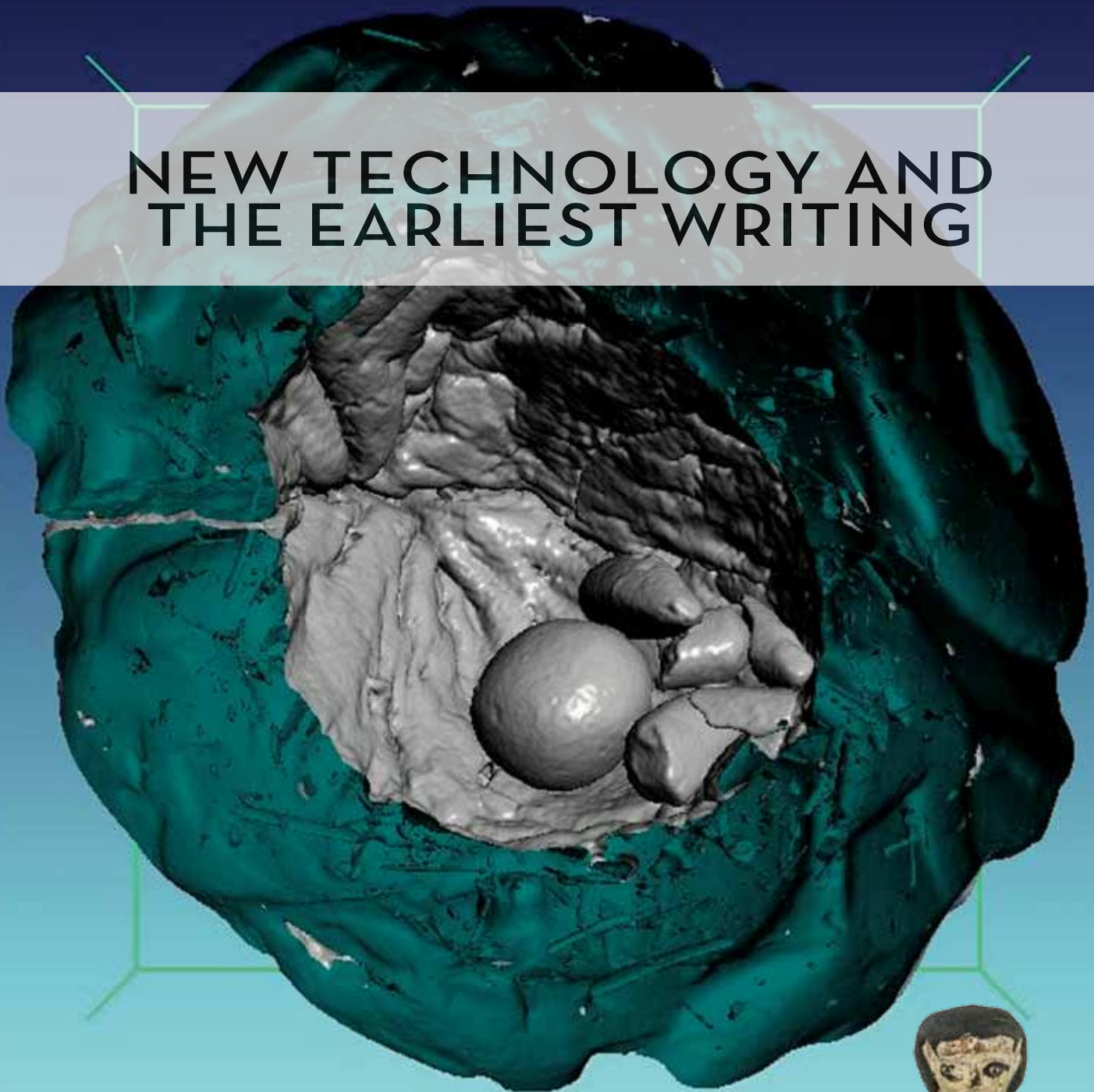




NEW TECHNOLOGY AND THE EARLIEST WRITING



ALSO INSIDE:

- ★ Birds in Ancient Egypt
- ★ Babylonian Astrology
- ★ Oriental Institute Travel Program:
The Wonders of Ancient Egypt



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NEWS & NOTES

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FROM THE DIRECTOR'S STUDY

The invention of writing is one of humankind's greatest achievements — a creative leap made independently by several emerging civilizations in both the Old and New Worlds. It is impossible to exaggerate the importance of this innovation, which transformed the spoken word into a symbolic system expressed visually through a set of conventionalized signs. This made it possible to store information and ideas and transmit them with precision across space and across time. Writing seems to have been invented at roughly the same time in the later fourth millennium BC in both Mesopotamia and Egypt.

Although the *idea* of writing was invented independently in several locations, each culture developed writing through its own unique pathway, and writing functioned very differently in Mesopotamia, Egypt, China, and Mesoamerica. For this reason, studying the precursors of writing in each of these civilizations can give us unique insights into the actual processes through which writing was invented.

Christopher Woods' article in this issue of *News & Notes* gives us the first look at an exciting new project using advanced imaging technology to investigate the enigmatic hollow clay balls and "tokens" that were used in Mesopotamia immediately before the invention of writing. The key question is whether these differently shaped clay objects, and the clay balls that contained them, were the first stage in the evolution of the cuneiform writing system. Were the complex and simple clay tokens the ancestors of individual cuneiform signs — or were they parts of an entirely different kind of information recording system? Were the "simple" and "complex" tokens used in different ways? Were they recording the same kinds of information, or did they represent two (or more?) parallel ways of information storage? We can only answer questions like these by looking inside the sealed clay balls, and then comparing the contents with those tokens that are found outside of the clay balls as groups or isolated finds in the archaeological record. In short, the archaeological context and associations of the tokens are as important as the shapes of the tokens themselves in solving the mystery of the invention of writing. Working with his archaeological colleague Abbas Alizadeh, Christopher Woods has been applying powerful CT scans and sophisticated 3-D image processing software to peer inside the clay balls from the Oriental Institute's excavations at the fourth-millennium BC site of Choga Mish in southwest Iran. This non-destructive technology allows us to keep the artifacts whole and unbroken, while still having the benefit of seeing what they contained. The results are unexpected and in some ways quite surprising. As this innovative research project proceeds, it is certain to shed new light on the symbolic systems of the earliest Mesopotamian civilization, and on the invention of writing itself.



Christopher Woods



Broken clay envelope with tokens inside
(Ch.M. III-925A) from Choga Mish, Iran.
(photo by Anna Ressman)

COVER ILLUSTRATION:

3-D CT image of Ch.M. III-752 with digitally
applied false-color "surface"; Statuette of a ba-
bird. OIM E446

EARLY WRITING AND ADMINISTRATIVE PRACTICE IN THE ANCIENT NEAR EAST

New Technology and the Study of Clay Envelopes from Choga Mish

*Christopher Woods, Associate Professor of Sumerology**

Small, unassuming clay balls have come to play a central role in the debate over the origins of writing, having been made famous by Denise Schmandt-Besserat and her theory of the origins of writing (1992). The balls, which range from the size of golf balls to baseballs (fig. 1), are better described as envelopes, as they are hollow and contain small clay artifacts commonly referred to as clay counters, or “tokens” (fig. 2). The envelopes with their associated tokens have been excavated in Iran, Syria, and Iraq, and they make their first appearance in the archaeological record in the middle of the fourth millennium and so are contemporaneous with, or slightly earlier than, the first texts (ca. 3200 BC). There is a general consensus that the envelopes represented an early administrative device, which served as a means to monitor and control the flow of materials, various commodities, and labor. The tokens, which are contained within the envelopes, represent quantities and/or commodities of the proto-literate economies. Essentially, these devices served as receipts for various economic transactions. In fact, the presence of the impressions of one to three seal impressions on most envelopes strongly suggest an administrative usage for these artifacts and the involvement of multiple parties in their transactions. On the other hand, the act of sealing the tokens within the envelope would have protected them from tampering and fraud. If the contents were contested, the envelope could be broken open and the tokens verified. In some cases the envelopes bear impressions of tokens on their surfaces — indeed, in a few rare instances, these

impressions match the number and size of the tokens enclosed within. That tokens were impressed on the surface of the envelopes prior to being sealed within suggested to the French archaeologist Pierre Amiet in the 1960s that the tokens were numerical counters and that each envelope was the record of a transaction — a type of primitive accounting system in which it was necessary to impress the tokens on the outer surface of the envelope so that it would not have to be broken to inspect its contents. The very act of impressing tokens onto envelopes, Amiet reasoned, could have led to the creation of writing.

Amiet’s understanding of the function of the envelopes was seemingly corroborated by a much later, second-millennium artifact found at Nuzi. This object, the so-called egg-shaped tablet (fig. 3), was first discussed in 1959 by A. Leo Oppenheim of the Oriental Institute. This object is a type of envelope, but, again, much later in date than those discussed by Amiet. At the time of

discovery, it contained forty-nine small pebbles. What is remarkable about this object, and what distinguishes it from the archaic envelopes, is that it bears an inscription, written in Akkadian. The inscription on the envelope makes reference to forty-nine sheep and so matches the number of pebbles enclosed, identifying the pebbles as “the stones of the sheep.” A receipt tablet, which clearly concerns the same transaction, was found together with the envelope and also makes mention of the forty-nine sheep. The tablet provides the additional information that the sheep in question were placed in the care of a shepherd, Ziqarru, by a sheep owner, Puhishenni. So there can be no question that this particular envelope represents a simple accounting device for a specific transaction. And, although it postdates the proto-literate envelopes by some two thousand years, it seems reasonable to suggest that those earlier artifacts served a similar function.¹ As

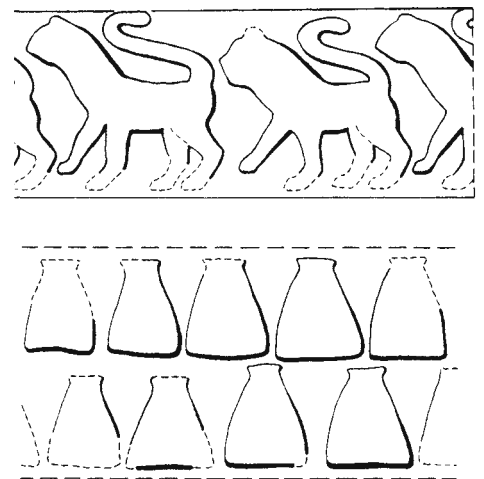


Figure 1a–b. Intact clay envelope (Ch.M. III-775) from Choga Mish, Iran, with line drawings of the seal impressions. (photo by Anna Ressler)

Figure 2a (top) and b (bottom). Proto-literate clay tokens from Choga Mish: simple (a) and complex (b) (photos by Anna Ressman)



to why such a primitive device would remain in use at Nuzi, where writing was well known, and why this transaction would be recorded in two different media, it might be suggested that the exchange of sheep involved an illiterate shepherd.² Because the shepherd could not verify the accuracy of the written document, it was necessary to draft a second parallel receipt that would be comprehensible to him, this one consisting of the pebbles within the sealed envelope.³



Figure 3. The "egg-shaped tablet" from Nuzi (SMN 1854 = HSS 16:499)

Returning to our fourth-millennium envelopes, Amiet stopped short of equating specific token shapes with specific cuneiform signs. This is the critical point at which Schmandt-Besserat's theory about the origins of writing departs from that of Amiet. In Schmandt-Besserat's view, both the numerical and logographic signs of cuneiform evolved directly out of the earlier token system. This theory is based primarily on the visual similarities between the elements of the token and writing systems (fig. 4). Tokens, which also occur in contexts outside of the envelopes, belong to one of two groups according to Schmandt-Besserat's somewhat arbitrary categorization: the so-called simple tokens (fig. 2a), which are unmarked and represent simple geometric shapes (spheres, cones, disks, lozenges, etc.); and the complex tokens (fig. 2b), geometric shapes that bear markings and perforations of various kinds. Tokens of the simple variety, in Schmandt-Besserat's understanding, which first make their appearance with the beginnings of agriculture in the ninth millennium, developed into the numeral graphs.

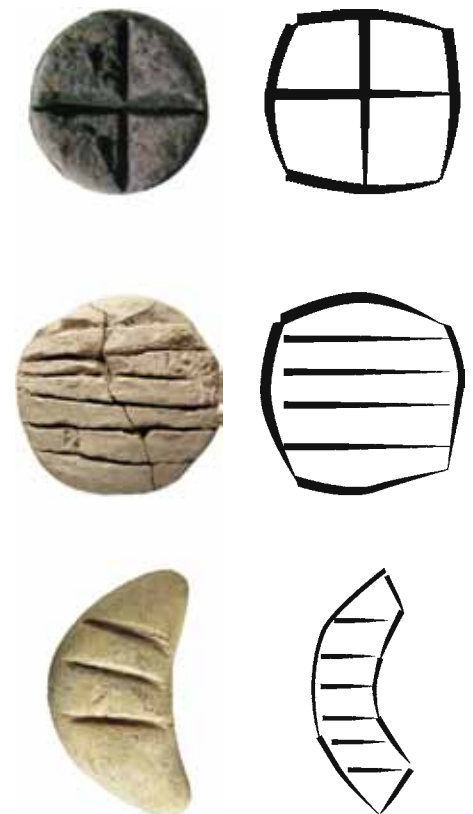


Figure 4. Comparison of complex tokens with the respective cuneiform graphs (from top to bottom) for sheep and goats, wool, and silver

tokens, on the other hand, appear much later in the archaeological record and are regarded as a hallmark of the burgeoning urban societies of the fourth millennium. These complex tokens, in Schmandt-Besserat's schema, became the logograms of cuneiform. In Uruk and Susa, early bureaucrats organized them by threading them on strings and, of course, sealing them within clay envelopes after occasionally impressing them on the surface. From this point it is supposedly a simple and logical step to the development of writing (fig. 5). Early accountants soon realized that the process of enclosing tokens within envelopes was entirely unnecessary, since their two-dimensional impressions on the surface conveyed the same information with far less effort. So the envelopes were replaced by tablets. The cones and spheres of the complex token system were now translated to two-dimensional pictographs and were drawn with a stylus on clay tablets. By comparing the geometric shapes and designs of the tokens with those of the early cuneiform signs, Schmandt-Besserat assigned meanings to some fifty complex tokens.

