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ABSTRACTS

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SESSION 1A: Colloquium
Other Pasts: Comparing Landscapes, Monuments, and Memories across the Mediterranean

ORGANIZERS: *Peter van Dommelen*, Joukowsky Institute for Archaeology and the Ancient World, Brown University, and *Felipe Rojas*, Joukowsky Institute for Archaeology and the Ancient World, Brown University

Colloquium Overview Statement

The archaeological study of memory in the ancient Mediterranean has spread like a forest fire. Although several scholars are responsible for igniting the initial tinder, it would be hard to overstate the impact of Susan Alcock on the ways archaeologists approach the challenge of exploring how people imagined their own pasts in the ancient Mediterranean and neighboring regions. Fifteen years after the publication of her main book on the subject, *Archaeologies of the Greek Past: Landscape, Monuments, and Memories* (Cambridge, 2002), the moment is ripe for an assessment of the field after the conflagration, as it were, as well as a discussion about new and promising directions in the archaeological study of ancient memory and forgetting. Rather than collecting ever-more-refined case studies, we invite scholars to engage in comparative analyses.

The eastern Mediterranean during the Roman period, for example, continues to be the region in which the workings of social memory are understood in most detail, but recent investigations in Iberia, Gaul, and North Africa have challenged the alleged amnesia of the western provinces. Classical horizons, especially those in which textual sources seem to coincide with modern interpretations, still provide the most transparent cases of remembering and forgetting; research in Anatolia, Mesopotamia, and the Levant, however, demonstrates that many other nonclassical horizons not only were favored in antiquity, but are recoverable by archaeologists. Alcock and others have called attention to the virtues of looking beyond the monumental to explore ancient narratives about the even more ancient past; current discussions associated with the archaeology of the senses resonate with the possibility of studying incorporated memories, as well as sensorial and affective mnemonic practices. Finally, does it make any sense to continue to work on the topic of memory discretely, or is it time to abandon it altogether and consider part of what all archaeologists working in the Mediterranean inevitably do?

In this colloquium, we juxtapose case studies from across the Mediterranean that investigate different chronological horizons in a range of archaeological contexts and historical settings as attempts to explore the construction of memories beyond the classical world. The shared Mediterranean background of the first millennia B.C.E. and C.E. nevertheless offers enough common ground to engage in detailed and meaningful comparisons.

DISCUSSANT: *Susan Alcock*, University of Michigan

The Pasts of "Others" in the Roman West: The Case of Saguntum
Andrew C. Johnston, Yale University

For well over a century, scholarship has tended to represent the inhabitants of the provinces of western continental Europe as "peoples without history," who "wanted to be Romans … to copy the customs [of Rome], to become part of its history, to lose themselves in its identity … such was the forgetfulness by the conquered of their traditions" (Jullian 1920: 535). This western oblivion supposedly resulted the transformation of the provincials of Gaul and Spain into populations "distinctive among the emperors' subjects in being only Roman" (Woolf 1996: 361). Recent work, however, is beginning to reappraise the evidence and to challenge this long-standing consensus, demonstrating the vibrancy and complexity of the memory cultures of the West, and emphasizing the broad similarities in discourses, experiences, and practices of local identity across the Roman world.

Building on the groundbreaking work of Susan Alcock on monuments and memories in the Greek East (*Archaeologies of the Greek Past: Landscape, Monuments, and Memories* [Cambridge, 2002]) and translating its questions to contexts on the other side of the Mediterranean, this paper takes an interdisciplinary approach to the nexus of provincial agency, local identity, and social memory. It uses the Iberian community of Saguntum as an evocative and representative case study through which to explore broader trends in the cultural history of the western provinces. Weaving together the evidence of archaeology, epigraphy, and literary narratives, it demonstrates the dynamism and plurality of memories of local pasts, and explicates the ways in which these pasts deeply informed the process of identity formation and "communalization." The Saguntine appropriation of ethnographic fictions of Hercules as founder-hero reflects western innovations within longstanding Greek traditions, a reclamation of agency against "that irksome attitude of Greek scholarship" (Bickerman 1952: 70), involving the renegotiation of the meanings of monuments and public spaces. There are traces of Saguntine participation in the creation of a "provincial generation" of the Epic Cycle, which connected the rise of the city to the downfall of Rutulian Ardea attendant upon the Trojan arrival in Italy, and seems to have authorized forms of performative Latin "roleplaying" among the local elite. The complex memorial cityscape of Saguntum featured in Iberian local histories, accommodated vernacular epigraphic monuments, and became a repository for distinctive antiquarian memories of the Roman Republic.

Finally, expanding its view outward from Saguntum to the provinces of Gaul and Spain as a whole, the paper ventures some broader conclusions about the nature of community and history in the Roman west.

Vertigo-Sweat-Funk: Embodied Archaeophilia in Roman Anatolia
Felipe Rojas, Joukowsky Institute for Archaeology and the Ancient World, Brown University

The past was everywhere in Roman Anatolia. Attention to the material remains of preclassical civilizations in the region was intense and pervasive. People explored, excavated, and reconstructed Neolithic mounds and archaic tumuli;

"translated" cuneiform inscriptions; and collected and displayed millennium-old statuary. Some wanted not just to see the past, but also to experience it directly. I use recent scholarship on the anthropology, and archaeology of the senses to shed light on ancient evidence that attests to the importance of embodied experience in the interpretation and manipulation of material remains in Anatolia. Through a series of case studies I analyze the urge to interact in fully embodied fashion with the physical traces of the past in the region: to dance on ruins, stage boxing matches by them, and sometimes literally to ingest what were thought to be indices of former times.

Colonial Memory and Ritual Practice: The Tophet as *lieu de mémoire*
Josephine Quinn, Worcester College, University of Oxford

This paper looks at how people creatively reimagine their own pasts in colonial contexts. Taking the tophet (or child sacrifice) sanctuaries found in a closely connected set of Levantine migrant communities in the central Mediterranean as a case study, it begins by explaining how closely these sacred spaces resemble the "sites of memory" discussed by Pierre Nora in relation to modern contexts, and then looks at what they can tell us about contemporary conceptualizations and memories of past relationships and events in two different time periods.

The first of these is the period of Levantine settlement, in the ninth to seventh centuries B.C.E., when the tophets emphasize the distance and difference the migrants feel from their old homeland; draw attention to the colonial obliteration of local memories and traditions by preserving them; and create shared memories with each other that estrange this group of settlements from those further west. The second is the era of early Carthaginian hegemony over the western Mediterranean, from the late fifth to late fourth centuries B.C.E., when the tophets metamorphose both in terms of their physical appearance and the memories they preserve.

Landscapes of Time and Memory: Archaeologies of the Past, Present and Future
Matthew Canepa, University of California, Irvine

For a field of inquiry whose primary area of competence is recovering and interpreting the past through its material, visual, and environmental vestiges, it is interesting that archaeology has only relatively recently articulated that the creation, maintenance, and transformation of individual and collective memories should be one its core concerns and competencies. Although several works, like Van Dyke's and Alcock's *Archaeologies of Memory* (Chichester, 2015), serve as milestones to mark the field's moments when archaeology self-consciously engaged these problems, because of the diversity of the interdisciplinary debates arising from elsewhere in the social sciences and humanities that informed and continue to enrich such inquiry, the archaeology of memory cannot be understood to be either a unitary endeavor or tradition, though this is what allows it to be potentially dynamic and useful. This paper considers what intellectual shifts have occurred in past scholarship to allow space for an archaeology of memory, and explores possibilities for new modes of inquiry including a methodological reorientation drawn from some

of the sites and problems encountered across Persia and the ancient Iranian world, where space, time, material, and memory are deeply intertwined with the fraught relationship between the material and conceptual planes of existence. I consider possibilities for new theoretical avenues of research to articulate the relationship between the natural and built environments on the one hand, and, on the other, the visually, practically, and discursively mediated experiences of time, identity, and the past that they shaped, controlled and, in a sense, perpetuated.

About the Nuraghe: Iron Age Imaginations and Experiences of a Nuragic Past
Peter van Dommelen, Joukowsky Institute for Archaeology and the Ancient World, Brown University

Nuraghi literally stand out on the island of Sardinia as ubiquitous and obvious markers of a past gone by, one that is moreover named after these very towers. Given their unique association with the island and their age-old antiquity, it has perhaps been inevitable that they have been adopted by the regional government and autonomist parties as hallmarks of Sardinia past and present. Precisely because they dominate the landscape, however, and have long done so, nuraghi are much more than just convenient markers of identities, invented or otherwise. They are also much more than remnants of just a Nuragic past—they are as much part of a Phoenician, a Roman, and a Byzantine past. In this paper, I want to focus on the Sardinian Iron Age, which I suggest is a particularly critical and interesting moment in (past) time, because its traditions remained deeply rooted in the canonical Nuragic past of the Bronze Age, while at the same breaking away in multiple and notable ways. In exploring the Sardinian Iron Age, I hope to show how we may trace beyond, and indeed before, classical antiquity how "other pasts" were imagined and memories constructed and experienced.

SESSION 1B
Roman Sculpture, from Antiquity to Today

CHAIR: *Ellen Perry*, College of the Holy Cross

Rethinking the "Danaids" on the Augustan Palatine
Daniel Healey, Princeton University

Propertius and Ovid both describe sculptural representations of the Danaids, the fifty murderous sisters of Greek myth, on Rome's Palatine Hill during the Augustan principate (Prop. 2.31.3–4; Ovid *Trist*. 3.1.59–62; *Ars* 1.73–74; *Am*. 2.2.3–4). The statues decorated a portico that formed part of the new temple of Apollo, which Octavian (soon to be Augustus) dedicated on the Palatine in 28 B.C.E. For decades, scholars have identified the portico's Danaids with a group of black and red marble herms discovered on the Palatine in the 1860s, and now on display in the Palatine Museum. In this paper I reconsider the long-standing identification of the herms as the "Danaids," beginning with a careful comparison of the poetic and

material evidence. Striking inconsistencies between the poets' descriptions and the herms make the latter's identification as the "Danaids" highly problematic. Their reconstruction as *hydrophoroi* (water-carriers), with jars of water resting atop their heads, is also difficult to reconcile with the poetic testimony. Turning to the artistic character of the herms themselves, I demonstrate how their Roman design was based on a generic Greek sculptural type: the Early Classical *peplophoros*, i.e., a female figure garbed in the Greek peplos. I argue that the herms should be restored not as hydrophoroi, but rather as kanephoroi (basket-carriers), in keeping with a decorative motif that appeared elsewhere in the Palatine precinct of Apollo. Like these other basket-carriers from the temple, I propose that the herms represent ritual attendants. I present two possibilities for reconciling the poetic and material evidence: (1) the poets saw and described other sculptures of the Danaids, which have not survived in the material record, or (2) the poets took considerable artistic liberties in describing the herms as "Danaids," assigning a mythological identity to a rather generic group of architectural sculpture in order to lend drama to their verses.

Assembling the Multivalence of Provincial Emulation: A First Century Polykleitan Head from Aquitania

John N. Hopkins, New York University

The works of Polykleitos were among the most widely reproduced Greek sculptures in the Roman world. Precise copies of works ascribed to the artist and emulations adapted for context are found throughout the Empire, and have seen extensive scholarly investigation. Yet one example, in the Menil Collection in Houston, has presented a striking conundrum, now made clear. For decades it was absent from scholarship on Roman sculpture; purchased privately and then labeled a medieval work, its antiquity was called into question. Over the past two years, analysis of the object and investigation of its modern biography have demonstrated that it is a unique first-century C.E. example of Polykleitos' work, produced in the western province of Aquitania. Close analysis of its hairstyle and facial composition alongside the orientation of the head on the neck indicate that it does not belong to a single Polykleitan type, but combines features of two: the so-called Diskophoros and Doryphoros. Furthermore, while the identification of a Polykleitan model is clear, the stylistic treatment of certain features, particularly the eyes and hair, as well as the material of the work are specific to contemporaneous sculptures from the province and highlight an elite class in the provincial capital of Saintes, which sought works that mixed local craft and style with empire-wide, Julio-Claudian interest in the works of Polykleitos. Its newly rediscovered context in a burgeoning influential domestic quarter of the first-century city also provides a lens into the social circumstances of Aquitania, and its mixing of styles, compositions, and types suggests a reassessment of the practices of adaptation and emulation in the western Roman provinces and the contingent meanings in the production of such works. Furthermore, the process of analyzing the object's modern biography and the presentation of a lost context suggest a path forward for museums, working openly with scholars, to present the full histories of their collections to the public in a transparent and purposeful fashion.

The Capitoline's Red Faun in Its Ancient Context
Elizabeth Bartman, New York Society

Like all ancient statues, the Capitoline's Red Faun has had many lives. This paper aims to reconstruct its early life when it decorated Hadrian's Villa at Tivoli. Found in the "Accademia," a palatial but poorly understood wing of the villa, it likely decorated a space connected with formal, luxurious dining. Although long linked to the celebrated Furietti centaurs also now in the Capitoline, its physical proximity—along with attribution to the centaurs' named Aphrodisian sculptors—can no longer be taken as a given. Comparing the Faun with the two other (but largely unknown) versions of the type, I reconstruct the statue's appearance before its transformative restoration in 1744 for the first time.

The Faun is carved of a rare dark-red marble recently identified as quarried in Iasos, Asia Minor (now western Turkey). Just as fellow satyr Marsyas' flayed skin is evoked by the purple/white splotches of pavonazzetto marble, so the Faun may have been stained red by either treading grapes or drinking wine. Clearly the grapes in his basket and nebris pouch allude to the harvest, but the pomegranates spilling from the pouch also relate to winemaking. Notwithstanding these allusions, the Faun is not, as frequently alleged, drunk; rather, his stance and maturity render him an appropriate overseer of the complex processes of successful winemaking. With a goat at his side, he tames a potentially disruptive animal usually regarded as the enemy of the vine.

During the course of the second century, the Tiburtine wines produced in the vicinity of the Villa developed from a mediocre quaff into an admired grand cru admired by Pliny. What role the emperor or his lands played in this transformation has yet to be determined, but Hadrian's direct involvement with the vintage—at least at the religious and symbolic level—can be seen in the spectacularly decorated winery he had built at Villa Magna, ca. 40 km to the south.

Situating the Faun within the context of the social and economic—specifically, viticultural—life of the imperial villa expands our discussion of the statue beyond the traditional art-historical realms of style, date, and theme. At the same time, it offers a new interpretation of a long-admired, yet iconographically elusive, sculpture.

The Docta Puella in Death: The Funerary Altar of Julia Secunda and Cornelia Tyche
Michele George, McMaster University

A funerary altar of the second century C.E. from Rome (D. Kleiner, *Roman Imperial Altars with Portraits* [Rome, 1987] no. 113) offers a unique opportunity to compare the commemoration of two Roman women of different generations. The deaths of Julia Secunda and her mother Cornelia Tyche were marked by their grieving father and husband, who included an account of their common death in a shipwreck. In this paper I analyze the differences in the way mother and daughter are memorialized: while Cornelia Tyche is praised as a good wife and mother, the 11-year-old Julia Secunda is described as "*doctrinaque super legitimam sexus sui aetatem praestantissimae*," "most exceptionally learned beyond the norm for her sex

and age." The identification of paideia as a valued asset for a young Roman girl reflects a shift in cultural attitudes toward the education of elite Roman women in what E. Hemelrijk has called the "domestication" of the *docta puella* of Augustan love elegy (*Matrona Docta: Educated Women in the Roman Élite from Cornelia to Julia Domna* [London, 1999]). The "learned girl" of elegy was highly valued for her literary skills (S. James, *Learned Girls and Male Persuasion: Gender and Reading in Roman Love Elegy* [Berkeley, 2003]), but her sexual availability put her in stark contrast to the ideal of the chaste married woman (*matrona*). However, a growing appreciation for the young, educated wife emerges in written sources of the first century C.E. (e.g., Plin. *Ep*. 4.19; 5.16) and is explicitly mentioned in funerary epitaphs for young, unmarried girls, Julia Secunda among others. But while the iconography of male education is a commonplace in Roman funerary art, girls and women were generally commemorated by visual reference to the gendered themes of virginity, beauty, and chastity, with education reserved for more oblique expression through allegorical imagery such as the Muses. Thus, while the inscription extols Julia Secunda's erudition, a quiver and bow over her head are conventional allusions to the goddess Diana. In placing the altar of Julia Secunda in its cultural context, I examine this gap between text and image in the role of paideia in memorials for young Roman girls.

Double Identity: Observations on a Marble Portrait Bust of Clodius Albinus in the Eskenazi Museum of Art, Indiana University, Bl

Julie Van Voorhis, Indiana University

Between 193 and 195 C.E., during his brief tenure as co-regent with Septimius Severus, Clodius Albinus was honored in coinage and with sculpted portraits. After his deposition by Severus and subsequent death in 196–197, he was largely written out of the historical record and his portraits rendered irrelevant. Nevertheless, eight marble portraits are identified today as representing Albinus, a striking number given the narrow chronological window during which they were produced. One of these, a well-preserved marble bust of Albinus attired in military garb, entered the Eskenazi Museum of Art's collection in 1962, where it endured a similar fate to its subject. Not only was it mistakenly thought to be a portrait of Septimius Severus upon its acquisition, it continues to be overshadowed by the museum's better-known paired marble busts of Severus and his wife, Julia Domna. This misidentification underscores an interesting phenomenon regarding the portraits of Septimius Severus and his rival: the close resemblance they bear to one another. Indeed, most of the scholarly literature on the image of Albinus focuses on this problem, which is exacerbated by the absence of a sculpted portrait that can be securely identified by an inscription or archaeological context.

After a brief introduction of the thorny issue of attribution, this paper considers the implications of the parallels between the images of the co-emperors. While the conscious appropriation of the Antonine imperial image by Septimius Severus (and by extension Clodius Albinus) has been well explored by scholars, the intentional similarity introduced into the early portraits of the two emperors is often overlooked. I contend that in the unsettled political landscape of the early 190s, this likeness would have served as a visual display of unity that would have

helped to consolidate the precarious positions of both emperors. The number of portraits of Clodius Albinus to survive today reflects both the esteem with which he was held during his short rule, and the effects of his relative anonymity after it. After his fall, portraits of Albinus would have removed from view and possibly reassigned or later identified as representations of Severus himself. The Eskenazi bust provides an interesting platform from which to explore these hypotheses, and the recent conservation and detailed documentation of the sculpture in preparation for the reopening of the Eskenazi museum, currently under renovation, make this an auspicious time to (re)introduce this significant portrait.

Towards a History of 20th-Century Forged Roman Marbles

Robert H. Cohon, University of Missouri, Kansas City

Hiatuses in the archaeological record complicate reconstructing Roman art history; however, piecing together a history of 20th-century forgeries of ancient Roman marble sculpture, especially reliefs, is relatively easy, as so many are still extant. The recent digitization of databases and auction catalogues has helped bring to light many forgeries. We can now go beyond casual attributions to Dossena, and developing further Paul's, Sichtermann's, Nagy's, and Goette's research, establish their history. Basic tools include style, iconography, and scientific inquiry.

Having identified more forgeries, especially on the art market, I can establish ateliers beyond my recently identified Verano Workshop: the Herziana, San Prassede, and Oslo Centaur workshops.

I found that one workshop made craters and sarcophagi. They required similar sculpting skills, and just as forgers elaborated blank ancient sarcophagi with new reliefs, they transformed segments of ancient columns into craters. Workshops made reliefs and sculptures in the round as suggested by the appearance of similarly carved dresses on them.

Forgers designed their art to appeal to potential buyers, usually private collectors with limited expertise. The Rome and New York markets were at the heart of the trade that sought patrons as far off as California. (Even today, a large, almost fully reworked eastern Mediterranean sarcophagus—with mermaids—remains virtually unknown in San Luis Obispo.) A few museums were ensnared, one as recently as 1999. The carving of forgeries in relief is often weak; subjects mattered most. Action-packed battle scenes or ecstatic Dionysian figures were preferred over staid Muses (only one known example). Inspired by a sale, forgers often duplicated their work with minor changes. Because these were sold to collectors who generally kept their purchases private, no one would detect the tell-tale duplicity.

Rome was typically the source of imagery. The most popular was the unfinished Dionysian sarcophagus (MNR) from the Licinian tomb. Much also came from the Vatican's Belvedere and Capitoline's Stanza del Fauno. Accordingly, most forgers worked in or near Rome.

I have also found evidence that forgers had legitimate jobs carving funerary sculptures for modern cemeteries and repairing antiquities. The latter indicates their service to dealers and the potential for unscrupulous work on their behalf. A final avenue of research is the crossover with forgeries of later works. A newly

detected unpublished forgery of an ancient crater indicates expertise in Mannerist art; the forger also probably made pseudo-Renaissance and Baroque bric-a-brac.

SESSION 1C
Mycenaean Mortuary Traditions

CHAIR: *Kaitlyn Stiles*, University of Tennessee

The Theban Cemeteries Publication Project: Funerary Topography, Architecture, and Finds (1897–1919), Final Results

A. Dakouri-Hild, University of Virginia, *V. Aravantinos*, Greek Ministry of Culture, and *Y. Fappas*, Museum of Cycladic Art

Archaeological work has substantiated, over more than a century of excavations and research, that the legendary city of Thebes was one of the most important centers of the ancient Mediterranean. Starting from the late 19th century and culminating in the early 20th, looting in the cemeteries of Thebes triggered a series of excavations in the town outskirts. These early excavations were productive, even though early excavators targeted mostly unlooted or immediately threatened tombs and did not aim at comprehensive mapping of the landscape. The most comprehensive of these works, a treatise of general Theban topography and Keramopoullos' excavations on and around the citadel during his tenure as ephor of antiquities in Boeotia, describes the prehistoric cists and chamber tombs at Elektrai, Ismenion, and Kolonaki-Agia Anna (among other Theban sites). The authors undertook an updated study of the old excavations (1897–1919) in the prehistoric cemeteries in an effort to revise the archaeological record and produce a comprehensive catalog with complete illustrations for all prehistoric finds (including those listed in the museum inventory but not in the published reports, and a few artifacts present in the collection but not recorded in the inventory). In this paper we discuss the results of our study (2011–2018), specifically (1) the full range of furnishings attested at the tombs; (2) a chronological/stylistic and functional analysis of the associated artifacts; (3) a contextual synthesis in terms of overall cemetery usage patterns, assemblage composition and funerary customs; and (4) our new topographical map placing the published plans of individual tombs in geographic space and a GIS study of the three-dimensional model of Thebes and surrounding areas.

Excavations at Ancient Eleon and the Evolving Landscape of Death in Early Mycenaean Greece

Brendan Burke, University of Victoria, *Bryan Burns*, Wellesley College, and *Alexandra Charami*, Ephorate of Antiquities of Boeotia

In 2018, the Greek-Canadian eastern Boeotia Archaeological Project (EBAP) concluded its first phase of excavations at ancient Eleon in central Greece. Excavations in the last three years has concentrated on an early Mycenaean burial enclosure,

called the Blue Stone Structure. The perimeter of exposed walls are often capped with pieces of polished blue limestone that give the building its name. Within this rectangular structure, we have uncovered eleven tombs. Most are stone-lined structures that held the remains of multiple individuals and were covered by capping stones and fill. Above, cobbled surfaces were preserved at several elevations, and isolated walls that incorporated two grave stelai standing in situ. These stelai originally marked the overall complex of graves rather than specific individual tombs, before they were intentionally concealed within the stone walls. Over much of this, we have now detected a sequence of tumuli based on layers of clay slabs and accumulated fill above and over BSS tombs and walls. This monumentalized form lent special status to the BSS tombs, within a larger set of burials documented across the site.

All recovered material from the BSS gives a date contemporary with the Shaft Grave era, that is, the late Middle Helladic and early Late Helladic periods (ca. 17th century B.C.E.). This was the formative period of the Mycenaeans and at other sites we can see elites working to establish themselves in a mortuary landscape and working to distinguish themselves from their forebears and contemporaries through their burial architecture. As is the case for other early Mycenaean burials, there is a great variety in the architectural form of individual tombs, how they were used for individual or multiple interments, and the distribution of artifacts included in burial depositions. Scholars have noted the variation in early Mycenaean burial customs and constructions elsewhere in Greece, including Thebes, Eutresis, Orchomenos, Paralimni in Boeotia, Plassi near Marathon, Eleusis, and the "royal" Shaft graves on Aegina, at Lerna, and within the grave circles at Mycenae. These all show that this was an age of experimentation. This paper will contextualized Eleon's Blue Stone Structure and tombs within the larger cultural landscape of death in early Mycenaean Greece.

Bones of Contention: Mycenaean Secondary Burial Revisited
Olivia A. Jones, Groningen University

A recent increase in bioarchaeological study of Mycenaean tombs is producing insightful data for reconstructing mortuary practices, especially tomb reuse and secondary treatment of human remains. Traditionally, archaeologists label deposits of articulated skeletons as primary burials during excavation, while commingled and disarticulated human remains found in piles and pits are broadly categorized as "secondary burials." Labeling these burial deposits as secondary burials presupposes the burial process and instills unevaluated social meaning (e.g., ancestor cults). In addition, this oversimplification of the postmortem manipulation within chamber tombs and tholoi obscures variations that may aid in interpretation of the multistage Mycenaean burial process.

To approach the burial data differently, I propose that archaeologists should view Mycenaean burial deposits as the final stage in a biocultural process. How the burial environment has affected human remains and how postmortem manipulation was carried out in these tombs are topics not clearly understood. The first step in this methodology is to evaluate the amount of natural taphonomic damage so that it is not mistakenly interpreted as human-induced action. Secondly, the

human remains and burial context must be analyzed with bioarchaeological methods. The contextual study includes evaluating tomb drawings for spatial patterns of bone clustering and intact skeletal articulations. The bioarchaeological methods focus on bone preservation and cut marks. In this presentation, I use data from three Mycenaean sites in Achaia to emphasize the potential of bioarchaeology for understanding the initial burial processes and postdepositional actions that created primary and secondary burial deposits.

The multifaceted data demonstrates that true secondary burial in the case studies was a rare occurrence; however, handling and manipulation of human remains occurred frequently. The timing of the postmortem manipulation of bodies/bones occurred primarily after full decomposition, although in at least one tomb a corpse was moved prior to complete skeletonization indicating that in some cases reuse of the burial space did occur before complete decomposition. Additionally, I propose categories of Mycenaean burial to be applied after bioarchaeological analyses. The terminology offers a working suggestion rather than a static list and is designed to represent better the various burial deposits. Clarifying terminology encourages objective reconstructions that will lead to deeper social and ritual interpretations of complex Mycenaean mortuary practices, especially tomb reuse and handling of the dead.

Performing Death: Gender, Bodily Adornment, and Ideology at Grave Circle B at Mycenae

Elliott Fuller, University of Toronto

In this paper, I investigate how gender identity was performed on the bodies of the individuals buried at Grave Circle B at Mycenae through items of adornment in mortuary ritual. The sample I have chosen for this study consists of the human remains sexed through osteological analysis from Grave Circle B at Mycenae and the published items of adornment associated with these remains. Relying on critical feminist theory, I argue for an intrinsic link between expressions of gender and power. By communicating our gender identity through adornment, we make a statement about our social status. An engagement ring, for example, suggests affluence and adherence to monogamy. By analyzing the motif, shapes, and materials of the items of adornment from Grave Circle B, I make a distinction between two types of adornment: beads and other personal items of adornment and what I refer to as gold leaf ornaments, items of thin gold sown onto clothing and ready-made for the funerary ritual. I find that the gold leaf ornaments obscured differences between males and females through their uniform design. Conversely, personal items, especially beads, through their varied materials and shapes emphasized the individuality of the deceased. The results of the study show that female burials were more often associated with beads and other personal items and that the gold leaf ornaments were evenly distributed. These results suggest that both women and men participated in the transmission of a cohesive elite ideology through the display of the gold leaf ornaments. At the same time, the exotic materials of the beads emphasized the individual deceased person's political power and wealth. The combination of gold leaf and personal adornments on the body of the deceased in funerary ritual outwardly communicated social cohesion while

subtly emphasizing the individual's high social standing. Overall, the strategic display of items of adornment during key moments of the funerary ritual either erased hierarchies between male and female or celebrated them.

Community in Death: Rock Cut Chamber Tomb Cemetery Organization at Golemi Agios Georgios in Central Greece

Kaitlyn Stiles, University of Tennessee

The rock-cut chamber tomb was the most popular burial type at the height of Mycenaean culture during the Palatial period (ca. 1400–1200 B.C.E.). The number of tombs increased exponentially in this period and were clustered into cemeteries. Most scholars interpret this increase as a reflection of the influence of Mycenaean culture and practices. Few have studied whether tombs were organized in cemeteries in a meaningful way (based on status/wealth, kinship, etc.) and what such organization may reveal about the community using the cemetery. The only study to address these questions (Mee and Cavanagh, *The Spatial Distribution of Mycenaean Tombs*, ABSA 85 [1990]:225-243) did not find that cemetery organization was based on wealth/status as expressed in tomb architecture or grave goods.

In this paper, I explore potential intracemetery spatial organization of the LBA rock cut chamber tomb cemetery at Golemi Agios Georgios, in central Greece, using biocultural attributes of the skeletal remains and the available archaeological data. The skeleton is an appropriate source of data for this question because it represents the embodiment of lived experiences which reveal sociocultural practices and identities. Biocultural attributes are physical aspects of the skeleton (age, sex, health, activity markers, trauma) that reflect or drive cultural/social aspects such as status, gender roles, kinship, and lifestyles. The limited archaeological data available for this study includes grave good types and quantities, number of individuals in situ, and the presence of pits in the tomb structure. The Golemi cemetery consists of 31 tombs of which 23 yielded observable skeletal material. The individual rock cut chamber tomb represents the unit of analysis, since nearly all skeletal remains were commingled. To determine whether there is any socially meaningful clustering of tombs within the cemetery, the biocultural and archaeological elements were compared to the spatial locations of tombs using Hierarchical Cluster Analysis, Mantel Tests, and Partial Mantel Tests.

Results indicate that there is no correlation between any of the employed archaeological attributes and the spatial arrangement of tombs. This suggests that the cemetery may not be organized based on status/wealth as represented by grave goods. The results do indicate some correlation between health and tomb location, driven by oral health status. I conclude that the cemetery was at least partly organized by a group's access to resources which may not have been related to material status. It may suggest organization based on kinship relationships and/or social networks within the community.

TAPHOS, the Tombs of Aidonia Preservation, Heritage, and Exploration Synergasia: The 2017–2018 Excavation Seasons

Kim Shelton, University of California, Berkeley, *Lynne Kvapil*, Butler University, *Gypsy Price*, Appalachian State University, and *Konstantinos Kissas*, Korinthian Ephorate of Antiquities

We present the preliminary results of the 2017–2018 excavation seasons at the Late Bronze Age cemetery of Aidonia in the southern Corinthia, the second and third seasons of a five-year systematic program. The TAPHOS project is a synergasia between the Corinthian Ephorate of Antiquities and the Nemea Center for Classical Archaeology. The Mycenaean cemetery, discovered through looting followed by excavation in the 1970s and 1980s, now consists of more than 25 multiburial chamber tombs, in three distinct systades, dating to the 15th–13th centuries B.C.E. The tombs are remarkable for their high-quality construction and for their precious and numerous contents, including the so-called "Aidonia Treasure," a group of objects that appeared on the antiquities market during the 1990s. TAPHOS, initiated in 2014 due to the resumption and intensification of looting, revealed numerous examples of illicit activity, including both successful and failed attempts that occurred as recently as the spring of 2018.

The 2017–2018 excavation seasons focused on completing several tombs (101 and 102) in the original, middle cemetery, and in the lower cemetery, where excavation under a cave-like feature revealed a large chamber tomb beneath thick layers of Byzantine and Roman era occupation, archaic-classical deposits rich in votive pottery and figurines, and a layer of collapsed bedrock. The chamber tomb (104), measuring approximately 6.20 m in diameter, is unusual not only for its size but for features that seem to imitate a tholos tomb, including the use of a lintel stone with pivot-hole in the stomion and burial cists with large cover slabs in the chamber. Burials and the associated finds illustrate a wide variety of mortuary practices that suggest a long history of use, from early in the Late Helladic period to LH IIIB. While the earliest burials in the tomb are significant for a lack of associated grave goods, secondary deposits are distinguished by the inclusion of gold ornaments, bronze weapons, military and hunting accoutrements, sealstones, and large-scale ceramic vessels, many of which were disposed of when the tomb was ritually cleaned and reorganized between LH IIA and IIIA.

Altogether, the work of the TAPHOS project has added significantly to our understanding of the LBA cemetery and, in addition, is yielding critical information about settlement, cult, and mortuary activity at the site from the Geometric to Byzantine periods adding geographical, chronological, and cultural depth to Aidonia and this region of the Corinthia.

SESSION 1D: Workshop
Crossing Disciplinary Boundaries in Ancient Painting Studies

Sponsored by the Ancient Painting Studies Interest Group

MODERATORS: *Vanessa Rousseau*, Ancient Painting Studies Interest Group, *Mary Louise Hart*, J. Paul Getty Museum at the Villa, *Sara E. Cole*, J. Paul Getty Museum at the Villa, and *Leslie Rainer*, Getty Conservation Institute

Workshop Overview Statement

The study of ancient painting necessarily draws from multiple disciplines. The understanding of painted objects often requires a point of view constructed from the combination of many disciplines: archaeological context, art history, conservation, materials analysis, biology and phenomenological/viewer response, as well as the ritual and social use of objects and/or space. It is through the multifaceted context constructed by a combination of fields of expertise that some of the richest discoveries and understandings of ancient paintings and their techniques and functions are possible.

This session will highlight the collaborative and multidisciplinary aspects of ancient painting studies with co-authored papers combining at least two fields of study to investigate ancient painted surfaces and iconography. Objects include wall paintings, panel painting, Romano-Egyptian mummy portraits, and polychrome painted objects from the Bronze Age and Pharaonic era to late antiquity.

Papers combine archaeology, art history, provenance research and curation as well as anthropology, primatology, conservation science and technical studies using various forms of imaging to support holistic examinations shedding light on individual objects and the broader issues they represent. These collaborations reveal new information about authenticity and ancient production techniques as well as perceptions of the ancient world and connections made via contemporary museum display.

This collection of brief presentations is designed to stimulate lively discussion amongst panelists and the audience with a goal of enriching our understanding of the complex context of materiality.

PANELISTS: *Erin A. Peters*, University of Pittsburgh, *Dawn Kriss*, Independent Researcher, *Marie Nicole Pareja Cummings*, University of Pennsylvania, *Joanna M. Setchell*, International Primate Society, *Jessica Mayhew*, Central Washington University, *Tracie McKinney*, University of South Wales, *Mary Louise Hart*, J. Paul Getty Museum, *Marie Svoboda*, J. Paul Getty Museum, *Susan Lansing Maish*, J. Paul Getty Museum, *Branko van Oppen*, Allard Pierson Museum, Amsterdam, *Judith Barr*, J. Paul Getty Museum, and *Clara ten Berge*, Reinwardt Academy, Amsterdam, *Jan van Daal*, University of Amsterdam, *Georgina E. Borromeo*, Rhode Island School of Design Museum, and *Ingrid A. Neuman*, Rhode Island School of Design Museum

SESSION 1E
Field Reports from Roman Italy

CHAIR: *Nicola Terrenato*, University of Michigan

Libarna's Urban Landscape: Three Seasons of Geophysical Survey at a Roman City in Northwest Italy

Katherine V. Huntley, Boise State University, *Hannah Friedman*, Texas Tech University, and *John Bradford*, Colorado School of Mines

This paper presents the results of three seasons of geophysical survey by the Libarna Urban Landscapes Project (LULP) at the Roman colony of Libarna, located in Piemonte Italy. LULP has successful produced a nearly complete map of the urban center, synthesized from new data produced through a mix of GPR, resistivity, and drone survey, as well as archival information about piecemeal excavations carried out over the past 200 years. As well as expanding the knowledge of Libarna's urban layout and road system, LULP's work illuminates previously undocumented structures in the forum. This more complete plan reveals similarities between Libarna's forum and those of other Roman sites in the region. Additionally, the drone captured a possible macellum in the cropmarks, which would be the first documented macellum in this particular region of Italy.

The Coriglia Excavation Project: Thirteenth Season

William H. Ramundt, University at Buffalo

This paper will present the results of recent excavations at the Etrusco-Roman site of Coriglia, located northwest of Orvieto on the River Paglia. Thirteen seasons of excavation have been conducted at Coriglia, under the direction of Dr. David B. George and Dr. Claudio Bizzarri through Saint Anslem College and the Institute for Mediterranean Archaeology.

The major occupation of Coriglia begins with an Etruscan phase in the sixth century B.C.E., and reaches its peak during the Roman Imperial period. The site occupies a large hillside defined by a series of L-shaped retaining walls supporting the south and west, which step down toward the river. These walls mitigate the natural instability of the hillside, a result of the natural springs found on site. Originally appearing during the sixth century B.C.E. Etruscan phase, these retaining walls support both a domestic area and possible sacred space associated with a hot spring. In addition, the retaining wall is paralleled by a series of later Roman retaining walls, which together shape the hillside into at least three terraces, two of which are currently under investigation.

The lower terrace is defined by an imperial bath complex supported by a series of rooms and structures, including a partially intact barrel-vaulted storage area. This paper will discuss the recent excavations in this area, investigating the expansion of the terrace, the evidence for continued use after natural disasters, and the purposes of the area in each phase.

In addition, this paper will present the evidence for a radical reworking of the upper terrace, in both plan and purpose, modifying previous theories. As the recent excavations suggest, during the late Republic, a monumental Roman structure related to water and respecting the east/west Etruscan plan of the site was built and rigorously maintained until the end of the first century C.E. when it was intentionally destroyed. After its destruction, this structure was buried, the area leveled, and the orientation redefined to north/south by a road. In this same phase, the water that was previously intended for this structure was cut off, collected, and pushed to the bath complex on the lower terrace by a series of vasca. The evidence for this and its possible interpretations will be presented to investigate these phenomena both at Coriglia specifically, but also as a means to further refine our knowledge of site and structural use and reuse in ancient Tuscany.

The 2018 Excavations at the So-Called Villa di Tito, Castel Sant'Angelo, Italy
Myles McCallum, Saint Mary's University, and *Martin Beckmann*, McMaster University

This paper presents the results of the archaeological investigation of a monumental site, known colloquially as the Villa di Tito, beside the Via Salaria within the territory of the modern town of Castel Sant'Angelo, 16 km east of Rieti and 75 km northeast of Rome. The site is centerd on a masonry and concrete terrace, 60 m in length and at least 16 m in height. The terrace projects from the north side of the Velino River Valley and hovers above a large lake identified as lacus Cutiliae (Lake Cutilia), thought in ancient times to be the navel of Italy and sacred to the Sabine goddess Vacuna (Varro in Pliny *HN* 3.12.109). The structure's form and topographical placement are suggestive of a villa. Limited excavation in 2011 exposed three rooms at the east end of the terrace, one paved with a black and white mosaic, consistent with this interpretation.

New excavations begun in 2018 are directed at revealing more of the structure's plan and clarifying its occupational history. A 20 × 10 m trench was opened to the west of the 2011 excavation, which revealed the remains of three rooms, all abutting the bedrock of the rising hillside to the north. Two of these were of modest proportions. At the far west end of the excavated area—roughly in the center of the terrace—a large room with an apse at its north end was uncovered. The room's walls were constructed in opus reticulatum and the apse in opus latericium, and there is evidence for the use of wooden elements. Large pieces of concrete found in the excavation of this room suggest that it may have been vaulted. A later dry masonry wall built within the apsed room indicates a post-villa phase of occupation. The cleaning and conservation of the previously excavated black and white mosaic revealed a series of post-holes cut through it around the room's exterior, indicating an overlooked phase of use. Ceramic finds are consistent with a domestic function and date mainly to the late republican and imperial periods, but continue into the early modern period, when the site was used as an agricultural terrace. There is also earlier, residual material datable to the 6th through 2nd centuries B.C.E. suggesting an earlier occupation of the site.

Exploratory surface reconnaissance carried out in 2018, paired with GPR data from 2011, indicates that the complex may have covered an area of 3.5 ha.

Archaeological Investigation at the "Villa of the Antonines" at Ancient Lanuvium: The 2018 Season

Deborah Chatr Aryamontri, Montclair State University, *Timothy Renner*, Montclair State University, *Carlo Albo*, Independent Scholar, *Alessandro Blanco*, Independent Scholar, and *Carla Mattei*, Università degli Studi Suor Orsola Benincasa

In 2010, Montclair State University began a systematic study of the "Villa of the Antonines," the archaeological site along the Via Appia 18 mi. southeast of Rome traditionally identified with the birthplace of Antoninus Pius and Commodus, previously known only for the discovery in 1701 of noted Antonine family portraits now in the Musei Capitolini and for brief investigations of its thermae and a curving structure adjacent to them.

Since the inception of the project, we have been able to identify in the curving structure (Area 1) an amphitheater, plausibly the one mentioned by the *Historia Augusta* where Commodus performed venationes at his home at Lanuvium, and, ca. 200 m uphill (Area 2), the residential sector of the villa, with a series of rooms paved with geometric black and white mosaics, including a circular room of ca. 20 m in diameter surrounded by niches.

The 2018 field season broadened our understanding of the site and raised new questions. Explorations in Area 1 concentrated on the complex passageways underneath the amphitheater arena, not only establishing the presence of a continuous series of barrel-vaulted rooms on the western side of the central gallery, but also revealing a small masonry structure leaning against the wall that delimits the east side of the arena, almost along the minor axis. This structure, which presents a narrow, square opening, is symmetrical to a similar one uncovered on the western side of the arena. The apertures of both contained several large iron nails, suggesting the placement of large, vertical wooden supports, the function of which still needs to be understood in the context of the arena's use.

In Area 2, we determined that the black-and-white mosaic with spiraling vines emerging from a beautifully executed kantharos in an angular position is part of a square room, unfortunately missing its central pseudo-emblema, and we have uncovered in the southeast niche of the circular room a new, fully preserved black-and-white mosaic representing the head of a medusa in a semiscutum. The mosaic presents interesting design variations of the motif uncovered in the opposite niche previously investigated, still datable to the full second century C.E. Moreover, the large quantity of fresco fragments found here broadens our scanty knowledge of second century Roman wall painting.

In addition, the uncovering of several World War II artifacts opens an exciting window into the recent past of what once was the land of Roman emperors.

British Archaeological Project at Grumentum: A Report on the 2017 and 2018 Seasons

Taylor Lauritsen, Christian-Albrechts-Universität zu Kiel, and *Massimo Betello*, John Cabot University

Grumentum is a Roman town situated on a low plateau rising above the right bank of the Agri River in western Basilicata. Founded as a colonia in the 50s B.C.E.,

by the second century C.E. it had emerged as one of the most important urban centers in Lucania and was provided with a range of public buildings (forum-basilica, theater, amphitheater) reflecting this status. These monumental structures were the focus of excavation campaigns throughout the 19th and 20th centuries, and while they provide useful insights into Grumentum's social and political history, many questions regarding the town's economic development and the composition of its peripheral neighborhoods remain unanswered.

The British Archaeological Project at Grumentum (BAPG) was initiated in 2014 to address some of these questions. The project, which operates under an agreement between Cardiff University, the Soprintendenza Archeologica della Basilicata, and the Comune di Grumento Nova, is exploring the growth of Grumentum's commercial and industrial economies between the late Republic and the early Dominate. For the last five seasons, the BAPG has been excavating in Settore S, a mercantile quarter situated in the center of the town.

Geophysical surveys conducted in this area during 2009–2010 revealed the presence of a large building positioned roughly parallel to the forum. Over the course of the BAPG's first three seasons, we clarified the structure's overall design and refined the chronology of the late antique phases. It consists of two main components: a single row of rooms (each ca. 33 m^2) and a wide portico to their west. Like other parts of Grumentum, the complex was abandoned at a relatively early date (mid-fourth century C.E.), although metalworking and glass production seem to have occurred in the vicinity through the early medieval period.

The aims of the 2017 and 2018 campaigns were to identify the building's construction date and confirm its function. Although the general layout is reminiscent of purpose-built commercial properties found elsewhere in Roman Italy (e.g., the "Strip Building" on the Via Superior at Pompeii), our initial excavations inside the complex produced no evidence for commercial or industrial activity. Based on the results of the last two seasons, however, we are now confident that the building—which dates to the high imperial period—contained a series of tabernae. Excavations below the foundations also revealed the presence of an earlier structure on the same alignment, which may be associated with the installation of the Roman colony.

Gathering at the Lake's Edge: Report for the 2017 and 2018 Seasons at the Lago di Venere, Pantelleria (Italy)

Carrie Ann Murray, Brock University, *Eóin O'Donoghue*, King's College London, *Kate Kreindler*, University of Illinois, Urbana Champaign, and *Maxine Anastasi*, University of Malta

This field report delivers the latest results from the excavations at the Lago di Venere sanctuary site conducted by the Brock University Archaeological Project at Pantelleria (BUAPP) during 2017 and 2018 field seasons, representing the third and fourth years of excavation at the site. Permission for this research is granted by the Soprintendenze di Beni Culturali ed Ambientali, Trapani, Sicilia.

BUAPP's main aim is to determine the nature and functions of the site and the relationships amongst the local, Punic, and Roman residents over time. The primary field methods centered on stratigraphic excavation, total station survey, and

drone photography. The analysis of the ceramic materials is also crucial to this report. These two seasons represent the first phase of expansion of the project.

During the 2017 season, the primary goal was to investigate a small but significant area previously excavated by the Università di Bologna. The main aim for the 2018 season was to determine the stratigraphic relationship between the area the Bologna team excavated and the areas examined by BUAPP.

The 2017 season enabled us to investigate the previously excavated but largely unpublished area. Over a decade ago the Bologna team postulated that this was a sanctuary positioned at the edge of the lake, functioning as a water cult. We focused on recording the multiple architectural structures with the aim of identifying cultural and chronological phases within the reexcavation. Our findings partially corroborate the previous interpretations of the sacred nature of the area.

For the 2018 season we expanded the excavation to uninvestigated areas. The trenches demonstrated the larger expanse of the site and resulted in a clearer understanding of the architectural phasing and the activities that occurred there.

These two seasons resulted in identifying the core Punic areas of sacred activity and areas of expansion during the Roman phase in terms of architectural remains and artifacts, both of which point to a combination of sacred and secular activities. The extent of the lake in antiquity was also identified, which dramatically alters the previous notions of the purpose of the sanctuary.

On a broader level of importance, no destruction level is present giving a unique example of a somewhat peaceful Roman conquest of Punic sacred space during the Second Punic War. Plans for continued excavation will further elucidate how this site represents an important node of cultural interaction between Punic and Roman populations in the sacred sphere.

SESSION 1F
Sicily: A Long History

CHAIR: *Leigh Lieberman*, Claremont Colleges

New Discoveries from the NYU-UniMi Excavations in the Main Urban Sanctuary of Selinunte, Sicily

Andrew F. Ward, William and Mary University, *David Scahill*, American School of Classical Studies in Athens, and *Clemente Marconi*, Institute of Fine Arts, NYU

Founded on the southwestern coast of Sicily by settlers from Megara and Megara Hyblaea, the Greek *apoikia* of Selinus (modern Selinunte) rapidly became a wealthy city, famed even in antiquity for its many temples spanning the Archaic and Classical periods. The 2018 excavation season marked the twelfth year of investigation of the main urban sanctuary on the acropolis of Selinunte by the Institute of Fine Arts, New York University, and the first year that the mission is sponsored jointly by the Institute and the Università degli Studi di Milano. The results from excavations this season and last year mark a breakthrough in understanding both the architectural history of temples R and C, as well as the rituals

and other activities that took place in the sanctuary during, after, and prior to the monumentalization of the area.

Within and to the south of the nonperipteral Temple R, now securely dated to the beginning of the sixth century by foundation deposits, a nearly 3.5 m stratigraphic column was found, preserving floor surfaces and extensive votive depositions associated with the original construction phase, as well as at least three later renovations stretching into the Hellenistic period. Below, provocative evidence was found for ritual activity from the first generation after the city's foundation, and at the lowest levels prehistoric material dating from the Bronze Age to Mesolithic periods. We also present new evidence for early monumental construction techniques related to Temple R.

In addition, excavations between Temple R and the peripteral Temple C has also provided a wealth of new information regarding the relationship of Temple R and C. In particular, a series of fills were found that we hypothesize show an ingenious ramping system for the placement of foundations for Temple C. This has implications for mid-sixth century construction techniques in Selinunte and, by comparison, the wider Greek world. Moreover, we discuss the possible implications of an adjustment discovered in the foundations of Temple C, as well as reevaluations of the "later" additions to Temple R, which have implications not only for Sicilian but also Greek sacred architecture generally.

Recent Fieldwork at Rocchicella di Mineo (Sicily)

Brian E. McConnell, Florida Atlantic University, *Laura Maniscalco*, Regione Siciliana, Soprintendenza BB.CC.AA. di Catania, and *Kevin Cole*, Broward College

The site of Rocchicella di Mineo is best known as ancient Paliké, seat of the most important sanctuary of Sicily's indigenous Sikel peoples from the Archaic period through the early Roman Empire, but its occupational sequence extends at least as early as the Mesolithic period, and there is a significant occupation in the Middle Ages. The Soprintendenza per I Beni Culturali ed Ambientali di Catania in collaboration with Florida Atlantic University and other institutions has been exploring aspects of the site beyond what was published in the *AJA* (2003) and in the first volume of studies published by the Sicilian Region (2008). Recent work has focused on a 330 m-long canal along the western side of the hill, a temple structure atop the hill, two important rooms associated with the classical-era Stoa B, the topography and building sequence before the Grotto, and a complex of structures attributable to the Byzantine and later occupation of the site on the lower slope near the antiquarium. The canal, which was built in the manner of Greek waterworks at Syracuse, Akragas, and elsewhere with a covering in stone slabs, likely led water drawn directly from the rock, as well as surface run-off, to flow to several outlets along its course, as well perhaps as to the so-called "boiling lakes" out on the plain. Similar large-scale modification of the hill may be seen in the foundations for the Archaic temple on the summit, which is comparable to so-called *hekatompedon* structures at Morgantina and Lentini. Considerable finds from Rooms 11 and 12 of Stoa B give a better understanding of what took place in the wings of this building, and careful examination of the middle slope before the Grotto not only fills in a gap in the classical topography between Stoa B and the

monumental Hestiaterion above it, but also outlines the radical metamorphosis of the slope in terms of access to the Grotto area among the monumental building phases of the Archaic, Classical, and Hellenistic periods. The discovery in 2017 of a large structure, which was a major element of the site's Byzantine occupation, and a later complex of deposits of animal bone, ceramics, and other materials, contributes greatly to our understanding of the site's transformation from the Paliké sanctuary to the settlement around the lakes now called Napthia in late antiquity.

Excavating a Hellenistic House at Morgantina (Sicily): Report on the 2018 Field Season of the Contrada Agnese Project

D. Alex Walthall, University of Texas at Austin

This paper offers a preliminary report on work completed during the 2018 field season of the Contrada Agnese Project (CAP), a long-term research and excavation project conducted under the auspices of the American Excavations at Morgantina, Sicily. Since 2014, the CAP excavations have focused on uncovering and studying the remains of a Hellenistic house, once located at the western periphery of the ancient urban center. The 2018 season saw targeted excavations within the house with the aim of arriving at a more complete understanding of the building's chronology and development.

First, I share recent discoveries from the 2018 season, paying attention to materials that illuminate the nature of the space and the types of activities that took place therein. In particular, I discuss evidence associated with the earliest occupation phases of the building (ca. 275/250 B.C.E.), including installations related to the manufacture of agricultural products as well as to the management of water resources within the house. The 2018 excavations also shed light on the later phases of the house, leading up to its abandonment (ca. 200 B.C.E.). These phases were characterized by the expansion of the building's footprint and the reconfiguration of preexisting rooms to accommodate new uses for the interior space. Notable among such changes was the creation of a small room at the northwest corner of the building, which could be entered only from the adjacent avenue (Plateia B). With its wide, central entryway, cocciopesto pavement, and location along a major road, this room may have once served a commercial function. In summarizing the results of the 2018 field season, I also discuss progress made in the project's ongoing program of paleoenvironmental research, focusing on new work conducted in the territory of ancient Morgantina relevant to long-term ecological change in the settlement's watershed.

Second, I view the CAP house through the lens of economic behavior, taking into account the archaeological evidence for production, consumption, and commercial activity within the building. Here, I consider how the amphoras, trade weights, and several hundred coins found within the house shed light on local and regional systems of exchange. The rich paleobotanical and faunal record from the building complements these artifactual assemblages, giving further evidence for engagement in both the cultivation of local agricultural land and the consumption of riverine and long-distance marine resources. I conclude by considering how the occupants of the house may have benefitted from—and participated in—what

may be described as a period of economic expansion at Morgantina in the middle decades of the third century B.C.E.

