PRESENTATION ABSTRACTS

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Agnieszka Dobrowolska, ARCHiNOS Architecture

A Tongue Twister Name and Collapsing Walls: Conservation of the Mausoleum of Mankalibugha in Cairo

The enormous Muslim cemeteries of Cairo stretch for more than eight kilometers and include some of the city's most important historic monuments. Unlike cemeteries in the Western countries, they were always intended to be also a place for the living and are now home to hundreds of thousands of people. When Sultan al-Ashraf Qaitbey built his splendid funerary complex in the 1470s, the surrounding area had been a cemetery for about 150 years. The tomb of Amir Munkalibugha al-Fakhri, built in the 1340s, is adjacent to the lot where Sultan Qaitbey's palace once stood. In this area, a project combining historic preservation, cultural and educational events, and social development has been going on for a few years, financed primarily by the EU. The tomb of Munkalibugha is almost unique in its unusual form of three barrel-vaulted spaces with no dome, and its decoration displays many forms carried over from the earlier periods of architectural development in Cairo. However, by the 2010s the building was in ruin and in a precarious condition, in imminent danger of being irreversibly lost. In 2018, ARCE's Antiquities Endowment Fund granted funding for conservation of the mausoleum. The project began with emergency interventions to avert collapse. Further work involved permanent structural reinforcements and protective measures, conservation of fabrics, and ensuring that the building can be safely accessed by the public as part of a broader conserved area.

Ahmed Motawea Shaikhon, Egyptian Ministry of Antiquities

The Cemeteries of Jews in Alexandria, Egypt

Graves are of great importance in archeology, as tombstones contain valuable information about religious texts, Promotional phrases, dates, decorative elements and symbols. It is truly an official document that records the history and civilization of each country, the most authentic representation in the era and history recorded on it, shedding light on many different aspects of life throughout the ages reflecting the economic situation of the deceased in particular and of the country in general, and in genealogy, kinship and conjugal relations It's credible and beyond doubt. Those who wrote them never imagined that they would ever be a historical source. Tombstones, whatever their religion, are an important source of the history. The tombstones in Alexandria represent an open-air museum whose visitors draw cultural information about the lives of the Jews of Egypt, unparalleled in the world and in no other sources. This paper sheds light on an ignored part of the cultural heritage of Alexandria, which are the cemeteries of Jews. Unfortunately, few studies dealt with the cemeteries of foreigner's in Alexandria In addition, no research has been found that surveyed all the cemeteries in the city. The aims of the study was to conduct a detailed survey to gather all available information from the various sources about The cemetery of Jews in Alexandria, Egypt these sources are archaeological sites and literature to highlighting the importance of the various architectural styles of the tombs in this historical period With a study of some models of tombstones.

Aleksandra E. Ksiezak, University of Toronto

The Hyksos Settlement at Tell el-Maskhuta in the Context of a Trade Route Across Central Sinai

Tell el-Maskhuta, a major settlement in the Eastern Nile Delta excavated by the Wadi Tumilat Project in the late 1970s-early 80s, is a site instrumental in understanding the 15th Dynasty activity on the Eastern Frontier of the Hyksos domain. After the initial excavation and land surveys ended, the site was never fully analyzed or published. This paper aims to summarize the results of a recent re-evaluation of the collected data for both the settlement and the entire site system, resulting in a much impactful understanding of the site's function and development in the MBA. Contrary to previously accepted theories, Tell el-Maskhuta, as well as the entire settlement pattern within the Wadi Tumilat,

exhibits evidence of being involved in the long-distance, over-land trade with both Southern and Northern Levant commencing at the Hyksos capital. If that is the case, the Wadi Tumilat must be considered as a significant southern corridor leading in and out of Egypt, and its settlements discussed in the light of the southern desert route traversing the Sinai Peninsula towards the Negev Desert and the Jordan Valley. Tell el-Maskhuta, due to its size and location, can be deemed a "gateway city" into the Wadi, and consequently into the apex of the Nile Delta. Its domination over the eastmost section of the Wadi and role in the carefully planned settlement pattern provides invaluable clues to the functioning and span of the 15th Dynasty economy and its contacts with neighbouring areas beyond the reach of the maritime trade.

Allison Hedges, University of Maryland

Staging "Lamentations" and "Triumph": New Methods of Understanding Two Ancient Egyptian Dramatic Texts

Due to the ephemeral nature of performance, material evidence for the content, context, and intention behind ancient Egyptian dramatic texts is extremely limited. What remains are the texts themselves, and iconographic evidence such as that found on the walls of the Temple of Horus at Edfu. There, illustrations of dramatic scenes appear in relief alongside the text of what translator H. W. Fairman entitled "The Triumph of Horus: An Ancient Egyptian Sacred Drama." Inscribed sometime during the second century BCE, the Edfu text refers to a dramatic reenactment of the battle between Horus and Seth for the Egyptian throne, a performance tradition attested more than fifteen hundred years earlier on the stelae of Ikhernofret and the pharaoh Neferhotep I. For this reason, Fairman and others have referred to "The Triumph of Horus" as the oldest play in the world, suggesting its potential as a significant contribution to the early theatre history canon. In December of 2019, theatre students at the University of Maryland performed a staging of "The Triumph of Horus" as well as another important dramatic text from the Late Period, "The Lamentations of Isis and Nephthys," as translated by R. O. Faulkner. The intention of this production was to determine if embodied practice could reveal new ways of understanding and transmitting knowledge about ancient Egyptian dramatic performance. This paper will discuss the development, rehearsal process, and outcome of this unique production, incorporating research methodology from the fields of theatre historiography and performance studies.

Anna Serotta, The Metropolitan Museum of Art; **Deborah Schorsch**, Objects Conservation / The Metropolitan Museum of Art

Painted Ladies of the Nile

Broadband Multispectral Imaging (MSI) is a procedure applied to the technical study and documentation of works of art that employs selected ranges of wavelengths in the electromagnetic spectrum to extend the capabilities of the human eye. Using a modified DSLR camera and interchangeable filters with visible, ultraviolet and infrared light sources, MSI can provide a map of superficial characteristics, such as pigments (including underdrawings and ground layers), ancient and modern organic coatings, and surface topography. The resulting images and their interpretation, particularly when augmented by X-ray radiography and instrumental analysis, can provide a physical underpinning for art historical reconstruction. A recent application of this technique at The Metropolitan Museum of Art is the study of wooden female statues dating to the Middle and New Kingdoms, designed to make visible evidence of their clothing and jewelry heretofore unsubstantiated. This paper will present the MSI techniques applied to this investigation and preliminary observations relating to these well-adorned ladies.

Anne Austin, University of Missouri - St. Louis

Recent Evidence for the Practice of Tattooing in Ancient Egypt

Physical evidence for the practice of tattooing in ancient Egypt has been rarely attested. Egyptologists have identified tattoos on only a handful of mummies spanning Pharaonic Egypt's more than 3,000-year history. Textual evidence is virtually silent on the practice and art historical evidence is often ambiguous. In 2014, the mission of the Institut Français d'Archéologie Orientale (IFAO) identified an extensively tattooed mummy from the necropolis at Deir el-Medina, the community of the workmen who cut and decorated the New Kingdom's royal tombs. Since then, we have

identified several other individuals with tattoos among the many unpublished human remains at the site. This talk presents the most recent identifications of tattoos from the IFAO mission at Deir el-Medina's 2019 and 2020 field seasons. New tattoo identifications continue to rewrite our understanding of the roles, rules, and functions of tattoos in ancient Egypt. Additional tattoos found and analyzed during the 2016, 2019, and 2020 field seasons using infrared photography indicate that many more individuals were likely tattooed at Deir el-Medina. Additionally, the designs and placement of tattoos varied broadly. Coalescing the physical and art historical evidence, this talk offers some of the most comprehensive evidence we have to date on the practice of tattooing in ancient Egypt.