Although there is an elegant simplicity to much of this argument, and Schmandt-Besserat is certainly to be praised for reigniting the debate over the origins of writing, many Assyriologists and Archaeologists find the theory problematic. It is difficult to accept, for instance, that tokens found over such a vast time period and over such a vast geographical range — from the Mediterranean to Iran, from the ninth to the end of the fourth millennium bc — constituted a uniform accounting system, as Schmandt-Besserat argues. Moreover, the proposed relationship between the word signs and the complex tokens — the lynchpin of Schmandt-Besserat's theory — is particularly difficult to accept because the argument is based on the mere visual similarities between the two. A number of tokens do in fact resemble cuneiform signs (for instance, those in fig. 4), but it does not necessarily follow that they shared the same meanings in the two

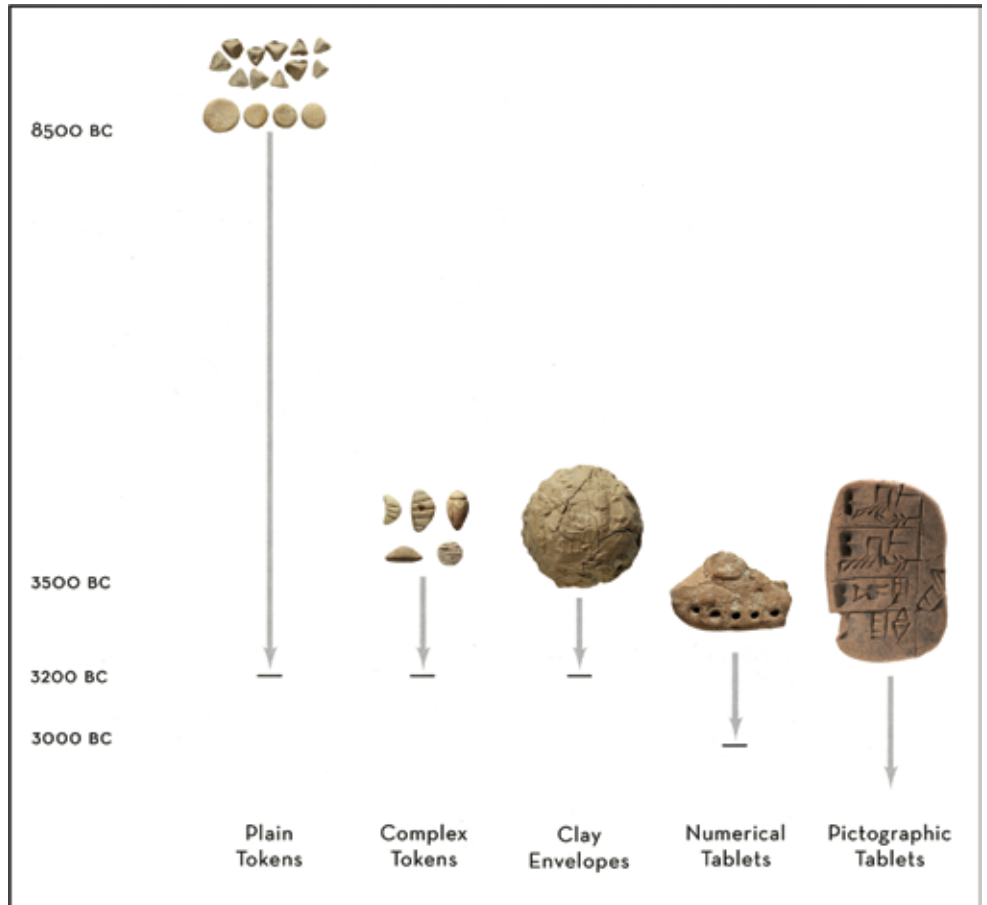


Figure 5. The development of cuneiform after Schmandt-Besserat (1992)

systems. The assumption that a symbol present in two distinct systems — in our case the tokens of a prehistoric accounting system and proto-cuneiform — must necessarily have the same value is a well-known methodological pitfall in decipherment efforts, as it is entirely possible that the shared symbol has different values, or meanings, in the respective systems. Indeed, in several cases there is solid circumstantial evidence to suggest that that this is in fact the case with our evidence. As the archaeologist Paul Zimansky has pointed out, the alleged sheep and goat token (see fig. 4), perhaps Schmandt-Besserat's most compelling piece of evidence on visual grounds, occurs only fifteen times over seven thousand years. This is indeed troubling, given all we know about the importance of livestock in the ancient Near East. Conversely, the most common tokens are those that supposedly signify “nails” and “work days,” prompting Zimansky to ask, “is it really credible that early villagers

would leave more evidence of keeping accounts of nails than of livestock?”⁴

A major obstacle in testing Schmandt-Besserat's theory — and, moreover, in understanding these proto-literate accounting devices — has been our inability to easily inspect the contents of the vast majority of clay envelopes. According to a recent estimate, some 80 of the 130 or so



Figure 6. Broken clay envelope with tokens inside (Ch.M. III-745). (photo by Anna Ressler)

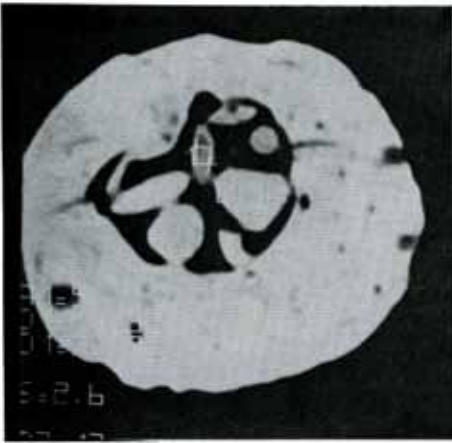


Figure 7. X-ray of a clay envelope from Susa, Sb 1911 (Drilhon et al. 1986, p. 342, fig. 12)

excavated clay envelopes are intact.⁵ Naturally, for many of those envelopes that have been discovered broken, it is impossible to reconstruct with certainty their original contents. Writing in 1992, Schmandt-Besserat estimated that the contents of only five envelopes, or less than 3 percent of the known envelopes, are known with certainty (fig. 6).⁶ Museums, understandably, are typically reluctant to open these artifacts as doing so would destroy them and the seal impressions that most of them bear. Recently, several envelopes belonging to a private collection in Norway were opened, increasing the number for which the contents are fully known.⁷ It must be pointed out, however, that the Norwegian envelopes were likely acquired on the antiquities markets and discovered through illicit excavations. Thus, we are completely ignorant of the

provenience and administrative contexts of these artifacts — crucial information for understanding these objects and their function.

Since the 1960s scholars have x-rayed these envelopes and scanned them with computed tomography (CT) equipment. Typically, these techniques could not offer the resolution and clarity necessary to determine the exact number of tokens and whether they have markings — critical data for understanding their meaning (fig. 7). However, major advances in CT and digital imaging technology have been made in recent years, and it is now possible to obtain the requisite resolution, fidelity, and much more. The Oriental Institute is currently collaborating with North Star Imaging of Rogers, MN, a leading manufacturer of state-of-the-art industrial CT systems, and Kinetic Vision of Cincinnati, OH, to scan and analyze the eighteen clay envelopes in our collection, all of which the Oriental Institute excavated from Choga Mish, Iran, in the 1960s and early 1970s. The value of the Oriental Institute's envelopes lies not only in the fact that they roughly double the corpus of envelopes for which the contents are known, but also in their well-documented archaeological context, having been excavated using relatively modern scientific methods and recording techniques.

In July of 2011, a team from the University of Chicago — the Oriental Institute's Laura D'Alessandro, Tom

James, and Christopher Woods, along with William Harms of the university's News Office — brought the Institute's collection of eighteen proto-literate envelopes to North Star Imaging's Rogers, MN, facility for a two-day scanning session. Multiple high-resolution scans were made of each of the artifacts (fig. 8); these 2D radiographs were then combined to create 3-D CT images of each of the artifacts. Using North Star Imaging's proprietary software, we can digitally "surface" the envelopes, a process that clearly distinguishes regions of differing densities by digitally creating a well-defined boundary, or surface, between them (fig. 9). The resultant digital envelopes can be rotated in a 3-D space, dissected, and inspected for their contents, construction, and clay composition at remarkably high magnifications (fig. 10).

In August of 2011, Kinetic Vision, a leading engineering firm specializing in digital media creation, joined our collaboration with North Star Imaging. Kinetic Vision generated 3-D digital models of each of the envelopes based on the raw, high-resolution CT data (figs. 11–12). These models allow us to digitally remove the tokens from the envelopes so that they may be rotated and analyzed in isolation; the models also facilitate measurements of the inner dimensions of the envelopes as well as the analysis of the organization of the tokens within. Together the 3-D CT images and digital models allow

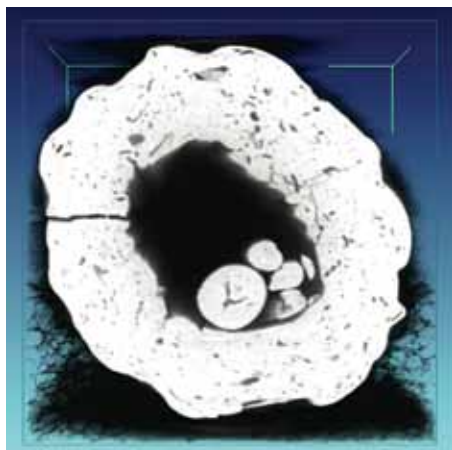


Figure 8. Radiograph of Choga Mish clay envelope Ch.M. III-752

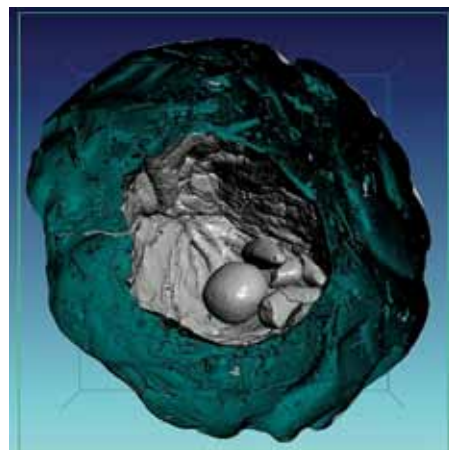


Figure 9. 3-D CT image of Ch.M. III-752 with digitally applied false-color "surface"



Figure 10. Cross section of Ch.M. III-752 (plane of cut indicated in green) revealing tokens within

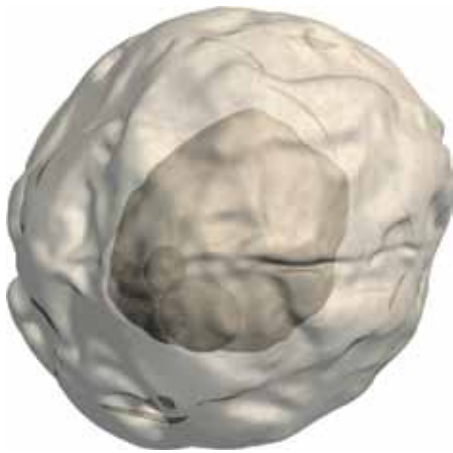


Figure 11. Transparent digital model of Ch.M. III-752 revealing inner surface cavity and token assemblage



Figure 12. Digital model of token assemblage within Ch.M. III-752

us to investigate the structure and interiors of these critically important artifacts in ways unfathomable just a few years ago. Indeed, we are now at a point in terms of technology where we can collect more and better data using non-destructive methods than we could if we physically opened the balls — for with the CT technology we can return again and again to these objects and investigate their internal structures at microscopic levels.

A team consisting of Christopher Woods, associate professor of Sumerology, Tate Paulette, an advanced graduate student in Mesopotamian archaeology, and Sneha Elango, a Metcalf intern at the Oriental Institute, is currently reviewing the data, recording observations, and making measurements using the 3-D CT images in conjunction with Kinetic Vision's 3-D digital models. We are also relying upon the expertise of Oriental Institute senior research associate Abbas Alizadeh, editor of the Choga Mish excavation reports, who has an intimate knowledge of these envelopes, their seal impressions, and their archaeological context, as well as Oriental Institute preparator and ceramicist Brian Zimerle, who is assisting us with understanding the clay composition and construction of the envelopes. The data we are collecting are being organized into a comprehensive database, to which we will add what is known about the envelopes in other collections that have been either opened

or x-rayed. While our investigation naturally revolves around determining the token contents of the envelopes, the more far-reaching goal is to uncover any correlations that may exist between the types of tokens, the seal impressions, and the provenience of the artifacts. If patterns of these types could be established, it may be possible, ultimately, to put forward a convincing theory for the units represented by the enclosed tokens. Of course, any hope of doing so rests upon amassing a sufficiently large corpus of envelopes for which the contents are known. Certainly, our project will represent a major step forward toward this goal.

Although discovering the number and types of tokens contained within the Choga Mish envelopes is an obvious desideratum, there are several additional and interrelated goals of our inquiry. Specifically, we are interested in learning more about the role of these devices within their broader administrative contexts, for instance: What is the relationship between the envelopes and the other proto-literate administrative devices that often accompany them archaeologically? Do the tokens

that are found within the envelopes differ from those found in other contexts? What are the similarities and differences between the Choga Mish assemblage of sealed tokens and those from other sites, most notably, that of Uruk in southern Iraq? Naturally, having access to the field records of these Oriental Institute excavated artifacts facilitates our attempts to answer these questions.