Bring Your Own Bomos: Standardization and Local Tradition in Terracotta Altars from Hellenistic Sicily

Andrew Tharler, Bryn Mawr College

Terracotta altars, sometimes called *arulae*, are widely attested at sites across Hellenistic Sicily and southern Italy. These objects are distinguished by their open cylindrical bodies featuring decorative ornamental friezes and miniature architectural motifs, typically dentils overhanging a Doric frieze. Despite their ubiquity, these *arulae* remain largely unstudied. They appear occasionally in excavation reports, accompanied by cursory descriptions of their decoration and basic measurements, but no synthetic treatment of this material has yet been published, and further considerations of their function and production remain highly speculative. As a result, this substantial body of material culture has not been fully incorporated into research on Greek cult practice and ceramic workshops during the Hellenistic period. This paper presents a more critical assessment of Hellenistic *years* by synthesizing observations on their proportions, fabrics, and decorations, ultimately proposing a new typology based on the standardization of production. Specifically, I examine material from the site of Morgantina in central Sicily, where more than 200 *arulae* have been discovered. These objects have never been published, and new examples continue to emerge from ongoing excavations as recently as 2018. An analysis of their proportions reveals four standardized size types, with average rim diameters of 12 cm, 31 cm, 45 cm, and 60 cm respectively. Each type also exhibits corresponding variations in wall thickness, morphology, fabric, and decoration, further reinforcing their distinct classification. Comparison with contemporary *arulae* from Syracuse, Akrai, Helorus, Gela, and Scornavacche demonstrates that while similar production standards were adopted across Sicily, decorative preferences and styles varied locally. This typology has further implications on the role of *arulae* in cult practice. While there may be general overlap in the function of these four classes, their large range in size suggests that *arulae* may have actually served several distinct purposes. The smallest type is easily portable and may have been reserved for burning incense or small offerings of fruit and vegetables, while the largest were made in imitation of contemporary stone altars dedicated to larger sacrifices in sanctuaries and public spaces. The middle sizes exhibit greater variety in decoration, and could be associated with more personal or household cult practices. A typological approach to terracotta *arulae* challenges the cohesiveness of a body of material previously assumed to be more uniform, suggests the widespread adoption of specific production standards, and proposes that *arulae* could serve a variety of roles within Greek cult practice.

The Battle of the Aegates Islands: 2018 Survey Update

William M. Murray, University of South Florida, *Sebastiano Tusa*, Assessore dei Beni Culturali e dell "Identita" Siciliana, *Cecilia Buccellato*, Assessorato dei Beni Cultural e dell "Identita" Siciliana, *Peter B. Campbell*, British School at Rome, *Adriana Fresina*, Soprintendente del Mare, Regione Siciliana, *Francesca Oliveri*, Soprintendenza del Mare, Regione Siciliana, and *Mateusz Polakowski*, University of Southampton

Toward the end of the First Punic War (264–241 B.C.E.), the Romans made a final effort to gain control of western Sicily. They built new ships to make up for the losses of previous years and redoubled their efforts to gain control of Carthaginian strongholds at Drepanum and Lilybaeum. They also besieged a Carthaginian garrison on Mt. Eryx above Drepanum. In response, the Carthaginians outfitted a relief fleet of warships and transports, which they loaded with supplies for the besieged garrison. On 10 March 241 B.C.E., the Roman fleet met the Carthaginian force as it sailed in from the west. The Roman victory over this force was so decisive that Carthage immediately sued for peace, thus ending the First Punic War. Historians who recorded the battle give various accounts of the casualties, but all say that dozens of warships, or more, were destroyed or sunk.

Guided by a fisherman's recovery of a single bronze warship ram somewhere off Levanzo Island, the Sicilian Soprintendenza del Mare initiated a joint underwater project with RPM Nautical Foundation in 2005 to survey the general region where the ram was reportedly found (certainty was impossible as the ram was pulled from the sea clandestinely). The goal was to find the ancient battle zone, recover additional rams and other artifacts and systematically map for the first time an ancient naval battle landscape. By 2012, 11 warship rams had been identified (nine by the survey, two by fishermen from unknown locations) surrounded by a scatter of hundreds of Greco-Italic amphoras, presumably intended for the Carthaginian garrison. Inscriptions on the rams confirm that both Carthaginian and Roman rams were lost in the battle while bronze helmets, sometimes in clusters, underscore the human tragedy involved. A scientific report of the survey through 2011 can be found by S. Tusa and J.G. Royal (*JRA* 25 [2012]: 7–48), while the inscriptions on the rams are discussed by J.R.W. Prag (*JRA* 27 [2014]:33–59). Additional survey seasons were carried out in 2015, 2017, and 2018 that have revealed many additional rams, helmets, and amphoras. These new finds continue to delineate the battle zone and inform us about the conflict that took place there. In conclusion, the joint survey is building up a detailed map that is generating new insights and sparking new debates about this battle and others.

Decoration and Renovation in Severan–Era Sicily: The House of the Gazelle in Agrigento

Nicole L. Berlin, Johns Hopkins University

Sicily experienced a renewed period of prosperity during the reign of Septimius Severus (193–211 C.E.) thanks to both the emperor's patronage and the island's position between the two metropolises of Rome and Carthage. This was especially true for cities in western Sicily, such as Agrigento, whose urban status Severus

raised from a municipality to that of a Roman colony. This promotion had wide-ranging ramifications for the community, not least of which included a flurry of building activity in the domestic sphere by Agrigento's elite residents, who now played a role in the affairs of the empire while also maintaining strong ties to their local community.

The many well-preserved residences at Agrigento that were renovated during the Severan era demonstrate that homeowners embraced this duality and chose to actively incorporate Mediterranean–wide decorative trends alongside local ones. In this paper I examine Agrigento's House of the Gazelle, which was remodeled around 200 C.E., in order to explore how such Severan–era renovations resonated with local audiences as well as those visiting from further afield. I argue that the décor within the House of the Gazelle's updated dining room was intended to simultaneously convey the homeowner's participation in empire-wide elite discourses as well as his ties to Agrigento. The homeowner commissioned a mosaic floor for this dining room that includes four still-life mosaic panels depicting flora and fauna like fruit, vegetables, and fowl. The panels are juxtaposed with personifications of the Four Seasons, an extremely popular decorative motif throughout the Mediterranean from the second century C.E. onwards. However, the four flora and fauna panels are distinguished from the rest of the mosaic pavement through their execution in the expensive and time-intensive opus vermiculatum technique, which was widespread in elite houses of Agrigento and Sicily during the Hellenistic period. This revival of an antique mosaic technique allowed the owner to lay claim to Sicily's rich artistic heritage through the display of the flora and fauna panels, which were luxurious art objects in their own right. At the same time, the surrounding mosaic pavement included popular motifs like the Four Seasons that, alongside the flora and fauna panels, brought to mind prevailing elite discourses on fecundity and abundance. This mosaic floor belonged to a multivalent decorative ensemble within the House of the Gazelle, one that emphasized the homeowner's status as a member of the Roman provincial elite, but also stressed his local origins and connections to Sicily. This paper offers a preliminary model to consider decorative choices and the renovation of domestic space within the larger context of a provincial community's incorporation into the Roman Empire.

SESSION 1G: Colloquium
Figure Decorated Pottery from Ancient Greek Domestic Contexts

Sponsored by the Figure Decorated Pottery Interest Group

ORGANIZER: *Kathleen M. Lynch*, University of Cincinnati

Colloquium Overview Statement

This colloquium will explore the role of figured pottery in the social life of households. The colloquium is sponsored by the Figure Decorated Pottery Interest Group, which promotes the study of images on ancient Greek and related figural pottery with a focus on contexts of use.

The present papers address the relationship of vase images, domestic use, and household members. We start in Athens. Paper 1 asks the important question,

"What images adorned the vases used in Athenian symposia?" Most Attic sympotic vases were found abroad, not in Athens. Sympotic pottery found in Athens features simple scenes, and the author proposes that Athenians purposely chose these modest scenes because they did not need visual reminders of their myths and cultural values. Paper 2 considers the appearance of children in vase imagery and discovers that shapes considered appropriate for male users favor different types of imagery than those associated with female use. The presence of children, then, projects specific messages for different viewers. Paper 3 takes up another important question: although tombs become the ultimate context for many figured vases, did vases have domestic lives before their funerary deposition? As a case-study, the author examines the exquisite products of the mid-fifth century B.C.E. workshop of the potter Sotades and finds evidence for use prior to deposition, which invites new interpretations of their imagery.

Leaving Athens, new work at Olynthus provides the subject of Paper 4. Recent excavations have provided new and clearer evidence for the use of Attic, locally, and regionally produced red-figure in the houses at Olynthus. Preliminary results reveal patterns of preference for shapes and images from different production sites. Finally, the tombs of southern Italy are well known for their red-figured pottery, which has overshadowed the presence of similar pottery from settlements. Paper 5 gathers the evidence for use of South Italian figured pottery in houses and finds some overlap with funerary use, but also some distinct differences. Notably this survey presents evidence from both Greek and indigenous settlements.

Archaeological recovery of household assemblages naturally lags behind evidence from necropoleis and sanctuaries, but this panel aims to highlight some of the insights possible when domestic contexts are isolated. The conclusion is that households did use figured pottery for commensal and personal use, and images reflected and reinforced specific cultural values. It will be the first colloquium to consider figured vases from domestic contexts.

DISCUSSANT: *Mark Stansbury-O'Donnell*, University of St. Thomas, and *David Saunders*, J. Paul Getty Museum

Iconography in the Athenian Andron
Kathleen M. Lynch, University of Cincinnati

It is commonplace to say many Athenian figured vases served the Greek symposium: the shapes facilitated the culturally relevant but idiosyncratic mixing and serving of diluted wine, and the imagery reflected Greek cultural values or provided subject matter for discussion during the symposium. But many of the "sympotic" vessels with complex iconography—multifigure narratives, especially mythological—have not been found in Athens or Greece. Instead, the "sympotic" pottery that illustrates most of our textbooks was exported, sometimes to non-Greeks. This paper will narrow the focus and consider the imagery that decorated sympotic pottery used by Athenian symposiasts in their Athenian homes.

Archaeological evidence from Athens indicates that Athenian symposiasts preferred simple, one-figure scenes, "daily life scenes," or vignettes alluding to a

myth without depicting it in full. Sympotic shapes with elaborate narratives and complex compositions were certainly being made in Athens, and we assume the Athenian pottery shopper would have had their pick of pots from the more complex to the simple. Why, then, did Athenian symposiasts and symposium hosts choose the simple images and pass over the fancy ones?

The answer may be economic: modestly decorated pots probably cost less than complex ones; but there may be a cultural explanation too. Perhaps the Athenian symposiasts did not need the elaborate mythological narratives or multifigure compositions because they knew their myths and their world. In contrast, in non-Greek cultures such as Etruria, the more elaborate visual presentations of myth and daily life may have stood for authentic knowledge of an outside world and brought prestige to their owners. Thus, these decidedly Greek images may have found more meaning and utility among non-Greeks.

Here's Looking at You, Kid: Considering the Audience of Athenian Vases That Include Children in Their Scenes

Hollister N. Pritchett, Ball State University

Children tend to be an underrepresented social group in the Athenian material record. Although their depictions are relatively rare, images of children, comprising all ages and stages of development, are included in scenes that decorate many Athenian vases. The function of a vase, as well as its main audience, appears to have had some effect on the selection of scenes and their renderings. Additionally, scenes with children seem to have been composed with their use context and user in mind. This paper explores the audience of a particular set of vases with the intent to discern whether different aspects of childhood were selected for different viewers. More specifically, this paper analyzes whether the representations of children and the distribution of age groups and gender on a select corpus of Athenian vase-shapes that can be associated either with a male or a female audience, differ significantly. The primary considerations include the type of scene depicted, the activity in which a child is engaged, the age of the child, and the nature of the child—for example, human, divine, heroic, or satyr.

The vases discussed in this paper are Athenian red- and black-figure vases dating to the sixth through the fifth centuries B.C.E. Five vase-shapes were selected for the current study: the krater and the kylix, which tend to be associated with male users and audiences, typically in connection with sympotic settings; the pyxis and the epinetron, both of which have associations with female users and intended audiences, often with connections to domestic settings; and the hydria, a vase intended for both male and female users and audiences and therefore provides information concerning mixed audiences.

The Sotades Rhyton from Susa

Jasper Gaunt, Emory University, Michael J. Carlos Museum

An atelier of great interest in the context of understanding the circulation of Greek vases among the living is that of the potter Sotades. Operating in the middle

of the fifth century B.C.E., it created works in a dazzling array of techniques and appearances, recovered throughout the geographical distribution of Attic pottery of the time and in a wide range of contexts.

Possibly the most spectacular find was the tomb excavated in Athens in the late nineteenth century that has been reassembled and discussed by Dyfri Williams. So far as we know, only pottery by Sotades was found in the grave. Quite what domestic use can be inferred for creations of such sublime refinement is unclear. Nevertheless, comparison of the vases in the so-called Brygos Tomb at Capua suggests that Sotades' exotic (in this case plastic) creations were in circulation for some time before burial.

The question of domestic use in the contexts of rhyta is made the more interesting by Herbert Hoffmann's discovery that molds could be reused as much as a generation after their creation. Of the series of Sotadean rhyta none is more celebrated than the Amazon rider that was finally consigned to an elite burial at Meroe. A previous domestic use for it can almost certainly be inferred from fragments of a similar vessel excavated in the Achaemenid palace at Susa.

Figured Fine Wares at Olynthus: Northern Aegean Workshops and Attic Imports
Nikos Akamatis, International Hellenic University, and *Bradley A. Ault*, University at Buffalo

Olynthus, one of the most prominent classical cities of the northern Aegean, is especially important not only for the study of ancient Greek domestic architecture, but for ceramics. Its abandonment as a result of military action by the army of Philip II in 348 B.C.E., while a traumatic event for the population, offers invaluable archaeological evidence since many objects were left behind near their last place of use. As the seat of the Chalcidian League, Olynthus was a prominent market center, and so is significant for the study of red-figure pottery of the late fifth and particularly of the first half of the fourth century B.C.E. The local ceramic workshops, besides plain and black-gloss wares, also likely produced red-figure vases, as well as others decorated with silhouette motifs.

In this paper, we will examine the figured pottery of the Late Classical period recovered at Olynthus, and especially its role in domestic contexts. Ceramics from current research conducted by the multidisciplinary Olynthos Project will be considered alongside those from the original excavations conducted at the site by D.M. Robinson between 1928 and 1938. Special emphasis will be given to vessel forms, iconography, and their distribution within the city and cemetery. Moreover, it is crucial to note the similarities or dissimilarities of Attic and local, figured pottery regarding shapes, decoration, distribution, dating, and their special use in various contexts. Besides Attic and local, figured wares, we will explore the possibility of identifying imports from other ceramic production centers as well. Finally, comparisons will be made with published material from other sites in northern Greece, especially Pella. What emerges is the vigorous local production of figured fine wares alongside those imported from elsewhere, and in particular, that while there is a strong Attic presence among this material, this is offset by a considerable amount from regional production centers.

South Italian Red-Figure Pottery in Domestic Contexts of Southern Italy
Francesca Silvestrelli, University of Salento, Lecce (Italy)

Research undertaken on Greek and, especially, indigenous settlements of Apulia and Lucania has progressively revealed how South Italian red-figure pottery played an important role not only in funerary assemblages and sanctuaries, as previously thought, but also in household contexts. Evidence from Greek cities has been meager due to the limited number of published excavations carried out in domestic quarters of the fifth and fourth centuries B.C.E. Nevertheless, the extensive domestic use of figured pottery is suggested by the frequent recovery of figured pottery fragments found in habitation areas, as at Metaponto and Kaulonia, and Thourioi.

The extensive research undertaken in Apulian and Lucanian settlements demonstrates that red-figure pottery was used in residential complexes from the second half of the fifth to the end of the fourth century B.C.E. Its presence has been explained in connection with ceremonial practices in the context of aristocratic *oikoi* (as at Roccagloriosa and Lavello), or as part of the domestic household (as at Pomarico and Civita di Tricarico). Notwithstanding the predominance of kraters, a wide selection of shapes have been identified in domestic contexts, including vessels for wine service, the consumption of food, and for the toilet.

Through an up-to-date census of these finds, their contextualization, and the discussion of the evidence available in Greek and indigenous settlements, this paper will highlight the variety of patterns that domestic sites reveal about domestic figured-pottery use in settlements of Magna Graecia and its Italic hinterland.

SESSION 1H: Presidential Colloquium
Galilean Particularism through the Ages

ORGANIZER: *Jodi Magness*, University of North Carolina at Chapel Hill

Colloquium Overview Statement

Galilee—the northern part of ancient Palestine—is perhaps best known for its connection to Jesus, whose hometown was Nazareth and whose ministry was based in Capernaum. It is also the region with the largest concentration of late-antique synagogues, thanks to the influx of Jewish refugees in the wake of the two revolts against Rome. Geographically, Galilee is distinguished from other parts of the country by its topography and natural resources, which include a fertile but hilly to mountainous landscape and a large body of fresh water, namely, the Sea of Galilee. Historically, Galilee occupied a liminal zone between Phoenicia to the north and Judea to the south. As political control shifted, rulers sought to secure their hold over Galilee by founding shrines and temples at key locations and by inventing stories that grounded contemporary claims in the distant past. The questions this colloquium seeks to address include: at which points do Galileans and those outside it see the region as separate and singular, and at which points do they regard Galilee and Galileans as part of a larger entity? How do material remains enlarge or correct the point of view afforded by the written evidence? A

diachronic perspective provided by the papers in this colloquium, which span the Bronze Age to the Middle Ages, brings a fresh approach to these queries.

The Survival of Biblical Jewish Traditions in the Archaeological Sites of Medieval Galilee: A Cross-Cultural Examination

Ronnie Ellenblum, Hebrew University of Jerusalem

Already in the 19th century, Charles Clermont-Ganneau identified the existence in Palestine of two parallel sets of sacred sites commemorating biblical traditions: a northern set that locates many biblical traditions in Samaria, and a southern one that identifies many of the same traditions in Judea. Building on Clermont-Ganneau's observation, I suggest that medieval Arab and Latin documents point to a third, "Galilean" set of sacred traditions in the northern part of the area occupied by the former biblical kingdom of Israel. This paper will trace the location of some of these traditions within the region that was inhabited until the 13th century by Jews and Muslims. I will also trace the transformation of some of these traditions from their Jewish origins through their appearance in geographies written in Arabic during the 10th century to their appearance in Crusader sources related to the archaeological sites of Safad and Vadum Iacob.

Continuity and Change: The Ceramic Corpus of Late Roman Galilee

Daniel Schindler, Elon University

Late Antique (fourth to seventh century C.E.) Galilee is an ideal setting for considering for the intersection of social behavior and consumption practices. Archaeological sites in Galilee are well-preserved compared to those in other parts of the country, which have suffered from rapid modern development. Surveys and excavations around Galilee over the past 30 to 40 years have yielded a wealth of data on the late Roman and Byzantine periods. However, scholarly attention has focused on monumental architecture (i.e., synagogues and churches), whereas fewer domestic contexts have been thoroughly explored

Using the ancient Jewish villages of Meiron and Huqoq as case studies, this paper considers ceramic assemblages from key domestic deposits. An examination of these assemblages reveals observable changes in settlement population and chronology, culinary traditions and dining habits, trade, and economy. For example, Meiron and Huqoq present a clear picture of gradual diachronic shifts in the use and provenance of luxury red-slipped table vessels and common kitchen wares. The paper concludes with a brief discussion of the potential implications of this study for our understanding of Jewish settlement in late antique Galilee against the background of the spread of Christianity, and economic interactions between Galileans and the rest of the Mediterranean world.

Hellenistic Galilee, between Tyre and Jerusalem
Andrea Berlin, Boston University

From the fifth through second centuries B.C.E., Tyrians and Judeans both had reason to consider Galilee their territory. For the Tyrians, authority derived first from royal land allotments by the Achaemenid kings and later administrative jurisdiction under the Seleucids. For the Judeans, the sense of ownership was based on biblical narratives, whose compilation as national histories were taking place exactly in these centuries. For some three hundred years, the disagreement did not lead to active hostility, since the Tyrians were disinclined to use the region as a launch pad for expanded territory and the Judeans were too poor and politically unorganized to assert a claim. This changed abruptly in the mid-second century B.C.E., when Demetrios II and Tryphon, competitors for sole control of the Seleucid throne, each sought an alliance with Jonathan and Simon, leaders of the nascent Judean Hasmonean state. New archaeological discoveries from Hellenistic Galilee, placed in dialogue with a rendition of events in 1 Maccabees, reveal a history more complicated and more emotionally charged than either type of evidence alone reflects.

In the later 140s B.C.E. four major sites were abruptly deserted: Tel Kedesh, a Seleucid administrative compound in northeastern upper Galilee; Khirbet el-Eika, a fortified outpost in eastern lower lower Galilee; Philoteira, a large village along the southeastern shore of the Sea of Galilee; and Tel Keisan, a town in the hinterland of ʻAkko-Ptolemais. The location of these sites likely reflects Seleucid divisions: Demetrios controlled Tyre and, likely, Kedesh in the upper Galilee; Tryphon controlled ʻAkko-Ptolemais, and probably the sites in the lower Galilee. The author of 1 Maccabees describes only a single battle between Jonathan and Demetrios, fought at Kedesh. In so doing he created a Joshua-like persona for Jonathan and linked Hasmonean territorial interest in Galilee to the Israelite conquest narrative, transforming felt geographic destiny into history. The result was a renewed Judean claim to Galilee—a claim that may have helped inspire Judean migration northwards in the later second and first centuries B.C.E.

The Hinterland of Milk and Honey: Archaeological Evidence for Rural Complexity in Iron Age I Galilee
JP Dessel, University of Tennesse-Knoxville

Some of the best evidence for rural complexity in the Iron Age I comes from Galilee. This is somewhat surprising as far fewer Late Bronze and Iron Age tell sites have been excavated in Galilee than elsewhere in Israel and Jordan. However, what is most surprising is that, within this small sample size, there appears a settlement type not really found elsewhere: the long-lived, multiperiod, village.

The most significant characteristics of this village type include a lengthy period of occupation, a small size and lack of urban features, and clear evidence for local or rural elites. Based on the excavation of several such sites in Galilee, multiperiod villages offer compelling evidence of a deeply rooted rural population with its own potentially independent social, political, and economic structures. These types of villages display an unforeseen sense of rural complexity and internal

social stratification that suggest the presence of rural elites. Rural elites are alluded to in textual sources such as the Hebrew Bible and Ugaritic texts, and are well established in the ethnographic record. Unfortunately, due to the limited excavation of village sites, archaeological traces of rural elites have been very elusive. This paper will discuss the types of material culture that can be associated with rural elites, with a special focus on the role of vernacular architectural traditions in the expression of social, political, and economic hierarchies. It will also focus on the 11th century, a period of political weakness, especially in Galilee: the Canaanite city-state system was exhausted, and political influence of newly emerging polities, like the Israelites, very limited. Rural elites would naturally thrive in this type of political environment, as reflected in the appearance of public architecture at Galilean sites such as Tell 'Ein Zippori.

The Jezreel Valley at the Interface of the Northern and Southern Levant in the Third Millennium B.C.E.

Matthew Adams, W. F. Albright Institute of Archaeological Research in Jerusalem

The Levant, in general, has been seen as a land-bridge connecting the societies of Africa, Europe, and Western Asia. Within the Bronze Age, broad Levantine cultural entities are separated along the gross distinction of a north and a south. The northern Levant is most closely associated with the larger sphere of influence of Mesopotamia and the southern Levant with that of Egypt. This model works well at low resolution, but breaks down when zooming in, especially in the liminal region between the Litani River Valley in the north (Lebanon) and the Jezreel Valley in the south (Israel). In the latter region—Galilee (for all intended purposes)—the line between north and south can be observed fluctuating across the entire Bronze Age according to historical and cultural circumstances at play both locally and farther afield.

This paper discusses the shifting seam between north and south in the third millennium B.C.E., particularly as manifested in data from recent surveys and excavations in the Jezreel Valley, and the role of developments in Egypt and the Upper Euphrates in these fluctuations. In a coda, a few observations are made concerning the Jezreel Valley in the first and second millennia C.E. that contribute to a longue durée model for the Jezreel Valley and Galilee as the Levantine liminal zone.

SESSION 1I
The Architecture and Topography of Water in the Roman Empire

CHAIR: *Brenda Longfellow*, University of Iowa

The Memory of Water: Urban Lacus and Rome's History of Topographic Change

Nicole Brown, Williams College

On the reverse of a denarius minted by A. Postumius Albinus around 96 B.C.E., the divine twins Castor and Pollux are shown accompanied by their horses, who stretch out their necks and bend their heads to drink from a basin with sloping

sides and a tapered base. The scene is easily recognized as one of the Romans' favorite historiographic traditions concerning their military expansion: the Dioscuri watering their horses, still sweaty from battle, at the Lacus Juturnae in the Forum, where they impart to the city's residents the happy news of the army's recent victory, in this case following the Battle of Lake Regillus in 496 B.C.E. under the command of the moneyer's ancestor (Cic. *Nat. D*. 2.6; Dion. *Hal*. 6.13.1–3; Val. *Max*. 1.8.1; Plut. *Cor*. 3.4 and *Aem*. 25.2), as the coin's legend makes clear. The image, therefore, purports to represent the Forum as it was some 400 years prior, yet this is belied by the one landscape feature that simultaneously establishes its urban setting, the representation of the lacus not as a natural spring or "lake" (as it surely was in the fifth century), but as an elegant stone fountain. More than simply iconographic convention, this artistic choice forms part of a much broader pattern in Roman visual culture of the late Republic and early empire, whereby the "monumentalization" of certain water features deemed integral to the story of Rome's origins on the one hand assured continuity with the past by their very preservation, while on the other sought to update the city by means of the most urbane architectural forms. Moving from the numismatic to the topographic, this paper considers a few key examples—the Lacus Juturnae and the Lacus Curtius, together with the conversion of the Caprae Palus into the Stagnum Agrippae—to illuminate the multiple, often contrasting, strategies by which Rome's history of change, from rustic backwater to sophisticated metropolis, was incorporated into its urban fabric.

The Aqua Traiana Project: Past, Present, and Future

Rabun Taylor, University of Texas at Austin, *Edward O'Neill*, University of Leicester, *Giovanni Isidori*, Independent Scholar, *Katherine Rinne*, California College of the Arts, *Sheryl Luzzadder-Beach*, University of Texas at Austin, and *Timothy Beach*, University of Texas at Austin

Intermittently over the past nine years, the Aqua Traiana project has focused on searching for the ancient aqueduct's many architecturally defined sources hidden in the wooded ravines surrounding the west and north shores of Lake Bracciano, about 30 km northwest of Rome. Methodologically the project has resembled aqueduct hunting expeditions of the past by combining the intensive study of regional history and archives with probative, noninvasive field reconnaissance. This approach will continue but in an increasingly systematic manner as we partner with the Sovrintendenza Capitolina to undertake a GIS-based survey of the entire Aqua Traiana-Acqua Paola system. Additionally, the project is merging with a University of Texas initiative, Planet Texas 2050, through which we will expand our research questions considerably. Under this umbrella, we will examine the district's hydrological landscape over the longue durée by isolating and interpreting evidence of environmental stress and change. We hope to give careful attention to the following priorities: (1) mapping the region's ancient structures and infrastructure; (2) understanding the region's paleobotany and its relationship to human water and land management; (3) assessing the cultural importance of the region's thermal springs, around which therapeutic sanctuaries developed; (4)

understanding the region's interdependencies with Rome, both before and after the Aqua Traiana's introduction in 109 C.E.; and (5) understanding the early modern context within which the Acqua Paola commandeered many of the ancient aqueduct's water sources, diverting them to Rome once again.

This summer we took water samples from numerous sources in the Lake Bracciano region; we will continue these efforts in the future to isolate the long-term presence of inorganic elements in the hydrological landscape that have a bearing on the paleoenvironment. We aim to undertake an aerial LiDAR survey, particularly of the wooded areas that enclose most of the aqueduct's source architecture and the mysterious lost town of Forum Clodii, which lay near the lake's western shore. In future seasons we hope to undertake lake coring to establish a profile of paleoenvironmental proxies; we may also conduct geophysical surveys of targeted areas where we expect to find subsurface architecture and infrastructure. This paper reports on the preliminary findings of the water chemistry and discusses its environmental implications, both for the present and the past. Further, it maps out some of our broader research questions and considers how our research might be integrated with other regional and urban archaeological studies.

Hadrian's Athenian Aqueduct: Recent Evidence and New Ideas

Shawna Leigh-Roberts, Hunter College

The aqueduct initiated by the Roman emperor Hadrian to serve ancient Athens has been undergoing renewed interest and study during the last 15 years. Finds of sections of the apparatus during the excavation for the 2004 Olympic village to the north of Athens and a length of tunnel unknown in the modern era discovered during the August 2018 demolition of the back wall of its dividing basin instigated scholars other than archaeologists to focus on the system.

Some details about the extramural aqueduct have been relatively well known since the 19th century. The locations of a series of the vertical shafts used to facilitate the Roman construction of the tunnel are shown on maps, such as the "Karten von Attika" by E. Curtious and J.A. Kaupert. Because of the system's reuse over time, particularly as the tunnel served as the major water supply system for Athens from 1871 until 1931, there are plans from the old Athenian water company that show the approximate locations of a series of 319 shafts that were used to facilitate the Roman construction of the system. A number of repairs of the original Roman tunnel were made by 19th-century engineers.

The extramural aqueduct is unusual in that it runs entirely through an underground tunnel for a distance of approximately 20 km. The specus has a mean depth of 20 m and sinks to a maximum depth of more than 40 m. This brings the structure below the water table as well as below the Kephissos River. Recent investigations of various accessible sections of the tunnel by speleologists, as well as recognition of the geology through which it passes, have confirmed that the majority of the water that flowed through the tunnel seeped through its walls, roof, and access shafts.

Based on recent geological and hydraulic calculations and considerations, in this paper I make a series of new hypotheses regarding the function of the main

tunnel, the aqueduct's supply within the city itself, and the scope of the Athenian construction "industry" in the first half of the second century C.E. The interdisciplinary nature of this inquiry allows for a fresh perspective on a Roman city-wide water-supply system.

Maintaining the Conversational Flow: The Role of Roman Aqueducts in Greece
Machal E. Gradoz, University of Michigan

Roads, baths, fora—the list of the physical manifestations of the power of the Roman Empire is long. Though they are often considered instruments of "Romanization" and evidence of the claim of Rome over conquered territories, the relationships of these things with the "subjected" territories in which they were constructed are more nuanced than they first appear to be. It is not enough to see something "Roman" and claim either an imposition of Roman culture on a subject or a desire on the part of the subject to be Roman. Indeed, in order to break from this traditional scholarly model of the Roman Empire, we should consider both how so-called subjects of empire interacted with these tools and the material agency of these tools: how their material properties shaped and affected their interaction with other things.

In this vein, this paper investigates the imperial aqueducts of Greece and their relationships with the Roman Empire (specifically the emperor and his administrators) and its subjects through a study of the material agency of aqueducts themselves and the role of infrastructure in the Roman Empire. I argue that aqueducts were not necessarily "top-down" markers of the control of Rome and the emperor, but rather reflect conversations, or what Monica Smith deems "turn taking" (*World Archaeology* 48 [2016]:167–68), between Rome and its provincial "subjects." In other words, they were material manifestations of a dialogue between the two parties. Moreover, aqueducts exerted their own agency on both empire and "subject"—"subjects" relied on aqueducts for the ready supply of clean water, while the empire relied on aqueducts as a means of holding its place in the conversation with its subjects.

I show the presence of "turn taking" and the mutual dependency of both empire and subject on aqueducts through a case study of the Roman aqueduct supplying Corinth from Stymphalos. Though the aqueduct was constructed at some imperial initiative, the archaeological evidence for continued maintenance, repairs, and even use reflects local initiative. I also show the potential for this framework to be applied to other aqueducts that are less studied, such as the aqueduct supplying Argos.

Though the relationships between empire, subjects, and infrastructure vary from place to place and time to time, it is important to acknowledge that the process of interpreting material culture is never straightforward, and our attempts to do so must take this into consideration.

Bathing by the Black Sea: Bath Complexes from the Caucasus and Neighboring Regions

Lara Fabian, Albert-Ludwigs-Universitat Freiburg

Bathing facilities of various types became increasingly common along the northern and eastern shores of the Black Sea and the Caucasian interior over the course of the first centuries C.E., a period of intensified interaction between Roman soldiers, regional political authorities, and local residents. The presence of bathhouses at Roman and late Roman forts along the coast, like that at Gonio, as well as in the inland reaches controlled by the dynasts of Caucasian Iberia and Armenia, at sites like Armazi and Artashat, testifies to the range of technological and cultural transfers afoot in the region. A careful study of these structures can therefore give clues about the paths of connectivity along which these transformations flowed. The incorporation of this material into studies of the broader ancient Mediterranean world, however, has been limited. The sites, many excavated in the Soviet period in territories of the former USSR, are published in scattered and difficult-to-access archaeological reports, and are largely unfamiliar to researchers working on other parts of the ancient world.

This paper provides a regional consideration of bathing facilities from the Caucasus and North Pontic through the fourth century C.E. Starting with an overview of sites, I present a preliminary typology that situates the structures within broader Circumpontic and Anatolian traditions. Then, an analysis of the organization of space, the construction methods, and the decorative programs highlights the variety of structures present in the area, as well as the development of regional traits unfamiliar outside of the Pontic space. Finally, the paper considers briefly the afterlife of bathhouse culture and water infrastructure in the region.

The diversity of bathhouse forms and the rather rapid development of local typological characteristics suggest that the habit of bathing in the Caucasus and North Pontic was not simply an import of Roman technicians, limited in scope to the Roman army or citizens. Rather, this architectural form became a participant in the constitution of local identities in the period. Although the region was never fully incorporated nor unambiguously integrated into the Roman Empire, local residents adopted and adapted material culture and sociopolitical practices from their neighbors, with far-reaching ramifications for life in the North Pontic and Caucasus.

SESSION 1J: Colloquium
The Afterlife of Ancient Urbanscapes and Rural Landscapes in the Postclassical Mediterranean (400–1300 C.E.)

ORGANIZERS: *Angelo Castrorao Barba*, University of Palermo, *Davide Tanasi*, University of South Florida, and *Roberto Miccichè*, University of Palermo

Colloquium Overview Statement

This session aims to focus on phenomena of reuse, reoccupation, reshaping of the antiquity during the postclassical period (5th–13th centuries C.E.). In particular, the panel aims to compare and discuss diachronically the changes in long-term dynamics of settlement, building technology, economy trajectories, land use and natural resources exploitation. The main issues that will be addressed are:

- The transition from the ancient city to the Christian urbanscapes and the functional and ideological relationship with the past.
- The emergence of new settlement patterns and its relationship with ancient landscapes and the formation of different agrarian systems and socioeconomic trajectories.

Different case studies across the Mediterranean area will be presented in order to compare historical issues about the afterlife of classical cities and countryside between late antiquity and the Middle Ages.

After a brief introduction by the session's organizers, the first paper will analyze the postclassical urban changes and the impact of Christianization in ancient Athens and cities of the Peloponnese. The second paper deals with the funerary reuse of the Ismenion Hill of Thebes during the Byzantine period. The long-term life and change, from Byzantine to Venetian periods, of the postclassical fortress at Isthmia will be discussed in the third paper. The results of the Nemea Valley Archaeological Project about settlement patterns between Late Antiquity and the early Middle Ages in Greece countryside will be presented in the fourth paper. The fifth paper deals with postclassical patterns of change in settlement dynamics and their relationship with copper production in the Faynan Region (southern Jordan) over a long period between the 5th and 13th centuries C.E. The impact of early Christianization on the formation of postclassical landscape in particular areas, such as the Egypt's Western Desert, will be addressed in the sixth paper. The seventh paper will focus on a new site discovered in central-western Sicily (Contrada Castro, Corleone), a Late Archaic indigenous site resettled between the Byzantine period and the Norman age (7th–12th centuries C.E.), which provides a case study for the wider phenomenon of reoccupation of hill-top ancient sites in Sicily. The eighth paper will address the topic of formation and evolution of post-classical landscapes in western Sicily focusing on the castles of Alcamo, Calatubo, Monte Bonifato, and Salemi and its surroundings.

The Afterlife of Ancient Urbanscapes in Athens and the Postclassical Peloponnese
Amelia R. Brown , University of Queensland

In the sixth century C.E., southern Greek cities such as Athens, Argos, Messene, or the provincial capital Corinth still had a monumental ancient urban core, and

many newly built Christian basilica churches. Cities were centers of imperial and Christian administration, and population centers protected by high fortification walls. Scholarship continues to portray the following centuries as a dark age when cities were abandoned, under the pressures of earthquake, plague, economic decline, imperial indifference, and barbarian invasion. Thus the postclassical reuse of ancient urban buildings, although clear in archaeology, has rarely been studied as part of a continuous urban context in southern Greece. Survey works on Christianization or medieval urbanism rarely mention Greece outside of Athens, where the conversion of the Parthenon and Hephaisteion to churches is noted, and intensive excavations reveal traces of the middle Byzantine city. An uneven pattern of violent destruction, targeted reuse, new construction, and long-term abandonment features in the city center of Athens, and seems to hold true around the cities of the Peloponnese too. Yet, urban authorities in every city continued to exist, and they exercised physical control over their cityscapes in various ways, converting ancient buildings to new uses, enhancing coastal and defensive infrastructure, and maintaining some urban services such as water supply. The few literary sources for this era are now read more critically, while epigraphy and new excavations are beginning to close this gap in urban life, and illuminate what was kept, lost, and reshaped in the medieval cities of southern Greece.

Burial Ground, Sanctuary, Cemetery: Postclassical Reuse and Memory on the Ismenion Hill (Thebes, Greece)

Kevin Daly, Bucknell University, *Fotini Kondyli*, University of Virginia, and *Stephanie Larson*, Bucknell University

In this paper we present data from the Ismenion hill, Thebes, from the 6th–12th centuries C.E., that attest to the reuse of the site and its return to a locus for burial, particularly in the sixth–seventh centuries. In the Bronze Age, the hill housed chamber tombs, like many of the other hills surrounding Thebes. The archaic and classical Thebans chose to locate the temple to their main civic deity, Apollo Ismenios, directly atop a line of these Bronze Age tombs. By the early Byzantine period, the ancient temple was abandoned and spoliated. The early Byzantine Thebans then transformed the site back into a burial ground by installing an extensive cemetery. We focus on this burial ground because of its fascinating multiple interments, all of which reveal some form of leprosy often in advanced stages, in addition to other pathologies. We connect this cemetery to the nearby church of Saint Luke the Evangelist, a foundation of the fifth century C.E. constructed of spoliated material derived in part from the classical temple, and suggest that this church acted as a leprosarium for diseased residents of Thebes. Grave goods attest to a variety of wealth involved in these cases, although notably the ceramic assemblages from the burials remain relatively consistent in type and function. We also discuss the abandonment of the early Byzantine cemetery, a nearby middle Byzantine funerary church, and the reuse of the site for domestic purposes (small buildings and pits) beginning in the early years of the late Byzantine period.

Post-Military Use of the Byzantine Fortress at Isthmia (Greece)
Jon M. Frey, Michigan State University

Constructed in the early fith century C.E. with materials recycled from the nearby Sanctuary of Poseidon, the Byzantine fortress at Isthmia in Greece first served as both a military garrison and the main entrance into the Peloponnese for those traveling south along the coast of the Saronic Gulf. However, excavation of isolated parts of this defensive enclosure in the 1960s and 1970s revealed that sometime near the end of the sixth century C.E., the main gates through the fortification were blocked shut, effectively ending its initial intended use. In the centuries that followed, the massive walls and towers of the fortress were instead used to support a number of domestic structures dating to the late Byzantine, Frankish, and Venetian periods. This paper presents the preliminary results of an ongoing effort to extract information from the original excavation records in order to reconstruct the appearance of the fortress in these postclassical periods. For aside from the publication of its original construction, the fortress has not been intensively studied for what it tells us about its much longer afterlife as a nonmilitary structure. Given the fact that its "closure" significantly interrupted traffic patterns through the area, what function could this structure have served for its later inhabitants?

Afterlife of Hilltop Settlements in Sicily between Antiquity and the Middle Ages: The Excavation in Contrada Castro (Corleone, Palermo)
Angelo Castrorao Barba, University of Palermo, *Roberto Micciché*, University of Palermo, *Filippo Pisciotta*, University of Palermo, *Giuseppe Bazan*, University of Palermo, *Carla Aleo Nero*, Soprintendenza BB.CC.AA. of Palermo, *Stefano Vassallo*, Soprintendenza BB.CC.AA. of Palermo, *Pasquale Marino*, Bona Furtuna LLC, and *Steve Luczo*, Bona Furtuna LLC

The development of hilltop sites, or sites in locations that are optimal for controlling valleys and defendable, is a phenomenon that characterized many parts of Sicily between the archaic and the Hellenistic periods. The discovery of a new site in Contrada Castro (Corleone, Palermo) paves the way for new knowledge of the dynamics of settlement patterns in Sicilian rural landscapes in a long-term perspective. The first period of occupation of the elevated plateau of Contrada Castro is attested by the late Archaic period and is probably related to the presence of a rural community linked to the exploitation of agro-pastoral resources. A shift in settlement patterns with the rise of agglomerated hilltop settlements during the early Middle Ages is a global phenomenon that is also documented in the Sicilian landscape. The excavation in Contrada Castro, carried out as part of the "Harvesting Memories Project" which is focused on the ecology and archaeology of Sicani Mountains landscapes, showed a clear case of the reestablishment of an ancient site located in hilly position between the Byzantine, Islamic, and Norman periods (seventh–12th centuries C.E.). The site of Contrada Castro could reflect the dynamics of a rise in hilltop settlement in changed socioeconomic contexts that marked a shift compared to the Roman villa system and the later phase characterized by the emergence of large villages/agro-towns that were probably related to Church estates. The investigation of this new rural site provided insight into longue durée

patterns at hilltop rural settlements in Sicily between antiquity and the Middle Ages.

Late Antique and Medieval Landscapes of the Nemea Valley, Southern Greece
Effie Athanassopoulos, University of Nebraska-Lincoln, and *Christian Cloke*, Smithsonian Institution

The Nemea Valley in southern Greece has been the focus of excavations by the University of California-Berkeley and an intensive survey as part of the Nemea Valley Archaeological Project (NVAP). The Sanctuary of Zeus at Nemea is well-known for its classical remains, but this paper instead directs attention to the late-antique and medieval periods. Between the fifth to early seventh centuries C.E., both excavation and survey indicate that habitation was widespread in the area, anchored by a thriving ecclesiastical settlement in the former sanctuary. This community promoted (and benefitted from) intensive agricultural investment in the surrounding valleys. Several larger sites point to consolidation of landholdings, a trend that began in the early Roman period. Habitation patterns from the seventh to 11th centuries C.E. are comparatively obscure, but there is again a proliferation of sites dated to the 12th–13th centuries C.E., a time of agricultural expansion and demographic growth. Two larger-order sites, interpreted as villages or hamlets, and a substantial number of small sites, most likely isolated farms, provide evidence of significant agricultural activity. The period from the late 13th to 15th centuries C.E. supplies a contrast; settlement and agricultural activity in Nemea becomes scarce. A complex of more-remote sites on a precipitous hill, identified in historical sources as Polyphengi, dominates the region. In this paper, we present the archaeological evidence for this historical sketch of ebb and flow within a broader regional context, taking into account the social and economic conditions that prevailed in the countryside.

Martyrs, Monks, and Miners: The Shifting Landscapes of the Faynan Region (Southern Jordan)
Ian W.N. Jones, University of California, San Diego, *Mohammad Najjar*, University of California, San Diego, and *Thomas E. Levy*, University of California, San Diego

This paper explores changing patterns of settlement and resource exploitation in the copper-ore-rich Faynan region of southern Jordan between the fifth and 13th centuries C.E., drawing primarily on data collected by the UC San Diego Edom Lowlands Regional Archaeology Project (ELRAP). It begins with an explanation of the end of copper production at the Roman metallum of Phaino (Khirbat Faynan), which occurred in the late fifth or early sixth century C.E. ELRAP excavations produced evidence for continuity of settlement at the site centuries after this, into at least the late eighth or ninth century C.E. Drawing on this and evidence from other sites in the Faynan region, we explain this continuity in terms of Phaino's continuing religious importance as a site of martyrdom of Christians condemned to the mines, and explore the question of whether a seventh–ninth-century C.E. farmhouse in the region is related to Phaino or part of a different, contemporary

process of settlement. The final part of the paper explores the final phase of copper production in Faynan, during the Ayyubid period, or the late 12th and early 13th centuries C.E. This is contrasted with the earlier Roman copper-producing settlement at Phaino, with particular attention paid to the different political and economic motivations underlying the establishment of these industries.

From Paganism to Christianity in Egypt's Western Desert: Changes in the Landscape of a Late Antique Hamlet

Nicola Aravecchia, Washington University in St. Louis

This paper will explore ways in which the advent of Christianity helped reshape, in the fourth–fifth centuries C.E., the built environment of Egypt's Western Desert. The oases of Kharga and Dakhla, in particular, offer a wide range of archaeological and documentary evidence on the development of Christianity and, more specifically, the adoption of artistic and architectural forms that visually marked the built environment as a "Christian" land. The landscape of the oases was dotted with churches, particularly of a basilical type, that paralleled the loss of importance of Egyptian temples. The construction of churches, at times in "prime" locations within a preexisting, and densely built, setting, often entailed significant alterations to earlier buildings and, more broadly, a reorganization of the surrounding built environment. The focus of this paper will be on the reuse and reorganization of space at the small agricultural hamlet of 'Ain el-Gedida, located in the Dakhla Oasis of Upper Egypt. Excavations at the site were carried out by an Egyptian mission from 1993 to 1995 and, more recently, by an NYU mission from 2006 to 2008. They revealed extensive evidence of a church complex dated to the fourth century. The complex was built in a highly visible location at the center of the settlement, to the east of a mud-brick temple no longer in use, at that time, as a cultic place. This presentation will discuss how the spatial arrangement of the built environment was readapted to accommodate the construction of the church complex. These changes affected not only the configuration of several buildings, but also the surrounding network of streets and passageways, thus reshaping patterns of movement flows at the site.

SESSION 2A: Colloquium
Human Adaptations in Mediterranean Environments 1: Climate Change and Settlement

ORGANIZERS: *Christopher S. Jazwa*, University of Nevada, Reno, and *Kyle A. Jazwa*, Duke University

Colloquium Overview Statement

In this colloquium, we take advantage of the conference venue in San Diego, California to highlight global similarities in human settlement and responses to environmental change in Mediterranean environments, in particular the Mediterranean Sea and the California coast. This colloquium and the associated second

colloquium will be organized thematically rather than geographically. This will highlight the similarities in adaptations between the different regions with Mediterranean climates, rather than continuing to separate the Mediterranean world from California.

Both regions have prominent mild, wet winters and hot, dry summers. Because of these similarities, human occupants of Mediterranean climates have encountered analogous obstacles to subsistence, including periodic drought. They also have been able to take advantage of similar characteristics, including highly productive marine ecosystems, terrestrial environments with abundant natural resources and high potential for developing agricultural systems, and relatively comfortable living conditions. Anecdotal comparisons have been made frequently between the Mediterranean and coastal California by archaeologists, including by C. Broodbank in his recent monograph *The Making of the Middle Sea* (Oxford, 2013), but a comprehensive comparison and in-depth exploration into the social, political, and economic relationships between the environment and human societies is needed. In this colloquium, which will be the first of two associated sessions, our presenters will lay out general comparisons between the regions in terms of climate and factors broadly influencing settlement patterns in Mediterranean environments.

The session will begin with a brief introduction outlining the broad theme and include a series of six more papers that will address broad environmental trends and how they influenced settlement patterns in both geographic regions. This will set the stage for the afternoon session, in which presenters will discuss specific subsistence strategies that include agricultural transitions, hunting strategies, and obtaining marine resources. We will begin this session with an introduction to the environmental zone and session theme. Then, paper 1 will discuss long-term hunter-gatherer responses to environmental change in California; paper 2 will present an ecological approach to understanding settlement patterns in northwestern Morocco; and paper 3 will discuss the roles of climate change and technology on settlement in central California during the late Holocene. After a break, paper 4 will present rainwater harvesting at the Roman site of Cosa and paper 5 will discuss human responses to climate change in the Aegean during the Bronze Age. By including archaeologists working in California, we will attract researchers who do not normally attend the AIA Annual Meeting.

Trans-Holocene and Inter-Island Approaches to Mediterranean Environments: A Case Study from the Channel Islands of California

Amy E. Gusick, Natural History Museum of Los Angeles County, *Jennifer E. Perry*, California State University, Channel Islands, *Wendy Teeter*, University of California, Los Angeles, *Desiree Martinez*, (Tongva), Cogstone Resource Management, and *Karimah Kennedy-Richardson*, Autry Museum of the American West

The Channel Islands of California have received much attention from researchers due, in part, to the long occupation history of the islands that spans at least 13,000 years. Evidence supporting the hypothesis that the earliest human inhabitants in the Americas arrived during the Pleistocene via a coastal route along the

North Pacific rim has been identified on the northern Channel Islands. This discovery has thrust these islands, and the maritime Chumash who inhabited them, into the spotlight. A large body of literature now exists on the island Chumash and the sociopolitical and economic complexity evident in their material culture. The northern islands have played an important role in our understanding of early coastal adaptations and development of complexity among maritime adapted peoples; however, this is only part of the story. Located approximately 90 km south, the Tongva (Gabrielino) who lived on the southern Channel Islands have a similar occupational history to their northern counterparts, but lived in very different environmental and geographic contexts and differ in language and cultural practices. Separated from the mainland and each other by deep ocean trenches and longer distances than between the northern islands, reaching the southern islands at any point in time would have involved traversing waters fully exposed to ocean swells and wind waves, suggesting that even the earliest inhabitants had sophisticated watercraft capable of open ocean crossings. Once on the islands, occupants would have been faced with marine and terrestrial environments that were generally warmer and more arid than those of the northern Channel Islands. The varied contexts and long occupational sequence known from the southern islands provides researchers the ability to present different perspectives on coastal adaptations from those understood from the northern Channel Islands. These similarities and differences are considered using data from three trans-Holocene archaeological sites from three islands: Eel Point, Little Harbor, and Punta Arena, located on the southern islands of San Clemente and Santa Catalina and the northern island of Santa Cruz, respectively. We present on the variation in adaptations between these sites and the dynamic relationship between people, islands, and climate change in Mediterranean environments that can be understood through trans-Holocene and inter-island studies.

Ecological Modelling in the Oued Loukkos, Northern Morocco: The Process of Site Selection between Agency and Environment

Stephen A. Collins-Elliott, University of Tennessee, Knoxville, and *Christopher S. Jazwa*, University of Nevada, Reno

The valley of the Oued Loukkos, northern Morocco, is a microregion defined by its drainage basin and is best known archaeologically for the site of Lixus at the estuary at its mouth where it intersects the Atlantic coast. The record of human settlement of this region has been subject to archaeological survey by the Institut National des Sciences de l'Archéologie et du Patrimoine (INSAP) under A. Akerraz since 1997 and, since 2016, by the Moroccan-American project "Gardens of the Hesperides: The Rural Archaeology of the Loukkos Valley." As part of this project, this paper assesses the settlement pattern of the river valley using methods derived from human behavioral ecology (HBE), which models demographic dispersion within an environment through the preferred selection of resource-rich contexts by a population. Distributional models, such as the ideal free distribution and the ideal despotic distribution, have proven fruitful in terms of analyzing changing human settlement patterns in other archaeological contexts, and can be applied to the case of the Oued Loukkos. The application of HBE models to the

Oued Loukkos however requires a nuanced approach, given the size of the microregion and the chronological data available. Moreover, experimentation with different territorial boundaries in the river valley, defined either by topographic boundaries, ecological land units, or other means (the Renfew-Level XTENT model or Thiessen polygons), can illustrate the degree to which site placement is predicated upon a process of gradual diffusion in the landscape, whether it is part of a more organized exploitation of resources, and ultimately whether such developments are driven by human agency or by environmental factors. Such modeling has direct applications for considering the development of the rural economy of the Oued Loukkos as one not necessarily driven by state-sponsored programs (such as the implantation of Roman fortified camps), but one in which ongoing, long-term economic and demographic trends can be measured against momentary instances of Roman imperial involvement within the local economy.