Annissa Malvoisin, University of Toronto

Geometry and Giraffes: The Cultural and Geographical Landscape of Meroitic Pottery

Despite being commonly overshadowed by their ancient Egyptian neighbors, the ancient Nubian civilization of Sudan managed to solidify its cultural influence on the medieval world stage. The ceramic traditions of the Nubians, especially their thin-walled decorated vessels classified as fineware, is a primary marker for what became the third great Nubian cultural phase: the Meroitic Period (200 B.C. – 400 A.D). The movement of Meroitic fineware along the middle Nile Valley is evidenced by its discovery at several archeological sites within the Meroitic Empire. I have discovered strong evidence for its wider distribution within west and central African states during the 1st century A.D., and even bearing striking decorative similarities to pottery from Megiddo in the Near East. Despite these signs of widespread trade, the vast majority of studies conducted on Meroitic pottery halts at local distribution and trade with Egypt. Focusing on the archaeological data that has been collected at central Nubian sites where pottery production had become specialized based on common manufacturing processes, decorative techniques and vessel shapes, this paper employs a framework centered on continuity and change to analyze these typologies that adapt overtime and across geographical areas. Trade routes are cross-referenced with the movement of the specialized pottery to investigate medieval African trade systems. The shared pottery manufacturing processes that existed between Nubia and other African states via trade reveal that the Nubian civilization, which still exists as an indigenous community in North Sudan, was a dynamic global power at the turning point of medieval African commerce.

Asmaa Alieldin Ali Abdelfattah, Cairo University, Egypt

The Composite Iconography of the Funerary Papyri of the 21st Dynasty

In the New Kingdom, The Scenes of Netherworld Books have been extensively and completely applied to the sufficient space on the decorated walls of the royal tombs in the Valley of the Kings. However, by the 21st dynasty, the cliff walls of royal cache (TT320) and Bab el-Gasus cache were left not decorated, instead that these religious scenes were applied on the funerary equipment (the funerary papyri and the anthropoid coffins). In the New Kingdom, The Scenes of Netherworld Books have been extensively and completely applied to the sufficient space on the decorated walls of the royal tombs in the Valley of the Kings. However, by the 21st dynasty, the cliff walls of royal cache (TT320) and Bab el-Gasus cache were left not decorated, instead that these religious scenes were applied on the funerary equipment (the funerary papyri and the anthropoid coffins).

Due to the limited spaces on the papyri, the religious scenes had to be abridged and greatly reduced, combined with other religious motifs, resulted in producing new types of decorated funerary papyri with composite iconography for the cosmology and the underworld depictions. This paper presents a comparative analysis of various and evolved iconography of the afterlife on the papyri of the Theban Priests and Priestesses of Amun. These papyri housed in the storage rooms of Cairo Museum and have never been studied or published before. This research investigates the concepts behind these illustrations, not only by focusing on the study and the interpretation of these new complex iconographic compositions on the papyri, but also by tracing its artistic evolution and characteristics from its origins during the new kingdom till its transfer to the much smaller surfaces on the papyri of the 21st dynasty.

Finally, these depictions are the personification of the solar cycle and point to the daily regeneration of sun god, where the deceased hopes to accompany him in his ongoing revival for guaranteeing his rejuvenation each day.

Aurore Motte, Brown University

Songs,Speeches, and Captions in Ancient Egyptian Tombs

This paper will present part of my PhD research results, focus of which was the speech captions (the so-called 'Reden und Rufe') in the private tombs from the Old Kingdom to the Late Period. It will explore the layout and the mise-en-texte of these captions added in the so-called daily-life scenes in private tombs, with insight on paratextual marks. This concept of paratextuality, coined by Gérard Genette in 1987, was rarely applied to ancient Egyptian texts (mostly papyri and ostraca) until quite recently, although it is a fruitful material in this regard. This corpus of texts, embodied in a monumental context, reveals just as much potential. Such formal means are highly indicative for a better understanding of the material textual culture as well as the categorization of these captions as a textual genre per se. This paper will accordingly show, from an emic perspective, several means used by the Egyptian scribes to formally distinguish these speeches from other captions and inscriptions displayed in private tombs. After a short presentation of the most common layouts and the pregnant texte-image relationship, I will turn my attention to the mise-en-texte and trace back the appearance of discursive marks in Old Kingdom mastaba as first evidence of paratextuality. I will then discuss further paratextual means, from the Old Kingdom to the New Kingdom, which were used to indicate the discursive nature of some captions.

Benson Harer*, California State University, San Bernardino*

Forensic Archaeology to Find the Murderer of Ramses III

The murder of Ramses III was done through a well-documented conspiracy orchestrated by his wife Queen Tiyea in an aborted attempt to put her son Pentawere on the throne. Recent DNA studies have shown that the enigmatic mummy labelled Unknown Man E from the Dier el Bahri find of 181 is the son of Ramses III. The anomalies of his mummification and burial have led many to suspect that Unknown Ma n E is Pentawere. The Niagara Falls museum acquired nine mummies from Egypt around 1860. It is probable that at least two of them came from the Abd el Rasool family in Luxor, who mined that Dier el Bahri hoard. All nine were sold after the Niagara Falls Museum closed in 1999. One has subsequently been identified as royal, possibly Ramses I. Beside him for 140+ years lay the mummy known as the Braided Hair Lady. Analysis of her coffin and her mummy show that her burial was almost identical to that of Unknown Man E. Her mummy now resides in the Museum of World Wonders in Wichita, Kansas, where I was privileged to examine it. Efforts to analyze her DNA in 2003 were unproductive. New, advanced techniques have since been refined so that it may be possible to do analysis of some available muscle tissue and a broken tooth. If that shows the Braided Hair Lady is the mother of Unknown Man E, it would be compelling evidence that he is Pentawere and she is Queen Tiye.

Bianca Grier, University of Toronto

Medical Access in Deir el-Medina

The village of Deir el-Medina (18th-20th Dynasties, New Kingdom) housed the royal tomb builders and was located near the necropolis of Thebes on the West bank of the Nile. Many surviving sources found at this site contain official records outlining: lists of goods, wages and personnel. Other sources found at Deir el-Medina include a wealth of manuscripts created by the villagers revealing aspects of everyday life that not only include wages but also various benefits, that were provided by the Pharaoh. These documents also reveal that medical access was available for workers and their families within the village included in these benefits. At different times, a physician (swnw, a title given to a secular healer) or a scorpion charmer (xrp-srq.t, a title given to a healer with some religious overtones) lived in the village and cared for the workers and their families. These types of healers are part of a medical tradition I call "formal medicine" (medical treatment, practiced by a person with formal training and/or by a person with a title). Though official records are the predominate sources attesting to formal medicine present in the village, nevertheless, other primary sources, mainly letters, discuss "informal medicine," (medical treatment or advice given by persons who are not formally trained or do not have a title). Based upon these varied source materials, this paper will illustrate how medical access was disseminated within the village of Deir el-Medina.

Carla Gabriella Mesa Guzzo, University of Toronto

"Amazement of His Beauty in Every Body": The Language of Amarna Period Royal Display

The program of display employed by New Kingdom monarchs ranged from demonstrations of the king's martial prowess to official appearances within the palace. Rather than being merely a medium thorough which the king could disseminate a propagandistic message, these activities also served as a powerful means by which he could enact his cosmic role as ruler. While archaeological and iconographic materials offer a great deal of insight into the venues for and logistics of this kind of royal pageantry, the language used to describe such events may provide the keenest insight into the intentions of those devising this program of display, and how those witnessing such acts were expected to respond. Royal display was in use throughout the New Kingdom and beyond, but pertinent written sources from the Amarna Period are especially abundant. Thus, while the unique aspects of this era must be kept in mind, the Amarna Period is a particularly suitable place to begin investigations into the language used to discuss royal pageantry. Royal displays were performances devised to engage the physical senses in order to bring about an emotional response. The specific impact of any given display would have varied according to the audience(s) to which it was directed. By looking at the use and occurrence of terms relating to display in royal and elite texts, this paper will explore the variety of ways in which such acts were conceptualized and experienced (or intended to be experienced) during the Amarna Period.

Corina Rogge, The Museum of Fine Arts Houston; **Caroline R. Cartwright**, The British Museum

Facing the facts: Fayum portrait forgeries

Fayum mummy portraits dating from 1st-3rd century C.E., when Egypt was a province of Imperial Rome, are among the most engaging artworks of the ancient world. The naturalism and conveyed sense of personality of the sitter evokes a sense of communication across the centuries, and it is no wonder that they are sought after items for museum collections. As with any valued antiquity, demand far outpaces supply and so these items are prime candidates for forgers. Technical analysis of seven Fayum portraits held by the Museum of Fine Arts, Houston and the Menil Collection, as part of the Ancient Panel Paintings: Examination, Analysis and Research project (APPEAR), unambiguously identified/revealed two modern forgeries. Stylistic analyses had previously cast doubt on the authenticity of these two paintings, but the detection of anachronistic woods and modern materials from all paint levels clearly showed that these were not simply heavily restored objects or pastiches, putting the 'final nail in the coffin'. The two forgeries show very different levels of sophistication in terms of materials and methods of paint application and so help inform the field as to the range of forgery types that might be encountered.   They also serve as excellent education tools to explain how conservation science works and showcase the value of scientific analysis of cultural heritage objects.

