Besides the paper read at the conference at the ISAW mentioned above, in March Theo delivered the keynote lecture at the Workshop on Ancient Near Eastern Royal Ideology, held at Doshisha

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University, Kyoto, Japan. Earlier, in October he gave a so-called Model Class to the parents of first-year college students during the Family Weekend at our own University about the silver stag vessel and in November an Oriental Institute Museum Gallery Talk on Hittite religious festivals. This past April he was invited for a Hittite class and a lecture to Brown University.

Since last year's annual report, two entries were published in the *Reallexikon der Assyriologie*: "Ziege. B. Bei den Hethitern" (goat in Hittite sources) in Volume 15, pp. 267–72, and "Zypern. C. Nach hethitischen Quellen" (Cyprus in Hittite sources) ibidem, pp. 369–71.

TASHA VORDERSTRASSE, thanks to the generosity of the American Schools of Oriental Research (ASOR), received an ASOR Strange/Midkiff Fellowship to participate in the excavations at Komana and Çadır Höyük in Turkey. This project occupied most of summer 2017. The purpose of this work was to look at the ceramics from the Middle Byzantine/Seljuk transition in central Turkey, which remains an understudied topic. Significant progress was made on the identification of the Middle Byzantine period and the transition in the region and comparing it with other parts of Turkey. In March 2018, she finished her work on the Antioch lamps at the Princeton Art Museum by visiting the museum for a few days.

In fall 2017, Tasha began a new position at the Oriental Institute as University and Continuing Education program coordinator (see separate report). She gave an Oriental Institute adult education class on the Silk Road to tie in with the Oriental Institute tour of Central Asia ("East Meets West: Arts of the Silk Road in Central Asia") as well as Frank Lloyd Wright's unrealized plans for Baghdad ("Frank Lloyd Wright's Vision for a Greater Baghdad"). Tasha also participated in Oriental Institute events: she gave a talk about Frank Lloyd Wright and Baghdad for the James Henry Breasted Society in fall 2017; and she performed music (which she adapted from ancient Greece and Egypt) for the Young Professionals event by Foy Scalf on the Book of the Dead which was associated with the Oriental Institute special exhibition *The Book of the Dead: Becoming God in Ancient Egypt*.

Tasha gave the following lectures: at the Hamazkayin Education and Cultural Society of Chicago in October, "Antoin Sevruguin: An Armenian Photographer in Qajar Iran"; a lecture for the 14th Annual University of Chicago Oriental Institute Seminar in March, *Outward Appearance vs. Inward Significance: Addressing Identities through Attire in the Ancient World*; and an Oriental Institute Gallery Talk in May, "Late Antique Egyptian Textiles in the Oriental Institute Museum." In addition, Tasha and Asa Eger presented their joint talk at the University of Copenhagen in June 2018, "Gaps or transitions? North Syrian/South Anatolian ceramics in the Early, Middle, and Late Islamic periods."

The following articles were published this year: H. Friedman, T. Vorderstrasse, R. Mairs, and R. Adams, "Fragments of an Arabic Papyrus from Khirbet Hamrā Ifdān." *Arabian Archaeology and Epigraphy* 28.2 (2017): 1–11; "Qajar Iran between Tradition and Modernity: Late Nineteenth-Century Photographs of Antoin Sevruguin." *Oriental Institute News & Notes* 236 (2018): 4–10; "Roman Textiles and Heritage in Syria." In *Cultural Heritage Care and Management: Theory and Practice*, ed. C. L. Salvatore, 71–82. Rowman & Littlefield: Lanham, Boulder, New York, and London; and "Coins and Silk Road: The Oriental Institute Collection of Indo-Greek Coins." *Oriental Institute News & Notes* 237 (2018): 17–19.

JOHN Z. WEE is author of the following academic articles and essays in 2017–18: “Pan-as-tromonical Hermeneutics and the Arts of the Lamentation Priest,” *Zeitschrift für Assyriologie und Vorderasiatische Archäologie* 107.2 (2017): 236–60; “Five Birds, Twelve Rooms, and the Seleucid Game of Twenty Squares,” pp. 833–76 in *Magic and Medicine in Mesopotamia*, edited by S. V. Panayotov and L. Vacín (Ancient Magic and Divination; Brill, 2018); as well as “Earthquake and Epilepsy: The Body Geologic in the Hippocratic Treatise On the Sacred Disease,” pp. 142–67 in his own edited volume *The Comparable Body* (Studies in Ancient Medicine 49; Brill, 2017). Forthcoming are his Brill monographs *Knowledge and Rhetoric in Medical Commentary and Mesopotamian Commentaries on the Diagnostic Handbook Sa-gig*; the essay “Medicine and Healing, Ancient Near East,” in *Encyclopedia of the Bible and its Reception*, Volume 16 (de Gruyter); as well as an invited chapter contribution in a volume on *Ancient Holisms*, edited by C. Thumiger (Cambridge University Press).

In the past year, John presented the following academic lectures and conference papers: “Scholasticism and Technical Writing in Late Babylonian Medical Education” at a Meeting of the History of Science Society (Toronto; November 9–12, 2017); and “Ancient Commentaries on the Mesopotamian Diagnostic Handbook” at the Ancient Civilizations Workshop of the University of Chicago (May 25, 2018). His paper on “Epistemics, Curriculum, and Scholasticism in Mesopotamian Commentaries on a Handbook of Medical Diagnosis” was accepted for the conference on 5000 Years of Comments: The Development of Commentary from Ancient Mesopotamia to the Age of Information at the Center for Hellenic Studies, Harvard University (Washington, DC; August 7–10, 2018). In addition, he gave the following public lectures: “The Royal Game of Ur from Ancient Mesopotamia” at the 39th Annual Humanities Day at the University of Chicago (October 21, 2017); “Stone Ducks: Weights and Measures in Ancient Mesopotamia” at an Oriental Institute Lunchtime Gallery Talk at the University of Chicago (December 7, 2017); and a Cornerstone Lecture on “The World’s Oldest Board Game Rules” and a Mind-bender Lecture on “Journeys of Ancient Planets” for Renaissance Weekend (Santa Monica; February 15–19, 2018).

John was interviewed for Louise Lerner’s article “Eclipse Reflects Sun’s Historic Power: Scholars Discuss Phenomenon’s Significance in Science, Culture, Religion” in *UChicago News* (August 15, 2017). He served as moderator for the 9th Annual GradUCon Panel on First Year as Faculty (Humanities/Social Sciences) (April 6, 2018). For the ongoing renovation of the galleries of the Oriental Institute Museum, John will select cuneiform tablets and compose their labels for the display case on Cuneiform Mathematics and Science.

Jan and **DONALD WHITCOMB** undertook a mid-summer expedition to Nashville to visit their daughter and her husband. The underlying purpose was to witness the solar eclipse, which was indeed impressive, sitting in an open field with a hundred or so relaxed observers. This experience was itself “eclipsed” (so to speak) by a visit to the Parthenon, a very impressive, full-size replica (though regrettably made of cement). The temple became even more impressive within the dark interior with the full-size statue of Athena Parthenos, in full polychrome and gilt details. Standing over 40 feet high, this statue becomes a goddess one might believe in.

The fall brought the American Schools of Oriental Research (ASOR) meetings in Boston, always a fascinating city with not a few Greek revival structures. A special session on Jerusalem, organized by Beatrice St. Laurent, was inspiring with her latest recension of the experience of Mu’awiya and the early Islamic city. There was also a fine paper by Serenella Manchini on Istakhr ceramics, first results of her museum study in the Oriental Institute collection. Other good Islamic papers by Asa

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Eger and Veronica Morriss showed a continuity of earlier and present Islamic research here. It was perhaps a mistake not to give a paper, but Don was torn between the Islamic and Iranian sessions.

During the fall quarter, Don taught the course of Islamic archaeology of Syria-Palestine, what he calls Late Levant. It proved to be good preparation for the first season of excavations at Sinnabra, better known here as Khirbat al-Karak (see separate report). One might add to mention the debt of gratitude for the assistance of Veronica Morriss, an OI graduate student who took a little time to look for an Umayyad dock, from which the Umayyad Caliph might have visited nearby Tiberias. Regrettably, this new population from Arabia seems not to have invested in Roman-style port facilities.

Later in the spring, Don taught “Problems in Islamic Archaeology,” in which six students produced remarkably original and interesting aspects of some Islamic cities. But it was in May that Felicia, their daughter, came to help with Jan, who had suffered a stroke, in hospital. The stroke had minor effects due to amazing new drugs and she was back at home before Don was in for his second hip replacement. Thus these physical complications were a new aspect that ended an interesting school year.

KAREN L. WILSON is pleased that *Nippur VI: The Inanna Temple* has been accepted by the Oriental Institute Press and will appear in the Oriental Institute Publications series. *Nippur VI* will be the final publication of the OI excavation of the Inanna Temple at the site of Nippur during the late 1950s and early 1960s. The authors of the volume are Richard L. Zettler, Karen L. Wilson, Jean M. Evans, and Robert D. Biggs with contributions by R. C. Haines and Donald P. Hansen. The series editor is McGuire Gibson. The Oriental Institute Publications Office is currently editing and formatting the volume(s).

This past year, Karen also continued to serve as Kish project coordinator and research associate at the Field Museum, preparing aspects of the publication of the work of the Joint Field Museum and Oxford University Expedition to Kish in 1923–32. She is extremely pleased that the OI Publications Committee has agreed to publish the manuscript as a volume in the Oriental Institute Publications series. The volume presents the results of a symposium conducted in November 2008 that focused on current research and updated excavations at the site. Chapters cover studies of the human remains, textual evidence, lithics, animal figurines, seals and stucco, as well as a catalog of the Field Museum holdings from Kish and Jamdat Nasr. Karen is currently working on the proofs for the manuscript which she received recently from the Publications Office.

Perhaps **ILONA ZSOLNAY**’s most enjoyable event in this her second year at the Oriental Institute was the unexpected invitation to present on cuneiform tablets for the Interdisciplinary Archaeology Workshop at the OI (November 2, 2017). For this lecture, entitled “The Agency of a Clay Tablet: The Effect of Materiality on the Conductivity and Reception of Knowledge,” she arranged a sample cart from the OI collection with the assistance of Assyriologist Susanne Paulus and graduate student Andy Wilent and displayed digital examples from the Penn Museum collection. Since the talk was well attended and garnered considerable enthusiasm, it demonstrated the passion we all share for cuneiform tablets both as texts and as material culture.

Zsolnay is pleased to announce the publication of her article “Analyzing Constructs: A Selection of Perils, Pitfalls, and Progressions in Interrogating Ancient Near Eastern Gender,” in *Studying Gender in the Ancient Near East*, edited by Saana Svärd and Agnès García Ventura (Winona Lake: Eisenbrauns), 461–80, and her review “Review: Lion, Brigitte, and Cécile Michel (eds.). The Role of Women in Work and Society in the Ancient Near East. Berlin, Boston: de Gruyter,” *WZKM* 108 (2018), 334–37. In the fall

of 2017, she was asked to review T. M. Lemos, *Violence and Personhood in Ancient Israelite and Comparative Conflicts* (Oxford Press), for the *Journal of the American Oriental Society* (submitted), and offer peer reviews for *History of Religions* and *Journal of the American Academy of Religion*.

This spring, Zsolnay thoroughly edited the content of the majority of chapters for the proceedings of the symposium she arranged last year: *Seen Not Heard: Composition, Iconicity, and the Classifier Systems of Logosyllabic Scripts*. These substantial first drafts, which address iconicity, indexicality, ludic writing, and determinatives/classifiers in cuneiform (Mesopotamian and Anatolian), hieroglyphic (Egyptian and Anatolian), Mesoamerican, and Chinese writing systems, have been returned to their authors; Zsolnay has already begun receiving revised versions. She has also been researching and writing her own two chapters for *Seen Not Heard*: “Introduction,” which addresses the experiential and performative aspects of writing and classifiers systems, and “Searching for a Classifier (or organizational principle): A Selective Diagrammatic Investigation of Sumerian Cities in the Uruk IV and III Corpus.”

Also, during this year, as part of her position at the OI, Zsolnay convened two Connections Seminars: Susanne Paulus, “Debt in the City,” December 29; Rebecca Hasselbach-Andee, “Speaking in ‘Tongues’: Multilingualism and Diglossia in the Ancient Near East,” February 21; and arranged, Donald Whitcomb, May 23 (rescheduled). She also had the opportunity to attend lectures at the OI symposia: International Congress of Hittitology, August 28–September 1, and Outward Appearance vs. Inward Significance: Addressing Identities through Attire in the Ancient World, March 1–2, in addition to numerous members lectures and workshop presentations.

Finally, Zsolnay was invited to give the talk “The Sulky and Abusive Nature of the Gods: Permutations of *Erra* and *Išum*,” in a workshop at the 64th Rencontre Assyriologique Internationale in July in Innsbruck, and presentations for two sessions at the Society of Biblical Literature Annual Meeting in Denver, US, in November: “Beauty and the Priest: Physical Perfection as an Attribute of Priestly Masculinity” and “The Mesopotamian God of Pestilence and Ezekiel’s Vision.”



RESEARCH SUPPORT



OVERLEAF: Photo of the entry to the library of the temple of Philae (Berlin Philae 856, Königlichen Akademie der Wissenschaften). The doorjamb inscription labels it as the library of Seshat (the goddess of writing) and Isis. The photo was recently published in *Essays for the Library of Seshat: Studies Presented to Janet H. Johnson on the Occasion of Her 70th Birthday* (2017, Robert K. Ritner, ed.), a Festschrift that can be purchased or downloaded for free here: <https://oi.uchicago.edu/research/publications/saoc/saoc-70-essays-library-seshat-studies-presented-janet-h-johnson-occasion>.