Climate Change, Technological Innovation, and Demographic Pressure as Catalysts to Culture Change in Late Holocene Central California, USA

Adrian R. Whitaker, Far Western Anthropological Research Group, and *Jeffery S. Rosenthal*, Far Western Anthropological Research Group

At European contact, California was home to hundreds of politically autonomous Native groups living at population densities rivaling all hunter-gatherer populations ever documented. This was also among the most linguistically diverse landscapes found anywhere on earth. Native California groups were interconnected by complex social, economic, and political arrangements, including the use of shell-bead money, considered a true currency. The archaeological record of California evinces several significant changes in material culture and economic orientation during the last 1,500 years before contact. New technologies, economic orientations, and settlement patterns are evident beginning during the Medieval Climatic Anomaly (1100–600 cal B.P.), a period marked by two mega-droughts and an intervening wet period. It has been suggested that human populations decreased overall as a result of these droughts, and that people in general had poorer health and were subject to higher rates of violence. At the same time, the taxonomy and distribution of native languages in California has led to the widely held view that a number of regional population replacements occurred over the last 1,500 years.

Based on archaeological studies from throughout the north-central portion of California, we present evidence that the Medieval Climatic Anomaly may not have been as disruptive to local human populations as previously suggested. Recent syntheses of burial demographic information and radiocarbon dates show continued population growth before and during the Medieval Climatic Anomaly. While it appears that people speaking Algic, Athabaskan, and Wintuan languages were able to colonize underutilized resource patches along several major rivers and the northern California coast, resident populations in the mountains and in the San Francisco Bay-Delta region developed storage-based economies in situ. In all instances, storage economies designed to bridge the seasonal shortfalls of a Mediterranean climate, catalyzed the fluorescence of some of the densest and most linguistically and culturally diverse populations of hunter-gatherers ever recorded.

Coping with Absence: Rainwater Harvesting at Roman Cosa
Ann Glennie, Florida State University

Founded by the Romans as a Latin colony in 273 B.C.E. on a limestone hill overlooking the Tyrrhenian Sea, Cosa (modern Ansedonia, Italy) has no surface water, no exploitable aquifers, and never was provisioned with an archetypical Roman aqueduct. In the face of this absence of water, the ancient inhabitants of Cosa harvested rainwater with almost every building—public and private, domestic and nondomestic—having at least one cistern below it. There are additionally a handful of open-air reservoirs which, along with several of the cisterns, are constructed on a monumental scale, able to hold millions of liters of water in toto. While Cosa's domestic structures, like those at other contemporary Mediterranean sites without shortage issues, are naturally outfitted with cisterns, the monumental cisterns are on a whole located instead beneath nondomestic structures including Cosa's chief temple, the Capitolium, its administrative center, the basilica, and one of its social foci, the baths.

The necessity for rainwater harvesting at Cosa notwithstanding, the presence of a bath suggests that harvested rainwater was not reserved strictly for subsistence and utilitarian purposes, but was sufficient for leisure and social activity. Moreover, despite indications that Cosa experienced minor destructive episodes and periods of decline, none of those events can yet be linked to an insufficient water supply. Lastly, the surrounding area was notorious for malaria in the modern period, a problem that likely also persisted in antiquity. Therefore, Roman planners may have intentionally selected a waterless hill taking into account the health of the colony's settlers with the full knowledge that they had the engineering know-how to provision the site sufficiently solely utilizing rainwater.

Environmental Change and the Resilience of Local Maritime Networks: Two Examples from the Aegean Bronze Age
Katherine Jarriel, Cornell University

Archaeology plays a significant role in understanding climate change and how people in the past adapted to and endured adverse environmental conditions. My paper investigates changing patterns of maritime social networks in the southern Aegean in the context of disruptive climatic events throughout the Bronze Age (ca. 3200 B.C.E.–1100 B.C.E.). My project asks: (1) what effect did major climatic events have on local-scale maritime networks, and (2) how did Aegean island inhabitants conceive of, respond to, and endure disruptive environmental phenomena? Emerging patterns of connectivity can reveal strategies adopted by ancient islanders to cope with environmental stress and can complicate archaeological narratives of decline.

I focus on two particular climatic events during this period. The first is the 4.2 ka climate event at the end of the Early Bronze Age. Changing environmental conditions—including landscape degradation, deforestation, and increased drought—correlate with drastically reduced maritime connectivity and increased settlement isolation. This period is followed by an apparent "gap" in the archaeological record marked by widespread settlement destruction and abandonment. Maritime

connectivity between communities needs further investigation within the specific environmental contexts of chronological periods.

The second case study is the eruption of Thera at the Middle to Late Bronze Age transition. Previous archaeological analysis has observed the continuity of regional trade networks for up to a period of 100 years following the catastrophic eruption of Thera, although the chronology of the eruption is still under debate. This paper examines the effect of the eruption on local-scale maritime networks.

Finally, this paper contributes a methodology for modeling maritime networks using the environmental affordances that would have helped shape human interaction. I use Geographic Information Systems (GIS) to model local maritime interaction in the southern Aegean, incorporating isochrones and cost surface rasters, which allows the consideration of the contiguous seascape. Whereas previous models use cost factors associated with ships that have sails, I also create cost factors based on the performance of sail-less vessels, which would have been used until the appearance of the masted sailing ship in the EBIII period, and their use would have continued at a local scale. Finally, I take into account the changes in sailing routes based on seasonal variation in wind and wave patterns.

SESSION 2B: Workshop
Sexual Harrassment Policy for Archaeological Fieldwork Projects

Sponsored by the Women in Archaeology Interest Group

ORGANIZERS: *Maryl B. Gensheimer*, University of Maryland, *Catharine Judson,* University of North Carolina at Chapel Hill, and *Debra Trusty*, University of Iowa

Workshop Overivew Statement

The purpose of this panel is to address the need for creating and sustaining a safe environment at field projects. Along these lines, we seek to develop a coherent and readily available set of guidelines for fieldwork projects to use in developing sexual harassment policies. This panel arises from the increased amount of discussion centered around the prevalence of sexual harassment and its effects on the professional careers of those who have experienced it stemming from the #metoo movement. Through the use of an anonymous survey, the panel will address the rates and types of harassment experienced by archaeologists, primarily female but also male and those from the LGBTQ+ community. The purpose of the panel is not to be accusatory but to propose ways in which fieldwork projects can include explicit policy statements regarding reporting procedures and practice adhering to those policies.

This workshop will consist of four components. The first is the presentation of data collected from a survey of fieldwork participants that will address levels of awareness about sexual harassment policies and reporting procedures on fieldwork projects, as well as general rates and demographics of sexual harassment in archaeological fieldwork. This presentation will outline the weaknesses in current approaches to dealing with sexual harassment, both in crafting policy and in enforcing existing policies. The second component of the workshop will be presentations by the directors of fieldwork projects across Europe and the Mediterranean

on their approaches to establishing, communicating, and enforcing sexual harassment guidelines. The third segment will be the presentation of the newly updated AIA statement on sexual harassment. The fourth component will be a discussion period, open to both presenters and audience members, that will facilitate further discussion of problems that need to be addressed in both policy and practice. This portion of the workshop will offer an opportunity for audience members to brainstorm about the format and wording of sexual harassment policies.

This workshop session will have two outcomes. The first is to raise awareness of the ongoing problem of sexual harassment in archaeological fieldwork and the various effects that it has on both the functioning of field projects and on the careers of individuals who have experienced harassment. The second is to begin developing a set of guidelines that can be used by field projects to create or refine their own policies. These guidelines will eventually be published online as an open-source resource.

PANELISTS: *Steven Ellis*, University of Cincinnati, *Elizabeth M. Greene*, University of Western Ontario, *Jodi Magness*, University of North Carolina at Chapel Hill, *Kim Shelton*, University of California, Berkeley, and *Anthony Tuck*, University of Massachusetts, Amherst

SESSION 2C
Greek Sanctuary Architecture

CHAIR: *Jessica Paga*, College of William and Mary

Considerations on the Aesthetics of the Greek Temple before the Classical Orders

Alessandro Pierattini, University of Notre Dame

The classical orders have made the Greek temple a timeless icon. However, the temple's first floruit (eighth–early seventh centuries B.C.E.) precedes the Doric and Ionic orders, whose first appearance is dated between the third and the fourth quarter of the seventh century B.C.E. The first Greek temples, built of wood and mud brick, would have looked significantly different from the archetype they would later become. Theories inspired by ancient literature associate the beginnings of the Doric and Ionic to the petrification of wooden structures, and yet even the transition to stone construction occurred before the appearance of the orders.

This paper explores early Greek temple aesthetics based on archaeological evidence from temples of the Late Geometric and Early Archaic periods (eighth and early seventh centuries B.C.E.). These periods saw the appearance of the first mud-and-wood *hekatompeda* as well as the transition to stone and tile construction. I focus on the features of interior and exterior wall surfaces, columns, and roofs. Materials examined include painted stucco fragments from the Late Geometric–Early Archaic temples at Isthmia, Corinth, and Kalapodi (South Temple); the so-called warrior frieze from Samos; remains of mud-brick walls and stone column

bases from several temples of the period; and Late Geometric votive architecture models.

While the primary context of the Kalapodi finds shows that wall paintings were on the inside, it has often been presumed that Isthmia's were on the outside. By contrast, my reexamination demonstrates that at Isthmia, too, as others have proposed for Corinth, they were most likely on the inside. The rough and shallow figures incised on a block from the first *hekatompedon* at Samos should not be regarded as a proto-Ionic frieze (Gruben). If they were preparation lines for painting (Kienast), they point to a technique different from that of the Corinthian megaolographiae. In general, both models and wall remains suggest that mud-brick walls were often punctuated by wooden pilasters and sometimes left bare to expose polychrome patterns, despite the painted exteriors of terracotta models. Lastly, most temples were covered with steep thatched roofs that would have overshadowed their short, unimposing elevations. In the seventh century B.C.E., the introduction of shallow-pitched tiled roofs revolutionized temple aesthetics. Once dominant, the roof disappeared from sight, whereas columns and walls gained unprecedented prominence. Along with the appearance of the stylobate, this phenomenon would be crucial to the spread of the peripteral plan in archaic architecture.

The Temple and Hestiatorion of the Sanctuary on Despotiko: Archaeology, Architecture, and Restoration

Yannos Kourayos, Director, Excavations at Despotiko, *Kornilia Daifa*, Universety of Thessalie, Volos, and *Goulielmos Orestidis*, Independent Scholar, and *Erica Angliker*, University of London

Despotiko, a small, uninhabited island west of Antiparos and only a few miles away from Paros, occupies a nodal strategic position in the middle of the Aegean Sea. Ongoing archaeological research at the site of Mandra on Despotiko has brought to light an extensive Archaic sanctuary dedicated to Apollo. Its discovery has significantly changed our understanding of the sacred landscape of the Cyclades since its size, wealth, and spatial organization go beyond those of any other Cycladic sanctuary, save Delos. So far, 24 buildings have been uncovered here. Furthermore, over 75 fragments of Archaic sculptures have been found at the site. Both the quantity and quality of the sculptures offer undeniable evidence of the sanctuary's glory, splendor, and wealth. Of particular interest is the heart of the sanctuary, dominated by the temple and the hestiatorion (Building A) with their marble colonnades. Indeed, the most important evidence of the cult lies in Room A1 (Building A), in which over 600 objects of Cycladic, Corinthian, Anatolian-Ionian, Cypriot, and Egyptian origin have been discovered beneath the paved floor.

This paper presents a systematic study and theoretical reconstruction of Building A, which led to the development of the current *anastylosis* project. After briefly presenting previous studies on Building A by A. Ohnesorg and her collaborators (2008–2012), we turn to data collected between 2012 and 2017 that has enabled the design of new individual parts for the monument's restoration. Particular attention

is paid to the architectural members of Building A as systematically recorded and documented by G. Orestidis and his team. In the second part of this paper, we discuss a proposal for an architectural restoration, focusing on the representation of the monument as well as the final choices and solutions regarding specific morphological, functional, and construction issues. Here we discuss studies that support the restoration project, such as the development of a numerical model, which was subsequently used in a study on the structures of the building, as well as the choice of location, the dimensions of the connectors and the design of the blocks' internal reinforcement. Ultimately, the paper not only explains the project of reconstructing Building A, but also bring to light the lifetime of the *anastylosis*, which can be calculated on the basis of normative provisions.

The Hephaisteion in Athens: Its Date and Interior

Margaret M. Miles, University of California, Irvine, and *Kathleen M. Lynch*, University of Cincinnati

The Temple of Hephaistos and Athena (Hephaisteion) has been known and admired by travelers to Greece since Stuart and Revett drew it in 1752, when it was believed to be dedicated to the Athenian hero Theseus. The interior and surrounding area were excavated in 1936–1939 by Agora excavators (W.B. Dinsmoor, *Hesperia*, Supp. 5 [1941]). We present new findings about the temple based on study of previously unpublished context pottery, the notebooks kept in the 1930s, and fresh autopsy of the building and blocks attributed to it.

During its long use as the church of St. George, from perhaps as early as the fifth century C.E. until 1834, some 53 Christian graves were dug into the interior of the temple. The graves, excavated by Dorothy Burr Thompson, cut through much of the interior stratigraphy, but undisturbed fill was preserved beneath and between the edges of the graves, yielding some 1,509 sherds for analysis. The latest date of the sherds is ca. 480 B.C.E. This corresponds to the architectural design of the foundations, which were constructed to support a long, narrow cella, and a peristyle with as many as 6 × 14 columns, in a plan typical of the late Archaic period. The date in the 480s also corresponds to the introduction of the cult of Hephaistos (paired with Athena) into Athens after Miltiades' takeover of the island Lemnos, the main center of the cult of Hephaistos.

After the Persian destruction of Athens, the superstructure of the Hephaisteion was then completed in marble on top of the older foundations and lowest step, ca. 465–460 B.C.E., with the interior friezes finished in situ, and pedimental sculpture and akroteria added later. The temple was damaged in its upper parts in the earthquake of 426 B.C.E. (Thuc. 3.87.4, 3.89), and immediately repaired.

After restudy of the interior, we provide a new reconstruction, finished without an interior colonnade, as hypothesized by Dinsmoor, but instead, with painted murals. The wall blocks were prepared for them and actually received interior wall paintings on stucco directly adhering to the marble blocks: some patches of the original, much overlaid by subsequent stucco, are preserved today. The highlight of the interior was the statue group, cult images of Athena Hephaistia and Hephaistos made by Alkamenes of Lemnos and installed in 416/5 B.C.E. The

deities figured prominently in Athenian culture as progenitors of the Athenians and patrons of the silver industry.

A New Entrance to the Sanctuary of Apollo at Delphi: Results from the 2018 Excavation Campaign

Amélie Perrier, Ecole française d'Athènes

This paper presents unpublished results of the research and excavation campaign at the West Stoa of Delphi. This marked the last stage of the architectural study of the monument in view of the preparation of its final publication. Located to the West of the temple of Apollo and outside the original temenos, the West Stoa, the construction of which was traditionally attributed to the Aetolians and dated to the first quarter of the third century B.C.E., was considered by scholars as a dead end in the panhellenic sanctuary. The architectural study undertaken in 2010–2014, focusing on the building techniques and materials of the monumental Stoa but also on its insertion in the topography of Delphi, led us to reconsider several misconceptions regarding its history and function. Besides indicating that the monument was certainly not Aetolian, the new study resulted in the formulation of two major hypotheses: first, the West Stoa was erected at the end of the fourth century B.C.E. and belonged to the same building program as the temple of Apollo; second, the Stoa formed a monumental entrance to the sanctuary of Apollo for which only secondary accesses had been identified until then. The main aim of the 2018 excavation campaign was to test and refine these hypotheses and to understand the chronological sequence of the layout of the terrace upon which the West Stoa was erected. The first results confirmed the late fourth century date of the Stoa but also provided for the unexpected and important discovery of a dump for the classical metal workshops of the temple of Apollo. The combined results of the architectural study and excavation campaign thus bring forward new and exciting material for the understanding of the function of the western district and the circulation patterns in the sanctuary of Apollo at Delphi.

SESSION 2D
Movement and Activity in the Roman City: Public and Domestic Spaces

CHAIR: *Diane Favro*, UCLA

Beyond Fora: A Mid-Republican "Piazza" Space in the Latin City of Gabii

Andrew C. Johnston, Yale University, and *Matthew C. Naglak*, University of Michigan

The Latin city of Gabii was a crucial node in the road network that connected Rome and its nearby neighbors. With the volcanic crater of the Lago di Castiglione disrupting travel to the north and the swamps of the Pantano Borghese to the south, the site of Gabii naturally came to control the landscape, and accordingly

to direct overland movement through central Latium. Over the past 12 years, the Gabii Project, under the auspices of the University of Michigan, has begun to explore how the spatial organization of the city accommodated these important patterns of regional communication as well as to identify major intra-urban foci that structured movement within the city; most illuminating in this respect has been the discovery of a unique quasi-orthogonal grid plan generated by a principal artery that follows the topography of the volcanic crater. With subsequent intensive stratigraphic excavations along this main thoroughfare, one space in particular has emerged as an apparent nexus for both wheeled and pedestrian traffic and of public activity and engagement more broadly: the junction at the center of the urban plan where the roads leading from Tibur, Praeneste, and Rome met. Recent work carried out in this area ("Area H") by the Gabii Project, building on previous investigations by the SSBAR, has revealed a large, open "piazza" space situated at this intersection, which underwent several phases of reorganization over the course of its occupation from the fifth century B.C.E. down to the Middle Ages.

This paper focuses on one especially interesting and significant phase of this "piazza": its monumentalization during the third century B.C.E, consisting of a series of structures in ashlar masonry around the perimeter of the open space that are suggestive of public functions. The design of the piazza seems to be connected, perhaps even integrated, with other contemporary monumental public building projects in the immediate vicinity, most impressively a large complex to the north ("Area F"). Here we present the initial findings from the first three seasons of excavation of Area H (2016–2018), adduce possible comparanda, and offer preliminary interpretations of this important area, which represents a potentially valuable contribution to our still very limited understanding of mid-Republican public architecture. Moreover, this newly discovered piazza affords an opportunity to reevaluate the nature and development of public space in Republican Italy, and break away from a strictly forum model for spaces of engagement in this period and beyond.

An Emperor for a Master: Slaves in the Houses of Augustus

G. Maurice Harton V, University of Pennsylvania

Enslaved peoples often have complicated power relationships with their owners and with each other. Indeed, modern studies of New World slavery have begun to critique the prevalent reductionist narrative of slaves as lacking subjecthood and the ability to respond to their social, economic, and political situations; that is, histories of slavery often honor only resistance or fetishize oppression, and thus obscure the complexities of the lives of the enslaved. Traditionally, historians portray the palaces of Julio-Claudian and Flavian Rome as a space for interaction between the emperor and his elite guests while erasing the majority of the *familia urbana* that populated these sprawling structures. My goal is to examine the residences of Augustus with an eye to interaction between the slaves and their master, the future emperor. Chiefly by interpreting the visual language of decoration and architecture to reconstruct the relative status of rooms and corridors on the Palatine, I use spatial analysis to understand how these structures were populated by

enslaved peoples with agency, going beyond Michel de Certeau's model of strategy and tactics and the typical binary of acquiescence versus rebellion.

The visual and material remains of the residences of the Augustan Palatine, when viewed against the backdrop of the literary record, emphasize the role of slaves as performers—whether actors, musicians, acrobats, dancers, or story-tellers—used to entertain their master's elite guests. Through private spectacle, they participated in the delicate negotiation of political power and status between the senate and the man who became the princeps. Augustus also displayed Egyptian and other "exotic" bodies against a backdrop of Aegyptiaca, manifesting his mastery over the Mediterranean world. In addition to masterly strategies—the spatial control of enslaved bodies, directing them to perform and show off their master's glory—slave agency can also be read into the myriad spaces of the Palatine. The Augustan complex afforded many opportunities to evade the master's gaze, allowing for hidden resistance in the alleys, tunnels, gardens, and service spaces of the houses of Augustus. For ambitious slaves and freedmen, there were also increasing opportunities to seek rewards by acting as informants—a role that expanded greatly during the reigns of Tiberius and Gaius. Slaves and freedmen helped the emperor to maintain his power. The archaeology of the Augustan Palatine points to slaves as agents of history who helped to build the Principate.

A Temple, a Festival, and a Princeps at Ostia: *Aedes et Ludi Castorum*

Jordan R. Rogers, University of Pennsylvania

The inception of the Ludi Castorum, the annual games in honor of Castor and Pollux on January 27th that included a procession from Rome to Ostia, has been dated to the establishment of the colony in the fourth century B.C.E. This assumption, however, overlooks the lack of evidence in the Republican period for the festival; moreover, it ignores the mass of evidence for the rededication of the Temple of Castor and Pollux in Rome on January 27th, 6 C.E. by Tiberius, an act that established the importance of that date to the Castores for the first time (Ov. *Fast*. 1.705–708; *Fasti Praenestini*). This paper reassesses the evidence for the Ludi Castorum in light of both Tiberius' building activities at Rome and the contemporary evidence at Ostia.

First, I follow Heinzelmann and Martin's suggestion that the Navalia in Ostia served as the podium to the Temple of Castor and Pollux in the port city. Architectural similarities to the Temple of Rome and Augustus in Ostia, dated by Nucci to 6 C.E., as well as the Tiberian Temple of Castor and Pollux in Rome, suggest that all three of these structures are contemporary. I then argue that the rededication of the Temple of Castor and Pollux at Rome and the construction of the temple within the Navalia at Ostia were bound together through the establishment of the Ludi Castorum. Champlin has argued that the Ludi Castorum in Rome were a component of Tiberius' attitude towards his self-representation alongside his deceased brother Drusus. Given Tiberius' long-standing connection to Ostia, beginning with his quaestorship in 23 B.C.E. (Vell. *Pat*. 2.94), I argue that the Ludi Castorum should be understood also as a statement of Tiberius' personal investment in the relationship between Rome and Ostia, a city that played a vital role in securing the *annona*. As the only ritual procession from Rome to Ostia, the Ludi

Castorum physically brought Romans to the port city, where a sacrifice was made by the praetor urbanus at the temple of Castor and Pollux.

My paper extends recent analyses of Augustan-era reshaping of memory to Ostia to emphasize the importance of the port city vis-à-vis developments in the city of Rome. Reassessing the evidence for the Ludi Castorum also reveals the new festival's significance for Tiberius' self-presentation as the legitimate heir to Augustus' authority within the *res publica*.

Legal Activities at Eumachia's Building

Leanne Bablitz, University of British Columbia

Within the archives of the Sulpicii family (first century C.E.) we find record of both legal activities and the sales of slaves taking place at chalcidica. Three different chalcidica are attested as being located in Puteoli; the Hordonianum, the Octavianum, and the Caesonianum. Like her neighbours in Puteoli, Eumachia also built a chalcidicum in her community of Pompeii. This structure together with a crypt and a portico are mentioned in the dedicatory inscriptions for her complex. Unfortunately, the physical shape of a chalcidicum is unknown. Scholars have struggled to piece together the very fragmentary evidence for over a century. In her 2005 *JRA* article examining the material evidence for the locations at which slaves were sold, Elizabeth Fentress identified two raised recesses within the portico, on the front of Eumachia's building, as chalcidica. I think she is correct. In this presentation, I will provide further evidence to support her identification of these spaces. The location and form of these recesses parallel other spaces at which we know legal activities took place. This paper confirms new locations for legal hearings within the Forum of Pompeii and further strengthens the link between the Augustan building program and Eumachia's complex.

Dice on the Streets: Architecture and Gaming along the Colonnaded Streets of the Roman East

Benjamin Crowther, The University of Texas at Austin

By the time of Hadrian, Roman cities began to prioritize colonnaded streets as their defining emblem of urbanity. While civic benefactors created these monumental boulevards to embellish their native cities, the streets they built also shaped the lived experience of urban inhabitants as places of socialization. Along the colonnaded streets of provincial Roman cities in Asia Minor, Lycia, and Pamphylia, the ubiquitous presence of inscribed game boards provides a proxy for social activity in these public spaces. More than 200 game boards from 10 sites in these provinces reveal how the users of these streets appropriated and modified its monumental architecture to suit their social needs and requirements for leisure in public.

In this paper, I assess the spatial distribution of game boards and their relationship to the architectural elements of the colonnaded streets in the eastern Roman provinces. I also take into account the design of each game board and the type of game played in order to consider the sociological aspects of gaming in these fixed locales. Data from 15 colonnaded streets reveals four primary types of

game boards in use along these thoroughfares: three-row boards for the popular game *duodecim scriptorum*, circular boards with spokes, square board with spokes, and rectangular boards with divisions. In addition to the physical qualities of the board, distinct spatial qualities such as placement, visibility, and clustering characterize each type. Based on this analysis, I argue that the spatial distributions of these different types of game boards indicate the variety of users who employed the architectural settings of colonnaded streets. These spatial patterns testify to the adaptability of a colonnaded street's architecture to suit a wide range of social situations. Users ranged from casual gamblers seeking to bet on a game to shopkeepers of nearby establishments looking to pass the time. For instance, in Ephesus, *duodecim scriptorum* boards along Curetes Street are confined to the walkways of its colonnades and the stylobates in front of shops, while on Arcadian Street highly visible circular boards with spokes, often in close proximity to each other, are found exclusively on the pavement of the roadway to attract potential opponents. As an index of daily behavior, inscribed game boards offer a means both to quantify and to qualify interpersonal interactions along the colonnaded streets of the Roman east and demonstrate the central role that these pieces of public architecture played in the social lives of urban inhabitants.

SESSION 2E
Innovative Approaches to Eastern Mediterranean Interaction

CHAIR: *Alex Knodell*, Carleton College

Extra-Palatial Agents and Bronze Age Networks: Aegean and Cypriot Imports in Late Bronze Age Egypt

Christine L. Johnston, Western Washington University

In this paper I examine the distribution networks that disseminated Aegean and Cypriot ceramics throughout Egypt and the southeastern Mediterranean during the Late Bronze Age, specifically the Eighteenth and Nineteenth Dynasties of the New Kingdom. This period of the later second millennium B.C.E. saw an extraordinarily expansive system of long-distance connectivity in the regions surrounding the Mediterranean Sea. Diplomacy accelerated to new levels of complexity, while raw materials and traded goods were circulated on an unprecedented scale. The Late Bronze Age saw the zenith of Egyptian imperial power in the eastern Mediterranean. Surviving diplomatic correspondence—most famously the Amarna Letters, textual and material evidence for the presence of Egyptian military activity in the Levant, and the prevalence of traded luxury goods and raw materials of Egyptian origin attest to the powerful position Egypt played in the interaction systems of the late second millennium. Though the scale of Egypt's involvement in this system is well documented, the various agents responsible for the movement of goods and the specific channels through which exchange was conducted are still poorly understood.

This paper examines the specific institutions and mechanisms that circulated Cypriot (LCI–IIC) and Aegean (LHI–IIIB) ceramics through Egypt and Lower

Nubia. This material is assessed through network analysis, which reveals the presence of multiple parallel systems of object distribution. The overall import system approaches that of a scale-free network, in which a highly centralized core was dominant; however, alongside this system, the network analysis reveals parallel structures of import circulation, particularly across the Nile Delta and the border region between Egypt and Nubia in the south. The presence of a multimodal system of exchange is further evidenced by variation in consumption according to ceramic type, as well as the wide distributional reach of imported goods across both geographic space and social class. Traditional notions of the ancient Egyptian economy, in which the Egyptian state is assumed to have held a veritable royal monopoly on production, product circulation, and long-distance trade, are refuted by the results of this study. Assessing the circulation of Aegean and Cypriot ceramics together also informs upon the role of Cypriot agents in the dissemination of Aegean exports, namely, Mycenaean ceramics, across the Mediterranean.

Innovations in Ship Technology and the End of the Bronze Age
Margaretha Kramer-Hajos, Dartmouth College

The end of the Bronze Age and the transition to the Early Iron Age in the eastern Mediterranean are enduring topics of scholarly investigation, with most scholars assessing the role played by economic, military, or environmental changes. Regardless of which factors are favored as proximate causes, there is general agreement that the high level of connectedness and interdependence of the palatial Late Bronze Age "global system" caused a domino effect when the trade and exchange networks were disrupted, affecting the entire world system.

These trade and exchange networks were largely (and for the Mycenaean world, almost entirely) maritime and thus depended on ships. In approaching the question of the Bronze Age collapse, it is therefore logical to look at the evidence for ships provided by wrecks, visual representations, and texts to determine the roles ships played before and after the collapse. A focus on the ships themselves (as opposed to, for example, "Sea Peoples") is largely absent from scholarship focusing on the collapse and is instead mostly limited to specialized literature on Bronze Age ships. In this paper, I propose to examine the collapse through the lens of innovations in ship technologies in order to analyze to what extent they may have contributed to or mitigated the collapse.

Ships functioned both as connectors, before as well as after the collapse, and as disruptors. This argument is based on a combination of shipwrecked remains (at Uluburun, Cape Gelidonya, and Point Iria), contemporary depictions of ships from the Aegean, the Levant, and Egypt, and written accounts from these same areas. They suggest that between the 13th and 12th centuries B.C.E., ship designs changed; with them, ships' roles changed as well. Thus a change in maritime technologies is suggested as one of the factors playing a role in the Bronze Age Collapse.

In the Footsteps of Glaucus: Metallurgy and Technological Transfer on the Western Anatolian Littoral

Jana Mokrišová, Birkbeck, University of London, and *Marek Verčík*, Charles University

The central part of the western Anatolian coast—known in historical times as Ionia—played a vital role in sociocultural and economic connectivity between Anatolia, the Aegean, and the Greek mainland during the second and first millennia B.C.E. Although a significant degree of cultural interaction between these regions can be documented by, for example, architecture, stylistic and technological aspects of sculptural and ceramic production, it is clear that certain categories of commodities that contributed to the increased connectivity have rarely been analyzed in detail. This contribution, therefore, maps out one class that played a crucial role in the economic interaction between Ionia and its eastern and western neighbors: metallurgy.

Literary evidence from the Archaic and Classical periods seems to indicate that the Greeks–and Ionians in particular–were conscious of and interested in the highly developed metallurgy of the neighboring regions of Phrygia and Lydia (e.g., Glaucus of Chios; Hdt. 1.25). Yet, until recently the archaeological evidence that could trace technological transfers and economic relationships in the preclassical periods was largely absent. New data gathered from the latest excavations and analyses of metalworking installations and products from Ionia (e.g., at Klazomenai, Phokaia, Didyma, Miletos, Ephesos, Limantepe, Nif/Olympos, and Smyrna), however, can shed light on the formative beginnings of the post-Bronze Age era in the region and inform our understanding of not only the circulation of metal products, but also the related technologies, which were an integral part of socioeconomic exchange.

Reviewing recent archaeological discoveries in western Anatolia, this paper traces the development of metal production diachronically from the Late Bronze Age down to the Archaic period and highlights the physical evidence for the extraction, production, and working of copper, iron, gold, and silver in the region. The analysis combines the reconstruction of metallurgical chaîne opératoire and the application of the SCOT (social context of technology) approach. Overall, we highlight the shifting exchange patterns within western Anatolia and identify possible Anatolian innovations from the 11th through the sixth centuries B.C.E. in order to demonstrate that the western Anatolian littoral was not a mere conduit, but rather an arena of active innovation.

Roman Clay Coffins: Maritime Trade and Mortuary Practice in the Eastern Provinces

Aviva Pollack, University of Haifa

Clay coffins found in burial contexts within coastal sites in modern Israel, Cyprus, Lebanon, Syria, and Turkey are marked by resemblance in form, decoration, and fabric, and represent a flourishing maritime trade in the Roman provinces, as well as shared cultural tastes in burial receptacles. When compared with lavishly ornamented sarcophagi of local stone or imported marble, the

unprepossessing terracotta coffins seem like cheap copies. However, evidence of clay coffins from shipwreck surveys, the distribution of the coffins in coastal sites, as well as petrographic analysis of the coffin fabric support a picture of maritime trade and imported burial customs in the eastern Roman provinces. Analysis of the coffins in the context of surrounding burial goods and the broader realm of maritime shipping indicates clay coffin usage by the middle layers of society rather than by the poor populace. Also employing ancient Greek, Latin, Hebrew, and Aramaic texts, the present work seeks to examine and expound upon the nuances of proper burial according to Judaean, Cypriot, Phoenician, and Roman conventions and their use of clay coffins for interment.

Dameskenos at the American School: Revisiting Notions of Identity and Death in Roman Athens

Dylan K. Rogers, American School of Classical Studies at Athens

Any member of the American School of Classical Studies at Athens (ASCSA) who has spent time on the porch of Loring Hall, the School's residence hall, will be familiar with the looming Roman grave stele of Damaskenos hanging on the walls there. The relief is over 1.90 m tall, depicting the stern-faced man, wearing a himation, with hands clasped. The fragmentary inscription above him identifies the man as Dameskenos, the son of Seleukos.

Originally discovered in 1894 in the area that now houses the French Embassy of Athens on Vasilissis Sofias Avenue, the Damaskenos relief, along with a handful of other funerary sculptures, came into possession of the ASCSA shortly thereafter. The relief then found a final home in Loring Hall after its construction in 1929. The relief was only ever published in 1965 in *Hesperia* by Sterling Dow and Cornelius Vermeule, who desired to begin to tell the story of Dameskenos, because they "venture[d] to suggest [the relief] deserves better" (274). Dow and Vermeule give a close reading of the style of the relief and its inscription, suggesting that it was carved in the early second century C.E. Only passing mention is made to Dameskenos' Syrian heritage.

Since the initial publication of the relief, new excavations throughout the city of Athens have altered our understanding of the physical layout of Athens and the inhabitants therein. Thus, this paper presents a new preliminary reading of the Dameskenos relief, placing this understudied grave relief into a wider context of Roman Athens, not just a random find. We now know better the placement of various Roman cemeteries in Athens (e.g., Kerameikos, the Sacred Way, etc.), especially near the find spot of the relief, to the northeast of Syntagma Square. Further, more attention is being paid in current scholarship to questions of identity in Roman Athens, such as those groups considered to be foreign migrants (versus migrants from within Attika), particularly Syrian populations. We can now consider how the individual from Syria on this grave relief could have interacted with other populations in Roman Athens. Thus, this paper updates the original presentation of Vermeule and Dow—and how we can better understand Dameskenos and his place in Athens of the second century C.E.

SESSION 2F
Approaches to the Study of Numismatics

CHAIR: *Nathan Elkins*, Baylor University

Punch Marks, Cut Marks, and Barbarous Imitations: The Three Hoards of Hellenistic Tetradrachmae from Gordion

Kenneth W. Harl, Tulane University

Preparing some 1,600 coins (including 10 major hoards) from the excavations of Gordion in 1950–2008 for final publication has required revising and reinterpreting the three hoards of Hellenistic tetradrachmae (IGCH 1406, 1403, and 1405) initially published by Dorothy Cox. Each of the three hoards was found on the city mound between 1951 and 1961. Each represents a savings hoard, comprising of 114, 42, and 100 silver tetradrachmae of Attic weight, respectively. The first hoard of Gordion (IGCH 1406) and the fifth (IGCH 1405) are a mix of older coins struck in the name of Alexander the Great, along with later coins of Lysiamchus, and those of early Seleucid, Antigonid, Attalid, and Bithynian kings. These two hoards were closed perhaps in ca. 205–200 B.C.E. The third hoard (IGCH 1403) contains almost exclusively coins with the types and name of Alexander the Great, and it was formed earlier, perhaps in ca. 240 B.C.E., although several later additions were made to the hoard either by the owner or the heirs. Virtually all coins have been marked with punch, knife, or chisel cuts (some as many as eight times) which have been dismissed as test cuts applied by Galatians who were unfamiliar with the use of coins. Instead, the marks validated the coins for use in the markets of Gordion with the same purpose of well-engraved countermarks. Recent studies by Peter van Alfen has demonstrated this practice of applying "surface marks" to Athenian tetradrachmae in Egypt during the late fifth and fourth centuries B.C.E. validated the imported coins for local use. Furthermore, hoards from the Balkans, especially one from southern Serbia published by Ute Wartenberg and Jonathan Kagan, suggest that the same practice was widespread among Celtic tribes and their neighbors in the later fourth through second centuries B.C.E. In all likelihood, the Galatians had brought this practice to Gordion from the Balkans. Several tetradrachmae in the first and fifth hoards carry countermarks that were applied at Chalcedon in ca. 240–230 B.C.E., and then were damaged by the process of marking at Gordion. In addition, all three hoards also contain so-called barbarous imitative tetradrachmae that do not carry surface marks. These coins should instead be recognized as local versions of the posthumous tetradrachmae of Alexander the Great comparable to the more elegant coins struck by Greek cities in the third and second centuries B.C.E. Residents did not need to mark these "barbarous imitations" because they recognized them as their own money, which was most likely produced in central Anatolia. Instead, coins in the hoards represent not the treasure of Galatians unfamiliar with monetary habits but rather the savings of silver money obtained in mercenary service and trade by Galatians long familiar with the use of coins. The coins in these three hoards are thus part of the wider picture offered by all the coin finds, that markets at Gordion were monetized in the early Hellenistic age.

Archaeological Numismatics. A Case Study of Roman Aurei in the Northwest
Benjamin Hellings, Yale University Art Gallery

Aurei were the highest-value circulating coinage in the Roman world. Given its high value (approximately one-month salary for a regular legionary soldier after Domitian's pay increase), numismatists have regarded *aurei* as a store of wealth with little regard to its possible recurrent use. The limited number of *aurei* compared to silver or bronze coinage and their limited archaeological contextual evidence has further reinforced the argument for their limited function and elite status.

This paper presents some of the methodological issues using numismatic evidence by comparing hoards to coin finds with and without an archaeological context. In order to do so, this paper will consider the immense presence of Neronian *aurei* in the Roman northwest, where they account for approximately 30% of all gold coin finds from the first two centuries. This paper demonstrates that, in addition to their considerable number (over 1,300), Neronian *aurei* also formed the bulk of circulating gold for over 150 years, which has implications to date archaeological contexts. By assessing hoarded and nonhoarded Neronian *aurei*, it is possible to determine the differences that exist between the find types. The archaeological contexts of gold coins, where these are known, further our understanding while highlighting some of the limitations of using hoard evidence in isolation. Similarly, basic knowledge of the type of site and rough chronological indicators are vital to understand who used gold coins and how as well as when and where.

This paper concludes that in order properly to understand the archaeological coin find patterns, attention should also be given to coin production and iconography. Considering all these factors, it is tentatively argued that Neronian *aurei* did not function the same way as other *aurei* struck by subsequent emperors and that they may have had other uses beyond stores of wealth.

A Plated Ingot from Himera and Its Implications for the Monetary Use of Bronze in Classical Sicily
Giuseppe C. Castellano, University of Texas at Austin

During excavations in the 1970s in the sacred area of the Sicilian Greek city of Himera, archaeologists discovered a series of bronze ingots dating to the late fifth century B.C.E. All but two of the 19 ingots cluster around two weights, 18 grams and 108 grams, which conform to *onkiai* (or ounces) and *hemilitrai* (half-*litrai*, six *onkiai*) on the Sicilian duodecimal *litra* standard of circa 216 grams. That some of the *hemilitron* ingots are stamped with the die of the circulating bronze *hemilitron* coin and some of the *onkia* ingots with that of the *onkia* proves that these ingots are on the *litra* system. They were originally interpreted as raw material destined for a (hypothetical) nearby mint, and more recently the stamped examples have been interpreted as coin weights. Both of these hypotheses are flawed: first, there is no firm evidence for the mint. Second, weights are almost always inscribed, and are rarely found in sets that include more than one example of a given weight. I believe that these ingots were used per se as currency in the native bronze tradition.

Close examination reveals that one of the unstamped ingots (H74/187, of 18.43 grams) has a core of lead plated with a thin veneer of bronze. This fact has apparently escaped scholarly attention until now. That this plated ingot weighs an ounce on the litra standard suggests that it was intended to deceive an observer into believing it to be a solid bronze ounce. This indicates that the piece circulated as currency, and is analogous to a plated coin. The monetary use of bronze in the form of *aes rude*, rough lumps of nonstandard weight that would have been reckoned against the *litra*, is well-attested at Himera in this period, but these ingots suggest that weighed and stamped ingots were used as currency alongside *aes rude* and silver and bronze coinage. If they circulated alongside silver *litrai*, it stands to reason that one bronze *litra* and one silver *litra* were equivalent. If one *litra* of bronze at 216 grams was equal to one of silver at 0.87 grams, it proves that a silver-to-bronze ratio of 1:250 is not unfeasibly high, as is commonly claimed by modern experts. This discovery may confirm that at this time the silver *litra* was indeed equivalent to the bronze *litra*, and speaks to a strong and enduring indigenous influence on the monetization of Sicily.

Analyzing the Iconography of Constantine VI and Irene: A Denominational Approach

Nicole Inglot, University of British Columbia

Empress Irene (r. 780–802) has variously been hailed as a feminist icon, a religious hero, or portrayed as a ruthless usurper, views built predominantly from textual accounts of her reign. Coins are often an underutilized source material in the field of archaeology, and the coins issued during Irene's co-regency (780–797) paint a different picture than other sources. In this paper, I use a series of these coins from the American Numismatic Society and the David Herman Byzantine Coin Collection at the University of British Columbia's Museum of Anthropology to illustrate that Irene's seizure of power in 797 was the culmination of a decades-long imperial struggle with her son, Constantine VI. I argue here that variations in the imperial numismatic iconography across denominations were deliberate choices reflecting the continuous exchange of Empress Irene and Emperor Constantine VI's shared power, as well as a degree of imperial awareness regarding the types of audiences using these issued denominations.

Accounts of Empress Irene have focused on her unique position as sole ruler from 797 to 802. This approach has been problematic due to limited literary sources for the period, scholarly attention on Irene's effectiveness as female sovereign, and concentration on Irene herself rather than on the empress within her dynastic context. Therefore, I propose that Irene's role as sole ruler is better understood through examining her co-regency with her son, Constantine VI, from 780 to 797. In tackling this relationship through a numismatic lens, I move away from the literary tradition toward material data and observations. I closely analyze the coins with respect to the positions, costumes, and regalia of the two rulers in order to show that the repeated presence or the notable absence of these iconographic attributes reflect the power dynamics throughout the turbulent co-regency of Constantine VI and Irene that ultimately enabled the empress to seize the throne in her own right. Moreover, the images on these coins must have been carefully crafted

to convey messages of imperial power, since coins were extremely mobile disseminators of information that subjects of all classes throughout Byzantium could have seen.

SESSION 2G
Theorizing Object and Landscape

CHAIR: *Mireille Lee*, Vanderbilt University

The Kingdom of Chelmis: Architecture, Material Culture, and the Modern Landscape of the Western Argolid

Grace Erny, Stanford University, and *William Caraher*, University of North Dakota

In 2015 and 2016, the Western Argolid Regional Project (WARP), a diachronic and intensive archaeological survey project focused on the Inachos River Valley in the northeast Peloponnese, Greece, documented several groups of early modern (ca. 1890–1950) and modern (1950–present) houses within the project's 30 km^2 survey area. In this paper, we present data from the settlement of Chelmis, which was seasonally occupied by transhumant pastoralists from the mountain village of Frousiouna from perhaps as early as the late 19th century until very recently, with at least one herd of goats continuing the annual trek today. Documenting the early modern and modern Greek countryside poses specific methodological challenges for survey archaeologists due to the high volume of surface material dating to these periods. Moreover, despite the recognition that diachronic field projects should include the archaeology of the 19th and 20th centuries, the history and archaeology of Greece after the end of antiquity continues to be underemphasized in the training of classical archaeologists. For these reasons, the methodological and historical tools required to interpret early modern and modern Greek vernacular architecture and material culture remain rather underdeveloped in classical archaeology. In response to these issues, we describe the methodology we used to collect both qualitative and quantitative information about the architecture, artifact assemblages, and life histories of the houses at Chelmis. We also present summary statistics from all fifteen Chelmis houses, as well as in-depth case studies of three houses in very different stages of abandonment and collapse.

This information is important for several reasons. First, Chelmis is one of the only sites in Greece of its type and date that has been systematically documented in this way. Work at Chelmis thus constitutes a significant contribution to the study of the archaeology and history of Greece in the late 19th and 20th centuries. In addition, observation of the houses at Chelmis provides insight into site formation processes in the western Argolid and in the Greek countryside more generally. Multiple visits to the site allow us to observe and document collapsing structures and the material signatures they leave behind in real time. Finally, the complex cycles of reuse and repurposing visible at Chelmis complicate archaeological concepts of "occupation," "settlement," and "abandonment" in ways that can inform the archaeology of other periods.

Object Biography and Archaeological Inheritance: A Collection of Punico-Roman Antiquities in the Milwaukee Public Museum

Stephan N. Hassam, University of South Florida

In the late 1960s, The Milwaukee Public Museum (MPM) acquired a private collection of Phoenician, Punic, and Roman objects from Malta, which to date has remained unpublished. The collection consists of nearly 200 glass, ceramic, and stone objects, making it one of the largest collections of Punico-Roman objects from Malta in the United States. Though research on decontextualized artifacts is inherently less productive for archaeologists than those from systematically excavated contexts, various approaches to museum collections can be used to recreate context and reveal the collection's utility for research. This case study demonstrates the advantage of using a holistic object biographical approach (Kopytoff 1986) on the so-called De Piro Collection. It links the objects with their archaeological context in Malta and their later context as collected objects for the Maltese nobility. Research began with a typological study of the artifacts, linking the objects to previous research on Punic antiquities and contributing minor additions to scholarship on Punic ceramics in Malta. The second portion of the research connects the collection with the history of the family that collected it. Gleaned from the MPM documentation and records, I reconstruct a "collection biography" that contributes to the history of archaeology in Malta and the relevance of Phoenician and Punic archaeology to collecting practices of the Maltese nobility in the eighteenth century. Specifically, characterizing objects within the De Piro Collection along with analysis of the MPM documentation has led to the discovery of a sister collection housed in St. Agatha's museum in Rabat, Malta.

From North Africa to Southern California: The Biography of a Neo-Attic Relief

Jacquelyn H. Clements, The Getty Research Institute

This paper examines a first century C.E. Neo-Attic relief depicting three dancing women, variously identified as the Nymphs or the Graces, which was once owned by Aline Barnsdall. Said to be found near Tarhuna between Tripoli and Leptis Magna, the relief was published as early as 1896. After its purchase by H. Swainson Cowper in that year, it traveled first to England and then France, where Barnsdall, an American oil heiress, acquired it in 1921. Barnsdall described it as her most prized possession, and she installed it prominently in the loggia of Hollyhock House, her hilltop home designed by Frank Lloyd Wright overlooking Los Angeles. After Barnsdall's death in 1946, the relief passed into the hands of Frank Perls, an art dealer who donated it to the Santa Barbara Museum of Art in 1952.

I first trace the relief's provenance from North Africa to Europe to southern California, where it had a varied and fascinating history of display. As an early example of the collecting of ancient art in this region, I situate it within the development of the classical tradition in the Los Angeles area, in addition to its iconographic allure for Barnsdall vis-à-vis her involvement in the local theatrical community. Even prior to the formation of southern California collections such as those of J. Paul Getty, Barnsdall's Neo-Attic relief was featured in various news

articles and was exhibited at the Los Angeles County Museum of History, Science, and Art (now the Natural History Museum), where it served as a teaching tool for the visually impaired.

The relief's contemporary display as part of an ongoing loan exhibition at the J. Paul Getty Museum is also of interest. Furthermore, in 2016, the California multimedia artist Cosmo Wenman digitally scanned the relief and milled a to-scale plaster replica of it, which is now on display at Hollyhock House. Reflecting upon the 21st-century version of the Neo-Attic relief as a "copy of a copy," I look at the broader implications of 3D scanning for cultural heritage objects. By including an overview of the archival research undertaken by Hollyhock House curators to help create the replica of the relief, I explore how 3D reproductions can give voice to objects in both old and new contexts of historical presentation, considering not only the relief's purported provenience, but also its afterlife as an object of personal display.

A Personal Copy of a Bronze Manumission Inscription from Dodona: Ancient or Modern?

Brad L. Cook, University of Mississippi

In the University of Mississippi museum there is an unpublished bronze plaque, 9 cm square, averaging 0.18 cm thick, that bears an inscription in Greek and is datable by Epirote titulature to, most likely, a decade or two before 167 B.C.E. The 26-word inscription records the manumission of a woman named Philista. The same text also appears on a bronze plaque from the sanctuary of Zeus at Dodona, now in Athens, though it is larger, much thinner, and has mounting holes for display. The Mississippi plaque is certainly a duplicate, but was it made in antiquity or in the past century and what is its relationship to the Dodona plaque? To address these questions, I describe and analyze the physical characteristics of the Mississippi plaque, which point to ancient manufacture. I then examine epigraphical features of both plaques and argue that the Mississippi plaque is a copy of the Dodona plaque.

For the Mississippi plaque, I first present data—thickness measurements, x-rays, and XRF scans—that are appropriate for ancient manufacture of the plaque, then examine the bronze disease to show that the inscription is certainly ancient. Copies of other types of inscriptions, though rare to survive, are known to have been produced in antiquity. For manumission inscriptions, however, copies are unheard of and no single copy is known to exist, although thousands of originals are extant.

To determine the relationship between the Dodona and the Mississippi plaques, I compare peculiarities in the layout and the lettering of the inscriptions and, drawing on methods employed in the analysis of manuscripts, argue that the Mississippi copy was made from the Dodona plaque. I conclude from the small size and thickness of the Mississippi plaque that it was made to be a portable copy that Philista could have used to travel beyond the influence of Dodona. Without knowing the find spot of the Mississippi plaque, I can say nothing more of Philista's possible travels, nor can I say whether she was alive and had departed before Rome enslaved all Epiros in 167 B.C.E. It is evident, though, that the Mississippi

plaque stands as a unique, new artifact in the study of slavery and manumission in antiquity.

SESSION 2H
Economy on Crete and the Aegean from the Hellenistic Period to Medieval Times

CHAIR: *D. Alex Walthall*, University of Texas at Austin

Urban Production and Craftsmanship at Delos in the Roman Period

Caroline Autret, Universiy of Rouen

The small island of Delos in the Cyclades was a famous Greek sanctuary, as well as an important port town in antiquity. Following Rome's victory against King Perseus of Macedonia in 166 B.C.E., the emporium of Delos became a free port and thus, according to ancient sources, one of the most important trading marketplaces in the Mediterranean. However, besides traded commodities especially attested by a great number of amphorae, excavations revealed many urban structures dedicated to production, either for craftsmanship or food production. Recent research conducted on Delos since 2017 demonstrates that these installations are far more numerous than was previously assumed. Several ovens, kilns, or tanks have been neglected or misinterpreted. For instance, a large kiln site preserved nearby the Sacred Lake can now be dated to the late Roman period. This demonstrates that local production continued after the two successive destructions Delos suffered in the first century B.C.E., and the supposedly desertion of the island afterwards. The purpose of this communication is to present some of the systems of production unearthed from Delos in the light of the new discoveries made in the frame of the ongoing research project DELPO, which focuses on urban installations dedicated to craftsmanship and food production dated to the Roman era on this Aegean island.

Merchants and Mercenaries: Crete after the Ptolemies

Melanie Godsey, University of North Carolina at Chapel Hill

New research on the Ptolemaic military and economic network in the third–second centuries B.C.E. allows us better to understand the places and products involved in the supply of their maritime empire. Most notably, patterns of transport amphora found in Ptolemaic settlements in Greece, the Aegean, and Egypt reveal a geographically expansive network that created new channels of regular contact. A closer look at the local responses to these new economic opportunities reveals that industry and trade connections developed in regions of early Ptolemaic interest, and lasted long after the Ptolemaic troops withdrew from the Aegean.

After establishing artifactual patterns for Ptolemaic influence in their Aegean Empire, I turn to the island of Crete. Ptolemaic influence on Crete is well-documented, though scholars have usually focused on the military importance of the island (either its strategic location or the use of Cretan mercenaries in the Ptolemaic

army). Indeed, scholars have only recently argued for the presence of a pre-Roman export economy on Crete, therefore the economic value of the island under and immediately following Ptolemaic influence has not yet been fully explored. I investigate the economic networks of Crete under and after the Ptolemies by assessing the evidence (epigraphic, numismatic, and ceramic) for Cretan production and trade in the late third–first centuries B.C.E. in light of the island's changing political and agricultural landscape. I argue that there was local interest in maintaining the economic relationships previously initiated by the Ptolemies. Merchants, therefore, operated in the same network as mercenaries, although only the latter have recently been credited with the influx of foreign goods and practices, such as the cult of Isis and Serapis. I argue that merchants who lived or operated on Crete, along with mercenaries, created the demand for goods and practices with influence from Egypt and elsewhere in the Mediterranean. In fact, an individual was likely employed in both professions either simultaneously or over the course of their life. Rather than suggest a Ptolemy–imposed socioeconomic shift, I argue that Cretans competed amongst themselves and changed agricultural practice and settlement patterns to take advantage of mercantile opportunities left vacant by the declining Ptolemaic Empire (as early as the mid-second century B.C.E.). The result was the creation of an elite cultural identity that could be shared throughout the network, which included merchants and mercenaries alike.