D. J. Ian Begg, Trent University

A Pan Flute from Egypt

Despite countless references to Pan flutes in Greek and Roman texts and imagery, few remains have ever been found. There is so far no evidence for the use of the Greek syrinx in Egypt until they were introduced in Alexandria under the Ptolemies. At the Museum of the University of Padua, however, a rare complete Pan flute was recently rediscovered among the materials sent to Carlo Anti in Padua by Gilbert Bagnani from the excavations at Tebtunis in Egypt during the 1930s. Its provenance has been investigated through analysis of the archival documentation in Anti and Bagnani's archives. It is one of the best preserved ancient Pan pipes in the world, consisting of 14 reeds of different lengths held together by cords and a natural binder. C14 analysis dates the artefact to the Byzantine/Coptic period in Egypt. A set of non-invasive analyses were conducted on the syrinx, which were based on 3D CT scanning and materials chemistry. Using the available measurements, a preliminary analysis of the instrument's tuning was conducted. Applying theories of ancient Greek music has facilitated the replication of the sounds. Finally an interactive museum installation at Padua has been conceived and created to display the sounds of a virtual Pan flute to museum attendees. An attempt will be made to bring the ancient artefact back to life by reproducing the replicated sounds of these pipes so that we might hear what Egyptians, Greeks and Romans heard in Alexandria centuries earlier.

Danielle O Phelps, School of Anthropology, University of Arizona

Intentionally Forgetting the Amarna Royal Family—Inalienable Artifacts Amongst Tutankhamun's Burial Assemblage

Tutankhamun, one of the last kings of the Eighteenth Dynasty of ancient Egypt (circa 1330-1323 BCE), was buried in KV 62, one of the most intact royal tombs ever discovered in the Valley of the Kings. His burial assemblage contains many of the typical artifacts found in Egyptian mortuary practices. However, three groups are atypical: childhood mementos, heirloom, and artifacts with the names of Tutankhamun's immediate family members. The purpose of their inclusion in the tomb is unknown. This presentation will examine the atypical artifacts through the utilization of statistical analyses and the anthropological theories of memory works and secrecy to suggest that they are inalienable objects. They are a part of Tutankhamun's burial assemblage because of their connections to the tumultuous Amarna period. They could not be destroyed and were instead deposited in Tutankhamun's tomb as a means to intentionally forget the royal Amarna family and the Amarna period.

Elizabeth Minor, Wellesley College

Continuity of Kerma Religion: Rams, Lions, and Winged Hippopotami and Giraffes in Classic Kerma Contexts

An analysis of key elements of Classic Kerman religious imagery can provide suggestions of possible precursors for some aspects of Napatan and Meroitic religion. The connections between Kerman and later Kushite cultural practices are difficult to determine with certainty, however, exploring the Kerman use of indigenous animal forms does reveal concentrations of religious emphases that may have echoes in later Kushite religion. This paper will also address the use of lions, hippopotami, and the Kerman emphasis on flying animal deities. Evidence for a ram deity in early Nubian cultures is widespread, and by the Classic Kerma Period rams and ram horn imagery were included in royal sculpture, mortuary sacrifices, and at least one high-status woman's headdress. The link between this deity and later forms of Amun as a ram will continue to be debated. Lions similarly spanned royal and elite Kerman use, with faience tile lions leading into the royal Funerary Chapel KII and other royal sculpture. The importance of lions in Kushite religion comes to a peak in the Meroitic Period with the worship of Apedemak. An adapted Kerman form of the Egyptian hippopotamus goddess Taweret was featured on funerary beds, some known to be for women. By the last generation of the Classic Kerma Period, Taweret and giraffes were transformed into fantastical winged forms. The transformation of Egyptian deities into winged forms is prevalent in Napatan faience amulets. Underlying religious commonalities and themes can help highlight the long-term continuities in Nubian religion and cultural practices.

Eltoukhy Kamal Ahmed; Mohamed Abdel-rahman; Moamen Othman, Ministry of Tourism and Antiquities

Fayum Mummy Portraits of Egyptian Museum Database (FMP-EMD) Archaeometry, Condition Map

This contribution presents preliminary database of mummy portraits classified according archaeological/historical data; this is a running database numbered in order chronology, provenance, construction of the portraits also Condition Assessments undertaken of the collection, different analytical techniques, treatment, used materials for conservation, have been performed to characterize pigments, grounds, and binding media used. indeed, showed among them to be structurally unstable with: mobile splits in the original panels; areas of delimitation and areas of raised and flaking paint.
This contribution presents preliminary different investigation have been performed to characterize Fayum mummy portraits which found at the Egyptian Museum using multi analytical methods; digital photography, multi spectral imaging (MSI), (pXRF), and x-ray radiography indeed, Reflectance Transformation Imaging (RTI); have been performed to characterize pigments, grounds, and identification of protein binding media using analysis by Gas Chromatography-Mass Spectrometry (GC-MS), FT-IR results used in Fayum portraits; The Encaustic Painting technique encaustic media, tempera media, mixed tempera, finally, identify wooden support.The preliminary Database is used to collect, organize all data, reduce the useless data, increase consistency and improve data integrity. (FMP-EMD) can be extremely important tools for managing large amounts of data.

Emily Grace Smith-Sangster, Princeton University

Crutched Pharaoh, Seated Hunter: An Analysis of Artistic "Portrayals" of Tutankhamun's Disabilities

Academic and popular sources alike regularly refer to Tutankhamun as 'disabled' at the time of his death, citing artistic representations from the items in his tomb to back up such claims. This group of objects has been said to depict the young king seated while hunting and using a staff as a 'walking aid' which seems to specifically highlight the presence of a leg-based disability. This narrative of the image depicting the truth of Tutankhamun's physical condition has publicly become accepted as 'fact' with images of the seated king even being used in the touring exhibit "Tutankhamun: Treasures of the Golden Pharaoh" to suggest Tutankhamun's 'fragile constitution.' A comparison of these depictions to historical representations of kings hunting and using staffs of authority, however, suggest that these depictions of Tutankhamun were part of a traditional iconography utilized by Tutankhamun's artists, not to highlight his unique features, but instead to situate his image within the artwork of kings of the Old, Middle, and New Kingdoms. This study, thus, works to dispel the pervasive myth of an artistically disabled Tutankhamun while providing a basis for understanding the true nature of the representation of disability in Egyptian art. Further, this work urges Egyptologists to avoid relying on physical remains to 'decipher' mortuary artwork. Such a change in method can only lead to a better understanding of the purpose of the body as depicted within the mortuary context and its role as separate but complementary to the physical body in New Kingdom thought.

Federico Zangani, Brown University

Pharaonic Administration and Intelligence at The Frontier of The Egyptian Empire: The Case-Study of Kumidi

Following the Levantine campaigns of the early 18th Dynasty, the wealthy town of Kumidi (present-day Kamid el-Loz, Lebanon) became a center of the Egyptian imperial administration in Syria-Palestine, as is documented by the presence of a governmental official, usually designated with the generic term of rabû ('the great one') in cuneiform sources, during the reigns of Amenhotep III and Akhenaten. This paper sets out to analyze the evidence from the Egyptian inscriptions, the Amarna letters, and the archive of cuneiform tablets discovered at Kamid el-Loz to investigate the strategic significance of this town to the functioning of the Egyptian empire in Syria-Palestine. It appears that the rabû of Kumidi acted as an intermediary between the pharaonic court and the local centers of power, with jurisdiction over an area stretching from Damascus and Qadesh to the Mediterranean coast. His role entailed not only the protection and security of the territories within the Egyptian sphere of influence, but also "intelligence" data gathering for the pharaonic court: both the Amarna letters and the Kumidi texts indicate that the local rulers constantly supplied him with first-hand information about security threats and shifting alliances, and the Egyptian administration must have relied upon this kind of knowledge for the successful planning of its imperial strategy in Syria-Palestine. Finally, these depictions are the personification of the solar cycle and point to the daily regeneration of sun god, where the deceased hopes to accompany him in his ongoing revival for guaranteeing his rejuvenation each day.