𓆎𓆑𓆒𓆓𓆔𓆕𓆖𓆗𓆘𓆙𓆚𓆛𓆜𓆝𓆞𓆟𓆠𓆡𓆢𓆣𓆤𓆥𓆦𓆧𓆨𓆩𓆪𓆫𓆬𓆭𓆮𓆯𓆰𓆱𓆲𓆳𓆴𓆵𓆶𓆷𓆸𓆹𓆺𓆻𓆼𓆽𓆾𓆿𓇀𓇁𓇂𓇃𓇄𓇅𓇆𓇇𓇈𓇉𓇊𓇋𓇌𓇍𓇎𓇏𓇐𓇑𓇒𓇓𓇔𓇕𓇖𓇗𓇘𓇙𓇚𓇛𓇜𓇝𓇞𓇟𓇠𓇡𓇢𓇣𓇤𓇥𓇦𓇧𓇨𓇩𓇪𓇫𓇬𓇭𓇮𓇯𓇰𓇱𓇲𓇳𓇴𓇵𓇶𓇷𓇸𓇹𓇺𓇻𓇼𓇽𓇾𓇿𓈀𓈁𓈂𓈃𓈄𓈅𓈆𓈇𓈈𓈉𓈊𓈋𓈌𓈍𓈎𓈏𓈐𓈑𓈒𓈓𓈔𓈕𓈖𓈗𓈘𓈙𓈚𓈛𓈜𓈝𓈞𓈟𓈠𓈡𓈢𓈣𓈤𓈥𓈦𓈧𓈨𓈩𓈪𓈫𓈬𓈭𓈮𓈯𓈰𓈱𓈲𓈳𓈴𓈵𓈶𓈷𓈸𓈹𓈺𓈻𓈼𓈽𓈾𓈿𓉀𓉁𓉂𓉃𓉄𓉅𓉆𓉇𓉈𓉉𓉊𓉋𓉌𓉍𓉎𓉏𓉐𓉑𓉒𓉓𓉔𓉕𓉖𓉗𓉘𓉙𓉚𓉛𓉜𓉝𓉞𓉟𓉠𓉡𓉢𓉣𓉤𓉥𓉦𓉧𓉨𓉩𓉪𓉫𓉬𓉭𓉮𓉯𓉰𓉱𓉲𓉳𓉴𓉵𓉶𓉷𓉸𓉹𓉺𓉻𓉼𓉽𓉾𓉿𓊀𓊁𓊂𓊃𓊄𓊅𓊆𓊇𓊈𓊉𓊊𓊋𓊌𓊍𓊎𓊏𓊐𓊑𓊒𓊓𓊔𓊕𓊖𓊗𓊘𓊙𓊚𓊛𓊜𓊝𓊞𓊟𓊠𓊡𓊢𓊣𓊤𓊥𓊦𓊧𓊨𓊩𓊪𓊫𓊬𓊭𓊮𓊯𓊰𓊱𓊲𓊳𓊴𓊵𓊶𓊷𓊸𓊹𓊺𓊻𓊼𓊽𓊾𓊿𓋀𓋁𓋂𓋃𓋄𓋅𓋆𓋇𓋈𓋉𓋊𓋋𓋌𓋍𓋎𓋏𓋐𓋑𓋒𓋓𓋔𓋕𓋖𓋗𓋘𓋙𓋚𓋛𓋜𓋝𓋞𓋟𓋠𓋡𓋢𓋣𓋤𓋥𓋦𓋧𓋨𓋩𓋪𓋫𓋬𓋭𓋮𓋯𓋰𓋱𓋲𓋳𓋴𓋵𓋶𓋷𓋸𓋹𓋺𓋻𓋼𓋽𓋾𓋿𓌀𓌁𓌂𓌃𓌄𓌅𓌆𓌇𓌈𓌉𓌊𓌋𓌌𓌍𓌎𓌏𓌐𓌑𓌒𓌓𓌔𓌕𓌖𓌗𓌘𓌙𓌚𓌛𓌜𓌝𓌞𓌟𓌠𓌡𓌢𓌣𓌤𓌥𓌦𓌧𓌨𓌩𓌪𓌫𓌬𓌭𓌮𓌯𓌰𓌱𓌲𓌳𓌴𓌵𓌶𓌷𓌸𓌹𓌺𓌻𓌼𓌽𓌾𓌿𓍀𓍁𓍂𓍃𓍄𓍅𓍆𓍇𓍈𓍉𓍊𓍋𓍌𓍍𓍎𓍏𓍐𓍑𓍒𓍓𓍔𓍕𓍖𓍗𓍘𓍙𓍚𓍛𓍜𓍝𓍞𓍟𓍠𓍡𓍢𓍣𓍤𓍥𓍦𓍧𓍨𓍩𓍪𓍫𓍬𓍭𓍮𓍯𓍰𓍱𓍲𓍳𓍴𓍵𓍶𓍷𓍸𓍹𓍺𓍻𓍼𓍽𓍾𓍿𓎀𓎁𓎂𓎃𓎄𓎅𓎆𓎇𓎈𓎉𓎊𓎋𓎌𓎍𓎎𓎏𓎐𓎑𓎒𓎓𓎔𓎕𓎖𓎗𓎘𓎙𓎚𓎛𓎜𓎝𓎞𓎟𓎠𓎡𓎢𓎣𓎤𓎥𓎦𓎧𓎨𓎩𓎪𓎫𓎬𓎭𓎮𓎯𓎰𓎱𓎲𓎳𓎴𓎵𓎶𓎷𓎸𓎹𓎺𓎻𓎼𓎽𓎾𓎿𓏀𓏁𓏂𓏃𓏄𓏅𓏆𓏇𓏈𓏉𓏊𓏋𓏌𓏍𓏎𓏏𓏐𓏑𓏒𓏓𓏔𓏕𓏖𓏗𓏘𓏙𓏚𓏛𓏜𓏝𓏞𓏟𓏠𓏡𓏢𓏣𓏤𓏥𓏦𓏧𓏨𓏩𓏪𓏫𓏬𓏭𓏮𓏯𓏰𓏱𓏲𓏳𓏴𓏵𓏶𓏷𓏸𓏹𓏺𓏻𓏼𓏽𓏾𓏿𓐀𓐁𓐂𓐃𓐄𓐅𓐆𓐇𓐈𓐉𓐊𓐋𓐌𓐍𓐎𓐏𓐐𓐑𓐒𓐓𓐔𓐕𓐖𓐗𓐘𓐙𓐚𓐛𓐜𓐝𓐞𓐟𓐠𓐡𓐢𓐣𓐤𓐥𓐦𓐧𓐨𓐩𓐪𓐫𓐬𓐭𓐮𓐯𓐰𓐱𓐲𓐳𓐴𓐵𓐶𓐷𓐸𓐹𓐺𓐻𓐼𓐽𓐾𓐿𓑀𓑁𓑂𓑃𓑄𓑅𓑆𓑇𓑈𓑉𓑊𓑋𓑌𓑍𓑎𓑏𓑐𓑑𓑒𓑓𓑔𓑕𓑖𓑗𓑘𓑙𓑚𓑛𓑜𓑝𓑞𓑟𓑠𓑡𓑢𓑣𓑤𓑥𓑦𓑧𓑨𓑩𓑪𓑫𓑬𓑭𓑮𓑯𓑰𓑱𓑲𓑳𓑴𓑵𓑶𓑷𓑸𓑹𓑺𓑻𓑼𓑽𓑾𓑿𓒀𓒁𓒂𓒃𓒄𓒅𓒆𓒇𓒈𓒉𓒊𓒋𓒌𓒍𓒎𓒏𓒐𓒑𓒒𓒓𓒔𓒕𓒖𓒗𓒘𓒙𓒚𓒛𓒜𓒝𓒞𓒟𓒠𓒡𓒢𓒣𓒤𓒥𓒦𓒧𓒨𓒩𓒪𓒫𓒬𓒭𓒮𓒯𓒰𓒱𓒲𓒳𓒴𓒵𓒶𓒷𓒸𓒹𓒺𓒻𓒼𓒽𓒾𓒿𓓀𓓁𓓂𓓃𓓄𓓅𓓆𓓇𓓈𓓉𓓊𓓋𓓌𓓍𓓎𓓏𓓐𓓑𓓒𓓓𓓔𓓕𓓖𓓗𓓘𓓙𓓚𓓛𓓜𓓝𓓞𓓟𓓠𓓡𓓢𓓣𓓤𓓥𓓦𓓧𓓨𓓩𓓪𓓫𓓬𓓭𓓮𓓯𓓰𓓱𓓲𓓳𓓴𓓵𓓶𓓷𓓸𓓹𓓺𓓻𓓼𓓽𓓾𓓿𓔀𓔁𓔂𓔃𓔄𓔅𓔆𓔇𓔈𓔉𓔊𓔋𓔌𓔍𓔎𓔏𓔐𓔑𓔒𓔓𓔔𓔕𓔖𓔗𓔘𓔙𓔚𓔛𓔜𓔝𓔞𓔟𓔠𓔡𓔢𓔣𓔤𓔥𓔦𓔧𓔨𓔩𓔪𓔫𓔬𓔭𓔮𓔯𓔰𓔱𓔲𓔳𓔴𓔵𓔶𓔷𓔸𓔹𓔺𓔻𓔼𓔽𓔾𓔿𓕀𓕁𓕂𓕃𓕄𓕅𓕆𓕇𓕈𓕉𓕊𓕋𓕌𓕍𓕎𓕏𓕐𓕑𓕒𓕓𓕔𓕕𓕖𓕗𓕘𓕙𓕚𓕛𓕜𓕝𓕞𓕟𓕠𓕡𓕢𓕣𓕤𓕥𓕦𓕧𓕨𓕩𓕪𓕫𓕬𓕭𓕮𓕯𓕰𓕱𓕲𓕳𓕴𓕵𓕶𓕷𓕸𓕹𓕺𓕻𓕼𓕽𓕾𓕿𓖀𓖁𓖂𓖃𓖄𓖅𓖆𓖇𓖈𓖉𓖊𓖋𓖌𓖍𓖎𓖏𓖐𓖑𓖒𓖓𓖔𓖕𓖖𓖗𓖘𓖙𓖚𓖛𓖜𓖝𓖞𓖟𓖠𓖡𓖢𓖣𓖤𓖥𓖦𓖧𓖨𓖩𓖪𓖫𓖬𓖭𓖮𓖯𓖰𓖱𓖲𓖳𓖴𓖵𓖶𓖷𓖸𓖹𓖺𓖻𓖼𓖽𓖾𓖿𓗀𓗁𓗂𓗃𓗄𓗅𓗆𓗇𓗈𓗉𓗊𓗋𓗌𓗍𓗎𓗏𓗐𓗑𓗒𓗓𓗔𓗕𓗖𓗗𓗘𓗙𓗚𓗛𓗜𓗝𓗞𓗟𓗠𓗡𓗢𓗣𓗤𓗥𓗦𓗧𓗨𓗩𓗪𓗫𓗬𓗭𓗮𓗯𓗰𓗱𓗲𓗳𓗴𓗵𓗶𓗷𓗸𓗹𓗺𓗻𓗼𓗽𓗾𓗿𓘀𓘁𓘂𓘃𓘄𓘅𓘆𓘇𓘈𓘉𓘊𓘋𓘌𓘍𓘎𓘏𓘐𓘑𓘒𓘓𓘔𓘕𓘖𓘗𓘘𓘙𓘚𓘛𓘜𓘝𓘞𓘟𓘠𓘡𓘢𓘣𓘤𓘥𓘦𓘧𓘨𓘩𓘪𓘫𓘬𓘭𓘮𓘯𓘰𓘱𓘲𓘳𓘴𓘵𓘶𓘷𓘸𓘹𓘺𓘻𓘼𓘽𓘾𓘿𓙀𓙁𓙂𓙃𓙄𓙅𓙆𓙇𓙈𓙉𓙊𓙋𓙌𓙍𓙎𓙏𓙐𓙑𓙒𓙓𓙔𓙕𓙖𓙗𓙘𓙙𓙚𓙛𓙜𓙝𓙞𓙟𓙠𓙡𓙢𓙣𓙤𓙥𓙦𓙧𓙨𓙩𓙪𓙫𓙬𓙭𓙮𓙯𓙰𓙱𓙲𓙳𓙴𓙵𓙶𓙷𓙸𓙹𓙺𓙻𓙼𓙽𓙾𓙿𓚀𓚁𓚂𓚃𓚄𓚅𓚆𓚇𓚈𓚉𓚊𓚋𓚌𓚍𓚎𓚏𓚐𓚑𓚒𓚓𓚔𓚕𓚖𓚗𓚘𓚙𓚚𓚛𓚜𓚝𓚞𓚟𓚠𓚡𓚢𓚣𓚤𓚥𓚦𓚧𓚨𓚩𓚪𓚫𓚬𓚭𓚮𓚯𓚰𓚱𓚲𓚳𓚴𓚵𓚶𓚷𓚸𓚹𓚺𓚻𓚼𓚽𓚾𓚿𓛀𓛁𓛂𓛃𓛄𓛅𓛆𓛇𓛈𓛉𓛊𓛋𓛌𓛍𓛎𓛏𓛐𓛑𓛒𓛓𓛔𓛕𓛖𓛗𓛘𓛙𓛚𓛛𓛜𓛝𓛞𓛟𓛠𓛡𓛢𓛣𓛤𓛥𓛦𓛧𓛨𓛩𓛪𓛫𓛬𓛭𓛮𓛯𓛰𓛱𓛲𓛳𓛴𓛵𓛶𓛷𓛸𓛹𓛺𓛻𓛼𓛽𓛾𓛿𓜀𓜁𓜂𓜃𓜄𓜅𓜆𓜇𓜈𓜉𓜊𓜋𓜌𓜍𓜎𓜏𓜐𓜑𓜒𓜓𓜔𓜕𓜖𓜗𓜘𓜙𓜚𓜛𓜜𓜝𓜞𓜟𓜠𓜡𓜢𓜣𓜤𓜥𓜦𓜧𓜨𓜩𓜪𓜫𓜬𓜭𓜮𓜯𓜰𓜱𓜲𓜳𓜴𓜵𓜶𓜷𓜸𓜹𓜺𓜻𓜼𓜽𓜾𓜿𓝀𓝁𓝂𓝃𓝄𓝅𓝆𓝇𓝈𓝉𓝊𓝋𓝌𓝍𓝎𓝏𓝐𓝑𓝒𓝓𓝔𓝕𓝖𓝗𓝘𓝙𓝚𓝛𓝜𓝝𓝞𓝟𓝠𓝡𓝢𓝣𓝤𓝥𓝦𓝧𓝨𓝩𓝪𓝫𓝬𓝭𓝮𓝯𓝰𓝱𓝲𓝳𓝴𓝵𓝶𓝷𓝸𓝹𓝺𓝻𓝼𓝽𓝾𓝿𓞀𓞁𓞂𓞃𓞄𓞅𓞆𓞇𓞈𓞉𓞊𓞋𓞌𓞍𓞎𓞏𓞐𓞑𓞒𓞓𓞔𓞕𓞖𓞗𓞘𓞙𓞚𓞛𓞜𓞝𓞞𓞟𓞠𓞡𓞢𓞣𓞤𓞥𓞦𓞧𓞨𓞩𓞪𓞫𓞬𓞭𓞮𓞯𓞰𓞱𓞲𓞳𓞴𓞵𓞶𓞷𓞸𓞹𓞺𓞻𓞼𓞽𓞾𓞿𓟀𓟁𓟂𓟃𓟄𓟅𓟆𓟇𓟈𓟉𓟊𓟋𓟌𓟍𓟎𓟏𓟐𓟑𓟒𓟓𓟔𓟕𓟖𓟗𓟘𓟙𓟚𓟛𓟜𓟝𓟞𓟟𓟠𓟡𓟢𓟣𓟤𓟥𓟦𓟧𓟨𓟩𓟪𓟫𓟬𓟭𓟮𓟯𓟰𓟱𓟲𓟳𓟴𓟵𓟶𓟷𓟸𓟹𓟺𓟻𓟼𓟽𓟾𓟿𓠀𓠁𓠂𓠃𓠄𓠅𓠆𓠇𓠈𓠉𓠊𓠋𓠌𓠍𓠎𓠏𓠐𓠑𓠒𓠓𓠔𓠕𓠖𓠗𓠘𓠙𓠚𓠛𓠜𓠝𓠞𓠟𓠠𓠡𓠢𓠣𓠤𓠥𓠦𓠧𓠨𓠩𓠪𓠫𓠬𓠭𓠮𓠯𓠰𓠱𓠲𓠳𓠴𓠵𓠶𓠷𓠸𓠹𓠺𓠻𓠼𓠽𓠾𓠿𓡀𓡁𓡂𓡃𓡄𓡅𓡆𓡇𓡈𓡉𓡊𓡋𓡌𓡍𓡎𓡏𓡐𓡑𓡒𓡓𓡔𓡕𓡖𓡗𓡘𓡙𓡚𓡛𓡜𓡝𓡞𓡟𓡠𓡡𓡢𓡣𓡤𓡥𓡦𓡧𓡨𓡩𓡪𓡫𓡬𓡭𓡮𓡯𓡰𓡱𓡲𓡳𓡴𓡵𓡶𓡷𓡸𓡹𓡺𓡻𓡼𓡽𓡾𓡿𓢀𓢁𓢂𓢃𓢄𓢅𓢆𓢇𓢈𓢉𓢊𓢋𓢌𓢍𓢎𓢏𓢐𓢑𓢒𓢓𓢔𓢕𓢖𓢗𓢘𓢙𓢚𓢛𓢜𓢝𓢞𓢟𓢠𓢡𓢢𓢣𓢤𓢥𓢦𓢧𓢨𓢩𓢪𓢫𓢬𓢭𓢮𓢯𓢰𓢱𓢲𓢳𓢴𓢵𓢶𓢷𓢸𓢹𓢺𓢻𓢼𓢽𓢾𓢿𓣀𓣁𓣂𓣃𓣄𓣅𓣆𓣇𓣈𓣉𓣊𓣋𓣌𓣍𓣎𓣏𓣐𓣑𓣒𓣓𓣔𓣕𓣖𓣗𓣘𓣙𓣚𓣛𓣜𓣝𓣞𓣟𓣠𓣡𓣢𓣣𓣤𓣥𓣦𓣧𓣨𓣩𓣪𓣫𓣬𓣭𓣮𓣯𓣰𓣱𓣲𓣳𓣴𓣵𓣶𓣷𓣸𓣹𓣺𓣻𓣼𓣽𓣾𓣿𓤀𓤁𓤂𓤃𓤄𓤅𓤆𓤇𓤈𓤉𓤊𓤋𓤌𓤍𓤎𓤏𓤐𓤑𓤒𓤓𓤔𓤕𓤖𓤗𓤘𓤙𓤚𓤛𓤜𓤝𓤞𓤟𓤠𓤡𓤢𓤣𓤤𓤥𓤦𓤧𓤨𓤩𓤪𓤫𓤬𓤭𓤮𓤯𓤰𓤱𓤲𓤳𓤴𓤵𓤶𓤷𓤸𓤹𓤺𓤻𓤼𓤽𓤾𓤿𓥀𓥁𓥂𓥃𓥄𓥅𓥆𓥇𓥈𓥉𓥊𓥋𓥌𓥍𓥎𓥏𓥐𓥑𓥒𓥓𓥔𓥕𓥖𓥗𓥘𓥙𓥚𓥛𓥜𓥝𓥞𓥟𓥠𓥡𓥢𓥣𓥤𓥥𓥦𓥧𓥨𓥩𓥪𓥫𓥬𓥭𓥮𓥯𓥰𓥱𓥲𓥳𓥴𓥵𓥶𓥷𓥸𓥹𓥺𓥻𓥼𓥽𓥾𓥿𓦀𓦁𓦂𓦃𓦄𓦅𓦆𓦇𓦈𓦉𓦊𓦋𓦌𓦍𓦎𓦏𓦐𓦑𓦒𓦓𓦔𓦕𓦖𓦗𓦘𓦙𓦚𓦛𓦜𓦝𓦞𓦟𓦠𓦡𓦢𓦣𓦤𓦥𓦦𓦧𓦨𓦩𓦪𓦫𓦬𓦭𓦮𓦯𓦰𓦱𓦲𓦳𓦴𓦵𓦶𓦷𓦸𓦹𓦺𓦻𓦼𓦽𓦾𓦿𓧀𓧁𓧂𓧃𓧄𓧅𓧆𓧇𓧈𓧉𓧊𓧋𓧌𓧍𓧎𓧏𓧐𓧑𓧒𓧓𓧔𓧕𓧖𓧗𓧘𓧙𓧚𓧛𓧜𓧝𓧞𓧟𓧠𓧡𓧢𓧣𓧤𓧥𓧦𓧧𓧨𓧩𓧪𓧫𓧬𓧭𓧮𓧯𓧰𓧱𓧲𓧳𓧴𓧵𓧶𓧷𓧸𓧹𓧺𓧻𓧼𓧽𓧾𓧿𓨀𓨁𓨂𓨃𓨄𓨅𓨆𓨇𓨈𓨉𓨊𓨋𓨌𓨍𓨎𓨏𓨐𓨑𓨒𓨓𓨔𓨕𓨖𓨗𓨘𓨙𓨚𓨛𓨜𓨝𓨞𓨟𓨠𓨡𓨢𓨣𓨤𓨥𓨦𓨧𓨨𓨩𓨪𓨫𓨬𓨭𓨮𓨯𓨰𓨱𓨲𓨳𓨴𓨵𓨶𓨷𓨸𓨹𓨺𓨻𓨼𓨽𓨾𓨿𓩀𓩁𓩂𓩃𓩄𓩅𓩆𓩇𓩈𓩉𓩊𓩋𓩌𓩍𓩎𓩏𓩐𓩑𓩒𓩓𓩔𓩕𓩖𓩗𓩘𓩙𓩚𓩛𓩜𓩝𓩞𓩟𓩠𓩡𓩢𓩣𓩤𓩥𓩦𓩧𓩨𓩩𓩪𓩫𓩬𓩭𓩮𓩯𓩰𓩱𓩲𓩳𓩴𓩵𓩶𓩷𓩸𓩹𓩺𓩻𓩼𓩽𓩾𓩿𓪀𓪁𓪂𓪃𓪄𓪅𓪆𓪇𓪈𓪉𓪊𓪋𓪌𓪍𓪎𓪏𓪐𓪑𓪒𓪓𓪔𓪕𓪖𓪗𓪘𓪙𓪚𓪛𓪜𓪝𓪞𓪟𓪠𓪡𓪢𓪣𓪤𓪥𓪦𓪧𓪨𓪩𓪪𓪫𓪬𓪭𓪮𓪯𓪰𓪱𓪲𓪳𓪴𓪵𓪶𓪷𓪸𓪹𓪺𓪻𓪼𓪽𓪾𓪿𓫀𓫁𓫂𓫃𓫄𓫅𓫆𓫇𓫈𓫉𓫊𓫋𓫌𓫍𓫎𓫏𓫐𓫑𓫒𓫓𓫔𓫕𓫖𓫗𓫘𓫙𓫚𓫛𓫜𓫝𓫞𓫟𓫠𓫡𓫢𓫣𓫤𓫥𓫦𓫧𓫨𓫩𓫪𓫫𓫬𓫭𓫮𓫯𓫰𓫱𓫲𓫳𓫴𓫵𓫶𓫷𓫸𓫹𓫺𓫻𓫼𓫽𓫾𓫿𓬀𓬁𓬂𓬃𓬄𓬅𓬆𓬇𓬈𓬉𓬊𓬋𓬌𓬍𓬎𓬏𓬐𓬑𓬒𓬓𓬔𓬕𓬖𓬗𓬘𓬙𓬚𓬛𓬜𓬝𓬞𓬟𓬠𓬡𓬢𓬣𓬤𓬥𓬦𓬧𓬨𓬩𓬪𓬫𓬬𓬭𓬮𓬯𓬰𓬱𓬲𓬳𓬴𓬵𓬶𓬷𓬸𓬹𓬺𓬻𓬼𓬽𓬾𓬿𓭀𓭁𓭂𓭃𓭄𓭅𓭆𓭇𓭈𓭉𓭊𓭋𓭌𓭍𓭎𓭏𓭐𓭑𓭒𓭓𓭔𓭕𓭖𓭗𓭘𓭙𓭚𓭛𓭜𓭝𓭞𓭟𓭠𓭡𓭢𓭣𓭤𓭥𓭦𓭧𓭨𓭩𓭪𓭫𓭬𓭭𓭮𓭯𓭰𓭱𓭲𓭳𓭴𓭵𓭶𓭷𓭸𓭹𓭺𓭻𓭼𓭽𓭾𓭿𓮀𓮁𓮂𓮃𓮄𓮅𓮆𓮇𓮈𓮉𓮊𓮋𓮌𓮍𓮎𓮏𓮐𓮑𓮒𓮓𓮔𓮕𓮖𓮗𓮘𓮙𓮚𓮛𓮜𓮝𓮞𓮟𓮠𓮡𓮢𓮣𓮤𓮥𓮦𓮧𓮨𓮩𓮪𓮫𓮬𓮭𓮮𓮯𓮰𓮱𓮲𓮳𓮴𓮵𓮶𓮷𓮸𓮹𓮺𓮻𓮼𓮽𓮾𓮿𓯀𓯁𓯂𓯃𓯄𓯅𓯆𓯇𓯈𓯉𓯊𓯋𓯌𓯍𓯎𓯏𓯐𓯑𓯒𓯓𓯔𓯕𓯖𓯗𓯘𓯙𓯚𓯛𓯜𓯝𓯞𓯟𓯠𓯡𓯢𓯣𓯤𓯥𓯦𓯧𓯨𓯩𓯪𓯫𓯬𓯭𓯮𓯯𓯰𓯱𓯲𓯳𓯴𓯵𓯶𓯷𓯸𓯹𓯺𓯻𓯼𓯽𓯾𓯿𓰀𓰁𓰂𓰃𓰄𓰅𓰆𓰇𓰈𓰉𓰊𓰋𓰌𓰍𓰎𓰏𓰐𓰑𓰒𓰓𓰔𓰕𓰖𓰗𓰘𓰙𓰚𓰛𓰜𓰝𓰞𓰟𓰠𓰡𓰢𓰣𓰤𓰥𓰦𓰧𓰨𓰩𓰪𓰫𓰬𓰭𓰮𓰯𓰰𓰱𓰲𓰳𓰴𓰵𓰶𓰷𓰸𓰹𓰺𓰻𓰼𓰽𓰾𓰿𓱀𓱁𓱂𓱃𓱄𓱅𓱆𓱇𓱈𓱉𓱊𓱋𓱌𓱍𓱎𓱏𓱐𓱑𓱒𓱓𓱔𓱕𓱖𓱗𓱘𓱙𓱚𓱛𓱜𓱝𓱞𓱟𓱠𓱡𓱢𓱣𓱤𓱥𓱦𓱧𓱨𓱩𓱪𓱫𓱬𓱭𓱮𓱯𓱰𓱱𓱲𓱳𓱴𓱵𓱶𓱷𓱸𓱹𓱺𓱻𓱼𓱽𓱾𓱿𓲀𓲁𓲂𓲃𓲄𓲅𓲆𓲇𓲈𓲉𓲊𓲋𓲌𓲍𓲎𓲏𓲐𓲑𓲒𓲓𓲔𓲕𓲖𓲗𓲘𓲙𓲚𓲛𓲜𓲝𓲞𓲟𓲠𓲡𓲢𓲣𓲤𓲥𓲦𓲧𓲨𓲩𓲪𓲫𓲬𓲭𓲮𓲯𓲰𓲱𓲲𓲳𓲴𓲵𓲶𓲷𓲸𓲹𓲺𓲻𓲼𓲽𓲾𓲿𓳀𓳁𓳂𓳃𓳄𓳅𓳆𓳇𓳈𓳉𓳊𓳋𓳌𓳍𓳎𓳏𓳐𓳑𓳒𓳓𓳔𓳕𓳖𓳗𓳘𓳙𓳚𓳛𓳜𓳝𓳞𓳟𓳠𓳡𓳢𓳣𓳤𓳥𓳦𓳧𓳨𓳩𓳪𓳫𓳬𓳭𓳮𓳯𓳰𓳱𓳲𓳳𓳴𓳵𓳶𓳷𓳸𓳹𓳺𓳻𓳼𓳽𓳾𓳿𓴀𓴁𓴂𓴃𓴄𓴅𓴆𓴇𓴈𓴉𓴊𓴋𓴌𓴍𓴎𓴏𓴐𓴑𓴒𓴓𓴔𓴕𓴖𓴗𓴘𓴙𓴚𓴛𓴜𓴝𓴞𓴟𓴠𓴡𓴢𓴣𓴤𓴥𓴦𓴧𓴨𓴩𓴪𓴫𓴬𓴭𓴮𓴯𓴰𓴱𓴲𓴳𓴴𓴵𓴶𓴷𓴸𓴹𓴺𓴻𓴼𓴽

COMPUTER LABORATORY

KNUT BOEHMER

The past year has seen many updates and changes to existing systems, both on the hardware and software side. Most changes had the goal of creating better, safer work conditions for faculty and staff, improving support response time or allowing the production of more professional products/videos.

Office 365 Migration

In late summer 2017, all OI members were migrated to Office365 over two waves. This migration came with many changes affecting everyday work, most notably the move from the outdated Exchange 2011 system (known as “XMail”) to Outlook365. Everyone also received access to a much more generous license, allowing the installation of Office programs (Word, Excel, PowerPoint, etc.) on home computers, tablets, and phones.

In a second wave, the programs accessible to all were expanded in May 2018, giving access to a few new tools that are designed to improve collaborative group work.

Two-Factor Authentication

In late spring of 2018, the University activated mandatory enrollment in Two-Factor Authentication for all staff, faculty, and students. The goal of this change is to minimize the chance of getting one’s account compromised, as well as the “inside attack” threat compromised accounts pose to the campus community. Guiding members of the OI through this process of change was a major focus for a few weeks, with everyone getting accustomed to the raised security measures in the end.

Windows 10 Migration

With Windows 7 reaching its end-of-life in January 2020, I’m actively working on moving as many Windows users to the newer operating system. As of summer 2018, 80% of users have been moved over, with the remaining 20% expected to be moved by the end of the year.

Symantec Management Console

To increase local computer security, a central management console has been set up in the IT office. Going forward, antivirus and firewall programs will report errors to this central unit rather than the user having to interpret and/or describe any error messages they might encounter.

Oriental Institute IT Inventory

With a lot of exchanges in the computer infrastructure over the last year, many outdated devices were replaced by refurbished or new ones, causing the inventory growth to slow down a bit. In summer 2018 about 250 devices are listed for support within the building.

Recycling Pickups

Working with IT Services, another three vans full of old electronics were removed from the OI in the last year, making sure that outdated or broken electronics do not take up unnecessary storage space and/or are resources that are going to waste.

General Support

Continual Support for everyone in the building remained a top priority task for the Computer Lab. Supporting faculty, staff, and students, 95% of all issues that were brought up were resolved within 48 hours, 75% within 24 hours. Going forward, the goal is to raise these numbers even further.