Eastern Mirabello between 67 and 31 B.C.E.

Natalia Vogeikoff-Brogan, American School of Classical Studies at Athens

At the eastern edge of the Bay of Mirabello lies the island of Mochlos, known primarily for its rich Minoan remains. Systematic fieldwork over the last 30 years has also enriched our knowledge about the historical periods represented on the site. The island's strategic location allowed commanding views of the northeast coast of Crete as well as a safe harbor. Therefore, it is not surprising that the leading cities of Hellenistic Crete sought to control it, probably as much as they wanted to control the islands of Leuke and Chryse on the south coast. By 100 B.C.E. there is significant archaeological evidence demonstrating that Mochlos had fallen under Hierapytna's control, as part of the city's plan to expand its interests to the north coast. The partial destruction of the settlement in the early first century B.C.E. might be connected to the havoc that Metellus caused across the island in 69–67 B.C.E.

My paper presents new evidence that extends the settlement's life beyond the early decades of the first century B.C.E. Contrary to that popular belief that Crete after 67 B.C.E. entered a long and peaceful period of prosperity, there is reason to believe that the transition might not have been as smooth as usually envisioned. Historical sources suggest that East Crete might have passed under the successive control of Brutus and Mark Antony. While Mochlos may have flourished under them for a time, the site's final destruction in the late first century B.C.E. could also be related to having served the wrong adversary during Rome's most renowned period of civil strife. Mochlos is one of the few sites on Crete with good stratigraphy from the last decades before the island finally succumbed to the hegemony of Rome and Augustus.

Crete as a Part of the Arab Chaliphate: The Archaeological View

Vera Klontza-Jaklova, Masaryk University, *Manolis Klontzas*, Masaryk University, and *Archaia Brno*, Independent Scholar

This paper focuses on one of the crucial problems in investigating the early Byzantine period on Crete: the change in settlement patterns arising from Arab expansion. Its impact was mirrored on Cretan society and Byzantine state economic and power structures since the first half of seventh century. Most historical syntheses on Crete dealing with the early Byzantine period to the final Arab conquest of the island (827/8 C.E.), and the period when Crete was an official part of Arab Caliphate (up to 961 C.E.), rely on literary sources whose number, narrative, and informative potential are limited. Throughout an entire century, the focus of archaeological research on Crete was centered on the Bronze Age, though it gradually widened to encompass the period of classical antiquity. Late antiquity, the Byzantine and Arabian periods, and the Venetian Middle Ages have only become of particular archaeological interest in the past 20 years. Existing historical sources describe the period around the second half of seventh century as detrimental for the Cretan population, particularly for those living near the coast. Most of the excavated archaeological Byzantine sequences were dated to end around the mid-seventh century, when the first significant attacks on the Cretan coast are mentioned by the historians. This date was thus, for many years, accepted as the terminus ante quem for the depopulation and abandonment of the coastal strip of Crete. Typological series of pottery obtained from archaeological contexts were dated according to this assumption. But the excavations on islet of Pseira, at Priniatikos Pyrgos, and at Gortyn showed that these settlements survived and developed during the entire eighth century. However, some sites were abandoned in the period between 650 and 700 C.E. (e.g., Itanos), fortified castles and guard posts were established in the mountains, and the network of agricultural settlements was reorganized.

But the settlement pattern was not consistent over whole island. There were significant differences in land use and social organization in each geographical region. Arabs were probably controlling the central part of the island. In contract, fortified castles, placed in strategic locations, were constructed by the local population in the mountains of eastern and western Crete. The political and economic organization of the island and the relations of individual regions with the Arabs, are still unclear.

In our paper, we present the results of the first stage of our holistically built research project, and discuss its further perspectives and methodology.

SESSION 2I: Workshop
"Grounding" Roman Sculpture

MODERATOR: *Anne Hrychuk Kontokosta*, New York University, *Peter De Staebler*, Pratt Institute, and *Elizabeth Marlowe*, Colgate University

Workshop Overview Statement

The study of Roman sculpture has long relied upon methodologies that privilege style, chronology and dating, manufacture, workmanship, iconography, or simple identification. A recalcitrance to reassess this emphasis on the aesthetic qualities of Roman sculpture is rooted in antiquarian traditions and centuries of scholarship. Contemporary research has increasingly attempted to shift the discourse towards sociocultural and political frameworks, recognizing that the message communicated by Roman sculpture was shaped by its context. Yet, new conclusions are often tenuous as many Roman sculptures, including some of the most famous, lack documentation about their find contexts. Frequently reproduced works, such as the so-called Fonseca Bust or the Barberini Togatus, are cornerstones of Roman art textbooks but have no provenance, and some are of questionable authenticity. This problem is not minor: In her illuminating book *Shaky Ground* (Bloomsbury, 2013), Elizabeth Marlowe estimated that between 35 and 50% of all of the free-standing Roman sculpture in art texts lack any reliable information about their ancient contexts. This number jumps to 75% for the discussion of Roman sculpture in introductory art-history surveys, such as Janson or Stokstad. Considering the wealth of well-researched archaeological and architectural contexts in the ancient world, the numbers beg for a fundamental reassessment in the way we collectively approach Roman sculpture both as specialists and generalists.

This workshop seeks to formalize an ongoing informal discussion on the need to contextualize, or in some cases recontextualize, Roman sculpture. The participants of this workshop will strive to update and redefine how we employ the facts surrounding ancient sculpture, particularly in light of current and rapidly changing views on archaeological methods, looting, museum collecting, and connoisseurship. Through a series of case studies that evaluate examples of "ungrounded" and "grounded" Roman sculpture, participants will collectively reconsider and debate which types of sculpture should be prefaced when teaching Roman Art and how "grounded" sculpture can be integrated more rigorously into the research and publication of Roman material culture.

PANELISTS: *Mark Abbe*, University of Georgia, *Kimberly Cassibry*, Wellesley College, *Nathan Dennis*, University of San Francisco, *Maryl B. Gensheimer*, University of Maryland, *Sebastian Heath*, New York University, *Kenneth Lapatin*, The J. Paul Getty Museum, *Julia Lenaghan*, University of Oxford, *Elizabeth Marlowe*, Colgate University, *Molly Swetnam-Burland*, College of William & Mary, *Steven L. Tuck*, Miami University, *Julie Van Voorhis*, Indiana University, and *Anne Weis*, University of Pittsburgh

SESSION 2J
Poster Session

New Light on King Herod's Harbor at Caesarea Maritima

Bridget Buxton, University of Rhode Island, *Jacob Sharvit*, Maritime Unit of the Israel Antiquities Authority, *John R. Hale*, University of Louisville, Kentucky, and *Dror Planer*, Israel Antiquities Authority

Beginning in 2014, in an ongoing collaboration with researchers from the Universities of Zagreb, Florence, Pisa, and Girona, the Israel Antiquities Authority, in partnership with the University of Rhode Island, undertook a digital archaeology project to map the submerged ruins of Sebastos, the ancient Roman port of Caesarea Maritima, Israel. While the site has been extensively surveyed and excavated since the 1960s, maps and reconstructions produced from this work were based on incomplete information and constrained by the limits of available technology. In 2010, a severe winter storm dramatically changed the underwater landscape at the site. This prompted the Israel Antiquities Authority to undertake a new conservation assessment of the ruins, which came to encompass the rescue excavations of a Fatimid-era gold hoard (2015) and a large fourth century C.E. Roman shipwreck (2016). It was not until 2017 that archaeologists were able to return to the investigation of the submerged ruins of the Herodian harbor itself, by which time further erosion had rendered the 2014–2015 data obsolete. This poster reports on the results of the IAA-URI 2017 and 2018 field seasons at Caesarea Maritima, and offers three new working hypotheses on the construction and destruction of the Herodian Harbor. The first hypothesis is that the two descriptions of the construction of the Herodian breakwaters in the works of Flavius Josephus (*AJ* 15.344 and *BJ* 1.411) are fundamentally correct, including the claim that the port was originally 20 "fathoms" deep, which is explained as a mistranslation. The second hypothesis is that the Drusus tower on the breakwater mentioned by Josephus did indeed serve as a lighthouse of Caesarea, and that it was one of several lighthouse towers. The existence of a pendant "Tiberium" tower appears to be confirmed by the discovery of new buried foundations in 2017. The third working hypothesis concerns the possible destruction of this Tiberium tower in an earthquake-tsunami event in 19 C.E., providing new support to the theory of Géza Alföldy ("L'iscrizione di Ponzio Pilato: Una discussione senza fine?" in *Iudaea socia – Iudaea capta*, edited by G. Urso, 137–50 [ETS, 2012]) that the famous Pontius Pilate inscription (AE 1963 no. 104) refers to the repair of a lighthouse. The authors present the evidence for these new theories about the history and archaeology of King Herod's harbor at Caesarea Maritima, and address the broader implications for the function of lighthouses in ancient navigation.

Dominance through Durability: Quotations from Virgil in the House of M. Casellius Marcellus

Stephanie Wong, Brown University

Although a wide variety of graffiti is catalogued at Pompeii, this poster focuses on the graffiti of Virgilian quotations in the house of M. Casellius Marcellus as a

case study for the textual and spatial significance of literary allusions in Pompeiian graffiti. By focusing on a single house in Pompeii, two perspectives are illuminated: first, the influence of Virgil and his works on the people who occupied and frequented the house of Casellius; and second, the varying voices of the Pompeiian graffitists and the ways in which they incorporated a literary point of view in their respective inscriptions before the eruption of Vesuvius. Four examples of graffiti demonstrate the semipublic and occasionally personalized nature of these quotations, interpreted uniquely through their archaeological context and literary significance.

The preponderance of Virgilian quotations inscribed on the walls of Casellius' house reveals the importance of the celebrated author in Pompeii. Marcus Casellius Marcellus was a wealthy man who ran for and won the office of the aedileship in the years before the eruption of Vesuvius. In his home, all four Virgilian graffiti were etched on various architectural elements of the house; three are on columns in the peristyle and one is on the wall of the atrium. Rebecca Benefiel (*Inscriptions in the Private Sphere in the Greco-Roman World* [Brill, 2015], 106) observes that in the six other houses in Pompeii with more than 60 graffiti, there is a respect for the space of the other graffiti—unlike other archaeological sites with high concentrations of graffiti, texts do not usually overlap in Pompeiian homes. Three of the graffiti in the house of Casellius quote the *Aeneid* while the fourth references *Eclogues* 3. And while the guests and residents of the house belonged to the political elite, the four Virgilian graffiti represent varying levels of literary knowledge depending on the quotation chosen for inscription.

By integrating basic or even tangential knowledge of literary subjects and sexual invective, the residents of ancient Pompeii could involve themselves in the social event of graffiti but within a certain domestic context. This context, combined with cultural history, literary fame, and sexual invective, provides a nuanced view into the epigraphic habit of a single private residence.

Dating the Late Iron Age–Roman Transition in Northern Iberia: Bayesian Modelling at the Monte Bernorio Oppidum

Manuel Fernández-Götz, University of Edinburgh, *Ricardo Fernandes*, Max Planck Institute for the Science of Human History, *Jesus F. Torres-Martinez*, Instituto Monte Bernorio de Estudios de la Antigüedad del Cantábrico (IMBEAC), and *Christian Hamann*, University of Kiel

Essential to historical research is the availability of reliable and precise chronologies. This is often achievable within classical archaeology given the abundance of written sources and well-datable artifacts. However, chronological uncertainties may persist when contexts are poor in datable remains, the stratigraphy is unclear or has been disturbed, or when organic artifacts are decontextualized. In these cases, radiocarbon dating of organic materials, a chronological tool typically underused within classical archaeology, can make valuable contributions. Furthermore, the employment of a Bayesian modelling approach, in which multiple sources of chronological data are combined with radiocarbon dating results, can allow for great improvements in the precision of chronological determinations. This poster presents the results of this approach for the study of the site of Monte Bernorio,

a large fortified settlement (*oppidum*) from the first millennium B.C.E. in northern Spain. During the Late Iron Age, Monte Bernorio was one of the main centers of the Cantabri until its conquest and violent destruction by the Roman army of Emperor Augustus during the Cantabrian Wars (29–19 B.C.E.). Within the framework of our research project, we applied Bayesian modelling based on a combination of radiocarbon measurements, stratigraphic information, and approximate typological dating of artifacts. The model outputs offer significant insights into the chronology of burial practices at Monte Bernorio and the practice of artifact exchange with the Roman world, including one of the earliest pieces of evidence for terra sigillata documented in the Iberian Peninsula. At a broader level, the approach illustrates the potential of Bayesian modelling in classical and protohistorical archaeology.

Integrating Multiscalar Remote Sensing and Pedestrian Survey: Results from the 2018 Season of the Sinis Archaeological Project

Jessica Nowlin, The University of Texas at San Antonio, *Linda Gosner*, University of Michigan, *Alexander Smith*, The University of Brockport, and *Daniel Plekhov*, Brown University

The Sinis Archaeological Project is a new regional survey in west-central Sardinia that explores the landscapes of the Sinis Peninsula and adjacent territories from multiscalar, diachronic perspectives. This island was home to the Bronze Age Nuragic people who constructed monumental stone towers across the landscape, and later to foreign colonizers (Phoenicians, Carthaginians, and Romans) who came to exploit rich resources there. Our survey explores the diverse social and environmental factors impacting resource extraction, settlement patterns, and colonial interactions in this varied and dynamic landscape in the first millennium B.C.E. through the present. We are investigating four distinctive environmental zones: the large inland agricultural plains, the coastal region with its seasonal lakes and salt flats, the metal-rich Monte Ferru mountains, and the hill crests that separate the coast and inland plains.

In the summer of 2018, we held our inaugural season, focusing on the agricultural zone (Zone A). In this poster, we discuss our integration of traditional Mediterranean pedestrian survey suitable for agricultural landscapes with multiscalar remote sensing. Using unmanned aerial vehicles (UAVs), we documented structures that were otherwise difficult to access or measure due to terrain and vegetation. This allowed us not only to document the location of these features within the landscape but also to record multicomponent sites whose interrelated, but dispersed features are critical to understanding their function and spatial connections. Additionally, the utilization of both true color and infrared sensors allowed us to explore spectral properties of the vegetation that may be indicative of buried subsurface features, which were then compared to the results of pedestrian survey. Integrating daily UAV operations was helpful for understanding microtopography and spatial distribution of features both within the intensive survey units and in the broader extensive survey zone.

In order to achieve a broader perspective on the landscape of Zone A, we employed high spatial and temporal resolution satellite remote sensing. This allowed us to evaluate differences in visibility resulting from variance in the agricultural

cycle, prioritizing areas where intensive pedestrian survey would be most effective. Following the season, we compared vegetation indices derived from satellite imagery to self-reported visibility and finds counts of the walkers. Through this analysis, we evaluate the effectiveness of our survey strategies and reported results.

Ultimately the integration of these various methods provides a more comprehensive view of diverse landscapes and their histories in Sardinia. Further, this strategy can improve and enhance survey work in the Mediterranean more broadly.

Spatial Representation of Heavy Fraction Collection and Analysis from Tell es-Safi/Gath

Sarah Richardson, University of Manitoba, *Annie Brown*, University of Manitoba, *Haskel J. Greenfield*, University of Manitoba, and *Aren M. Maeir*, Bar-Ilan University

Most modern excavations intensively collect data from floatation, including both light and heavy fractions. While the light fraction (floated) is usually extensively analyzed by archaeobotanists, the heavy fraction (or micro-residue) is often ignored or minimally examined since it requires intensive efforts at the microscopic level to recover and identify the remains. When heavy fraction is collected systematically across floors within a house or building, the analysis allows for the identification of different activities that are often less visible with macroscopic remains. The importance of heavy fraction is further supported by its representation through spatial analysis, which allows activity areas to be represented and analyzed visually.

This poster will present the preliminary spatial analysis of the heavy fraction from the excavations of the Early Bronze III nonelite residential neighborhood excavated at Tell es-Safi/Gath; a site located in central Israel overlooking the coastal plain. By spatially representing, the results of the heavy fraction we will broaden our understanding of early urban lifeways among the urban nonelite.

Maps for Texts: An Expanding Ancient World Mapping Center Resource

Richard J. A. Talbert, University of North Carolina, Chapel Hill

This poster demonstrates the expanding potential realized by a recent digital initiative at the Ancient World Mapping Center (awmc.unc.edu), and invites comments on it. The goal of Maps for Texts is to create a cartographic dimension for enriching the study of classical texts which by their nature definitely "ought" to have maps associated with them. To be sure, in all likelihood they had none in antiquity, while modern efforts to meet the need have seldom proven effective. However, today's readers justifiably seek this type of resource, and a dynamic combination of robust scholarly and digital tools is now available to provide it.

Two tools are most useful (and gratis): Pleiades (Pleiades.stoa.org), an ongoing web-based gazetteer developed by collaborators (including the Center) to update the *Barrington Atlas of the Greek and Roman World* (Princeton, 2000), and the

Center's own Map Tiles. This furnishes a web-based GIS interface based on Open Street Map, Mapbox, and VMap0, with landscape returned where possible to its ancient aspect (following *Barrington Atlas*), although modern landscape layers are retained for reference and comparison.

For shorter works, Maps for Texts provides static maps. The poster displays screenshots of two: Theophanes, Journeys between Hermopolis and Antioch, and Dionysius of Byzantium, Treatise on the Bosporus. Data for the former derive from Rylands papyri (ed. Colin Roberts, 1952) and a monograph by John Matthews (2006); for the latter, from one by Thom Russell (2017). Predictably, the maps in these monographs are limited by page size and lack of color.

For longer, more complex works, Maps for Texts provides interactive web maps. The session displays screenshots of two: Hierokles, Synekdemos, and Ptolemy, Table of Important Cities (Kanon Episemon Poleon). For Hierokles, the aim is to improve on the four unwieldy grayscale outlines in Ernest Honigmann's rare 1939 edition, and to share a documented database of all place-names, including those impossible to locate. For Ptolemy, the Center has created the first-ever map of the Table, in two pairs, based on the text of Koch et al. (2.2 in A. Stückelberger et al., Klaudios Ptolemaios Handbuch der Geographie: Ergänzungsband, Basel, 2009). For one pair, Ptolemy's own projection is used, with all sites marked at his coordinates; the other pair is based on Map Tiles and marks sites (where possible) according to *Barrington Atlas*. In each instance, one version is confined to sites originally listed in the Table, while the second includes sites only added in later manuscripts.

Identifying an Etruscan Cemetery at Pompana (Murlo, Prov. di Siena)

Nora Donoghue, Florida State University, *Eóin O'Donoghue*, Kings College London, and *Anthony Tuck*, University of Massachusetts, Amherst

This poster presents the results of a walking field survey carried out in 2018 in the hamlet of Pompana (Murlo, Prov. di Siena). Evidence of ancient activity is well known from the area and within the locality the Etruscan settlement of Poggio Civitate, some 3.5 km to the north, stands out as a site of major regional significance nearby, and the Roman period villa at La Befa lies 1 km to the southwest. Pompana itself is a small hilltop hamlet that today has a dozen residential structures, most of which date to the 18th century. A previously recovered spherical cippus with male head protomes is housed in the Antiquarium di Poggio Civitate and another is known to have come from the locality. Both cippi appear to be similar typologically to those known from Chiusi and are thought to be grave markers that date to the sixth century B.C.E.

The methodology for our survey was to identify and document the further potentially ancient features in the hamlet and the surrounding landscape. The entire plateau and some of the surrounding hillsides were surveyed and drone photography was employed to capture information for other potential features.

The results of the survey were surprising; 20 previously unidentified cippi were documented throughout the hamlet. The majority of these were similar in spherical typological form to the one in the Murlo museum; however, they vary greatly in their size and many are more ovoid in shape rather than perfectly spherical.

Most interesting was the location of these cippi, all of them have been removed from their original locations and now have been reused as architectural components throughout the town. Nearly all of these have been placed on roof gables, but many adorn the tops of walls and similar locations. Those which were accessible were measured and all were photographed. The remaining walking survey did not reveal any further signs of ancient activity, very little ceramic or roofing tile allow us to suggest that the plateau once had an ancient structure; however, this was limited as no plough zones were available to inspect. Nonetheless, it is clear that a cemetery of some significance is located in Pompana and appears to be contemporary with the sixth century B.C.E. settlement of Poggio Civitate. This survey marks the first component of our plan to excavate in this area and may reveal significant information regarding burial practices in the area.

Bringing the Minoans and Mycenaeans to Life

Sarah Craig, Hellenic Museum, Melbourne, Australia, and *Bernice R. Jones*, Independent Scholar

In conjunction with the exhibition Haute Couture in Ancient Greece: The Spectacular Costumes of Ariadne and Helen of Troy (1 March–15 April 2018), with costumed mannequins accompanied by explanatory posters arranged in a gallery, the Hellenic Museum in Melbourne, Australia, under our direction, created a 30-minute film with live models in costume performing the acts seen in art to bring the Minoans, Therans, and Mycenaeans to life. We propose to present this video on a lap-top computer at the poster session.

Live models wear the costumes of the Knossos Snake goddesses HM 65 and HM 64, Cup Bearer, Camp Stool Banqueter, a Piskokephalo figurine, the Thera Basket Emptier and Wounded Lady, the Hagia Triada sarcophagus' Baskets Carrier, and from the mainland, the Ivory statuette from Prosymna and the "Mykenaia" from Mycenae. The costume recreations, made of linen and wool, are based on detailed analyses of garments represented in sculpture, wall paintings and glyptic, the construction of extant Egyptian clothes, comparable ancient Near Eastern garments, textile manufacture on the warp-weighted loom, and dress documented in Mycenaean Linear B texts (Jones 2015).

The costumed models enter the stage against a moving film backdrop that shows the works of art that the costumes replicate, and a voice over explains the costume's manufacture and the significance of the figure. For the first time in this documentary film, the Bronze Age Aegeans appear to step out of the frescoes into our world. The performers allow the viewer to see how the ancients and their costumes, draped on the body, moved in real life in the round, while echoing their positions and performing the narratives. Their costumes are as fashionable as those of today. Thus, the ancient figures and the narratives come alive, further our knowledge of ritual and daily life in the Bronze Age Aegean, and emphasize their concurrent ancient, contemporary, and eternal significance.

Urban Development and Continuity: Analyzing Settlements in Early Central Italy
Johanna Najera, University of California, Santa Barbara

Studies in urban development have informed archaeologists about political structures, population estimates, and other aspects of society through architecture. In this paper, I hypothesize that the continuity of the settlement and of the inhabitants affects the development of a city. I will show that when a city is resettled and/or changes its inhabitants the development of the city changes to conform to the needs of the inhabitants.This study examines the urban development and multiple forms of continuity for three early cities in central Italy: Satricum, Cosa, and Rome (specifically the Palatine Hill). The paper relies on illustrated city plans published by the excavators of each site to chart the development of each city. The archaeological record allows us to track the architectural changes of the cities from the 9th century B.C.E. until the period of the Roman Empire, and historical texts also aid in the reconstruction of the political affairs of the cities. This research aims to bring a peopled perspective to the study of urban development in archaeology by considering the inhabitants and the effect of community continuity on urban development.

Drinking in Akko: Athenian Pottery at the Akko Railway Station Excavation
Jennifer S. Tafe, Boston University

While Athenian pottery imports have been excavated at several sites in Israel, many questions about the character of these assemblages and their local consumption remain unanswered. In 2016, a salvage excavation conducted near the train station in Akko, just 300 m from Tel Akko, uncovered a notable deposit of Athenian vessels. Most of the Attic pottery from the Akko railway excavation dates to the fourth century B.C.E. and was found alongside "lines" of standing amphorae dated to the fourth and third centuries. These standing vessels have no clear connection to substantial architectural remains and so their exact function is not yet clear. The lines were comprised of Aegean amphorae, Phoenician carinated-shouldered jars and Levantine basket handle jars. Not unlike the Attic pottery from Ashkelon and Tel Dor, Akko's assemblage reflects a preference for drinking cups and bowls, as well as a few larger vessels associated with drinking and dining, such as red-figure decorated kraters. There are, however, key differences about this group of vessels that make it particularly interesting in relation to other Attic vases found at sites in Israel. What distinguishes the assemblage at the Akko salvage excavation is the types of Attic shapes found. In particular, the cup-kantharos, a small elegant cup for drinking, is a popular shape among the finds. While the Ashkelon and Tel Dor corpuses both include some cup-kantharoi, Akko's comparatively small corpus includes a surprisingly high number. This poster presents the roughly 200 fragments (and at least one complete vessel) of Athenian pottery unearthed at the Akko train station salvage excavation. It poses important questions about the finds in relation to other sites in the Levant, as well as questions about the local inhabitants' consumption of Athenian imports in the late Classical and early Hellenistic periods. Finally, this poster suggests that while the Akko assemblage reflects a well-known and robust trade relationship between Greece

and the eastern Mediterranean during the Classical and Hellenistic periods, it is a particularly distinctive deposit, and this is in part due to its relationship to the amphorae at the site. This project aims to investigate the Athenian vessels in terms of shape, decoration, and chronology, but it also interrogates questions related to the nature of use, especially as associated with the accompanying amphorae lines.

Signatures in the Soil: Expanding the Compositional Study of Late Neolithic Ceramics on the Great Hungarian Plain

Danielle J. Riebe, Field Museum, and *Spencer Seman*, Field Museum

With support from the Ellen and Charles Steinmetz Endowment Fund for Archaeology, in the summer of 2018 innovative research was conducted to expand the work of the Prehistoric Interactions on the Plain Project (PIPP). Previously, stylistic and compositional analyses on ceramics and lithics from 12 sites illustrated a strongly enforced sociocultural boundary between the Tisza and Herpály archaeological units on the Great Hungarian Plain during the Late Neolithic (5000–4500 B.C.E.). While Tisza sites have been investigated heavily in the past, only a few Herpály sites have ever been excavated. One Herpály tell site, Esztár-Fenyvespart, was excavated in the 1970s, and the assemblage has remained unstudied ever since. In an effort to better reconstruct the interactions between Herpály and Tisza sites during the Late Neolithic, the materials from Esztár-Fenyvespart were inventoried and ceramic samples were selected for compositional analysis. A unique aspect of this research was the implementation of a new and novel device for compositional sampling: portable laser ablation (p-LA). The portable laser ablation device is a minimally destructive tool for collecting samples from cultural materials, thereby forgoing the difficult and sometimes impossible task of obtaining permits for exporting artifacts. This exploratory project builds upon previous regional compositional studies on the Great Hungarian Plain and presents the new methodological advancements, as well as the preliminary p-LA results.

Study and Quantification of Locally Produced Ceramics at a Lusitanian Roman Villa

Casey Haughin, Johns Hopkins University

This study of locally produced pottery from the Roman villa of Santa Susana, Portugal identifies and quantifies previously unrecognized ceramic fabrics from the Central Alentejo region. The sample utilized for this research was the entirety of the site's catalogued nondiagnostic sherds from units for the current year and previous four years of excavation, a total of 4,013 sherds. The sherds were examined for their individual fabric composition through digital microscopy, their different fabric types were quantified, and they were analyzed in relation to the distribution of units over the site's Harris Matrix. This resulted in the identification of both new ceramic fabrics as well as trends over time in localized production at this Roman villa complex in ancient Lusitania from the first through seventh centuries C.E. This analysis provides a more complete understanding of local ceramic technology during this period, expanding upon our current knowledge of

local and regional ceramic production and consumption by individuals on this edge of the Roman Empire. This study thus offers a new and growing fabric typology for the study of Roman common and cooking wares in the central Alentejo region, an analysis of local ceramic consumption at a rural villa, and new data for future comparative studies with other regional domestic sites.

The Funerary Landscape of Hierapolis in Phrygia: History, Contexts, and Urban Development

Anna Anguissola, University of Pisa, *Antonio Calabrò*, Independent Scholar, and *Silvana Costa*, Independent Scholar

Situated on a calcareous platform on the western edge of the Anatolian plateau, the site of Hierapolis covers an area of ca. 65 ha and is surrounded by large, well-preserved cemeteries. Hierapolis shows perhaps the largest concentration of graves known in the Roman world, including some 600 monumental tombs with a remarkable variety of architectural types, often combined to create idiosyncratic arrangements suited to the local taste and practice. The cemeteries of Hierapolis provide a remarkable amount of data that is rarely available in ancient excavated burial sites.

A team from the University of Pisa has taken part in the research program of the Italian Archaeological Mission at Hierapolis (MAIER) since 2008, under the auspices of the Turkish Ministry of Culture and Tourism. Since 2017, the University of Pisa has operated within the framework of a collaborative Research Project of National Interest (PRIN). The objectives of the project have thus grown from the examination of individual structures to a contextual study of funerary monuments and sarcophagi.

The poster presents the preliminary results of the 2017 and 2018 fieldwork seasons in the northern Necropolis at Hierapolis. During this period, work concentrated on an area including ca. 20 funerary monuments and dozens of sarcophagi. There, monumental tombs and sarcophagi are arranged between the main road leading to Tripolis on the Meander and the hill on the northeastern edge of the settlement. The buildings are adapted to the terrain through a system of terraces, linked by narrow pathways and steps. All the building typologies attested in Hierapolis are clustered in this area.

Our methods include expeditive archaeological surveys, stratigraphic excavations, as well as the examination of architectural typologies, sarcophagi, and epigraphy. This research illustrates the ways in which the design of this necropolis developed over a long period of time, following the evolution of taste in the funerary realm as well as social and political changes. This area provides an exemplary case study to address questions about chronology, typology, circulation, and ownership. A contextual study of the evidence from Hierapolis offers therefore a unique opportunity to observe the use and daily life of a Roman necropolis and may provide important evidence applicable to Roman burial sites across the Mediterranean.

Remapping the Social Landscape of Southwest Sicily: The Arizona Sicily Project, 2018 Season

Emma Blake, University of Arizona, *Robert Schon*, University of Arizona, *Rossella Giglio*, Soprintendenza Beni Culturali Trapani, *Victoria Moses*, University of Arizona, *Alena Wigodner*, University of Arizona, and *Stephen Uzzle*, University of Arizona

Western Sicily has followed a distinct cultural trajectory from the rest of the island, evident archaeologically from the Neolithic through modern times. Driving this region's historical detachment are its close ties to its near neighbors in the Sicilian channel, Tunisia and Pantelleria. The Arizona Sicily Project is an intensive diachronic archaeological field survey of southwestern Sicily that seeks to chart long-term settlement and land use in this understudied corner of the island, with the eventual aim of reconstructing the nature and evolution of cross-channel connectivity from antiquity to the present day. This poster presents the theoretical background, methods, and results from the survey's first season, in the summer of 2018. The survey zone consists of a 44 km^2 strip between the cities of Marsala and Mazara del Vallo. In this season of fieldwork, we focused on the southern 20% of the zone. Our team identified three clusters dating to the Hellenistic and Roman periods, dispersed medieval and early modern artifacts, and even contemporary migrant material culture. More broadly speaking, scant artifacts from antiquity in the coastal zone and more abundant finds further inland are in surprising contrast to artifact distributions a few kilometers north, where our previous work records a distinct decline in artifact numbers inland compared to an intensively used coastal plain. Archival research indicates that this southern region of the survey, prior to land reclamation projects of the early 20th century, experienced fluctuating marshy conditions. Future work will determine if this pattern continues elsewhere in our survey zone.

New Investigations at the Sanctuary of Venus in Pompeii: Results of the 2018 Season of the Venus Pompeiana Project

Marcello Mogetta, University of Missouri, *Ilaria Battiloro*, Mount Allison University, *Laura D'Esposito*, Parco Archeologico di Pompei, *Massimo Barretta*, Independent Scholar, *Mattia D'Acri*, University of Missouri, *Daniel P. Diffendale*, University of Missouri, *Matt Harder*, University of Missouri, and *Ivan Varriale*, Archeologia a Napoli

A new international collaboration, also known as the Venus Pompeiana Project, has been forged between the Archaeological Park of Pompeii, Mount Allison University, and the University of Missouri to resume the study of the imposing triporticus with axial temple dedicated to the patron goddess of the Roman colony. The main objective of the new endeavor is to bring the existing excavation archives to publication by integrating the reanalysis of legacy data with targeted excavations. Specifically, we aim to reach firmer conclusions on the chronology and nature of the occupation at the site, focusing particularly on the horizon that predates the construction of the first monumental sanctuary.

After a pilot season in 2017, a full-scale excavation was launched in 2018 thanks to generous funding provided by the AIA Cotsen Excavation Grant. Our research design called for the reopening of old trenches previously excavated in the temple court (Trenches IIS and IIN), which had already revealed a sample of the complete sequence of occupation of the open area east of the podium, including direct stratigraphic relationship between its various floors and the foundations of the east colonnade of the sanctuary, and for which part of the original archival data was also available. We resurveyed standing features and exposed stratigraphic sections employing both traditional total station and rich data capture in the form of photogrammetric (image based) modeling, while reanalyzing the existing descriptive record of each unit. Furthermore, we continued the investigations below the levels reached by the previous excavators. The relevant ceramic materials and coins were retrieved from the Soprintendenza storage in order to be restudied, thus complementing the old data with the new finds. In addition, new trenches (Trenches A and B) were opened under the east portico to better define the layout and clarify the function of architectural features that had been exposed below the monumental phase. The construction sequence of the podium and ancillary structures was also documented, laying the groundwork for future conservation work.

The initial results contribute significantly to the broader debate about the urban development of the so-called Altstadt of Pompeii and the Samnite-to-Roman transition at the site. Most notably, we identified a N–S street running across the entire extent of the east court. The street, which most likely branched off from Via Marina, was certainly in use through the second century B.C.E., separating two distinct city blocks occupied by structures. This layout was completely obliterated in order to make room for the triporticus and temple, for which we confirm the post-80 B.C.E. date, thus demonstrating the impact of the Roman conquest on the religious landscape of Pompeii.

The Fire Festivals of Ancient Celts, Their Meaning, and Purpose

Don W. Kreger, MacLauren Institute

The four Fire Festivals of the ancient Celts were held on the midpoints between the solstices and equinoxes. Some have claimed that all eight days (solstices, equinoxes, and midpoints) were observed by ancient Celts, and they call this the Wheel of the Year. But, there has long been contention that this is a modern invention, and that there is no indication that any ancient people observed all eight days of the year. This poster presents a range of archaeological and literary evidence that suggests that ancient Celts did, in fact, celebrate all four of the annual fire festivals, as the start of the four seasons. And, therefore, they needed to observe the solstices and equinoxes accurately in order to find the correct date of these midpoints, for their Fire Festivals. Further evidence indicates that the Celts were not alone. The Roman scholar, Marcus Terentius Varro, proposed a similar annual cycle comprised of eight points throughout the year, for the purpose of finding the ideal agricultural calendar, which was in-sync with the phases of the sun (solstices, equinoxes, and midpoints). This poster presentation will show that these eight days of the year not only corresponded to the agricultural calendar, but each day also corresponded to a different time of day, phase of the moon, and even a phase

of the life cycle. This adds greater depth to our understanding of the meaning and purpose of the ancient Fire Festivals.

Attis' Immortal Finger: Unusual Gestures in the Funerary Art of the Roman West
Peter Satterthwaite, Washington University in St. Louis

The iconographical type of Attis tristis, in which the young Phrygian shepherd mourns his own self-emasculation and death at the instigation of Cybele/Mater Magna, is well represented in funerary sculpture across the Roman West from the first century B.C.E. through the fourth century C.E. The Attis tristis type, often found in duplicate on the sides of grave stelae, usually depicts the Phrygian-capped youth standing with his legs crossed and supporting his downcast countenance with one hand. Many depictions of the mourning Attis, however, deviate from the standard type in ways that have not yet been formally identified or studied.

This paper looks closely at the connections between one particular account of Attis' myth and a certain subset of Attis tristis images. Arnobius of Sicca, the fourth-century C.E. Christian apologist, describes the birth of Cybele/Mater Magna and the life of Attis in his treatise Adversus Nationes (V.5–7), recording a version that resembles accounts from Ovid (Fasti IV.221–246) and Pausanias (VII.17.9–12). Arnobius and Pausanias both relate that after Cybele/Mater Magna drove Attis to fatally mutilate himself, the regretful goddess asked Jupiter to bring the young man back to life. Jupiter refused, but agreed to preserve Attis' corpse from decay. According to Arnobius, Jupiter also allowed Attis' hair to keep growing and one of his fingers to continue moving in perpetuity. Though the reference to Attis' finger has attracted minimal attention in the past, this detail becomes significant with the revelation that many depictions of Attis feature his extended index finger in a variety of positions. At least 20 such images of Attis have been published to date.

After discussing the advantages and disadvantages of using Arnobius to interpret images of Attis, this paper turns to the implications of the index finger gestures found in funerary contexts. Whereas the Attis tristis type has formerly been considered an iconographic trope unrelated to the cult of Cybele/Mater Magna, the connection between the index finger gestures and the details of Attis' myth may indicate otherwise. This paper's study of the index finger gestures on Attis tristis images also contributes to the discussion of soteriological prospects in the cult of Cybele/Mater Magna. The question of what Roman devotees of Attis and Cybele/Mater Magna expected after death has yet to be satisfactorily answered, and the Attis images discussed in this paper offer a new source of evidence to this ongoing debate.

Connecting the Dots: A Study of Anepigraphic Brick Stamps at Gabii
Christina Cha, Florida State University

Roman brick stamps have been most valued in the past for their usefulness in dating archaeological contexts. Brick makers started marking their products in the first century B.C.E., a practice that continued well into the fifth century C.E. Brick

stamps can provide information about both when and where the bricks were being produced, as well as the people involved in the industry. Roman brick stamps are remarkable in that they can be dated sometimes with pinpoint accuracy—the consular brick stamps from the first century C.E. can be dated to the very year the bricks were manufactured. As a result, brick stamps are often used by archaeologists to date the contexts in which they are found. These markings, however, have a number of other important uses. For instance, they can be used to answer key questions about the Roman brick industry, such as how the industry was organized, what was the scale of production, and if there were any prominent distribution patterns. Many of the stamps found at Gabii have comparable examples from Rome, which reveals a significant trade connection between the two cities.

The assemblage of marked brick analyzed in this study was recovered in the excavations of the Gabii Project. The 2017 and 2018 seasons unearthed a large quantity of ceramic building material with makers' marks, most of which were of the anepigraphic variety. There are over 300 such examples, and within them, a great diversity of markings. Most of the stamps are some variation of a small circular indentation featuring a wide range of unique designs and measurements. A smaller, but notable portion of the markings appear to have been made by hand and are of abstract or figural motifs. Anepigraphic brick stamps have been noted occasionally in previous scholarship, but are often mentioned in passing or marginalized in favor of the epigraphic stamps. Recent publications generally date anepigraphic brick stamps to the third century C.E., a period in which some scholars have noted a temporary hiatus of the use of brick stamps with texts in Rome. Thus, the purpose of this study is twofold: to create a new typology for the anepigraphic markings found on bricks at Gabii and to address questions about noteworthy developments in the Roman brick industry based on the evidence of these particular makers' marks. This study demonstrates that these anepigraphic markings are inherently equally as rich in information as epigraphic stamps.

Visibility Graph Analysis of Lararia in the Insula del Menandro, Pompeii: Ideology within the Built Environment

Max Peers, Brown University

This poster presents a case study analyzing the visual integration of the lararia found in the Insula del Menandro. The lararia are an excellent example of a spatial feature found frequently enough that they benefit from targeted visibility graph analyses. They also function as a way to test the potential of these computer-based analyses elsewhere in classical archaeology.

Using the open-source program depthmapX, I created visibility graphs of the individual houses of the insula. A visibility graph is created by overlaying a floor plan with a grid and calculating the mutual visibility of each square within the system. The graph is then displayed as a color gradient representing the total area visible from each grid square. This allows one to observe the visibility of certain spaces or features of the house relative to the entire house system. These quantitative results give new depth to our understanding of household lararia, which has up until now relied on literary and art historical analyses.

At least one lararium is found in each house of the insula, and their nine locations can be divided into three broad categories. Two are found near the entranceway of the house, four are found in the cooking spaces, and two are placed in back rooms. The ninth example is found in the southwest corner of the peristyle of the Casa del Menandro.

Although the locations of the lararia first appear diverse, the visibility graphs show that there are in fact attributes common to their placement. Lararia are always placed to receive the most visual emphasis within the room. These rooms are nevertheless relatively removed within the framework of the houses. Conversely, the two lararia that are instead in highly visible spaces—the entranceway to their respective houses—had coverings so that the altar space itself remained unseen. In this way, the visibility graphs indicate a more complex control over the visual integration of lararia within a household.

The diverse locations of lararia paintings and niches within the insula indicate that the maintenance of the lararium shrine and the associated religious practices was an essentially personal experience, and each household conducted these affairs as suited to its ideology and space. Visibility graph analysis offers a rich understanding of the integration of lararia within the structured space of the household, and reveals a duality of visibility and privacy hitherto undiscussed in research on lararia.

Visualizing the "City of the Dead": Viewshed Analysis of the Etruscan Necropolis at San Giuliano, Italy

Lauren Sides, Baylor University.

The necropolis at San Giuliano in central Italy is widely known for its hundreds of Etruscan rock-cut tombs, where inhabitants of the adjacent plateau buried their dead and practiced funerary rituals. Although the pairings of towns with surrounding necropolises are ubiquitous features of Etruscan society, little has been written about the relationship between the Etruscan ritual and domestic landscapes. This poster presents a model of intervisibility between the San Giuliano necropolis and its associated plateau to assess this relationship through the use of Geographic Information Systems (ArcGIS). Drone photo documentation is used to conduct aerial survey of the San Giuliano landscape and to create a digital elevation model (DEM) of the site. Viewshed analysis is applied to the DEM to ascertain the individual intervisibility of each tomb with the plateau, which is calculated in ArcGIS to display the cumulative intervisibility of all the tombs with the plateau. To reduce the propagation of error of the viewshed model, experimental and substantive concerns such as the DEM quality and changes in vegetation at San Giuliano over time are accounted for with a probabilistic viewshed model, which displays the site intervisibility after varying the root mean square error of the DEM. These models help to determine future areas for excavation on the San Giuliano plateau, as well as warrant an intersite analysis of Etruscan tomb intervisibility that incorporates other Etruscan town-necropolis pairings in Etruria.

The Use of Stonehenge and the Salisbury Plain in Sustainability Education
Kimberly Reiter, Stetson University

The upper level course "Stonehenge" was designed as a microhistory using techniques developed in new approaches to sustainability education, including an holistic, supradisciplinary methodology that introduces students to the use of systemic resolution to reveal the systemic and interactional complexity of a sustainability situation in a specific physical and temporal context. Utilizing an examination of the environmental and human history of the Salisbury Plain through 9,000 years, students are introduced to systemic resolution, systemic synthesis, temporal thinking, social learning, and diverse alternatives to sustainability situations. The course combines archaeological, environmental, historic, religious, social, and folkloric data to explore both a dynamic British prehistoric landscape and a modern cultural focal point in sustainability and ownership.

What's in a Name? : Examining Jovian Epithets in Italian Roman Inscriptions Using Social Network Analysis
Zehavi V. Husser, Biola University

When epithets form part of a deity's name, they serve as important markers of the perceived identity of the divinity. While epithets have received little detailed treatment for Roman gods, Robert Parker has already shown for Greek deities how such names carry rich significance, and could specify, among other things, a deity's perceived functions, associated rituals, and connections to ethnic groups. The Roman god Jupiter was worshipped with a large and diverse repertoire of epithets (e.g., Victor, Heliopolitanus, Terminus).

In this project, I present the preliminary results of a study of Latin and Greek epithets of Jupiter as observed in hundreds of epigraphic documents (including votive dedications, building inscriptions, calendars, etc.) throughout Italy during the Roman period. My study applies social network analysis to inscriptional data as a proxy for studying the transmission and distribution of ideas about Jupiter in Roman Italy. Data is processed using the igraph package in R; visualizations are created using Gephi. After analyzing patterns of occurrence of Jovian epithets geographically, I investigate relationships between epithets in the inscriptional data to study powers and functions of the god invoked by adherents. I then consider the association of Jupiter with other Roman deities to explore to what degree Jupiter was petitioned alongside other deities and to determine what this can tell us more broadly about concepts about Jupiter among worshippers in Italy.

Methods and Progress of the Squeeze Digitization Project at the Institute for Advanced Study
Aaron Hershkowitz, Institute for Advanced Study, Princeton, NJ

I present an overview of the initiative by the Institute for Advanced Study in Princeton, New Jersey, to digitize and make publicly available its collection of epigraphic squeezes. This initiative, which has been named the "Krateros Project,"

began in April of 2018 under the supervision of Angelos Chaniotis, professor of ancient history at the Institute, after nearly a year of discussion and planning. The Institute's collection, estimated by Christian Habicht in 2010 to include over 25,000 squeezes, is the second largest in the world.

The Krateros Project is initially focusing on the squeezes of inscriptions from Attica that were created under the aegis of Benjamin Meritt. Most of these squeezes are organized by the entry number of their inscription in the editio minor of *Inscriptiones Graecae* II/III (*IG* II^2), and, as such, the digitized squeezes have also been organized by *IG* II^2 number in the Krateros Project's database, https://albert.ias.edu/handle/20.500.12111/120. Collected under each *IG* II^2 entry in that database are the digitized images of any squeezes pertaining to that inscription (including fragments that were published after *IG* II^2, and so do not appear therein) as well as various pieces of metadata to promote easier searching and browsing of the collection. The squeezes are digitized by scanning them using the "3D Light" feature of a large-bed scanner and performing some minimal alterations in Photoshop. Considerable thought was given to the possibility of applying advanced imaging techniques (such as Reflectance Transformation Imaging or photogrammetry) to the collection, but it was ultimately decided that the additional clarity that these techniques provide was not commensurate with the significant increase in cost and time that they would require.

The current presentation functions in three respects. First, it announces the existence and current progress of the project to the audience of epigraphers, archaeologists, and classicists for whom the project is intended to be a useful resource. Second, it explains the underlying choices that have been made with respect to the technique for digitization and the extent and format of attendant metadata. Third, it aims to start a conversation in, and solicit feedback from, the field about standards for epigraphic digitization and metadata, with the hope that as further epigraphic collections are digitized in the future, they will be compatible enough at least to improve the ease of searching various databases and ideally to facilitate the possibility of a comprehensive central database for digitized epigraphic content.

Visualizing Atmospheric Manipulation in Ancient Kiln Firing
Gina Tibbott, Temple University

Atmospheric manipulation—the controlled combustion of fuel, air, and ceramic-bound oxygen molecules—is an essential component of kiln firing, past and present. While firing atmosphere is acknowledged as a factor in the analysis of a broad range of archaeological ceramics, there largely remains a disconnect between the visible outcomes seen on pots and sherds and how those results might have been achieved by the person(s) firing the kiln. Through ethnographic research including the observation and administration of contemporary ceramic reduction firings, this poster aims to connect visually specific atmospheric alterations to both firing cues such as variable flame color and known material outcome. Three case studies from Greece, Italy, and Iran demonstrate how establishing the connection between atmospheric manipulation and object outcome might aid in the overall

effort better to understand craft specialization, technological development, and fuel economy.

Why Do We Post? Accessibility, Engagement, and Building Connections through Social Media

Sabina Ion, the Gabii Project

While archaeology concerns itself with the study of the past, the internet age is firmly upon us and as scholars we should always be looking for new, innovative ways to convey our research to a variety of invested, public, communities. Social media, and its ever expanding reach, allows us to change the definition of who makes up these communities and bridge the gap between the field (often oceans away) and communities at home. This poster presents a variety of strategies currently in use by the Gabii Project that can connect an excavation with the public and link academic work with public interest.

This poster uses a reflexive approach, questioning the strategies commonly employed on social media by archaeologists: every archaeological department and project might have a Twitter, Instagram, or Facebook, but to what degree are the posts on these platforms being used effectively? How can frequency, variation across different platforms, and the ideology of the hashtag (to name just a few points) increase interest or produce negative results? What can we learn from other fields such as journalism and new media studies?. The Gabii Project has embraced technology in a number of ways such as digital recording, online monographs, and 3D modeling. How can these tools help bridge the spatial divide between excavation and the public? How can our data promote engagement outside the academy and community investment as well as access? How can we structure data gathering techniques so that we have the tools to engage others in a meaningful manner in real time as an excavation is occurring and after the fact over the entire year?

Perhaps most of all, this poster is an act of public archaeology in itself that highlights the different techniques used by the Gabii Project in order to share the successes and travails of social media in the field with other archaeological excavations and to promote dialogue and encourage cooperation across digital platforms. This creates a springboard for a discussion that can echo, not only in the exhibition hall, but even louder through the sometimes seemingly black void that is the internet, connecting archeologists, educators, and social media users and professionals. Access, and the increased access offered through social media when done well, can help keep our excavations and field vibrant. We need to talk about how this works.

Albania Ancient Shipwreck Survey

Staci Willis, Houston Community College, *Dave Ruff*, Texas A&M University, and *Deborah Carlson*, Texas A&M University

This poster presents the results of the Institute of Nautical Archaeology (INA)'s 2018 Albania Ancient Shipwreck Survey. Funded in part by the Archaeological

Institute of America's Richard C. MacDonald Iliad Endowment for Archaeological Research, and in collaboration with the RPM Nautical Foundation (RPM) and the Albanian National Agency of the Coastline, the 2018 Albania Ancient Shipwreck Survey project had two main goals: (1) to explore at least five shipwrecks previously identified and documented by RPM with an eye toward identifying one for full-scale excavation; and (2) to search for new shipwrecks of significance in Albanian waters, with a focus on the coastline to the south of the UNESCO World Heritage Site of Butrint (Buthrotum in antiquity). This survey was conducted in the summer of 2018 from INA's Archaeological Research Vessel Virazon II.

Spanning both the Ionian and Adriatic seas, the Albanian coast sits at an axis of colonization and maritime trade in the ancient world. For the past decade, RPM has conducted surveys in Albanian waters as part of the Illyrian Coastal Exploration Program, identifying several ancient shipwreck sites, but without the intention to pursue full-scale excavation. INA, which has excavated to completion a dozen ancient shipwrecks over the past 50 years, visited and assessed five potential shipwreck targets discovered by RPM: three near Butrint ranging in date from the sixth century B.C.E. to the third century C.E., a fourth century C.E. wreck carrying predominately North African amphoras (Joni), and a first century B.C.E. wreck with a fairly homogeneous cargo of intact Lamboglia 2 amphoras (Sazan Island).

Additional survey dives were conducted along the Albanian coast south of Butrint to search for evidence of Bronze Age seafaring as Vergil described the foundation of Buthrotum by Helenus, son of Priam following the fall of Troy. At present, the archaeological evidence indicates habitation at Butrint by the 12th century B.C.E., but only in the form of a small isolated fishing village unlikely to have been connected with Mycenaean Greece or Homer's Mediterranean world. The divers located multiple ancient artifacts, but none datable to the Bronze Age.

The results of INA's 2018 Albania Ancient Shipwreck Survey indicate that the Joni and Sazan Island shipwrecks are excellent targets where the first-ever underwater shipwreck excavation in Albania may be carried out as early as 2019.

Makers' Marks: An Examination of Anepigraphic Stamps at Cosa

Sophie Crawford-Brown, University of Pennsylvania, *Allison Smith*, Florida State University, and *Christina Cha*, Florida State University

While studies of epigraphic brick stamps have already demonstrated their utility in dating architecture and in better understanding Roman construction practices more broadly, an important subset of this corpus has been repeatedly ignored in scholarship—that is, bricks with anepigraphic stamps. Although they provide no consular names or other written indicators, these impressions nevertheless have much to tell us about manufacturing and construction processes in Roman Italy and beyond. Research and publications of these impressions are regrettably infrequent, but some hypotheses have been proposed for the appearance and function of these markings. Perhaps they were merely decorative, although the reduplication and frequency of the forms appear to refute this theory. More likely, they are trademarks used for practical purposes, such as manufacturing, distribution, or construction processes.

Although a wide variety of anepigraphic patterns and designs are preserved on ceramic building material, they have never been systematically catalogued or analyzed. This is largely due to the fact that at many sites they remain entirely unpublished, rendering a broader study impossible. This poster takes a first step towards filling this gap by presenting newly excavated material from the bath complex at Cosa as a case study. Moreover, by analyzing these anepigraphic brick stamps alongside the epigraphic ceramic building materials found at Cosa, some initial steps can be taken towards creating a comprehensive catalogue of production during this time period in central Italy.