Florence Friedman, Brown University, Dept of Egyptology and Assyriology

Damage on the Menkaure Dyad and What it May Mean

Discussions of one of the most famous statues of antiquity, the Menkaure dyad (MFA, Boston 11.1738), do not typically focus on the statue's damage, minor as it is, nor on what that damage might mean. Reisner found the work, unfinished and uninscribed, in the king's valley temple, standing in a hole, which, as Mark Lehner and the AERA team now show, was not Reisner's so-called thieves' hole, but an older, deeper hole to the east. Reisner suggested the statue, found upright and leaning against a core block, had been thrown into the hole by Arab treasure seekers. But at almost 1500 lbs., 2/3 life-size and showing very little damage, this was not a statue thrown anywhere. And given the almost pristine condition of the figures, it was not mishandled by anyone, much less robbers. Nonetheless, there is some damage on the beard and the base, and that small amount of damage is worth looking at. The beard has not a chip, as Reisner described in his diary, but a break, as photos show; and the base has serious damage on three corners. This paper will look at the damage on the beard and the base, suggesting when that damage might have occurred, and what its chronology might mean for understanding the use and cultic significance of the dyad. Florence

Dunn Friedman Visiting Scholar, Department of Egyptology and Assyriology, Brown University.

Francesco Tiradritti, Associazione Culturale per lo Studio dell'Egitto e del Sudan

Latest News from the Cenotaph of Harwa, Luxor

The Cenotaph of Harwa (end of the 8th – beginning of the 7th century BC) has been excavated for more than twenty years by the Italian Archaeological Mission to Luxor (MAIL). It can be considered a key-monument to understand the moment in which the Kushite pharaohs of the 25th Dynasty took firm hold of Thebes. Its amazing and delicate decoration is a striking example of the so-called "Pharaonic Renaissance", an epoch of renewed material and cultural wealth in which the Egyptian art took inspiration from its roots while looking for innovative solutions, exactly like in the Italian Renaissance. The scientific results gotten by the MAIL in these years brought to a better knowledge of the Cenotaph of Harwa but of its history and of that of the Theban necropolis too. Excavations had the result to uncover an unique archaeological phase documenting the Plague of Cyprian, an epidemic that scourged the Roman Empire in the middle of the 3rd century AD. In the last five years the activities of the MAIL in the Cenotaph of Harwa were mainly devoted to restoration and documentation. That was also possible thank to the Antiquities Endowment Fund grant received by the American Research Center in Egypt for the Conservation of the courtyard of the Cenotaph of Harwa.

Heather Lee McCarthy, New York University Epigraphical Expedition to the Ramesses II Temple at Abydos

The Book of the Dead at Deir el-Medina: Preliminary Observations and Findings

The early Ramesside period was a time of tremendous innovation that impacted religion, art, and the ideology of kingship and queenship. The funerary realm was one of the settings for this upsurge of new ideas, and sweeping changes were brought to bear on royal and non-royal tombs alike. Perhaps the most dramatic changes concerned the burials of Ramesside royal women, who, from the start of Dynasty 19, were interred in a separate, discrete necropolis specifically re-purposed for royal women and now called the Valley of the Queens. These royal women's tombs were larger and more elaborately decorated than those of their 18th Dynasty predecessors. In the early 19th Dynasty, new decorative schemes were developed for Ramesside royal women's tombs, including the creation of new Book of the Dead vignettes and new arrangements of pre-existing vignettes. The design of these decorative schemes impacted the iconographic tradition of the Deir el-Medina villagers who cut and decorated these tombs.   The purpose of this paper is to present an overview of my work in progress investigating the role of Ramesside royal women's tombs as loci of religious, iconographic, and artistic innovation and the paths of transmission from queens' tombs to Deir el-Medina private tombs. I will discuss my preliminary observations and findings concerning the usage of Book of the Dead scenes gleaned from my examination and photographic documentation of selected Deir el-Medina tombs during my 2019 field research season in Egypt, which I conducted as an ARCE postdoctoral fellow.

Janice Kamrin, The Metropolitan Museum of Art; **Anna Serotta**, The Metropolitan Museum of Art; **Vera Rondano**, The Metropolitan Museum of Art; **Chantal Stein**, Metropolitan Museum of Art

Ankhshepenwepet, Singer of the Residence of Amun (Tomb MMA 56)

During its 1923-24 season, The Egyptian Expedition of The Metropolitan Museum of Art to Deir el-Bahri, under the direction of Herbert Winlock, discovered a small tomb cut into the bedrock at the base of the northern enclosure wall of the Hatshepsut complex. The tomb contained the burial of a Singer of the Residence of Amun named Ankhshepenwepet, dating to the late 25th - early 26th Dynasty. The coffins had been rifled and the mummy taken away but what remained, most of which was granted to The Met through partage, provides an excellent opportunity to study tomb group from this period. The authors will discuss Ankhshepenwepet's equipment from several perspectives, presenting ideas about the style, function, construction, and economic value of this assemblage.

Jennifer Miyuki Babcock, Fashion Institute of Technology, SUNY

Between Anthropomorphism and Zoomorphism: The Iconography of Divine Beings from Deir el-Medina

A group of New Kingdom ostraca and papyri believed to be from Deir el-Medina includes images of

anthropomorphized animals that have clear compositional and thematic parallels to images found in Theban tombs. However, there have been no attempts to compare the methods of anthropomorphism in the ostraca and papyri and in the tombs at Deir el-Medina The most notable case of anthropomorphism in the Deir el-Medina tombs is the "Great Cat," the manifestation of the Eye of Ra. The cat is depicted naturalistically, except that it is wielding a knife. Interestingly, one ostracon from Berlin (Inv. –Nr 21443) also shows a cat with the same subtle use of anthropomorphism, in contrast to the other ostraca and papyri, in which animals are walking upright and dressed. The cat in the Berlin ostracon is identified as the goddess Tefnut, and is believed to be an illustration of the "Distant Goddess Myth," in which the god Thoth convinces Tefnut to return to Egypt by telling her animal fables. The fact that this cat represents a goddess, and is more stylistically similar to the images of Eye-of-Ra cats found in the Deir el-Medina tombs, would explain why it does not show anthropomorphism in the same way as animals seen in ostraca and papyri, in which the animals are intended to represent common and elite Egyptians. This paper will outline different types of anthropomorphism used at Deir el-Medina, which may shed light on how the ancient Egyptians looked at and represented their deities.

Jing Wen, Tsinghua University

The SN-DT Problem Revisited

This study examines the term sn-Dt "brother of the funerary estate" that appears in the inscriptions in Egypt's elite tombs of the Fifth and the Sixth Dynasties through an investigation into the iconography of fifty-seven examples of tombs containing individual figures bearing this designation. These examples reveal some essential aspects of the term. A sn-Dt could be both man and woman. It could be a real brother or sister, or even the wife of the tomb owner. No example of a husband being the sn-Dt of his wife. Other kinship terms attached with Dt is msw "children" and a single example of a mwt-Dt. An analysis of the relief of Wekhem-ka's tomb at Giza indicates that the msw-Dt may have been children of a sn-Dt. Furthermore, the designation sn-Dt does not reflect its bearer's social status. People acquired it when they were still alive. The sn-Dt could also be a ka-priest at the same time and appears among the offering bearers depicted on chapel walls. A sn-Dt may follow the sons or even precede them to occupy the initial position in a sequence of offering bearers. He or she may also be responsible for the reallocation of offerings. In conclusion, the sn-Dt may have been an individual to provide offerings in return for a certain amount of land but remained independent from other family members. It integrates socially related individuals into one's family with a metaphorical kinship of siblinghood to take part in the funerary cult.

JJ Shirley, Journal of Egyptian History/JARCE/Chapters Council

Defining the xA n TAty

Discussions of the vizier in ancient Egypt have most often centered on the duties and responsibilities of the office-holder and the vizier's power vis-à-vis the king. Less often has the conversation turned to the actual place in which the vizier conducted his work. His xA n TAty, or "office" of the vizier. In fact, there are very few textual mentions of the vizier's office, and even fewer depictions of it. This paper will attempt to shed some light on where this important administrative building might have resided, and what its location relative to the king's palace relays about the office and office-holder.