The Computer Lab also took care of event IT support for the International Hittite Conference and the annual Postdoc Conference at the OI, as well as several Membership lectures and other high-profile events hosted by or at the OI.

Hybrid Classes / Live-Streaming

Striving for constant improvement in the OI's Adult Education courses, another big step was made in January 2018. Our previous hybrid courses were recorded, and the videos published about twenty-four hours later, but starting with Foy Scalf's "Intensive Sahidic Coptic Grammar" a switch in configuration and equipment allowed to live-stream the courses to YouTube, allowing real-time interactions with off-site course participants. Between January and July 2018, fifty classes were streamed.

Oral History Project

Due to good feedback on the Oral History Projects of last year, Anne Flannery and Foy Scalf interviewed three more long-term members of the OI: Gil Stein, Janet Johnson, and Carlotta Maher. Each was interviewed for little over an hour and the videos will be published on the Oriental Institute YouTube Channel in the coming months.

University of Chicago IT Leadership Council Contributions

With an interwoven IT community on campus, cooperation and coordination are key to many tasks that would be too big to stem alone. To this end, the IT Leadership Council was founded in summer 2017 by CIO Cole Campese, who asked me to be part of this group of IT leaders from all areas of UChicago. Working on several questions in monthly meetings, and serving on workgroups for Office365 and Site Licensing, I happily contributed to this community while representing the interests of the OI on a larger stage.

The above points highlight only a few of the tasks that have been worked on since June 2017; for additional details please contact the IT Department directly.

INTEGRATED DATABASE PROJECT

FOY SCALF

It is difficult to pinpoint an exact start date for the Integrated Database (IDB) Project. According to information in the archives of the project, faculty and staff of the Institute met to discuss the idea as early as August 1990. In those days, the idea was spearheaded by John Sanders (former research associate and head of the Oriental Institute Computer Laboratory) and Charles Jones (former research associate, bibliographer, and librarian in the Research Archives, now Tombros librarian for classics and humanities at Penn State University), who had written reports, grants, and outlines throughout the 1990s and into the 2000s. The project picked up steam during the directorship of Gil Stein and initial planning meetings were begun in 2004, when the project was led by a committee eventually headed by Scott Branting (former assistant professor and director of the Center for Middle Eastern Landscapes, now assistant professor at the University of Central Florida). It took roughly ten years to draft appropriate plans, determine feasibility, and raise funds to launch the project. An important, but often overlooked, companion piece was the establishment of the Oriental Institute Archive server managed by University of Chicago IT Services. The server allows Institute faculty, staff, and projects to store and retrieve digital files in a single server location (i.e., a “cloud”) while the technical details for preservation, storage, and backup are professionally managed.

From 2005 through 2008, the IDB committee sent out requests for information to a number of software vendors who were invited to give demonstrations of the packages they had to offer. After a rigorous vetting process, the committee selected EMu (for “Electronic Museum”) designed by KE Software, which has since been acquired by Axiell. An initial acquisition of the client software was made possible by a generous capital budget request from the University of Chicago. The project officially got up and running when it received a Museums for America grant from the Institute of Museum and Library Services (IMLS) covering the years from 2010 to 2012. This grant allowed for the customization of the software and the migration of the first two data silos into the system, consisting of the library catalog of the Research Archives and the object catalog of Museum Registration. Digitizing the data and integrating it into a modern database platform provided the foundation for making public access to this information available for the first time in the Institute’s history. A soft launch of the beta version of the Search Our Collections page (<https://oi-idb.uchicago.edu>) went live in December 2012 and an official public announcement went out in January 2013.

Over the last ten years, the staff from across the Oriental Institute has worked diligently to build on these foundations. Our efforts have benefited immensely from the continued support of the Institute of Museum and Library Services, whose federal funding is a necessity for accomplishing this work. Without the funding provided by four successive grants over the course of 2012–2018, it is very unlikely that the Oriental Institute would have a public online platform for searching its collections. Neither would there be an integrated internal data network for managing the collections — a fundamental necessity in the twenty-first century for the ethical and sufficient handling of cultural heritage materials. Records in the database (see table 1) represent only one facet of this ongoing challenge to organize, track, and record all relevant information about the Oriental Institute’s collections.

Table 1. Approximate Total Records in the Integrated Database

<i>Department</i>	<i>Records in EMu</i>	<i>Records on Website</i>
Research Archives	540,000	537,726
Museum Registration	276,972	235,478
Photographic Archives	225,000	124,146
Museum Archives	75,554	75,173
Epigraphic Survey	22,026	21,502
CAMEL	20,889	8,869
Museum Conservation	11,000	—

PHASE IV 2016–2018

Phase IV of the IDB project was funded by an IMLS Museums for America grant (MA-30-16-0311), which was commenced in October 2016 and will be completed in September 2018. As introduced in the *Annual Report* for 2016–17, Phase IV focused on two major datasets, one from the Museum Archives and one from the Epigraphic Survey. First, we worked on cataloging and digitizing the archival materials related to threatened cultural heritage sites in Iraq and Syria, particu-

larly Tell es-Sweyhat, Khorsabad, Nippur, Hamoukar, Khafaje, Tell Asmar, Tell Agrab, and Ishchali. Second, we wanted to begin the migration of material from the Epigraphic Survey, focusing during Phase IV on the incorporation of scans of large format negatives and other archival material.

Over the course of the last two academic years, staff and volunteers in the Museum Archives have cataloged all the archival records associated with the above-mentioned sites down to the box level, and archival finding aids have been produced. This has resulted in a catalog of the following materials:

- Tell es-Sweyhat: 81 boxes, 143 3-ring binders, and 23 notebooks
- Khorsabad: 3 series, 26 boxes, 131 folders, and 195 individual items
- Nippur: 56 boxes
- Records of the Diyala Expedition (including Khafaje, Tell Asmar, Tell Agrab, and Ishchali): 149 boxes, 4,994 folders
- Epigraphic Survey: 6 series, 79 boxes

In addition, the following material has been digitized and incorporated into our EMu database:

- 10,000 object registration cards from the excavations at Tell es-Sweyhat
- 2,000 negatives from the excavations at Khorsabad
- 5,000 object registration cards, 2,000 object images, 2,000 locus cards, over 1,000 pages of field registers, 400 pages of field diaries, 200 drawings, and 450 archaeological and architectural plans from the records of the Diyala Expedition
- 21,500 large format negatives from the Epigraphic Survey

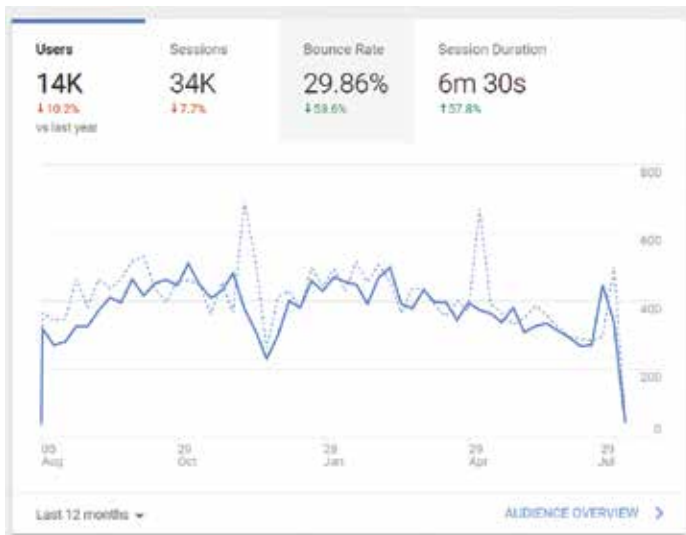
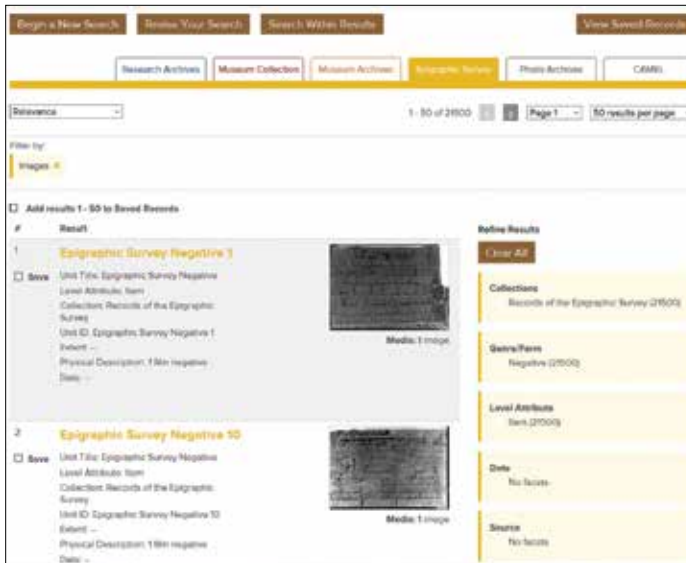
It is important to acknowledge the collaboration of Clemens Reichel and George Sundell from the Diyala Project, as well as Ray Johnson, Brett McClain, and Sue Lezon from the Epigraphic Survey, in acquiring and incorporating the digital materials related to their projects. Without their help, we would have accomplished far less than we were able to with their help. The incorporation of this material into the IDB fills important lacunae. The Search Our Collections webpage now serves as the only publicly available online portal and catalog to the incredibly valuable negatives and photographs from the Epigraphic Survey, covering sites in Egypt over the last one hundred years and often documenting features that have since deteriorated or vanished entirely. Likewise, the cataloged and digitized material related to threatened cultural heritage sites in Iraq and Syria makes available for the first time a treasure trove of documentation that will fuel and inspire a new generation of scholarship while simultaneously helping to build, document, and preserve knowledge of these world heritage resources that have faced relentless environmental and political threats.

As part of the Phase IV grant, we customized and updated our internal EMu client software to reflect changes intended to better serve these new collections. In collaboration with Tony Lauricella and CAMEL (Center for Ancient Middle Eastern Landscapes) staff, new features have been added to an internal module called Sites, which is intended to serve as a comprehensive catalog of archaeological sites in the Middle East. Records in the Sites module include geographic information system (GIS) data such as longitude and latitude coordinates for each archaeological site. Incorporating and integrating this information into the system promises to allow for future queries and research based on geographic information, including spatial searches performed through a graphic map interface. By drawing a polygon on a map, users could retrieve all records in the database — including those from all other departments such as library, collection, and archival records — relevant to sites within the polygon. For example, users could find all objects in our museum collection through a spatial search on a map or look up all library materials (including journal articles and conference proceedings) covering a specific site or set of sites. These developments represent incredibly useful tools looking toward future research that expands the ways in which our data can be manipulated, queried, and visualized.

In addition to general updates and customizations related to Museum Archives, a major component implemented in Phase IV was the Exhibition Objects module. Largely led by Associate Registrar Susan Allison and inspired by a presentation by Sharon Grant at a session of Midwestern EMu users held at the Field Museum, the Exhibition Objects module was designed to organize and record information about the relationship of an individual object to an exhibition. This includes data from across the museum about its condition, conservation, preparation, mounts, photography, and exhibition labels, among others. The module allows for a “one stop shop” for museum staff in exhibition planning to see the most current information about the status of an object as it goes through the process of assessment, photography, preparation, and exhibition. Careful thought was devoted to design so that individual departments were not burdened with undue excess or duplicative work, but rather can incorporate their current protocols and workflows. The module will help to streamline how exhibitions are planned and how data are shared among institutional partners. Rather than managing individual spreadsheets and emails, updated exhibition data can always be found directly in the system and exported to reports as needed.

SEARCH OUR COLLECTIONS (<https://oi-idb.uchicago.edu>)

The most important development of the academic year for the online public Search Our Collections page was the creation of a new departmental tab for the Epigraphic Survey (fig. 1), which has been color-coded yellow on the site to distinguish it from the other departmental tabs (Research Archives = Blue; Museum Collection = Red; Museum Archives = Orange; Photo Archives = Green; and CAMEL = Purple). In January 2018, the tab was launched with 21,502 digitized images from the large format negatives collection of the Epigraphic Survey. For the first time, a catalog of these incredibly important images has been made available to both scholars and the public. Many of the images document material that has either further deteriorated or has disappeared entirely. In addition, many of the images have never appeared in any print publication before and therefore the only source remains the Epigraphic Survey negatives. These records will certainly stimulate important new research on the texts, images, architectural features, and archaeological remains from ancient Egypt that they document. The Epigraphic Survey tab will continue to serve as the public portal to the catalog of digitized Epigraphic Survey material and we look forward to expanding the Epigraphic Survey’s publicly accessible files as well as creating useful tools for working with them.



In June and July of 2017, we enabled Google Analytics for the Search Our Collections site and we can now get a better sense of who is using the site and how they are using it (fig. 2). In the past year, we've had nearly 15,000 unique users in over 34,000 sessions who spent an average session duration of over six minutes. The audience is international, but overwhelmingly American, with 58% of users from the US, 5% from the United Kingdom, 4% from Germany, 3% from France, 3% from Canada, 3% from Italy, 2% from Egypt, and fewer than 2% from over one hundred other countries. The vast majority of users (over 95%) are primarily conducting new searches, details views, or revised searches. Popular searches were for all items on display in various galleries, with the Egyptian and Assyrian galleries topping searches for the Mesopotamian gallery by two to one. These searches appear to be conducted through the "Browse Museum Galleries" tool on the homepage, which suggests that visitors to the museum — including perhaps tour groups and students — are using the Search Our Collections page to learn about the objects on display in the galleries either before or after they have visited.

Figures 1-3. TOP: Departmental tab for the Epigraphic Survey. MIDDLE: Google Analytics data for users of the Search Our Collections site. BOTTOM: New navigation arrows allow users to easily skim through records.

Supporting the conclusion that the site is reaching an audience beyond scholars and academics, apart from the homepage and saved records pages, the most popular record viewed continued to be the Oriental Institute's iconic *lamassu* (<https://oi-idb.uchicago.edu/id/10443a90-e395-4a2f-a81f-75a3b2312c1c>), with over 1,200 views during the course of the year. The next three most popular records correspond to records accessible from the slideshow of highlights on the home page. This suggests that many users are clicking on these image highlights and navigating to their associated records. Likewise, the most popular keywords searches are for "Egypt," "Persepolis," "Lamassu," "Megiddo," "Mesopotamia," "Hammurabi," and "Book of the Dead." All of this suggests that the collections search reaches far beyond the relatively small body of academic researchers and scholars who are its primary audience. For that reason, we are investigating ways to make the resource more useful to casual and popular audiences.

To help us improve the functionality of the site, Anne Flannery and Foy Scalf led four focus group workshops in the early summer of 2018 with participants from faculty, graduate students, public educators, and volunteers. Their feedback has been extremely helpful in planning the next stages and upcoming developments for the IDB, including a more visible help link, a user-friendly page of video thumbnails for the Wiki instructional page (available on the University of Chicago Wiki site: <https://wiki.uchicago.edu/display/OISOCW/>), a more intuitive search for records with associated images, and additional views so that users have options for how to display their data. The focus groups, partially funded by the IMLS grants, provide us with much needed user perspectives for how the tools are being employed and how we can better design the site to help users easily get to the information they want.

Helping users was the focus of several upgrades accomplished over the course of the last academic year. One of the major new features is the ability to save records from every department and to download the data to a comma separated values (.csv) file. This should aid anyone who wants to work directly with the data in another software program, such as Microsoft Excel or Filemaker Pro, and it may help to decrease research requests for such data from staff, particularly Museum Registration. Paging navigation was added to the details view for each record, enabling users to click through individual records in their results list (fig. 3). For the Research Archives, search options and facet refinements were added for filtering library records corresponding to material that is online, the type of access (open access vs. subscription), and whether the record is for a review of a book as opposed to the book itself. For the Museum Collection, display, search, facets, and browse fields were added for metadata related to inscriptions, including transliteration and translation of ancient texts. Users will find lots of new data to sift through as we fill in those fields over the coming years. They will also find a much improved website experience as we incorporate changes based on our focus group feedback.

PHASE V

A grant application was submitted to the Institute of Museum and Library Services in November 2017 for Phase V of the IDB project, which would cover the years 2018–2020. Phase V is planned as a capstone project with two stages. The overall goal of the capstone project is to produce a new digital inventory of the Oriental Institute Museum holdings, integrate it with the digital assets of the IDB, and distribute it via the public web portal. Such an inventory would: a) establish a twenty-first century model for cultural heritage disaster protocols in the Information Age adhering to the highest standards of practice; b) increase both data- and image-based access to this unique collection for the diverse audiences of the OIM; and c) provide a protocol of visual documentation to mitigate against potential loss. In practice, a digital inventory would consist of at least one digital image for every object in the museum's artifact collection. Currently, roughly 50,000 out of 300,000 items have an

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associated digital image. Phase V would focus on filling the gap by obtaining or producing images of as many of the remaining 250,000 objects as possible. Stage 1, from 2018–2020, would focus on identification and digitization of object photographs in the museum archives and digitized publications, providing a digital visual record of an object through archival images. Stage 2, from 2020–2022, following the centennial and gallery enhancements project, would focus on born digital imaging of the objects in need of digital images after Stage 1, which we estimate will be 175,000–200,000 objects. Phase V is the logical culmination and natural progression of the last eight years of work to fully expose the collections of the OIM to a worldwide audience.

ACKNOWLEDGMENTS

The Integrated Database Project would not be possible without its generous funders: the Oriental Institute, the University of Chicago, the Institute for Museum and Library Services, and Aimee Drolet Rossi. By its very nature, the project is a collaborative affair, with many of the Institute's staff performing fundamental work-related tasks in the database on a daily basis. Like the old card catalog systems, the database has become the new engine for information storage, retrieval, and organization. The IDB has become an integral part of managing collections at the OI, as well as for distributing that information to the public. Our jobs are made so much easier by faculty, staff, students, and volunteers, who are helping catalog the collections within our care. They are thanked individually in the relevant departmental sections of the Annual Report. Without the help of the dozens of people participating in the project, we could never have reached the impressive accomplishments we've made over the last eight years.

JOURNAL OF NEAR EASTERN STUDIES

SETH RICHARDSON

The *Journal of Near Eastern Studies* (JNES) published issues 76/2 and 77/1 this past year, covering subjects ranging from Achaemenid Elamite administrative tablets to early Islamic sanctuary systems, from Babylonian astronomical schemes to calculate the motion of Jupiter to a new reading for inscriptions in the Dome of the Rock. In all, eighteen original studies appeared along with twenty-five book reviews. The 2017 circulation remains above 1,100 subscriptions, with another quarter of a million visits to articles online. The University of Chicago Press continues to feature the journal at meetings of the American Historical Association (AHA), American Schools of Oriental Research (ASOR), and Society of American Archivists (SAA) conferences, among others. As part of the Chicago Emerging Nations Initiative (CENI), access to the journal remains available online for free in seventy-five nations where average per-capita income is less than \$3,000 per year, including six nations where the Oriental Institute has ongoing field research.

The most-viewed article of 2017 was Joel Blecher's "Revision in the Manuscript Age: New Evidence of Early Versions of Ibn Ḥajar's *Fatḥ al-bārī*" (April 2017), which the author also treated in a more popular forum with a related piece in *The Atlantic* ("A Newly Discovered Manuscript and Its Lesson on Islam," June 28, 2017, available online). Tracy Spurrier's article on the tomb of an Assyrian queen ("Finding Hama: On the Identification of a Forgotten Queen Buried in the Nimrud Tombs," April 2017) was also featured in the July 8, 2017, edition of *USA Today*.

At this writing, JNES 77/2 is being proofed for October publication, including articles on unfree labor in third-millennium Babylonia, mortgage practices in second millennium Nuzi, and royal literature in first millennium Assyria (among many others). The editorial staff remains the same as the previous year: Christopher Woods, editor; Seth Richardson, managing editor; Ahmed El Shamsy and James Osborne book review editors (modern and ancient, respectively).

OCHRE DATA SERVICE

MILLER PROSSER and SANDRA SCHLOEN

SWIMMING IN DATA

This year the OCHRE Data Service jumped into the deep end of the pool by embarking on an ambitious new project called CEDAR (Critical Editions for Digital Analysis and Research). The CEDAR project will use the OCHRE database to analyze multiple versions of a text to determine how it evolved over time and to allow users to create a critical text edition.¹ The case studies for this massive undertaking are the biblical book of Genesis, the Sumerian tale of Gilgamesh, and William Shakespeare's "The Taming of the Shrew." While these three texts may seem to have nothing in common, each in its own right has a complex history. One of the central goals of the project is to demonstrate that the same database tools and strategies can be applied to a wide range of texts. By studying the various copies of these texts, scholars wish to elucidate the transmission history of the texts, to understand how and why they evolved over time, and even to identify observable scribal practices. To achieve these research goals in a database environment requires a radical approach to data. In the case of the book of Genesis, our researchers wish to understand where manuscripts vary in the most minute vowel or accent mark. Therefore, each letter, vowel, accent, and punctuation has to be recorded separately for every single manuscript. Only then can manuscripts be compared on this detailed level.

How do we achieve this result in a research database environment? Time to dive into the pool; the "content pool." To serve as a common backdrop for all texts of Genesis, for example, we developed the idea of a content pool. The content pool collects all known textual content of Genesis, including all variations from all attested manuscripts. As such, the content pool of Genesis ends up looking like a strange collage of Genesis. It does not read through smoothly as a text from beginning to end. That is intentional. Apart from the content pool, each attested manuscript of Genesis exists in the database as a text. The content of these actual Genesis texts is provided from the content pool of Genesis. Readers familiar with the Hebrew text of Genesis will recognize the opening phrase as בְּרֵאשִׁית, "In the beginning." The first consonant is a ב (bêt). This consonant lives in the content pool. However, the very same letter bêt also appears in every other manuscript that attests this first word. In the database, we reuse the exact same letter from the content pool to represent the first letter of every attested text. This approach may seem overly complicated on its face, but from a computational perspective, it allows the database to understand how every manuscript of Genesis aligns or diverges. If the letter bêt is shared between two manuscripts, then the computer knows that these two manuscripts align at that point. This same alignment strategy then applies to every letter, vowel, accent, and punctuation throughout all manuscripts. This is all possible thanks to the content pool. The same strategy has been implemented for comparing dozens of copies of the Sumerian tale of Gilgamesh and is in the process of being applied to the various preserved copies of "The Taming of the Shrew." In terms of scope and importance, this project has the potential to radically change the way manuscript studies are performed.²

Time to hop out of the pool and dry off for our next major achievement this year. This year, the OCHRE Data Service made significant strides in implementing advanced tools for data analytics and web publication.³ Many of the projects using the OCHRE database platform have been focused on the

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important tasks of gathering and curating data. Archaeology projects use OCHRE to record data in the field during an excavation, sitting right there at the edge of the excavation area in the hot and dry landscape of Turkey, Israel, or Peru capturing data as it is being unearthed. Philology projects create and edit editions of texts, create dictionaries, and identify people in the texts. These are all long-term tasks. However, now with an accumulation of data and years of work, many projects are ready to perform complex analyses and to make their data available online to the world. In this past year, the OCHRE Data Service has developed and implemented a number of powerful tools to facilitate these tasks.