Since the start of excavations in 2013, more than 300 anepigraphic stamps have been found at the Cosa baths. The majority of these marked building materials at Cosa are bessales—rectangular tiles used primarily in the construction of the hypocaust system for the heated spaces of the bath. The collected sample of impressions display a variety of forms, which this poster will present for the first time. As we argue, it is essential to consider not only the pattern of the design, but also the specific object on which it was stamped. Only then can we truly contextualize these markings and compare them with their epigraphic counterparts, many of which have also been uncovered at the Cosa baths. Photographic documentation is also essential in the publication of these materials so that other sites can accurately compare their findings to ours. By analyzing the corpus of anepigraphic stamps, we can better understand how and why they were used at Cosa and at other comparable sites in the region and beyond.

Comparative Survey on Crete: Regional Settlement Patterns in the Late Bronze Age

Julia Juhasz, University of Arizona

This project looks at the comparability of the raw data presented in the publications of different survey projects by visually analyzing regional settlement patterns on Crete in the Late Bronze Age. By compiling and mapping basic data presented in survey publications (in this case the time period, location, size, and function of identified sites) it is possible to visualize similarities and differences in the data while also establishing a more complete picture of regional patterns.

The island of Crete is an interesting microcosm for comparative survey work, as it is a bounded area with a small community of close-knit archaeologists conducting almost all of the archaeological projects. This poster analyzes three of the major survey projects on the island: Kavousi, Gournia, and Vrokastro. These three projects are all located in the Mirabello bay region of eastern Crete and were conducted comparatively recently.

To narrow down the data, only sites dated to the Late Bronze Age were examined. The survey data were compiled into a database recording the subphase, location, size, and probable function of each identified site. These data were chosen because the site is the most basic unit of analysis in the survey publications. The information was then mapped using ArcGIS to visualize the spatial and functional changes that occur in transition periods within the LBA. Analyzed side-by-side, these maps show regional continuity and changes in location, size, and function of settlements during these transitions.

Mapping the information from these survey projects in tandem shows that despite some differences in methodology, all three publications reveal a fairly uniform regional settlement pattern. This is one of the best situations for survey project comparability—the projects were conducted within a relatively short period of time, were in close proximity to one another, and were conducted by researchers who know each other's work and the area very well. This project supports the feasibility and utility of comparative survey.

Viewing the Lion Gate Relief at Mycenae: A 3D Model and New Compositional Observations

Nicholas G. Blackwell, Indiana University Bloomington, and *Matthew Brennan*, Indiana University Bloomington

The Lion Gate relief at Mycenae has intrigued scholars and the public since early travelers (e.g., Thomas Hope, Edward Dodwell, William Gell, etc.) sketched and published the monument in the early 19th century. The production of plaster casts of the relief that same century enabled people in Europe and North America to view the sculpture without visiting Greece. The facsimiles, though mostly excellent, failed to replicate certain minor features such as tool marks. Likewise, the hordes of annual visitors to Mycenae today cannot appreciate the sculpture's minute details because the monument, in situ above the citadel's gateway, is inaccessible for close observation. A 2014 study of the relief's tool marks revealed new insights about the monument's production and appearance (N. Blackwell, "Making the Lion Gate Relief at Mycenae: Tool Marks and Foreign Influence," *AJA* 118 [2014]: 451–88). Precise details from the sculpture, however, remain difficult to convey in a traditional publication due to limitations in image size, color, and quantity of figures. A digital model of the relief, shared here for the first time, resolves these issues.

Through a poster and an on-site laptop, the authors present a highly detailed 3D model of the Lion Gate relief based on more than 1800 photographs. This interactive model offers a better means of communicating the scholarly observations about the sculpture. It also provides the best opportunity to examine features on the sculpture otherwise inaccessible to anyone looking at the relief, whether in person at Mycenae or from published figures. The digital version highlights tool marks, many of which are cumbersome to show in 2D illustrations and individual photographs. It also allows for a comparison with another 3D model, this one created from a cast of the Lion Gate relief in the Museo dell'arte classica, Sapienza, Università di Roma. This method of analysis can check the accuracy of the cast and may identify compositional details from the original that have degraded since the 19th century. The 3D model of the relief offers other innovative techniques for viewing the sculpture. Adjustments in the model's shading and coloring, for instance, enhance compositional features on the relief, bringing out details that are otherwise difficult to detect. The musculature and legs of the lions, in particular, are more elaborate than previously recognized, perhaps challenging certain ideas and assumptions about the relief's iconography.

Big Changes in Roman Sicily? Roman Control and Rural Settlement Patterns in Italy's Bread Basket

Alena Wigodner, University of Arizona

Especially during the Republican period, the Roman province of Sicily acted as a major bread basket for Italy. As such, agricultural production was inextricably linked to Roman control of the province. The centrality of agricultural production to Roman colonial control in Sicily leads naturally to the hypothesis that differing levels of Roman influence across regions of Sicily led to regional differences in rural settlement during the Roman period. Comparing the results from published archaeological surveys across different regions of Sicily allows for the testing of this hypothesis in a systematic way. Here, two distinct regions are compared: the northwestern region, more highly urbanized and containing Lilybaeum (the first center of Roman administrative control on the island), and the east-central region, far less urbanized and further from centers of Roman administrative control. Differences in patterns of rural settlement (including site occupation, abandonment, and continuity) between these two regions are studied. Comparison of results of surveys in the northwestern region to results of surveys in the east-central region proves that rural settlement under Roman colonial control was indeed experienced differently in these two regions. The northwestern region, closer to centers of Roman administrative control, saw more immediate change and change in a more consistent manner, as if as a result of colonial policy. The east-central region, in contrast, saw increases in rural settlement only later. In addition, the consistent, controlled nature of rural settlement visible in the northwestern region does not seem to have existed in the east-central region. It is postulated that these differences are a result not simply of distance to Roman administrative centers but of the relative desirability of different areas from the Roman perspective.

The San Simone Tomba a Fossa: A Transitional Villanovan-Etruscan Grave

Veronica-Gaia A. Ikeshoji-Orlati, National Gallery of Art, *Davide M. Zori*, Baylor University, *Colleen M. Zori*, Baylor University, and *Lori E. Baker*, Baylor University

The San Giuliano Necropolis, located within the Marturanum Regional Park in northern Lazio, is well known for its Villanovan *tombe a fossa* (pit graves) and more than 450 Etruscan rock-cut tombs. Since 2016, the San Giuliano Archaeological Research Project (SGARP) has been engaged in survey and selective excavation within the necropolis as part of the project's mission to understand patterns of human habitation at the site from the ninth century B.C.E. through the 13th century C.E. This paper presents the preliminary analyses the San Simone tomba a fossa, a fully undisturbed pit grave excavated during the SGARP 2018 field season.

The San Simone tomba a fossa is located on the eastern part of the San Giuliano Necropolis, on the eponymous San Simone hill. Excavation of the grave revealed an inhumation burial within a roughly rectangular pit cut directly into bedrock. While the preservation of the skeleton was very poor due to the soil conditions, osteological analysis has determined that the deceased was an adult female. The deceased was adorned with a number of bronze items and was accompanied by a rich assemblage of ceramic objects placed around her body. Finds recovered from

the grave included 14 ceramic vessels, two spindle whorls, a pair of bronze earrings, nine bronze fibulae, two bronze armbands, a pair of bronze tweezers, and two beads.

Based on the ceramic evidence, the tomb dates to the last quarter of the eighth century B.C.E. or the first quarter of the seventh century B.C.E. Within the San Giuliano Necropolis, this period correlates to the transition from pit graves to rock-cut tombs, which previous scholars have identified with the passage between Villanovan and Etruscan cultures. This paper presents the results of the 2018 excavation of the San Simone *tomba a fossa*, including a close analysis of the ceramic evidence, to delve into the question of the construction of personal identity during the transitional late-Villanovan to early-Etruscan period.

Microcurrencies Can Rapidly Appear among Energy Maximizers: A Case Study from the Southern Sierra Nevada Foothills

Micah Hale, Dudek, *Adam Giacinto*, Dudek, *Nicholas Hanten*, Dudek, and *Heather McDevitt*, Dudek

A recent, large-scale archaeological investigation in the southern Sierra Nevada foothills revealed the development of a locally circumscribed steatite bead-making industry. Made from a local steatite source, these rough, thin, square beads are accompanied by the entire range of production debris and bead-making tools, collectively dating to the post-Mission historic period. We argue these steatite beads represent a microcurrency developed as an energy maximizing response to decreased availability of California's shell-bead money.

Topography and Folklore: A Study of Haunted Chios

Robert S. Wagman, University of Florida, and *Andrew G. Nichols*, University of Florida

Perhaps more than any other Mediterranean country, the physical geography of Greece is infused with supernatural lore. The supernatural associations of the Greek landscape are deeply reflected in its toponymy: from commonly occuring toponyms such as Neraïda, "Nereid, water nymph," used for both human settlements (three villages by this name appear in North Central Greece alone: N. Serviōn, Macedonia; N. Pharsalōn, N. Dolopōn, and N. Trikalōn; cf. Neraïdochōri, "Nereid Village," also in the municipality of Trikala) and land features (Mount Neraïditis near Neraïda Pharsalōn), to far more exotic denominations, such as Vrykolakonisia "Vampire Islands" (off the north coast of Scyros in the southern Sporades) and Stringlochōri, "Witch Village" (near Kardamyli in the southern Peloponnese), an extensive cultural map of Pagan and Christian superstitions underlies the physical map of Greece as we know it today. Even in the absence of a revealing toponym, a surpringly large number of Greek locations prove to be linked to some centuries-old, stratified, and (often) culturally cross-contaminated, strain of folk superstition.

Except for occasional references in the writings of early archaeologists (e.g., F. Hiller von Gaertringen, *Thera III*, 1904), folklorists (e.g., N. Politis, *Paradoseis*

I–II, 1904) and travel writers (e.g., G. Horton, *Home of Nymphs and Vampires*, 1929; P. L. Fermor, *Mani*, 1958), this fascinating subfield of Greek topography has largely been neglected by scholars. Using the island of Chios in the eastern Aegean as a case study, and renowned 17th-century humanist Leo Allatius' *De Graecorum hodie quorundam opinationibus* ("On the Beliefs of Contemporary Greeks," 1645) as our main textual source, in this poster presentation we offer a sampling of Greece's "haunted" topography as exemplified by a selection of Chian archaeological and geographical sites. A variety of local legends about Byzantine cisterns ("Venias' Well': Allatius XXII), Frankish aqueducts ("Tripotamata': Allatius XI), and spirit-infested castle moats (Suda: Allatius XII) is revisited for the first time in light of modern topographical research and presented to the public with a full set of maps and extensive photographic material.

Cosa Excavations 2018: Continuity and Renovation of a Roman Bath Complex

Melissa Ludke, Florida State University, *Ann Glennie*, Florida State University, *Allison Smith*, Florida State University, *Nora Donoghue*, Florida State University, *Anastasia Belinskaya*, Florida State University, *Christina Cha*, Florida State University, and *Emily R. French*, University of Pennsylvania

The bath complex of the Latin colony Cosa has been studied since 2013 by Cosa Excavations (Florida State University, Bryn Mawr College, Universität Tübingen). Excavation in 2018 aimed to explore hydraulic technologies and previously exposed bathing rooms. This led to the examination of both exterior and interior environs, where multiple phases came to light, illustrating continuity and renovation of space in a time during which the traditional narrative has the colony waning in the face of "lean" years.

In 2015, a sounding in the south-central area of the bath brought to light a small portion of the frigidarium. This season, Central Soundings 2 and 3 defined the limits of the room. Central Sounding 2 showed evidence for phasing in a series of surfaces and an important node of communication between the frigidarium and the bath's heated sector. Central Sounding 3 uncovered an area that was reconceived as a dump after the bath went out of use.

In the northeast, Laconicum 5 revealed a service corridor with a furnace, a drain, and a series of overlaid walls of multiple phases. Beyond the exterior eastern wall of the bath, the presence of voids demonstrated that the sewer likely continues here and may empty into a deeper subterranean receptacle at the corner of the building. In the northwest, excavation recommenced in the complex's exterior, producing late antique levels, showing limited interaction with the space in these periods.

The southwestern corner of the complex was investigated to explore possible remains of the water-lifting system for the bath. This trench built upon similar pursuits from 2014–2017, but while ample evidence of renovation and reuse in this section of the bath is present, no clear water-lifting mechanism has yet been identified.

The 2018 campaign produced an abundance of materials reflecting daily life in the baths, including bronze and bone hairpins, a bone comb, a bronze ring, an agate gemstone with a standing female figure, a ceramic spindle whorl, glass

paste beads, and gaming pieces in various media. The discovery of these and other objects illuminates the quotidian activities of the baths, such as personal grooming and leisure pursuits.

In addition to conservation of these artifacts, Cosa Excavations strives carefully to record our field methods. During the excavation of each trench, photomodels were created as interactive records of our excavation processes and illustrations of the features exposed over the course of the season.

Seafarers and Urban Networks: Mapping Maritime Movement in Mediterranean Settlements

Lana Radloff, Bishop's University

Coastal settlements were key foci of movement for seafaring people, so maritime infrastructure was developed to accommodate their needs. Yet, our primary understanding of this maritime community is usually derived from trade networks and patterns of movement at sea and settlements are often understood from a landward perspective, that is from the transfer of goods and people from city to sea. Equally important, however, are the internal dynamics of coastal settlements built into urban environments to promote and/or to isolate access from the sea to different urban zones. In this poster, I examine patterns of spatial access and lines-of-sight built into the natural environment between open sea, harbor, and urban interior in the Mediterranean from the Archaic to Hellenistic periods, using cities such as Megara Hyblaea, Thasos, Knidos, Kos, Miletus, and Rhodes as case studies.

I analyze harbor-settlement connections using space-syntax and axial integration analysis, which operate on the principle of permeability to understand how a "space" or street relates to all others in a settlement. I also use viewshed analysis to incorporate the natural topography and connections between maritime and terrestrial "spaces" not physically adjacent to one another. Results from spatial and visual models not only corroborate trends noted through intuitive analyses about maritime landscapes and coastal cities, but also highlight the nuances of their mechanics. Urban plans were designed to generate encounters within different zones of activity centered on the coastal environs of harbors. Over time, maritime space became increasingly divided through the exploitation of numerous natural bays and the addition of harbor moles and quays, resulting in greater local and global control over urban systems by the maritime environment. Commercial areas maintained access to the surrounding countryside and sea-lanes and street networks were oriented toward harbors for the movement of goods between land, sea, and interior public and private economic zones. Conversely, analyses confirm that naval harbors had little global control over their urban systems due to controlled access. Although they were typically oriented on main axes, they were located one topological step or street away to preserve their security, while maintaining accessibility for the movement of troops. These factors influenced the coastal settlements' spatial and functional layouts, territorial claims, and connectivity, and facilitated cultural interaction with local, regional, and international networks within the Aegean and Mediterranean Seas.

Developing a Monitoring Program for Submerged Aviation Cultural Resources in Pensacola, Florida
Hunter W. Whitehead, University of West Florida

Aviation archaeology is a quickly evolving subfield of archaeology and crucial component of cultural resource management. While federal and state agencies are steadily inventorying the aviation cultural resources under their purview, there is seldom enough time to examine them all. Thus, University of West Florida (UWF) archaeologists initiated research to provide additional archaeological data on the submerged naval aircraft in the northern Gulf of Mexico. Pensacola, Florida, the location of the United States' first Naval Air Station, holds substantial historical naval aviation significance. Training accidents over the last century have left aircraft wrecks strewn across the ocean floor. Beginning in the 1980s, members of the Pensacola SCUBA community began discovering the remnants of some of these aircraft. UWF archaeologists have assessed wrecks ranging from a WWI-era cupreous propeller guard to a Vietnam War–era jet. Since many of these aircraft remnants are already well-known dive sites, there is an opportunity to assess site fluctuations over time via diver-supplied observations. This study presents the initial site assessments of submerged aircraft off Pensacola as well as proposed monitoring strategies for these resources.

Undergraduate Posters

Chronicling Cosmic Contests: An Analysis of the Sarmatian Animal Style
Taylor Cwikla, Florida State University

The Scythians and Sarmatians were distinctive nomadic groups that left many monumental kurgan tombs scattered across the Central Eurasian Steppes during the classical period. Modern archaeology of the Steppes has concluded that the Sarmatian tribes had been prominent in the area from as early as the third century B.C.E., after the Scythian groups previously in control of the region shifted west. Despite an increased study of the Steppes archaeology, there remains an academic polarity concerning the extent of the relationship that may have existed between the Scythians and the Sarmatians, specifically within their art styles.

Both the Scythians and the Sarmatians implement the "Animal Style" within the decoration of their artifacts. It may be argued that the groups focused their attention on representing animals that held a role in their daily lives, but another possibility is that this implementation reflects a mythological worldview. There are distinct differences evident within the execution of each group's stylization, and so for the sake of impartial iconographical analysis it is imperative that scholars refrain from assimilating the two cultures. Where the Scythians present static, immobilized animals across their art, the Sarmatians charge their characters with an active aggression.

Sarmatian animal-style combat scenes recurrently present zoological figures in a narrative format with animals that may be categorized into three distinct cosmic planes: the heavenly, the central, and the subterranean. Within this arrangement,

each animal figure belongs to the realm in which it spends the most time. Birds and griffins occupy the uppermost plane, quadrupeds the central, and fantastic hybridized monsters the subterranean. This division of the animal kingdom across separate cosmic stages imbues their iconography with a deeper meaning and instills a greater value to the interactions among creatures across the different planes.

The Sarmatian style embraces nontraditional encounters between realistic and unconventional beasts. Predatory animals do not consistently appear in their explicit role as "predator." Not only do these presumably pugnacious creatures abandon their natural roles as the aggressor, but they even passively accept affronts from dramatically less-imposing creatures. Beyond this, even the hybridized monsters are subject to attacks from the most banal animals from the central plane. There must have been a contemporary narrative to explain the peculiar behaviors exhibited between these fantastic beasts and the animals of the natural world.

Museum Applications of 3D Imaging: Photogrammetric Presentation of Artifacts at the Cleveland Museum of Natural History

Jacob M. Kordeleski, Case Western Reserve University

As is inherently the case for all cultural heritage institutions, the Cleveland Museum of Natural History possesses a finite space for displaying physical objects. Consequently, only the most exceptional selections of artifacts or specimens earn placement among the limited exhibit areas. Though the research interests of the Department of Archaeology lie in Ohio prehistory, a small assortment of classical objects exist within its collection. Invaluable as these objects may be, the wider collection of Ohio archaeological artifacts earns priority both in exhibits and study. To remedy this issue and explore a new medium for museum education, a number of the classical objects were digitized into 3D models. The project utilized photogrammetry, a method of image analysis commonly used in archaeology to generate site maps. These artifacts, with provenances ranging from the late Parthian Empire to Bronze Age Cyprus, were archived online where they may be viewed by the public. This poster presents the task of creating a virtual museum systematically, focusing on the various challenges of photography, developing a workflow, and maintaining educational value. I hope that this project encourages other museums to utilize the digital format to overcome the limits of physical exhibition. Furthermore, this poster provides experience and data to aid in the optimization of 3D museums currently under development.

Minoan Settlement Patterns of the Neopalatial Period

Jessica Miller, University on North Carolina at Greensboro

The focus of this poster is to present the results of my undergraduate research project, which attempted to discover whether there is a discernable pattern in the location of palatial and nonpalatial settlements from Minoan Crete during the neopalatial period. In order to address the goals of this research, I chose to study five Minoan regions through a combination of ground-based survey, ArcGIS, Google

Earth Pro, site publications, and peer-reviewed articles. Within each of these regions, I chose to study one palatial site and one nonpalatial site that were within a day's journey of each other. The regions under study were central Crete (Knossos and Amnissos), the Mesara (Phaistos and Kommos), the Mirabello (Gournia and Mochlos), eastern Lasithi (Zakros and Palaikastro) and western Lasithi (Malia and Sissi). The criteria for my investigation included distances to major thoroughfares or passes through the mountains, distance to the sea, distance to the nearest mountain range(s), distance to fresh water, natural and architectural defensibility, agricultural availability, elevation of the site within the surrounding landscape, and view to and from the site.

The results of my research showed that the nonpalatial sites under investigation are in areas where there is high visibility or access to a part of the sea that is inaccessible to the palatial site of the same region. If the palatial site does have visibility or access to the sea, the nonpalatial site tends to be in an area separated from the palatial site by a mountain range or promontory, giving the nonpalatial site access to a part of the sea that the palatial site cannot access. If the palatial site does not have visibility to the sea, then the nonpalatial site is located within the same area as the palatial site but directly on the sea. My conclusions are that the spatial relationship between palatial and nonpalatial sites formed a complex communication network capable of relaying information regarding trade, religion, and possibly even defense against piracy and invasion. Also, this network assisted in the establishment of a regional "claim" of the land by the palatial site. Furthermore, this strategic placement of Minoan sites could explain why Minoan civilization did not utilize fortification walls, since the sites serve as lookout posts in addition to whatever other function they might have had.

Using X-Ray Fluorescence and Optical Microscopy to Trace Metallurgy in Dhiban, Jordan through the Centuries

Jack Berner, UCLA

In this presentation, I discuss the results of a project in which I use X-ray Fluorescence (XRF) and microscopy on archaeometallurgical material from Dhiban, Jordan. The aim of this study is to develop insights into how metal was produced, traded for, and used in Dhiban over much of its inhabitation. All materials studied are from UCLA's Paleoethnobotany and Ancient Agriculture Laboratory with the permission and guidance of Dr. Alan Farahani.

The objects include slag, jewelry, tools, nails, and fragments. These range in era from the Iron Age (ninth century B.C.E.) to the Middle Islamic era (14th century C.E.). I pay particular attention to metal production and use in the Late Byzantine era (fifth–seventh centuries C.E.). I present data obtained from a portable XRF machine used on forty distinct objects. Computer software then shows an elemental profile for each object. I also discuss the use of optical microscopy, which reveals embedded botanical remains as well as conglomerations of minerals such as magnetite in slag. To determine whether or not smelting or smithing occurred in Dhiban, I must verify whether slag-like objects (which come from Late Byzantine contexts) are indeed slag. This involves studying XRF spectrographs, looking for embedded botanical remains, and testing objects with magnets.

The presence of embedded wood charcoal in most of these potential slag objects coupled with high levels of iron indicates that they are deformed nail pieces. Late Byzantine nails analyzed under a microscope also contain pieces of wood charcoal and respond similarly to a magnet test. This study ultimately casts doubt on whether any metallurgical craft systems existed in the Late Byzantine era due to an absence of slag. Additionally, when comparing XRF results from the Iron Age, Late Byzantine, and Middle Islamic eras, there are noticeable patterns in copper alloying. Tools and jewelry from the Iron Age to the Late Byzantine are shown to be composed of common copper alloys such as leaded bronze. However, fine jewelry from the Middle Islamic period is composed of a copper-silver alloy, possibly indicating long distance trade for valuable metals during the 14th century.

SESSION 3A
Technologies and Things in the Roman World

CHAIR: *Eric Poehler*, University of Massachusetts Amherst

Gabine Graffiti: Inscribed Ceramics from Gabii, Italy

Parrish E. Wright, University of Michigan

The archaeological corpus of incised ceramics, sometimes termed "graffiti," has been historically understudied in comparison to its stone brethren. Recent publications that consider inscribed ceramics as an alternative method of understanding concepts such as literacy and ownership in the ancient world, however, suggest that this mindset is beginning to change. This study focuses on the corpus of inscribed ceramics from the Latin city of Gabii near Rome, where a University of Michigan excavation, the Gabii Project, has unearthed occupation spanning from the Iron Age to late Aantiquity. These recently found and unpublished graffiti present similarities to published catalogues from previous excavations within the city as well as from the nearby necropolis of Osteria dell'Osa. This project brings together for the first time the inscribed ceramics so far discovered from Gabii and its environs and provides a fuller picture of the people who lived at Gabii and their relationships with their possessions.

While the majority out of the 45 pieces of graffiti found by the Gabii Project consist of a single letter or marking, often an X or A, there are numerous examples with two or more letters still extant as well as one with 15 discernable letters. The ceramic materials featuring graffiti include impasto, black gloss, creamware, commonware, and especially terra sigillata. A progression in the sophistication of the inscriptions increases over time, beginning with a few, perhaps decorative, scratches in impasto and culminating in the majority of the examples in terra sigillata. The texts consistently include simple markings, especially X markings on the base of vessels, here interpreted as a sign of possession but not necessarily indicating literacy on the part of the inscriber or any potential viewers. Those with two or three letters are likely initials or another way of personalizing the vessel. Other factors such as the location of the graffito (interior vs. exterior) or how easy it is to read can aid in understanding the purpose and audience of these writings.

As a whole, this study will add to the growing corpus of graffiti from the ancient world and provides the first steps in understanding the development of scripts, literacy, and ownership from a bottom-up methodology not just at Gabii but also throughout central Italy.

At Home with the Iliad: The *Tabulae Iliacae* in Space and Narrative
Katherine F. Livingston, University of Vermont

The corpus of the *tabulae iliacae* presents an interesting case of interactivity and reception for viewers, both ancient and modern. Made of marble and calcite, these small handheld tablets were inscribed with scenes from the *Iliad* cycle. Likely found in villa contexts throughout Latium, these tablets are examples of the importance of continuity and repetition, inviting the audience to engage with text and image, extending beyond the object and into the artistic canon of Roman villa painting. Unlike previous scholarship, which present the tablets as educational objects inspired by the decorations of Graeco-Roman libraries, the aim of this paper is to highlight the visual similarities the tablets share with Roman painting conventions. This introduces the idea that there is a decorative continuity between space and luxury object. By uniting this visual parallel between object and their surroundings, the viewer is between planes, yet still physically within a space and a viewpoint. As the tabulae focus on a visual reproduction of a fictive narrative in multiple stages throughout the plot, the audience is invited to approach the viewing in any way they please. In this respect, the interactive aspects of the tablets give agency to the object, inviting and challenging the viewers' reception. Additionally, the practice of skenographia and the art-historical concept of appropriation of the center are important themes within the tablets, achieving a complex experience of multiple temporalities and planes with each successive viewing. These complicated and enigmatic objects offer a window into how the Roman mind interacted with art, narrative, and spatial perception.

A Use-Alteration Analysis of Bronze Kitchenwares from Two Houses in Regio I, Insula 11 at Pompeii, and a Consideration of Their Social Context
Aaron Brown, University of California, Berkeley, and *Sara Eriksson*, Lund University

In this paper, we offer a use-alteration analysis of a selection of Roman bronze vessels for the preparation and provisioning of food and drink from two separate assemblages, the Casa di L. Habonius Primus (I.11.5–8) and the Casa Imperiale (I.11.17), at Pompeii. We systematically examine the morphology of the kitchenwares from a functional point of view in order to reconstruct the life histories of the individual objects. This study sheds light on various types of object-user interaction and the daily practices of two Pompeian households with broader implications for studies of consumption patterns in the Roman world. Our research was conducted as part of the 2018 season of the Pompeii Artifact Life History Project.

Through consultation of archival sources, we attempt to recontextualize the vessels and to determine the frequencies of particular types within the two residences.

While both houses are modest in scale, there is significant variation in the size and composition of their bronze kitchenware assemblages. A subset of vessel types is examined, comprised of all vessels that were plausibly used for food preparation or water provisioning, including cookpots, casseroles, cauldrons, and buckets. Due to the intact or nearly intact nature of many of these objects, the assemblages represent a unique opportunity for use alteration analysis, which is most profitably carried out on complete objects. For each object, all forms of surface loss (denting, scratching, chipping, etc.) and surface accretion (principally sooting/fire blackening) are noted and described in detail. Alterations may be intentional, such as the addition of patches to repair holes, or unintentional, such as the inadvertent bending of a rim over time. Patterns among the various forms of use alteration are documented and used to illuminate aspects of the *chaîne opératoire* of the objects.

We demonstrate that bronze, far from being a material resistant to use alteration, is in fact a sensitive indicator of different types of alteration. Reconstructing the life histories of the objects analyzed, we identify distinct consumption habits and food/drink preparation strategies within the two households. We interpret these differences as indicators of both individual taste and the distinct socioeconomic realities of the households.

Reconstructing the Social Lives of Roman Nauta Using Personal Effects Recovered from Shipwrecks

Rachel L. Matheny, Texas A&M University

Artifacts, such as the apotropaic Priapic objects from the Pisa E and Planier A wrecks and the medical equipment found on the Plemmirio wreck, have the potential to significantly contribute to the current understanding of Roman merchant sailors' lives and culture. The three decorated strigils found on the Camarina A wreck and the unguentarium from the Culip D wreck indicate that those on-board merchantmen were concerned with personal hygiene. The statuettes, louteria, altars, incense burners, tripods, and candelabra found at numerous wreck sites, including, but not limited to, Palagruza A and B, Ognina A and D, Grado, Cavallo A, and Camarina B, attest to the prevalence and wide range of religious activities on board. Domestic assemblages, which include artifacts such as coarseware kitchen and eating utensils, stone querns, and lead braziers, provide information regarding sailors' diet and culinary life while at sea. This paper focuses on reexamining shipwreck data from the Roman imperial period, specifically focusing on personal possessions likely belonging to the crew. Previous research in this field has focused on the construction methods and commercial cargoes which, while valuable, are not directly informative about the lives of those who crewed the vessels, a group largely invisible in Roman literature and terrestrial archaeological record. Examining the lives of common sailors working aboard merchantmen can provide a more rounded, nuanced understanding of Roman society and, in particular, the lower echelons of the Roman imperial world.

The Vindolanda Calendrical Clepsydra: A Reexamination of the Vindolanda "Calendar"

Alexander Meyer, University of Western Ontario

In 2008 archaeologists discovered a fragment of an unusual copper alloy artifact from an unstratified context between the east granary and the headquarters building of the third-century Roman military fort at Vindolanda, near Hadrian's Wall in England. Initially, the excavators believed it was part of a parapegmatic perpetual calendar. Soon afterwards, however, Michael Lewis compared the Vindolanda fragment to a passage from Vitruvius and artifacts from Salzburg, Austria and Grand, France to argue that it was part of a complicated time-keeping device known as an anaphoric water clock (Vitr. 9.8.2). In subsequent years this fragment has received considerable attention from scholars interested in time and time reckoning, including Kevin Birth, Alexander Meyer, and Rodger Tomlin. Among these scholars there was general consensus that the Vindolanda fragment was some sort of time-keeping device (either a clock or a calendar), that it could be associated with a Roman military granary or headquarters building, and that its form, if not its purpose, was similar to a parapegma. Until recently, however, it has been impossible to determine the original form and function of the complete artifact of which we have only this small piece. The discovery of a similar fragment in Hambledon, Hampshire in the United Kingdom and the recognition of the similarities between the Vindolanda fragment and an almost complete artifact in Frankfurt have now made it possible to reconstruct the form of the complete Vindolanda artifact and to reinterpret its function.

This paper argues that the Vindolanda, Hambledon, and Frankfurt artifacts represent a type of time-keeping device that is not described in the ancient literature and that has hitherto gone unrecognized. It also suggests that these artifacts ought to be known as "calendrical clepsydrae." Furthermore, this paper examines the contexts in which these fragments and those housed at Salzburg and Grand were discovered and argues that they should be associated with bathing and healing shrines. Finally, it presents evidence for a Roman-era bathing and healing shrine in the Allen Valley near Vindolanda and posits that the Vindolanda calendrical clepsydra was originally intended to be used in its administration.

Makeshift Lids and Systematic Amphora Reuse in Late Antiquity

James C. Gross, University of Pennsylvania

Many of the amphoras from the seventh century shipwreck at Yassıada were sealed using lids created from clipping body sherds into an approximately round shape. Excavated in 1961–196 by the University of Pennsylvania under the direction of George Bass, the Yassıada wreck yielded over 900 amphoras and 195 makeshift lids. The cargo was a mix of late Roman 2 (LR2) and late Roman 1 (LR1) amphoras in a variety of fabrics. My study of the clipped body sherds lids in 2017–2018 complements published work by Frederick van Doorninck Jr. on the reuse of amphoras from the wreck, and offers a new explanation for the phenomenon of amphora reuse in late antiquity. The marked increase in amphora reuse in this period has been linked to economic decline in the past, but growing evidence for

prosperity throughout much of the late antique eastern Mediterranean calls this direct association into question, instead suggesting a correlation between amphora reuse and increasing mobilization of agricultural goods.

Analysis of the functional type, fabric, and diameter of the Yassıada lids in conjunction with the amphora assemblage reveals no necessary correlation between an amphora and the lid used to seal it. The phenomenon of reuse exhibited here is best explained as a result of a relative scarcity of amphoras at the packaging location. Producing more olive oil and wine than new amphoras and lids to hold and seal them, manufacturers may have resorted to the reuse of discarded amphoras and sherds. The wide variety of types and fabrics exhibited by the assemblage necessitates that packaging took place at a harbor site where both imported and locally produced amphoras were readily available. In this case, amphora reuse serves as a stop gap used to fix an inefficiency resulting from the rapid mobilization of processed agricultural goods. This reuse also makes sense in the context of van Doorninck's proposal that this ship was carrying supplies bound for Heraclius' army. The army's urgent need for supplies required the rapid mobilization of goods.

Recently published material from Kenchreai, a harbor site where amphoras from the surrounding area were packaged, suggests that the seventh century Yassıada shipwreck is not an isolated example. More evidence is needed to determine whether the Yassıada jars form part of a broader trend, but the reuse of lids and the amphoras they closed may indicate a new system of mobilization in late antiquity rather than economic decline.

SESSION 3B
Provincial Identities in the Roman Empire

CHAIR: *Elizabeth M. Greene*, University of Western Ontario

Violence, Coercion, Accommodation: Gauls and Roman Coinage

Marsha McCoy, Southern Methodist University

The Roman subjugation of Gaul as portrayed on Roman coinage challenges long-held assumptions about the violence of Roman conquest and subjugation (cf., e.g., M. H. Crawford, *Roman Republican Coinage* [Cambridge University Press, 1975], 71). In 120 B.C.E., two Roman generals defeated Gallic tribes in southern Gaul and celebrated triumphs in Rome. Roman denarii of 119 B.C.E. commemorating these victories show typical displays of violent "conquest" iconography, with a helmeted Roma crowning a (captured) trophy of typical Gallic war emblems (Crawford, #281). In 118 B.C.E., the Romans, in order to secure the land route from Italy through the newly conquered Gallic territory to Spain, authorized the foundation of Narbo Martius in southern Gaul, the first Roman colony ever founded outside mainland Italy (Cic. *Brutus*, 158–60). An issue of denarii of the same year clearly minted for use in this colony depicts on its reverse a triumphant

Gaul standing astride in a biga, carrying a carnyx, the Gallic war trumpet, and a Gallic shield (Crawford, #282.1–5). This iconography contrasts starkly with both the denarii of the previous year and Caesar's later denarii depicting his conquest of Gaul, 58–49 B.C.E. Denarii connected with Caesar's victories show the defeated Vercingetorix, cowed and conquered Gallic men and women, and, as in the coinage of 119 B.C.E., captured trophies of Gallic war emblems (Crawford, #448.2–3). The violent subjugation of southern Gaul in 120 B.C.E. was a major victory for the Romans, and it was initially celebrated in the usual manner of triumphs and violently triumphal coinage. Thereafter, Roman strategy clearly shifts to tactics of accommodation, as the Romans create coinage for use in its new colony in southern Gaul, coinage that will be used by Romans and Gauls alike, that combines Roman dominance (Roman coinage with an obverse head of helmeted Roma) with Gallic militancy (the Gallic warrior on the reverse). Caesar's later conquests in central and northern Gaul, for reasons probably connected to the related coinage's production for a Roman audience and his immediate political needs, produces coinage with the typical iconography of violent conquest and subjugation. The coinage of 118 B.C.E., however, should be incorporated into a new understanding of a more flexible and innovative Roman expansion policy, of violence, coercion, but also accommodation, in the late second century B.C.E.

Negotiating Roman Hegemony: The Arch of Augustus at Susa

Charlotte Forstall, Indiana University, Bloomington

Outside the modern-day city of Susa, Italy, stands a monumental arch dedicated to Augustus. Erected in 9/8 B.C.E. shortly after Susa was admitted to the Roman Empire, the arch celebrated the treaty between 14 Gallic tribes and Augustus. The single-bay arch, which is located on a road outside of the town, retains traces of its bronze-lettered inscription and preserves three friezes depicting scenes of sacrifice and peacemaking between the tribes and Rome, all rendered in a figural style typically described as "provincial." In this paper, I argue that the arch monument's architecture, sculpture, topography, and epigraphy present a sophisticated blend of Gallic and Roman ideological imperatives. The arch highlights the contribution of the Gallic tribes, in particular that of the federation's leader, Marcus Julius Cottius. As such, the arch deploys Roman architectural forms and iconography to communicate Gallic agency within the new, Roman sociopolitical order.

Through a reading of the monument's iconography, epigraphy, and topography, I demonstrate that while not subversive, the arch negotiated with Roman hegemony in a manner that confirmed, in some measure, local agency—particularly that of the new Roman prefect, former Gallic King, Cottius. For instance, Cottius is the active agent in the inscription and in the reliefs' narrative—the scenes depict his interactions with Roman officials and rituals. Topographically, the arch is connected to the administrative center of the federation, placed upon a prominent road, and, after Cottius's death, his tomb was erected nearby. The arch demonstrates Cottius's attempts to navigate the two separate political bodies on which he was dependent for his power and authority— Rome and the tribes over which he ruled. My study produces a new reading of the Arch at Susa that speaks to this multifaceted power dynamic.

The Barbegal Mill Complex: A First Industrialization Attempt in Roman Gaul
Gül Sürmelihindi, Johannes Gutenberg University, *Cees Passchier*, Johannes Gutenberg University, and *Philippe Leveau*, Aix-Marseille Université

Invention of the water-mill was a milestone in the utilization of water-power during the Roman period and a big step towards industrialization. One of the most spectacular and best examples, the preindustrial Barbegal watermill complex from Gaul, was set up with 16 waterwheels, probably by local private initiative. Unfortunately, the building structure is only partly preserved and there are no remains of the wooden machinery. However, 142 fragments of carbonate incrustation have been identified that formed on the wooden structures of the flumes and wheels of the Barbegal complex. We studied the shape of wood impressions in all preserved carbonate fragments and the internal stratigraphy and composition of the carbonate in some selected fragments, analyzing microstructures, stable isotopes, trace elements, and crystallography of the calcite fabric. Our observations give information on the structure and maintenance of the mill complex and even on its purpose. We found that regular repairs were made to the woodwork with an interval of less than a decade. The waterwheel chambers of the mill were probably covered or even closed. Unusual and unique elbow-shaped flumes were used in the lower part of the complex, probably designed to accommodate the unusual water flow regime in the mill complex. The Barbegal complex was probably not used for permanent flour supply to nearby population centers as previously proposed, since incomplete cyclicity of stable O- and C-isotopes shows that operation was interrupted part of each year. Instead, the produced flour may have been used to provide transportable and durable food such as hardtack for the supply of ships passing through the ports of Fossae Marianae and Arelate. Mill activity ended while water was still flowing over part of the woodwork, but in the open air, probably after the roof structure collapsed. Our experience with carbonate deposits from Graeco-Roman aqueducts and other water structures all over the Mediterranean shows that carbonate deposits can be used as a novel archive to answer questions on ancient water technology, for the reconstruction of environmental conditions in antiquity and for responses to changes in this environment.

Excavations of the Roman Theater at Mandeure in Eastern France
Daniel Schowalter, Carthage College, *Séverine Blin*, Centre National de la Recherche Scientifique, *Jean-Yves Marc*, University of Strasbourg, *Pierre Mougin*, Syndicat Intercommunal à Vocation Archéologique Mandeure-Mathay, and *Pierre Assali*, Altamétris (SNCF Réseau)

Situated immediatly at the south of the Porte de Bourgogne, which is one of the most important isthmi of Western Europe, at the meeting point of the axes Doubs-Saône-Rhône and of the roads which are leaving the Po Valley and going through the plateau of Switzerland, the ancient town of Mandeure was developed from the Gallic epoch around a great sanctuary. Although the plan and the architecture, for those ancient periods, remain unknown, it has been clear for many years that it was a major religious center. The incredible value of the offerings (some of exceptional character), such as the beautiful bronze carnykes and the military

ensign in the form of a boar attest to the importance of the sanctuary. The god of this Gallic sanctuary remains anonymous, however, the military nature of some artifacts invite us to imagine a military god. That hypothesis, which is not completely established, is reinforced by the identity of the Roman god who succeeded the Gallic one: Mars Ultor.

Documentation for Roman times is much more abundant. The sanctuary occupies more than 20 ha, in the south of the Roman town. This sanctuary, exceptional in size, is surrounded by a continuous wall, interrupted by several monumental entrances.

The Roman sanctuary of Mandeure is largely dominated by two structures on axis: the monumental theater and the great temple. It is characterized by an extraordinary size: the space between the different buildings is very large in order to accommodate great numbers of visitors. The theater had a capacity of 18,000 spectators.

Study of the theater was undertaken in 2001, and is today a rare collaboration between French and American institutions in France. This study focuses on both the spectacular theater and its place as a major component of the sanctuary. Our work also seeks to understand the role of the vast empty spaces between and around the monuments, where processions, sacrifices, and banquets took place as part of the open-air phenomenon of Roman religion.

This paper reports on the results of excavations in 2012–2015, which revealed the presence of a kitchen, potential dining space, and a monumental well above the theater. Excavations in 2018 have revealed the remains of a wall above and concentric to the theater, which indicates some kind of portico or additional structure associated with the theater. We will also discuss the results of experimental 3D imaging conducted during the 2018 season.

Province and Empire in Two Mosaics from the House of Africa, Thysdrus

Emily R. French, University of Pennsylvania

In the House of Africa at Thysdrus (modern El Djem, Tunisia), two floor mosaics dating to the second or early third century C.E. provide a useful case study for complex questions about elite provincial identity in the Roman Empire and how we understand the interplay between "Roman" and "local." Both feature busts of the personified Africa wearing an elephant headdress and a yellow garment; in one, Africa features alone at the center surrounded by the Seasons and birds, and in the other, Africa is one of six personifications of provinces in a hexagonal grid pattern: in the center is Rome, with Africa, Sicily, Egypt, Asia, Spain, and one unidentified figure around her. Prior work has focused on how these mosaics focalize Rome, the patron's loyalty to her, and his imitation of Roman culture. While there is certainly no doubt that Rome's central position in the mosaic and her instruments of imperium (military equipment, *orbis terrarum*) lend her authority, iconographic and contextual features of these floors make the other figures—especially Africa—partners in this imperium rather than exclusively subject to it and benefiting from it. The figures in the province mosaic are unified in their similar clothing and containment within equal spaces in the grid, but not at the cost of their individualized attributes; they can exist and be recognized outside of the group, as shown by the mosaic with Africa alone. Scholars have also suggested an economic meaning behind the province mosaic, with Africa, Egypt, Sicily, and Spain

included for providing crucial grain and oil to the empire. Simultaneously the Seasons in the other mosaic showcase her fertility to suggest Africa's abundance does function beyond that imperial context. The iconography of the two mosaics asserts Africa's important position as a major player in Roman prosperity and success. Reinforcing these links between the two images of Africa are their positions in the house. Because the mosaics are in adjacent rooms, a viewer of the province mosaic had to walk by the other Africa, inviting connections between them. Furthermore, their domestic context and location in Africa itself minimize a centralized reading of empire in favor of the local actors who maintain and support Roman imperium. These two mosaics create fluctuating concepts of "Roman" and "local," thus eliding the distinctions we might wish to draw between them and reading provincial elite self-identity as both at once.

The Oedipus Fresco from Touna el-Gebel vs. the Odyssey Landscapes: Amalgamating Greek, Roman, and Egyptian Narratives

Patricia A. Butz, Savannah College of Art and Design

This paper focuses on an important and recently conserved funerary fresco in the Egyptian Museum (Inv. 63609). It was discovered in 1934 in the necropolis of Touna el-Gebel and has been dated to the Roman period. The fresco is tripartite in composition and its principal scenes, while Greek in narrative content, are very provocative for a funerary house on Egyptian soil. Framing the centerpiece, which depicts a personification of Thebes barely visible under heavy cloud cover, are two critical scenes from the Oedipus narrative. The right shows the encounter between Oedipus and his father Laius, when Oedipus unknowingly fulfills the oracle by killing his father on the road between Delphi and Thebes. On the left is the subsequent encounter between Oedipus and the Sphinx, who lives outside of Thebes where Laius was king. Miniaturized Greek inscriptions act as labels for at least one element in each of the compositions.

The sophistication of the Oedipus Fresco with its landscape content recalls the Alexandrine school and even major cycles such as the Odyssey Landscapes from Rome, also part of this research project. The exquisite inscriptions, like those of the Odyssey Landscapes, affect the reception of the visual narrative and will be shown to act as ornament as well as textual markers. The paper argues how the choice of the Oedipus scenes, their unique treatment of the two events, and their double position flanking the central myth carry strong Egyptian overtones, connecting the Egyptian topos, the cities of Thebes in Egypt and Thebes in Greece, and the iconography of the Sphinx into hybrid concepts of the next world characteristic of Roman eclecticism in the Mediterranean.

Dameskenos at the American School: Revisiting Notions of Identity and Death in Roman Athens

Dylan K. Rogers, American School of Classical Studies at Athens

Any member of the American School of Classical Studies at Athens (ASCSA) who has spent time on the porch of Loring Hall, the School's residence hall, will be familiar with the looming Roman grave stele of Damaskenos hanging on the

walls there. The relief is over 1.90 m tall, depicting the stern-faced man wearing a himation, with hands clasped. The fragmentary inscription above him identifies the man as Dameskenos, the son of Seleukos.

Originally discovered in 1894 in the area that now houses the French Embassy of Athens on Vasilissis Sofias Avenue, the Damaskenos relief, along with a handful of other funerary sculptures, came into possession of the ASCSA shortly thereafter. The relief then found a final home in Loring Hall after its construction in 1929. The relief was only ever published in 1965 in *Hesperia* by Sterling Dow and Cornelius Vermeule, who desired to begin to tell the story of Dameskenos, because they "venture[d] to suggest [the relief] deserves better" (274). Dow and Vermeule give a close reading of the style of the relief and its inscription, suggesting that it was carved in the early second century C.E. Only passing mention is made to Dameskenos' Syrian heritage.

Since the initial publication of the relief, new excavations throughout the city of Athens have altered our understanding of the physical layout of Athens and the inhabitants therein. Thus, this paper presents a new preliminary reading of the Dameskenos relief, placing this understudied grave relief into a wider context of Roman Athens, not just a random find. We now know better the placement of various Roman cemeteries in Athens (e.g., Kerameikos, the Sacred Way, etc.), especially near the find spot of the relief, to the northeast of Syntagma Square. Further, more attention is being paid in current scholarship to questions of identity in Roman Athens, such as those groups considered to be foreign migrants (versus migrants from within Attika), particularly Syrian populations. We can now consider how the individual from Syria on this grave relief could have interacted with other populations in Roman Athens. Thus, this paper updates the original presentation of Vermeule and Dow—and how we can better understand Dameskenos and his place in Athens of the second century C.E.

SESSION 3C
Excavations in Greece

CHAIR: To be announced

Exploring Thracian Stryme and Its Hinterland

Thomas F. Tartaron, University of Pennsylvania, *Eli Weaverdyck*, University of Freiburg, and *Nathan T. Arrington*, Princeton University

The Molyvoti, Thrace, Archaeological Project (MTAP) undertook two seasons of intensive surface survey in and around the Greek settlement presumed to be the Thasian colony Stryme on the Aegean coast of Thrace. In 2014 we performed an "urban survey" at 5-m walking intervals, totaling 0.41 km^2 inside and just outside the fourth-century B.C.E. city walls; and in 2015 we conducted a "chora survey" at 10-m intervals of 5.96 km^2 in the hinterland. Set alongside the concurrent excavations of 2013–2015 at Stryme, these surveys were intended to complement the excavations and contextualize the excavated site in a broader microregional natural and cultural setting. We have come to the stage of analysis where we can

report meaningful spatial, functional, and chronological patterns in the data. Our results support the conclusion that Stryme's heyday was the fourth century B.C.E., after limited archaic presence and modest early classical activity. The urban survey allows us to estimate the extent of the densely built area of Stryme, and supports a reinterpreted location for the northwestern arm of the city wall, which adds more than 16 ha of internal space. The presence of massive quantities of amphora sherds in almost every urban unit, as well as dozens of coins found at Stryme (complementing hundreds found in excavation) but not in the hinterland, lends Stryme the character of a true emporion, as it was called by Herodotus (7.108.2). Concentrations of slag outside the walls and hopper mill fragments inside the city suggest industrial activities. The chora survey, by contrast, adds much to the urban study and reveals many differences. We recovered evidence for activity in periods that are scarcely represented if at all in the excavation, including Hellenistic, Early to Middle Roman, and Ottoman. There remains scant evidence, however, for indigenous Thracians in the coastal lowlands during the historical periods. The funerary landscape of classical times is represented by dozens of tumuli and a number of inscribed stelai that trace extramural cemeteries. We designated nine Places of Special Interest (POSIs), many of them multiperiod, to which we can attach tentative labels such as hamlet, villa, and sanctuary. In this presentation we highlight these and other findings that illustrate the synergy between surface survey and excavation in this relatively poorly known region of the Greek world.

The Mute Evidence of the Dead: The Cemetery of an Early Hospital on the Ismenion Hill, Thebes, Greece

Maria A. Liston, University of Waterloo, ON

The site of the extramural Sanctuary of Ismenian Apollo in Thebes, Greece underwent a drastic change at the end of antiquity. In the Early Christian/Byzantine period it was transformed into a cemetery, associated with an as-yet unidentified institution. The cemetery of reused and multiple-use graves revealed very high numbers of individuals with significant long-term pathologies. The collection is dominated by leprosy sufferers, but there are unusual numbers of individuals with other serious diseases, as well as traumas. In many cases there are co-morbidities, with individuals suffering from both leprosy and brucellosis, metastatic cancer, leukemia, rheumatoid arthritis, and other conditions. The site provides a detailed view of the suffering experienced by the people of Thebes in the fifth to sixth centuries. The concentration of pathologies in this cemetery indicates that the cemetery was the final resting place, not of the general population, but of the dead from an institution that cared for the sick and infirm, particularly those with debilitating and long-term diseases. The broader archaeological context and interpretation is discussed in another paper at this conference. This paper focuses on the evidence for disease and the significance of the rates of the disease among the burial population. The prevalence rates for skeletal leprosy suggest that it was primarily individuals with late-stage disease and/or concurrent conditions who died and were buried in this cemetery. Charity and pity, in particular when directed to those suffers, were viewed as important virtues in the early church. It was an expectation of the early Christian communities that they would provide support for

the indigent and sick members of the population, as well as for travelers in need. The evidence suggests that at Thebes there was an unusually large concentration of terminally ill patients, which in turn suggests that they came, or were brought, to an institution providing needed care and support. It is likely that this institution was administered by a monastery associated with the nearby church of St. Luke the Evangelist, but documentary or archaeological evidence for it has yet to be identified. The skeletons themselves offer the primary evidence for a previously unknown early hospice or hospital outside the walls of Thebes.

Corinth Excavations: Northeast of Theater 2018

Christopher A. Pfaff, Florida State University

From 10 April to 29 June 2018, the Corinth Excavations of the American School of Classical Studies focused on a newly acquired parcel of land northeast of the ancient theater of Corinth. The decision to excavate this area was motivated by the fact that little work, apart from small rescue excavations, has taken place in this central zone of the ancient city between the Theater (to the south) and the "Gymnasium" and Asklepieion (to the north). Our chief aim is to reveal the nature of this part of the city in both its Greek and Roman phases in order better to understand the overall plan and organization of the city throughout antiquity.

Within seven adjoining trenches, covering an area of just under 41 m^2, the excavations revealed part of a decumanus of the Roman city and part of a large Roman building (perhaps an urban domus) south of the road. In its late (fifth to sixth century) phases, the road was approximately 4.0 m wide; earlier it seems to have been as much as 0.70 m wider. A wheel rut in one of the lower concrete road levels confirms that at least for a time, the road serviced wheeled vehicles. A broad robbing trench along the south side of the road may indicate that in late antiquity, if not earlier, this part of the road was lined with a colonnade. Further south, deep robbing trenches filled with debris in the sixth century, define four rooms of the large Roman building. Three of the rooms provide evidence for floor pavements not previously attested at Corinth. One is an opus sectile floor with a surface of diamond-shaped tiles (probably of marble) set in a herringbone pattern, while two others have diamond-shaped tiles (of white and red marble) embedded in a surface composed of black stone chips framed by a white tessellated trellis pattern and white tessellated borders. Throughout Italy, comparable floors with marble diamond-shaped tiles and/or surfaces covered with stone or ceramic chips are prevalent in the first centuries B.C.E. and C.E. Future excavation will be needed to determine whether the date of construction of the Roman building at Corinth is consistent with the apparently early date of its floors and to shed further light on the form and function of the building.