John Gee, Brigham Young University

Testing Linguistic Dating

Use of linguistic dating of literary texts has long been used in Egyptology, with arguments going back to Adolf Erman and Kurt Sethe. A recent (and hefty) book on the subject also advocates for the use of linguistic dating. Although this means of dating texts has long been advocated, it has not necessarily been tested. Will the method work if the text has been deliberately updated? Will the method work after the text has been consciously edited? (For example, can one tell if a reworked Pyramid Text is ancient without an Old Kingdom manuscript?) Can deliberately archaizing texts fool the linguistic dating process? (E.g., if the Shabako Stone is an archaizing text can linguistic dating tell?) I propose to examine these questions by looking at a text that has a long textual history and that has been updated during that

history. This should help clarify which, if any, criteria are helpful in dating a text linguistically and whether linguistic dating can actually give the correct date of a text.

John Shearman, American Research Center in Egypt

Preservation of Jewish Heritage in Egypt - Bassatine Cemeteries

ARCE was awarded the 2019 U.S. Ambassadors Fund for Cultural Preservation (AFCP) based upon our proposal to document, clean up and preserve as much as possible several cemeteries associated with the extensive Bassatine cemetery located between the center of Cairo and the suburb of Maadi. Bassatine is the second oldest Jewish cemetery in the world. The presentation will review the ongoing work being focused on the Leishaa and Rav Haim Capusi cemeteries that started in December 2019 and will be completed in June 2020. The work is focused on documentation (including survey work) and cleanup of extensive on-site debris. The scope also includes stone conservation, signage and security lighting.

Karen (Maggie) Bryson, Johns Hopkins University

Art and History in the New Kingdom: A 3D View

In recent years, digital 3D imaging has surged in popularity among scholars in a variety of cultural heritage disciplines. It offers exciting possibilities not only for recording and presenting ancient sites and objects, but also for reconstructing, re-imagining, and experiencing the past. In many ways, however, the real potential of 3D imaging as a tool for the study of the ancient world is just beginning to emerge. Exploring how and to what extent it can go beyond documentation and communication, contributing to new analyses and interpretations, is the next stage in the development of this technology as a part of the methodological repertoire of Egyptologists. This paper will present new results in an ongoing case study of the analytical use of 3D images – in this instance, as a means of examining the formal properties of the non-royal elite Theban tomb art of the post-Amarna period. Through the creation of highly detailed models of painted and relief scenes, I have found that it may be possible to identify certain types of stylistic affinity in a newly detailed and rigorous manner. 3D imaging could open up the possibility of using quantitative methods to describe and analyze certain characteristics of Egyptian artwork in new ways, helping to unlock new insights not only into the artworks themselves, but also into the complex political and social milieu in which they were created.

Kea Johnston, University of California, Berkeley

North, South, or Somewhere in the Middle? Third Intermediate Period Coffins from Akhmim

The fall of the New Kingdom in Egypt (circa 1100 BCE) resulted in economic instability and the collapse of the central state in Egypt. These and changing religious views led elites to abandon their large decorated tombs in favor of smaller, more portable anthropoid coffins. Our understanding of the development of these coffins is based primarily on examples from the city of Thebes (modern Luxor) in southern Egypt. We know that shifting funerary beliefs and a change in the dominant ethnic group in the North led to the emergence of a distinctive new coffin tradition in the emerging political power-centers of Middle Egypt at Memphis and around the Faiyum. Where the cities south of the Faiyum and north of Thebes stood politically is poorly understood today. Examples of coffins from these cities are rare. The city of Akhmim lies about 200 km north of Thebes. Coffins purported to be from the site bear a mixture of traits that are characteristically "Theban" and characteristically "Northern". Is this simply a matter of incorrect provenance? Of travelling artists? What can the Third Intermediate Period coffins from Akhmim tell us about spheres of political and religious influence in this tumultuous period?

Larry Pahl, The American Institute for Pyramid Research

The Significance of a Group of Pavement Markings on the East of the Great Pyramid

Dr. Mark Lehner and Dr. John Romer have found evidence of purpose in many markings in the Giza bedrock east of

the Great Pyramid. Both recognize a series of holes parallel to the Pyramid that seem to have provided guidance for sighting and anchoring alignments in the construction of the Pyramid. In his "The Great Pyramid: Ancient Egypt Revisited", Romer describes a full-sized one-to-one grid, creating essentially a life sized blueprint to guide the Pyramid builders. In "The Pyramid Tomb of Hetep-heres and the Satellite Pyramid of Khufu" Lehner points to trench and hole markings in and near what Petrie called the "Trial Passages" that align to the satellite pyramids and sections of the Great Pyramid's interior. Lehner asks a question which indicates the poignancy of these markings: "How could features of the Great Pyramid's passages, enclosed in masonry high up inside the superstructure, be aligned to features cut into the bedrock … down to the east?" Lehner also points to a series of holes running west from the north side of the Trial Passages which align directly with Pit 1, the "grotto" cut into the service shaft of the Pyramid, and the east-west alignment of the tomb of Hetep-heres with the King's Chamber.

Various times between 2018 and 2020 I examined several sets of markings in this area. In this session I will share tentative conclusions about the significance and purpose of these markings in relation to the Great Pyramid and to the discipline of Egyptology itself.

Leslie Anne Warden, Roanoke College

Analyzing Archaeological Ceramics using Business Intelligence

The time required to process and analyze archaeological ceramics requires selective sampling and analysis of the materials. Digital solutions increasingly have promise of expanding the range and volume of what ceramicists analyze. This paper explores the application of business intelligence (BI) to ceramic data. BI analyzes big data for trends and patterns, especially those not-so-obvious. This focus on finding answers in big data mirrors the goals of the ceramicist and has the potential both to help answer research questions and guide sample selection – all while working on-site. This paper will focus on InfoArch, a BI dashboard, exploring how it works and the results it has yielded. InfoArch was created in partnership between the Kom el-Hisn Provincialism Project (KHPP) and InfoSol, a leader in BI. Currently, InfoArch contains ceramic data from ongoing excavations at Kom el-Hisn and Elephantine Island ("Realities of Life" Project, German Archaeological Institute). These data are ideal for individual and comparative analyses: both projects focus on Old-Middle Kingdom settlement occupations, the processing methodologies are essentially the same, and the research questions focus on determining large-scale patterns in site use, commodity movement and exchange, foodways, and local identities. Comparative analysis via the InfoArch dashboard has allowed us to identify both chronological trends, such as change in form, and local/regional trends such as the diversity of the ceramic corpus and possible trends in cooking. These data provide a necessary quantitative foundation for social reconstructions.

Lingxin Zhang, Johns Hopkins University

Who wrote the Tebtunis astrological books? — A proposal

Who composed the astrological treatises at the Tebtunis Temple Library? This presentation proposes a likely scenario in which the High Priests of Ptah at Memphis and their associates were involved in adapting Babylonian astronomical/astrological knowledge into Egyptian traditions. In support of this hypothesis, I investigate the connections between Memphis and Tebtunis from the literary, funerary, and religious perspectives. Perhaps most striking are the textual similarities between the Tebtunis astrological compositions and the funerary autobiographies of Memphite priests from the Ptolemaic period, especially those belonging to the family of the High Priests of Ptah. The Memphite connection could also explain Imhotep's prominent role in texts across the board from the Tebtunis Temple Library; since the Memphite necropolis (Saqqara) is a renowned cultic center for that deity. This talk grounds the Tebtunis-Memphis connection on the historical agents by examining the priestly titles which the High Priests of Ptah and their associates bear. The intersection of cultic fluency, high literacy, and intellectual curiosity identifies the High Priests of Ptah and their associates as strong candidates for composing astrological materials such as those discovered at Tebtunis. Additionally, the High Priests' access to foreign knowledge through their ties with the Alexandrian court is a sufficient condition for adapting and circulating foreign knowledge. Recently there has been a revision in the history of early science regarding Egypt's contributions. This talk engages with such discussions from a

less explored perspective by focusing on historical individuals and their agency in knowledge production.