First, we integrated the robust open-source statistical tool called R. The R statistical environment has been adopted widely in the Humanities and Social Sciences due its easy-to-use analytical libraries. With technical support from the University of Chicago Research Computing Center, the OCHRE Data Service can now provide access to R statistical libraries, allowing users to send live OCHRE data to an R-server to run various analyses, then to receive the results locally.

Two years ago, we reported on the new Geospatially-Enabled OCHRE, or GEO.⁴ Since then, we have added greater functionality to this new tool. This OCHRE feature now allows for the complete integration of geospatial data and all other project data. For example, an excavator is able to click a spot on a map in OCHRE to indicate the find spot of a newly excavated object. This information is stored in the database, allowing the object to be understood in the spatial context of the rest of the site. With this new tool, maps and top plans can be created from live data. These maps can be viewed right in OCHRE or printed for reference in the excavation field. The entire process becomes a powerful system for recording and interpreting archaeological data more fluidly and dynamically than previously possible.

Finally, we have implemented the first iteration of an OCHRE API that allows projects to publish OCHRE data directly to a traditional website. Thanks to support from the Digital Library Development Center at the Regenstein Library, this API provides a stable URL for every item in the database. Every letter in every text, every piece of pottery from an excavation, every bibliographic item, and every scholarly observation can be published on a website and referenced with a stable web address. In layman's terms, this allows projects to create traditional websites to present and share data that is pulled live directly from an OCHRE project. See the following examples:

- A Digital Signary of Sumero-Akkadian Signs⁵
<https://projects.rcc.uchicago.edu/ochre/signary/>
- Archaic and Classical Coin Hoards of the Ancient Greek World
https://projects.rcc.uchicago.edu/ochre/OCHRE_HARP/coin-hoard-site/index.html
- The OCHRE Coin Hoard App
<https://datacomestolife.maps.arcgis.com/apps/webappviewer/index.html?id=48a70a51abae4dbdabbc874c06e0c9eb>

In other exciting news, Sandra Schloen (OCHRE Data Service manager and OCHRE software developer) was selected as winner of a contest to present a user case study at the ESRI developer conference. Sandra's work with ESRI GIS tools is at the cutting edge of GIS and database integration. Also, Miller Prosser began a two-year term as a member of the newly formed ORACC Advisory Committee. ORACC (Open Richly Annotated Cuneiform Corpus) provides an online publication platform for ancient textual corpora. This new relationship will provide valuable opportunities for collaboration between ORACC and OCHRE.

In addition to thanking our existing projects, the OCHRE Data Service wishes to acknowledge the various new projects that have joined the OCHRE family. This year we are very excited to be working

with a number of new projects here at the University of Chicago, including John Novembre's project studying ancient DNA, Alan Kolata's project seeking to publish materials from his excavations in South America, María Cecilia Lozada's excavations at Corral Redondo in Peru, and Paul Sereno's archaeological and paleontological project at Gobero in Niger. Other new projects this year include the excavations at Tel Dan in Israel (Hebrew Union College/Nelson Glueck School of Biblical Archaeology, Grand Rapids Theological Seminary, Cornerstone University, UCLA and Southern Baptist Theological Seminary), at Hippos-Sussita in northern Israel (University of Haifa, Zinman Institute), at Idalian in Cyprus (Lycoming College), and a project to produce a digital companion to the forthcoming printed excavation report from Tell el-Borg in Egypt (Trinity).⁶

From pools to publication, the OCHRE Data Service is swimming in data this year!

NOTES

¹ A critical edition is a version of a text compiled from multiple attested manuscripts. It presents a version of a text that probably never existed. It represents something of a complete idea of the text. Many of the texts from the ancient world are only partially preserved, requiring reconstruction from multiple attested documents. Other texts show interesting variations that reflect the living history of the text. A critical edition attempts to account for these many factors.

² We wish to acknowledge the hard work of the CEDAR project workers: Sarah Yardney (PhD'17), Joey Cross (PhD candidate, NELC), Andrew Wilent (PhD candidate, NELC), Arianna Gass (PhD candidate, English), and Ashleigh Cassemere-Stanfield (PhD candidate, English).

³ We wish to acknowledge the contributions of two talented students in the College (now alumnae): Samantha Dean (BA'18) and Julia Oran (BA'18).

⁴ Geographic Information Systems (or GIS) are tools that help represent geographic and spatial data on maps. See https://oi.uchicago.edu/sites/oi.uchicago.edu/files/uploads/shared/docs/ar/11-20/15-16/ar2016_OCHRE.pdf.

⁵ This site also provides a link to a digital list of Gardiner's Egyptian sign list with graphical tutorials on how to draw each sign.

⁶ We wish to acknowledge the contribution of OCHRE specialist Andrew Wright (MA'17) whose archaeology expertise and attention to detail have made it possible to support these many archaeological field projects.

PUBLICATIONS OFFICE

THOMAS G. URBAN

The full-time staff of the Publications Office remained Thomas G. Urban (thirtieth year), and Charissa Johnson (second year). Part-time staff includes assistant editor Rebecca Cain (ninth year) and editorial assistants Ariel Singer and Emily Smith (both in their fourth year), and Alexandra Cornacchia, (second year). Alexandra Witsell (second year) contracted to work on *The Second Cataract Fortress at Dorginarti*, by Lisa A. Heidorn (OINE 14); and *Excavations at Serra East*, by Bruce Williams et al. (OINE 12).

This was another busy year. Twenty-nine publications in print and online, and five others are set to be published before the end of the calendar year. Two titles were reprinted. The *Annual Report*, four issues of *News & Notes*, and the *Chicago House Bulletin* were published. Copy editing continues with museum labels, brochures, lecture series fliers, the monthly Volunteer Voice, and other notices. The Publications Office manages the printed material for the Postdoc Seminar, which includes the set of guidelines — which are updated by new postdoc fellows — and posters, programs, name badges, and miscellanea, as well as the book publishing proceedings from the seminar. A good amount of time continues to be spent assisting the Chicago Demotic Dictionary (CDD) and the Chicago Hittite Dictionary (CHD).

SALES

Casemate Academic and Oxbow Books handle the bulk of book distribution for the Oriental Institute. A limited number of titles are also available for in-house sales in the Suq museum gift shop. Contact information for Casemate Academic and Oxbow Books:

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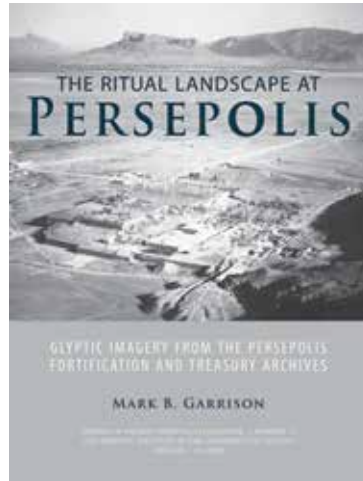
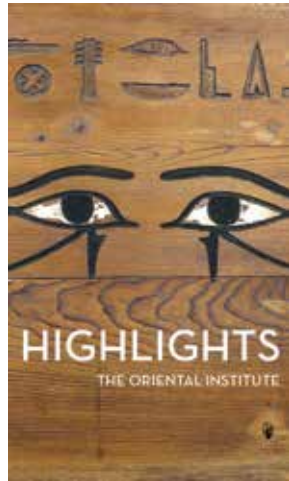
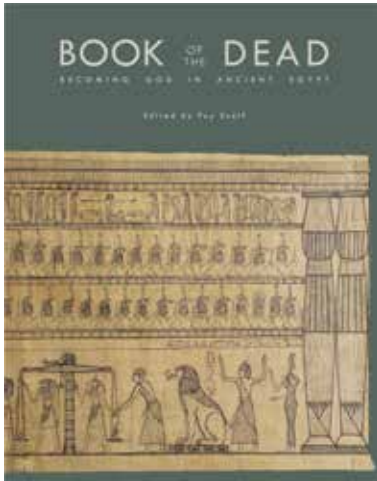
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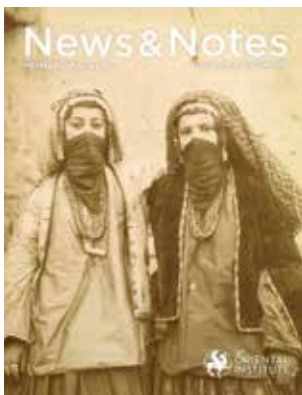
The Publications Office continues to upload PDFs of new publications simultaneously with the release of corresponding printed titles. Downloads of printed materials remain complimentary. To access the complete catalog of Oriental Institute titles, which includes *Annual Reports*, *News & Notes*, and *Chicago House Bulletins*, please visit:

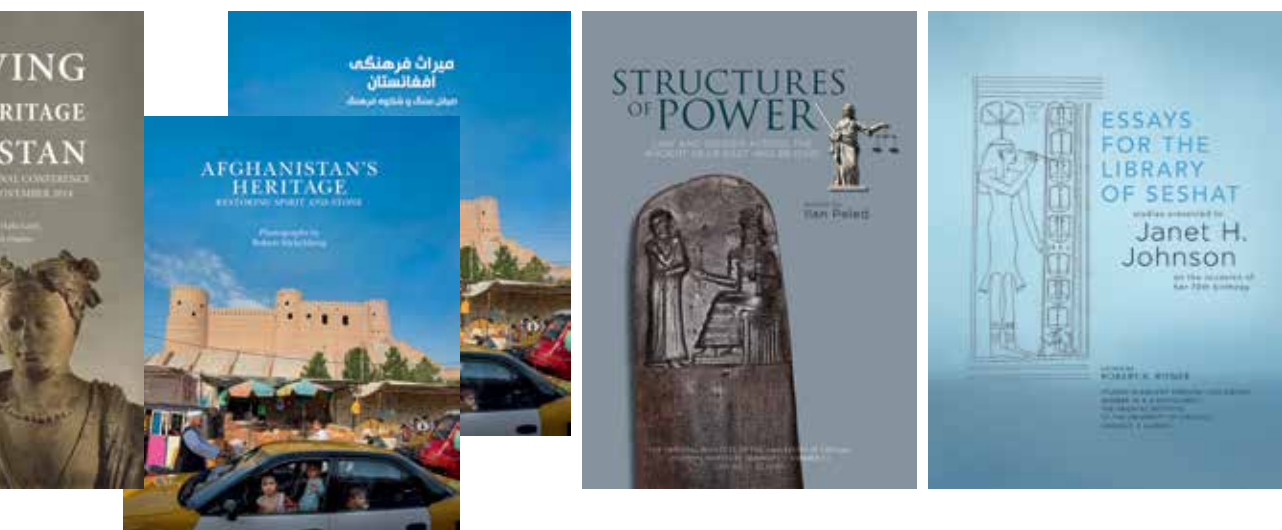
<http://oi.uchicago.edu/research/catalog-publications>



NEW TITLES PUBLISHED IN-PRINT AND ONLINE

1. *Book of the Dead: Becoming God in Ancient Egypt*. Edited by Foy Scalf. OIMP 39
2. *Highlights of the Collections of the Oriental Institute Museum*. Edited by Jean M. Evans, Jack Green, and Emily Teeter. Miscellaneous
3. *The Ritual Landscape at Persepolis: Glyptic Imagery from the Persepolis Fortification and Treasury Archives*. By Mark B. Garrison. SAOC 72
4. *Preserving the Cultural Heritage of Afghanistan: Proceedings of the International Conference Held at Kabul University, November 2014*. Edited by Gil J. Stein, Michael T. Fisher, Abdul Hafiz Latify, Najibullah Popal, and Nancy Hatch Dupree. Miscellaneous (not for purchase)
- 5–6. *Afghanistan's Heritage: Restoring Spirit and Stone*. Photographs by Robert Nickelsberg. Design and Layout by Sharon Okamoto. Edited by Tim McGirk. Two volumes: English and Dari. Miscellaneous (not for purchase)





7. *Essays for the Library of Seshat: Studies Presented to Janet H. Johnson on the Occasion of Her 70th Birthday*. Edited by Robert K. Ritner. SAOC 70
8. *Structures of Power: Law and Gender Across the Ancient Near East and Beyond*. Edited by Ilan Peled. OIS 12
9. *Annual Report 2016–2017*. Edited by Christopher Woods. Chicago: The Oriental Institute
10. *Chicago House Bulletin 28*. Edited by W. Raymond Johnson. CHB 28
- 11–14. *Oriental Institute News & Notes*. Edited by Matthew Welton and assisted by Rebecca Cain, Charissa Johnson, and Thomas Urban. NN 235–238. Quarterly
- 15–27. *Volunteer Voice*. Edited by Sue Geshwender et al. Volunteers. Monthly
28. Conference assistance: *The Connected Iron Age: Interregional Networks in the Eastern Mediterranean, 900–600 BCE*. Organized by Jonathon Hall and James F. Osbourne
29. Conference assistance: *Outward Appearance vs. Inward Significance: Addressing Identities through Attire in the Ancient World*. Organized by Aleksandra Hallmann. Postdoctoral Seminars 14



VOLUMES REPRINTED

1. *Visible Language*. Edited by Christopher Woods. 2010. OIMP 32
2. *The Mechanics of Ancient Egyptian Magical Practice*. By Robert K. Ritner. 1993. SAOC 54

VOLUMES IN PREPARATION

1. *Great Hypostyle Hall in the Temple of Amun at Karnak*, Volume 2. Translation and Commentary. Peter J. Brand, Rosa Erika Feleg, and William J. Murnane†. OIP 142
2. *Excavations in the Plain of Antioch III: Stratigraphy, Pottery, and Small Finds from Chatal Höyük in the Amuq Plain*. By Marina Pucci, with contributions by John A. Brinkman, Günther Hölbl, Theo van den Hout, and Dominique Collon. OIP 146
3. *Where Kingship Descended from Heaven: New Light on Ancient Kish*. By Karen L. Wilson and Deborah Bekken. OIP 143
4. *Nippur VI: The Inanna Temple*. By Richard L. Zettler and Karen L. Wilson, with contributions by Jean M. Evans, Robert D. Biggs, Richard C. Haines, Donald P. Hansen, McGuire Gibson, James Knudstad, and John C. Sanders. OIP 144
5. *From Sherds to Landscapes: Studies on the Ancient Near East in Honor of McGuire Gibson*. Edited by Mark Altaweel and Carrie Hritz. SAOC 71
6. *The Sheik's House at Quseir al-Qadim: Documenting a Thirteenth Century Red Sea Port*. By Katherine Strange Burke. OIP 145
7. *Tell Abada: An Ubaid Village in Central Mesopotamia*. By Sabah Aboud Jasim. OIP 147
8. *Like 'Ilu Are You Wise: Studies in Northwest Semitic Languages and Literature in Honor of Dennis G. Pardee*. Edited by H. H. Hardy II, Joseph Lam, and Eric D. Raymond. SAOC 74
9. *The Second Cataract Fortress of Dorginati*. By Lisa Heidorn. OINE 14
10. *Center and Periphery: Archaeology of Politics at Ešnunna*. By Clemens Reichel. SAOC 75
11. *Unpublished Bo-Fragments in Transliteration*. By Oğuz Soysal. CHDS 3
12. *The Demotic Dictionary of the Oriental Institute of the University of Chicago*. Edited by Janet H. Johnson. CDD
13. *The Hittite Dictionary of the Oriental Institute of the University of Chicago*. Edited by Theo van den Hout. CHD
14. *Kerkenes Final Reports 2. Excavations at the Palatial Complex*. By Geoffrey D. Summers, with contributions by Susanne Berndt Ersöz, Ahmet Çinici, Yılmaz Selim Erdal, Evangelia Ioannidou-Pişkin, Noël Siver, and Françoise Summers. Introduction by Nicholas D. Cahill and summary translated into Turkish by Güzin Eren. OIP 148
15. *Excavations at Serra East, Part 8*. By Bruce Williams et al.; OINE 12
16. *Excavations at Serra East, Part 9*. By Bruce Williams et al.; OINE 13

RESEARCH ARCHIVES

FOY SCALF

In November 2017, Foy Scalf celebrated his ten-year anniversary as head of the Research Archives. It is a good time to reflect on these annual reports and the information they provide about the Oriental Institute library, its collections, and services. Reports for the last decade have relied on a similar look and format, but a few new elements have been added this year and a few of the obsolete elements have been removed. We continue to review what information is most useful to our community and supporters and adjust our reports accordingly. In each year's annual report, the head of the Research Archives has traditionally offered a short introduction about the current state of the library in a wider, often global, context. While thinking about the last ten years in the library and reflecting on its history for the OI's upcoming centennial next year, it has become clear how important the library is to the Institute's and University's missions and how dedicated its staff members have been to fulfilling those missions with the resources available to them. Johanne Vindenas and Charles Jones often come to mind. Not only did they work through good and bad fiscal times to build the Oriental Institute and Research Archives into what it is today, but they also strived to expand what it offers and preserve its collections for future generations.

A recent event well illustrates the current political climate facing libraries, archives, and museums, while simultaneously highlighting issues of economics and preservation. In July of 2019, a professor of economics at Long Island University published an opinion piece with *Forbes* entitled "Amazon Should Replace Local Libraries to Save Taxpayers Money." It unleashed massive outrage and a Twitter-storm backlash in response, which readers can review by looking up the hashtag #WeNeedLibraries. As many of the dissenters demonstrated, the piece showcased some fundamental misunderstandings of what libraries do, what they are for, who they serve, how they work, their social benefits, and their economic advantages. Of course, the attack on one of the most cherished, and unquestionably beneficial, American social institutions — the public library system, which is so incredibly important across any measurable spectrum, from literacy rates to inclusivity to community organization to childhood education — did not arise in a vacuum. The FY 2018 budget request to Congress included a \$23 million-dollar line item to close the Institute for Museum and Library Services, one of the most important federal funding sources for libraries, archives, and museums, and a direct funder of the Oriental Institute's Integrated Database project (the organization actually received an increase in funding for the end of FY 2018, but FY 2019 remains in question). Similar measures are being suggested at local levels across the nation where claims routinely call for more "efficiency" through "consolidation" of museum and library positions. Sometimes such "shared services" can actually result in the same or increased quality of service at the same or reduced costs; however, often these efforts increase costs to the public and/or reduce quality of service. It is interesting to see how often arts, museums, libraries, and humanities are the focus of such measures.

However, there is another aspect of this event that requires attention. After the backlash, *Forbes* deleted the opinion piece from their website. A Google search now brings up pages and pages of commentary with links sending readers to a 404 error where the story once existed. Now, one of the only places to access the article is through the Internet Archive's Wayback Machine, which makes attempts at archiving web content, and, which is, ironically, supported by federal funding from institutions

such as the Institute of Museum and Library Services, National Endowment for the Humanities, and the National Science Foundation. While many see any response by Forbes to the public pressure as a positive outcome, removing this opinion piece from the web is just as likely to drive its goals behind closed doors than open them up for debate. It would be easy to make extreme comparisons to Winston Smith in Orwell's 1984, whose job it was to edit the historical record so that it conformed to political propaganda, but another aspect to raise is the question of how digital tools will affect the twenty-first century's formation and codification of knowledge. Our scientific, scholarly, and academic pursuits have been largely built on a process of falsification; we point to a hypothesis, raise evidence against it, and if deemed accurate, discard the old hypothesis. Yet, in an age of digital publication, it would be theoretically possible to simply "update" one's publications (or remove obsolete ones) to reflect newer evidence, but this would break the information chain weaving together scholarship and leave many references in the literature orphaned to inaccurate or nonexistent sources. There are many ways to ensure that doesn't happen, but such concerns also illuminate the importance of writing and print technology to the legacy of scientific achievement. It is one of the reasons our library, and its associated disciplines, is so committed to print. Many of our volumes do not exist on Amazon in digital editions, largely because many e-book formats have not been designed with the academic in mind (try citing a page number in an e-book that repaginates depending on the size of the text!). How all these intertwined questions are addressed over the next seventy-five years will have lasting effects and substantial implications for our shared human endeavor.

ACQUISITIONS

The Research Archives acquired 933 volumes in 372 accession lots of printed materials during the 2017–18 academic year (see table 1); 258 of these accessions came in via purchase, 114 through gifts, and 48 through exchanges.

Table 1. Research Archives Acquisitions July 2016–June 2017

<i>Month</i>	<i>Number of Accession Lots</i>	<i>Monographs, Series, Pamphlets</i>	<i>Journals</i>	<i>Total Volumes</i>
July 2017	28	33	19	52
August 2017	30	42	65	107
September 2017	24	61	19	80
October 2017	20	31	41	72
November 2017	28	40	50	90
December 2017	38	69	7	76
January 2018	38	52	30	82
February 2018	33	42	35	77
March 2018	37	84	13	97
April 2018	39	44	32	76
May 2018	44	62	21	83
June 2018	13	30	11	41
Totals	372	590	343	
Total Volumes				933

Almost one-half of these volumes consisted of additions to serial publications (402 volumes) and nearly one-third contributed to new journal issues (343 volumes). The remainder consisted of monographs (183 volumes) and theses (3 volumes). The average cost of each accessioned invoice was \$250 with an average of four volumes purchased on each invoice, suggesting that the average price per volume purchase was just over \$60. In preservation efforts, 556 volumes were sent for binding with HF Group in April.

ONLINE CATALOG

In 2017–18, the library staff and volunteers worked together to create over 10,000 new records in the library’s catalog within the EMU database platform that powers the Oriental Institute’s Integrated Database. Every volume acquired by the library is analyzed according to its contents and any section that has an attributed independent author is analyzed for our catalog. This includes all conference proceedings, Festschriften, and encyclopedias. In addition to the general bibliographic data captured for standard library purposes, we also catalog abbreviations and abstracts, all of which are searchable through the online catalog (<https://oi-idb.uchicago.edu>). These data are publicly accessible so that users can select and download information in a variety of formats — including comma separated values, CSL JSON, EndNote, and simple text — for use in software applications of their choosing.