Additionally, we are interested in how bureaucrats constructed these administrative devices more than 5,000 years ago. One of the great benefits of scanning our envelopes, as opposed to opening them, is not only the non-destructive nature of the testing, but also the ability to inspect the internal structure of the clay. The CT scans allow us to inspect folds, inclusions, and density changes in the clay that yield clear indications of how these artifacts were constructed. For instance, it is apparent from the radiographs that different methods were employed to seal the envelopes, and that there is considerable variation in the quality of clay and the manufacture as well. We have complemented these observations with hands-on token- and envelope-making practicums where we experiment with different clays and envelope-making techniques (fig. 13). Attempting to reproduce the ancient manufacture of the envelopes and tokens has given us new insights into the design of these devices and allowed us to better interpret the CT images and digital models.



Figure 13. Oriental Institute preparator and ceramicist Brian Zimerle fashioning a clay envelope and tokens

We are currently in the midst of our investigation. Now that the technological aspects of the project are nearly complete, we need to understand these results within the greater administrative, historical, and cultural context of these artifacts. We look forward to completing our work and publishing the results this year.

NOTES

* The first part of this essay, describing the context and state of research of the proto-literate clay envelopes, stems from the author's essay "The Earliest Mesopotamian Writing" (Woods 2010).

¹ Lieberman 1980, pp. 340, 352.

² Abusch 1981, pp. 7–8; cf. Oppenheim 1959, pp. 123–24.

³ Steinkeller 1984, p. 6.

⁴ Zimansky 1993, p. 516.

⁵ Englund 1998, p. 49.

⁶ Schmandt-Besserat 1992, p. 117.

⁷ Available on the Cuneiform Digital Library Initiative (CDLI) website: <http://cdli.ucla.edu/>

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MEMBERS' LECTURES

The Oriental Institute Members' Lecture Series is a unique opportunity for supporters of the Oriental Institute to learn about the ancient Near East from world-renowned scholars. Unless specified below, all lectures are held the first Wednesday of every month, November through June, at 7:00 PM in Breasted Hall at the Oriental Institute. These lectures are made possible by the generous support of Oriental Institute members.



JAMES HENRY BREASTED: A NEW APPRECIATION

November 7, 2012

Emily Teeter

Research Associate and Coordinator
of Special Exhibits

In recent years, a considerable amount of new research on Breasted has appeared ranging from our special exhibit *Pioneers to the Past* to Jeffrey Abt's acclaimed biography and PhD dissertations. This lecture draws upon these sources as well as on Breasted's letters in the Oriental Institute Archive to examine some of his sources of inspiration and his motivation for creating one of the world's leading research centers for the ancient Near East.

FEASTING ON THE HIGH ROAD: THE MEDIAN PALACE AT GODIN TEPE

December 5, 2012

Hilary Gopnik

Ancient Mediterranean Studies,
Emory University

The horse-riding Medes of the Zagros Mountains of Iran remain one of the enigmas of ancient history. They are best known to us through the colorful anecdotes of Greek historian Herodotus and contemporaneous Assyrian inscriptions. The recent publication of the excavation of the Median citadel-palace at Godin Tepe provides some new, firsthand evidence for the way in which Median leaders negotiated power by entertaining guests in unique columned halls with feasts of suckling pig, lamb, and wine.



BETWEEN HEAVEN & EARTH: BIRDS IN ANCIENT EGYPT

Rozenn Bailleul-LeSuer,
Exhibit Curator¹

Bird watching is one of the most popular hobbies in the United States. Indeed, many of us enjoy spending hours observing birds, so as to familiarize ourselves with their fascinating behavior, or to catch a glimpse of a new species. Others choose to bring birds into their home, making them part of the family as pets and companions. Moreover, birds have become a stylish fashion motif, used in interior design, on clothing and in jewelry, and as tattoos. Several species of birds have even become famous icons for many sport teams, such as the Saint Louis Cardinals or the Baltimore Orioles. The University of Chicago chose a mythical bird as its mascot, the phoenix, whose origins go back to the ancient Egyptian *benu*-bird. And what about Twitter, the trendy online social-networking service, whose founders chose avian vocabulary, “tweeting,” to communicate the fast pace with which information can now be shared? The proliferation of birds into our culture clearly demonstrates that they continue to mesmerize us and make their way into our everyday life, just as these winged creatures permeated every aspect of the ancient Egyptians’ lives through their religion, art, writing system, and diet.



Examples of birds used in modern logos: Twitter logo and University of Chicago emblem



For the first time in the United States, an exhibit dedicated entirely to the birds of ancient Egypt will open at the Oriental Institute for its members on October 15th. For the duration of this exhibit, the Marshall and Doris Holleb Family Gallery for Special Exhibits will be transformed into an Egyptian marshland. Bird songs will echo throughout the exhibit while videos will showcase bird migration and the variety of habitats and avifauna of Egypt. Panels depicting birds and papyrus stems will complete the décor. Artifacts from the Oriental Institute collection will illustrate the omnipresence of birds in the life of ancient Egyptians. Our artifacts will be complemented by a few key objects from the Art Institute of Chicago, the Brooklyn Museum, and the Field Museum. These important loans will further emphasize the major themes and leave a lasting impression on our visitors.

This curatorial project started three years ago. After learning that the Oriental Institute Museum was welcoming suggestions for special exhibits from graduate students, I submitted a proposal to the Special Exhibits Committee as soon as my comprehensive exams were completed and my dissertation research was on its way. Indeed, since perusing a book that Bettina Schmitz and Dina Faltings published in 1987 in conjunction with their exhibit on birds in ancient Egypt at the Pelizaeus-Museum in Hildesheim,² I have aspired to set up a similar exhibit at the Oriental Institute showcasing the fascinating ancient Egyptian avifauna. My proposal was accepted, and I thus joined the Oriental Institute Museum team as guest curator, and with their assistance I began designing this exhibit. With the help of Susan Allison, assistant registrar, I spent many afternoons reviewing all the objects of our collection connected with Egyptian birds. After some training with conservator Alison Whyte, who showed me how to carefully handle such unique and fragile artifacts, I started closely examining all these objects, selecting those which could be displayed in the show, and identifying

those whose condition required urgent care on the part of the Museum conservators. When it came time to establish a list of potential objects for the exhibition, my focus was set on artifacts that had not recently or had never been



Figure 1. Pharaoh represented as the falcon god Horus, wearing the double crown of Upper and Lower Egypt. FMNH 31279 (courtesy of the Field Museum of Natural History)

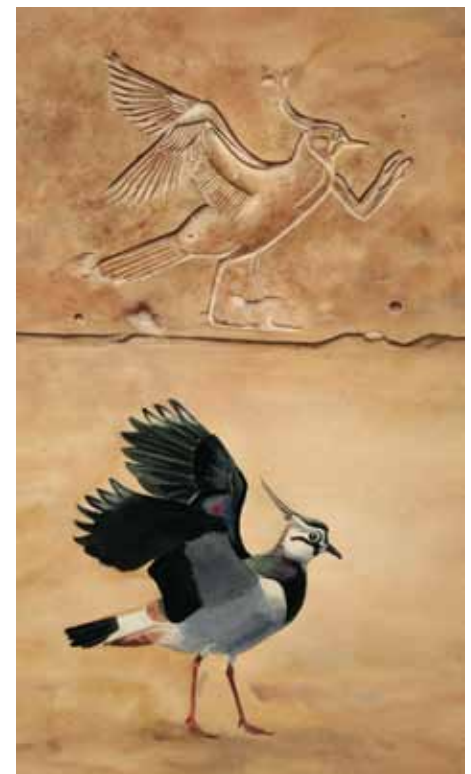


Figure 2. Comparison of a *rekhyt* hieroglyph from the Red Chapel of Hatshepsut at Karnak with a northern lapwing (*Vanellus vanellus*) (courtesy of Jackie Garner, from an original watercolor)



Figure 3. Ostrich egg. A-Group, ca. 3100 BC. From Qustul. OIM E21384 (D. 17994; photo by Anna Ressman)



Figure 4. Ivory knife that may have been used to protect mothers and newborn children. OIM E10788 (D. 17954; photo by Anna Ressman)

on display, thus giving the Oriental Institute Museum visitors a chance to further discover the remarkable holdings of our collection.

Every phase of the exhibit preparation, from the selection of the objects

to the research undertaken to document them, and the publication of the exhibit catalog, has been an amazingly enriching experience for me. I have had the chance to closely work with registration when selecting the objects; with conservation when reviewing the

state and discussing the potential for display of each object; with photography and with the Department of Public Education and Outreach to design and schedule activities that will be offered in conjunction with the exhibit; with exhibit design to discuss the best options for the display of objects and information panels; and finally with the Publications Office who has beautifully designed the catalog that will accompany the exhibit. Since the beginning of this project, I have especially worked with Emily Teeter, special exhibits coordinator, and Jack

Green, chief curator, who have advised and supported me all along when writing the exhibit narrative, selecting contributors for the catalog, and organizing the show. It was extremely rewarding for me to be part of the team that is composed of the many talented people of the Oriental Institute Museum staff, and I cannot thank all of them enough for their constant kindness and patience with me, a novice in this domain.

Forty objects, featuring a wide variety of ancient Egyptian artifacts, as well as facsimiles of wall paintings from Beni Hassan and Thebes by Nina de Garis Davies, will transport the visitor into the cycle of life, death, and rebirth that each ancient Egyptian aspired to follow. According to several Egyptian creation myths, in the beginning there was an egg, laid on the primeval mound emerging from the watery Nun from which hatched the sun god, creator of the rest of the universe and humanity. These humans, whom the creator god “fashioned,” were also imparted with avian characteristics. At their head, pharaoh embodied the god Horus on earth, the divine falcon who was chosen when he was still “in the egg” (fig. 1). His subjects, the *rekhyt*, are depicted as lapwings, raising worshipping and submissive hands toward their ruler (fig. 2).


Just as the world ultimately emerged from the primeval egg (fig. 3), every human being was conceived and fashioned in the egg and was born from her/his mother’s womb, like a



Figure 5. Tempera by Nina Davies, from the tomb of Khnumhotep II at Beni Hassan. A hoopoe (*Upupa epops*), a masked shrike (*Lanius nubicus*), a red-backed shrike (*Lanius collurio*), and a redstart (*Phoenicurus phoenicurus*) are perched on an acacia tree beside a pond (D. 17882; photo by Anna Ressman)



Figure 6. Tempera by Nina Davies, from the Theban tomb-chapel of Nebamun. The geese from Nebamun's aviaries are gathered and brought before a scribe who is in charge of recording their number (D. 17884; photo by Anna Ressman)

chick hatching from the egg. The newborn child, no longer protected by the “eggshell” — that is, the womb — was vulnerable to diseases and required the help of protective deities. The vulture goddess Nekhbet, quintessential symbol of protection whose large wings embrace and envelop her young , was called upon in spells and was depicted on amulets and other magical implements (fig. 4).

Children growing up on the banks of the Nile would have been surrounded by a multitude of bird species whose numbers increased exponentially during migration (fig. 5). The spectacular arrival of millions of waterfowl in the fall coincided with the Nile flood. As the water receded, the rich sediments from the Ethiopian highlands brought a renewed potential for life in the land and welcomed large flocks of ducks, geese,

and wading birds finding food aplenty in the low water and mudflats. These migratory birds would have been seen as a further manifestation of the cyclic rebirth of the universe, whose potentials were exploited both pragmatically and symbolically.

Fowling expeditions to catch large numbers of waterfowl using clap nets. To maximize their chances of filling their game bag, ancient Egyptians made use of birds, often herons, as decoys tied near the pond in which the net had been installed beforehand. Flying ducks and geese, reassured by the presence of this wading bird — seemingly indicative of a pond teeming with fish without human disturbance — land on the pond to join it, unaware of their fate. Some of the birds trapped under the net were intended to fill the poultry yards of households

and temples (fig. 6). Some others were killed straightaway and processed for immediate consumption, or preserved in fat and salt for later use. While not as frequent in the diet as fish, poultry was indeed included among the common dishes available to the majority of the population.

These vibrant and colorful flocks of birds did not fail to inspire Egyptian craftsmen and artisans. As early as the Predynastic period, they incorporated the waterfowl motif into their work. Just as the seasonal gatherings of birds in the marshlands of Egypt became a literary metaphor for bustling multitudes and the passage of time, birds also became a symbol of bounty, fertility, and even love. Thus, the depictions of ducklings and goslings, when carefully held in the arms of a young woman, were filled with erotic symbolism. Birds



Figure 7. Cosmetic dish in the shape of a sleeping duck, with its reflection in the water AIC 1894.610 (courtesy of the Art Institute of Chicago)



Figure 8. Small gaggle of goslings following their parents. Detail of upper right corner of figure 6



Figure 9. Modern dovecote in the Fayum. Photo courtesy of Salima Ikram

fluttering in the marshes were common motifs on palace walls (for example, the palace of Amenhotep III at Malkata and of his son, Akhenaten, at Amarna), as well as on more mundane objects, such as vases, bowls, and cosmetic boxes, thus ensuring fertility and bounty provided by the rich land of the Nile Valley (fig. 7).

Live birds thus made their way into ancient Egyptian houses and courtyards. Just like children nowadays, young Egyptians were keen to have a pet: it could have been a cat, a dog, or even a bird. Hoopoes are sometimes represented being held by children. These attractive songbirds may have been caught by means of a spring trap, carefully hidden under trees in which hoopoes eat and roost. In addition to wild birds, farmyard birds such as ducks, geese, and (much later in Egyptian history) chickens were most likely wandering in the streets and alleys of every village, not unlike in modern Egypt. When hunting was no longer sufficient to provide the fowl needed for all the religious and funerary offerings as well as the kitchens of the ancient Egyptians, birds were gathered in farmyards and reared in captivity, which eventually led to the domestication of the greylag goose (fig. 8). After settling in Egypt, the Greeks and the Romans brought with them their culinary taste for pigeons and doves. Thus, large dove-cotes became landmarks in the countryside and remain so to this day (fig. 10). “Waste not, want not!” Egyptians

were indeed aware of this sentiment and exploited the large quantities of feces, also called guano, produced in these massive towers filled with birds. This guano was a rich source of nutrient to fertilize the agricultural plain and became a worthwhile commodity.