Lisa Saladino Haney, Kansas City Art Institute

Considering Coregency: The Evidence for Shared Power between Amenemhet I and Senwosret I

For nearly 50 years, Middle Kingdom scholars have debated the existence of a series of coregencies during the 12th Dynasty. Evidence in favor of the practice first surfaced in 1828 as a result of T. Young's discovery of the Stela of Hapu at Aswan, one of three known double-dated monuments from the early 12th Dynasty. These inscriptions preserve the names of two kings along with two separate year dates; however, they all differ in both style and context. In the late 1970s, a discussion began over the interpretation of these monuments, causing a rift in the scholarship that is still present today. For many, the validity of the concept rests on the proposed period of shared power between Amenemhet I and his son, Senwosret I. This first potential coregency is the best documented and the most intensely scrutinized. This paper provides an up-to-date reanalysis of all of the data related to a potential period of shared power between these two kings. The evidence includes a double-dated stela, a series of single dates, several objects that name and/or depict both kings, archaeological remains, and potential literary references found in The Teachings of Amenemhet I and The Tale of Sinuhe. In addition, an overview of the royal statuary of these two kings, in particular that of Senwosret I, offers further insight into some of the technical aspects related to shared power during the 12th Dynasty.

Margaret Swaney, Johns Hopkins University

Queenly Power at the Ptolemy XII Repit Temple at Athribis

During the Ptolemaic Period, several Egyptian queens attain heightened levels of political power, a dynamic that is borne out in the decoration of contemporary temples. As divine co-rulers, these women typically appear behind—or, more exceptionally, in front of—their male counterparts as either passive or active participants in cult. The most powerful queens, however, appear alone as sole ritualists. This paper considers exciting new evidence for the representation of three now-anonymous queens at the Ptolemy XII Repit temple at Athribis, two of which appear without their male counterparts, thus challenging the assumption of a decline in queenly power during this king's reign. In addition to considering the potential identities of these women, I also discuss the somewhat surprising presences and absences of queens' names in the Repit temple texts, including the only hieroglyphic attestations of Berenike IV, Ptolemy XII's daughter who ruled during his exile to Rome, shedding new light on some unresolved historical questions. A stylistic analysis of these queenly representations within their architectural contexts also acts as a point of entry for fine-tuning the temple's decorative phases, providing new insights into late Ptolemaic temple building.

Mark Janzen; **Terrence J. Nichols**, Southwestern Baptist Theological Seminary

The Third Season of Epigraphic Work at the Cour de la Cachette, Western Exterior Wall

The scientific recordation and reproduction of the reliefs inscribed on the western exterior wall of the Cour de la Cachette remains one of the goals of the Karnak Great Hypostyle Hall Project. It is vital that the western wall receive full recordation due to its exposure to weathering and other natural sources of damage. The third field season at the Western Wall took place in December 2019. This field report serves to accomplish three purposes: first, to recount the principal discoveries made at the wall during the season and their implications; second, to provide an update of research done to substantiate a discovery in a previous season; third, to discuss the updated process of digital epigraphy used to further the discussion on digital epigraphic methodology. Regarding the results, a few of the principal discoveries include the large number of revealed palimpsests in several scenes on the north end, the verification and update to the hieroglyphic text on the wall, and a newly discovered, badly damaged cartouche. In addition, research was conducted in the libraries and photo archives in Luxor regarding the reconstruction of Karnak Temple to help substantiate the claim of a misplaced block located during the 2017 season. Regarding digital epigraphy, the modified process to Chicago's Digital Epigraphy was used in the field for only the second time and demonstrates that it continues to produce good results. In summary, the 2019 field season was a productive year, with all of the initial season goals met and even more work completed.

Michael Robert Tritsch, Johns Hopkins University

The Encroachment of Domestic Religion at Karnak: Preliminary Interpretation of Findings in the Mut Precinct

This paper explores the archaeological excavation of Violaine Chauvet, located in the rear of the Precinct to the Temple of Mut, outside the Eighteenth Dynasty enclosure wall, with the context of interest consisting of a sandstone feature comprised of pavers and a lintel with cavetto cornice and torus roll, surrounded by collapsed, painted mud brick, primarily red. The latter appears to be related to architectural features, mainly jambs and cornices. The majority of pottery recovered in situ dates it to the first half of the Eighteenth Dynasty, but this area had been cleared in 2005 when pottery identified as Ramesside was reportedly found, with the interpretation being a neighborhood chapel with a garden shrine. However, from a thorough review of New Kingdom domestic sites, this context shares significant similarities to the "divan room" in Deir el-Medina houses or the "central room" in Amarna houses. The sandstone feature bears a striking likeness to a divan and the painted mud brick is consistent with a niche shrine commonly found in these rooms. At both sites, the color red appears almost exclusively on door jambs and niches, however the style of painting seems unique. Photogrammetric analysis of this context and objects from similar contexts at European museums has also been performed, greatly aiding in the interpretation. These findings may help to elucidate the purpose of these enigmatic emplacements and identify a local regional style in domestic architecture, possibly speaking to the representativeness of Deir el-Medina to other New Kingdom habitation sites.

Mohamed Abdelaziz Abdelhalim Mahmoud, Alexandria University, Indiana University and Ministry of Egyptian Tourism and Antiquities

Physically based rendering (PBR) of Egyptian collection at Brooklyn Museum: New methods for photorealistic rendering

Physically based rendering (PBR) is an approach in computer graphics that seeks to render graphics in a way that more accurately models the flow of light in the real world. Photogrammetry may be used to help discover and encode accurate optical properties of materials. The paper presents methods for photorealistic rendering of virtual objects at Brooklyn museum so that they can be seamlessly composited into images of the real world. To generate predictable and consistent results, we study physically based methods, which simulate how light propagates in a mathematical model of the augmented scene. This computationally challenging problem demands both efficient and accurate simulation of the light transport in the scene, as well as detailed modeling of the geometries, illumination conditions, and material properties. In this presentation, we discuss and formulate the challenges inherent in these steps and present several methods to make the process more efficient. This work-in-progress 3D imaging project by the Egyptology Program at Indiana University Bloomington. The paper also presents use the development of a methodology for the virtual anastylosis (re-erection) of five sculptural fragments belonging to Ramesses II located in Tanis, Egypt. Fundamental to the method is photogrammetry to create 3d modeling of fragments. Through this process we are able to visually re-assemble the fragments without intervening directly on the pieces.

Mostafa Abdelmeguid, Independent Scholar

Paris, Hyde Park, Beverly Hills All in Cairo

This essay argues that two Egyptian rulers used their power to impose meaning – through architectural forms to transform their capital city – to manifest their influence over society. This essay will focus on two epochs in Cairo: the time of khedive Ismail to modernise and 'Europeanise' Cairo, with Haussmann architecture and, Hosni Mubarak's era, where an urban boom of gated communities and malls set to promote neoliberalism. I borrow concepts from Pierre Bourdieu's symbolic violence and capital, which will help illustrate how architecture has been a primary influence to change the culture of the city. Additionally, Veblen's conspicuous consumption will also be crucial in explaining patterns of consumption of these architectural forms within the two case studies. Symbolic capital has the power that allows the dominant (i.e. Egyptian rulers) to impose their habitus through giving high status value to creative goods and services; urban forms and policies. Through conspicuous consumption of buildings and urban expansion initiated by the rulers, the buildings gain high status value since they are immediately adopted by society's affluent people for recognition by the possessors of symbolic capital. The ruler's habitus becomes the means that categorizes social classes and signals status. However, the possessor, or ruler in this case, must not fall into the illusion that owning the

highest symbolic capital, grants the possessor the ultimate ability to transform society. The pace of introducing new social values has to be governed by the reality of that society; otherwise, it does not flourish, as the two cases indicate.