Analyzing the individually authored content from newly acquired volumes results in many more database records than overall volumes in the library. The library holds over 66,000 individual volumes, but the database contains over 545,000 individual records. Predictably, articles account for the vast majority of these records (470,000 records), but these records are among the most useful for researchers as they are not typically indexed in other library systems (although articles are indexed on third party platforms such as JSTOR and are more frequently being integrated with library catalogs). With the download feature, users can import such records into their own bibliographies and software applications. These data expand the usefulness and purpose of the tool beyond that of a library catalog. On the one hand, the information provided tells users what is in the library and where to find it — a typical and necessary resource for any catalog. On the other hand, analyzing individual articles and reviews, along with their abstracts, provides a more comprehensive index to ancient Near East studies that empowers efficient, user-driven research.

Table 2. Catalog Records

<i>Year</i>	<i>No. of Catalog Records Added</i>	<i>Total No. of Catalog Records</i>
2017–18	10,000	545,000
2016–17	10,000	535,000
2015–16	15,000	525,000
2014–15	20,000	510,000
2013–14	30,000	490,000
2012–13	40,000	460,000
2011–12	30,000	420,000
2010–11	30,000	390,000
2009–10	40,000	360,000
2008–09	63,000	320,000
2007–08	62,000	257,000
2006–07	28,000	195,000

Table 3. Research Archives Analytics

<i>Type</i>	<i>Total No. of Records</i>
Total Volumes	66,451
Monographs	16,455
Monograph Sections	65,852
Series	1,521
Series Volumes	20,633
Series Volume Sections	89,032
Journals	1,013
Journal Volumes	28,341
Journal Volume Articles	314,765
Thesis	1,022
Pamphlets	2531
Reviews	118,941
Festschriften (Volumes)	608
Digital Invoice Records	1,484
Digital Cover Art Records	7,153
Adobe PDF	24,788

Through Google Analytics, we are now able to examine how users access our catalog information. We hope that over time this analysis will provide insights for how to better develop and improve the tools available to users. Over the course of the year, 42% of users looked at detail views of individual records, 42% conducted new searches, 14% used the revise search function, 1.4% used the search within results tool, 0.56% came to the site from a direct link, and 0.4% used the saved citations function. Currently it is clear that new searches for keywords are by far the most common searches. It is not always possible to tell if users are looking for library materials as popular keyword searches for “Egypt,” “Persepolis,” “Lamassu,” “Megiddo,” “Hammurabi,” and “Book of the Dead” will find results in every department. Keywords searches across all collections represent 30% of all user activity on the site. Queries where users have specified to search only the Research Archives catalog represent roughly 8.6% (8,723 events) of the total searches (101,357 events) for the year (versus 5.5% for the Museum Collection, 4.3% for the Photo Archives, 0.4% for the Museum Archives, and 0.36% for CAMEL). When users restricted their search to the Research Archives, far and away the most common searches were for keywords (3,950 events) and for authors’ names (3,337 events). Some of the most common search terms mimic the general keywords searches, including “Persepolis,” “Bronze Age Collapse,” “Hammurabi,” “Dagger,” “Hittite Warfare,” and “Egypt.” This type of information will provide a welcome and useful foundation to inform future development.

RESOURCES ON THE WEB

The online catalog remains the primary resource for the distribution of information about content related to the study of the ancient Near East. The catalog includes records for various websites and other online resources. The Research Archives maintains a limited set of open access online resources available from its webpage (<https://oi.uchicago.edu/research/research-archives-library>).

Introduction & Guide

https://oi.uchicago.edu/sites/oi.uchicago.edu/files/uploads/shared/docs/research_archives_introduction%26guide.pdf

An updated introduction and guide to the Research Archives contains a brief history, a guide to the Research Archives collection, and instructions for using the online catalog.

Acquisitions Lists

<https://oi.uchicago.edu/research/research-archives-library/acquisitions-lists-research-archives>

The acquisitions reports of the Research Archives are distributed in Adobe Portable Document Format (PDF) on a monthly basis. This process has been active and continuative since September 2007.

Annual Reports

<https://oi.uchicago.edu/research/research-archives-library/research-archives-annual-reports>

Annual Reports for the Research Archives are available from 1969–2014.

Oriental Institute Staff Newsletter

<https://oi.uchicago.edu/research/research-archives-library/oriental-institute-staff-newsletter>

From February 1998 until March 2005 an Oriental Institute Staff Newsletter was circulated among faculty, staff, students, and the wider academic community. In the interest of preservation, remaining copies of the newsletter have been scanned and archived online.

Dissertations

<https://oi.uchicago.edu/research/research-archives-library/dissertations>

With the permission of the authors, the Research Archives provides access to Adobe Portable Document Format (PDF) copies of dissertations completed in the Department of Near Eastern Languages and Civilizations of the University of Chicago.

Dissertation Proposals

<https://oi.uchicago.edu/research/research-archives-library/dissertations/dissertation-proposals>

With the permission of the authors, the Research Archives provides access to Adobe Portable Document Format (PDF) copies of dissertation proposals completed in the Department of Near Eastern Languages and Civilizations of the University of Chicago.

Adopt-a-Book Campaign

<https://oi.uchicago.edu/research/research-archives-library/adopt-book-campaign>

The Research Archives has launched an “Adopt-a-Book” campaign in order to increase support for the Research Archives. Donors are recognized through personalized book plates made in their honor and placed in volumes of their choosing.

Social Media Sites

<https://www.facebook.com/pages/Research-Archives-of-the-Oriental-Institute/153645450792>

The Research Archives now maintains an official page on Facebook. Information about recent publications of Oriental Institute scholars or reviews of recent Oriental Institute publications is distributed through this page. Currently, 3,315 individuals follow the Research Archives through this presence on Facebook.

DONATIONS

As discussed in the section on acquisitions above, the Research Archives had 114 donations to the library last year. This represents a significant portion of the overall total acquisition efforts. Donations allow us to fill important gaps in our collection, acquire duplicates of well-used volumes, and replace aging or damaged volumes. Many of these donations derive from volumes provided to the Oriental Institute by publishers who have requested to use an image in a book from the Institute’s collection. By policy, these publishers are required to provide a copy of the book to the library. Another important corpus of volumes is received from the Journal of Near Eastern Studies each year, through both exchanges and books submitted for review. In addition to these sources, the Research Archives would like to thank the following individuals for their support and donations to the library: Andrew Dolan, Gretel Braidwood, Căcilia Fluck, Nadine Goebel and the Max Planck Institute for European Legal History, John Holland, Carolyn Livingood, Malcolm Mosher Jr., Seth Richardson, Roberta Schaffner, Kate Sheppard, Olga Vassilieva, Bernice Williams and the late Ted Castle, and Bruce Williams.

VISITORS

The Research Archives had an ID card reader installed and activated on the front doors of the library in October 2017. Patrons must scan a University of Chicago ID card to unlock the library doors during all business hours. All University of Chicago ID card holders can enter during all regular

hours, ensuring that we maintain an open door policy to everyone in the university community. For outside visitors, temporary ID cards can be checked out from the front desk in the Oriental Institute lobby by prearranging their visit with the Head of the Research Archives. This allows us to more closely monitor the security and access to the library. However, since the system records each time an ID card is scanned, we have a record of the number of visitors to the Research Archives

for the first time in recent history. In randomly reviewing the number of entrances over a week in May 2017, we found a surprising number of patrons in the library. As individual patrons scan to enter the library, we've found roughly 200 scans per day belonging to between 97 and 201 unique patrons per day and a total of nearly 300 unique patrons over the course of the week. This is an unexpectedly high number for such a focused research library, even if this represents an end of the quarter peak just a few weeks prior to exams.

Many visiting researchers, members, and friends of the Research Archives visited over the course of academic year 2017–18. These include (in alphabetical order): Ellen Alexander, Haidar Al-Qarghali, Kimberly Beasley, José Carlos Castañeda-Reyes, Elizabeth Cummins, Marcin Czarnowicz, Howard Farber, Rozanne Klinzing, Andrea Middleton, Justin Mansfield, Larry Pahl, Marina Pucci, Saba Syed Razvi, Don Skoog, Martin Andreas Stadler, Laura Steward, Antoinette Swart, Rodrigo Ulloa, Michael Vandewerken, and Michael Watson. In addition to these individuals, the Research Archives also hosted tours for a delegation of the State Department and ten Iraqi archaeologists in July, the International Congress of Hittitologists in August, the Northwestern University workshop on Arabic manuscripts in August, a group from the University of Pennsylvania Museum of Archaeology and Anthropology, the International Committee for Egyptology in September, the James Henry Breasted Society in December, the Great Chicago Libraries class from Elmhurst College in January, the prospective students of the University of Chicago in March, a group of Amherst alumni and David Wilson (grandson of John Wilson), and a special volunteers group in May. Several film interviews were conducted for the University of Chicago in the library's reading room, including one for Hazin Avdal in April. Each quarter, the library served as a location for proctoring comprehensive exams in the NELC department and Robert Ritner held a Ptolemaic Hieroglyphs class in our Gregory Areshian Collection space. My apologies to anyone who may have been missed.

Table 4. Library Patrons in May 2018

5/21/2018 → 202 ID Scans = 97 Unique Patrons
5/18/2018 → 176 ID Scans = 75 Unique Patrons
5/17/2018 → 199 ID Scans = 103 Unique Patrons
5/16/2018 → 215 ID Scans = 100 Unique Patrons
5/15/2018 → 212 ID Scans = 201 Unique Patrons
Total: 287 Unique Patrons

VOLUNTEER PROGRAM

The library has continued to host a robust volunteer contingent, fluctuating between one- to two-dozen individuals at any given time, constituting roughly 25% of all volunteers in the Oriental Institute. Volunteers have transformed the Research Archives by providing the necessary manpower to expand our capabilities and extend our services. In addition to cataloging library materials, Research Archives volunteers are in the midst of massive digitization projects such as scanning and transcribing cards for the Museum Archives, scanning and transcribing cards from the Archaeological Corpus Project, adding references to objects in the museum collection, and much more. Given the library's budgetary constraints, it would be absolutely impossible to duplicate the scale of the work that they do. This work is not abstract; each week thousands of new records become available on the Search Our Collections website. These new records allow for researchers to access information never before

publicly available, most of which was completely unknown prior to its online publication. They are owed far more than the meager thanks offered in this annual report. I hope they receive the same fulfillment of a job well done and the camaraderie of being “in the trenches” during their volunteer stays as I do from their presence in the office. Many thanks to Ray Broms, Betty Bush, Gaby Cohen, Kim Crawford, Meg Forajter, Irene Glasner, Elizabeth Green, Bettina Hammer, Kat Jarboe, Alex Jimer-son, Emily Kane, Polina Kasian, Kristin Leasia, Zoe Ma, Jacqueline Mendoza, Marge Nichols, Randy O’Neill, Olivia Puccetti, Roberta Schaffner, Sharon Shapiro, Gabriele Correa da Silva, George Thomson, Annie Zhu, and Amy Zillman.

STAFF ACKNOWLEDGMENTS

Over the last year, there have been major changes in the staff who help run the Research Archives. After ten years in the office, Laura Krenz ended her tenure in the library when she became a mother to baby boy Oskar in May 2018. I’m sure our patrons will miss Laura’s presence around the library as much as I will. She was one of the first employees hired when I took over the library in fall 2007 and she was a consistent face in our office for a decade. We wish her and her new family all the best. Sasha Rohret left us this summer after two years assisting in the library. Rebecca Wang, Sunwoo Lee, Amy Zillman, and newest recruit Emilie Sarrazin will be taking up the slack in their stead and helping me keep the Research Archives the efficient and well-oiled machine it has become. Considering that most days of the week patrons can access the library at 7:00 am, our services are now available for fifty-four hours each week. This schedule would be impossible without the help of the library staff and I thank them for their collaboration, good cheer, and dedication. I have been extremely lucky to have such quality staff members.

TABLET COLLECTION

SUSANNE PAULUS

This year was an exciting and busy one for the Tablet Collection of the Oriental Institute. Over the past twelve months we welcomed several scholars from all over the world to the OI to study our tablets, including Annalisa Azzoni (Vanderbilt University), Mark Garrison (Trinity University), Fumi Karahashi (Chuo University, Japan), Yuval Levavi (Bar-Ilan University, Israel), Reinhard Pirngruber (Austrian Academy of Sciences), and Daniel Schwemer (University of Würzburg, Germany). The tablets studied span a wide range of topics and time periods: administrative tablets from the third and first millennium BCE, tablets from Persepolis, and ritual texts.

While these scholars worked in the Tablet Room, the staff of the Tablet Collection also supported other projects by providing photographs for research purposes to several other scholars. These scholars include Jay Crisostomo (University of Michigan), Benjamin R. Foster (Yale University), Maynard P. Maidman (York University, Canada), and Magnus Widell (University of Liverpool, UK). Additionally, we granted others publication rights to selected tablets, so further publications can be expected.

As usual, the cuneiformists at the OI made good use of the collection for their own research projects and teaching. Andrew Wilent, our assistant curator, and Howard Farber published an Old Babylonian tablet from Nippur that contains important information about the king Sumu-album. Other OI scholars also featured tablets in diverse outreach and educational projects. For example, Hervé Reculeau presented several tablets about irrigation work in his gallery talk “Land, Water, Gods, and the King,” while Ilona Zsolnay included several tablets in her presentation “Judging a Cuneiform Tablet by its Proverbial Cover.” Susanne Paulus, the curator, also showed tablets at the University of Chicago’s Humanities Day; her talk, “Fake! Ancient and Modern Forgeries,” included several forgeries that she and Andrew Wilent had identified over the past year. Additionally, she presented part of our collection in a workshop organized by Sam Harris titled Teaching with Material Culture, during the 10th International Congress of Hittitology (held at the OI) and the OI’s Research Fair.

One groundbreaking change made over the past year is the introduction of the Tablet Collection Volunteer Program. While the program initially began in October with one volunteer, Susan Padula, there are now four regular volunteers. Because the tablet room is not regularly staffed except by the assistant curator, the hours provided by these volunteers are vital for important projects. One of the biggest concerns is the preservation of our cuneiform tablets. Susan Padula assessed the physical condition of over 1,500 individual tablets, reporting on both physical damage and inadequate housing. So far, it seems that only 25% of our tablets are in good condition, while the others are in need of conservation mainly on account of damage done by salination, cracking and flaking, and glue residues left by older conservation work. Of the surveyed tablets, 36% are inadequately housed in boxes made out of acidic paper unsuitable for long-term storage, while 93% of our tablets are stored on organic cotton wool, which can damage tablets in poor condition. Although these preliminary numbers are not promising, they will undoubtedly help in applying for funding for improved storage and conservation of our valuable tablets.

With the help of the volunteers, we have also begun making photographic documentation of our collection. Pictures of our tablets are part of the OI Integrated Database (IDB) and the Cuneiform Digital Library Projects, the latter of which includes information and photographs of cuneiform tab-

RESEARCH SUPPORT | TABLET COLLECTION



TOP: Terry Friedman scans cuneiform tablets.
 BOTTOM: Susan Padula checks the condition of a tablet.

lets from many collections around the world. So far, however, only our published tablets — less than one-third of our collection — have been photographed. As a result, interest in our unpublished material has been limited. In February, the Tablet Room started digitizing the unpublished tablets with the help of three volunteers, Terry Friedman, Janet Helman, and Toni Smith. The three of them are responsible for scanning the tablets on a high-resolution flatbed scanner, which produces readable images of the tablets. As tablets are three-dimensional objects, each tablet is scanned six times to provide complete coverage of the obverse, reverse, and all four edges. Thus far, 500 tablets — around 12% of our unpublished tablets — have been scanned. During post-production, all six scans for each tablet will be united into one picture, and the images will be added to the IDB, first for internal research.

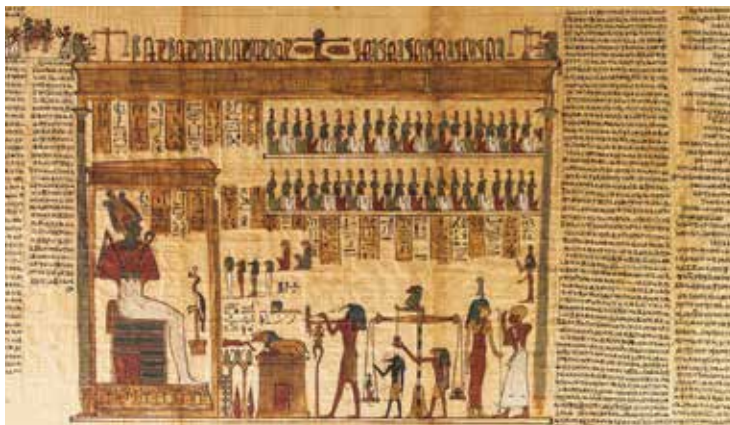
A third major project was also completed this year. During renovations of the basement where the cuneiform tablets are housed, it became apparent that our tablet molds were in need of better stor-

age. These latex models were made from tablets excavated by the OI that either stayed in their countries of origin or were sent to other collections. With the help of these molds, one can produce readable plaster casts, many of which are frequently used by international scholars. Because several of our molds were housed in decomposing cardboard boxes, we had to act quickly. Over the course of several weeks, the assistant curator moved all of the molds and related materials to more durable, weatherproof containers.

It is the pleasure of the curator to thank our amazing volunteers for all their work. Special thanks also go this year to the assistant curator, Andrew Wilent, for his exceptional service for the Tablet Collection since 2015. He not only fulfilled all tasks, but often went above and beyond his job description by doing additional research for many projects. At the end of this year, Andrew received the prestigious Oppenheim Dissertation Fellowship, which unfortunately does not permit outside work. Andrew Wilent is followed by Colton Siegmund, PhD student in Cuneiform Studies, as assistant curator.



MUSEUM



OVERLEAF: The weighing of the heart in the vignette associated with BD 125 was accompanied by a so-called negative confession, which may have had uses in priestly initiation rites beyond the mortuary sphere (OIM E9787F = Cat. No. 14, D. 28919). This judgment scene was recently displayed in the special exhibit, *Book of the Dead: Becoming God in Ancient Egypt*, curated by Foy Scalf. It is perhaps one of the most famous images from the exhibit and can be seen in the accompanying publication available for purchase or download here: <https://oi.uchicago.edu/research/publications/oimp/oimp-39-book-dead>.

MUSEUM

DENISE BROWNING, LAURA D'ALESSANDRO, JEAN M. EVANS,
ANNE FLANNERY, and HELEN McDONALD

The staff of the Oriental Institute Museum had a productive year of activity increasingly focused on realizing the aims of the Gallery Enhancements Project (GEP), which is on schedule to be completed for the celebration of the 2019 Centennial of the Oriental Institute during the 2019–20 academic year. Because of the GEP, we have reduced some of our other activities, including special exhibitions, object loans, and research visits.

GALLERY ENHANCEMENTS PROJECT

In 2014, the Oriental Institute Museum initiated the Gallery Enhancements Project, the principal aim of which is to improve the visitor experience in the galleries through updated displays, improved lighting, and the replacement of freestanding cases, many of which date to the 1931 opening of the Museum in its current location and earlier. The project has been made possible through the generosity of an anonymous donor and additional funding.

At the end of the last fiscal year, some fifty-five cases were ordered from Helmut Guenschel, Inc., based in Baltimore. This past fiscal year, we received and installed two of the five display case deliveries. We continue to work with our same outside exhibition design team of Elizabeth Kidera (Museum Exhibit Design and Architecture) as exhibition designer, Franck Mercurio (Mercurio-Exhibits) as exhibition developer, and Lori Walsh (Walsh Graphic Design) as senior graphic designer.

The elimination of graphic repetition and the consolidation of graphics continues to be a focus of our work. We continue to produce new display case designs for both existing cases that will not be replaced in addition to the new Guenschel cases. In particular, the GEP work in the Henrietta Herbolzheimer, M.D. Syro-Anatolian Gallery and the Haas and Schwartz Megiddo Gallery is completed. We are currently completing The Joseph and Mary Grimshaw Egyptian Gallery. In the coming year, our focus will be on the Edgar and Deborah Jannotta Mesopotamian Gallery, the Yelda Khorsabad Court Gallery, the Dr. Norman Solhkhah Family Assyrian Empire Gallery, and the Robert and Deborah Aliber Persian Gallery.

For the GEP, Conservation continued their role of object-driven activities over the course of the year, assisting with the deinstallation of objects from their display cases and examining them in the Conservation laboratory to assess their condition and determine if stabilizing treatments were needed. At the same time, the mounts that hold the objects in the displays were assessed to check their functionality. Where necessary, new mounts were specified or modifications of existing mounts were recommended. Material identification of the objects in the collection continued. The Conservation lab's hand-held x-ray fluorescence spectrometer has been of immeasurable value in this activity. We corrected many of the historical designations that were based on visual identifications and have proven to often be incorrect.

Testing of display materials ensured that any product used inside a display case would not emit harmful volatiles that could contribute to the deterioration of the collection. Conservation treatments continued on the objects that required intervention to ensure their long-term survival. Even with

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FROM LEFT TO RIGHT: Figure 1. Moving the Babylonian lion panels in January 2018. Figure 2. Borescope being used to examine the interior of Sennacherib's Prism (OIM A2793). Figure 3. Conservators Stephanie Black (left) and Alison Whyte (right) place a protective cover over a wooden boat model (OIM E11492).

museum quality climate-control and other passive measures taken to ensure the long-term preservation of the collection, such as light restrictions and use of inert display materials, an archaeological collection is often difficult to stabilize and must be closely monitored.

Museum Registration has kept track of objects as they come off display, move around between different departments, and eventually go back on display (or back into storage if they are no longer being used). To do this we have been using the IDB to keep a deinstallation record for each case to which all the affected object records are attached and then a reinstallation record to which different objects are sometimes attached (this depends on how many objects are new additions to the case, how many are not going back on display, and if some objects are moving from one display case to another). When objects are being deinstalled the registrars arrange housing and object and case labels so that every object has the relevant labels with it as it moves through the Conservation and Preparation departments. Quite a lot of cases have been deinstalled twice; once when their gallery was being repainted and again when their case was being replaced. Registration has also been bringing new objects out of storage when requested by the curators and has been sending them up to the Conservation lab for assessment. Additionally, Registration checks the registration numbers and any available information in Registration as well as the accession records for the label copy before the new case labels are printed.