Children could not spend their whole time exploring and playing in the countryside: training for a future profession had to be considered at a young age. Theoretically, any Egyptian male could enter the scribal profession — in reality, since it has been estimated that 1 to 5 percent of the population were literate, such apprenticeships were restricted to a small margin of the total population. For these “lucky” few, learning the Egyptian scripts would have been a priority. The pupils had to become familiar with the many bird hieroglyphs (more than sixty) that continue to give headaches to Egyptologists (fig. 10a–b). To help him learn these signs, the young apprentice undoubtedly placed himself under the protection of the patron deity of scribes, the ibis god Thoth (fig. 11). Most scribes were involved in accounting practices, and mathematics would

also have been part of the curriculum. Once again, birds have left their mark in this discipline. Fractions could be memorized by using the eye of the falcon god Horus. Myths indeed recorded how this eye had been torn into fragments by Seth and later was magically restored by Thoth, to be complete and sound again (hence its name of *wedjat*). Each fragment had a specific value, which “almost” adds up to 1 — Thoth must have supplied the missing $1/64$ (fig. 12).

Birds’ impact on the life of ancient Egyptians was most significant in the religious realm. Bird imagery is omnipresent in the decoration of the temples where ancient Egyptians went to celebrate the cult of the various gods. Large winged disks above doorways, as well as vultures with outstretched wings depicted on ceilings, protected whoever walked underneath (fig. 13). Many deities of the Egyptian pantheon could take the form of a bird and/or a bird-headed human. For example, the falcon, depending on its attributes, can represent Horus, Re-Horakhty, Montu, and many other deities. Thoth is often shown as an ibis. Goddesses can also take wing, such as Nekhbet the protective vulture, as well as Isis and Nephthys, as kites or kestrels, mourning beside the body of Osiris. Finally, the Nile goose is closely connected to the cult of the Theban god Amun.

The Late Period and Greco-Roman era (664 BC–AD 395) witnessed a



Figure 10. (a, above left) Plaque with a falcon hieroglyph. OIM E9802 (D. 17929) and (b, right) detail of the owl hieroglyph. OIM E17972 (D. 17981; photos by Anna Ressman)



Figure 11. Carnelian amulet in the shape of Thoth the ibis, patron god of scribes. OIM E10537 (D. 17935; photo by Anna Ressman)

dramatic rise in popularity of the cults of animals associated with major deities, in particular the ibis of Thoth and the birds of prey of Horus. Millions of mummy bundles were manufactured at a quasi-“industrial” rate at temple sites; their burials, most likely sponsored by visiting pilgrims, were performed en masse in large catacombs located in the necropoleis of major cult centers such as at Tuna el-Gebel and Saqqara. Ancient Egyptians could also appeal to these gods when facing troubles in their life and call the bird oracle to the rescue (fig. 14) when a third party was needed to resolve a judicial issue.

Life came full circle at death. Just as the baby emerged from the egg (i.e., his mother’s womb) at birth, the deceased



Figure 14. Statue of Horus. Dynasties 25–26 (ca. 722–525 BC), which may have been used in oracular consultations. OIM E10504 (D. 17932; photo by Anna Ressman)

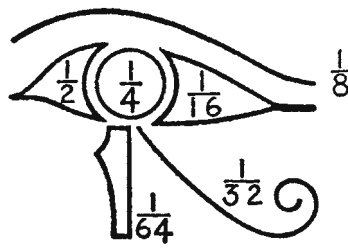


Figure 12. Eye of the falcon god Horus, with the value of each of its fragments (from Gardiner’s 1957 *Egyptian Grammar*, p. 197)

returned into an egg, in the form of a coffin, hoping to be reborn in the afterlife. Especially from the New Kingdom onward, coffins were frequently covered with deities spreading their large wings to envelop the deceased, just as a mother vulture protected her brood from the many potential predators surrounding them. Everything in the tomb — the iconography, texts and spells, the coffin and mummy — was intended to guarantee the deceased access to the afterlife. In this netherworld, birds continue to maintain a strong presence. At death, one of the aspects of the personality, the *ba*-bird, was released and could travel between the tomb and the world of the living (fig. 15). Many other avian transformations were also desired, as clearly stated in the Book of the Dead and the Book of Transformations. Protection continued to be needed, and winged deities are of special significance in warding off the



Figure 15. Statuette of a *ba*-bird. OIM E4461 (D. 17908; photo by Anna Ressman)



Figure 13. Ceiling from the temple of Medinet Habu, decorated with large vultures spreading their wings (photo by Rozenn Bailleul-LeSuer)

many dangers, demons, and other pitfalls that could deny the deceased the possibility of being reborn. Figurines of crouching falcons were placed beside the mummy, seemingly ready to attack any potential enemy. The falcon Qebhsenuf, one of the sons of Horus, protected the intestines after they were mummified and placed in a canopic jar (fig. 16) to guarantee a functioning digestive system in the new life and a



Figure 16. Canopic jar with the head of Qebhsenuf, the son of Horus, who was in charge of protecting the deceased person’s intestines. OIM E969A–B (D. 17899; photo by Anna Ressman)



Figure 17. Tempera by Nina Davies, from the Theban tomb-chapel of Nebamun. The deceased, in the company of his wife and daughter, is shown fowling in the marshes, simultaneously controlling the forces of chaos embodied in the many birds inhabiting the papyrus thicket, and providing fresh poultry for his table (D. 17883; photo by Anna Ressler)

continued appreciation for tasty dishes (see below).

While the large flocks of migratory birds were seen as a symbol of life and rebirth, they simultaneously represented the forces of chaos unleashed in the marshes that had to be conquered and controlled to allow peace and justice to flourish anew. Scenes of the tomb owner fowling in the marshes were therefore common motifs in offering chapels from the Old Kingdom to the Late Period (fig. 17). The deceased, successfully hitting the birds flying from the papyrus thicket with his throwstick, both imposed his control over the natural elements and provided delicious meat for his pantry. Even in the afterlife, the ancient Egyptians wanted to continue enjoying good meals. Hence the need to place many victuals in the tombs, as models or mummified goods. Many more were depicted on the walls of the offering chapel, carried by long lines of offering bearers. During the Old and Middle Kingdoms, statuettes

of stone and then wood were also included in funerary assemblages. Finally, to further guarantee the provisioning of birds, the traditional offering formula carved on tomb walls and stela included "1,000 birds" to keep the deceased person's plate full at all times.

As the exhibit comes to an end, visitors will be brought back to the twenty-first century by a panel briefly presenting the current state of the avian population in Egypt. Sherif Baha el-Din, research associate at the Field Museum and environmental consultant in Egypt, will explain how birds have been dealing with the many environmental challenges associated with the building of the Aswan dam in the 1960s and the extensive land reclamation that has resulted from the population explosion of the past forty years and the subsequent need for agricultural land. Dr. Baha el-Din will also report on the threats that birds inhabiting and migrating through Egypt face, such as intensive hunting, and on the growing

conservation and preservation efforts being enacted by the Egyptian state.

The exhibit will end with a reminder that Chicago itself is built on a series of wetlands, some of which are still extant and being restored in the southeast side of Chicago. Indeed, while writing the narrative for this exhibit, I further realized that similarities between Chicago and the Nile Valley made the Oriental Institute Museum the ideal location for such a special exhibit. Both Egypt and Chicago are located on migration pathways, making them paradises not only for birds flying back and forth between their winter quarters and breeding grounds, but also for bird-watchers. With the help of the Audubon Society, we hope to give visitors a greater appreciation for the birds in their surroundings, just as the ancient Egyptians had, and a new awareness of the need to preserve marshes and wetlands, so that we may continue to enjoy birds for generations to come.

To complement the exhibit, a catalog will be available that includes essays on the major themes presented in the exhibit, as well as recent scholarship on avian topics by prominent scholars in both Egyptology and scientific disciplines.

This exhibit would not have been possible without early and pace-setting support from Oriental Institute Visiting Committee members Misty and Lewis Gruber. Along with the Grubers, additional support has been received from Joan Fortune, David and Carlotta Maher, and Anna White.

A symposium, *Birds in Ancient Egypt*, will take place at the Oriental Institute on Saturday November 10, 2012, from 1:00 to 5:00 PM. For more information, see p. 22

NOTES

¹ I thank Bob LeSuer and Lauren Lutz for reviewing this essay and giving me some valuable advice.

² Bettina Schmitz and Dina Faltings, *Vögel im Alten Ägypten: Informationen zum Thema und Kurzführer durch die Ausstellung, Pelizaeus-Museum* (Hildesheim, 1987).

Rozenn Bailleul-LeSuer is a PhD candidate in Egyptology in the Department of Near Eastern Languages and Civilizations at the University of Chicago and curator of the exhibit *Between Heaven & Earth: Birds in Ancient Egypt*. After studying chemical engineering in France, as well as Greek and Latin in Vermont, she is now able to combine her passion for birds and her academic interest in Egypt. Her dissertation is entitled "The Exploitation of Avian Resources in Ancient Egypt: A Socio-economic Study."



Rozenn Bailleul-LeSuer with Harris' hawk on hand (photo by Bob LeSuer)

✍
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The following programs are free, but advance registration is required.

Medicine and Magic in the Ancient World: A Search for the Cure

Wed Oct 10 *Wed Oct 17* *Wed Oct 24* *Sat Oct 27* **OR** *Entire 4-week series*

- Bird Walk in Jackson Park**
- The Birds of Ancient Egypt Symposium**
- OI/ASOR Educators' Event**
- K-12 teachers seeking CPDUs for eligible programs, please check here**

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REGISTRATION AND REFUND POLICY

For multi-session on-campus courses, a full refund will be granted to anyone who notifies us about his/her cancellation before the first class meeting. Those who cancel after the first class meeting, but before the second class meeting, will receive a full refund minus a \$50 cancellation fee. After the second class meeting, no refunds will be granted unless the course is canceled by the Education Office. Failure to attend a class does not entitle a registrant to a refund. Some courses require a small materials fee to be paid at the first class meeting.

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For single-session programs, where tickets are sold by the Oriental Institute, no refunds will be granted, but if the Education Office is notified of cancellation at least 48 hours before the program begins, a credit voucher will be issued for the full amount. With less than 48 hours notice, a voucher for the full amount, less a \$5 cancellation fee, will be issued. Credit vouchers can be used for any Oriental Institute single-session program for one full calendar year from the date on the voucher. Tickets sold by other organizations for programs held at the Oriental Institute are subject to the cancellation policies of the organization selling the tickets. Only those registered for classes may attend them. The Education Office reserves the right to refuse to retain any student in any class at any time.

FALL 2012 CALENDAR

Unless otherwise noted, all programs take place at the Oriental Institute. All programs subject to change.

OCTOBER

7 | SUNDAY

The Bible's Buried Secrets

Film
2:00 PM
See page 19 for details

10 | WEDNESDAY

The Theory and Practice of Medicine and Magic in Ancient Egypt

Volunteer Mini-Series
5:00 PM
See page 23 for details

13 | SATURDAY

Open House Chicago at the Oriental Institute

Event
10:00 AM
See page 24 for details

14 | SUNDAY

Open House Chicago at the Oriental Institute

Event
12:00 PM
See page 24 for details

Pioneer to the Past: The Life and Times of James Henry Breasted

Film
1:30 and 4:30 PM
See page 19 for details

15 | MONDAY

The Dawn of History: Society and Culture in Ancient Mesopotamia

Adult Education Online Course
See page 18 for details

Between Heaven & Earth: Birds in Ancient Egypt

Members' Preview Event
6:00 PM
See page 24 for details

17 | WEDNESDAY

Between Heaven & Earth: Birds in Ancient Egypt

Gallery Talk
12:15 PM
See page 22 for details

Magical Healing in Ancient Greece and Medical Healing in Ancient Greece

Volunteer Mini-Series
5:00 PM
See page 23 for details

21 | SUNDAY

Bird Walk in Jackson Park's Wooded Island

Bird Walk
8:00 AM
See page 22 for details

Iran: Seven Faces of a Civilization

Film
2:00 PM
See page 19 for details

22 | MONDAY

Hieroglyphs by Mail

Adult Education Correspondence Course
See page 18 for details

24 | WEDNESDAY

Diseases and Epidemics in Ancient Mesopotamia and Religious and Magical Elements in Babylonian Medical Practice

Volunteer Mini-series
5:00 PM
See page 24 for details

25 | THURSDAY

Visiting the Museum and The Mummy

Films
7:00 PM
See page 29 for details

27 | SATURDAY

"Mesopotamian Texts and the Knowledge Assumptions of Medical Diagnosis" and Panel Discussion

Volunteer Mini-series
10:00 AM
See page 23 for details

28 | SUNDAY

The Secret of the Mummies

Family Program
1:30 PM
See page 20 for details

Mummies Made in Egypt

Film
2:00 and 2:30 PM
See page 19 for details

NOVEMBER

4 | SUNDAY

Islam: Empire of Faith

Film
2:00 PM
See page 19 for details

FALL 2012 CALENDAR

7 | WEDNESDAY

James Henry Breasted: A New Appreciation

Members' Lecture
7:00 PM
See page 8 for details

10 | SATURDAY

Birds in Ancient Egypt

Public Symposium
1:00 PM
See page 22 for details

11 | SUNDAY

The Sun Was the Only Witness

Film
2:00 PM
See page 19 for details

14 | WEDNESDAY

The Behind-the-Scenes Story of Between Heaven & Earth

Gallery Talk
12:15 PM
See page 22 for details

17 | SATURDAY

Beyond Indiana Jones: Archaeology in the Classroom

Event All K–12 Educators
8:15 AM
See below for details

18 | SUNDAY

Junior Archaeologists

Family Programs
2:00 PM
See page 20 for details

The Mummies of the Heretics

Film
2:00 PM
See page 19 for details

22 | THURSDAY

Oriental Institute Closed for Holiday

27 | TUESDAY

Members' Exclusive Suq Sale

See back cover for details

DECEMBER

2 | SUNDAY

Nile: River of the Gods

Film
2:00 PM
See page 19 for details

5 | WEDNESDAY

Feasting on the High Road: The Median Palace at Godin Tepe

Members' Lecture
7:00 PM
See page 8 for details

9 | SUNDAY

Pale Male

Film
2:00 PM
See page 19 for details

16 | SUNDAY

The Silver Pharaoh

Film
2:00 PM
See page 19 for details

25 | TUESDAY

Oriental Institute Closed for Holiday

27 | THURSDAY

LamaSeuss: Fine Feathered Friends

Family Programs
2:00 PM
See page 20 for details

ORIENTAL INSTITUTE/AMERICAN SCHOOL OF ORIENTAL RESEARCH EVENT FOR ALL K–12 EDUCATORS

BEYOND INDIANA JONES: ARCHAEOLOGY IN THE CLASSROOM

Saturday, November 17

8:15 AM–5:30 PM

FREE. Pre-registration required

Teacher Recertification CPDUs: 9

The Oriental Institute and the American School of Oriental Research (ASOR) invite you to dig like an archaeologist and interpret your finds, create your own ancient-style pottery, explore online resources for the twenty-first-century classroom, and gather materials to incorporate into your Common Core or state curriculum. Designed for K–12 educators, the unique hands-on workshops and discussion

sessions at this one-day professional-development program will be led by archaeologists, elementary and high school educators, and museum professionals.