The Roman Period of the Western Argolid: Initial Analysis and Interpretations of an Intensive, Siteless Field Survey

Joseph Frankl, University of Michigan, *Scott Gallimore*, Wilfrid Laurier University, *William Caraher*, University of North Dakota, and *Machal E. Gradoz*, University of Michigan

The publication of Susan Alcock's *Graecia Capta* has fundamentally shaped historical views of the Roman landscape of Greece. In the past 25 years, however, new datasets together with developments in survey method and theory have complicated Alcock's conclusions. This paper presents preliminary interpretations of survey data collected by the Western Argolid Regional Project (WARP) that contribute to this increasingly sophisticated understanding of Roman Greece.

In three seasons of pedestrian field survey, WARP employed intensive, siteless collection techniques to investigate a 30 km² area in the Inachos River Valley. Collected objects were processed using the Chronotype System, which places artifacts into flexible chronological and functional categories. Together, siteless, intensive collection and the Chronotype System have generated a high-resolution dataset comprised of over 50,000 objects. Importantly, this methodology foregrounds these objects as primary analytical units by framing landscape-wide artifact patterning as a series of assemblages, allowing for the formulation of a unique historical narrative.

Our analysis runs contrary to the traditional "boom and bust" model of the Greek countryside; WARP's Roman period assemblages are concentrated in 12–15 clusters—collections of artifacts, which might conventionally be labeled "sites"—that demonstrate continuity with the Classical–Hellenistic period and within the Roman period itself. WARP's methods permit a nuanced description of this pattern by adding texture to the concept of "continuity." First, continuity can be understood through different temporal scales allowing us to produce landscapes and assemblages that incorporate ceramics identified with varying degrees of chronological resolution (from broadly Roman to narrowly fourth century, alongside those from transitional periods). Continuity can also be understood with the functional character of our assemblages, such as the relative quantities of ware types (e.g., fine and kitchen) for functional categories (e.g., table and storage). Such analysis can also be extended to landscape-wide behavioral changes, such as degrees of connectivity. This provides a means of evaluating shifting relationships between this landscape and neighboring administrative centers like the city-state of Argos. The distribution of these assemblages, although demonstrating continuity, proves to be a spatially dynamic landscape, rather than a scatter of static dots. Thus, the internal spatial patterning of a specific cluster may change over time, as does its relation to other clusters. Ultimately, our analysis, fueled by unique methods, begins to generate a distinctive multiscalar historical narrative of the stability in land-use and habitation of the Inachos River Valley under Roman rule.

Mind the GAP: Preliminary Results of the First Season of the Gourimadi Archaeological Project, Greece

Zarko Tankosic, Norwegian Institute at Athens, *Fanis Mavridis*, Ephorate of Palaeoanthropology and Speleology, Hellenic Ministry of Culture, *Paschalis Zafeiriadis*, University of Cincinnati, *Aikaterini Psoma*, University of Illinois at Chicago, *Aikaterini Kanatselou*, Norwegian Institute at Athens, and *Paschalis Dellios*, University of Athens

A new archaeological research project began in the summer 2018 at the prehistoric site of Gourimadi in southern Euboea, Greece, under the aegis of the Norwegian Institute at Athens. This site was discovered during an earlier Norwegian surface survey project in the area that singled out Gourimadi as especially important, based on the structure and size of its surface scatter. The site occupies the summit and slopes of a prominent hill on the southern edge of the Katsaronio plain. We excavated two trenches, one at the summit and one at the southern slope of the Gourimadi hill. The trenches produced a wealth of archaeological material, consisting of pottery, lithics (mainly obsidian), and architectural remains comprised of both straight and curved walls. Especially significant are the lithic finds, which include 111 projectile points (surface and excavation finds combined). This constitutes one of the largest collections of projectile points found in Greece to date. In conjunction with other lithic finds, this indicates the potential presence of a lithic workshop at the site. Moreover, Gourimadi results are significant for understanding the local and regional prehistoric chronological sequence. In addition to the expected finds of the Final Neolithic (FN) and Early Bronze Age (EBA) I ceramics, we uncovered several sherds that can be dated to the earlier Late Neolithic phase. Similar material has thus far been encountered only in the recently excavated Agia Triada cave and represents the first evidence for LN presence in southern Euboea on an open-air site. Combined with indications of early metallurgical activities found on the site previously, this suggests that Gourimadi is a potentially pivotal site for understanding prehistoric developments in this part of the Aegean. In this paper, we present the evidence collected in 2018 and place it in its regional context. We also offer initial interpretations on the nature of this site and its position in the Neolithic and EBA Aegean world.

SESSION 3D: Colloquium
Archaeology and Ritual in the Ancient Mediterranean: Recent Finds and Interpretive Approaches

Sponsored by the AIA Coroplastic Studies Interest Group

ORGANIZERS: *Erica Angliker*, Institute of Classical Studies-University of London, and *Michael Anthony Fowler*, Columbia University

Colloquium Overview Statement

The new millennium has seen an intensification of scholarly attention on the material dimensions of religious practices and collective/personal experiences in the ancient Mediterranean. The identification of material traces of ritual in the

archaeological record and the use of artifactual and ecofactual assemblages to reconstruct ritual activities are major topics of interest. Due to their high archaeological visibility, animal sacrifice and communal feasting in sanctuaries and official cults have unsurprisingly been the focus of many studies. Far less studied from a material perspective are rituals performed in contexts that are less cleanly demarcated as cultic and/or those which are personal, mundane, or occasional in nature.

The present panel is meant to stimulate scholarly interest in the latter class of rituals and to generate discussions concerning the recognition of the material signatures of archaeologically lower-profile rituals practiced in spaces beyond very well-defined cult centers (caves, springs, mountains, workshops, houses, etc.). With an assembly of case studies spanning several cultural groups and sites in the Mediterranean and diverse materials ranging from the Mycenaean period to the Roman imperial era, the proposed colloquium explores, in varying ways, the identification of such rituals.

The first paper discusses two hitherto understudied deposits of artifacts dating from the Late Bronze Age to the Archaic period and imperfectly understood Mycenaean architectural structures on the Athenian Acropolis, associating them with personal rituals performed within a long-established folk tradition on the site. The second paper, an investigation of the architecture and furnishings of a recently excavated Early Helladic "corridor house" in the Peloponnese, also addresses materials from Aegean prehistory and their analytical peculiarities. It is argued that, in addition to its well-attested administrative or political uses, the house may have played an additional role in community formation as a special ritual venue. The following two contributions deal with difficulties in identifying ritual practices within the "secular" contexts of craft or labor. Whereas the first focuses on potters' and coroplasts' use of grotesque terracotta figurines as apotropaic devices to guarantee safe and successful firings, the second discusses rites associated with acts of demolition performed during the recycling phases of Roman villas. The last two papers of the colloquium handle materials from Magna Graecia. The first considers Classical and Hellenistic terracottas with musical subjects dedicated in sacred rural shrines (springs and grottoes) and their links with rites of passage. The second and final paper proposes a method to identify rituals liked with personal dedications of a pre-Roman Italic people (Samnites) by examining indices of individual agency and choice of votives.

Collectively, the papers offer different methods to identify a wide range of lower-profile ritual activities, which fall outside the traditional sphere of cults and/or are encountered in archaeological contexts that are difficult to identify as explicitly or exclusively religious. By prioritizing materials from recent excavations or long neglected storerooms, the panel draws attention to the great promise of new and un(der)studied discoveries for an emergent archaeology of low-visibility rituals.

DISCUSSANT: *Clemente Marconi*, Institute of Fine Arts, New York University

Terracotta Figurines and Textile Tools on the Athenian Acropolis: A "Hidden" Ritual in the Cult Center "on the Heights"

Georgios Gavalas, Ephorate for Antiquities of the Cyclades, Hellenic Ministry of Culture, and *Vassiliki Georgaka,* Archaeologist in the Ephorate of the City of Athens

The ancient citadel on the Acropolis of Athens houses several ancient buildings of great architectural and historical significance, the most famous being the Parthenon. Whereas scholars have long been discussing the major cult practices performed on the Acropolis, very little attention has been given to the character of less-prominent rituals. The present paper reverses this relationship by analyzing evidence that has not been the focus of existing scholarship: the simultaneous deposition of common artifacts (e.g., terracotta figurines and textile tools) dating from the Mycenaean to the Archaic periods. A close consideration of these deposits and their archaeological contexts enables, in turn, a new interpretation of associated architectural remains. To this end, we recently "reexcavated" the storerooms of the Old Acropolis Museum and the National Archaeological Museum, as well as conducted archival research on 19th-century repositories excavations.

Traditionally, terracotta figurines and textile tools, especially spindle whorls, found within Mycenaean contexts have been interpreted as remains of everyday secular activities. A similar approach has shaped our understanding of the large quantities of figurines and textile implements in Archaic period deposits on the Acropolis. Challenging these traditional views, we propose that the hitherto "undetermined" relationship between these deposits corresponds to a ritual practice with multiple aspects, which were related to the gender age of the worshipper on a personal level or to a communal social identity. The deposits furnish evidence of lower-profile rituals connected with a long-established folk religious tradition on the Acropolis. We show that, within the frame of formal archaic cult, these practices seem to demarcate qualities of the Goddess worshipped as Ergane "on the Heights" and the nature of her official cult. Finally, we demonstrate that the spatial disposition of these deposits permits the identification of another possible cultic area on the Athenian Acropolis and the reevaluation of known architectural remains, which have not yet been adequately explained.

Social Gatherings from the Early Helladic North Peloponnese: The Case of the Helike Corridor House, Gulf of Corinth, Greece

Dora Katsonopoulou, The Helike Project, Athens, Greece, and *Stella Katsarou,* Ephoreia of Palaeoanthropology-Speleology, Ministry of Culture and Sports, Athens, Greece

Excavations carried out by the Helike Project in the Helike plain on the southwestern coast of the Gulf of Corinth, conducted since 2000, have brought to light the well-preserved remains of a coastal EH II–III settlement. Among the buildings discovered is included a monumental Corridor House, whose particular significance within the context of the proto-urban town of Helike, and beyond in the southern mainland, is evidenced by its extensive remodeling upon a specifically prescribed architectural plan to accommodate ample storage areas on the ground

floor and to support the addition of a second floor. While the administrative, hierarchical or central profile of the building within the society of the town has so far been strongly manifested upon architectural and economic criteria, the possibility that the House has also served as venue for social ceremonies becomes now a strong possibility, further amplifying the multiform role of the Helike Corridor House.

In the paper, the intriguing evidence—specific architectural features, mainly built platforms, and pottery of the "serve and drink" culture discovered in the ground spaces of the House—is presented, and the occurrence of relevant ceremonial activities is proposed. The Helike Corridor House may illustrate a privileged space for social interaction in the form of gatherings and feasting, and reflect the process of social (elite or other) formation of the Helike town through the implementation of feasting and rituals linked with politics.

"Let the Whole Kiln Be Shaken Up": Warding off Harmful Demons in Greek Ceramic and Coroplastic Production

Oliver Pilz, Mainz University

The firing of pottery and/or coroplastic objects in the kiln is a technically sophisticated procedure and certainly the most crucial and riskiest moment of the whole production process. If the firing fails, the work of several days or even weeks is going to be completely or partly destroyed. Moreover, fire as a destructive force per se could cause devastation in the workshop and severely injure the craftsmen. It is therefore not surprising that the perils of the firing process were personified as demonic beings that had to be warded off or at least propitiated by ritual means. The activity of these demons was thought to have been provoked by the evil eye and curses as it seems. Starting with a brief discussion of the literary sources as regards the ritual protection of workshops in general, the paper collects and investigates the scattered material evidence for apotropaic devices protecting against demonic beings potentially disruptive to the production of coroplastic objects and pottery. Whereas the depictions of kilns and other workshop scenes in vase painting showing apotropaic devices have recently been discussed by Smith, the archaeological contexts yielding objects, which might have fulfilled protective functions for both the craftsmen and the production process, have not yet received adequate scholarly attention. The paper examines several (recently) excavated workshop sites and particularly focuses on the role that grotesque terracotta figurines might have played in averting mischievous demons plaguing Greek potters and coroplasts.

Interpreting the Evidence for Demolition Rituals in the Context of Material Recycling Phases at Villas

Beth Munro, University of London

A crucial part in the recycling of Roman villa architecture was the organization of the dismantled materials. Archaeological evidence for this appears as materials in piles, storage containers, and intentionally dug pits. For example, 6,000 glass tesserae were found in pits at Aiano-Torraccia di Chiusi in Tuscany, alongside glass

working ovens. The deposition of these single materials in workshop contexts suggests a very functional intent. However, in recycling phases at villas across the western provinces, there are also often collections of multiple materials, such as in the fish pond at Monte Gelato. This deposit includes fragments of glass vessels, metal fixtures, marble sculpture, veneer, iron nails, bones, and jewelry, and has two distinct dates, which relate to two phases of demolition and reconstruction. A recent article by Robin Fleming catalogs over 40 similar deposits in water features in fourth- to fifth-century C.E. demolition phases of Romano-British buildings, arguing that these are ritual in nature and mark the "death of buildings." While Fleming's article provides a comprehensive and convincing interpretation of the ritual nature of the water-feature deposits, this interpretive framework now needs to be applied more widely to the complex archaeological phases of deconstruction.

This paper will reconsider the connection between demolition, pragmatic material recycling and ritual activities at villas across the empire, which date to between the late second and late fifth centuries C.E., reassessing the small finds evidence from mixed material deposits. While I have previously argued that the organized nature of recycling indicates a specialist workforce, a recognition of ritual activities alongside the recycling activities will add a new dimension of understanding of this workforce and processes of deconstruction.

Archaeology of the Rituals and Musical (and Choral) Performances in Springs and Water Sources in Southern Italy and Sicily

Angela Bellia, National Research Council, Institute for Archaeological and Monumental Heritage

This paper concerns the terracottas with musical subjects found in sanctuaries connected with springs and water sources in southern Italy and Sicily, where the ritual use of grottoes dates back to prehistory. Particularly during the Classical and Hellenistic periods in Magna Graecia and Sicily, there is evidence for a proliferation of the use of caves as shrines for the cult of nymphs. As in Attica and the rest of the Greek countryside, their cult was connected to dance and music. The presence of springs and water sources, their closed entrances, and their liminality made grottoes particularly attractive as sanctuaries of these deities, who were members of the so-called minor pantheon, connected with the rites of passage of women.

The terracotta figures found in the sanctuaries near the water sources in southern Italy and Sicily highlight the way music and sound were closely allied with ceremonies involving rites of passage and initiation, nuptial rites, and rituals of social transformation. Figurines from the grotto might themselves "participate" in these ceremonies; the maiden might incorporate a figurine into the ritual as an offering to the goddess of the cave or as a tool for illustrating proper behavior during the ritual.

The archaeological evidence points to various acts of worship taking place in the sacred rural shrines, where the maidens celebrated their nuptial rites. On the basis of the architectural characteristics of the caves and the terracotta iconography, we can reconstruct what were the main moments of the celebrations and can locate their settings.

Samnite Hairstyles? Individual Agency and Ethnic Identity in the Choice of Votive Terracottas from Pre-Roman Sacred Sites
Alexandra Sofroniew, University of California, Davis

Tens of thousands of terracotta figurines have been recovered from across central and southern Italy, remnants of a lively religious practice of offering gifts to the gods alongside prayer and sacrifice. Found at a range of sites from temples and sanctuaries to springs, pools, and caves or chance discoveries in the countryside and in museum storerooms, these terracottas comprise a rich body of evidence through which to interrogate the largely personal and anonymous practice of votive dedication in pre-Roman Italy.

As the study of ancient religion in general has pivoted towards the role of the individual, focus has rightly increased on everyday domestic cult (e.g., the Lares) and personal agency in ritual experience, especially in the Roman context. However, for pre-Roman Italy, in regions and time periods with few emic literary or epigraphic sources, questions of ethnic or local identity remain extremely problematic. Can we reliably distinguish individual agency and cultural affiliations in the choice of different types of votive terracottas? Inevitably, we run up against many "known unknowns" such as the impact of workshop production on the availability of terracotta types or the perceived preference of the solicited deities for certain iconographic types.

This paper explores these challenges using as evidence terracotta votives from several Samnite sites, such as Valle d'Ansanto. Examining markers such as dress, attributes, and even hairstyle, I will ask if there is anything particularly "Samnite about these objects. Can we discern agency on the level of the individual or group? Can votive choice, in turn, be connected with individual ritual practices? I consider possible theoretical approaches that could usefully be brought to bear on these questions.

SESSION 3E
Histories of Archaeology in the 19th and early 20th Centuries

CHAIR: To be announced.

Race, Archaeology, and Genetic Science in the Nile River Valley
Vanessa Davies, University of California, Berkeley

Egyptologists no longer believe that people of a white European race invaded the Nile River Valley in antiquity, bringing with them the building blocks of the region's famed material culture. But in the late 19th and early 20th centuries, many, in fact, did believe this narrative, including the man who devised the basic principles of archaeology in Egypt, W. M. Flinders Petrie. Petrie used artistic conventions, skull measurements, and changes in the pottery sequence as his evidence for this race's presence in Egypt during the predynastic era.

In the summer of 2017, a scientific article that garnered attention in the popular press made a similar argument: that the ancient Egyptians shared more DNA with

Middle Easterners than do modern Egyptians, who have more DNA from sub-Saharan Africa. The dangerous implications of such an argument could lead us down the exclusionary, unscientific paths that have already been trodden.

Egyptian archaeologists' counterarguments to Petrie's "Dynastic Race" theory are well documented, but the contributions of scholars of African descent who worked outside of formal Egyptological circles have been lost to the field. This talk highlights three sets of contributions by black intellectuals who used the archaeology of Egypt and Nubia to construct an alternative framework for understanding ancient African history

Intellectuals including Pauline Hopkins, W. E. B. Du Bois, and Marcus and Amy Jacques Garvey did not just argue against racist, exclusionary views. They also used ancient Egyptian and Nubian cultures to argue for the humanity of black people, and they marshalled the evidence of the glorious past of the Nile River Valley to construct an African history in order to inspire black people in the Americas to understand their existence as valuable.

Archaeology and Colonialism in Fascist Italy: Prima Mostra Triennale delle Terre Italiane d'Oltremare, Naples 1938–1940

Genevieve S. Gessert, The American University of Rome

This paper analyzes a little-known archaeological and political exhibition from the final years of the Fascist regime, the First Triennial Exhibition of Italian Lands Abroad (Mostra Triennale), staged in Naples between 1938 and 1940. Intended as a triennially recurring demonstration of the continuity of the Roman Empire in Italian colonial holdings within a modernist architectural framework, the exhibition came to be unexpected final act of the Fascist exhibition culture. Following directly on the Augustan Exhibition in Rome, the Naples Mostra sought to marshal archaeological propaganda for myriad purposes beyond the intersections between ancient Rome and Fascist Italy. The Mostra Triennale encapsulated key aspects of Fascist ideology and policy as Italy was cementing its alliance with Nazi Germany, while at the same time furthering its archaeological program domestically and in its newly established "imperial" holdings in North Africa, Albania, and the Dodecanese.

The presentation takes the form of an experiential tour of the Mostra Triennale, highlighting specifically its schizophrenic representation of Roman-inspired avant-garde architecture, colonial archaeology, and Nazi-informed racist policy, making use primarily of archival photos and the reconstructive scholarship of Giovanni Arena. In brief, the Mostra presented the Roman Empire as the legacy of strong leadership (Rome pavilion), which in turn justified the creation of the new Italian Empire (Italian Colonies in Africa, Italian Colonies in Asia, and other pavilions), all surrounding the Piazza dell'Impero (Plaza of Empire) decorated with Roman-style trophies. Following the historical section, the Health, Race, and Culture Pavilion centered on a pure plaster cast of Julius Caesar encircled by the laughing images of Mussolini and Italian colonists, photographs of his most illustrious successors (Augustus etc.), with Latin and Italian inscriptions evoking ancient Roman authors. In one experience, the designers of the Mostra Triennale

sought to sum up all of Fascist history and policy by calling on the past, thereby justifying the future.

Significantly, Italy entered the war just one month after the opening, and the exhibition that represented the resurrection of ancient leadership and empire in modern Fascism was shuttered. Thus, while the Mostra Triennale provides a provocative example of the "flexible" view of archaeological content characteristic of Fascism, it also helps to illuminate both the limitations of appropriation and the continued influence of this seminal period on the interpretation of the ancient past.

The Thorvaldsen Museum and Its Greek Vase Collection: The Formation of National Identity in Nineteenth-Century Denmark

Laura Ursprung-Nerling, University of Missouri-Columbia

The Thorvaldsen Museum in Copenhagen, Denmark, houses the antique vase collection of Bertel Thorvaldsen that he acquired during his tenure in Rome. These vases, along with the rest of Thorvaldsen's personal collection—comprised of his own works, other objects of antiquity, and paintings—migrated to Copenhagen at the end of the sculptor's career. Thorvaldsen's homecoming was memorialized by the city of Copenhagen through the commemoration of a national museum dedicated solely to Thorvaldsen and the entirety of his collection. The original architect, Michael Gottlieb Bindesbøll, designed the museum and its exterior decoration as a visual veneration to the sculptor and his triumphant arrival in Copenhagen with his collection.

Thorvaldsen's career occupied a specific historical moment in the nineteenth-century when an interest in classics spanned geographical and ideological borders creating an atmosphere of competition for the formation of national identities. This interest sparked a concentration and awareness on developing disciplines like archaeology, art history, and the arts, all of which emerged at a moment in time when state identity and country definition were being demarcated. Thus, objects of material culture—specifically those related to archaeology and classics—became intricately linked with the pursuit of nationalistic narratives.

As an illustrative complement to both Thorvaldsen's accomplishments and his collection, Bindesbøll and the artist Jørgen Sonne included a frieze on the exterior of the Museum that depicted Thorvaldsen's arrival as a glorious procession. This frieze serves as a testament to Thorvaldsen's interest in antiquity (through the depiction of antique material culture), his prowess as a sculptor, and as a visual parallel to the contents of the Museum itself. The frieze circles the exterior of the Museum and displays metope-like depictions of individual vases within the interior courtyard. The likeness of the Thorvaldsen frieze to that of the Parthenon should not be seen merely as an attempt at "neo-classicism," but rather as a conscious choice to promote and mimic the grandeur of classicism in general. The result commemorates and promotes the newly "claimed" Danish collection of antiquities and the rise of the Danish State in Europe during the Three-Year's War against Germany.

Rebels with a Cause: Cretan Archaeologists and Revolutionaries in the 19th Century

Aimee M. Genova, University of Chicago

Archaeologists played a prominent role in a multitude of events during the 19th century that would eventually culminate in the unification of Crete with Greece in 1913. They often clashed with other politicians regarding the future of Cretan unification, and this tension is evident when we look at interpersonal communications from formal meetings, published letters, and private correspondence. One of the most important political and intellectual debates involved Eleftherios Venizelos and Iosif Hatzidakis (the former was a prominent politician, the latter a prominent excavator-doctor) at the Assembly of Archanes on August 12, 1897. At this Assembly, Venizelos, as the acting President, initially banned all discussion pertaining to Crete's legal relationship with Greece. Hatzidakis, however, refused to honor the Assembly's restriction and used this meeting as an opportunity to lobby Crete's potential as an autonomous island. Hatzidakis' insubordination was supported by an "enraged mob" of revolutionaries storming the meeting hall, causing a disturbance among members of the Assembly and putting Venizelos' life at risk.

Although the conflict between Venizelos and Hatzidakis at this Assembly has no direct connection to archaeology, Archanes belongs to Crete's archaeological narrative for two important reasons. First, Hatzidakis' insubordination at this meeting transformed him into a leader of the Cretan revolutionaries. Second, although Hatzidakis was the only archaeologist actively involved in the "mob" at Archanes, his actions leading up to this Assembly relied on the support of foreign archaeologists like Federico Halbherr and Sir Arthur Evans. Hatzidakis used his archaeological affiliations with Halbherr and Evans to advance his political agenda at the Assembly, even though what he wanted, namely, a vote on autonomy, served no agenda involving archaeology directly.

Building on the previous considerations of A. Lily Macrakis' "Eleftherios Venizelos: 1864–1910" (1992) and the "Archanes 1897: Proceedings of the Scientific Symposium in Archanes" (1999), this paper examines unpublished archives in order to contextualize Hatzidakis' role as a revolutionary of Crete and how he used his archaeological connections to advance a particular political agenda. I argue that the history of Cretan archaeology is inseparable from the history of insurgency, and this paper focuses on one event that ultimately defined the politics of archaeology through the lens of the island's main excavator (Hatzidakis) and his adversary (Venizelos) at Archanes in 1897.

SESSION 3F: Gold Medal Colloquium
Earliest Prehistory of the Aegean

ORGANIZER: *Thomas F. Strasser*, Providence College

Colloquium Overview Statement

This colloquium celebrates Curtis Runnels' career in archaeology, with specific reference to his impact on our understanding of the Stone Ages of the Aegean and eastern Mediterranean. His research has greatly advanced our appreciation of the earliest prehistory of the Aegean, and has led other scholars to engage in lines of inquiry previously unpursued. The participants reassess our understanding of those periods after a century of research by examining recent fieldwork. The field research presented was either inspired or influenced by Runnels. During his career in the region, he researched stone tools of all types, learning the regional specifics of geology, geomorphology, and artifact types. He presented his findings in numerous books and articles that informed his colleagues of less conspicuous lithic assemblages and geoarchaeological dynamics, and revealed larger implications on many issues such as trade, land use, and settlement patterns. This fundamental research generated a spate of recent discoveries that have greatly expanded our knowledge of the southern Balkans, Turkey, and the Aegean. Runnels also placed these early prehistoric discoveries into wider regional contexts, which many archaeologists in the region were only vaguely familiar with. As a consequence, we now have a far better understanding of hominin dispersal out of Africa, and their subsequent inhabitation of the crossroads of the eastern Mediterranean.

The papers address issues of the earliest hominin presence in the Mediterranean in light of the current reanalysis of our paradigms for these periods. The first two talks present recent exciting discoveries of Lower Palaeolithic artifacts on the mainlands of Greece and Turkey (Marthousa 1 and Göllü Dağ). Next is a report on the excavation at the Stelida quarry site on the island of Naxos, with remains dating from the Lower Palaeolithic to the Mesolithic. After a break is a report on the Upper Palaeolithic petroglyphs found at the Asphendou cave on Crete, which are the earliest figural artwork found in Greece. Finally, our current understanding of Epipalaeolithic Cyprus is summarized with reference to Runnels' impact on all the above research. The colloquium is a diachronic evaluation of the early Stone Ages, both mainland flanks of the Aegean, and insular environments large and small.

The Lower Palaeolithic Site of Marathousa 1, Megalopolis, Greece

Eleni Panagopoulou, Ministry of Culture, Ephoreia of Palaeoanthropology–Speleology of Greece

Despite the fact that Greece lies at one of the most likely pathways of movements of hominins between Africa and Eurasia, there is a scarcity of evidence for their presence in the Early and Middle Pleistocene. This presentation focuses on recently obtained Lower Palaeolithic evidence from the ongoing excavation of Marathousa 1, an open-air site in southern Greece.

Marathousa 1 is located in the Megalopolis basin, in the Peloponnese is known for its fossiliferous sediments. Mining activities in the basin uncovered a thick sequence of Middle Pleistocene lacustrine deposits representing the environment of a palaeolake. Marathousa 1 was discovered in 2013 during a targeted palaeoanthropological survey and excavated subsequently by an interdisciplinary team from the Ephoreia of Palaeoanthropology and Speleology of Greece and the University of Tübingen. Systematic excavations during five field seasons have exposed a total of 72 m^2 and revealed a partial skeleton of the elephant Palaeloxodon antiquus and remains of other large mammals in close spatial and stratigraphic association with a "small tool" lithic assemblage. Exceptionally well-preserved remains of fauna (rodents, birds, amphibians, reptiles, mollusks, and insects) and flora (wood, seeds, fruit) were also recovered from the same context. The association of lithic artifacts with the elephant remains, as well as the discovery of cut marks on elephant and other large mammal bones, indicate that Marathousa 1 is a butchering site. Radiometric dating, geological, and biostratigraphical indications suggest that hominin activity at the site occurred between 0.5 and 0.4 Ma. The lithic assemblage is composed of small sized debitage, a few cores, tools, as well as retouch byproducts. Bifacial technology is not recorded so far and the assemblage is clearly not related to the Acheulean. Except for the lithic assemblage, Marathousa 1 has produced evidence of organic technology, rare so far in European Lower Palaeolithic contexts, in the form of occasional bone flakes and tools and a bone percussor.

Marathousa 1 is the oldest currently known archaeological site in Greece and the only Lower Palaeolithic butchering site in the southern Balkans. It is also a key site for documenting high-resolution palaeoclimatic, palaeoenvironmental, and cultural records of an area that potentially acted as a refugium during the successive waves of hominin colonization of Europe.

Palaeolithic Landscapes on Göllü Dağ, Central Anatolia

Steven Kuhn, University of Arizona

One of Curtis Runnel's many contributions to the study of the ancient human past in the Mediterranean is his use of survey as a research tool rather than simply as a means of discovering sites for future excavation. A six-year program of systematic surface reconnaissance (2005–2012) at the Göllü Dağ complex of rhyolitic volcanic domes in central Anatolia was guided by this principle. The survey resulted in the documentation of more than 230 find spots with Palaeolithic artifacts, ranging from isolated artifacts to large, dense scatters of tools, cores, and debris. The overall abundance of sites in the survey area is undoubtedly due to the presence of sources of high-quality obsidian on Göllü Dağ and the surrounding mountains.

Surveys documented extensive use of the area during the Lower and Middle Palaeolithic periods. Lower and Middle Palaeolithic surface records are very different. The former consists mainly of isolated diagnostic artifacts, widely scattered across the area surveyed. The latter includes more and larger accumulations of material, documenting extraction of obsidian raw materials and other activities. Differences in the structures of the Lower and Middle Palaeolithic records

on Göllü Dağ reflect changes in hominin use of the area, but were also strongly influenced by geomorphological processes affecting the burial and exposure of archaeological materials.

A Mid-Holocene to Middle Pleistocene Stratigraphic Sequence from Stelida, Naxos

Tristan Carter, McMaster University, *Daniel Contreras,* University of Maryland, *Justin Holcomb,* Boston University, *Christelle Lahaye*, Bordeaux Montaigne University, *Danica Mihailović*, University of Belgrade, *Panagiotis Karkanas*, American School of Classical Studies in Athens, and *Ninon Taffin*, Bordeaux Montaigne University

As recently as 2018, the existence of Middle and Lower Palaeolithic sites in the insular Aegean was deemed *sub judice* by Cherry and Leppard due to the paucity of excavated and well-dated/published assemblages. It is generally accepted that if conclusive proof of island-visiting/dwelling pre-Sapiens populations were forthcoming, it would rewrite our understanding of hominin cognitive and behavioral capabilities. Given this potential significance, Simmons has argued that robust supporting data ("beyond what is considered normal") are required, noting that the "gold standard" for determining an early site's status consists of artifacts of undoubted human origin found in intact stratigraphic context and directly associated with a series of absolute dates.

We here present the first detailed report of a stratified sequence from the early prehistoric site of Stelida (Naxos) that meets these criteria, integrating geo-archaeological, material cultural, archaeobotanical, and geo-chronological data. A 4-m sondage whose seven artifact-bearing lithostratigraphic units span a mid-Holocene debris cone to a Middle Pleistocene calcic horizon overlaying weathered bedrock. The intervening strata consist of alternating colluvial deposits overriding and eroding developed palaeosols. The sequence is chronologically anchored by six OSL determinations that provide terminus ante quem dates for the artifacts contained in those strata.

We discuss the significance—and interpretative limitations—of this sequence within the broader context of early human activity in the Aegean basin and in the eastern Mediterranean more generally.

The Asphendou Cave Petroglyphs: Early Symbolic Communication in Greece

Thomas Strasser, Providence College

The Asphendou cave is located in the Sphakia mountains of western Crete, on the side of the eponymous gorge that forms a north–south pass through the mountains. The undulating speleothem on the floor of this tiny cave is engraved with a clutter of imagery, which were brought to the attention of scholars in the early 1970s. This team has recent analyzed the petroglyphs inside, and has argued that some of them date to the Palaeolithic. Here we explain our photogrammetrical and paleontological research to conclude that the basal layer of images represents

a herd of native Pleistocene deer that went extinct sometime before the onset of the Holocene.

With the use of photogrammetry, we were able to make a three-dimensional image that was far more detailed than earlier (i.e., 20th century) illustrations. With the advantage of this high-resolution technology we recorded far more iconography in this cramped cave than did our predecessor. Leaving aside the modern graffiti, four engraving sequences were recognized, with the bottom, or initial, event representing a herd on now extinct pygmy deer, *Candiacervus ropalophorus*. This represents the first figural Palaeolithic art found in Greece, though notational markings and craft have been unearthed elsewhere in the country.

The deer carvings are tiny, usually around 4 to 5 cm in length per individual. The speleothem, that serves as the "canvas" for the carvings, is only a 1.15 × 0.80 m area. The cave roof is quite shallow, requiring one to lie down to access a view of the petroglyphs. No more than three individuals at a time can view them. Though they are presently in a partially lit environment, depending on the time day, the detached rocks in front suggest a larger cave at some point in the past. If so, this indicates that the earlier petroglyphs were observed, most likely, in a partially or completely dark environment, which in turn suggests artificial lighting. This has implications on this early use of artificial symbolic communication in Greece.

Beyond the Hippos: Curtis Runnels' Impact on a Clearer Understanding of Deep Time Archaeology on the Mediterranean Islands

Alan Simmons, University of Nevada

Curtis Runnels' contributions to "deep time" prehistory on the Greek mainland and adjacent islands are unparalleled. While it is no surprise that evidence of human antiquity likely stretching back to the Lower Palaeolithic have been documented on the mainland, it is really Curtis' research on islands that has rewritten Mediterranean prehistory. It is a small club of serious researchers who work on pre-Neolithic island archaeology, and Curtis is a charter member. These early sites have substantial visibility and interpretative challenges, and Curtis has been one of the principal scholars arguing for a clear-minded analysis of early materials, and in documenting which claims are real and which are bogus. I initially became involved with early Mediterranean archaeology working at the Late Epipalaeolithic "pygmy hippo" site of Akrotiri-*Aetokremnos* in Cyprus. Curtis was an early supporter of that still controversial site, although by today's standards a 12,000-year-old island site is not as rare as it was 30 years ago. Perhaps Curtis and his colleagues' most important, and controversial discovery is that of Middle Palaeolithic occupations at Preveli Gorge in Crete. In this brief presentation, I expand beyond the Aegean to consider Curtis' influence within a broader, circum-Mediterranean framework. His contributions, in the form of innovative fieldwork, reasoned interpretation, and, perhaps most importantly, insightful publications, make Curtis an outstanding recipient for the AIA's Gold Medal Award.

SESSION 3G: Colloquium
Land and Sea at Lechaion Harbor, Greece: A Synthetic Presentation of Ongoing Archaeological Investigations at the Lechaion Harbor and Settlement Land Project

ORGANIZER: *Paul D. Scotton*, California State University, Long Beach

Colloquium Overview Statement

Ancient Corinth was a hotbed of business and pleasure, of black markets and dark vices, all of which attracted rich and ambitious traders from all over the Mediterranean. The sheer wealth that exchanged hands here gave rise to the ancient Greek proverb, "not everyone can afford to go to Corinth." The city-state was positioned on the isthmus between the Greek mainland and the Peloponnese peninsula and controlled shipping and trade between the eastern and western Mediterranean. In fact, early in its history the city created a massive paved road—the Diolkos—to haul ships and cargo safely from one side of the isthmus to the other, thereby saving ships the trip around the windswept peninsula—a perilous journey in treacherous waters. "If you sail around Cape Malea, forget your home," wrote the first-century B.C.E. geographer Strabo in his description of the voyage around the easternmost cape of the southern Peloponnese. The Corinthians profited from this situation by charging large tolls to shippers. The gateway to this Grand Bazaar was the city's main harbor at Lechaion, which teemed with life and commodities from all over the known world—silk from the Asia, wine from the Aegean, metal from Cyprus, and much more. Lechaion was one of the most important centers of trade in the world during the Greek, Roman, Byzantine, Frankish, Ottoman, and Venetian periods, and a key point in the Greek War of Independence.

The Lechaion Harbor Settlement and Land Project will outline a broad chronological framework for the site that dates from at least the seventh century B.C.E. to the sixth century C.E. The excavations of buildings around the inner harbor has revealed structures from as early as the second half of the first century B.C.E. and including a Roman civic basilica dating to the early colony and a coin hoard discovered in the collapse of a building likely dating the end of the late Roman occupation.

The Results of the First Three Field Seasons of the Lechaion Harbor and Settlement Project (LHSLP)

Paul D. Scotton, California State University, Long Beach, *Konstantinos Kissas*, Corinthian Ephorate of Antiquities, and *Angela Ziskowski*, Coe College

As presented at the past two annual meetings of the AIA, the first two seasons of LHSLP have been successful in their own right. Geophysical survey has been conducted over approximately two-thirds of the entire site, ca. 1,000 × 700 m. The survey has confirmed extensive remains to the south and east of the inner harbor demonstrating a sizable settlement and what appear to be storage facilities. Within that context, excavation has focused upon three structures: a porticus, what appears to be a small-scale manufacturing building with work yard, and

two, superimposed, apsidal, civic basilicas dating to no more recent than early first century C.E. and post-78 C.E.

The porticus appears to date to the 2/2 of the first B.C.E. and is one of the earliest structures of the Roman colony. A final phase, dating to the fifth century C.E. overlays the south end of the original building. The westernmost room was finely fitted with marble trim, a possible mosaic floor, and plastered walls. In this area have been found numerous sherds dating from the Geometric through Archaic periods as well as a fragment of a quadruped figurine dating to the Mycenean period.

The manufacturing structure processed shell fish and had some level of iron manufacturing. In the structure was found a coin hoard of 119 coins and an iron lock. The two basilicas are noteworthy for their early dates and for the fact that their entire superstructure was robbed out and taken elsewhere. In 2018 in the porticus the excavation of the finely fitted room will be completed and the room adjacent to the east begun. The area where the Geometric–Archaic period ceramics were found will be investigated further in an attempt to determine if there is a structure that can be associated with them.

In the manufacturing site, the room where the coin hoard was found will be fully excavated as will the room adjacent to the west where iron slag and unworked iron bits were found. In the basilicas both apses will be fully excavated to secure more reliable dates. In addition, the entrance porch, which is quite visible in the magnetometry survey, will be excavated so as to understand better the configuration of the basilicas.

Mapping the Coastal Landscape of Lechaion, Peloponnese (Greece)

Apostolos Sarris, GeoSat ReSeArch Laboratory, IMS-Foundation for Research and Technology, *Tuna Kalayci*, GeoSat ReSeArch Laboratory, IMS-Foundation for Research and Technology, *Nikos Papadopoulos*, GeoSat ReSeArch Laboratory, IMS-Foundation for Research and Technology, *Nasos Argyriou*, GeoSat ReSeArch Laboratory, IMS-Foundation for Research and Technology, *Jamie Donati*, GeoSat ReSeArch Laboratory, IMS-Foundation for Research and Technology, *Georgia Kakoulaki*, GeoSat ReSeArch Laboratory, IMS-Foundation for Research and Technology, *Meropi Manataki*, GeoSat ReSeArch Laboratory, IMS-Foundation for Research and Technology, *Manolis Papadakis*, GeoSat ReSeArch Laboratory, IMS-Foundation for Research and Technology, *Nikos Nikas*, GeoSat ReSeArch Laboratory, IMS-Foundation for Research and Technology, *Konstantinos Kissas*, Corinthian Ephorate of Antiquities, and *Paul Scotton*, California State University, Long Beach

Among the various modules of the research agenda of the Lechaion Harbor and Settlement Project (LHSP) was the geophysical mapping of the coastal landscape of the classical settlement. A manifold geophysical strategy employing a variety of methods and techniques was carried out to map the residues of the past habitation and enhance our knowledge of the evolution of the ancient harbor.

Within the three phases of the geophysical campaign (2016–2018), the spatial distribution of the architecture appeared, indicating a dense occupation of the site. The geophysical results, mainly from the magnetic survey, were able to confirm

the existence of a network of parallel N–S roads crossing the site and leading towards the north, verifying the soil marks that were suggested from various historical aerial and satellite images. Dense architectural residues were identified all around the lagoon (with the exception to the north, close to the sea), following the direction of its modern shoreline and indicating a relative steady and consistent preservation of its landform. The integration of the magnetic and the GPR surveys provided a clear evidence of the existence of a three-aisled basilica oriented in an E–W direction towards the east section of the settlement. The basilica is much smaller than the large Leonidis basilica to the NW, which is built between the inner basin of the lagoon and the sea.

The combined usage of GPR, ERT, and magnetic techniques proved also the lack of habitation of the area to the north of the central lagoon and evidence of its siltation due to the dynamic influence of the sea currents. The GPR depth slices mapped a number of extensive concave features extending parallel to the NE coastline that most probably represent traces of depositions from past incoming sea waves that may have modified the coastline in different historical periods. ERT transects that were materialized in the particular section suggested a three-layer stratigraphy composed of a 2 m-deep superficial conductive clay horizon saturated with saline water, followed by a 5–9 m-thick resistive layer (silty clay) sitting on a bedding that slopes towards the NE. Finally, no substantial evidence of communication between the outer port and the western lagoon was provided by the geophysical data.

Earliest Evidence for the Use and Occupation of Lechaion Harbor
Angela Ziskowski, Coe College

Literary testimonia for Lechaion, the primary port of ancient Corinth, dates as early as the sixth century B.C.E. with a reference to the site by Simonides. However, the extensive export of Corinthian wares to Sicily and South Italy was already flourishing by the eighth century B.C.E. The harbor at Lechaion on the Corinthian Gulf was the most logical point from which such wares were exported to the western Mediterranean.

This paper presents the earliest evidence that has been documented in the first three years of excavation at Lechaion harbor at the Lechaion Harbor and Settlement Land Project. Although the excavation is primarily in Roman levels of occupation, the site is consistently producing small quantities of early Greek wares that signal the early use of this harbor. Ceramic evidence from Lechaion includes Geometric, Protocorinthian, and full Corinthian fineware. The Late Geometric wares put activity at the site in the eighth century B.C.E. In addition, two examples of Mycenaean ware and worked obsidian fragments offer tantalizing evidence regarding questions of how much earlier than the eighth century the harbor was in use.

Geomorphology, Micromorphology, and Environment at the Harbor Town of Lechaion, Greece

Dan Fallu, American School of Classical Studies, Athens

The site of Lechaion on the Gulf of Corinth, in use from the Geometric period to the sixth century C.E., was one of the most important ports in Greece. Little is known however about the associated harbor town and its destruction in the sixth or seventh century C.E. Although past scholarship has associated this abandonment with a supposed tsunami, which allegedly destroyed the nearby Basilica, there is still debate over the configuration of the harbor and how it was affected by the active and changing coastal environment on the Gulf of Corinth. The Lechaion Harbor and Settlement Land Project (LHSLP) uncovered thick deposits of marine sand and gravel, which lie above and below Roman era remains. This paper applies micromorphology and sedimentology to place the construction of the citadel and the harbor town within the active coastal landscape of Lechaion.

More commonly used to understand site formation processes on prehistoric and Bronze Age sites in the Aegean, archaeological soil micromorphology is the analysis of the in situ relationships between the sediments and the subsequent alteration by environmental conditions. I applied traditional micromorphology as well as digital and laboratory grain-size analysis in order to understand the changes in coastal processes across the harbor complex, with particular attention to the lagoon and its connecting channel. The mineralogical composition, microscopic structures such as bedding, and the morphology of pebbles and ceramics were observed via thin section and recorded in order to compare the transport processes that produced each deposit. The resulting environmental picture is a harbor installation more open to the coast than the present-day archaeological site, demonstrating the impact of coastal storms before and during the use life of the basilica.

A Late Roman Hoard from Lechaion

Michael Ierardi, Bridgewater State University

This paper discusses the discovery and interpretation of a late Roman hoard of approximately 119 coins recovered over the course of two seasons (2016–2017) in Area B of the LHSLP excavations, in a building of apparently industrial or commercial nature. Although no container was identified, the coins were found in a constricted area beneath a layer of roof tiles and building debris, and two were discovered stuck together even in the sieve. It is therefore logical to assume that the hoard was originally held in a cloth or leather purse which no longer survives, and only slightly dispersed in the course of interment.

The core of the hoard is some 113 Roman Imperial bronze coins ranging in date from the House of Constantine to the very end of the fifth century. Apart from one REPARATIO REIPVB Emperor raising kneeling female (an issue common in central and southern Greece, though rarer elsewhere), the fourth-century issues are all AE3 or 4, and at least two seem to have been cut down to a smaller diameter more in keeping with fifth-century preferences. The bulk of the hoard is AE4 and minimi of the fifth century, many poorly preserved and dubiously legible; Theodosian Cross-in-wreath and Marcian monogram reverses are well represented. The

latest elements appear to be two monogram reverses of Anastasius, of a weight and diameter compatible with a prereform date, although the degree of wear does not rule out circulation into the sixth century. Notable by their absence are any postreform denominations.

Of particular importance are two classes of metal finds from the hoard contexts and thus probably (though not demonstrably) part of the hoard: several small Greek silver fractions, and apparently unstruck bronze flans or roughly monetiform laminae. Both would suggest that the supervision of the currency pool in the later fifth century was remarkably lax, and that purses circulated from hand to hand with minimal inspection of contents. Since hoards and deposits in the Corinthia formed after 512/3 regularly contain postreform coins, the closing date for our conjectured purse cannot be very far into the sixth century, although it may have continued to circulate as a sealed and thus immobilized assemblage for some time after its latest coin. A lock mechanism recovered nearby may have formed part of a strongbox, although the purchasing power of the hoard would hardly have justified extraordinary precautions.

Late Roman Food Practices at Lechaion Harbor, Greece

Chantel White, University of Pennsylania, *Elizabeth Coulter*, University of Pennsylania, and *Kevin McKain*, University of Pennsylania

This paper presents the first archaeobotanical evidence for late Roman agricultural practices, food processing, and wood fuel use in Greece. The botanical assemblage discussed here was recovered from fourth–fifth century C.E. structures associated with the inland canal at the harbor site of Lechaion in the Corinthia. The analysis of over 500 plant specimens identified from floor surfaces, hearths, and discard areas reveals a pattern of residential cooking refuse that includes cereals, pulses, and orchard crops, most notably olive. In addition, crop-processing debris containing rye and wild grasses suggests that agricultural fields were located nearby on the coastal plain. Wood resources used as fuel for cooking and other onsite domestic activities include locally available woods including pine, oak, and olive. Evidence for woodworking is present in the discovery of a metal locking mechanism with preserved inner workings carved from planetree. Additional woodworking is implied by the presence of Greek fir wood and seeds at Lechaion. Fir only grows at elevations in excess of 900 m above sea level, suggesting its intentional transport to the coastal harbor from elsewhere in the Corinthia or beyond. Fir was regarded in antiquity as an expensive and highly sought-after resource and was the choice wood for shipbuilding, provided that the wood was fresh and flexible. The presence of fir seeds at Lechaion, presumably discarded as cones and small branches were removed during the woodworking process, suggests that the fir wood was indeed fresh when it arrived at the harbor. The archaeobotanical assemblage acquired over three seasons of excavation at Lechaion provides a tantalizing glimpse of the industrial activities likely being carried out here, as well as illuminating the routine food-related tasks of residents and workers that comprised daily life along the canal.

The Pottery: Work in Progress

Paul Reynolds, University of Barcelona

Ceramic contexts from Area C document the initial early late-Augustan to early second-century building phases, with a rich range of imported goods recalling contemporary finds from the Forum of Butrint (e.g., Eastern Sigillata A, Italian Sigillata/Arretine Ware, Pontic Red Slip Ware, regional sigillatas; Campanian and Aegean wine amphorae; a few east Sicilian cooking wares and Pompeian Red Ware). So far the Italian sigillatas of the first half of the second century found in Olympia, Corinth, Argos, and Athens seem to be absent, table wares being predominantly local in the early imperial period, as is also the case in Butrint (where these late ITS products are also absent).

Though it was thought that Lechaion, as the western port of Corinth, would document a stronger western Mediterranean and Adriatic bias in its supply than eastern, this is not the case, with eastern imports being well represented in all periods (Eastern Sigillata B fine wares, Çandarli fine wares, Aegean/Phocean cooking pots and casseroles, Aegean and Asia Minor amphorae). There is also a regular flow of Levantine imports, though in smaller quantities (e.g., first-century Eastern Sigillata A; a Beirut frying pan and northern Lebanese amphora both of second century date; fifth–sixth century northern Palestinian sliced-rim casseroles, with Cilician-Cypriot late Roman Amphora 1 and Gazan LRA 4 being regular finds in late contexts).

Tunisian African Red Slip Ware is the most common western table ware from the second to sixth centuries. Though there are few contemporary rims, bases, and handles of Tunisian amphorae, Tunisian body sherds are regularly present. Imports of Phocean late Roman C table wares are relatively scarce, certainly a lot less common than they are in contemporary Butrint (where ARS is even more common). Tunisian cooking wares are scarce, but this is normal for the Roman East. late Roman Aegean cooking wares, the same types found on sites in the Adriatic, are regular finds. Overall the eastern finds at Lechaion follow trends noted in Corinth.

Local early Roman Corinthian amphorae and, from the fifth century, Argolid-Corinthian LRA 2, both probably containers for local oil, together with local/regional first to third century domed base, free-standing amphorae (wine?) and in the late Roman period, local coarse fabric amphorae, found as imports in Athens and Nicopolis, are the dominant amphora finds. The absence of fifth-century Lakonian and southern Peloponnesian (Messenian) oil amphorae, well known in fifth to sixth century Butrint, Argos, and Athens (Agora M 235), is quite striking. These seem to have taken coastal routes (Messenian amphorae regularly reaching western ports such as Marseilles and Tarragona, where they were classified as the form Vila-roma 8.198/"Tipo Tardío A").

Though the uppermost layers of Areas A and B have been greatly disturbed by ploughing, the latest pottery, particularly the ARS and Phocean LRC, dates consistently to no later than the mid-sixth century. Here the absence of the late sixth to seventh century forms of ARS across the site can be contrasted with assemblages of this date and even later, into the second half of the seventh century, in Corinth. This discovery has major implications for the interpretation of the routes taken in the archaeologically documented distribution of Levantine and Aegean imported amphorae and cooking wares heading West and Tunisian ARS and amphorae

accompanying grain cargoes heading East for the Aegean and Constantinople after ca. 575, following the Byzantine reconquest of North Africa.

SESSION 3H: Joint AIA/SCS Colloquium
Epigraphic Approaches to Multilingualism and Multilingual Societies in the Ancient Mediterranean

ORGANIZERS: *Marco Santini*, Princeton University, and *Georgios Tsolakis*, Institute for the Study of the Ancient World, New York University

Colloquium Overview Statement

Recent years have seen an increasing interest in the study of multilingualism in ancient societies. Alongside the traditional investigation of linguistic phenomena, much more attention is now paid to multilingualism as an epiphenomenon of multiculturalism. Studies emphasize its sociolinguistic and historical implications, comprising cultural exchange, integration, and negotiation of identities. As a result, after the pioneering work of Wallace-Hadrill, the linguistic concepts of bilingualism and code-switching (itself a manifestation of bilingualism) have been applied also to the study of ethnically mixed civilizations and of their material culture.

The epigraphic evidence is explicitly recognized as one of the most fruitful and revealing tools in the study of ancient multilingualism. Inscriptions enable scholars to obtain a deeper insight into the sociocultural background and, to a certain extent, into the intentionality of the producers, by virtue of the special care devoted to the preparation of epigraphic texts detectable in their physical aspects. The obvious corollary is that bilingual or multilingual inscriptions are the preeminent pieces of evidence in the study of identity negotiation in the context of a multilingual society.

Drawing on this claim, and on the most recent acquisitions from the combination of sociolinguistic and material culture studies, the panel intends to explore the potentialities of epigraphy in the understanding of complex, multiethnic and multilingual societies in the eastern and western Mediterranean.