Finally, thank you to the many of members of the OI community who have shared their enthusiasm for the GEP with us.

MUSEUM ATTENDANCE

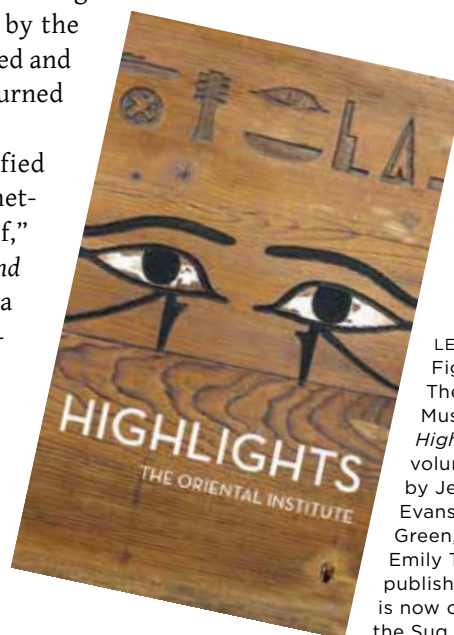
The total number of visitors to the Museum in the past fiscal year (July 1, 2017–June 30, 2018) was 45,070. The decline from 2017 in the number of visitors is likely a reflection of the gallery closings that were necessary for the Gallery Enhancements Project. Every gallery in the Museum experienced closing of at least a few weeks this past year. Many thanks to Victor Cruz, director of Visitor Services and Security, for recording our visitor statistics.



CONSERVATION

Conservation welcomed a new staff member to the lab in July to assist with the GEP activities. Stephanie Black, assistant conservator, joined the Oriental Institute after working as a conservator and laboratory technician for UCL Qatar's MSC Conservation Studies training program. Stephanie holds an MA and an MSc from the University of London's Institute of Archaeology graduate conservation training program. One of her most interesting projects to date was working on Sennacharib's Prism this past winter. The prism's interior was exhibiting crystalline growths which were able to be viewed by the lab's borescope (fig. 2). Stephanie successfully cleaned and stabilized the interior, allowing the prism to be returned to display in the Assyrian gallery.

Alison Whyte, associate conservator, was notified that the paper she co-authored with Simona Cristanetti, "The Conservation of the Coffin of Ipi Ha Ishutef," was accepted for publication in the *Proceedings Second Vatican Coffin Conference*, Musei Vaticani, Rome. On a slightly smaller scale, one of Alison's more interesting conservation treatments of 2018 focused on a boat model from the Egyptian collection. During its time in the lab, the boat was protected from the sprinkler system when not actively undergoing conservation (fig. 3). After stabilization of the fragile painted decoration and cleaning of the surface, the boat model was returned to display in the Egyptian gallery.



LEFT:
Figure 4.
The all-
Museum
Highlights
volume edited
by Jean M.
Evans, Jack
Green, and
Emily Teeter was
published and
is now on sale in
the Suq.

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Conservation hosted several groups over the year with very abbreviated tours of the lab due to the number of objects from the GEP taking up every available surface and making it difficult to maneuver safely around the objects. One of the larger tours was a group from the Consortium of Academic and Research Libraries in Illinois that was organized by special arrangement with our colleagues at the Regenstein Library. Participants from twenty-seven different institutes of higher education toured the lab in the spring and were very enthusiastic about the opportunity to learn about the treatment of 3-D objects.

Conservation attended a special viewing of the exhibit “Mummies: Images of the Afterlife” hosted by our colleagues at the Field Museum of Natural History and presented by the curator of the exhibit, Field Museum Conservator JP Brown. Conservation also attended a workshop on Oddy testing issues at the Field Museum, where participants from the Art Institute, the OI, and the Field Museum discussed the latest developments in testing methodologies for materials used inside display cases.

An important role of conservation is encouraging the interest of future conservators. To that end, the lab hosted several visitors over the course of the year who had expressed interest in pursuing careers in conservation. The potential future conservators are always appreciative of the opportunity to visit a conservation laboratory and speak with professional conservators about their experiences.

REGISTRATION

With so many objects off display for the GEP, Registration made the most of this opportunity to photograph and measure as many as possible and add those images and measurements to the database. In the last year, 5,560 images have been added to the IDB.

Registration work on the new Exhibition Objects module continued this year. The design and narrative, mentioned in last year’s report, were submitted late summer 2017. By January 2018, we had the first test version installed. Comprehensive testing was done and any issues were submitted to the database company, Axiell. In June 2018, we completed our third round of testing. At this point, all major changes have been made and bugs corrected. The fourth test version is currently under construction and we hope to begin testing soon. We should go live with the module later this year.

In May 2018, the associate registrar Susan Allison began managing photo permissions and new photography. Thus far, incoming photo requests have been heavy. The majority are requests for archival images, but also include object photo requests. The amount of time it takes to process an order varies widely and depends largely on the accessibility of the image(s) requested. If images aren’t readily available, new high-resolution images will need to be created or new object photography may be necessary. A fair amount of research is also involved if the requester does not know either the image or object registration number of the image in question. The orders are managed in our IDB.

The photographer now works directly with Registration. Susan puts the new photography on the schedule and pulls the objects needed from either display or storage. Our new Exhibition Objects module, detailed separately in this report, includes an updated request workflow, which will allow us to better manage photography requests. After the photographs are approved, the images are registered with digital numbers, entered into the database, and attached to the corresponding object record.

The registrar embarked on a reorganization of our temporary storage boxes this year, an inventory of them having been carried out in 2014. Thirty boxes have been unpacked and a further 320 boxes have been moved within storage to consolidate the space they take up and to make them more accessible. This work is ongoing.

Loans

A loan of Nubian beads for LA-ICP MS analysis went out to Laure Dussubieux at the Field Museum and has now returned. Our loan to the Booth School of Business on campus has been renewed for a further year (see it on display in a case in the Booth school lobby). We have just renewed a loan of two objects from the Art Institute that are on display in our Egyptian gallery (a baked clay orant figure in the chronology case and a stone relief in the same display case as the child mummy).

Requests

Registration has responded to 152 different requests this year for the following reasons: Gallery enhancements (19 requests); research (54); class use (30); photography (31); and special events/viewing (13). All this activity affected over 10,600 different objects and generated over 53,000 object movements. The gallery enhancements project accounted for over 4,500 object movements. Slightly fewer than 4,400 object moves were related to location changes or inventory. Just over 2,500 object moves were related to research of all kinds and just over 500 moves related to class use. Photography requests accounted for 1,030 object moves and around 500 objects have been registered. Some 38,000 moves were related to returning objects to storage or display that had been out for all of the reasons listed above. Compared to recent years this was a busy year for classes.

An additional 75 different requests involved the tablet collection (affecting over 1,700 different objects and 5,900 object movements). While the tablet curator's assistant moved the objects in question, the registrars kept the request records and carried out all the location changes for the objects in the IDB.

Visiting Researchers

We were honored to be able to continue the Oriental Institute Collections Research Grant programs thanks to the generous support of O. J. Sopranos. The following applicants were funded to carry out research on the collections: Marie-Laure Chambrade (University of Lyon, project entitled "Water-scapes of Ancient Persia from the Bird's-Eye View of the Friend of Iran"); Serenella Mancini (Sapienza University of Rome, project entitled "The Pottery from Istakhr in the Oriental Institute Museum"); and Albert Planelles Orozco (Universidad de Alcalá, project entitled "The Epistolary Genre in the Cuneiform Archives from Nuzi"). Remaining funds were allocated for the purchase of a high-quality camera for the tablet room.

This year we accommodated a range of visiting researchers in addition to the three visits relating to the collections research grant awards made in 2017:

- Lindsay Allen (King's College London) was awarded a CRG for the study of the stone architectural sculpture from Persepolis acquired by the OI through the Oriental Institute's Persian Expedition in Iran (1931–1939) and the associated archival material from the excavations at Persepolis. This material will assist Allen in her creation of a catalog of object biographies of Persepolitan fragments held in museums outside of Iran.
- Astrid Nunn (Julius-Maximilians University, Würzburg), Barbara Jändl (Archäologische Staatssammlung, Munich), and Heinrich Piening (Bayerische Schlösserverwaltung) were awarded a CRG for the study of pigment on Diyala statues visited and examined fifty statues and fragments in the Conservation lab (October/November).
- Serenella Mancini (La Sapienza University of Rome) was awarded a CRG to study Islamic pottery from Istakhr (Iran). She visited for November and December and examined around 180 pots and 16 drawers of sherds.

MUSEUM

- Aaron de Souza (PhD graduate, Macquarie University, Australia) studied Egyptian pan grave material as part of his CRG award. While most of the material is a loan stored in the arch labs with Bruce Williams, he also looked at material from Hiw in the Museum collection.
- Anette Schomberg (postdoctoral fellow, University of Berlin) visited to conduct 3-D scanning of the stone water clock in the Egyptian gallery in July (E16875).
- Anastasia Amrhein (PhD Candidate, University of Pennsylvania) visited to study Neo-Assyrian and Achaemenid seals and their impressions (August).
- Stephane Fetler (PhD Candidate, Université Libre de Bruxelles) visited to photograph mummy cartonnage and coffin fragments of the Twenty-first and Twenty-second Dynasties (December). While it was not possible to get this material out, we were able to take Stephane into storage to take the images he needed without moving or handling any of the objects.
- Atefeh Razmjoo (working with Abbas Alizadeh) studied drawers of Chogha Mish sherds to try to identify Late Susiana 1 sherds (December/January).
- Margarita Gleba (McDonald Institute for Archaeological Research, University of Cambridge UK) came in to examine textile traces on one of the Egyptian mirrors while attending the post graduate conference on textiles (E18836). This examination took place in the Conservation lab.
- Marina Pucci (University of Florence) came in to check the details on a few Chatal Höyük objects for her forthcoming publication and requested photography of some scarabs from the site.
- Douglas Inglis (PhD student, Texas A&M University) came in to study an Egyptian pot decorated with an incised boat (April).
- Jaś Elsner (University of Oxford, UK) looked at Coptic textiles while visiting the Logan center (April).
- Fr. Sharbel Iskander Bcheiry (American Theological Society) came in to study some Syriac folios (A12000–A12006). He is about to publish an article on sections of manuscripts A12008 in *Parole de L'Orient*.
- Lynn Welton (CRANE project, University of Toronto) studied Amuq sherds and some statue fragments from Tayinat while in Chicago to give a lecture on the CRANE project (May/June).
- Antonino Crisa (University of Warwick, UK) visited to study Palymyrene tokens in June.

In addition to visits we have answered queries about Egyptian archery equipment (Samantha Cook, University of Liverpool), Amuq phase A stone vessels (Philip Edwards La Trobe university, answered with the assistance of Carol Meyer)

Classes and Special Events

Summer 2017

- Arabic manuscripts including Kufic Quran folios and some Arabic historical textual fragments were made available for a viewing by attendees of the Working with Arabic-Script Manuscripts in Africa workshop held at Northwestern University on August 17.
- A backstage tour for the Hittite conference attendees on August 29 showed them a selection of sculpture and architectural elements as well as Alishar pottery and Hittite tablets.
- A selection of objects from the Book of the Dead special exhibit were taken up to the gallery for a preview for the OI Advisory Council on September 27. UChicago News filmed selected objects from the same special exhibit in the Conservation lab on September 14.

Fall 2017

- Yousef Casewit (Divinity School) used a selection of eight Arabic manuscripts for his graduate course on codicology and manuscript editorial techniques.
- Persis Berlekamp (Art History) used a selection of eighteen Arabic manuscripts for her graduate seminar on Arts of the Book in the Islamic World (November 10th).
- Donald Whitcomb used a selection of Islamic sherds from Khirbet Kerak for a class in the autumn term.
- Alice Yao (Anthropology) used a drawer of lithics for a class in October.
- Rachel Schine brought her class in to look at a selection of Hebrew and Arabic inscribed material.
- Franklin Lewis (NELC) used a small number of Arabic manuscripts for classes in both the autumn and winter terms.

Winter 2018

- Foy Scalf used a selection of manuscripts and book bindings for an evening class for Dominican University. The class visited in February.

Spring 2018

- Foy Scalf and the members of his Coptic evening class visited to look at a selection of Coptic ostraca and manuscripts.
- James Osborne taught a class on ceramic technology which made use of a wider variety of sherd material. All eleven of the students came in to study and write a paper on one particular vessel.
- Brian Muhs taught a class that used a selection of Demotic ostraca. Each of the students also studied their own selection of ostraca for class papers.
- Robert Ritner used the usual selection of heart scarabs for the Beginning Hieroglyphs class.

MUSEUM ARCHIVES

The 2017–18 year was filled with a variety of projects, researchers, and events for the Museum Archives. Great strides were made in the way of access and research, as well as administrative improvements. The Museum Archives continues to refine its mission, policies, access, and discoverability in order to best serve its research and scholarly communities.

Access

Students and volunteers tirelessly cataloged the Museum Archive's collections this year, in particular the Oriental Institute's Negative Collection. We are nearing 80% completion on this project which means that over 35,000 folder-level records have been cataloged since 2016. This translates into a collection that allows researchers to access an image's description and learn its location and any identification numbers associated with it. This involves greater access to a photographic collection that is widely used by research and scholarly communities. This is a huge boost in transparency for the archives since this information was not previously accessible to the public.

The Museum Archives has also provided the Research Archives access to negative cards and expedition records for digitization. The generosity and resources of the Research Archives will allow records to become even more beneficial to researchers in the coming year.

In addition to cataloging archival records, old media — such as reel-to-reel film and cassette tapes — continue to be digitized and made available through the Oriental Institute's YouTube channel.

MUSEUM

New Research/Visitors

The Museum Archives responded to more than 150 research and information requests, which required the transfer of approximately 2,000 documents and photographs, much of which involved new scanning.

The Museum Archives hosted visitors from all over the globe this past year. Researchers and requests came from a variety of institutions including: University of Amsterdam; Boston University; Brown University; University of Cologne; University of Copenhagen; George Washington University; The Iraqi Parliament; King's College, London; Metropolitan Museum; New York District Attorney's Office; The University of Oxford; and The University of Sydney.

Collections that were most requested this year included: Records of the Amherst Papyrus 63; Records of Anatolian Expeditions; Directors Correspondence; Records of Diyala Expeditions; James Henry Breasted Papers; Records of Jarmo; Records of Medinet Habu; Records of Megiddo; Records of Persepolis; and Records of the Oriental Institute's Negative Collection.

Grants

The Museum Archives continues to be involved with the latest IMLS grant, which focused on cataloging and digitizing archival materials related to sites which are currently under threat of terrorism. Records from Diyala, Khorsabad, and Tell Sweyhat have been incorporated into the IDB. The current two-year grant cycle will come to a close in September 2018.

Special Projects

The Oral History Project continues to move forward as a joint project between the Museum Archives, Research Archives, and IT. The goal of the Oral History Project is to collect and preserve information about the institute, its people, and their experiences. These interviews represent a unique perspective on institutional history rarely captured by conventional research and publications. New interviews that have already been recorded and will appear on the Oriental Institute's YouTube channel include: Janet Johnson, Carlotta Maher, and Gil Stein.

Additionally, the Museum Archives has been involved in a variety of outreach efforts in order to reach the campus community and beyond. Archival materials are regularly supplied for tours, undergraduate and graduate classes, and volunteer training. The head of Museum Archives has participated in a wide-range of provenance research, training, and network building including: The German-American Provenance Research Exchange Program; The National Geographic Society's and Association of American Museum Director's Antiquities Provenance Workshop; and the Association of Art Museum Curators' Webinar on Provenance.

Special thanks to Foy Scalf and the Research Archives for teaming up to work on digitization projects like the negative cards and IMLS grant requirements, as well as IDB support and regular archival advice. Thank you to everyone who assists in evaluating archival materials including: Jean Evans, Kiersten Neumann, and Tony Lauricella. Thank you to Jean Evans for her support of archival projects at home and abroad! And last, but not least, thank you to students and volunteers who do so much on a daily basis, especially: Jeff Cumonow, Fan Ge, Heidi Hilliker, Mitchell Jackson, Kat Jarboe, Bonnie Nelson, Rosemary Ott, Mike Ramberg, Charles Ro, and Amy Zillman.

SPECIAL EXHIBITIONS

The special exhibition, *Book of the Dead: Becoming God in Ancient Egypt*, ran from October 3, 2017–March 31, 2018, and was curated by Foy Scalf. The exhibit included over fifty objects that explored

what the Book of the Dead was, what it was believed to do, how it worked, how was it made, and what happened to it. The show featured two Books of the Dead shown in full for the first time in nearly a century. A recreation of a burial with a rarely exhibited mummy illustrated how the many objects inscribed with the Book of the Dead literally surrounded the deceased. The exhibit presented the newest research on the Book of the Dead, with an accompanying catalog also edited by Foy Scalf.

Emily Teeter, our special exhibitions coordinator, retired in October. Over her career of twenty-seven years, Emily contributed to many aspects of the Museum, in addition to coordinating — and frequently curating — our special exhibits. She authored and edited numerous publications, including *Ancient Egypt: Treasures from the Collection of the Oriental Institute, University of Chicago* (2003) and *Highlights of the Collections of the Oriental Institute Museum* (2017). Among her most notable accomplishments was curating the Joseph and Mary Grimshaw Egyptian Gallery. We thank her for her contributions to the Oriental Institute Museum and for her many years of service.

ACQUISITIONS

In October, the Acquisitions Committee decided in favor of accepting the following materials: 1) sherds and other materials collected during excavations at Tell Kurdu; 2) documentation related to Donald Hansen's excavations at Mendes and Jujah; and 3) artwork by Audrius Pliplys.

SUQ

The Suq had an exciting year working with Foy Scalf developing new merchandise for the special exhibit, Book of the Dead: Becoming God in Ancient Egypt. We developed a mug that depicted a spell for not getting scalded, an “I Am Osiris” T-shirt, a magnet, a Thoth temporary tattoo, four bookmarks depicting different spells from Book of the Dead, and a postcard and a small sculpture created by Brian Zimmerle of a unique scarab with a human face. The merchandise was very successful and most of it was gone by the end of the exhibit.

Our stock was augmented by many wonderful donations from Jane Meloy, Sara Johnson, Joan Fortune, Emily Teeter, and Shirlee Hoffman.

Our wonderful docents gave excellent service to our customers, Ray Broms, Louise Despres, Alice Mulberry, and our returning Ann Schumacher. We are also totally indebted to our charming and elegant Norma van der Meulen who creates the most beautiful jewelry for us.

We finished the year off with our annual rug sale selling over \$28,000 worth of rugs!



COMMUNICATIONS



OVERLEAF: From 1929 to 1935, OI archaeologists excavated the site of Khorsabad (ancient Dur-Sharrukin, "Fortress of Sargon"), first as the Assyrian Expedition under the direction of Edward Chiera (1885-1933) and after the Iraq Expedition under the direction of Henri Frankfort (1897-1954) and then Gordon Loud (1900-1971). OI archaeologists expanded upon the excavations of French archaeologists, who worked at the site in the mid-nineteenth century. This photograph shows the excavations of one of the monumental gates — marked by a pair of winged human-headed bulls (*lamassu*) — at one of the entrances to the citadel, atop which was Sargon's royal palace, royal residences, temples, and a ziggurat (P. 23843). On Twitter, this photo was one of the OI's top tweets of the year. Check out all of our social media:

Facebook: [@OrientalInstitute](#)

Instagram: [@theorientalinstitute](#)

Twitter: [@orientalinst](#)

Snapchat: [@oichicago](#)

YouTube: www.youtube.com/JamesHenryBreasted

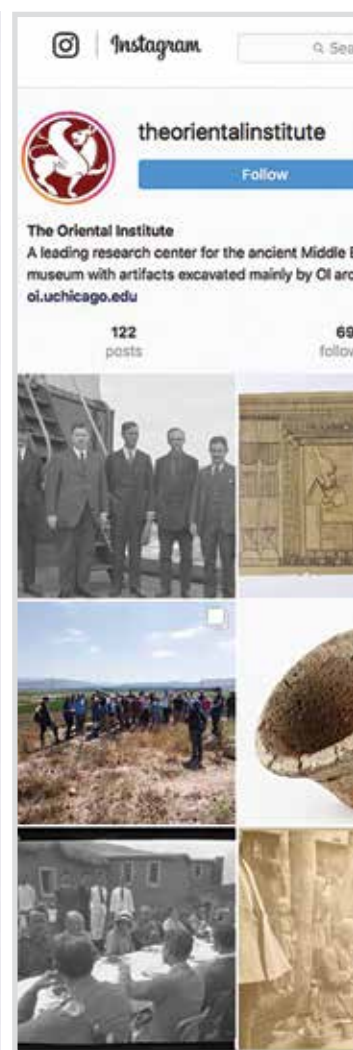
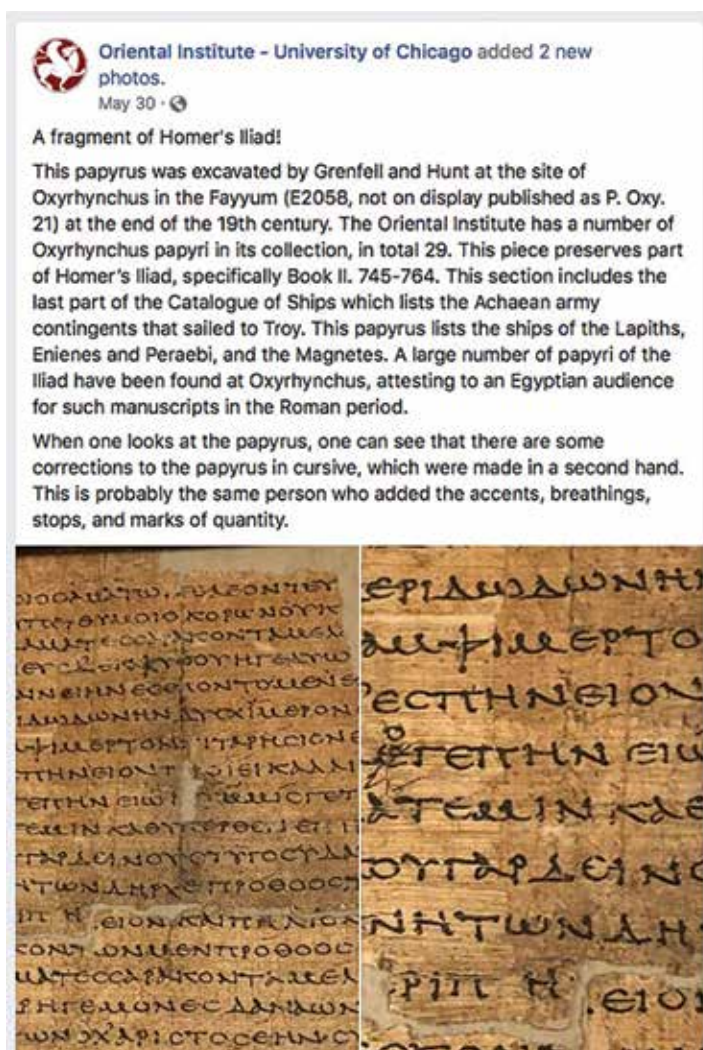
COMMUNICATIONS

KIERSTEN NEUMANN

The OI has seen a number of changes over the past year with respect to its communications program. In October, Emily Teeter retired from her position as special exhibitions coordinator, in which capacity she also oversaw publicity for the Museum. We want to thank Emily for her efforts promoting the Museum's exhibits, programs, and events across media platforms and for collaborating with colleagues on campus and throughout Chicago. We would also like to thank the marketing company Social Media Moo, LLC, who managed our social media efforts from April 2016 until March 2018. In April 2018, I was very pleased to accept the position of communications associate, in addition to my role as curator at the museum. Assuming the responsibility of executing the OI's marketing, public relations, and branding strategies is no small feat. However, I cannot think of a better time to take on these efforts and am excited to be given the opportunity to help raise the visibility and profile of the OI among UChicago students and campus community, current and future donors, researchers, and potential Museum-goers from around the world. Since January 2018, we have been working with central University Communications, UChicago Creative, and the consulting firm Lipman Hearne on branding and messaging for the OI. As we finesse the brand story, core messages, and visual brand, we are confident that the end product will capture in every respect the identity of the OI — a pioneering interdisciplinary research center that advances knowledge and discovery related to the ancient Middle East through field-defining excavations and research projects, the creation of transformative dictionaries that serve as cultural encyclopedias, centers for the preservation of the region's imperiled cultural heritage, and an unparalleled collection of artifacts and archival documents from excavations in the Middle East in our Museum. We look forward to officially rolling out our new brand strategy and message platform in 2019 as we begin promoting and prepare for our upcoming centennial. In association with marketing materials specific to the centennial, we are developing a microsite to showcase the events and exhibits of our 2019–20 celebratory year.