Free, but pre-registration is required. To register, mail in the form on page 15 or visit us online at <http://oi.uchicago.edu/events>. Questions? Call (773) 834-7606.

FALL ADULT EDUCATION COURSES

CORRESPONDENCE COURSE HIEROGLYPHS BY MAIL

Brittany Hayden & Jessica Henderson

October 22–February 25

Registration Deadline: October 14

Taught by correspondence, this course introduces students to an in-depth study of Middle Egyptian, the “classical” language of ancient Egypt. Learn the fundamental structure and grammar of the language by completing the first eight lessons and exercises of *Middle Egyptian Grammar* by James Hoch. Mail, e-mail, or fax completed lessons to the instructor, who will correct them, answer any questions, and return the lessons by your preferred mode. Those who complete all course assignments will receive a certificate of course completion from the Oriental Institute. The course will begin on Monday, October 22, and continue for sixteen weeks, with a two-week break during the winter holidays.

INSTRUCTORS: Due to the popularity of this course, students will be divided between two instructors. Brittany Hayden is an advanced graduate student in the University of Chicago’s Department of Near Eastern Languages and Civilizations. She specializes in the economic history of Greco-Roman Egypt. Jessica Henderson is an advanced graduate student in Egyptian archaeology in the University of Chicago’s Department of Near Eastern Languages and Civilizations. She studies royal iconography as well as the archaeology of the Late Period.

REQUIRED TEXTS:

James Hoch. *Middle Egyptian Grammar*. Available from the Suq for \$65; James Hoch. *Middle Egyptian Sign List*. Available from the Suq for \$18

Oriental Institute members receive a 10% discount; Illinois residents must pay 9.5% sales tax.

Books may be purchased online at
http://oi.uchicago.edu/order/suq/products/egypt_langlit.html

To register, mail in the form on page 15 or visit us online at <http://oi.uchicago.edu/events>. Questions? Call (773) 702-9507.

The following courses are co-sponsored by the Graham School of General Studies. Each course provides Teacher Recertification CPDUs from the Illinois State Board of Education, and each counts as an elective for the Graham School’s non-credit certificate in Arabic Language and Cultures. For more information, call Public Education at (773) 702-9507.

ONLINE COURSE: THE DAWN OF HISTORY: SOCIETY AND CULTURE IN ANCIENT MESOPOTAMIA

Kathryn W. E. Grossman

October 15–December 9

Registration Deadline: September 28

Mesopotamia — the land between the rivers, heartland of cities, and cradle of civilization. Along the banks of the Tigris and Euphrates Rivers the world’s first cities developed, writing was invented, and a series of powerful empires flourished and died. This eight-week, asynchronous, online course provides an accessible introduction to the archaeology and history of Mesopotamia—the region that includes modern-day Iraq and Syria. Through

in-depth online tutorials, readings, and web-based discussions, students will learn about the economy, politics, religion, and social life of one of the world’s great early civilizations.

INSTRUCTOR: Kathryn W. E. Grossman is a PhD candidate in Mesopotamian archaeology in the University of Chicago’s Department of Near Eastern Languages and Civilizations. She has excavated in Syria, Egypt, and Cyprus.

CPDUS: 24

Course participants must have a reliable Internet connection, a technical facility with computers, and downloading software, as well as the ability to navigate the Internet as a learning tool. To register, mail in the form on page 15 or visit us online at <http://oi.uchicago.edu/events>. Questions? Call 773-702-9507.

GIVE THE GIFT OF MEMBERSHIP THIS HOLIDAY SEASON!

Give the gift that lasts throughout the year: an Oriental Institute membership. Let us take care of the wrapping and shipping for you — holiday membership includes a personalized note on a colorful Oriental Institute note card, the most recent edition of *News & Notes*, and the 2011–2012 *Annual Report*. Memberships begin at \$25, and gifts are tax deductible. Membership gifts can be ordered online at <http://oi.uchicago.edu/getinvolved> or over the phone at (773) 834-9777. Gifts should be purchased by December 14 to ensure a December 25 arrival.

SUNDAY FILMS

Each Sunday afternoon, enjoy the best in documentary and feature films on the ancient Near East at the Oriental Institute. Films begin at 2:00 PM, and running times range from 30 to 50 minutes unless otherwise noted. There is no admission fee. Following the films, museum docents will be available in the galleries to answer questions about our exhibits.

October 7 *The Bible's Buried Secrets* (2008) 110 min

A powerful intersection of science, scholarship, and scripture, this landmark documentary from the PBS NOVA series presents the latest in archaeological scholarship and explores some of the biggest questions in biblical studies: Where did the ancient Israelites come from? Who wrote the Hebrew Bible, when, and why? How did the worship of one God — the foundation of modern Judaism, Christianity, and Islam — emerge?

October 14 *Pioneer to the Past: The Life and Times of James Henry Breasted* (2004)

From WTTW's Chicago Stories, this film presents the scholarly vision and entrepreneurial flair of Chicago-area native James Henry Breasted, founder of the Oriental Institute. *Pioneer to the Past* will be shown on the half hour from 1:30 to 4:30 PM in conjunction with Open House Chicago at the Oriental Institute.

October 21 *Iran: Seven Faces of a Civilization* (2007)

This major documentary uses the latest technology to showcase the celebrated art and archaeology of Iran over the past 7,000 years. A cinematic adventure that features spectacular graphic reconstructions superimposed on images of actual architectural remains, the film brilliantly recaptures the ancient treasures of Iran in ways never before possible.

October 28 *Mummies Made in Egypt* (2001)

This award-winning children's film from the Reading Rainbow series uses live-action and animation to take an in-depth look at the ancient and fascinating world of mummies. Shown in conjunction with the special family event *The Secret of the Mummies* (see p. 20). The film goes on a unique visit behind the scenes at the Museum of Fine Arts in Boston to explore how

ancient Egyptian mummies are studied and preserved. This half-hour film is shown at 2:00 PM and repeated at 2:30 PM.

November 4 *Islam: Empire of Faith* (2000)

This highly acclaimed two-part PBS film tells the story of Islam's first thousand years, showing how it sustained the intellectual legacies of Greece, Egypt, and China and brought immeasurable advances in science, medicine, and art to Europe in the Middle Ages. This film is being shown in conjunction with Arab Heritage Month in Chicago. Part 1 screens at 1:00 PM and is 90 minutes long. Part 2 screens at 3:30 PM and also runs 90 minutes.

The following two films, shown on successive Sundays, are episodes from Akhenaten and Nefertiti: Rulers of Egypt (2002). This series explores the reign of the revolutionary pharaoh who replaced the Egyptian pantheon with a single deity, the sun god Aten.

November 11 *The Sun Was the Only Witness*

Filmed on location in Egypt, the expert commentary and lavish reenactments in this episode bring Akhenaten's religious revolution dramatically to life.

November 18 *The Mummies of the Heretics*

After his death, Akhenaten was declared a heretic, and efforts were made to erase all traces of his reign. This episode explores the nineteenth-century discovery of the pharaoh's famed city of Amarna and the search for the mummies of the heretic king and his queen, Nefertiti.

November 25 No film showing during Thanksgiving weekend

December 2 *Nile: River of the Gods* (1994) 102 min

Coursing 4,000 miles through three countries, the Nile River sustains

some of the world's richest wildlife habitats and has shaped the ways and beliefs of cultures since the beginning of recorded history. Narrated by Academy Award winner F. Murray Abraham, this spectacular film takes you on an odyssey of exploration as you journey down the entire length of the Nile.

December 9 *Pale Male*

See below for details.

December 16 *The Silver Pharaoh* (2010)

This film tells the story of pharaoh Psusennes, whose royal tomb is one of the most spectacular — and least well known — in Egypt. Discovered on the eve of World War II, the tomb received little fanfare, and treasures such as the pharaoh's remarkable silver sarcophagus remained forgotten — until now.

December 23 and 30, 2012 Holiday break, no film screenings.

FILM SCREENING

PALE MALE

Sunday, December 9

2:00 PM

FREE

Of the millions of newcomers who flock to New York City, a red-tailed hawk's astounding arrival in 1991 made history when he chose an exclusive Fifth Avenue apartment building as his home. Oscar winner Joanne Woodward narrates this award-winning film that shows how a powerful bird of prey, affectionately dubbed "Pale Male," became an instant celebrity as he courted his mate on Woody Allen's balcony, built a penthouse nest and fiercely protected it, and then taught his baby chicks to fly. The Audubon Society proclaims this film "a classic" (85 min).

VOLUNTEER SPOTLIGHT: ROBERT WAGNER

by Cathy Dueñas &
Terry Friedman

Who makes the Oriental Institute a leader in research on the ancient Near East? You do! The Oriental Institute has wonderful volunteers who are constantly working with the public as well as behind the scenes on a wide variety of research projects. *News & Notes* has added an ongoing special section to spotlight some of our outstanding volunteers each quarter.

ROBERT WAGNER's life-long passion for Egyptology began as a young boyhood dream. As a child he kept a scrapbook in which his very first entry was a *Chicago Tribune* article on an Egyptian discovery, the Khufu funeral bark. As an inquisitive seventh-grader, Robert took the opportunity to come to the Oriental Institute to speak to Robert McCormick Adams for a writing assignment. The assignment's purpose was to interview someone he admired and who exemplified what he wanted to become.

Robert was fortunate to grow up in a bilingual home where German was

spoken. His facility with languages led him to study comparative cultures at Wesleyan University in Connecticut and to ultimately receive his PhD in Germanic languages and letters from the University of Michigan.

In his professional life, Robert was a technical translator for intellectual property at a Chicago-area law firm. Upon his retirement, it seemed only natural for Robert to return to his fascination with Egyptology and the ancient Near East. He was eager to apply his skills and talents to help the Oriental Institute. In 2003 Robert became a volunteer for Clemens Reichel on the Diyala Project. Later he began volunteering in the Museum Archives with John Larson on the Medinet Habu papers from Berlin.

Robert and his wife reside in Beverly. They both love music and attend many concerts and cultural events throughout the area. Robert is an avid stamp collector and enjoys baseball. He



is a left-handed pitcher and an enthusiastic St. Louis Cardinal's fan!

Robert describes himself as very driven and takes his volunteer work very seriously. When he is in town, you can find him working in the west basement, deeply engrossed in his current project. Robert takes great pride in all that he has accomplished as a volunteer.

If you are interested in finding out more, come join Robert and become a docent or volunteer at the Oriental Institute! Become a part of the Oriental Institute Volunteer Program. Explore the many options available at <http://oi.uchicago.edu/getinvolved/volunteer>

FAMILY PROGRAMS

THE SECRET OF THE MUMMIES

Sunday, October 28

1:30–3:30 PM

How did the ancient Egyptians make those mummies? What are canopic jars, and what goes into them? Find out at the Oriental Institute! Come to our pre-Halloween event to get up close and personal with a reproduction mummy, join in a special gallery tour, browse the latest books on ancient Egypt, and enter our "Guess the Mummy Lollipops" contest. Special feature: See "Mummies Made in Egypt," an award-winning children's film from the Reading Rainbow series.

Free. Pre-registration not required. Suggested for children ages 5 and up, accompanied by an adult.

JUNIOR ARCHAEOLOGISTS

Sunday, November 18

2:00–4:00 PM

Let loose your inner Indiana Jones! Children and parents get a chance to dig into our simulated dig in the Oriental Institute's Kipper Family Archaeology Discovery Center. Program also includes an interactive guided tour of the galleries.

FEE: \$7 for Oriental Institute members; \$9 for non-members. Includes guided tour, workshop instruction, and all materials. Suggested for ages 5 to 12 accompanied by an adult.

Pre-registration required. To register, mail in the form on page 15 or visit us online at <http://oi.uchicago.edu/events>. Questions? Call (773) 702-9507.

LAMASSEUS: FINE FEATHERED FRIENDS

Moriah Grooms-Garcia

Thursday, December 27

2:00–3:00 PM

Forty-tons and 16 feet high, Lamassu hopes that you will stop by! Our winged bull has become quite taken with the feathered friends featured in our special exhibit *Birds in Ancient Egypt*. Lamassu invites you and your family to hear a reading of the *Cat in the Hat* book *Fine Feathered Friends* and to go on a children's "birding expedition" in the galleries. Learn about birds both common and rare as well as what people 3,000 years ago thought of them.