The papers use a variety of epigraphic material and deal with several languages of the ancient Mediterranean. The first one examines the complex development of the multilingual environment of Cyprus, with particular regard to the political strategies underlying the use of syllabic Cypriot, Phoenician, and alphabetic Greek, in isolation or in combination, in the classical period. The next two papers address the various dynamics of multilingualism in ancient Lycia, focusing respectively on public decrees and private funerary inscriptions. Strategies of textual translation, power and prestige display, and identity negotiation are examined. The fourth paper integrates the discussion of multilingualism in ancient Anatolia by focusing on the relationship between textual and material aspects of the bilingual inscriptions from Caria, examined within the broader issue of Carian multiculturalism as it emerges from the literary tradition and the archaeological material. The discussion moves then to the western Mediterranean, with the investigation of early writing practice in the multilingual and multicultural milieu of Sicily and southern

Italy: elements of uniqueness and commonality are emphasized as evidence for the emergence of local epigraphic traditions in a diverse environment. The final paper, drawing primarily on the case of Rome, considers the ancient city as a cosmopolitan space of exchange and integration, where the coexistence of different ethnic groups leads both to presence and absence of multilingualism.

The variety of issues addressed and the diversity of methods and evidence employed intend to bring less-studied documents as well as new perspectives on well-known ones into the current debate on ancient multilingualism. The final discussion, led by two faculty members, is aimed at tackling methodological issues and limits of the approaches employed, as well as more specific questions on the nature and content of the examined texts.

DISCUSSANT: *Emily Cole,* University of California, Berkeley

Beyond the Text: Sociopolitical Implications in Cypriot Bilingual Inscriptions
Beatrice Pestarino, University College London

This paper addresses the issue of bilingualism and multilingualism in ancient Cyprus during the classical period. It aims to show that Cypriot private and monumental bilingual inscriptions present discrepancies among their texts due to specific sociopolitical purposes. The analysis of a selection of bilingual texts in Phoenician, Eteocypriot, alphabetic and syllabic Greek shows that the linguistic and graphic asymmetry often reflects a precise planning of content and message. Linguistic variety is one of the striking features of Cyprus, which contributed to the development of a distinctive Cypriot cultural identity. At the end of the Late Bronze Age, Greek immigration involved the acquisition of new languages and writing systems, which reflected the sociopolitical complexity of Cyprus. Over the years, Cypro-Minoan was replaced by a Mycenaean-related form of Greek, which adopted the previous syllabic graphic signs. Thus, a Hellenization process started, which rendered the previous languages obsolete. The introduction of the new language was accompanied by the permanence of the Greek speakers on the island, who came to improve their social and economic conditions. It triggered a standardization process with sociopolitical and cultural implications. Both Greek speakers and autochthonous Amathusians availed themselves of the syllabic writing system, which became a symbolic administrative tool of distinction. In Amathus, the Eteocypriot was clearly used to claim the autochthonous origins of its community. By contrast, in Kition the Phoenician dynasty fixed the use of the Phoenician language from the ninth century B.C.E. until the end of the fourth century B.C.E., when Phoenician domination ended and the standard koine alphabetic system was established. The introduction of alphabetic Greek on the island is credited to Evagoras, according to the legends on his coins, which were digraphic—written in alphabetic Greek and in the Cypriot syllabary. Indeed, his choice involved economic and political motives: showing his relations with the Greek world, he opposed himself to the Persians and Phoenicians who hindered his government on Salamis.

In light of these linguistic implications, while showing that the texts of the Cypriot bilingual inscriptions do not correspond exactly, the paper aims to

demonstrate that this common feature of both Greek-Phoenician and Greek-Eteocypriot epigraphic documents is due to specific sociopolitical intentions. While in the private inscriptions it could also depend on the linguistic competences of the individuals, the monumental bilingual inscriptions show that the multilingual text was precisely planned for political, religious, or socio-ethnic reasons. In Amathus, the use of Eteocypriot takes a prominent position in the bilingual documents in order to stress the opposition of the new democratic order against the previous philhellenic kingship of Androkles. Moreover, in some case studies, private needs interfere with the public sphere. For instance, the legend on the coins of Samas and the inscription of the prince Baalrom present the royal title in only one of the two texts: this is due to precise political demands towards the Greek population or the Phoenician local establishment.

Therefore, the analysis of political and private bilingual inscriptions, both linked to specific sociocultural environments and historical periods, contributes to a portrait of Cypriot society, by providing information on its cultural overlap and on related historical events.

The Xanthos Trilingual and Beyond: Interlingual Patterns in Greek-Lycian-Aramaic Inscriptions

Leon Battista Borsano, Scuola Normale Superiore, Pisa

The aim of this paper is to reconsider the processes of translation and reception of public documents in the multicultural region of Lycia during the late classical period. The epigraphic evidence from Lycia is crucial to disclose the complex problem of empowerment and power projection in southern Asia Minor, between the local elite, the Persian authorities, and the Greek city-states. This complexity is particularly evident in the corpus of bi- and multilingual inscriptions.

This corpus shows a large variety of languages and functions: Greek, Lycian, and Aramaic interact in both public and private documents. The most famous specimen of a multilingual public document is the trilingual inscription of Xanthos, which was discovered in an earthwork at the Letoon in 1973: an intricate triple text concerning the concession of specific terrains to the priest of a little-known Carian cult by the Xanthians . The superb state of conservation of the stone has persuaded some scholars to consider the document itself exceptional; this is the case of a controversial thesis about the attempted "Carianization" of the areas that were subdued to the Hecatomnid dominion in the mid-fourth century B.C.E. Recently, scholars have completely revisited this interaction in light of the religious and linguistic politics of the Persian Empire and of a more equilibrated interpretation of this document. Furthermore, linguistic analyses have illuminated the probable derivation of the Greek text from the Lycian one, while the Aramaic version still has a more uncertain value. Assuming that the low chronology (i.e., 338 instead of 358 B.C.E.) is less problematic, the role of the satrap Pixodaros remains ambiguous: he is said *kyrios* ("powerful") in the Greek text after the final imprecations, but the exact meaning of *kyrios* depends on the interpretation of the last Lycian sentence (which is incomprehensible) and of an emendated Aramaic participle, MHSN, whose meaning is doubtful. An equivalent polarity in meaning can be found also in the deliberative action of the Xanthians, an expected *edoxen* in

the Greek wording, an obscure (me)hñtitubed? in Lycian (a form of prescription?), a rare 'T'ŠTW in Aramaic: was that an autonomous decision or a project submitted to the satrap?

Problems like these are hard to solve in the absence of a large combination of parallel evidence in Lycian and Aramaic. Nevertheless, a general reanalysis of the support (lettering, disposition of the texts, material hierarchy between the stele faces) and a comparison with other bilingual public documents from the Xanthos valley may cast further light on the interpretation of the Letoon trilingual. The use of the Aramaic language in Lycia is attested by four other inscriptions, unfortunately highly fragmentary, some of which show evidence of bilingual practice. Among them, two fragments of civic decrees, despite not being contemporary, seem to be comparable to the Letoon trilingual, which does not represent, therefore, evidence for an isolated practice. It is possible to imagine that there were professional compilers and a public of readers for these civic inscriptions. Another fundamental piece of evidence that should be reconsidered is TAM I 45, probably a concession of commercial exemption by Pixodaros to some Lycian cities: the surviving text, albeit fragmentary, is bilingual (Greek-Lycian), but there are sufficient grounds to argue that it was originally trilingual. Be that as it may, this document illustrates how political interactions between the satrap and the Lycian cities were far from exceptional and is indeed the best touchstone to test the interlingual patterns identifiable in the Letoon trilingual.

From Text to Monument: Sociolinguistics and Epigraphy in the Bilingual Funerary Inscriptions from Lycia

Marco Santini, Princeton University

The paper investigates the phenomenon of language contact between Greek and Lycian as it emerges from the bilingual funerary inscriptions from classical Lycia and aims to show that a thorough sociolinguistic approach to these texts is possible only through a combined analysis of textual and visual phenomena, that is, by considering them not just as documents but as integral parts of monuments.

The problem of language contact between Greek and Lycian is to be addressed in different ways depending on the typology of the epigraphic evidence. The use of Greek in the bilingual celebrative inscriptions of the dynastic period can be explained by the dynasts' desire to have recourse to a prestigious language, whereas the debate on the public decrees of the Hecatomnid period is dominated by the attempt to identify the political role of each of the languages employed. On the other hand, the study of bilingual funerary inscriptions offers a wide range of possibilities to account for the relationship between the two languages. The common assumption that bilingual inscriptions served the purpose of making the document intelligible to a double audience is not fully satisfactory. Instead, a comprehensive examination of the content, style, diction, and layout of each inscription suggests that any inference as to the purpose of inscribing bilingual texts should be drawn on a case-by-case basis. There emerge different strategies by which individuals and families negotiated their multiple or "fluctuating" identities, ranging from the preservation of the official value of Lycian to the adoption of the Greek language and epigraphic style as a means of prestige display.

The bilingual inscription from Karmylessos (TL 6) presents an interesting interaction between the two languages and reflects a mixed background in which the two cultures may be assigned specific roles. The Lycian section of the text is formulaic, but Lycian maintains its role as normative language, as evidenced by the detail of the final curse. The Greek text reproduces the Lycian style in the introductory formula, but some textual peculiarities show a level of linguistic competence which goes beyond the purposes of a sheer translation.

Greek did not play the same role for all culturally mixed families. The funerary inscription of Siderija Parmnah from Limyra (TL 117) has a very different impact compared to the bilingual of Karmylessos: the Greek text is clearly intended as a literal translation of the Lycian epitaph, and the juxtaposition of the two texts does not show any careful plan of layout—Lycian starts and Greek follows, almost mechanically. Completely different is instead the case of the bilingual of Korydalla: here, the prominent role of the Greek language and culture is shown by the polished surface displaying one line of Greek and four lines of Lycian laid out in an elegant Greek-fashion stoichedon, with the Greek text isolated on top by a vacat and conceived as a sort of epigraphic heading.

This last case shows best how the amount of text inscribed in either of the two languages and its content are by no means the only criteria for a sociolinguistic approach to ancient multilingualism: much is revealed, in certain cases, by how the texts are laid out together on stone.

"It Seems That They Are Using the Carian Language": Multilingualism, Assimilation, and Acculturation in Caria

Georgios Tsolakis, Institute for the Study of the Ancient World, New York University

The paper investigates multilingualism in Caria during the classical age, a phenomenon that mirrors the complex cultural interactions in southwestern Anatolia, and seeks to find its outcome in the Hellenistic era.

In their attempt to categorize the Greek poleis in three degrees of Hellenicity, M.H. Hansen and T.H. Nielsen (*An Inventory of Archaic and Classical Poleis: An Investigation conducted by the Copenhagen Polis Centre for the Danish National Research Foundation* [Oxford, 2004]) chose two Carian cities, Halicarnassos and Kaunos, as representative examples of their polis-types b and c respectively. The former category is described as "a mixed community in which Greeks and non-Greeks live side by side," and the latter as "a predominantly barbarian community in which there are some elements of Hellenic civilization." While one must acknowledge the difficulties of categorization according to levels of Hellenicity, the aforementioned classification system fails to echo the dynamic, linguistic phenomena that prevailed in Caria during the classical age. The complex multilingual situation is reflected also in the literary tradition: Herodotus attests an anecdotal story of a Carian named Mys, who, after having visited the oracle of the Ptoan Apollo near Thebes, received a prophecy that "seemed to be in Carian language" (Hdt. 8.135); Thucydides speaks about Gauleites, an associate of Tissaphernes, who was a bilingual Carian (Thuc. 8.85.2); lastly, when Kimon sailed to Caria, he was able to

persuade immediately all the costal Greek cities to revolt against the Persians, but had to besiege the "bilingual cities" (Diod. 11.60.4).

While the Carian language remains mostly undeciphered and the most extensive Carian inscription is still "a virtually impenetrable text," the bilingual inscriptions permit an analysis of the language contact between Greek and Carian and offer insight into the cultural and political interactions of the populations of Caria. Avoiding on the one hand the traps of the terms "Carianization" and "Hellenization," which hinder the examination of bilingualism, and on the other hand the overly simplistic interpretation of bilingualism as a mechanism for enabling understanding between two linguistically distinct audiences, the paper draws parallels and seeks differences in the formulaic expressions used in the inscriptions, and in their materiality and context. In a bilingual inscription from Kaunos, scholars of Greek epigraphy can easily identify an honorary decree written for two Athenians as well as common formulaic expressions closely connected with *proxenia*. The inscription raises the question of political and cultural assimilation between Greeks and Carians. Despite the fact that scholars have discussed extensively the parallels between the two texts of the inscription, we lack a comprehensive answer to the meaning of the Greek practice of honoring foreign ambassadors for a Carian audience. Additionally, the paper aims to trace continuities and deviations in connection with the material aspects of the bilingual inscriptions focusing on their style and visuality and seeking to illustrate how people alter and are altered by monumental scripts. Although bilingual inscriptions are only a small part of the corpus of the Carian inscriptions, a new reassessment of their linguistic interactions seems necessary.

Multiculturalism and Multilingualism in Written Practice: Western Sicily
Thea Sommerschield, University of Oxford

This paper situates itself within a broader investigation into patterns of practice in late Archaic-early Classical western Sicily. Its purpose is to examine commonalities or lack of uniformity in written and material culture, from the perspective of the identities coexisting within the fluid, ethnically and retrospectively categorized western Sicilian milieu. The dataset this paper sets out to observe is epigraphic practice as evidence for multicultural and multilingual interaction. Cursing on lead (*defixio* writing) is set up as the springboard for a reflection upon other manifestations of written culture attested in western Sicily, and more specifically an analysis of the ways different Sicilian communities answered similar questions regarding collective identities through their literacy practices.

The plotting of the data in the ISicDef database of all published Sicilian curses, mapped across the island between 550 B.C.E. and 200 C.E., reveals a fragmented panorama of curse distribution within well-defined time periods of individual curse writing centers, due to both historical factors and accidents of survival. One of the most noteworthy patterns to emerge from the mapping of this evidence is the greater diffusion of *defixiones* in western Sicily (Selinunte and Himera), rather than in eastern Sicily. This state of the evidence allows us to question the evidence for written culture in western Sicily: the tophet marker inscriptions in Mozia and the inscriptions from the sanctuary of Zeus Meilichios in Selinunte.

I survey the reasons underlying the regionalization of the *defixio* evidence and, by observing the wider Sicilian epigraphic practice, I investigate whether *defixiones* share patterns and developments with other epigraphic subsets attested on the island. Surveys of the evidence for epigraphy on stone in Greek and Phoenician language are tested for overlaps with the *defixio* evidence. The uniqueness of Selinunte and Himera when compared to the rest of the island is also observed, and their evidence is set up against the quantity, quality, and significance of the written practice of other Sicilian settlements. From a methodological perspective, I do not use language per se as a heuristic tool: instead, I treat each epigraphic dataset as a specific literacy phenomenon. First, I comparatively examine the way these literacies are employed for specific tasks depending on their contexts of use and of communicative exchange. Then I investigate what evidence these literacies offer for the projection, display and reinforcement of identities in western Sicily 550-350 B.C.E.

The conclusive aim of this study is to illustrate how the epigraphic evidence may complicate and define, differentiate and expand our understanding of the multicultural and multilingual identities operating in the setting of western Sicily.

Multilingual Cityscapes: Language and Diversity in the Ancient City

Olivia Elder, University of Cambridge

Ancient cities are frequently characterized as multicultural, cosmopolitan environments. This paper questions how far the evidence of multilingualism in urban landscapes reflects this characterization and considers what this evidence reveals about the impact of large-scale migration on the culture, landscape, and identity of the ancient city. It focuses primarily on the epigraphic evidence of multilingualism from the city of Rome in the first to third centuries C.E., but brings in comparative evidence from modern multilingual metropoleis and other ancient cities.

Recent studies of Rome's migration patterns follow from earlier studies of foreign groups at Rome. The evidence of multilingualism has, however, received minimal attention in these studies. In turn, (socio)linguistic analyses of evidence for bi- and multilingualism at Rome have paid limited attention to wider historical questions about the nature and extent of migration and multiculturalism in the city. This paper demonstrates that the epigraphic evidence of different languages has an important role to play in answering these questions.

I argue that migration leads to the absence as well as presence of multilingualism in Rome. The picture we get is partly the result of the nature and limitations of the epigraphic evidence. Both the monolingual and multilingual Rome should, however, be taken seriously as evidence of the different outcomes of interactions at the Empire's core and the different configurations of the relationship between language, culture and identity there.

I begin by briefly considering some comparative evidence from the modern world, making use of recent work on multilingualism in modern cities. This evidence shows that languages of migrants are frequently invisible in cities' landscapes. This overall picture is reflected at Rome, where there is only a handful of inscriptions in languages other than Latin or Greek, and Greek inscriptions are far outnumbered by those in Latin. I move on to consider how individual sets

of inscriptional evidence fit into this broad picture, examining the evidence for Palmyrene and the evidence of language use in the Jewish catacombs. The exceptional nature of both these examples underlines the complexity of the relationship between language and migration at Rome and the layering of identities at stake in determining language choices. In the final section of the paper, I consider how far my conclusions hold for the epigraphic evidence from other ancient metropoleis.

Overall, I argue that while the epigraphic evidence of language use offers glimpses of the diverse and multicultural ancient cityscape that we have come to expect, it also reveals a striking degree of homogeneity. In showing how multilingual evidence can be used to nuance and challenge existing assumptions, my conclusions contribute both to our understanding of the impact of migration on ancient cities, and to the panel's wider argument about the value of multilingual evidence to historical questions.

SESSION 3I: Colloquium
Human Adaptations in the Mediterranean Environments 2: Subsistence and Regional Adaptations

ORGANIZERS: *Kyle A. Jazwa*, Duke University, and *Christopher S. Jazwa*, University of Nevada, Reno

Colloquium Overview Statement

In this colloquium, we take advantage of the conference venue in San Diego, California, to highlight global similarities in human settlement patterns in Mediterranean climates and attempt to explain differences in adaptation between different regions with similar environments. This afternoon colloquium will be the second of two associated sessions. The speakers will discuss different subsistence strategies and highlight variations in human responses to similar environments. The thematic organization of both colloquia will highlight similarities in adaptation between the Mediterranean climate regions.

Both regions have prominent mild, wet winters and hot, dry summers, with similar vegetation and other natural resources. Anecdotal comparisons have been made between the Mediterranean, coastal California, and other regions including parts of western Australia, Chile, and South Africa by archaeologists, but there has not been a comprehensive collection of studies on these similarities.

This colloquium will focus on specifics of subsistence systems. They will focus on faunal analysis, paleobotany, and hydrology. Although this session will primarily target the Mediterranean world and California, it will also include talks from other geographic regions with similar climates to highlight similarities and notable differences related to local culture and historical contingencies. After the introduction in which I will compare domestic structures in Greece and California, paper one will talk about animal domestication in Croatia, paper two will discuss human-environmental dynamics in South Africa, and paper three will present on the role of plant resources on the California islands. After the break, paper four will talk about how people on Kos modified bedrock for habitation and paper five will discuss marine foraging strategies on the California islands. We will close

the session with our discussant who has worked in multiple Mediterranean environmental zones, including California and western Australia. He will address the major themes presented during both colloquia.

By integrating talks from speakers discussing their work in different geographical regions, we hope to foster collaborations that will address cross-cultural patterns in human-environment interactions. We expect these colloquia to draw significant interest from conference attendees because they will be unlike most other sessions at the AIA and they will integrate the local archaeology of the conference venue. The University of Utah Press has also expressed interest in publishing the papers from these sessions as an edited volume. Additionally, by including archaeologists working in areas outside of the Mediterranean proper, we will attract researchers who do not normally attend the AIA annual meeting.

Having Herds in Mediterranean Environments: The Example of Neolithic Dalmatia

Sarah B. McClure, Pennsylvania State University, *Emil Podrug*, Šibenik City Museum, *Emily Zavodny*, Pennsylvania State University, *Claire Ebert*, University of Pittsburgh, *Nicholas Triozzi*, Pennsylvania State University, *Martin Welker*, Pennsylvania State University, *Jelena Jovic*, Independent Scholar, *Kelly Reed*, University of Warwick, and *Douglas J. Kennett*, Pennsylvania State University

Domesticated animals have played a significant role in the environmental, economic, and cultural adaptations of humans in Mediterranean environments. The introduction of cattle, pigs, sheep, and goats into the Adriatic ca. 8,000 years ago began a new period in the region's cultural and ecological history. In this paper we summarize current evidence for domestic animal management during the course of the Neolithic (ca. 6000–4700 cal B.C.E.) on the Dalmatian coast of Croatia and highlight new evidence for the development of agricultural landscapes in the region. Faunal data documents the scale of domestic animal use during this period, while stable isotope analyses of plants, animals and humans are providing new insights into shifts in animal management strategies. In particular, oxygen stable isotope analyses of sheep and goat teeth indicate that during the early Neolithic domestic livestock was kept in the vicinity of the villages and herds were managed to have a single birthing season in the late winter. However, starting at 5200 cal B.C.E., the data indicate seasonal transhumant pastoralism into the Dinaric Alps and multiple birthing seasons. This shift in animal management was likely linked with increased milk and cheese production as evidenced by residue analyses on pottery. In addition, nitrogen isotope levels in carbonized seeds indicate an increase in using manure as a fertilizer in fields during this period. These data are integrated with regional spatial analyses and, in conjunction with observed shifts in settlement locations, long-distance exchange, and pottery and lithic technology, provide a window into the shifts and complexities of early farming adaptations in the region.

The Origins and Evolution of Coastal Foraging in Southern Africa
Curtis W. Marean, Arizona State University

The earliest evidence for coastal foraging is found on the southern shores of South Africa at Pinnacle Point and dates ~160 ka. This is near the origin point of the modern human lineage and thus coastal foraging may have played a role in shaping that lineage. By ~110 this coastal foraging has evolved into a coastal adaptation where a significant portion of the diet includes coastal foods and the sea has become embedded in the lives of the people as indicated by the density of marine food remains, the mapping of mobility onto lunar driven tidal cycles, and the presence of sea-centric symbolic items. Between ~110 and ~ 65 ka the archaeological record along the South African coast displays a complexity that exceeds any other region of the world, perhaps due to downstream impacts of a coastal adaptation. The character of this coastal adaptation remained relatively unchanged until ~12 ka and then transformed in some significant ways. Despite this long history, South African coastal foragers never reach the levels of social and material cultural complexity seen in other areas of the world, such as California, where the time depth of the coastal foraging niche is far shorter. Why? I offer this explanation. First, the Holocene terrestrial resource base in the South African Cape is unproductive while that in California is potentially rich given the proper technology. Second, the forests of California are suitable to plank-built sea-going vessel construction while native South African Cape trees are not. This restricted the ability to evolve true maritime adaptations in the Cape. These two important but subtle environmental differences resulted in disparate evolutionary trajectories despite similarly rich intertidal zones.

Geophytes, Small Seeds, and Marine Resources: Subsistence Strategies of California's Islands
Kristina M. Gill, University of Oregon, and *Jon M. Erlandson*, University of Oregon

The dietary importance of marine resources has long been recognized in island and coastal California. Seasonal upwelling and mixing of the cooler California current and warmer California counter-current around the islands off the coast of southern Alta California result in particularly abundant and productive marine resources. Shellfish, fish, and sea mammals were important Islander food sources for millennia. Terrestrial plant resources, on the other hand, were long presumed impoverished compared with the adjacent mainland, and many archaeologists have argued that plant resources were either not important to island subsistence or that plant foods were imported from the mainland. The California Floristic Province, a world biodiversity hotspot, encompasses the islands and is incredibly rich in plant resources, used for food, tools, fuels, medicines, and rituals. Recent paleoethnobotanical data point to a plant subsistence regime based on geophytes and small seeds that were plentiful on the islands. We now know that Brodiaea-type geophytes were a dietary staple on the northern Channel Islands for at least 10,000 years, with little change seen in their use through time. They are the most frequently identified taxon across the archipelago, sometimes found in very high quantities and associated with earth ovens. Various small seeds have also been

identified, most frequently grasses, chenopodium/amaranths, and tarweeds. A similar pattern is emerging for the southern Channel Islands. Carbohydrate-rich geophytes and small seeds, along with cactus and manzanita berry pits, complimented the abundant fats and proteins obtained from marine resources. Acorns do not appear to have been important, although they were used occasionally. These subsistence patterns appear to be unlike elsewhere in California, especially in central and northern California foothills and coast ranges, where a focus on fat/protein-rich acorns and pine nuts complimented lean meats such as rabbit and deer. Along the southern California mainland coast, small seeds dominate and geophytes are comparatively rare, but extensive bioturbation by gophers on the mainland may result in differential preservation of geophyte remains compared with the adjacent islands. As seen in other Mediterranean environments worldwide, geophytes and small seeds were a dietary staple on California's Islands for at least 10,000 years. Combined with abundant shellfish, fish, sea mammals, birds, and seaweeds, subsistence patterns on California's Islands point to resilient terrestrial and marine ecosystems over millennia of human interactions.

Between a Rock and a Hard Place: Bedrock Modification as an Adaptive Strategy in the Upper Basin of Northern Arizona and the Island of Kos in Greece

Calla McNamee, Wiener Laboratory for Archaeological Science, *Toula Marketou*, Ephorate of Antiquities of Dodecanese, *Alan P. Sullivan III*, University of Cincinnati, and *Salvatore Vitale*, University of Pisa

Human-environmental interaction studies typically focus on large-scale landscape modifications of vegetation or soils and rarely address smaller-scale human alterations to site settings. This approach is based on a broad concept of environment as "set" having spatially dispersed and regionally defined attributes, as opposed to something that is mutable at the scale of individual groups of humans living at a specific location. This paper examines how two prehistoric groups, the Final Neolithic to Early Bronze Age 2 occupants on the island of Kos, Greece, and the Late Formative period occupants in the Upper Basin, northern Arizona, selected and modified habitation locations involving exposed bedrock. Although chronologically separated by thousands of years and occupying different continents, these two groups share similarities in population size, sociopolitical complexity, and environmental challenges. In facing these challenges, both groups apply practical, but different, approaches that utilized one of the most prevalent globally available resources: limestone bedrock.

Semiarid northern Arizona and Mediterranean Kos, while markedly different in many ways, are both regions characterized by highly variable precipitation patterns, with wet and cool winters followed by extended periods of limited rainfall and high temperatures. Soil formation is minimal in the upland locations, with sedimentary limestone bedrock exposures and their erosional byproducts dominating the landscape. Variability in the consistency of the limestone parent material is pronounced between the Upper Basin and Kos, with friable stone in the former and more consolidated stone in the latter, contributing to differences in anthropogenic bedrock modification. In both locations, bedrock exposures are a principal component of the architectural masonry, providing a protective

backdrop for household structures. However, while the Upper Basin populations build into friable limestone, removing and reutilizing stone in the outer walls of structures, the Kos occupants build directly against large solid bedrock exposures. Both populations also utilize local bedrock to engineer water catchment features. On Kos, natural limestone hollows were deepened through grinding into water holding depressions. On the other hand, in the Upper Basin, people concentrated and dammed water by creating divots in the bedrock and emplacing alignments on top of bedrock exposures. In both cases, these strategic modifications allowed perennial settlement in specific locations despite extended periods of little or no precipitation. By looking at the bedrock-modification practices of these different groups who altered space to meet their daily livelihood needs, we gain insights into the degree to which human populations created the worlds they chose to inhabit.

Subsistence Adaptation on the California Channel Islands: Meaty Mussels and Fleshy Fish

Hugh Radde, University of California, Santa Barbara

The California Channel Islands share many of the same plants and animals among them. However, the distribution and abundance of these resources varies according to the local ecology of each island. As such, human adaptation on the Channel Islands should reflect differences in settlement patterns and subsistence practices based on habitat suitability and resource distribution. This paper investigates human adaptation on two islands (Santa Rosa and Santa Catalina) with varying ecological parameters to examine how shellfish biomass corresponds to intensified fishing practices. Shellfish biomass estimates for the entire island were calculated by intertidal surface area (m2) based on the average size of the intertidal area during high and low tides. Archaeological data used to test hypotheses is derived from published datasets with comparable sample sizes and chronologies. This study demonstrates the influence of local ecology on these adaptations of hunter-gatherer-fisher subsistence patterns, and how the adaptations relate to cultural change and technological achievement within the region.

SESSION 3J: Colloquium
Non-Roman Elites: Tracking Persistence and Change in Central Italy through the Roman Conquest

ORGANIZER: *J. Troy Samuels*, University of Michigan IPCAA

Colloquium Overview Statement

This colloquium presents the initial results of a new collaborative research project deploying a multidisciplinary and data-driven methodology to explore non-Roman elites before, during, and after the Roman conquest.

Recent studies of early Italy, especially those exploring the Roman conquest, have used the peninsula's ethnolinguistic groups as the primary units of inquiry.

Following ancient accounts such as Pliny and Strabo, these studies have divided Italy into regions based on either historical sources or shared cultural and linguistic traits (e.g., Umbrians, Etruscans, Samnites, etc.). These studies, focused on localized change within bounded geographic or cultural units, tend to extrapolate general patterns from small sample sizes and individual case studies. While useful at a regional level, global patterns of persistence and change are difficult to identify. Furthermore, the definition of ethnolinguistic groups is based on etic perspectives formulated well after the conquest. The priority placed on shared group traits elides the individual experience in favor of the larger collective.

Our project suggests a different method, eschewing linguistic divisions and focusing instead on the individuals within one particular social group that is the most visible in the archaeological and epigraphic record: elites. The importance of elite interactions during the conquest and elite persistence afterwards have been highlighted in recent scholarship. The papers of this session focus on two bodies of evidence in central Italy: burial evidence for local elites and onomastic evidence from regional epigraphy relating to elite family groups, some of which can be reconstructed in stemmatic lineages. Through systematic data collection we use a wider body of data to explore new models for understating the negotiations as Rome expanded and incorporated new elites into her imperial project.

Following an introduction by Dr. Nicola Terrenato, four multiauthored papers present data for continuity and change in elite practices from four different geographic regions: "Campania," "Samnium," "Umbria," and "northern Etruria." Each of these heuristic regions experienced the Roman conquest differently and provide different quantity and quality of burial and epigraphic data. Following the paper, one discussant who specializes in the archaeology of early Italy, Dr. Rafael Scopacasa, and another who specializes in early Italian epigraphy and linguistics, Dr. Katherine McDonald, will critique our methods and results, situating these papers within broader themes related to Roman expansion.

This colloquium aims to bring historians, linguists, and archaeologists into dialogue to provide a holistic picture of how elites were (and were not) affected by the Roman conquest.

DISCUSSANTS: *Katherine McDonald*, University of Exeter, and *Rafael Scopacasa*, UFMG, The Federal University of Minas Gerais

Local Elites and the Roman Transition in Northern Etruria

J. Troy Samuels, University of Michigan, Ann Arbor, and *Emily Lime*, University of North Carolina, Chapel Hill

This paper uses a data-forward methodology to argue for a significant degree of autonomy amongst indigenous elites in northern Etruria throughout Rome's conquest and incorporation of the region into her emergent imperial project. Our paper represents one of the regional case studies of the larger non-Roman elites project out of the University of Michigan.

Northern Etruria (defined for the purposes of this study as the modern provinces of Firenze, Arezzo, Pisa, Livorno, Grosseto, and Siena) is a particularly fertile

testing ground for exploring the benefits of our project's methodology. This methodology promotes the systematic collection of archaeological and epigraphic data for elite activities (namely, funerary habits and onomastics preserved in epigraphy). There is an abundance of published and available information regarding burial and epigraphy in northern Etruria thanks to centuries of study. This previous work has led to a lively scholarly discourse on the "romanization" of Etruria. While often studied in isolation or synthesized at the site level, regional syntheses rooted in large data sets are far less common. We propose that our approach—with its inherent challenges of data collection, management, and interpretation—can lead to new and exciting results even in this well-studied area. By rooting our interpretations in the data itself, we argue for the benefits of this more holistic picture both for understanding this region and for placing it in a comparative framework with other regions in central Italy.

Through a comprehensive collection of the archaeological and epigraphic material before, during, and after the period of Roman conquest, we present a more nuanced understanding of Etruscan elite contact and cultural change in relation to Rome. This paper emphasizes the autonomy held by Etruscan elites, through which certain elements of local culture were retained over multiple centuries, while other elements of more globalizing (Roman, Hellenistic, Etruscan) cultures were adopted at a variable rate. An analysis of our data reveals local variation in elite style at a micro-regional scale, while also demonstrating a general global pattern of elite continuity and persistence throughout the Roman conquest. Our conclusions provide a stark contrast to the variability in burial and onomastic practices amongst emergent nonelite communities during the same period.

Diverse Elite Identities in Southern Central Italy

Amelia Eichengreen, University of Michigan, Ann Arbor, and *Parrish E. Wright*, University of Michigan, Ann Arbor

This study analyzes evidence for cultural change and continuity among elite populations in the modern provinces of Caserta, Napoli, and Salerno from the sixth to first century B.C.E. While this area is traditionally referred to as Campania, we break away from this term as a geographic and ethnic label since both the geographical boundaries and the inhabitants dramatically shifted over time. The ethnic names are largely constructs of Greek and Roman authors, who indicate occupation by the Opicians, Ausonians, Iapygians, Oenotrians, Etruscans, Greeks, Samnites/Oscans, and eventually the Romans. Avoiding these problematic ethnic distinctions, we focus instead on a holistic assessment of the material culture of elites and look for evidence of change at the site level.

The cultural complexity of the region requires the use of burials alongside epigraphic and onomastic evidence to untangle complex identities. The self-promotion of individual identity is best understood in how one chooses to be represented in burial, while epigraphic evidence demonstrates the presence of linguistic cultures. Our study divides these categories by time period (instead of by type or site) in order to see changes and continuity over time.

Examining interactions between elite members in the region aids in understanding the diversity of settlement in the area. For example, a complete shift in

the type of burial during the first century B.C.E. at the same necropolis in Pompeii indicates a cultural shift amongst local elites. Additionally, onomastic evidence provides numerous examples of Italic names written in Greek or Etruscan scripts which later continue in Latin. The presence of a variety of materials at sites such as Paestum and Capua hints at a greater social complexity, interaction, and collaboration in the region than has been understood. While the northern region of Campania was clearly more influenced by Etruscan incursions and the south saw the influence of Oscan speakers, it is clear that the cultural influence of all these groups extends further than these arbitrary boundaries.

Consideration of these three aspects (burials, epigraphy, onomastics) creates a clearer picture of the cultural fashioning of the elites in southern central Italy. In turn, this study challenges prior conceptions of the effects of the early settlements by the Greeks, incursions by Etruscans and Oscans, and even the impact of the Roman conquest.

Voices of the Dead: Examining Central Italian Elites through Funerary Evidence

Alexandra Creola, University of Michigan, Ann Arbor, and *Arianna Zapelloni Pavia*, University of Michigan, Ann Arbor

The area of central Italy northeast of Rome remained an important cross-cultural area before, during, and after the Roman conquest of the Italian peninsula. This ethnically diverse region was home to multiple groups, including Umbrians, Etruscans, and Sabines. Although scholars have traditionally investigated these peoples as isolated cultural groups, this paper seeks better to understand similar markers of elite status in central Italy across ethnic boundaries. By tracing ancient elite funerary customs found in the modern provinces of Rieti and Perugia this investigation will combine archaeological funerary evidence of elites along with onomastic and epigraphic evidence from the ninth to first centuries B.C.E. in order to determine similarities and differences among elites of central Italy during the Roman expansion.

Instead of assuming directionality of cultural exchange and influence, our paper advocates for examining traces of a wider elite vocabulary evident in funerary practices. For example, the modern scholarly trend to discuss Umbria only in terms of how its funerary urns and stelae relate to similar Etruscan artifacts perpetuates the potentially false narrative begun by ancient authors like Livy (9.41.8–16) that Umbria was not a particularly powerful area, but rather a place to pass through in order to engage with more dominant groups like the Etruscans. By understanding burial practices in connection with elite ideology, we can begin better to assess how local elites of different ethnic groups may have been participating in a form of comparable elite exchange through similar, yet distinctive burial practices at different points in history.

With the expansion of Rome's power and influence, a clear shift occurs in the burial practices of various ethnic groups in central Italy. For example, in most Umbrian sites, cremations, which had previously only been popular in the ninth to eighth centuries B.C.E., suddenly return with the increase of Roman interaction in this region. Moreover, evidence for regional aristocrats begins to dwindle archaeologically as the Romans grow in power. The degree to which elites in this region

begin to disappear or become subsumed under new Roman practices can only be understood by marrying onomastic and epigraphic evidence along with archaeological understanding of burials. By examining burial customs of local elites in central Italy, this paper provides a broader understanding of shared and, at points, purposefully differing elite customs across cultures in the region of central Italy as they come into increased contact with Roman ideology and influence.

Continuity through Difference: The Fate of the "Samnite" Elite through the Roman Conquest

Leah Bernardo-Ciddio, University of Michigan, Ann Arbor, *Sheira Cohen*, University of Michigan, Ann Arbor, and *James Faulkner*, University of Michigan, Ann Arbor

Since the early 20th century, discourse over the impact of Roman expansion and colonialism has largely taken a pessimistic view of the fate of the "Samnite elite" based on ancient literary sources, which suppose large-scale disruption at specific flashpoints: the Samnite Wars, the Second Punic War, and the Social War. The modern *communis opinio*, readily adopting these narratives, varies from a genocidal model to one of gradual acculturation. This paper instead argues for considerable cultural and social continuity among elite populations in the region, drawing on mortuary and epigraphic evidence. We show how indigenous subregional identities were continually expressed after the Roman conquest and how continued engagement of local elite families in locally derived public and funerary display indicates minimal social dislocation. Rather than total destruction, onomastic and epigraphic evidence shows elite continuity through all periods and suggests that elites continued to thrive both in their municipia and at Rome, irrespective of which side they had taken in previous conflicts. This can be seen in the continuity of specific lineages and epigraphic behaviors. While elites did engage in pan-Italic practices in later centuries, such as the use of mausolea, they continued to engage in displays of status along the same conceptual lines as in the pre-Roman period. This included emphasising subregional differences through burial practices and focusing display on regional sanctuaries rather than urban centers. Thus, there is little to suggest that the Central Apeninnic elite had trouble integrating into the Roman political sphere, or that they had to transform themselves to do so.

Through a comprehensive survey of the archaeological and epigraphic evidence for elite activity through the period of the Roman conquest, this paper moves beyond essentialist, ethnically based discussions of Central Apeninnic engagement with Rome. We instead affirm a heterogeneous view of the region that embraces variability rather than seeking to enforce arbitrary divisions of the landscape on the basis of later texts. Thus, while Samnium will form the putative unit of analysis in this paper, we understand Samnium as the Central Apenninic Region, which s characterised by diffuse and nonurbanized settlements until well after the Roman arrival. Such an approach allows us to steer clear of reductionist narratives of previous scholars and fit our analysis into larger discussions of the flourishing of non-Roman elites across the Italian peninsula, and their engagement with and reaction to the Roman conquest.

SESSION 4A
Italy between Late Antiquity and the Middle Ages

CHAIR: *Ann Marie Yasin*, University of Southern California

Religion at the End of Empire: Economic Forces and the Spatial Evolution of the Christian Built Environment, 350–576 C.E.

Kilian P. Mallon, Stanford University

Standard historical narratives of religious change in late antique northern Italy have followed ancient historical sources in explaining the emergence of the Christian built environment primarily through the agency and activity of grand emperors or industrious bishops. Much less frequent are attempts to study this change from the point of view of those who built the new religious landscape and in terms of the economic forces that impacted their religious lives. In recent decades, however, archaeological investigation has brought to light new sites and bodies of evidence that add to the established record and traditional accounts. This paper argues specifically that the changing dynamics of Roman economic integration (and disintegration), measured archaeologically, were the most significant mechanism and factor for change in the evolution of local church-building cultures, and thus the variety of Christian religious experience itself. Different areas at different times experienced their religious landscape differently with respect to intra-elite competition, communal ritual, connectivity, rural reactions to state and empire, organization, hierarchy, and memory. These patterns are far more varied and far-reaching that has been thought.

This paper employs extensive GIS spatial analysis of a series of 100 late-antique sites across northern Italy, including the built environment around cities such as Ravenna, Milan, Aquileia, and Concordia Sagittaria, as well as many lesser-known urban and rural sites across Italia Annonaria. This analysis is the basis for a database built on quantitative metrics and qualitative assessment of the construction of features such as foundations, walls, flooring, roofs, and decoration, as well as their relationship to one another across space. This paper argues that this analysis shows a distinct set of regional patterns in church-construction culture and the forms of in terms of human and material mobility required to build them. Additionally, by connecting construction patterns in these environments to recently proposed economic models for the late-antique economy in the region based on ceramic evidence, this paper argues that it was changing rates of pan-Mediterranean economic disintegration and reintegration that encouraged the formation of these cultures in certain regions and times. This work takes us beyond traditional narratives based on the political and ideological functions of late-antique religion to more fully explore the diverse links formed in religious life between people, generations, social groups, and things in broader postimperial socioeconomic landscapes. Consequently, these wider economic patterns should be essential for any account of the archaeology of early Christianity.

The Biography of a Reoccupied Landscape: Making Community at Salapia (Apulia, Italy), Sixth–Eighth Centuries C.E.

Darian Marie Totten, McGill University, and *Roberto Goffredo*, University of Foggia

On the Adriatic coast of southern Italy, the site of Salapia has been the focus of archaeological excavations since 2014. As a town established in the first century B.C.E., with a long occupation into the late eighth century C.E., and later resettled by a medieval castrum, Salapia provides a unique opportunity to theorize the relationship between successive phases of settlement and social meaning in the long-term. Evidence from the 2018 campaign has detailed how, starting in the late fifth century C.E. and continuing for the duration of the sixth century C.E., inhabitants repurposed the structures of the Roman and late-antique town, with each room reworked and reinhabited, attesting to the concentration and intensity of occupation. This was accomplished by first dismantling the Roman/late-antique floor surfaces in many rooms in order to construct huts with beaten earth floors for domestic and artisanal functions, even while the walls of the previous Roman/late-antique structures were preserved, perhaps nearly to their original heights. This possible preservation is evidenced by primary deposits of collapsed wall plaster found above layers of later reoccupation dating to the late fifth/sixth century C.E. Not only did successive inhabitants at Salapia reutilize the spatial logic of the former town to organize their new settlement, they also lived alongside the material/decorative motifs of the previous Roman town in rather marked ways. Such patterns continued into the seventh century C.E., although the remains of the former Roman structures were in an ever more-ruined state. The continuous reoccupation wore them away, even as it was dependent on them both materially and conceptually. These standing remains still appear to have helped solidify the community connections in this landscape, and to make it distinct from other places along the coast. By the eighth century C.E., the ruins of Salapia were barely visible across the eastern portion of the coastal plain, where the new village of huts was organized differently from previous settlements. We might then identify a more decisive break with what had come before, and a transformation in the relationship between people and this landscape that was diversely (perhaps less) cohesive and sustaining of community ties, as a period of abandonment shortly followed. If the ruins were better preserved further west, they did not entice new inhabitants to them for at least another two centuries.

Roman and Medieval Activity at the Site of San Vincenzo, Stromboli

David Yoon, American Numismatic Society, *Sara T. Levi*, Hunter College CUNY, and *Valerie Long*, University at Buffalo

The site of San Vincenzo on the island of Stromboli, in the Aeolian Islands of southern Italy is well known for its Bronze Age village site with evidence for Mycenaean contact. Current research at San Vincenzo, carried out in conjunction with the Soprintendenza Archeologica of Messina, is expanding our understanding of past occupation of the Aeolian Islands with a new focus on other periods. Two major episodes of later activity on the San Vincenzo plateau have been identified in our excavations: four graves dated to the late Roman period and a small building

with associated graves dated to the later Middle Ages. The late Roman graves indicate use of the plateau for burial around the fourth to sixth centuries C.E., with considerable diversity of tomb morphology and burial practices. The medieval occupation appears to span at least 200 years, from the 12th to 14th centuries. The principal structure so far identified is an apsidal foundation that appears to be a small church. The layers of rubble related to the destruction of this structure contained a number of coins, mainly of the 14th century, as well as three graves. Our continuing research has the aim of clarifying the sequence of medieval occupation and investigating whether the late Roman graves were associated with other types of activity such as habitation.

SESSION 4B
Form and Object

CHAIR: *Verity Platt*, Cornell University

Revisiting Evans' Snakes and Headgear on Knossos Faience Figurine HM 65

Bernice R. Jones, Independent Scholar

Among the most perplexing questions relating to Minoan art are those that surround the hat and snakes of Evans' "votary" from Knossos, HM65. As it was missing its head, left forearm, and most of a tubular element held in its right hand, Evans gave it a new head fitted with a fragment of a brimmed hat decorated with roundels into which he doweled a seated feline. He also joined a striped snake to the element preserved above its right hand and gave it a new left hand and snake.

MacGillivray first noticed Evans' "peppermint"-striped snakes and suggested that they were instead twine or cord, material that I considered too limp for such curved forms. And because snakes were attributes of statuettes HM 63 and HM 64 from the same findspot, I originally concurred with Evans' reconstructions. Now I present new arguments. First, the snakes of HM 63 and HM 64 are mottled and slither up the figures' frontally extended arms; these are striped and held upside down in each hand, outstretched to the sides. Evans' snakes are also opposite from the upright creatures held by every Mistress of Animals excavated in the Aegean. Further, Evans published two different snake reconstructions: a sharply right-angled, S-curved snake, rough above the hand but smooth and modern-looking above the curve in 1903, but only slightly curved in 1935. Thus only the element from the top of the hand to the curve is original.

If not a striped snake, what was this element? Comparanda from the Near East and Egypt argue against twine and for plants or snakes. I propose that Evans' "votary" was a Minoanized composite of Egyptian Bes[et] and Near Eastern Nintu, combining protective powers over pregnancy, births and children, with snake attributes. Although whatever surmounted her head remains unknown, I discovered a Middle Minoan prototype for Evan's headdress, with similar brimmed hat and medallions surmounted by a crouching animal from Petsofas, published in 1902-3, that likely served as Evans' model.

The Griffin Cauldron in Its Local, Near Eastern, and Mediterranean Contexts: The Case of Tomb 79, Salamis, Cyprus

Nassos Papalexandrou, The University of Texas at Austin

Since its discovery, the griffin cauldron deposited outside the burial chamber of "royal" Tomb 79, Salamis, Cyprus has always stood out as an exceptional object. Its type has no parallels in Cyprus before or after the date of T 79 (ca. 700 B.C.E.) and is hitherto unparalleled in the Near East, in Egypt, and in the Levant. Moreover, the arrangement of its figurative elements (hollow, cast griffin protomes, hammered human-headed bifacial birds or "sirens") has close comparanda in the Aegean, especially in series of cauldrons produced there for deposition in internationally networked sanctuaries like the Heraion of Samos or Olympia. However, the Cyprus griffins and human-headed birds are technically and stylistically divergent from the standard Aegean series. These ambivalent comparanda invite attention to the nature of the Mediterranean interconnections of the patron of Tomb 79. It is therefore worth exploring in detail the materiality and visuality of the griffin cauldron of Tomb 79 and the implicit or explicit motivations behind the choice of exotic forms, of technologies, and of the practical or ritual functions this cauldron stands for. This paper argues that the patron of Tomb 79 was fully cognizant of Aegean griffin cauldrons and dictated the type to bronzesmiths practically acculturated to Near Eastern techniques and modes of bronze working but without first-hand knowledge of the Aegean prototypes they were producing. If this hypothesis is correct, its implications for our standard models regarding the unidirectional flow of Near Eastern ideas in the EIA cannot be emphasized enough.

For Now and for Later: Reinterpreting the Late Classical Bronze Hydria

Amy Sowder Koch, Towson University

By the late fifth century B.C.E., the *hydria* had been a staple of the Greek bronze craftsman's repertoire for over a hundred years, produced in plentiful quantities and with a wide variety of small-scale sculptural decorations appended to its handles. Despite that long history, the bronze water jar underwent major transformations in shape, technique, and ornamentation in the late classical period and seems to have been manufactured in dramatically more limited numbers, reflecting major shifts in artistic practices and cultural customs.

New decorative approaches replace the miniature cast animals, monsters, and figures mechanically joined to the vessels with larger appliqués depicting mythological scenes carved in repoussé and appended metallurgically. Although the diversity of iconographic types narrows to a single mythological panel near the lower end of the vertical handle, the subjects of the scenes are innovative and diverse, ranging from legendary lovers and languid Erotes to Dionysiac revelers and victorious Nikai. The addition of these appliqués profoundly impacts the expressive potential of these bronze vessels and affords new opportunities for exploring nuanced relationships between shape, decoration, and function(s), which are especially complex given the diversity of roles the *hydria* served in life and in death.

Despite the suggestive compositions that bear clear affinities with other late classical decorative bronzes, these *hydriai* have not been considered as a distinct

body of evidence for nearly 75 years, since Gisela Richter catalogued 21 vessels of this type in 1946 and suggested that they were made to be used in life, contrasting sharply with earlier claims that such objects were made solely for the tomb. Today, with more than 70 vessels, our evidence has nearly quadrupled. Contextual evidence for bronze *hydriai* and understanding of fourth-century Greek metalwork and culture also have increased significantly, meriting reassessments of why and for whom these vessels were produced.

This paper considers iconographic, stylistic, and archaeological evidence for late-classical bronze *hydriai* and their decorative appliqués, suggesting that craftsmen and owners may have anticipated multiple phases of use and chosen images that could be interpreted opportunistically at various life stages. Establishing connections between ornament and function in these vessels allows for productive considerations of those made earlier and with simpler motifs, as well, and for recognizing changing patterns of use. By proposing a more flexible, multivalent interpretation, we can restore the versatility and deep cultural significance of the Greek bronze *hydria* for both the living and the dead, near and far from the fountain.

Unmasking the Helmsman: Painted Prows and Enigmatic Eyes at the Archaic Symposium

Philip Katz, New York University

The piercing gaze of the Attic eye-cup is one of the most familiar images from archaic Greece. It is also among the most theorized, and the vase form is most often thought to contribute to sympotic role-playing through its masking properties. Although the eyes of these cups never appeared alone, this interpretation has long been argued in a way that denies agency to the surrounding figures. In this paper, I examine one understudied corpus of eye-cups for which the function was determined not by the eyes alone, but by their interplay with the prows of ships that framed them. The circulation of such a vessel, I argue, not only helped fashion the symposium as a sea voyage, but also allowed symposiasts to adopt the role of the helmsman on that voyage.

Among extant black-figure eye-cups, nearly 20 preserve evidence of prows on their exterior surfaces, all produced between 550–525 B.C.E. and displaying a consistent arrangement of iconographic elements, with each eye flanked by a truncated ship that begins under the handles. The compositional relationship between the painted prows and the eyes of the cup are highly significant, as these larger eyes find visual counterparts in those on the prows, a doubling that establishes a dialog between the two elements. This relationship is further reinforced by the way in which the convex curve of the larger eyes is nestled into the concave curve of the prows. Through this dialog and arrangement, I argue, the eyes of the cup become part of the prows, working together to transform the cup itself into a kind of ship.

This relationship between prows and eyes, moreover, also enabled the former to contribute to the masking functions of their cups. While ships on other sympotic vessels, as well as those in contemporary sympotic poetry, gave a prominent role to the helmsman, those on eye-cups uniformly omitted this figure. During a symposium, I argue, this vacancy was filled by the participant, who, in the act of handling the cup, temporarily inhabited the persona of a helmsman. Passing such

a cup-as-ship around the room, moreover, allowed each symposiast to assume this role in turn. In so doing, these cups thus used their visual rhetoric to bring the user and viewers aboard the ship in a way that enabled the sympotic community to self-fashion as a microcosm of their poleis while still preserving for themselves a position of primacy.