Natasha Ayers, Institute for Oriental and European Archaeology, Austrian Academy of Sciences

New Kingdom Intrusive Burials at Saqqara: Cultural Complexity in Material and Practice

While excavating the large Early Dynastic mastaba tombs at Saqqara in the 1950's and 1960's, Walter B. Emery uncovered a number of intrusive New Kingdom burials with a complex combination of material culture and burial practices traditionally interpreted as signifiers of distinct cultural groups. Modes of burial documented by excavation records and photographs (now in the EES Archives) show some persons buried in coffins and others, more surprisingly, on "Nubian style" wooden beds. So far, only one of the Saqqara burials has received much attention from scholars, due to that assemblage containing a rare faience rhyton of Minoan shape, a Cypriot Base Ring I jug, Egyptian pottery, and Nubian or "Nubian style" pottery. Previous scholarly disagreement over the date of this burial (i.e. late Second Intermediate Period, R. Merrillees; early Dynasty 18, J. Bourriau; Tuthmoses III, D. Aston), as well as the overly simplistic cultural-historical description of many of these burials as Nubian soldiers by Emery, demonstrates a fresh appraisal of the Saqqara intrusive burials is overdue. Can these burials be more securely situated chronologically? How can recent material culture theory aid in understanding the objects and burial practices employed at Saqqara? This paper will discuss preliminary observations on several specific burials, in addition to the character of the intrusive burials as a group, based on original excavation documentation used in combination with recent study (2019-2020) of the objects now held in U.K. museums.

Nicholas R Brown, UCLA Egyptology

Raise Me Up and Repel My Weariness! A Study of Thutmose III's Coffin (CG 61014)

Discovered in the Royal Cache of Deir el-Bahari in 1881, the coffin of Thutmose III serves as a striking example of the re-commodification and reuse of royal coffins and burial equipment during the 21st Dynasty. Here, the coffin receives the attention it deserves with an in-depth study, analysis, and proposed reconstruction of its exterior decoration. First, the coffin's movement is tracked from its original burial place (KV34) to the Deir el-Bahari cache (TT320), along with a summary of the coffin's attributions to Thutmose III. Second, an overview of the coffin's preserved exterior decoration follows, with an analysis of particular motifs and iconography. Third, the same is done for the interior decoration, which unlike the exterior is completely intact. Fourth, the preserved hieratic joint inscription is translated with commentary. Some highlights of studying the coffin of Thutmose III include: the earliest evidence of the vulture-cobra motif at the king's forehead in the 18th Dynasty; the use of a matting motif to decorate the interior, to aid in the king's protection and regeneration in the afterlife; and a translation of a hieratic joint inscription, the only-known example from a royal coffin to date.

Owen Murray, OMM Photography/The Epigraphic Survey (Chicago House)

Modeling the Past: Creating 3D Models From Archival Imagery

Since the inception of photography, Egypt and its monuments have found themselves the subject of countless photographers, not to mention millions upon millions of tourists. The photogrammetric processes used to generate 3D datasets that have become a staple in modern Egyptological documentation require multiple, overlapping images, generally taken in a specific order. Although archival photographs rarely overlap enough for them to be used in this process, there are rare — and valuable — occasions when they do. This paper will look at reconstructing the East Wall of the Hall of Offerings (VIII) in Luxor Temple from the archival imagery of French Egyptologist Alexandre Moret, courtesy of the Collège de France. It will cover how archival film negatives can be integrated with more recent digital imagery in order to produce rectified 3D models that virtually reconstruct monuments as they would have appeared in the past. It will cover basic photogrammetric methodology, from image acquisition to post-processing and treatment of individual images using Adobe CS applications, through to combined image alignment, dense cloud, mesh and texture generation using Agisoft Metashape. The paper will also emphasize how archival and publication best practices can assist the work of current documentation efforts, and explore how further archival imagery data mining may provide a

glimpse into the past that has been hitherto unimaginable.

Patricia A Butz, Savannah College of Art and Design

Dialogue at Edfu? The Dedications of Lichas, son of Pyrrhus, and the Concept of Double Composition

This paper examines the dedications of Lichas, son of Pyrrhus, associated with the temple site of Edfu. The better known of the two plaques, today in the Brooklyn Museum, is secure in provenance and dated internally to the reign of Ptolemy IV Philopator. It consists of a 7-line inscription in Greek on heavy black basalt. The second plaque, in the Hermitage, displays the same text with only one difference: the god Dionysos is named instead of Serapis. Most remarkably, the stone is described as granite, maybe even light-colored. The plaques recall another pair of dedications: the inscribed statuettes of Nebmerutef in the Louvre and dated to the reign of Amenhotep III, one fashioned in greywacke but the other in alabaster and the gift of the king. Both were probably given by the high official at Hermopolis honoring the god Thoth, depicted with him as a baboon.   The paper argues that the Hermitage plaque should also be from Edfu and discusses the meaning of the iteration of the text, accompanied by the differentiation of materials. Furthermore, the Lichas inscriptions state that he served twice as commander of the expedition to obtain elephants from the Red Sea area for the king's military engagements. At the core of the paper is the concept of doubleness in Egyptian art, and why each of these high officials, one Egyptian and one Greek, dedicates his supreme work, scribal for Nebmerutef and military for Lichas, in this format at a religious site.

Peter Lacovara, The Ancient Egyptian Heritage and Archaeology Fund

Rescue Archaeology at Deir el-Ballas 2019-2020

The fieldwork undertaken at Deir el-Ballas from December 1, 2109 to January 30, 2020 conducted by the Ancient Egyptian Heritage and Archaeology Fund under the aegis of the American University in Cairo, concentrated on developing strategies to protect and restore the important Palace-City of Sekhenenre and Ahmose. In addition, we have also concentrated on the completion of recording of the areas excavated by the original Phoebe A. Hearst Expedition, directed by George A. Reisner on 1900-1901. In particular, we have concentrated on those areas threatened by the expansion of the adjacent modern town and cemetery, and the stabilization and preservation of the standing monuments. This season we continued our work on the survey, documentation, and restoration of the 'South Palace,' as well as several houses beside the North Palace that were in danger of destruction by the expansion of the neighboring modern cemetery. We also undertook a survey and clearance in preparation for the construction of enclosure wall to protect North Palace from the encroachment of the modern village.

Sarah L. Symons, McMaster University

Star Clocks and Astronomical Tableaux in XXth Dynasty Tombs in the Valley of the Kings

Tombs KV1, 6, and 9 in the Valley of the Kings each contain pairs of depictions of the sky ("sky pictures" or astronomical representations (Symons, 2015)) associated with twenty-four star charts known as "Ramesside Star Clocks" (Champollion, 1833; Neugebauer and Parker, 1966; Leitz, 1995). Together, these elements form extensive astronomical "tableaux". KV9, the tomb of Rameses V/VI, contains two such tableaux while KV1 (Rameses VII) and KV6 (Rameses IX) contain one each. These four tableaux represent a dense volume of pictorial astronomical knowledge. The astronomical diagram elements have been well-studied (headed by Neugebauer and Parker, 1969), but the star clock tables still pose many unanswered questions and their relationships to the diagrams and to the tombs themselves have also been somewhat overlooked. Here, we will review the spatial location and orientation of the Ramesside astronomical tableau within the tomb and explore what it indicates about the observational method underlying the star clock tables.

Seria Yamazaki, Waseda University

"Royal Object Ritual" in the Middle Kingdom: Analysis of Object Friezes and Archaeological Materials

In the Middle Kingdom, it was important to associate the deceased with Osiris for resurrection, and certain royal

insignia, such as scepter and flail, were deeply connected to this. These objects were often depicted in friezes on the interior of rectangular coffins. The object friezes comprise pictures of various objects and labels indicating their names and locations, but their assemblages and the relationship between the pictures and labels are unclear. Some of their parts represented "royal object ritual," which originated from the Pyramid Texts in the Old Kingdom, with certain royal insignia used for this ritual. Such royal insignia were also used as real grave goods in royal and non-royal burials, which are sometimes called "court type burials." The aim of this paper is to clarify both the idea and practice of using certain royal insignia at funerals in the Middle Kingdom. Specifically, this paper reconstructs the ideal usage of royal insignia at funerals through the analysis of object friezes, which is further compared with the assemblage of real royal insignia from Middle Kingdom tombs. The results indicate that there were differences between the representations in object friezes and actual usage of royal insignia, though there was also correspondence. For instance, certain rules, including the disposition of royal insignia, which are not shown by labels in object friezes, can be seen in actual burials. This indicates the strengthening of the Osirification in reality when we consider the idea behind such differences.