Free. Pre-registration not required. Recommended for children ages 4–9, though all are welcome! Children must be accompanied by an adult.

A LIVING LEGACY

A dear friend of the Oriental Institute, Donald Oster, AB 1950, passed away in January 2012. It was a 1981 expedition to Egypt that sparked a lifelong interest in that country and his subsequent decision to fund a life-income gift for the Oriental Institute. The trip, which was sponsored by the Oriental Institute, included visits to major temples and tombs throughout Egypt. At Luxor, Mr. Oster visited Chicago House, where Oriental Institute students, faculty, and staff are working on the Epigraphic Survey. Using a method developed by James Henry Breasted, the Epigraphic Survey documents inscriptions and relief scenes on the major monuments at Luxor for publication. The excursion introduced Mr. Oster to the Oriental Institute's work in the region and underscored the importance of maintaining the University of Chicago's research facilities at Luxor.

As his enthusiasm grew, Mr. Oster became a generous financial supporter

of the Oriental Institute and took at least a dozen trips to Egypt, each time stopping at Chicago House to check on the progress of the University's research.

Mr. Oster's career in information systems with Mobil Oil provided him the luxury to travel all over the world, including stints at the company's offices in France, Japan, Australia, New Zealand, Singapore, and Hong Kong. He eventually settled down in London. Another set of the benefits Mr. Oster received from his time with Mobil was an annual award of stock options, the value of which rose considerably after his retirement. As the



market value of those shares appreciated, so too did the amount of capital gains tax Mr. Oster would have had to pay if the shares were sold. After considering several options, Mr. Oster decided to combine his financial and charitable goals by using the appreciated securities to fund a charitable remainder unitrust to benefit the Oriental Institute. The unitrust allowed Mr. Oster to accomplish several objectives: he was able to sell off his shares at a particularly favorable time, with no tax cost and some tax benefit; receive income for his retirement at a rate that was considerably higher than his shares were paying; and have the knowledge that his gift would benefit Oriental Institute in the future. The Oriental Institute is grateful to Donald Oster and the many donors who plan thoughtful future gifts to foster the research, discovery, and preservation of Near Eastern civilizations. For information on creative ways you can plan a gift to Oriental Institute, please visit giftplanning.uchicago.edu or contact Heather McClean at (773) 834-2117.

JOIN/RENEW TODAY!

I would like to become a Member of the Oriental Institute / Please renew my Oriental Institute membership

Name: _____

Address: _____ City/State/Zip: _____

Daytime phone: _____ E-mail: _____

- \$50 Annual Member
- \$40 Senior Member (65+)
- \$40 National Associate (US residents 100 miles from Chicago)
- \$75 Overseas Member (residents outside the US)
- \$100 Supporting Associate
- \$500 Sponsoring Associate
- \$1,000 James Henry Breasted Society

I prefer to pay by Check (payable to the Oriental Institute) MasterCard Visa

Account number: _____ Exp. date: _____ 3-digit security code: _____

Signature: _____

You can also renew by calling (773) 834-9777 or visiting us online at <http://oi.uchicago.edu/getinvolved/>

Questions? E-mail or call the Membership Office: oi-membership@uchicago.edu / (773) 834-9777

Cut out and send form to: The Oriental Institute Membership Office, 1155 East 58th Street, Chicago, IL 60637

BETWEEN HEAVEN & EARTH: BIRDS IN ANCIENT EGYPT

The following programs are presented in conjunction with the Oriental Institute's latest special exhibit, opening October 16, 2012.

ORIENTAL INSTITUTE/AUDUBON SOCIETY PUBLIC SYMPOSIUM

Birds in Ancient Egypt

Saturday, November 10

1:00–5:00 PM, Reception follows

Oriental Institute

FREE. Pre-registration required

Teacher Recertification CPDUs: 4

Until the building of the Aswan dam in the 1960s, the millions of migratory birds from Eurasia that filled the Egyptian skies each autumn coincided with the rising of the Nile waters and the flooding of the valley. To the ancient Egyptians, the arrival of these migrants reaffirmed their belief in the cyclic rebirth of the universe and transformed birds into powerful symbols of life, protection, and sensuality. Join a panel of scholars at this half-day symposium to explore the complex and fascinating roles birds played in the lives of the ancient Egyptians. Learn the integral role of birds in many religious ceremonies and cults, the degree to which they appeared in art and the meaning behind those portrayals, and how interdisciplinary research has revealed intriguing new information through CT scans of ancient avian mummies. Then compare the bird species of ancient Egypt with those of today, and discover the importance of wetlands to migrating waterfowl, not only in ancient Egypt but also in our own city of Chicago.

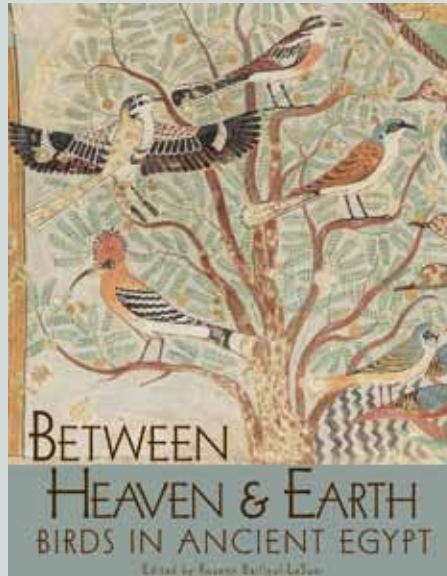
SPEAKERS FROM THE ORIENTAL INSTITUTE INCLUDE:

Rozenn Bailleul-LeSuer, PhD candidate in Egyptology at the University of Chicago and curator of the special exhibit *Between Heaven & Earth: Birds in Ancient Egypt*

Foy Scalf, PhD candidate in Egyptology at the University of Chicago, head of Research Archives, Oriental Institute

GUEST SPEAKERS CURRENTLY INCLUDE:

John Wyatt, Independent researcher and specialist in African birds and mammals



Gay Robins, professor of art history at Emory University with a specialty in ancient Egyptian art

Special presentation by the Audubon Society

Admission to the symposium is free, but pre-registration is required. To register, mail in the form on page 15 or visit us online at <http://oi.uchicago.edu/events>. Questions? Call (773) 702-9507.

BIRD WALK

Bird Walk in Jackson Park's Wooded Island

Rozenn Bailleul-LeSuer & Randy Shonkwiler

Sunday, October 21

8:00–10:30 AM

Meet in parking lot at the corner of Cornell and Hayes Drives (Entrance to lot is on Hayes)

FREE. Pre-registration required

In late October, large numbers of birds fly through Chicago during their migration to warmer climates. Come join us in Jackson Park to witness this spectacular phenomenon. Visit the Wooded Island and Bobolink Meadow with birding experts Rozenn Bailleul-LeSuer and Randy Shonkwiler. We hope to see 30–40 species, including colorful wood ducks, belt-

ed kingfishers searching for food, and several species of warblers and kinglets fluttering in the trees. Please dress for the weather and bring a bird guide if you have one and also your own binoculars. All levels of birders — whether new or experienced — are welcome! Metered parking in the Hayes Drives is available for \$2.25, cash or credit card, for three hours.

Free, but group size is limited so pre-registration is required. To register, mail in the form on page 15 or visit us online at <http://oi.uchicago.edu/events>. Questions? Call (773) 702-9507.

GALLERY TALKS

Between Heaven & Earth: Birds in Ancient Egypt

Rozenn Bailleul-LeSuer

Wednesday, October 17

12:15 PM

FREE. Pre-registration not required

Be among the very first to take a guided tour of *Between Heaven & Earth: Birds in Ancient Egypt*. Join exhibit curator Rozenn Bailleul-LeSuer to see how the millions of migratory birds that filled the skies every spring and fall influenced all aspects of ancient Egyptian life and culture.

The Behind-the-Scenes Story of Between Heaven & Earth

Rozenn Bailleul-LeSuer

Wednesday, November 14

12:15 PM

FREE. Pre-registration not required

Join Rozenn Bailleul-LeSuer, curator of *Between Heaven & Earth: Birds in Ancient Egypt*, for a guided tour addressing this unique exhibit's planning and processes, including development of themes and content selection, new research, and exhibit design.

MEDICINE AND MAGIC IN THE ANCIENT WORLD: A SEARCH FOR THE CURE

Fall Mini-series 2012 – Oriental Institute, Breasted Hall

SESSION I

Wednesday, October 10; 5–7 PM

“THE THEORY AND PRACTICE OF MEDICINE AND MAGIC IN ANCIENT EGYPT”

Robert Ritner, professor of Egyptology, Oriental Institute

SESSION II

Wednesday, October 17, 2012; 5–7 PM

“MAGICAL HEALING IN ANCIENT GREECE”

Christopher Faraone, professor, Department of Classics

“MEDICAL HEALING IN ANCIENT GREECE”

Elizabeth Asmis, professor, Department of Classics

SESSION III

Wednesday, October 24, 2012; 5–7 PM

“DISEASES AND EPIDEMICS IN ANCIENT MESOPOTAMIA: MEDICAL CONCEPTUALIZATION AND RESPONSES”

Walter Farber, professor of Assyriology, Oriental Institute

“RELIGIOUS AND MAGICAL ELEMENTS IN BABYLONIAN MEDICAL PRACTICE”

Robert Biggs, professor Emeritus of Assyriology,
Oriental Institute

SESSION IV

Saturday, October 27, 2012; 10 AM–12 PM

“MESOPOTAMIAN TEXTS AND THE KNOWLEDGE ASSUMPTIONS OF MEDICAL DIAGNOSIS”

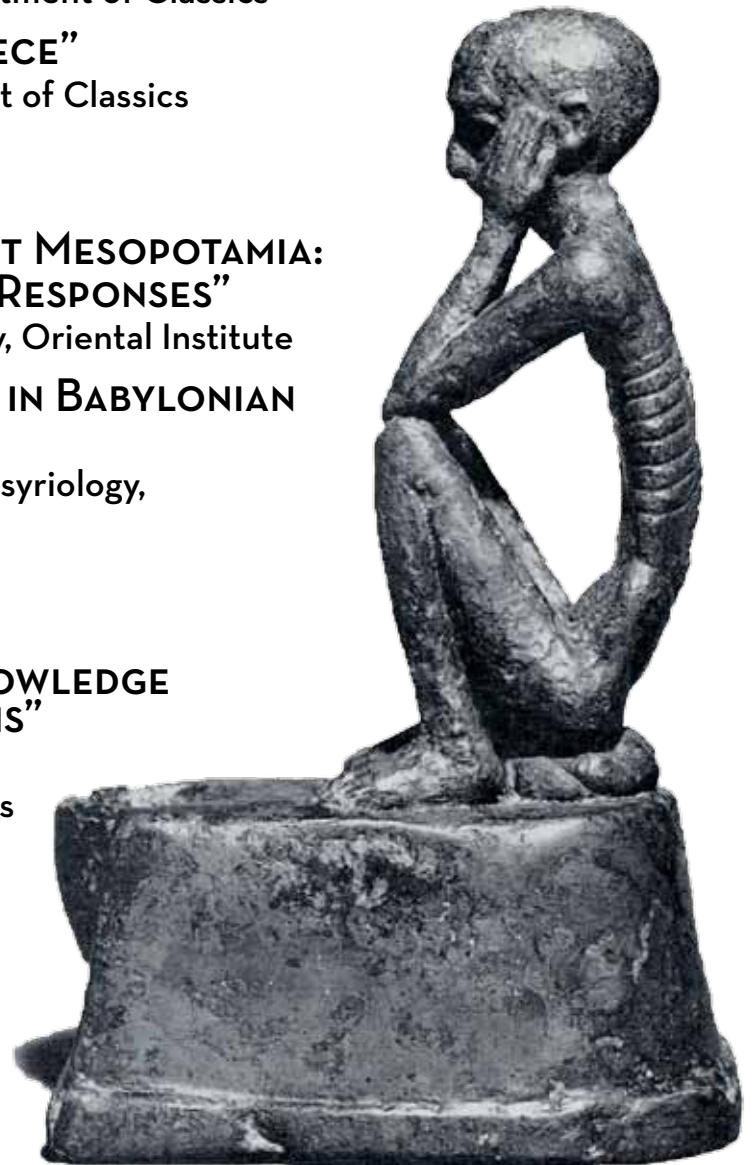
John Wee, postdoctoral scholar,
Department of Near Eastern Languages
and Civilizations

PANEL DISCUSSION

All Presenters

FREE. Pre-registration required. To register go to <http://oi.uchicago.edu/events> or mail in the form on page 15

Teacher Recertification CPDUs: 2 per session; 8 for the entire series.