While we have reduced our marketing endeavors as we await our new branding, we did not hold back on promoting our much anticipated 2017–18 special exhibit, *Book of the Dead: Becoming God in Ancient Egypt*. In addition to features with WBEZ and the Hyde Park Herald, street pole banners, rack cards, and a creative assortment of merchandise, articles on the exhibit were published with *KMT* magazine, *UChicago News*, *UChicago Magazine*, and *OI News & Notes*. The exhibit kicked off with an opening lecture at the members' preview, which was followed by over three dozen curator-led tours of the exhibit and curator lectures promoting the exhibit through local institutions and the OI community scholars program. The exhibit catalog was highlighted at two events; the first was hosted by the Seminary Coop, where curator Foy Scalf was joined by special guest Rita Lucarelli from Berkeley, and the second by 57th Street Books, where writers read fiction inspired by the exhibit. Associated lectures by Peter Dorman and David Silverman on themes relating to the exhibit were hosted by ARCE (American Research Center in Egypt) and OI membership.

We continue to work on increasing our social media presence, sharing information through trending posts, and engaging in campus and cross-museum campaigns. This growth has been possible over the past year thanks to the efforts of Social Media Moo, LCC, and more recently with a cross-departmental team of Polina Kasian, Kiersten Neumann, Calgary Trautman-Haines,





Tasha Vorderstrasse, and Matt Welton. Our Facebook base has risen 7.8%, reaching a total of 23,000 followers from across the globe. Our number one most engaging post was a photo highlight of the Museum's papyrus fragment of Homer's Iliad excavated at the site of Oxyrhynchus in the Fayum at the end of the nineteenth century. This piece, which preserves part of Book II. 745-64 of the Iliad, reached 41,300 people, with over 1,900 reactions, comments, and shares. On Twitter, we have attracted 23% more followers, reaching a total of 10,761. In August, when our fidgetspinner look-alike in the Mesopotamian Gallery went viral, we jumped on the opportunity to be involved in the hype, posting a photo of a new label we placed beside the macehead; the tweet received 20,863 impressions. This was outmatched by three tweets in April and May 2018: a photo of the fragment of Homer's Iliad, the Amarna tablet, and a #TBT post of an archival photograph of OI excavations at Khorsabad (see overleaf), featuring the south citadel gate with its monumental stone lamassus; the latter received 48,203 impressions, making it our top tweet of the year. In March 2018, the OI joined the world of Instagram, sharing engaging photos and stories about the OI and its collections. On YouTube our subscription base has once again jumped exponentially, reaching a total of 15,269, up a significant 69% from last year. Next year our social media platforms will be a feast for the eyes with the launch of our new branding and messaging!



PUBLIC EDUCATION



OVERLEAF: Disk-headed pin from Iran with an eight-petal rosette at its center and a schematic human face incised just above the thin handle (Iron Age, ca. 800–650 BC, OIM A25293). During ancient times, metal objects were highly valued as they elevated one's social status and could be easily shaped, decorated, and recycled. This object was most recently featured in the 14th annual Oriental Institute Seminar program as well as the recently published *Highlights of the Collections of the Oriental Institute Museum*, edited by Jean M. Evans, Jack Green, and Emily Teeter (2017); it is available for purchase and a free PDF download here: <https://oi.uchicago.edu/research/publications/misc/highlights-collections-oriental-institute>.

ADULT EDUCATION

TASHA VORDERSTRASSE

Tasha Vorderstrasse, who was already a research associate at the Oriental Institute, stepped into the role of university and continuing education program coordinator in September 2017. The report here covers the time since she began this position. Carol Ng-He left her position in May of 2017.

The adult education program continued to offer continuing education classes. In fall 2017, there were two classes: “Art in Antiquity: An Introduction to Ancient Near Eastern Art and Archaeology,” taught by Kiersten Neumann, PhD, curator of the Oriental Institute; and “Hieroglyphica: The History of Egyptology,” taught by Foy Scalf, PhD, head of the Research Archives. The two classes were offered both on-site as well as online. In addition, there was an offsite cooking class, “Ancient Cooking with Assyrian Kitchen” that was led by Atorina Zomaya. In the winter of 2018, the classes were offered for the first time with online streaming capabilities, meaning that the online students could live chat and take part in the discussions. The three classes in the winter were: “Ancient Egyptian Crimes, Lawsuits, and Trials,” taught by Brian Muhs, professor of Egyptology; “Intensive Sahidic Coptic,” taught by Foy Scalf; and “East meets West: Arts of the Silk Road in Central Asia,” taught by Tasha Vorderstrasse. Four further classes were taught in spring 2018: “Ancient Egyptian Art and Architecture” by Megaera Lorenz, PhD; “The World of the Hebrew Bible,” by Joey Cross, PhD candidate; “Readings in Sahidic Coptic Texts,” by Foy Scalf; and “Frank Lloyd Wright’s Vision for Greater Baghdad,” by Tasha Vorderstrasse. Technological support has been provided throughout by Knut Boehmer, IT manager at the Oriental Institute.

The gallery talks also provided a range of subject matters for the audience, with focuses on Mesopotamia (“Land, Water, Gods, and the King,” “Stone Ducks: Weights and Measures in Mesopotamia,” “Mesopotamian Temple Statues and Sacred Gifts”), Egypt (“Communicating with the Beyond in Ancient Egypt,” “Ancient Egyptian Book of the Dead,” “Sleep like an Egyptian: Egyptian Headrests in Context,” “Late Antique Egyptian Textiles in the Oriental Institute Museum,” and “Shabtis: Servants and Substitutes”), as well as Anatolia (“A Thousand Gods, a Thousand Festivals”). These were



Gallery talks with Theo van den Hout (LEFT) and Tasha Vorderstrasse (RIGHT).



ABOVE: Gallery talk by Sasha Rohret.

South Side libraries. The grant was entitled: “Oriental Institute Community Scholars: Bringing the Past to the South Side of Chicago.” This project is backed by the Vice Provost for Academic Leadership, Advancement and Diversity.

presented by various members of the Oriental Institute faculty and staff, as well as a CMES MA student.

In addition to these activities, there were also a number of public tours given by Foy Scalf as part of the Oriental Institute Museum special exhibition *The Book of the Dead: Becoming God in Ancient Egypt*. This was the first time that tours of the special exhibition were made available for the general public. We had a good response to these tours even though they were usually held in the middle of the day and during the week rather than on weekends. Several specialist tours on different subject matters were also given by Tasha Vorderstrasse to University of Chicago undergraduate Core classes.

The Community Scholars program was revived this year and started again in April, when Kiersten Neumann gave a talk “From Persepolis to Chicago: Achaemenid Art and Architecture and the Oriental Institute.” These talks will continue throughout the summer of 2018. Tasha Vorderstrasse also received a Campus-Wide Inclusive Climate RFP grant to bring community scholars to

YOUTH AND FAMILY PROGRAMS

CALGARY HAINES-TRAUTMAN

This year, the Education Department expanded its offerings and sought to provide engaging and inclusive programming to attract new attendees to our family programs and field trips.

FIELD TRIP HIGHLIGHTS

Interactive field trip programs continue to be a popular choice for school groups. Of the non-self-guided school groups, 47% attended one of our Junior Archaeologist, Artifact Analysis, Ancient Innovators, or Time Travelers programs, totaling over 1,900 students from 55 schools.

The Oriental Institute continues to prioritize its participation in Amplify, a collective of arts organizations at the University of Chicago offering K–12 programming. We partnered with the Smart Museum to offer multi-site field trips to over 780 students from 12 schools throughout the year.

We updated our fees in December 2017, with the goal of simplifying our fee structure and increasing revenue. To keep our museum accessible to any school or youth groups who wish to visit, we developed the Field Trip Funding Application, through which we waive fees for tour and tour and film programs for up to 120 students. Because of these changes, we can now offer free programming to groups over 60, while still increasing revenue.

PROGRAM HIGHLIGHTS

Our annual Halloween party, Mummies Night, saw another successful year in 2017, attracting 400 visitors (figs. 1–4). From over 80 post-event surveys, we learned that for nearly half of attendees, this was their first visit to the Oriental Institute, and that the majority of visitors were unaffiliated with the University. Mummies Night thus attracts many new visitors to the museum and reaches a diverse audience of community and University members. Using this data, we applied for and were awarded a \$1,500 grant for Mummies Night 2018 through the Campus-Wide Inclusive Climate RFP. With this grant, we can continue to offer Mummies Night as a free, welcoming program, without cutting activities or raising costs.



ABOVE: Figure 1. Mummies Night visitors compete in the Mummy Wrap Race. Photo by David Turner.



ABOVE: Figures 2–4. Mummies Night at the OI, October 2017. Photos by David Turner.

The Nowruz Celebration, a family program celebrating the Persian New Year, continued to grow in its third year, with attendance increasing 39% from 2017. Voluntary donations underwrote all of the expenses of the program, allowing us to offer a free program without cost to the Oriental Institute. Our partnership with the Zoroastrian Association of Chicago and the Federation of Zoroastrian Associations of North America continues to be the driving force behind this event, and we look forward to future Nowruz Celebrations with them.

We diversified our workshops this year with the addition of two new hands-on workshops. With PhD candidate Sasha Rohret, we developed “Ancient Animals,” focusing on zooarchaeology (fig. 5). Assisted by fourth-year undergraduate facilitators Sylvia Cheever and Sebastian Otero, we also redeveloped a previously discontinued program on bioarchaeology, “All Bones About It” (fig. 9).

Our partnership with the Girl Scouts continues to thrive, with many Girl Scouts attending our hands-on workshops. We have developed new fun patches for our newest workshops, which will further promote Girl Scout attendance (figs. 10 and 11).

Our efforts offering hands-on workshops have paid off. Our strongest growth has been in workshop attendees, which increased by 28.7% from last year. Overall, our attendance at workshops and family programs increased by 6.4%, although the number of programs decreased overall by 10%. We plan to continue to offer high-quality programs that attract substantial numbers of visitors, over offering larger numbers of programs with fewer attendees. This allows us to better focus our resources and most effectively engage visiting families.



LEFT: Figure 5. Kids take a close look at real animal bones to learn about how zooarchaeologists work in “Ancient Animals.”
ABOVE: Figure 6. What’s Up, King Tut?



ABOVE: Figures 7–8. Junior Archeologist.
BELOW: Figure 9. Kids learn how bioarchaeologists excavate and study human bones in “All Bones About It.”



LEFT: Figures 10–11. The new bioarchaeology and zooarchaeology fun patches will be available beginning in summer 2018 and feature artifacts from the Oriental Institute collections.



VOLUNTEER PROGRAM



OVERLEAF: The rich landscape of Bamiyan, Afghanistan (©2015 UNESCO; R. Mohammadi). After the Afghan Civil War and subsequent Taliban rule in the 1990s, the cultural heritage of Afghanistan has faced destruction and vulnerability. The OI has been heavily involved in its cultural restoration, partnering with the National Museum of Afghanistan (see the "Cultural Heritage Work in Afghanistan" project report, *infra*). This photo is seen in the OI book, *Preserving the Cultural Heritage of Afghanistan: Proceedings of the International Conference Held at Kabul University, November 2014*, which was published (2017) bi-lingually in Dari and English, available as a free PDF download: <https://oi.uchicago.edu/preserving-cultural-heritage-afghanistan>.

VOLUNTEER PROGRAM

SUE GESHWENDER

Our volunteer program remains strong, with over 100 active volunteers. Their extraordinary efforts range across many different areas of the Oriental Institute, and make it the very special institution that it is. Volunteers provided over 5,000 hours of service in such areas as Research Archives on the Integrated Database, Museum Archives, Suq, and public programs including Mummies Night and Museum Tours to name just a few.

New ways to support the OI are always being identified such as tablet scanning project that started up under the leadership of Susanne Paulus. Volunteers also provided valuable support to both the Hittite Conference in August and the CIPEG (International Committee for Egyptology) conference in September. Additionally, volunteers are working with the Centennial Planning Committee as we get ready to celebrate the OI's 100 year anniversary.

TOP: Stephen Ritzel, Rebecca Binkley-Albright, and Darren Vilmin at Mummies Night.

MIDDLE: Carole Yoshida reads stories at Mummies Night.

BOTTOM: Terry Friedman, Toni Smith, and Susanne Paulus.



VOLUNTEER PROGRAM



ABOVE: Calgary Haines-Trautman welcomes a group to the OI; Carlotta Maher, giving tours at the OI for over fifty years!

Docent-led tours have always brought the museum galleries to life in ways that excite and engage visitors of all ages. This year was no exception and docents gave tours to almost 200 different groups (over 5,300 visitors).

Feasting creates bonds and the Pot-luck luncheons are quickly becoming the preferred way of volunteers to celebrate with OI faculty and staff. A Pot-luck luncheon marked the completion of docent training in the summer. The Holiday Party Pot-luck luncheon hosted over 100 people from all areas of the OI. The food is outstanding and the potluck lunch is now eagerly anticipated by volunteers, faculty, and staff alike.

Several more celebrations were held throughout the year. Monthly volunteer days provided an opportunity for the volunteers celebrate and honor a few colleague's milestones; Foy Scalf was surprised in October with a cake, Gil Stein's directorship celebrated in November, and Emily Teeter's retirement was honored in December.



Additionally, Research & Museum Archives volunteers were treated to a pizza party by Foy Scalf and Anne Flannery.

The book club is going strong into its third year. Attendance has doubled since its inception. A faculty representative is invited to join each discussion. Opinions and interpretations vary within in the group, but everyone

agrees they gain a better understanding and appreciation of the books through communal analysis.

The docent library continues to serve as home base for the volunteers. After many years of dedicated service, Margaret Foorman has retired as head librarian. We sincerely thank Margaret for her outstanding work. The baton has been passed to Marilyn Murray, who stepped up to the position of head librarian in April. We also gained two new library assistants, Roberto Cepeda and Sara Lindholm.



IN MEMORIAM

The volunteer program lost four loyal friends this year: Muriel Brauer, Anita Greenberg, Alice James, and Andree Wood. These individuals exemplified the true spirit of volunteerism by devoting their passion, intellect, and support to help further the goals and mission of the Oriental Institute. We are so honored to have known and worked with them over the years and it is our good fortune that they chose to spend a portion of their lives with us.



VOLUNTEER PROGRAM

RIGHT: Gabriella Cohen, Gabriella Cigarroa, and Gabriele DaSilva.

MIDDLE: Larry Lissak, Steve Essex, Shirlee Hoffman, Steve Scott, and Jean Nye.

BOTTOM: Suq volunteers Alice Mulberry and Louise Despres.



ABOVE TOP: Dalia Shefner and Anne Schumacher.

ABOVE BOTTOM: Jean Evans, Marilyn Murray, and Gaby Cohen.



LEFT: Susan Bazargan, Deloris Sanders, Stephen Ritzel, Director Christopher Woods, Anne Schumacher, and Joseph Barabe.

BOTTOM LEFT: Sue Padula, Larry Lissak, Calgary Haines-Trautman, and Catherine Duenas.

BOTTOM RIGHT: Docents Joseph Calderone, Ralph Klein, and Mina Peak.



VOLUNTEER PROGRAM

VOLUNTEER RECOGNITION

The volunteer recognition ceremony was moved to the month of April to coincide with National Volunteer Appreciation Month. Congratulations to those who celebrated a milestone year in their volunteer service to the Oriental Institute:

25 Years

Anne Schumacher

10 Years

Susan Bazargan
 Roberta Buchanan
 Hilda Schlatter
 Larry Lissak

5 Years

Fred Eskra
 Steve Scott

VOLUNTEERS

*indicates active Museum Docent

Luella Adan*
 Eric Aupperle
 Joseph G. Barabe*
 Nancy Baum*
 Susan Bazargan*
 Craig Bean*
 Christel Betz
 Rebecca Binkley-Albright
 Ray Broms
 Rafaela Brosnan
 Roberta Buchanan*
 Elizabeth Bush
 Joseph Calderone*
 Roberto Cepeda*
 Benjamin Chametzky*
 Gabriella Cigarroa*
 Gabriella Cohen*
 Kim Crawford
 Gabriele DaSilva
 Louise Despres
 John DeWerd*
 Catherine Duenas
 Fred Eskra*
 Steve Essex*
 Margaret Foorman*
 Meghan Forajter
 Terry Friedman
 Lauren Friesen*
 Colleen Gallagher*

Fan Ge
 Dario Giacconmoni*
 Bill Gillespie
 Terry Gillespie
 Irene Glasner
 Michael Goodyear*
 Elizabeth Green
 Debby Halpern*
 Philip Halpern*
 Janet Helman
 Wahied Helmy*
 Lee Herbst
 Katherine Hodge
 Shirlee A. Hoffman*
 Julia Jacobs
 Katherine Jarboe
 Barbara Schubeler Jillson
 Alex Jimerson
 Emily Kane
 Polina Kasian
 Dennis Kelley
 Rhyne King
 Ralph Klein*
 Stuart Kleven*
 Carissa Knickerbocker
 Kristin Leasia*
 Katherine Lieber
 Sara J Lindholm*
 Laurence Lissak*

Zoe Ma
 Carlotta Maher
 Larisa Masri
 Sherry McGuire*
 Jacqueline Mendoza
 Alice Mulberry
 Marilyn Murray*
 Bonnie Nelson
 Marge Nichols
 Jean Nye*
 Sue Padula*
 Mina Peak*
 Miranda Pettengill*
 Semra Prescott*
 Olivia Puccetti
 Michael Ramberg
 Karen Righeimer
 Stephen Ritzel*
 Charles Ro
 Sasha Rohret
 Peg Romm*
 Elaine Saenz
 Deloris Sanders*
 Roberta Schaffner
 Hilda Schlatter*
 Margaret Schmid*
 Anne Schumacher
 Stephen Scott*
 Mary Shea

VOLUNTEER PROGRAM

Dalia Shefner
Toni Smith*
O. J. Sopranos
Dee Speich*
George Sundell
Craig Tews*

George Thomson
Norma van der Meulen
Darren Vilmin*
Tiffany Wang
Anastasia Weger
Alexis Wells

Ron Wideman*
Steve Wolfgang*
Carole Yoshida*
Annie Zhu
Amy Zillman

16897

DEVELOPMENT



OVERLEAF: Egyptian embalming sheet made of linen (OIM E16899). The act of wrapping or unwrapping cloth in ancient Egypt was significant in daily life, religious rituals, and the mortuary cult. Indeed, the study of dress reveals much about the wearer — be it religious, political, ethnic, or social information. Constructing socio-cultural context and investigating the non-verbal language dress conveys are important parts of understanding ancient identities. This photo was one of many examples of ancient dress used in the program for 14th annual Oriental Institute Seminar, Outward Appearance vs. Inward Significance; Addressing Identities through Attire in the Ancient World, March 1-2, 2018, organized by Aleksandra Hallmann: <https://oi.uchicago.edu/research/symposia/2018.html>.

DEVELOPMENT

WALLY VERDOOREN, MATTHEW WELTON, and POLINA KASIAN

The Oriental Institute's development program underwent a considerable amount of change during the 2017–18 academic year. To begin with, this was the first full year in which the development program operated within a single departmental unit overseeing philanthropic support, membership programming, and special events. This organizational restructuring brought together these three already inter-related and collaborative areas of activity, with the intent to build and integrate a more strategic approach to attracting, sustaining, expanding, and strengthening a base of partners and supporters committed to advancing the OI's mission and goals.

There also was a significant change in staff over the past year — Brittany Mullins left her position as director of Development and Kiran Webster left her position as assistant director of Development and Special Events, with both staff departures taking place near the middle of the academic year. Jennie Myers also left her position as Membership Program and Marketing manager in April of 2017, although her replacement would not be hired until later in the fall of 2017. The OI Development Department is now fully staffed with a very new team — Wally Verdooren joined the OI as director of Development in March 2018, Polina Kasian became assistant director of Development and Events in January 2018, and Matt Welton started as Membership Program and Marketing manager in November 2017.