Traci Lynn Andrews, University of Chicago

Anubis and Clark: an ancient expedition to reach the Red Sea

From the Punt expedition on the walls of Deir el-Bahri to the copper mined from the Sinai, ancient Egypt's use of the Red Sea for transportation and trade is well known. But, how did they discover the Red Sea? The Eastern Desert, which separates the Nile from the Red Sea, is the size of Minnesota and quite inhospitable. With no access to water and 100s of miles to traverse, how would the Egyptians have known the Red Sea was there? This paper seeks to answer these questions utilizing Geographic Information Systems (GIS) and the numerous petroglyphs that graffiti the Eastern Desert cliffs. Initiated using satellite imagery, the region's maze of wadis were mapped by studying the slope and the hydrology that created this distinct landform. Then, documented petroglyphs were used for spatial distribution analysis, in order to understand the spread and accumulation of these engravings. With this spatial autopsy, we could know whether the Egyptians discovered the Red Sea by accident or if they ventured into the unknown with an end in sight, granting more insights into Egypt's over-land travel along with the possibility of identifying new sites for ancient maritime activity. This paper presents a holistic review of both the naturally formed landscape and the man-made art that adorns it to understand the people who journeyed through it.

Walaa Mostafa, Director, Greco-Roman Museum Alexandria

The Effects of Different Cultural Influences on Ancient Egyptian Tomb Stelae

Egyptian stelae were where offerings to the dead were made since the beginning of Egyptian culture. They were rectangular in shape and bore the names and titles of the dead, indicating that the ancient Egyptians believed in life after death. Stelae were made of stone and later developed to become tall rectangular objects with rounded tops. When Alexandria became the capital of Egypt in the Ptolemaic Roman Periods, it was one of the important centers of Hellenistic culture. Its unique geographic location made it a junction and meeting point connecting different cultures. Alexandria was a cosmopolitan city full of different nationalities, cults, traditions, costumes and jobs. Stelae were, therefore, made in different shapes, materials, styles and forms, being products of the different cultures in Alexandria, which influenced Egyptian society. My research is based on analyzing the development of stela shapes and materials, as well as trying to distinguish the different types, from the beginning of Egyptian history, up to the periods in which Greeks and Roman inhabited Egypt and settled there for years, thus interacting with the Egyptian environment and people. My paper will demonstrate how this kind of multiplicity and cultural acceptance affected the style of Egyptian stelae.

Ziting Wang, The University of Chicago

The "Breath of Life" in Foreign Relations During the New Kingdom

The term "Breath of Life" (ṯꜣw (n) ꜥnḫ) was first attested in New Kingdom royal inscriptions during the reign of Hatshepsut and seemingly referred to some kind of spiritual nourishment that the Pharaoh granted to compliant

foreigners. Over time, it became an indispensable element of the texts accompanying foreign tribute/gift presentation scenes and largely retained its original meaning as an ideological item. Thus, it concealed the indisputable fact that the Pharaoh reciprocated foreign rulers with material goods, which was abundantly evidenced by the Amarna Letters. Furthermore, it strengthened the concept of divine kingship for it was the gods that were normally depicted as the dispenser of life/"Breath of Life" in religious contexts. This term continued to emerge in New Kingdom royal and private inscriptions with expanding connotations. It is noteworthy that it featured not only in Egyptian sources intended for an internal audience; it also entered the repertoire of diplomatic vocabulary and was employed by foreign rulers in a few of the Amarna Letters. This research seeks to clarify the various meanings of the "Breath of Life" and explore its significance in foreign relations during the New Kingdom. It will present a diachronic study of the term from political, economic, and religious perspectives, utilizing both Egyptian and cuneiform sources. Its main goal is to furnish evidence for intentional export of Egyptian ideology during Egypt's interaction with other ancient Near Eastern political entities and ameliorate the impression of wholesale adoption of the ancient Near Eastern diplomatic traditions.

POSTER ABSTRACTS
Abstracts are published exactly as they were submitted to the American Research Center in Egypt

Abdelmoniem Mohammed, Fayoum university

Black Pigment in Ancient Egypt (Definition and Types)

The black color of the old Egyptian is the color of darkness and the water of the first ocean, and the black color has been taken off against all divine figures. The black color also represented the opposite ideas: Power, modesty, rebellion, harmony, wealth, poverty, and also refers to absences, modernity, evil, sadness, night, death, to the lower world, and at the same time to Baath and fertility, and black mud became a symbol of Egypt itself and was called a "black earth".The ancient Egyptian had the language of color and used darker tones as a sign of sadness, and black represented death and the hereafter for the ancient Egyptians, and the color black was a psychological psychology, especially for the ancient Egyptian, as it expresses immortality and resurrection, so it is often used in funerary rituals.

Cannon Aileen Fairbairn, University of Memphis

Communicating Power Through Iconography: A Suckling Scene from the Temple of Seti I at Abydos

This poster looks in detail at a scene from the First Hypostyle Hall of the Temple of Seti I at Abydos. The scene is located on the lower portion of the south wall (PM VI [1970], 5 [49]). In the scene, Ramesses II is first shown being held by the goddess Isis while wearing the Blue crown. He is subsequently shown being suckled by four forms of the goddess Hathor, each with a different geographical epithet. In each Hathor-Ramesses II pairing, Ramesses II wears a different crown – the White crown, Red crown, Atef crown, and Nemes headdress. This scene has received very little scholarly attention. The most recent line drawing, by Mariette, dates to 1869 and the only known published photograph, by Capart, dates to 1912. First, an entire translation of the text accompanying the scene will be provided. Next, I will examine the implications of the ideology of the scene looking at the roles played by Hathor and Isis, the significance of suckling, the locations presented in the epithets of Hathor, and the choice of crowns worn by the figures. Finally, I will interpret the scene in the context of the First Hypostyle Hall as a demonstration of the extent of Ramesses II's power over both the geographical land of Egypt and his power in the divine realm.

Nagwa Sayed Abdel Rahim, Department of Conservation, Faculty of Archaeology, Fayoum University, Egypt; **Wael Sabry Mohamed** (Polymers Department, National Research Center, Egypt; **Mohammad Hefny Moghazy**, Department of Conservation, Museum of Islamic Art, Cairo

The Use of Nano - Polymers in the Assembling of Archaeological Glass

The most common materials used in the step of assembling the glass archaeological are epoxy material But it has two disadvantages, yellowing and non-reactivity, so the poster aims to use nanoparticles polymers for the assembling of archaeological glass and are reactivity and do not discoloration and Nano materials are widely dispersed.

Four polymers are studied in the form of Nano scale to determine their quality for use in glass assembling, and also to know the extent of change in aging.Some polymer is the Nano form will be treated using different technics and we got it polymers will be Examination via SEM, TEM and XRD. At first, the optical properties of these materials are studied. Experimental work is carried out by aging (Heat – moisture – U.V) and follow-up of color change of samples are performed by (Colorimeter – ATR). Some of these materials are reactive and also have a color change less than epoxy.

Rania Ahmed Hassan, Egyptian Museum in Cairo

Case Study and Treatment of late period Cartonnage Mummy Case

Late period cartonnage mummy case was studied to identify the materials and manufacturing method and to better understand its conservation requirements. Analysis of the organic materials by digital microscopy, Fourier transform infrared spectroscopy revealed that traditional Egyptian pigments characteristic of the late period were used over layers. Further study aided by microbiology Investigation. There are many damage problems such as: accumulation of dust, stains, and missing parts, cracks and detachment of painting layer, Microbiological investigation indicated the presence a fungal and bacterial infestation. The paper analyzes categories of natural and non- made materials, their history, usage, and significance. The paper analyzes the unexpected usage of Juniper; some of its chemical components are terpenoids and aromatic compounds, such as cadinene, Cassia fistula, commonly known as 'Sonali' or 'Bandarlati'. The plant is rich in phenolic anthraquinones, flavonoids, and flavone- 3-ol derivatives, it has often been found in ancient Egyptian graves. It would naturally, has been used as a flavoring and perfuming materials and also possibly as incense; it c used as fungicides for controlling microorganisms.The results obtained gave important knowledge about the treatment processes of the cartonnage.

Sohair Said Ahmed, Ain Shams University

The Importance of Camel in Coptic Egypt

The Camel was very important animal in Coptic Egypt. The Copts used it in transportation and other purposes will be presented in poster. Sometimes it represents on some Coptic monuments, but it mentioned widely in Coptic documentary texts. The poster will present the importance of camel and how the Copts use it in many aspects in their daily life even in medicine. It will present also about the herds of camel and how caring and feeding the camels in Coptic Egypt. The poster will present publishing a fragment of ostracon, it is unpublished and written in Coptic shows uncommon name of camel and special function of it.

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