Figurine that might represent Kubu, the premature stillborn baby-turned-demon; dates to the OB period. Cincinnati Art Museum no. 1956.14



THE ORIENTAL INSTITUTE IN THE NEWS



A selection of recent coverage of the Oriental Institute in Chicago and national media sources

UChicagoNews

June 18, 2012

"Gil Stein Appointed to Third Term as Oriental Institute Director" — news.uchicago.edu/article/2012/06/18/gil-stein-appointed-third-term-oriental-institute-director

Aikenstandard.com

April 13, 2012

"Another review of the Windy City," by Jeffrey Wallace — www.aikenstandard.com/story/0414-Jeff-Wallace-Column-Windy-City-review--3929598

Chicago Now

June 25, 2012

Chicago Museums: What's on Tap this Summer at Chicago's World Class Museums — www.chicagonow.com/show-me-chicago/2012/06/chicago-museums-whats-on-tap-this-summer-at-chicagos-world-class-museums/

World Journal (Chinese language press)

Article on Picturing the Past — www.worldjournal.com/view/wjil-news/17978766/article-

Trip Advisor

The Oriental Institute Museum was awarded a Certificate of Excellence, 2012 by *Trip Advisor* on the basis of the favorable reviews on their Web site. <http://www.tripadvisor.com/Travel-g35805-d110090/Chicago:Illinois:Oriental.Institute.Museum.html>

ORIENTAL INSTITUTE MEMBERSHIPS

Time to renew your membership? Call (773) 834-9777 or visit <http://oi.uchicago.edu/getinvolved>

ORIENTAL INSTITUTE/CHICAGO ARCHITECTURE FOUNDATION COLLABORATION

OPEN HOUSE CHICAGO AT THE ORIENTAL INSTITUTE

Saturday, October 13

Continuous 10:00 AM–5:00 PM

AND

Sunday, October 14

Continuous 12:00–5:00 pm

FREE. Pre-registration not required

The Oriental Institute joins the Chicago Architecture Foundation for Open House Chicago, a free weekend festival providing access to over 150 of Chicago's greatest places and spaces. Come and discover the Oriental Institute as you may never have seen it before. Designed in 1930 by H. O. Murray of Goodhue Associates, the building is embellished inside and out with a riot of ancient motifs — Phoenician boats, snarling lions from Nimrud, pharaohs in chariots, and decorations from Egyptian tombs. Join our docents to see how Institute founder James Henry Breasted and his "Symbolism Committee" turned a fire-



proof, limestone-clad building into a Hyde Park "temple of Middle Eastern research." Special-access tours will take you into the private Director's Study, the most elegant office on the University of Chicago campus, and the Director's Research Library, which evokes the atmosphere of a Gothic cathedral.

SAVE THE DATE!

MEMBERS' OPENING & PREVIEW BETWEEN HEAVEN & EARTH: BIRDS IN ANCIENT EGYPT

Monday, October 15, 6:00 PM

Join us for a special program and preview of our new exhibit on birds in ancient Egypt that features sculpture, paintings, carved vessels, and bird mummies. The show explores how birds were an integral part of the lives of ancient Egyptians, from their birth to their death. The exhibit features guest curator Rozenn Bailleul-LeSuer's newest research on bird mummies in our collection.



Elaborately wrapped ibis mummy AEABB56 from the catacombs at North Saqqara. This specimen displays a tight herringbone design formed from pale linen and an appliqué motif to the proximal aspect depicting Thoth seated on a throne and surmounted by the Atef crown (© University of Manchester / Manchester Museum)

SCOUT PROGRAMS



ARCHAEOLOGY BADGE WORKSHOP



**Dig for artifacts!
See real mummies
and more ...**

**Work toward your archaeology badge
at the Oriental Institute!**

Scouts experience a simulated dig in the Kipper Family Archaeology Discovery Center, go on a scavenger hunt in the museum's world-renowned galleries, and participate in a ceramic reconstruction.

Cost is \$15/scout, \$10 for those with a family membership. This program fulfills 1-4a, 6, 8c, 9b, and 11 of the Archaeology Merit Badge Workbook. Please note there are some additional items that scouts must complete on their own. Blue cards will not be signed without the scout having fulfilled all badge requirements. Scouts must be accompanied by an adult.

AUTUMN WORKSHOPS

Sunday
August 19, 3-5 PM

Wednesday
September 12, 6-8 PM

Sunday
October 28, 3-5 PM

Wednesday
November 21, 6-8 PM

**To register, visit
<http://oi.uchicago.edu/events>**

IN MEMORIAM

On July 28, the Oriental Institute lost a dear friend and valued colleague. Eleanor Guralnick, who served as a research associate with the Institute, passed away in Chicago. Since 2006, Eleanor focused her efforts at the Institute on the Khorsabad Relief Project, working to identify, clean, photograph, and catalogue carved stone relief fragments from King Sargon II's palace at Khorsabad. Using her imagination combined with diligent scholarship, Eleanor pieced together many fragments to form an enormous, rich portrait of a vanished civilization. Her work on the Khorsabad reliefs formed the basis of many published papers on topics ranging from use of color to studies on detailed elements and new drawings of the reliefs. Along with her scholarly articles, Eleanor edited three books: *The Ancient Eastern Mediterranean*, *Sardis: Twenty-seven Years of Discovery*, and *Vikings in the West*.

A University of Chicago alumna, Eleanor was awarded her master's degree in art history in 1967 and subsequently earned her PhD in classical art and archaeology with a specialization in Near Eastern art in 1970. During her student days at the University of Chicago, she was a recipient of a Ryerson



Eleanor Guralnick. Image used with permission from the AIA

Scholarship, a Ryerson Fellowship for Travel, and a University Scholarship. Eleanor was actively engaged with the Archaeological Institute of America at both the local and national society levels. She held every possible office with the Chicago Society of the AIA and built the organization to become a model for outreach to both adults and children. At the national level, Eleanor also served as AIA general trustee and chaired the Regional Symposia committee. Her work on behalf of the AIA was recognized with that organization's prestigious Martha and Artemis Joukowsky Distinguished Service Award in 2004.

All of us at the Oriental Institute count ourselves as fortunate to have worked with Eleanor. We will remember her with respect for her dedication and important contributions to understanding the art, archaeology, and history of the ancient Near East. Eleanor was our friend and we will miss her.

YOUR STORY

Did you meet your significant other at the Oriental Institute? We want to hear your story! Please contact the Membership Department at (773) 834-9777 or oi-membership@uchicago.edu to share your experience.



ELECTRONIC PUBLICATIONS

As part of the Oriental Institute's Electronic Initiative, all new titles are simultaneously issued in print and online as Adobe Acrobat PDF (Portable Document Format) files delivered through the Internet. Older titles are scanned and saved as .tif and .pdf files, with the latter being posted online, as time and funds permit. The older titles not-scanned-in-office are scanned by Northern MicroGraphics (NMT Corporation, <http://normicro.com>), located in La Crosse, Wisconsin.

The Electronic Initiative is very successful. The uploaded PDFs are available wherever the Internet reaches, and our older titles — all our titles, old and new — are especially appreciated in the countries where data were gathered and library shelves do not hold Oriental Institute titles.



Over 400 titles published by the Oriental Institute from its beginnings through 2000 are contained on these 103 disks

GRANDDAUGHTER OF PAINTER JOSEPH LINDON SMITH VISITS THE ORIENTAL INSTITUTE

by Emily Teeter

On June 8, Linden and Jay Gaspar of Gainesville, Georgia, visited the Oriental Institute's exhibit *Picturing the Past: Imaging and Imagining the Ancient Middle East*, which features one in a series of paintings of Persepolis by Linden's grandfather Joseph Lindon Smith. The Gaspars heard about the exhibit from Chicago researcher Dennis O'Connor, who is writing a biography of Smith and who also wrote an essay on the artist for the exhibit catalog. The Smith paintings were commissioned by James Henry Breasted in 1935. They have not been on exhibit since 1940, when they were part of an important exhibit called *Persian Art* held at the Iranian Institute in New York.

During her visit, Linden recounted, "Dennis told me that there were

several other paintings that the Oriental Institute commissioned JLS to paint and I wanted to see what you had available. The article which Dennis wrote about JLS for the exhibit publication was wonderful and it should inspire future interest in learning more about the talents and abilities of my grandfather. I am so glad that one of his paintings from Persepolis was chosen to be displayed in this marvelous exhibit."

As a special treat, the Gaspars also visited the office of the Oriental Institute's director Gil Stein to see another Smith painting of Scythians presenting tribute from Persepolis. Recently, Gil replaced an Egyptian-themed painting that hung in the office since at least the 1940s with the Smith work, an acknowledgment of its beauty



Jay and Linden Gaspar with a painting of Persepolis by Linden's grandfather, Joseph Lindon Smith

and importance. The "rediscovery" and display of the Smith paintings signify just one of many residual benefits of the special exhibits program that allows us to use our diverse collections in many different ways.

FIELD PROJECTS

The Oriental Institute has sponsored archaeological and survey expeditions in nearly every country of the Middle East. There are projects currently active in Egypt, Turkey, Israel, and the West Bank. These completed and ongoing excavations have defined the basic chronologies for many ancient Near Eastern civilizations and made fundamental contributions to our understanding of basic questions in ancient human societies, ranging from the study of ancient urbanism to the origins of food production and sedentary village life in the Neolithic period. Follow the upcoming project through their websites:

EPIGRAPHIC SURVEY

October 15–April 15

Ray Johnson

<http://oi.uchicago.edu/research/projects/epi/>

TELL EDFU, EGYPT

October 3–November 28

Nadine Moeller

www.telledfu.blogspot.com



If you're interested in supporting one of the Oriental Institute's archaeology field projects, please call Tracy Tajbl, director of development, at (773) 702-5062, or e-mail her at ttajbl@uchicago.edu

ARCHAEOLOGICAL TREASURES OF EASTERN TURKEY LED BY GIL STEIN, ORIENTAL INSTITUTE DIRECTOR

May 18–June 3, 2013

More details are online at <http://oi.uchicago.edu/travel>

SAVE THE DATE

2013 ORIENTAL INSTITUTE GALA

Saturday, May 11, 2013

Please Join the Visiting Committee, faculty, and staff of the Oriental Institute for the 2013 Oriental Institute Gala!

For details on Table Sponsorship or Invitations, please contact Development Director Tracy Tajbl at (773) 702-5062 or ttajbl@uchicago.edu.

STAR GAZING IN ANCIENT BABYLONIA

Jack Green and Mónica Vélez

Modern astronomers observe stars, planets, galaxies, and other celestial bodies, often using high-powered telescopes and transmitters, attempting to unravel secrets surrounding the creation and development of the universe. Although high-tech pieces of equipment such as the Hubble space telescope are modern inventions, the science of astronomy really has its beginnings in the ancient Near East. Astronomical observations were inscribed on cuneiform tablets from Mesopotamia (modern Iraq) from as early as the Old Babylonian period, nearly four thousand years ago, and continued toward the end of the first millennium BC. The astronomical traditions of Babylonia, in Central and Southern Mesopotamia, were passed on to the ancient Greeks, in turn leading to innovations in Islamic astronomy, knowledge later to be inherited by scholars in medieval Europe.

In acknowledgment of the astronomical achievements of ancient Mesopotamia, Chicago's Adler Planetarium is currently displaying (until Spring 2015) three cuneiform clay tablets on loan from the Oriental Institute of the University of Chicago.

This small display (fig. 1) highlights the role of astronomy in Babylonia during the Seleucid (Hellenistic) period (305–65 BC). The display also informs visitors of the astronomical tablets



Figure 1. Image of the display featuring Oriental Institute clay tablets at the Adler Planetarium. The Anu-Belshunu tablet (OIM A3405) is at the front. Installed April 2012

that can be seen on permanent display in the Edgar and Deborah Jannotta Mesopotamian Gallery at the Oriental Institute Museum, which is accompanied by a star chart showing the major Babylonian constellations (fig. 2).

The suggestion to display these three tablets at the Adler Planetarium followed the Roderick S. Webster Memorial Lecture held at the Adler

Planetarium on September 13, 2011, where Professor John Steele of Brown University presented “Anu-Belshunu, Astronomer and Scribe of Uruk.”¹ This fascinating lecture focused on the importance of the Babylonian tradition of astronomy and its relevance today, as well as the motivations and activities of astronomer-scribes. He also discussed several of the Late Babylonian Seleucid-era tablets from Uruk in the collections of the Oriental Institute at the University of Chicago.

The three tablets currently displayed at the Adler highlight the sophistication of Babylonian astronomy and its influence on later astronomical thought and practice.

One tablet (OIM A3409), dated to the third century BC, is a table of coordinates that plots the morning positions of the planet Mercury. This piece is particularly interesting as it describes the rotation of one of the quickest planets in orbit around the sun, all without the advantage of modern astronomical technology.

The second tablet (OIM A3413), dating to circa 200–150 BC, explains the procedure for determining the various lunar phases and positions that marked the beginning, middle, or end of a month in the Mesopotamian calendar. The start of a new month was marked by the appearance of a new crescent moon in the night sky.

The third tablet (OIM A3405) is perhaps the most intriguing (fig. 3). It was written by the astronomer-scribe Anu-Belshunu and contains calculations of

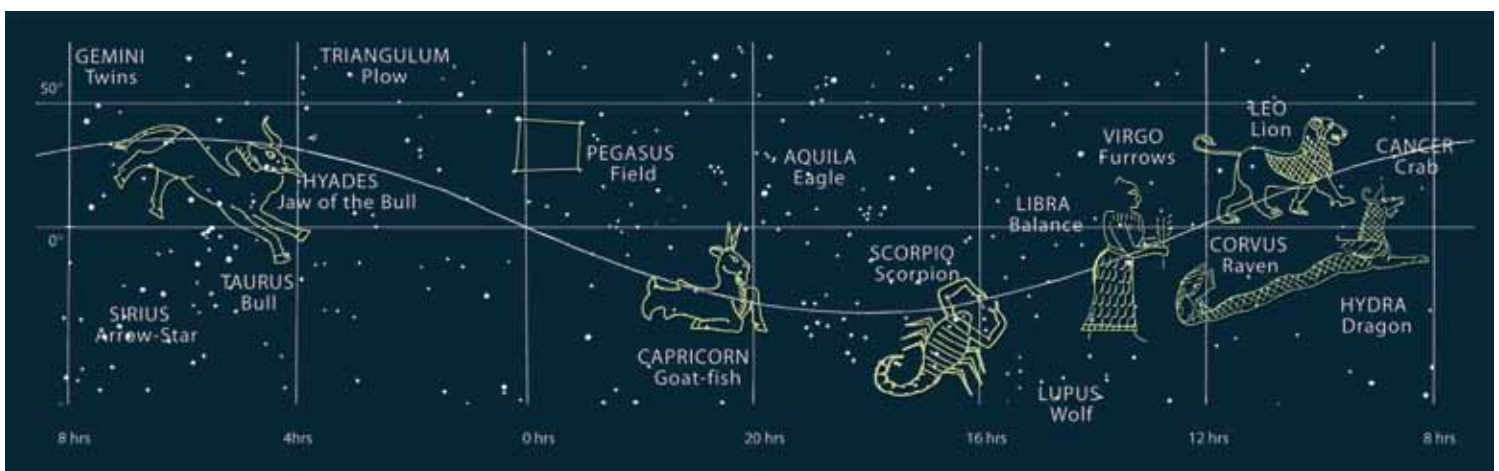


Figure 2. Star chart showing approximate locations for some Babylonian constellations. The capitalized Latin names of constellations, as known today, can be compared with translations of Akkadian names immediately below. The images derive from ancient Mesopotamian sources (Hanau-Strain Associates)

the positions of the five planets visible to the naked eye: Mercury, Venus, Mars, Jupiter, and Saturn. Although inscribed in around 191 BC, it actually projected back the movement of these planets to make calculations for the period 252–241 BC. This information was used to create a horoscope for someone born during a period around sixty or seventy years before the time it was composed. Professor Steele speculates that the information recorded in this tablet may have been used by Anu-Belshunu to create his own personal horoscope.