In addition, what was known as the Visiting Committee ever since it was launched at the OI in 1951 has been renamed and repurposed as the Advisory Council. This key leadership group is now focusing its role even more on serving as ambassadors, connectors, and partners in the important philanthropic and community engagement efforts of the OI. John Rowe continues to serve as Council chair, and Council members are continuing and expanding their involvement in a number of OI program and research activities, including service on various committees organizing activities and events for the upcoming OI Centennial Celebration during the 2019–20 academic year.

PHILANTHROPIC SUPPORT

In the previous year, the OI's many partners have generously supported our mission to heighten understanding of the ancient Middle East through:

- ongoing and emerging research initiatives,
- cultural preservation efforts on campus and in several other countries,
- educational programming for scholars and community members,
- a wide range of museum resources,
- the conservation and documentation of our extensive artifact and archive collections.

Despite the many changes and staffing gaps that took place over the 2017–18 fiscal year, philanthropic support remained strong. Contributions from the Advisory Council, annual Members, and other donors continue to maintain and strengthen the OI's standing as the world's leading center for research and scholarship on the ancient Middle East. Table 1 provides a summary of fundraising results over

Table 1

Fiscal Year 2017–18 Fundraising Results by Giving Categories	\$ Amount
Expendable Cash:	\$1,280,203
Realized Bequests:	\$387,271
Payments on Multi-Year Pledges:	\$45,119
New Pledge Commitments:	\$225,000
New Deferred Gifts:	\$100,000

the past year, and all the categories of philanthropic revenue represented in these figures make the OI's important work possible.

In addition to securing essential fundraising support for budgeted annual programs and operations, a comprehensive fundraising plan and strategy were developed in the 2017–18 program year to achieve increased levels of annual support in the years ahead. Another key component of this enhanced fundraising plan is the launch of a major new campaign to commemorate and leverage the OI's Centennial Celebration which will take place during the 2019–20 academic year. During this past year, the OI's leadership set a number of strategic and ambitious goals to achieve through this Centennial Campaign. As we move into a new century of leadership in ancient Middle Eastern studies, the OI must:

- Acquire new endowments and increased sponsorships to support emerging and ongoing archaeological, philological, historical, and cultural research and discovery activities.
- Continue to expand the Museum's Gallery Enhancement Project which is currently replacing all free-standing cases and updating exhibits and displays.
- Create a far more welcoming, accessible, and functional entryway and lobby to attract additional visitors and enhance their experience.
- Expand and strengthen the facilities and programming at Chicago House, the OI's research center and Epigraphic Survey headquarters in Luxor, Egypt.
- Renovate Breasted Hall into a more comfortable and technologically equipped lecture, presentation, and learning facility.
- Make the OI's inner garden courtyard, designed by the renowned landscape architect Beatrix Farrand, into a more integrated feature of the Museum and more accessible to the campus community and the general public.
- Enhance the resources of the OI's community education program, which offers classes and learning activities on the ancient Near East to school children, teachers, college students, and other interested adults.

Achieving these goals will provide the Oriental Institute with essential scholarly and facility resources to equip us for continued growth in the next 100 years and beyond. While the plan and donor engagement strategy for this Centennial Campaign have been outlined and initiated during the past year, the active fundraising period will span the next two years and culminate at the conclusion of the Centennial Celebration year in 2019–20. The OI greatly values and appreciates the continued philanthropic support of its many Members and contributors and welcomes any inquiries and offers related to additional support to the annual giving program and/or the Centennial Campaign.

MEMBERSHIP PROGRAMMING

Oriental Institute Membership rebounded to exceed financial goals for the 2017–18 fiscal year. Member retention remains high, with a 15 percent increase in new memberships during the past year. The Oriental Institute is proud to have a committed group of supporters, intent on furthering our mission to advance OI research and communicate our discoveries to both the scholarly community and the general public. Thanks to Member support, the Oriental Institute is able to provide free daily admission to the OI Museum and to host free monthly lectures that are open to all Members and the community at large.

This past year, Members enjoyed special access to *Book of the Dead: Becoming God in Ancient Egypt*, a very popular special exhibit of the Museum during the 2017–18 academic year. Members also took advantage of discounts in the museum gift shop, and on participation fees for classes, programs, and special events. The Oriental Institute is grateful to have such a dedicated and inquisitive group of Members, and we are thankful for their support, advocacy, and commitment to new discoveries of the ancient Middle East.

Members' Lectures

The Oriental Institute Members' Lectures saw increased attendance in 2018. Member support is directly responsible for lecturer honorariums, travel costs, reception budgets, and other logistical expenses. Without Member support, we would not be able to continue to provide free lectures to the general public. We thank each of our Members for their ongoing generosity. Our OI Members' Lectures for the 2017–18 academic year included:

- Jodi Magness, “The Archaeology of Qumran and the Dead Sea Scrolls” (October 4, 2017)
- Chris Thornton, “Reflections on 10 Years at the Bronze Age Site of Bat in the Sultanate of Oman” (December 6, 2017)
- Yorke Rowan, “Kites, Tombs, and Houses in the ‘Land of Conjecture’: New Discoveries in the Black Desert, Jordan” (January 10, 2018)
- David P. Silverman, “The Other Book of the Dead” (February 7, 2018)
- Susanne Paulus, “Debts, Crime, and Prison: Daily Life in Babylonia ca. 1200 BC” (March 7, 2018)
- Peter Pfalzner, “On the Fringe of Mesopotamia: Investigating Urbanization and Cultural Interaction During the Bronze Age in an Unexplored Part of Iraqi Kurdistan” (June 6, 2018)

In addition to these offerings, Members were also invited to attend a number of named lectures that took place at the OI during the past program year, and these special lecture programs are described in the Special Events section of this annual report. We would like to extend a very special thank you to all of our lecturers over the past year. The OI Members' Lecture series aims to bring a varied selection of the most recent and pioneering work and scholarship on the ancient Middle East to our Members and our community. We look forward to an exciting and dynamic lecture season in 2018–19, which will begin on the first Wednesday of October in 2018.

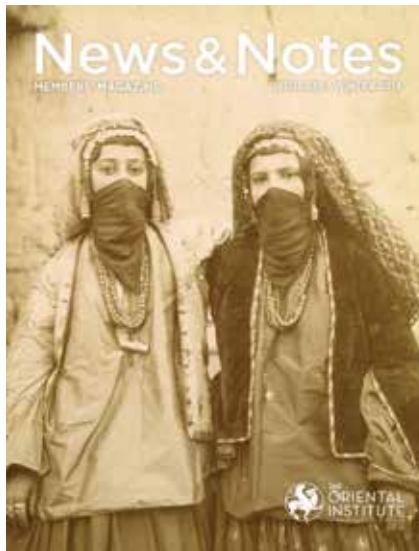
All of our OI lectures are uploaded and can be accessed for free from anywhere by visiting the Oriental Institute YouTube channel: youtube.com/jameshenrybreasted.

Young Professionals

The Oriental Institute's Young Professional (YP) group is a vibrant community of young adults who support the overall mission and programs of the Oriental Institute. This special membership category is designed to give emerging business and civic leaders a meaningful way to engage with the Oriental

DEVELOPMENT | MEMBERSHIP PROGRAMMING

RIGHT: 2017–18 *News & Notes* Members' magazine, issues 236–239.



Institute, one of Chicago's leading cultural institutions. YP membership is intended for anyone between the ages of twenty-two and forty-five who want to learn more about the ancient Middle East while participating in exclusive educational, social, and volunteer activities with some of the world's foremost academics in their fields.

YP members use their creativity, knowledge, innovation, and professional skills to advance the Oriental Institute and serve as ambassadors, increasing awareness of the Institute's work and engaging new audiences through outreach events. This past year Young Professionals enjoyed OI Architecture tours, exclusive Book of the Dead seminars and receptions, and access to the Field Museum's Mummies special exhibit. At the end of the 2017–18 academic year, the Young Professional group began a phase of restructuring, with programming resuming in the 2018–19 academic year.

Members Publications

News & Notes, the OI Members' quarterly magazine, has begun several creative changes over this past year. In the spring, we introduced thematic content with an issue devoted to food traditions in the ancient Middle East. As we roll out future changes to the formatting of *News & Notes*, it is our intent to expand accessibility while retaining the scholarly tone of articles written by OI faculty and research associates.

News & Notes is published with the assistance of the Publications Office staff, and their dedication and hard work can be seen on each page. In addition to the Publications Office, we would like to thank each of the faculty and staff contributors who provided exciting and engaging articles for every issue.

Members Travel

During the 2017–18 program year, the Oriental Institute continued its tradition of providing once-in-a-lifetime informative and comprehensive travel opportunities by visiting Jordan and Central Asia. This past October, twenty-four travelers joined Yorke Rowan, senior research associate and director of the Galilee Prehistory Project, on a journey through the archaeological heritage of Jordan. Travel-



ers got close to the adventure and grandeur of such locations as Petra, the Dead Sea, Wadi Rum, and Umm ar-Rasas. In addition to visiting highlights of Jordan, the Oriental Institute was able to arrange exclusive events with scholars and archaeologists, providing access to ongoing excavations in the Black Desert.

In May of this year, seventeen travelers joined former OI director Gil Stein on an exploration of Central Asia. The excursion followed the Silk Road through Turkmenistan, Uzbekistan, and Tajikistan. Participants explored ancient sites, traditional arts and crafts, and Soviet Era art and architecture. The tour visited the barren Aral Sea of Uzbekistan, walked in the footsteps of Tamerlane, and interacted with local artisans at markets and workshops.

Oriental Institute travel programs are unique in that our tour participants experience exclusive site visits and on-site learning privileges not enjoyed by other institutions or travel groups. Our Members learn directly from some of the most eminent scholars in the world, at sites the Oriental Institute has been working on and researching for almost a century. For more information on Oriental Institute travel programs, contact the Membership Office at oi-membership@uchicago.edu or visit our website at oi.uchicago.edu/travel, or our OI Members Travel page at facebook.com/OIMemberTravel.



ABOVE: OI trip to Jordan.
Photo by Judith Baxter.

SPECIAL EVENTS

During the 2017–18 academic year, we hosted a variety of special events at the Oriental Institute for our Members, donors, and the general public. We celebrated the opening of the Book of Dead: Becoming God in Ancient Egypt special exhibition, welcomed Breasted Society members for an architectural tour of the OI, and honored our former director Gil Stein. In addition, with the enormous help of faculty and staff, we organized a Research Fair during the annual University of Chicago Alumni Weekend, which saw thousands of alumni return to campus. We want to express a special thanks to our generous Members and other donors, whose support makes our exhibits, programming, research, and special events possible.

Members' Preview of Book of the Dead: Becoming God in Ancient Egypt

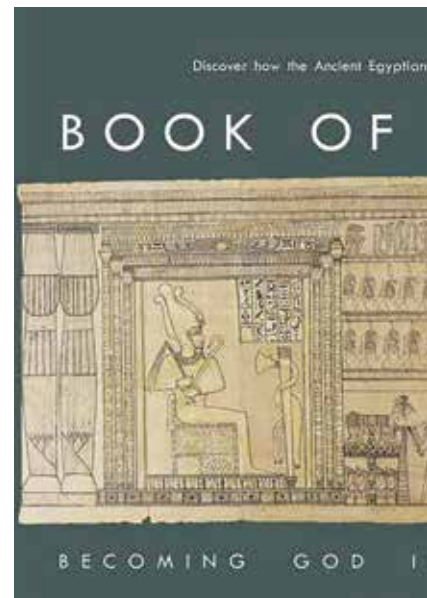
OI members were among the first visitors of the special exhibit, Book of the Dead: Becoming God in Ancient Egypt, and on October 1, 2017, enjoyed a curator-led tour by Foy Scalf, research associate and head of the OI Research Archives. The unique exhibition included more than fifty objects, including two spectacular Books of the Dead — one was forty-one feet long — which were shown in their entirety for the first time in nearly a century. Additionally, the exhibit featured a re-creation of a burial with a rarely exhibited mummy surrounded by many objects inscribed with the Book of the Dead. Following the preview, guests gathered for a reception in the Edgar and Deborah Jannotta Mesopotamian Gallery.

Marija Gimbutas Memorial Lecture

Colin Renfrew, Lord Renfrew of Kaimsthorn, senior fellow of the McDonald Institute for Archaeological Research, formerly Disney professor of Archaeology, and director of the McDonald Institute, University of Cambridge, gave the Marija Gimbutas Memorial Lecture on November 8, 2017, which was titled, “Marija Rediviva: DNA and Indo-European Origins.” Marija Gimbutas had a detailed knowledge of the archaeology of prehistoric Europe and of the cultures of “Old Europe” with their rich iconography of goddesses and gods, which she viewed as overwhelmed at the onset of the Bronze Age by the Kurgan invasion, an incursion of a new population from the East European steppe lands north of the Black Sea. This she saw as the key impetus which brought Old Europe to an end, and which introduced to Europe a new population speaking early Indo-European languages. The first Marija Gimbutas Memorial Lecture offered a critical review of the question of Indo-European language origins and highlighted the contribution of one of the leading prehistorians of the twentieth century.

TOP: Book of the Dead exhibit poster, highlighting a vignette of BD 125 from the famous Papyrus Milbank.

BOTTOM: Foy Scalf giving a tour for the Book of the Dead: Becoming God in Ancient Egypt exhibit.



Emily Teeter Retires: Celebrating Twenty-Seven Years

On December 1, 2017, the Oriental Institute celebrated the twenty-seven-year career of Emily Teeter with a reception in the Edgar and Deborah Jannotta Mesopotamian Gallery. The event started with remarks made by OI director Christopher Woods, who recounted many of Emily's contributions to the OI, including her work curating the Joseph and Mary Glimshaw Egyptian Gallery and coordinating the special exhibits program. Woods also noted her work for publications and her efforts to raise the visibility of the OI in local, national, and international communities. Among others who spoke during the

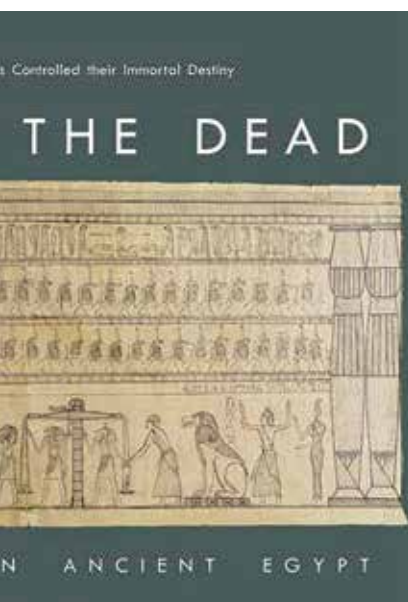
reception was Janet H. Johnson, Morton D. Hull Distinguished Service Professor of Egyptology and editor of the Chicago Demotic Dictionary Project, who cited Emily's contributions to the field of Egyptology, and volunteer Shirlee Hoffman, who thanked Emily for her generosity and time training and assisting docents.

James Henry Breasted Society Event: Architectural Tour of the Oriental Institute

On December 7, 2017, members of the Breasted Society came to the OI to view architectural elements of our building with: Tasha Vorderstrasse, University and Continuing Education program coordinator and research associate; Kiersten Neumann, museum curator and research associate; and Susan van der Meulen, OI volunteer and architect. The guests enjoyed cocktails and hors d'oeuvres and discussed often overlooked design elements on the first two floors of the building, including the Museum galleries and lobby, Research Archives, and Director's Suite. The tour also included an in-depth look at architect Frank Lloyd Wright's plan for Greater Baghdad (1957), which was on display in the Edgar and Deborah Jannotta Mesopotamian Gallery. This event was made possible by the members of the James Henry Breasted Society, who provide an annual and renewable source of support for priority research projects of the Oriental Institute.

Young Professionals Group Event

The OI's growing and dedicated Young Professionals group joined us on February 21, 2018, in the Persian Gallery for a cocktail reception and talk with Matthew Welton, Member Program and Marketing manager, about future development of the group and ways to attract new members. After a live harp musical performance by Tasha Vorderstrasse, University and Continuing Education program coordinator and research associate, the guests joined Foy Scalf, the special exhibit's curator and head of the Oriental Institute Research Archives, for a private tour of the special exhibition, *Book of the Dead: Becoming God in Ancient Egypt*. We would like to express special thanks to Foy Scalf and Tasha Vorderstrasse for providing a unique experience to our guests.



Fourteenth Annual Postdoctoral Seminar

Postdoctoral fellow Aleksandra Hallmann organized the fourteenth annual postdoctoral seminar, hosted at the Oriental Institute on March 1–2, 2018. This year's conference, titled, *Outward Appearance vs. Inward Significance: Addressing Identities through Attire in the Ancient World*, brought together U.S. and international scholars to investigate multiple trajectories of the role of dress in the construction of various identities in the ancient world. Conference speakers took a curator-led tour of the Oriental Institute and attended a number of dinners, including one in the Persian Gallery. All presentations of this year's postdoctoral seminar were free and open to OI Members and the public, thanks to the generous support of Dr. and Mrs. Arthur Lee Herbst and the William J. Robarts Fund. A publication of the conference proceedings is currently in production.

Joint James Henry Breasted Society and Young Professionals Event at the Field Museum

The Anthropology Alliance of the Field Museum invited the OI's Breasted Society and Young Professionals Group members to join a lecture in the Montgomery Ward Lecture Hall along with an additional opportunity to be among the first to view their special exhibition *Mummies* on March 17, 2018. This event was a part of a partnership between the OI and the Anthropology Alliance.



ABOVE: Photos from the 14th Oriental Institute Seminar; participants and responders; Aleksandra Hallmann, organizer. Photos by Charissa Johnson.

FAR RIGHT: Gil Stein, former Oriental Institute director, with OI director Chris Woods (right), and Robert Zimmer, president of the University of Chicago (left). Photo by Sue Geshwender.

The Braidwood Visiting Scholar Program and Lecture

On April 4, 2018, the Oriental Institute welcomed Arlene M. Rosen, professor of Anthropology and director of the Environmental Archaeology Laboratory at the University of Texas at Austin, as the Braidwood Visiting Scholar. As part of the Braidwood Visiting Scholar Program, Arlene delivered one public lecture titled, *Climate Change and the Origins of Agriculture in Western Asia: A Story of Risk, Resilience, and Sustainable Foraging during Cycles of Wet and Dry Conditions*, and two workshops intended for graduate students, faculty and research staff: *Geoarchaeology as a Technique for Addressing Social Questions in Archaeology*; and *Theory and Practice of Environmental Archaeology*. The Braidwood Visiting Scholar Program in Archaeology aims to encourage and perpetuate the educational values of Robert and Linda Braidwood, particularly their commitment to the mentorship and training of graduate students specializing in the archaeology of the ancient Middle East.

Celebrating Gil Stein: Fifteen Years of Leadership

On April 11, 2018, the OI celebrated Gil Stein's incredible fifteen-year run as director. A catered reception followed, featuring reflections on Gil's leadership from university president Robert Zimmer and current OI director Christopher Woods. Among Gil's highlighted accomplishments were the installation of new galleries in the museum, the initiation of the OI Special Exhibits programs, an increase of field projects, and more. In addition to his role as director, Gil conducted his own field projects in several Middle Eastern countries. He came to the OI in 2001, and his three terms as director are surpassed only by OI founder James Henry Breasted. Gil is currently a professor of Near Eastern Archaeology at the OI and in the Department of Near Eastern Languages and Civilizations, as well as the senior advisor to the provost for Cultural Heritage.







LEFT: Research fair at the OI with Hervé Reculeau (above) and Tasha Vorderstrasse (below). Photos by Anne Ryan.

David A. Kipper Ancient Israel Lecture Series

On May 2, 2018, Mordechai Aviam, senior lecturer in the Department of Land of Israel Studies at Kinneret College on the Sea of Galilee and senior researcher in the Institute for Galilean Archaeology, gave a lecture in the annual David A. Kipper Ancient Israel Lecture Series titled, *Y'odfat (Jotapata): The Life and Death of a Jewish Galilean Town: A Case Study for Jewish Life at the End of the Second Temple Period*, and led a workshop about new discoveries in the first and second centuries in Galilee for graduate students and faculty. During his workshop, Mordechai met with graduate students from the Near Eastern Languages and Civilizations Department, the Divinity School, and the Anthropology Department, as well as faculty and staff from the Oriental Institute.

Research Fair at the Oriental Institute

As a part of the University of Chicago's annual Alumni Weekend Program, the OI organized a Research Fair in its galleries on June 1, 2018. Faculty and staff presented materials on their research to University alumni and discussed their current projects with visitors. This event attracted more than 150 alumni and family members with interests in the OI's mission, and we are looking forward to an even bigger OI presence during next year's Alumni Weekend.

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OVERLEAF: Photo of the Mediterranean used at the conference, The Connected Iron Age: Interregional Networks in the Eastern Mediterranean, 900-600 BCE, organized by Jonathan Hall and James F. Osborne, January 12-13, 2018. Leading scholars came together to explore the ever-growing evidence for connections between the ancient cultures of the eastern Mediterranean during the Iron Age. Despite a vast amount of art historical and archaeological record showing cultural, material, and economic connectivity, this subject had yet to be properly tackled, but was explored with success at the conference: <https://oi.uchicago.edu/article/conference-connected-iron-age>.

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NOTES & INFORMATION



OVERLEAF: An aerial photograph (D. 13297) of Persepolis and the Marv Dasht plain, from the recent publication, *The Ritual Landscape at Persepolis: Glyptic Imagery from the Persepolis Fortification and Treasury Archives* (2017, Mark B. Garrison). The focus of this book is a corpus of glyptic imagery preserved as impressions on two large archives of administrative tablets from Persepolis, the Persepolis Fortification archive (509–493 BC) and the Persepolis Treasury archive (492–457 BC). The glyptic imagery concerns representations of what have been traditionally termed “fire altars” and/or “fire temples.” Much of this glyptic evidence is published here for the first time. The book recently won the 2018 Ehsan Yarshater Book Award. Purchase or download the free PDF here: <https://oi.uchicago.edu/research/publications/saoc/saoc-72-ritual-landscape-persepolis>.

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Twitter: [@orientalinst](https://twitter.com/orientalinst)
YouTube: www.youtube.com/JamesHenryBreasted
Snapchat: [@oichicago](https://www.snapchat.com/add/oichicago)

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Tuesday: 10am–5pm
Wednesday: 10am–8pm
Thursday: 10am–5pm
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