Such tablets were used for a number of purposes, from serving as calendars for religious rituals, to creating horoscopes and reading omens. They could have been used to predict outcomes, both positive and negative, as well as prepare for rituals enacted when astronomical events were predicted to take place, such as a solar or lunar eclipse.

Most importantly, Babylonian astronomy opened the gateway to the future development of astronomy. The Seleucid (Hellenistic) period in which these tablets were written was the final stage in a nearly 3,000-year tradition of

using cuneiform script, a time in which scribes from the Greek world came into direct contact with scribes in Babylonia, perhaps exchanging and sharing ideas and knowledge that would be passed on and transformed down the ages to the present day.³

NOTES

¹ The Oriental Institute thanks staff of the Adler Planetarium, especially Vice President for Collections Dr. Marvin Bolt and Collections Manager Jennifer E. Brand. We also thank Walter Farber, professor of Assyriology and curator of the Tablet Collection of the Oriental Institute; Andrew Dix, assistant curator of the Tablet Collection; and Oriental Institute Museum staff for making this happen. We extend our appreciation to Andrea Dudek, member of the Visiting

Committee of the Oriental Institute and member of the Steering Committee of the Webster Club for the History of Astronomy at the Adler Planetarium, for her interest in and encouragement of this loan.

⁵ The lecture can be accessed online via the following link: <http://www.adlerpodcast.com/adler-mix/episodes/2011/september.m4v>

³ A selection of further reading related to Babylonian astronomy includes: John M. Steele, *Calendars and Years: Astronomy and Time in the Ancient Near East* (Oxford, 2007) and *A Brief Introduction to Astronomy in the Middle East* (London, 2008); Hermann Hunger, *Astronomical Diaries and Related Texts from Babylonia*, Volume 5: *Lunar and Planetary Texts* (Vienna, 2001); Otto Neugebauer, *A History of Ancient Mathematical Astronomy: Part One* (New York, 1975); and Erica Reiner (formerly Oriental Institute), "Babylonian Celestial Divination," in *Ancient Astronomy and Celestial Divination*, edited by N. M. Swerdlow, pp. 21–38 (Cambridge, 1999).



Figure 3. Fragmentary cuneiform clay tablet featuring calculations of planetary movements. It was composed in the late Babylonian dialect of Akkadian by the astronomer-scribe Anu-Belshunu in Uruk, in what is now southern Iraq, around 191 BC (OIM A3405)

FILM PREMIERE & SPECIAL FILM SHOWING

VISITING THE MUSEUM

and

THE MUMMY

Thursday, October 25

7:00 PM

Breasted Hall

FREE. Pre-registration not required

Thrills and chills await you at this premiere screening of *Visiting the Museum* (17 min.) produced by Latino Art Beat, a not-for-profit national arts organization that encourages filmmaking by talented Latino youth. In this short film, two teenaged boys see a clip of the classic Boris Karlov movie *The Mummy* on their way to do research at the Oriental Institute. Filmed in the Institute's galleries, the suspense builds as the boys discover and then — much to their dismay! — accidentally bring an ancient Egyptian mummy to life.



We invite you to come in an ancient Egyptian-style costume or even as an Egyptologist and stay for more scary entertainment with a screening of the 1932 Karlov classic (73 min.). This film will be introduced by John Larson, Oriental Institute Museum archivist and film historian, who will also be a judge as we award prizes for the best Egyptian costume.

THE ORIENTAL INSTITUTE TRAVEL PROGRAM PRESENTS THE WONDERS OF ANCIENT EGYPT

Escorted by Dr. Lanny Bell • March 9-25, 2013

Saturday, March 9

Depart Chicago on Lufthansa Airlines.

Sunday, March 10: CAIRO

Arrive in Cairo and transfer to Mena House Oberoi Hotel, located at the foot of the Great Pyramid. This evening we meet with Dr. Bell for dinner.

Mena House Oberoi Hotel (D)

Monday, March 11: CAIRO

We begin our touring with an exploration of Memphis, the first capital of a united Egypt, and Saqqara, the necropolis of Memphis. At Saqqara we tour the Step Pyramid complex of Djoser, which predates the Giza Pyramids and is the world's first monumental building constructed entirely in stone. We also visit the Saqqara Museum, the smaller Pyramid of Teti — a Sixth Dynasty king whose burial chamber is covered with Pyramid Texts to ensure the survival of his soul — and the tombs of the nobles Ti and Ptahhotep and Mereruka.

Mena House Oberoi Hotel (B/L/D)

Tuesday, March 12: CAIRO

Our touring today brings us to the only surviving representatives of the Seven Wonders of the Ancient World, the Pyramids of Giza and the Sphinx. We will have an opportunity to enter one of the pyramids and to visit the museum where the remarkably preserved remains of the Solar Boat of Cheops are displayed.

Mena House Oberoi Hotel (B/L)

Wednesday, March 13: CAIRO

The focus of this day is the Egyptian Museum, where we will view the highlights of its huge collection including the mummy room and the objects from the tomb of Tutankhamun. Touring continues with a walking tour in Islamic Cairo. This warren of streets is lined with a multitude of fascinating architecture. We end our walk in the renowned Suq Khan al-Khalili.

Mena House Oberoi Hotel (B/L/D)

Thursday, March 14: LUXOR

After a morning flight to Luxor, touring begins at the magnificent sanctuary of Amun-Re at Karnak with its maze of monumental gateways, obelisks, pillared halls, and subsidiary shrines. We will also visit Karnak's open-air museum. The remainder of the day will be at leisure. This evening we attend a reception at Chicago House, the home of the Oriental Institute Epigraphic Survey project.

Steigenberger Hotel (B/D)

Friday, March 15: LUXOR

Today we cross the Nile to visit the tombs of the Valleys of the Kings and Queens. Among the tombs to be visited are those of Tutankhamun and three other pharaohs selected from the tombs opened to the public today. We will also visit the Temple of Queen Hatshepsut at Deir el-Bahri, one of the most spectacular monuments in Egypt, and the Colossi of Memnon.

Steigenberger Hotel (B/L/D)



Saturday, March 16: LUXOR

Returning to the Nile's west bank, we tour some of the hundreds of tombs of the nobles, spread over two square miles. These tombs are of special interest for their naturalistic murals, which give us an intimate view of life in ancient Egypt. We will also stop at the ancient village of the artisans, Deir el-Medina, one of the best-preserved town sites in Egypt and the subject of the television series *Ancient Lives*.

Option: An early morning hot-air balloon ride over the spectacular monuments of Luxor.

Steigenberger Hotel (B/L)

Sunday, March 17: LUXOR

Today we drive north through villages of baked-mud houses and lush cultivated lands bordering the Nile to Dendera to visit the Temple of Hathor, goddess of love, music, and wine. Although this temple was built largely in the first century BC, it occupies the site of a much older building. On the roof of the temple is a plaster cast of the famous Zodiac of Dendera (original in Paris), one of three circular representations of the heavens found in Egypt. We continue to Abydos, where we will tour the Temple of Seti I, viewing the famous List of Kings and some of the most beautifully painted reliefs surviving from Pharaonic times, and the nearby small temple of Ramesses II.

Steigenberger Hotel (B/L/D)

Monday, March 18: CRUISE/LUXOR

This morning our luggage will be transferred to the new deluxe MS *Farah*, our floating hotel for the next four nights. We continue our touring on the west bank with the temples and chapels of Medinet Habu, the largest built by Ramesses III, and the Ramesseum, where lies the fallen statue of Ramesses II that inspired Shelley's famous poem "Ozymandias." We will have our lunch on board the *Farah* and, in the late af-



ternoon, visit Luxor Temple beginning at the newly renovated Avenue of Sphinxes, which originally linked Luxor and Karnak temples. We will examine the Roman fresco paintings restored jointly by Chicago House and the American Research Center in Egypt, as well as the open-air museum and blockyard, conserved by Chicago House.

MS Farah (B/L/D)

Tuesday, March 19: CRUISE/EDFU

This morning we are at leisure in Luxor giving us an opportunity to explore the bazaar, visit the Luxor Museum and the new Mummy Museum, or relax at the pool. During lunch we sail to Edfu for the night.

MS Farah (B/L/D)

Wednesday, March 20: CRUISE/ASWAN

Touring begins at the Temple of Edfu, a well-preserved Ptolemaic temple of the falcon god Horus. We then sail on to Kom Ombo. Often called the “acropolis of Egypt” for its spectacular site overlooking the Nile, Kom Ombo is unusual for its equal dedication to two gods, Horus the Elder and the crocodile god Sobek. We will study the unique architectural features of this temple before sailing on to Aswan.

MS Farah (B/L/D)

Thursday, March 21: CRUISE/ASWAN

Today’s touring includes the granite quarries where an unfinished obelisk remains embedded in its native stone. This immense monument would have been Egypt’s tallest monolith, weighing over 2.3 million pounds at its completion. We continue to the Aswan High Dam, a project that forever changed the Nile’s annual cycle. The morning ends with the Ptolemaic temple dedicated to

Isis, known as Philae for the island on which it was originally built. This afternoon we sail by felucca to Elephantine Island to visit the excavations and Nilometer, an ancient means of measuring the height of the Nile River.

MS Farah (B/L/D)

Friday, March 22: ASWAN

We disembark this morning and begin our touring at the Kalabsha Temple built in the reign of Augustus on the site of an earlier sanctuary founded by Amenhotep II. The temple, which was later converted to a church, was originally dedicated to the Nubian god Mandulis, who was associated with Isis. In the same antiquities park we will visit the relocated Greco-Roman kiosk of Qertassi and the shrine of Ramesses II from Beit el-Wali. After lunch we will spend the remainder of the day visiting the Museum of Nubian Civilization.

Aswan Movenpick Hotel (B/L/D)

Saturday, March 23: CAIRO

This morning we fly to Abu Simbel, where the rock-cut temples of Ramesses II and his favorite queen Nefertari have been saved from the rising waters of the Nile resulting from the Aswan High Dam. The temples were built to honor the deified royal pair and to awe the Nubians, and that awesome feeling exists today no less than it did 3,200 years ago. This afternoon we fly back to Cairo.

Intercontinental Semiramis (B/L)

Sunday, March 24: CAIRO

After a full day at leisure, we gather for our farewell dinner.

Option 1: A morning Old Cairo tour, which includes the Coptic Museum and the Coptic Church of Abu Sarga.

Option 2: A day trip to Alexandria, which includes lunch visits to the Museum of the Alexandria Bibliotheca, Roman Amphitheater (Kom el-Dikka), Catacombs of Kom Shukafa, and Pompey’s Pillar at the Serapeum site.

Intercontinental Semiramis (B/D)

Monday, March 25: CAIRO/CHICAGO

Transfer to the airport for our Lufthansa flights to Chicago.

COST OF TOUR:

\$8,095 including group airfare from Chicago Single Supplement: \$1,270

Land only: \$7,035

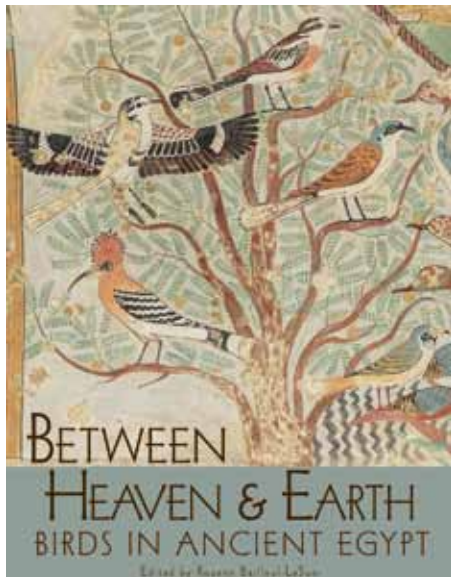
For additional information about the tour, call the Oriental Institute at (773) 834-9777 or e-mail oi-membership@uchicago.edu. For questions about bookings, call Archaeological Tours at (866) 740-5130 or e-mail archtours@aol.com. To join our e-mail notification list for Oriental Institute Travel Programs, please send your name and e-mail address to oi-membership@uchicago.edu.

DR. LANNY BELL received his PhD in Egyptology from the University of Pennsylvania and is now associate professor emeritus at the University of Chicago. In 1977 Professor Bell began to teach at the University of Chicago and became field director of the Epigraphic Survey of the Oriental Institute. For the next twelve years he spent nine months a year at Chicago House in Luxor. The activities of the expeditions under his direction have ranged from epigraphy to excavation and conservation. An expert on the Luxor area, he has published articles on divine kingship and temple and society in ancient Egypt, as well as a groundbreaking chapter on Luxor Temple in *Temples of Ancient Egypt*, published by Cornell University Press. Professor Bell has also been a consultant for National Geographic magazine and has appeared in its documentary *Egypt: Quest for Eternity*, as well as A&E’s presentation *Mummies: Tales from the Egyptian Crypts*. Professor Bell is a very popular lecturer and has been appointed three times to endowed lectureships of the Archaeological Institute of America.

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