A New Spin: Establishing the Function of Epinetra

Einav Z. Dembin, University of Texas at Austin

Weaving tools make up the largest body of objects associated with women's work in ancient Greece, and yet much of the material remains unexplored in scholarship. The *epinetron*, a tool placed over the thigh and used to process thread, is a case in point. The black- and red-figure decorated ceramic examples available for study are ceremonial versions of functional tools made of perishable materials, such as cloth, leather, or wood. This presents a problem: if we do not have the actual tools, how can we determine their function? Were they designed for spinning, carding, the creation of roves, or refining thread? By reevaluating the evidence, it might be possible to determine not only how they were used, but what they were used to create. This paper will present two connected arguments: First, ethnographic studies suggest that functional *epinetra* were used for spinning thread. For example, the Tlingit people, a first nation of the Pacific Northwest, continue to produce thread by hand using what they refer to as "spinning pads." As female practitioners indicate, these objects are typically made of canvas wrapped over the thigh to provide a surface for the production of Chilkat warp thread. Second, I argue that this thread was comprised of linen fibers rather than wool. The main body of evidence comes from the Dodecanese and Cyprus. Onesagoras, the donor of several ceremonial *epinetra* at a nymphaeum on Cyprus, was associated with a group of Cypriots engaged in the cultivation of flax and linseed. He dedicated no other weaving tools at the site, indicating a special relationship between *epinetra* and linen production—a distinction not shared with other such utensils. This connection is supported by additional evidence of flax cultivation from other regions of the ancient world, forcing us to challenge our previously held assumption that functional prototypes of *epinetra*, which the corpus of decorated *epinetra* imitate, were used to process wool exclusively. Finally, I argue that dedications of *epinetra* in sanctuary and funerary contexts were symbolically charged—aligning with gendered social constructs that placed a special premium on the skill of the mature wife and mother.

SESSION 4C
New Light on Ancient Mediterranean Scripts

CHAIR: *Ruth Palmer*, Ohio University

Othering the Alphabet: A New Proposal for the Social Context of the Proto-Sinaitic Script's Invention and Its Potential Influence in the Eastern Mediterranean

Nadia Ben-Marzouk, UCLA

Prior investigations into the icons selected for use in the Proto-Sinaitic script have focused largely on the correspondence between specific Egyptian hieroglyphs and the names of these objects in the West Semitic lexicon. More recent suggestions have argued that the images employed in the inscriptions may have reflected the importance of these objects to the Semitic-speaking producers. However, these previous interpretations fail to investigate fully the social context of the world into which the Proto-Sinaitic writing system was born, and thus how the script itself may have functioned for its creators. This paper will further develop previous suggestions that the new writing system was an Egyptian invention, specifically intended to restrict access to the sacred knowledge of hieroglyphic writing. By combining archaeological, iconographic, and textual data with a sociolinguistic approach to script selection, it will be argued that some of the icons selected for the new Proto-Sinaitic script were part of a stock cultural repertoire Egyptians employed to depict Asiatics. By incorporating these culturally charged icons into the new writing system, it therefore reflected the Egyptian's purposeful attempt to mark the script as non-Egyptian in its use during the early second millennium B.C.E., essentially "othering" the alphabet. I explore the reasons for this and examine the potential influence of this new script in its wider eastern Mediterranean context.

The Phaistos Disk: A New Way of Viewing the Language behind the Script

Brent Davis, University of Melbourne

In this paper, I introduce a new, linguistics-based method of analyzing the behavior of signs in the Aegean family of pre-alphabetic scripts (Linear A, Linear B, Cypro-Minoan, the Cypriot Syllabary, and the script on the Phaistos Disk). Applying this method to two scripts in tandem produces metrics expressing the likelihood that both scripts encode the same language. As the method is based solely on the behavior of the signs (not their phonetic values), it can be applied to the undeciphered scripts as well as the deciphered ones.

When this method is applied to the two deciphered scripts (Linear B and the Cypriot Syllabary, both of which encode Greek), the results indicate a high degree of probability ($p < 0.03$) that the two scripts encode the same language, without the analyst needing to know the phonetic values of any of the signs. When the Cypriot Syllabary and Linear A are analyzed together, this probability falls dramatically ($p = 0.47$), strongly indicating that the language behind Linear A is not Greek. A

similarly low result ($p = 0.49$) is obtained when Linear B and the Phaistos Disk are analyzed together.

When Linear A and the Phaistos Disk are analyzed together, however, the probability that the same language underlies both scripts rises to a very high level ($p < 0.02$). This is new. Though it has long been recognized that both scripts are Minoan inventions, no one has yet been able to formulate a firm and reproducible indication as to whether or not they encode the same language. These findings (soon to be published in the *Oxford Journal of Archaeology*) are an important step forward in the study of both scripts, with implications for eventual decipherment.

The Linear B Tablets from the Northern Entrance Passage at Knossos: A Reconsideration of the Taphonomy of the Deposit

Ophelie Mouthuy, Université Catholique de Louvain

Because of the early date of the discovery of the Knossian Linear B tablets (Evans, between 1900 and 1905) and their resemblance to the tablets found on the Greek mainland, the precise chronological attribution of the Knossos tablets remains challenging, jeopardizing reliable historical reconstructions based on their contents. To remedy this conundrum, multidisciplinary approaches of each deposit found in the palace, combining an archaeological, pinacological, epigraphical, linguistic, and textual analysis seem the most reliable way forward (cf. the Room of the Chariot Tablets).

This paper focusses on one of the largest concentrated deposits found within the Knossos palace, that of the Northern Entrance Passage (NEP). Through a comparative multidisciplinary analysis with other Knossian and mainland tablet deposits, the status and date of the NEP is explored. This should lead to valuable insights into administrative and historical processes that led to the progressive incorporation of the island in the Hellenic world.

In this paper, the archaeological aspects of the NEP are considered with the aim of characterizing the destruction responsible for the conservation of the tablets. The study of the architectural context (on the basis of the archives of the excavations) as well as the associated material includes a ceramic study of 11 thus far unpublished postpalatial double-vases stored in the Heraklion museum. This suggests that a reconsideration of the taphonomy of the deposit is necessary. A new scenario is proposed that aims at explaining the concurrence of the double vases and the tablets during the excavations.

Mycenaean Hornworking, Wealth Finance, and Linear B Commodity *189

Ruth Palmer, Ohio University

Linear B tablets from Knossos and Pylos record horn used in palace manufacture of daggers, chariot harness, furniture, and leather goods, often in the same context as ivory. Horn from domesticated animals is a traditional craft material, the byproduct of animals butchered for meat and hides. The conical keratin sheath from oxen, sheep, and goats is removed from the horn core, softened by heat, cut

open, flattened, and shaped. Archaeological evidence for hornworking consists of detached horn cores with cut marks.

In Linear B, only one horn sign has been securely identified: *151, *agrimi* horn. The tablets use the word *ke-ra*, "horn," which does not indicate the species of the horn. I propose that the commodity sign *189 represents a partially processed form of horn. Pylos tablet Un 1482 bears the word *ke-ra-e-we* "hornworker" followed by sign *189 consisting of a rectangle with the phonetic sign *ke* inside; succeeding lines list furniture and leather bags. *189 also appears in the Pylos Qa series, which records the distribution of one or two units each to high-ranking individuals. *189 most likely depicts a flattened rectangular plaque of *ke-ra* cut from the widest part of the keratin sheath. It could represent either a blank for further working or a finished plaque.

Hornworking in the Linear B tablets illustrates wealth finance on a sliding scale. In wealth finance, the palace creates ties with high-status individuals through gifts of prestigious palatial crafts. The individuals in the Qa series receive plaques made by palace hornworkers engaged in a traditional craft using the best local raw materials to create decorative elements imitating ivory. The horn dagger hilts and inlays on chariots and harness as described in the tablets appear as a cheaper substitute for ivory, but were probably shaped with the same tools in the same workshops as ivory. Apart from origin, the main difference between ivory and horn would be color. However the relative value of the material also matters to the recipient.

SESSION 4D
New Thoughts on Greek Figured Pottery

CHAIR: *Kate Topper*, University of Washington

Beazley 2.0: An Artificial Intelligence Approach to Attribution Studies

Joseph Eilbert, Vanderbilt University, *Justin St. P. Walsh*, Chapman University, *Veronica-Gaia A. Ikeshoji-Orlati*, Vanderbilt University, *Erik Linstead*, Chapman University, and *Betsey A. Robinson*, Vanderbilt University

More than a century after Sir John Beazley developed his connoisseurship approach to attributing vases to painters and potters, new technologies are enabling another method that Beazley himself never could have imagined. This paper presents a comparison of Beazley's method with a novel method driven by artificial intelligence (AI).

Convolutional Neural Networks (CNNs) are a type of image classification algorithm that relies on machine learning to identify and group visual patterns. CNNs are typically trained with sample image sets to improve image classification performance. For example, CNNs can be trained with images of pets to discriminate between images of cats and images of dogs. In this study, a simple CNN has been trained to classify images from the University of Oxford's Beazley Archive Pottery Database into categories corresponding with attributions to ancient Greek painters.

Our study focused on comparison of images of vases attributed by Beazley and other scholars to five Attic vase-painters: Euthymides, the Kleophrades Painter, the Berlin Painter, the Achilles Painter, and the Meidias Painter. The first four vase painters are believed to have been related to each other as successive generations of master-apprentice, whereas the Meidias Painter is a later follower in a different line of artists. The trained CNN divided 802 Beazley Archive images into five groups, corresponding to the human attributions roughly 70% of the time. Analysis of the results suggests that anatomy, drapery, and other finely drawn details are significant factors in the CNN's determinations, as they were for Beazley. Larger image datasets and future development of the CNN's internal design are likely to augment its ability to distinguish between paintings and painters.

We contextualize the application of CNNs to ancient Greek vases within the ongoing discussion of the credibility and value of Beazley's methods of attribution. Rather than validate (or invalidate) established attribution methodologies, our computational method provides reproducible benchmarks against which human attribution techniques can be compared. Parallel progress in human- and AI-driven attribution methods will provide new critical perspectives on the methodologies and assumptions implicit in connoisseurship. This work introduces the fundamental tools and techniques for harnessing such developments to provide computationally and methodologically defensible attributions. Moreover, this work demonstrates the promise of AI approaches to other archeological studies, such as style or characteristic classification, artifact discovery and documentation, and digital reconstruction.

Euphronios Knew How to Wrestle

John J. Dobbins, University of Virginia

The Attic red-figure krater by Euphronios (ca. 510 B.C.E.) in the Louvre presents myriad interpretive problems because the main scene is always described as generic wrestling: "Herakles wrestling Antaios." This line of inquiry leads to the inevitable problem of whether Herakles has already lifted Antaios and is therefore prepared to dispatch him, or whether Herakles has not lifted Antiaos and therefore Antaios should retain strength due to his physical contact with mother Earth. Two "definitive" commentaries (presented in the paper) illustrate the problem by taking opposite sides.

The state of Antaios is problematical in the above scenarios. An a priori assumption should be that Antaios in contact with the earth is strong and that Antaios not in contact with the earth is weak. Euphronios presents Antaios in contact with the earth. Therefore, he should be strong in keeping with his specific properties. Nonetheless, commentators underscore conditions suggesting that Antaios is in trouble: "position of abandonment, rictus of pain, eyes roll, right arm is paralyzed." Such assessments are inconsistent with the conventions of the myth and might suggest that Euphronios himself was inconsistent and/or unclear.

The problems are solved through consultation with Stephan Garland, Head-Wrestling Coach at the University of Virginia. Euphronios depicts a specific wrestling hold that is preparatory to a lift. Euphronios has chosen a dramatic moment when Herakles begins a critical move whose outcome we do not yet know. Antaios

has not been lifted. Far from being inconsistent or confused, Euphronios knew how to wrestle and he anticipated that his viewers would share that knowledge and understand the dramatic moment that he depicts. The larger cultural context concerns painting, sculpture and literary works that also select dramatic moments whose outcomes are known to the viewer, but not revealed by the work in question, hence the dramatic tension. (The east pediment of the Temple of Zeus at Olympia is a good example.) In this specific case of the Euphronios krater we must ask if women understood wrestling, leading to the final question: "who was the audience of Euphronios?"

Shape Reservation and Shape Agency: The Kleophrades Painter and His Kylixes
An Jiang, Emory University

In Athenian figure-decorated pottery, shape specializations can be readily detectable in many workshops. However, there is an equally significant yet less distinguishable phenomenon that may be termed "shape reservations" in the sense that a certain shape is particularly reserved and only exploited by a vase painter for special occasions, such as unusual commissions and dedications. Thus a "reserved" shape may appear almost absent in one painter's oeuvre, but each example is more elaborate than his routine works. This paper presents a case study on the exceptional "reserved" status of the kylix shape in the repertoire of the Kleophrades Painter, one of the most creative Athenian vase painters.

The Kleophrades Painter is famously called "the greatest pot-painter of the late archaic period," as opposed to a "cup painter." Among his over 150 preserved red-figure works, he left only five kylixes. Despite the small number, the archaeological contexts of four out of his five cups immediately suggest their extraordinary status. A pair found in a "heroic" tomb near the sanctuary in Tarquinia may have been "ritually sacrificed" according to a recent study; one kylix was probably a dedication on the Athenian Acropolis; and the fourth cup is identified as a cherished family heirloom buried in a Rhodian tomb decades later after the production of the vase. The sophisticated pictorial design on each kylix also supports the identification of their "reserved" status.

For a creative artist as the Kleophrades Painter is, the kylix shape is not merely reserved for exceptional works but also actively exploited to enrich his narrative strategy and overall designs. Such agency of the reserved shape will be examined on his Acropolis cup with an unusual representation of the Seven against Thebes. According to one testimony of the lost epic Thebaid, Oedipus cursed his sons on account of his father's drinking cup. This version of the epic most likely served as the inspiration for the Kleophrades Painter's design, since the vase is certainly dated before Aeschylus' play first performed in 467 B.C.E. In this case, the agency of the kylix imparts another layer of meaning to the already threefold sequential scenes of the myth decorating the exterior and interior of the cup. The Kleophrades Painter's kylix in this context is transfigured into Laius' kylix in the epic poetry symbolizing the very origin of the tragic fratricide between Eteokles and Polyneikes depicted prominently on the tondo of this cup.

New Old-fashioned Vases: The Use of Black-figure on Kabiric Skyphoi
Ross Brendle, Independent Scholar

Around 430 B.C.E., vase painters in Boeotia began producing a new type of black-figure vase for special cult use. Boeotian vase painting clearly draws on Attic traditions, but these Kabiric skyphoi, connected with the mystery cult of the Kabiroi near Thebes, carry on the black-figure technique longer than any Attic drinking vessels, continuing until about 325. These skyphoi draw on the rustic and old-fashioned connotations of the black-figure technique, which was especially appropriate for the cult of the Kabiroi with its rural setting and Dionysian associations. Production of these vessels began after red-figure had been introduced to both Attic and Boeotian vase painting, but painters chose instead the older technique from their inception. The shape is unlike any found in Attic pottery and the vases vary considerably in size. Some were likely meant for individual use while others might have been reserved for display or dedication or were perhaps reserved for especially enthusiastic drinkers.

The cult of Kabiros and Pais is attested at the site as early as the eigth century. Not much is known about the mystery cult, but communal feasting and drinking were part of the activities at the sanctuary throughout its long history. The father and son gods of the cult are often depicted as Hermes and Pan or as Dionysos and a young cup-bearer. Iconography suggests the rural cult was connected to the raising of animals and growing of grapes. Several Kabiric skyphoi show banqueters reclining and drinking, often wearing masks and unusual headgear. Other vases show parodies of common myths and other comic scenes.

Attic black-figure skyphoi were very popular in Boeotia until they fell out of production in the third quarter of the fifth century, at which time Boeotian workshops began producing similar skyphoi in black-figure, carrying on the same visual tradition. Late Attic black-figure is characterized by a hasty painting style and generic iconography. Kabiric skyphoi on the other hand demonstrate complex iconography of comic and mythic scenes rendered in careful detail. These vases are unlike anything found in Attic pottery and represent a new visual tradition that adopts from its beginning a conspicuously old-fashioned technique already abandoned in Attica. This use of black-figure was a deliberate choice and not an indication of reluctance to accept new artistic forms. Kabiric skyphoi are intentionally archaistic and emphasize the antiquity and rustic nature of the cult of the Kabiroi.

An Italian in Arcadia: Some Unusual Moldmade Bowls at Mount Lykaion
Susan I. Rotroff, Washington University in Saint Louis

Among the ca. 300 fragments of Hellenistic moldmade relief bowls recovered at the Sanctuary of Zeus on Mount Lykaion is a handful that share motifs with the Italo-Megarian bowls of central Italy. The similarity is more than casual, for the Italian material provides exact parallels for several motifs that are rare in the Greek mainland but standard in the Italian industry: an inverted ovolo, a bull's eye, a meander accented with miniature upended amphoras, as well as particular forms of common floral motifs. The fragments find close parallels within the Italian workshops of Quintius, Herakleides, and Lapius, bowl makers active in

central Italy in the middle and second half of the second century. They were found in a dump of feasting debris in the lower sanctuary discarded in the first half of the first century B.C.E.

Despite their clone-like similarity to Italian bowls, however, they are probably not Italian imports. Italio-Megarian bowls are generally made of a fine but gritty fabric and almost never glazed, while the Lykaion bowls have a thin brown gloss, usually over a fine, blue-gray fabric. Thus they combine Greek glazing customs with Italian design. Glazed bowls showing strong influence from the Italian industry have been reported at Enserune in southern France and at Olympia in Greece, but none are as closely similar to the prototypes as the Lykaion fragments. The similarities are so close that Italian molds or stamps must have been available to the makers. The close relationship among the various Italian workshops has suggested to some the existence of itinerant potters, and if such existed, perhaps they traveled as far as Greece's western coast.

As far as I am aware, only two or three Italo-Megarian bowls have heretofore been found in Greece, making the nest of Italo-Megarian clones at Lykaion all the more remarkable. Although questions remain about where the bowls were made and who brought them to the mountain sanctuary, their presence recalls traditions connecting Arcadia and Rome: that Evander, emigrating from Pallantium in Arcadia to found a new settlement on the Palatine, established the Lupercalia based on the worship of Lykaian Pan. The poetry of Ovid and Vergil assures us that these stories were current in Rome of the second half of the first century; the moldmade bowls suggest that the connection was recognized a century earlier in Evander's Arcadian homeland.

SESSION 4E
News from Etruria

CHAIR: *Gregory Warden*, Franklin University Switzerland

Vulci 2018: Remote Sensing and Archaeological Excavations

Maurizio Forte, Duke University

The Vulci 3000 project, led by Duke University, started in 2014 with the goal of studying the transition periods in the archaeological site of Vulci (Viterbo, Italy); more specifically transformations and urban developments in the Etruscan and Roman city around the public areas. The project involves the advanced use of GPR (ground penetrating radar), multispectral drones, and extensive archaeological excavations in the southern part of the plateau. In the 2018 season, Etruscan and Roman cisterns and wells were identified and excavated: they give new and very important insights on the main public infrastructure and the complexity of the water management system in the very long urban history of the site. New extensive remote sensing surveys (multispectral UAVs and GPR; thanks to the collaboration with the Ludwig Boltzmann Institute of Vienna) are able to show the articulation of several buildings and roads near the Etruscan acropolis and the Roman forum and, more in general, the overlapping and reuse of several foundation walls.

The dynamics of urban transformations in Italy across the first millennium B.C.E. is one of the most interesting research topics in classical archaeology because it concerns the emergence of complex societies in the Iron Age (early first millennium B.C.E.), their evolution into city-states (for the Etruscan and a few other pre-Roman societies) and finally their transformation in Roman colonies. Transformation and evolution depend on social and political changes, which deeply influence cities' layouts, monumental buildings, and the organization of public spaces.

Settlement and Society in Classical and Hellenistic North Inland Etruria: Recent Excavations at Vescovado di Murlo (Prov. di Siena)

Anthony Tuck, University of Massachusetts, Amherst, *Eóin O'Donoghue*, Kings College London, and *Nora Donoghue*, Florida State University

This paper presents the results of recent archaeological excavations from Vescovado di Murlo as well as a study of wider settlement patterns across north inland Etruria during the fourth and third centuries B.C.E. To date, this region is best known for its seventh and sixth century B.C.E. phases, especially via the monumental structures at Poggio Civitate (Murlo). This examination aims better to understand this area during a period that is by contrast understudied, but for which a large amount of archaeological evidence is present.

We present the results of excavations undertaken in the town of Vescovado di Murlo. Excavation in an urban environment is necessarily limited and provides what are essentially keyhole views of ancient landscapes; nonetheless, our study has generated a comprehensive and complex set of data that has enabled us to reconstruct much reliable information for a late classical and Hellenistic Etruscan community. Our investigation centers on the restudy of a small industrial area first excavated in a rescue operation in 1970, subsequently in 2006, and more recently between 2015 and 2017. The 1970s excavation revealed a kiln and part of a wall, while the 2006 excavations revealed the larger extent of this industrial area and remains of small domestic units. Both areas date to the fourth and third centuries B.C.E.

The most recent work was possible due to the repurposing of land for possible development. During three seasons of excavation a major destruction deposit and a portion of a large defensive system was brought to light from a secure context also dating to the fourth and third centuries B.C.E. The destruction deposit contained an abundance of roofing tile, over 700 pottery vessels, moldmade architectural terracottas, and a variety of other materials, including human remains. The material culture has enabled us to suggest that a series of large, possibly monumental and ornately decorated structures stood in the immediate vicinity and were all destroyed sometime in the middle of the third century B.C.E.

The final portion of this paper places our results within the broader archaeological landscape of this region. We suggest that north inland Etruria during the fourth and third centuries provides evidence for stable and prosperous small communities; however, the third century bears witness to significant changes in the settlement pattern that may be connected to wider social and historical developments.

The Site of Veii (RM) from the Archaic to the Imperial Period: Evidence, Interpretations and Hypotheses on Water Supply
Ugo Fusco, Sapienza, University of Rome

In the context of studies on Veii, a specific analysis of the city's water supply systems during the various phases of occupation is still lacking. This paper thus intends to fill the gap in light of the most recent archaeological discoveries. In recent years, the state of knowledge of the site has made significant leaps forward thanks to the publications of the British School at Rome and the multiyear "Progetto Veio," started in 1996 from a convention between La Sapienza, University of Rome and the current Soprintendenza Archeologica, Belle Arti e Paesaggio per l'area metropolitana di Roma, la provincia di Viterbo e l'Etruria meridionale. From a topographical point of view, the town of Veii stands on a plateau (h 185) and is skirted by two watercourses, both still active today: the Fosso Valchetta, the ancient Cremera, and the Fosso Piordo. The Aqua Traiana (early second century C.E.) is known to have crossed the territory of Veii (CIL XI 3793), but did not reach the town itself. It is generally thought that the water supply was organized by constructing large cisterns, which then supplied the town through a network of conduits. The critical review of the old and new data, particularly those uncovered by archaeological research in the area of the town Forum, the site of Campetti southwest area, Piano di Comunità and Piazza d'Armi, allows us to present an updated overview of water collection and distribution systems from the archaic to the imperial period. Additionally, the use of all the available sources—archaeological (e.g., cisterns, aqueducts, underground tunnels), historical (literary sources), and epigraphical (inscriptions, stamps on lead pipes)—will make it possible to identify continuities and discontinuities in the use of water during the various phases of occupation. Finally, the creation of specific thematic maps showing the site's water resources will complete the presentation of the data.

From Powerless Pawns to Passive Bystanders: Daughter Iconography on Fourth Century B.C.E Engraved Etruscan Mirrors
Alexandra Carpino, Northern Arizona University

The scenes that decorate the reverses of engraved bronze mirrors, currently the largest body of pictorial art in pre-Roman Italy, constitute a key form of primary evidence about aristocratic Etruscan society and culture, providing, in particular, solid information about their values and ideals. Starting in the second half of the fourth century B.C.E., there is a significant increase in imagery adapted from Greek myth—some of which makes its first appearance at this time—that emphasizes the elite's most desirable social identities and the behaviors necessary to achieve them. Now included in mirror iconography were a new series of parenthood myths that featured both nuclear families and single parents, especially mothers, with their offspring. Previously, I have demonstrated how the compositional structure of the motherhood myths, when viewed in conjunction with the actions and attributes of the characters chosen for depiction, created a persuasive visual rhetoric that linked female status, happiness and fulfilment to the successful birthing and rearing of boys. By celebrating the close maternal bonds between divine and mortal mothers

and their sons, such scenes not only reaffirmed the Etruscan elites' patriarchal values but also highlighted the centrality of the male line in contemporary ancestries, particularly at a time when they were especially concerned about their future. Yet to be explored are the roles played by daughters within this pictorial tradition. In this paper, I argue that the striking contrast between the extant scenes that illustrate parents with their female children and those featuring male children was part of a deliberate ideological trend in contemporary mirror iconography to advocate marriage and childrearing as the single most important social responsibilities for girls. Surprisingly, daughters rarely appear with their mothers; rather, it's their fathers—and the world of men, especially, their future husbands—who dominate the imagery. Moreover, scenes showing the early lives of girls are absent from the corpus and daughters seldom appear as the protagonists—instead, their presence in a scene is usually tied to the above-mentioned gendered behaviors and expectations, or is decorative, their bodies creating frames that showcase the exploits of heroes or mothers with their sons. In this way, not only does the stereotype of female passivity dominate daughter imagery in these carefully selected parenthood myths, but a picture of the ideal aristocratic Etruscan daughter also emerges, one who is obedient to her father, subservient to her brother, and/or ignored by her mother.

Face to Face: Antefixes and Architectural Agency

Joseph Woldman, Columbia University

During the Archaic period, examples of Etruscan architecture were enlivened by face antefixes affixed along the eaves of pitched roofs. From a pragmatic standpoint, they protected the wooden superstructure from rainwater, which might have otherwise dripped between the interstices of the roof's pan and cover tiles. Stylistically, face antefixes have shed light on networks of contact through the importation and incorporation of formal elements. Certain faces appeared in multiple cities, connected by commercial, political, and religious affiliations. These observations have led to groundbreaking analyses highlighting the interconnectedness of Mediterranean civilizations in the development of temple architecture. Such studies tend to view antefixes through the holistic lens of terracotta roof decorations, whereas their particular contribution to the overall impact of the roof falls into the nebulous category of apotropaic ornamentation. Alternatively, a semiological approach highlights the hybrid nature of the characters represented that were captured in clay; it is argued that they relate to the dual ontological status of the temples they exclusively adorn at the end of the sixth century B.C.E. because these structures skirt the line between mortal and divine realms. This interpretation can, at times, rely on inconsistent methods of identification, especially regarding the female faces that otherwise lack outstanding attributes, but appear most frequently in the late sixth and early fifth centuries B.C.E. The current study considers the phenomenological and agential power of the face and its gaze. It proposes that the frontal faces angled down from roofs utilized recognizable effects to activate emotional and psychological responses leading to the modification of behavior demanded by the space. The purposeful selection of faces popularly reproduced in media already circulating throughout the Mediterranean would have expanded

face antefixes' potency to include not only Etruscan communities, but also itinerant groups from cities that were a part of the larger Mediterranean network. These terracotta faces activate a strategic somatic awareness through the frisson of their gaze and are purposefully flexible, thereby maximizing their effect. The presence of the temple, at a time when its formal qualities were being codified throughout the Mediterranean, was in part pronounced by the series of faces that unblinkingly watched the world below.

SESSION 4F
Triumph Monumentalized: Roman Victory Monuments

CHAIR: *Francesco de Angelis*, Columbia University

Economies of Prestige: The Transformation of Plundered Objects from Triumphal Spoils to Consumer Goods

Alyson Roy, University of Idaho

The Roman triumph has been the subject of renewed interest in recent years, particularly in its influence on Roman topography and the visual representation of conquest in manubial architecture. Beyond a few exceptions, however, little attention has been given towards examining the influence of the triumph on the Roman visual language of power outside of architectural frameworks. As a result, the central role that triumphal iconography played in elite life has yet to be investigated fully within current triumphal studies.

Beginning in the late third century B.C.E., war booty displayed in triumphal processions gradually replaced the procession itself as the most desirable manifestation of a general's prestige within Roman society. Lush literary descriptions of triumphal plunder, such as with Pompey's third triumph, underscore the growing importance of exotic luxury goods as prestige markers. When compared to the ephemeral character of the procession, their relative permanence allowed these "triumphal" objects to absorb the ritual and symbolic significance once limited to the triumphal procession itself. As triumphal architecture and the permanent display of spoils became a standard component of elite display in Rome, campaigning generals like Pompey increasingly sought out specific luxury goods to display both publicly and in their homes. By the first century B.C.E., this correlation between triumphal plunder, prestige, and decoration was firmly established and increasingly influenced the private collecting habits of the Roman elites.

This paper seeks to examine this cultural phenomenon by tracing one category of plundered object, statues, through the entire process of their circulation: from their capture as war booty, through the triumphal parade, into manubial buildings for display, and finally into domestic settings where they became decorative stand-ins for the triumph. Through examining decorative objects of public and private display like statues, one can perceive the transformation of war booty from representations of violence into consumer goods. In turn, purchasing luxury goods that mimicked triumphal plunder allowed elites like Cicero to elevate their social status and participate, albeit at a distance, in Roman conquest. This process of

sculptural transference reveals a growing emphasis on the symbolic value of plundered objects and an explicit, albeit internalized, link between the Roman triumph and the emergence of late Republican and early Imperial private art collections.

Revisiting the Rostral Display from the Actian Victory Monument
William M. Murray, University of South Florida, and *Konstantinos L. Zachos*, Emeritus Curator of Antiquities, Greek Ministry of Culture

Sometime between his victory at Actium in 31 B.C.E. and his acceptance of the name Augustus in early 27 B.C.E., Octavian dedicated an impressive Victory Monument near Nicopolis on the site of his hillside camp. This well-known monument was adorned by a long line of warship rams—spolia from the captured ships of Antony and Cleopatra, socketed into the face of the monument's 60 m-long retaining wall. Prior to 2017, excavations had revealed all but 11 m of this monument's main facade, a lavishly decorated altar atop the terrace it created, 36 blocks from the monument's large dedication text, numerous blocks and columns from a three-sided portico, terracotta pieces of the portico's roof and sima, marble, glass, and bronze, including a few pieces from the warship rams. In short, the excavations have provided much new material for analysis, which will appear in a large comprehensive publication currently in preparation. The monument's facade remains an area of particular interest because of the ram sockets that preserve unique dimensional details from warships for which no other direct evidence survives. Hoping to gather all available evidence, the authors cleaned the last 11 m of this facade, exposing the entire retaining wall, which they then recorded with photogrammetry in 2017. The following summer, they recorded all blocks not in situ with traces of socket cuttings and made 3D models of them. This work has conclusively revealed that 35 rams comprised the rostral display, probably a tithe of the 350 warships captured from Antony and Cleopatra during the Actian War. It also revealed that the largest ram was displayed on the eastern end of the facade, near the path visitors used to reach the monument's entrance. Finally, the work revealed details of a major repair to the rostral facade in the area between Sockets 28 and 34 (counting from the west). This repair, however, does not account for at least 12 first-course socket blocks for which there is no room on the monument. The authors propose four possible explanations (or combinations thereof) for this curious situation, each with different implications for the process by which the rams were initially selected, the sockets cut, the rams mounted, and the facade subsequently repaired. The authors conclude by suggesting future avenues of research using the 3D models that have been created.

Actium at Ancient Corinth?
Aileen Ajootian, The University of Mississippi

Monuments commemorating Octavian's naval victory at Actium extended beyond his elaborate pi-shaped monument and display of captured prows. The so-called Guilford Puteal, observed by Dodwell in 1804 at ancient Corinth, and now in the British Museum, was originally an altar or statue base, reused in modern

times as a wellhead. Ten archaistic gods in relief correspond to the figures adorning a semicircular base discovered at Nikopolis. It is likely that both this monument and the Corinth "Puteal" memorialized Octavian's naval victory at Actium.

Fragments of another relief, in the apotheke at Corinth, may also have commemorated Octavian's maritime victory, providing a glimpse of early Roman propaganda in the provincial capital of Achaia. Four fine-grained marble fragments with similar scale and tool marks back and front belong to a frieze, preserved height 0.15 m. S 2151 preserves the upper torso of a draped, bearded male personage, his mantle billowing behind him. On another fragment (S 1998), a draped woman, perhaps Artemis, turns away from the *aphlaston*-decorated stern of a ship, now lost, which had originally occupied the space to her left. On another fragment are the ankles and feet of a seated male figure wearing calces. A fourth piece (S 2102) preserves a man's shod left foot. All four fragments were found in the 1930s in late levels at the southeast end of the excavated forum at Corinth.

Two fragments belong to the top of the panel; the top edge in back is finished with an ovolo molding, suggesting that the panel was not a revetment. Both top and bottom surfaces were worked with *anathyrosis*, and a projecting edge framing the relief scenes. The fine carving in small scale resembles the Casa de Pilatos marble state reliefs depicting naval battle scenes at Actium and expressions of Octavian's victory.

Perhaps the suggestive fragmentary reliefs at Corinth also belonged to a monument commemorating Octavian's victory at Actium. Just as the Guilford Puteal may have employed archaistic style to set his victorious sea battle in a venerable format, the Corinth reliefs used classicizing style, as well as iconography, to celebrate his achievements at Actium. And Corinth, early in its life as a Roman colony, according to this scenario, would have been an appropriate setting for pre-Augustan commemoration, establishing this critical but problematic victory in a colonial context.

The Performative Role of the Goddess Virtus on the Medinaceli Reliefs

Adam Tabeling, Johns Hopkins University

Depicted on the so-called Medinaceli Reliefs, dated to the Julio-Claudian period, are two representations of the military goddess Virtus, one who pulls the reins of the four-horsed chariot of Augustus during his triumphal procession held in celebration of his victory at the Battle of Actium toward the right, and another who pulls the reins of the four-horsed tensa, or sacred chariot, of Augustus toward the left. Not only is the dual appearance of the Amazon goddess illustrated within the same programmatic narrative unusual in Roman iconography, stressing her importance within the scene, but the Medinaceli Reliefs also represent the earliest attestation of the goddess brought to life and put into action. During the Julio-Claudian period, there seems to have been a conceptual shift in visual manifestations of the quality *virtus*, ascribing to the goddess who personifies this attribute a performative role in triumphal scenes. But, what does the imagery of Virtus as divine herald of the emperor during a triumphal procession convey to the viewer of the reliefs? Furthermore, what is the ideological significance of Virtus as guide of the emperor's sacred *tensa*? First, I will demonstrate that, during

the Julio-Claudian era, depictions of the goddess Virtus became instrumental in representing the emperor's martial capacity in securing the empire from Rome's enemies and perpetuating peace through victory. Her image pledged to the viewer that it was the *virtus* of Augustus that led to his victories in warfare, and, subsequently, kept the Roman people safe. Moreover, it has been suggested that the sacred *tensa* represents the divinization of Augustus after his death. However, there have been no attempts to explain why Virtus, accompanied by her divine counterpart Honos, was tasked with guiding the *tensa* of the divine Augustus in procession above all other divinities depicted on the Medinaceli Reliefs who were central to Augustan ideology, namely, Apollo, Neptune, Mars, Roma, and Victoria. Using visual comparanda from relief sculpture and numismatics, as well as literary testimony by the poets on the religious behavior of the goddess Virtus, I propose that Virtus was also believed to be the divine leader of the deified Augustus, who may have been conceptualized by the craftsmen of the Medinaceli Reliefs to be the celestial navigator of the divinized soul of the emperor to the heavens during his apotheosis.

In Plebe, Potestas: Rethinking the Severan Arch in the Roman Forum

Rhiannon Pare, Princeton University

A monumental arch looms over the Roman Forum, constructed by Septimius Severus in the third century to insert himself into the architectural, aesthetic, and historical framework of the Republican space made imperial by Augustus and his successors. Brilliant thoroughly detailed every aspect of the arch, presenting his own interpretations as to the singular relief panels of the arch—those that depict the first images of battle on a triumphal arch. Likewise, Faust has sought to elucidate the meaning and intricacies of the noteworthy panel reliefs and their subject matter. Lusnia has, of late, sought to contextualize the arch within Septimius' Augustan propaganda and desire to leave an indelible mark on the heart of Rome. While scholars have devoted considerable attention to the larger reliefs and the surrounding buildings in their discussion of this monument, they have often overlooked or misidentified a small set of relief panels beneath the larger panels that are more often of more interest to scholars. In this paper, I reexamine these small relief panels in order to prove that it has been misidentified as a triumphal procession, whereas it should instead be classed as a different entity entirely, and one that may be as novel as the dramatic panels above it. In doing so, this paper gives cause to reevaluate the ideals and motivations behind the arch of Septimius Severus, particularly when examined in conjunction with historical events, contemporary constructions, and decorative aspects of the arch itself. It shifts the purpose of the arch from that of a desire on the part of Severus to align his dynasty with Augustus and former emperors, to the desire of a foreign emperor intent on pleasing the common men of the army who acclaimed him ruler of the known world—signaling, perhaps, a larger paradigmatic shift in power and influence within the Roman political landscape.

A Tetrarchic Twist: The Triumphal Column as Precedent for the Arch of Galerius in Thessaloniki

Sarah A. Rous, San Francisco State University

Like many details of the events it commemorates, there is much about the monumental Arch of Galerius in Thessaloniki that remains enigmatic. Constructed at an intersection of a major road (possibly the Via Egnatia) at the turn of the fourth century C.E., the arch celebrated the Tetrarch's stunning victory over the Persians under Narses in 297 and formed part of a larger building complex associated with Galerius in his imperial capital, including a palace, a hippodrome, and the equally mysterious "Rotunda," long thought to have been intended as his mausoleum. The arch itself is the largest Roman triumphal arch of which anything is preserved, and consequently presents some idiosyncratic characteristics that have complicated interpretation. Originally a free-standing tetrapylon, the arch seems to have had more emphasis on sculpture than on an architectural façade, in contrast to earlier triumphal arches. The four huge brick pillars supported a dome and were covered with sculptural panels that evoked sarcophagi in form and style.

The two surviving pillars and their relief panels have been the subject of long-standing scholarly debate over questions like the nature of the narrative, its symbolic or historical quality, and especially about the intended reading order of the self-contained scenes—though most commentators have agreed that each side of each pillar should be read from top to bottom. This paper proposes a new interpretation of the intended reading order of the arch's sculptural program, suggesting that viewers were not meant to read down each side of a pillar in succession, but rather to read around the pillar while circumambulating it. Thus, the creative intent of each of the massive pillars was more akin to a triumphal column, while the vision was executed in sarcophagus-like forms because of the sculptural expertise available. Cueing viewers through devices like the processions of captured animals around the lower section of one pillar, the arch's designers evoked influential precedents like Trajan's Column in order to place Galerius firmly in the line of successful emperors. At the same time, they put an innovative Tetrarchic twist on the triumphal column by arranging four triumphal pillars together, united into one triumphal arch—just as the four emperors themselves sought to convey a unified façade.

SESSION 4G: Colloquium
Present but not Accounted For: Archaeological and Historical Approaches to Women and the Roman Army

ORGANIZERS: *Lee L. Brice*, Western Illinois University, and *Elizabeth M. Greene*, University of Western Ontario

Colloquium Overview Statement

This colloquium proposes a follow-up panel to one presented in 2014 on the role of women in military affairs in antiquity. That session focused predominantly on the Hellenistic period and was part of a current trend in Greek archaeology and

history to investigate the social aspects of ancient militaries. This subject has also been quite popular in Roman studies, but has remained limited mostly to showing the presence of women in military environments. Papers proposed here move the debate forward by addressing the social roles of women and families within Roman military communities using various archaeological, epigraphic, and textual data.

The session takes as its starting point that women, children, and other family members were a regular part of life in the Roman military. Papers focus on the actual role of women in the social fabric of military communities rather than on evidence proving simply their presence in these contexts. The social expectation that women in the Roman world were not a part of military affairs is clear in Latin literature but conclusions from the archaeological and epigraphic records prove different. An important strength of this panel is its synthesis of archaeological and historical approaches, which allows for a more holistic and informed understanding of women's roles. Past arguments have been criticized because of the narrow focus on specific artifacts with potentially ambiguous gendered associations (Allison 2013). The combination of archaeological, epigraphic, artistic, and textual evidence allows a multilayered picture to emerge, which includes patterns of physical presence alongside social identification of individuals and their role in Roman military affairs.

Individual papers address the issue of women and the military from elite and nonelite perspectives, covering Republican and Imperial Rome. The first set of papers examine the interactions of elite women with soldiers and officers. The second part continues the theme by discussing the realities of nonelite women's associations with the community of soldiers and how these differ from elite expectations. The papers form a cohesive group that provide an opportunity for fruitful discussion about the social expectations and realities for women involved with the Roman military world.

Women and Military Conflict: Composition of the Vindolanda Garrison during Conquest

Elizabeth M. Greene, University of Western Ontario, and *Andrew Birley*, The Vindolanda Trust

We have come to understand that women and children were a substantial component of Roman military garrisons and that these individuals could be located throughout the fort or associated extramural settlement. Less often discussed, however, is their presence during periods of conflict. This paper contributes to the ongoing dialogue about women and the Roman army by looking closely at the material culture of the Severan period at Vindolanda (ca. 200–212 C.E.), a frontier fort near Hadrian's Wall in England. The early third-century garrison at Vindolanda existed during a period of volatility, when Septimius Severus was pushing to conquer north of Hadrian's Wall, the area that is now Scotland. The garrison at this point lived in a small, stone fort that does not conform to the typical layout of a Roman military space. Its internal structures consist only of barracks, workshops, and a praetorium (commanding officer's residence). There is no known extramural settlement suitable to house a large noncombatant population. Nonetheless, the substantial defensive ditch to the south of the fort has produced a vast quantity

of shoes that belonged to women, adolescents, and children. The 2016–2017 excavations alone produced nearly 500 shoes from a section of ditch ca. 25 m long, of which around 40% belonged to noncombatants. This high percentage is striking and becomes even more influential when it is viewed within the wider context of occupation at the site in this period. The associated barracks to the north of the ditch deposits were first excavated in the early 1970s. Unlike the associated ditches they were preserved without the benefit of anaerobic conditions, and no wood, leather, or textiles survived here. Despite this, the excavators concluded that the barracks may have been "married quarters" because of the high volume of material culture from those contexts that could have been ascribed to noncombatants. This was an unusual conclusion to draw at the time, but perhaps a valid one. As the excavations have progressed at the site we can now compare material from those buildings and reflect on how this fits into a wider narrative of mixed habitation in military barracks elsewhere. Such a high number of shoes betraying the presence of noncombatants, considered together with the architectural evidence of the fortlet and material culture from the barracks, suggests we need to reimagine what the military community looked like at times of volatility or even outright warfare.

Mothers of the Camp: Imperial Women and the Military
Julie Langford, University of South Florida

The meaning and nature of the Mater Castrorum title has puzzled historians, especially given that early imperial literature depicts military camps as masculine spheres where women, especially senatorial and imperial women, were a threat to *discipilina militaris*. In fact, archaeological excavations demonstrate the presence of lower-class women in camps, as has epigraphic and literary evidence of senatorial and imperial women. Given the stigma attached to women mingling with soldiers, however, the title demands explanation. Langford posited that it was likely the emperors themselves who awarded the title to Faustina and Julia Domna, when both emperors needed to shore up their authority after a revolt and civil war. The title was designed to convince civilian populations that the military had a close relationship with and supported the imperial family. There is little evidence for the military embracing the title until Geta's "conspiracy," when it and the rest of the Empire scrambled to demonstrate support for Caracalla.

This paper examines the circumstances under which the remaining empresses received the title, paying special attention to dedicators and their motivations, as indicated by the epigraphic evidence. Each honoree was married to an emperor who attempted to create a dynasty; the title was likely employed to suggest dynastic stability rather than describe a close connection between the empress and military. Indeed, finds in urban settings indicate that civilian populations employed the title far more often and enthusiastically than the military. After Julia Domna, Julia Maesa, and Julia Mamaea appeared on coinage as Matres Castrorum, the last empresses to do so. During their tenure, the military seemed willing to participate in the relationship by erecting inscriptions in their honor, in military and civilian contexts. Yet the high percentage of *damnationes memoriae* these suffered after the death of Severus Alexander suggests that they were politically motivated.

Eighty-five percent of the inscriptions were erected outside of Italy, mainly in military zones. Most were milestones, hardly evidence for a warm relationship with the empress. More meaningful, perhaps, were celebrations by provincial cities, always to the entire imperial family and likely enamored by the sense of dynastic stability it suggested. The title died under Diocletian, who selected his co-ruler and successors based on experience rather than birth. In doing so, Diocletian exposed the relationship between imperial women and the military as a convenient political fiction.

Women, Soldiers, and Frontier Communities in the Sixth-Century C.E. Southeast
Conor Whately, University of Winnipeg

This paper explores the role of women in the military communities of the southeast frontier (Egypt, Israel, Jordan) of the Roman Empire in the sixth century C.E., and examines how their experiences differ from the women connected to the soldiers of the field armies. What research there is on women and the military in the Roman world has concentrated on the Republican and Imperial eras. MacMullen's now classic book did discuss the military community, at least up to a point, in the later Roman Empire, though Lee's now more than 10-year-old study of war and society in late antiquity highlighted how little relevant scholarship had appeared by then. This paper moves things forward, though it narrows its focus on the late antique east. The evidence for sixth-century military affairs is notable for its quality and scope, and I adopt a holistic approach that incorporates the full array of archaeological (el-Lejjun), epigraphic (Anastasius edict), legal (Corpus Iuris Civilis), literary (Procopius, late-antique travelogues), and papyrological material (Aphrodito, Nessana) where applicable. While there has been considerable work on the frontier in Jordan and the Negev, evidenced by the excavations at Humayma, el-Lejjun, Qasr el-Hallabat, Umm el-Jimal, Upper Zohar, and Yotvata, only some of this work provides definitive evidence for the presence of women, notably the remains at el-Lejjun, though possibly too Udruh. The papyrological evidence from Aphrodito, Nessana, and Syene, as well as select references in the abundant epigraphic evidence (especially the Anastasius edict from Cyrenaica) reveal the complete integration of soldiers into frontier communities, and highlight some of the many roles performed by women, some traditional (divorce and marriage contracts from Nessana), some domestic and managerial (property divisions and leases from Aphrodito). In some cases, we even find women actively in the day-to-day activities of the frontier soldiers—attending to pilgrims, for instance—as some comments in the sixth-century Travelogue by the Piacenza Pilgrim suggest. All this is in stark contrast to what evidence Procopius provides of the campaign armies. There is little direct evidence for women in these armies save a few notable exceptions, like Antonina, who also played an active role in managing supplies.

Mother Courage and Her Children: Women and Family Life in the Context of the Rome Garrison

Alexandra W. Busch, Römisch-Germanisches Zentralmuseum Leibniz-Forschungsinstitut für Archäologie

Numerous epigraphic sources show that the soldiers that served in the different elite units of the Empire's capital were not only soldiers, but also husbands, fathers, sons, brothers, and masters. These different social identities are usually not taken into account or are neglected when historians and archaeologists analyze their monuments and the archaeological remains of military spaces in Rome. This paper, therefore, focuses on the soldier's family life with special attention on the girls and women who were part of their lives, as well as on the social roles women had in the context of the Rome garrison. It also examines if there are remarkable differences in the way the praetorians, the *urbaniciani*, the *equites singulares Augusti*, and the *vigiles* organized their private life with their families on account of the different social, cultural, and sometimes also ethnic background of the soldiers in Rome. Central questions that this paper addresses focus on their marriage behavior, as well as the social and ethnic background of the women they married. Especially for the soldiers that were recruited in the provinces, like the *equites singulares Augusti*, it is interesting to consider whether soldiers were accompanied by women from their homelands, the provinces where they served before being sent to the Empire's capital, or if they mixed with women from the varied populations within Rome itself. Other aspects that are discussed in this context are the possible places for family life, when it did not happen in the camp, and how much their profession, serving in the Roman army, influenced their domestic situation.

Agrippina and Company: Elite Women in the *Castra*

Lee L. Brice, Western Illinois University, and *Georgia Tsouvala*, Illinois State University

The topic of women living in Roman military camps (*castra*) on the frontiers during the early Empire has long been treated by modern authors as one that applied to a small, exclusive group of officers' wives; a group so small that they were of little concern, an aberration in the functioning of a *castra*. In their views modern authors not only reflected modern biases, but they mirrored the attitudes of ancient authors, who saw these elite women as a source of trouble. These attitudes reveal more about male anxieties than about the presence or the actual lives of elite women in military camps.

We can accept it as a given that the reality of military life in the Roman Empire included women, some of whom lived inside the fort and some of whom were elite. Trying to grasp the reality of women's activities in camps is, however, much more difficult. Rather than discussing whether women were present, this paper will focus instead on discussing what we can know about the activities of one group of women, the elite women who accompanied their husbands to military assignments during the early empire.

Examinations of elite women in camp are still heavily dependent on literary sources, though there is some evidence in the archaeological record on which we

can also draw. As with so many other aspects of Roman culture, our sources are biased towards elite activities so these are women about whom we know a little more at this point. Also, since some of these elite women in *castra* were also politically important (e.g., Agrippina major and Plancina), ancient authors including Tacitus, Pliny the Younger, and Plutarch provide more information than usual about them. Indeed, no woman receives more attention for her activities in association with soldiers than Agrippina the Elder. While the literary sources tend to be heavily biased against the women in camp and are not interested in providing a realistic account of their daily life, we can, with careful analysis, reconstruct some of the activities in which elite women engaged. The Vindolanda tablets and archaeological finds provide additional information to supplement what we find in the literary record (*Tab. Vindol.* 2.291–294). The discussion will demonstrate that we know much more about the kinds of activities in which elite women in military camps engaged than we have traditionally thought.

SESSION 4H: Joint AIA/SCS Colloquium
Rome and the Americas: New Soundings in Classics, Arts, and Archaeology

ORGANIZERS: *Andrew Laird*, Brown University, and *Erika Valdivieso*, Brown University

Colloquium Overview Statement

What were Rome's legacies in the Americas before the formation of the United States? What can those legacies bring to the disciplines represented by the SCS and the AIA today? The occasion of the 150th Meeting and its location in San Diego, which now stands on the border of two American nations, provide an appropriate forum in which to raise such questions: California was annexed from Mexico and granted statehood barely 20 years before the foundation of the APA in 1869, while the area of San Diego, claimed for the Spanish Empire more than three centuries earlier, has been the territory of the Kumeyaay people for at least a millennium. There is growing interest in the classical traditions of the Caribbean, Mesoamerica, and the South American continent. The objective of the proposed panel, however, is to go beyond providing exemplary surveys of Rome's "reception," to consider ways in which the varied, longstanding connections between Roman antiquity in the Hispanic and indigenous cultures of Latin America might inspire, inform or challenge approaches to Roman studies for contemporary anglophone scholars. A case for reassessing the legacy of the Roman grammarians is made in the opening paper. Paper #1 describes how some grammatical theories of Quintilian and Priscian were reformulated by missionaries who used the framework of Latin to comprehend Amerindian languages. By the same token, Paper #2, which surveys examples of the vast corpus of Latin poetry produced in Latin America from the sixteenth to eighteenth centuries, shows how Roman literary genres were not just imitated, but radically reinterpreted and creatively transformed for a colonial environment. The next two papers treat visual culture: Paper #3 examines several ways in which Rome provided an instrumental model for the depiction,

description, and interpretation of Inca sites and buildings in colonial Peru, while Paper #4's assessment of cross-cultural analogies shows how contrasts, as well as conjunctions, of theme and approach can provide unexpected insights on both American and Roman antiquities. The fifth and final presentation, in the form of a response from an eminent Roman historian and archaeologist, will offer further comments on the significance of Latin American classical traditions for study of Rome and its legacies. Colonial American engagements with ancient Rome show a tendency towards praxis, emulation, innovation, and hybridity. Such a tendency can obviously be contrasted to the quality of contemporaneous classical scholarship and antiquarianism in early modern Europe: there were no Scaligers, Bentleys, or Gibbonses in the New World. But the European reconstructive approach to Roman antiquity, which remains the legacy of the SCS and AIA, is inevitably passive, and often nostalgic. The active, engaged and forward-looking stance of classicism in colonial Latin America, on the other hand, is still prominent in art, literature, public spaces, and debates in the region today.

DISCUSSANT: *Greg Woolf*, Institute of Classical Studies, University of London

Alterae Romae? The Values of Cross-Cultural Analogy
Claire Lyons, J. Paul Getty Museum

Colonization in the Americas unfolded as Spaniards were rediscovering their own heritage, both through the revival of Latin literature and the materiality of the past. During the 1500s, antiquarian and royal collectors assembled cabinets of ancient art and artifacts. Ruins of Roman provincial towns were scattered all over Spain's landscape, particularly in Extremadura, the homeland of many conquistadors. Classical antiquity provided a yardstick by which to reckon with the peninsula's past as Roman Iberia and the validity of its "civilizing" mission abroad. A burgeoning awareness of Mediterranean antiquity supplied a critical foundation for reactions to the material world of the Mexica (Aztecs), Incas, and other Amerindian peoples, from figurines to sculpture and buildings.

Early attempts to explain civilizations separated by a gulf of time and space anticipated comparative approaches that are regularly employed by historians and archaeologists today. Precisely because the New World developed in isolation from Afroeurasia, it offers "the unique gift of a natural experiment in parallel macroscale evolution" (W. Scheidel in Pohl and Lyons 2016:23). Following a review of the influence that classicism exerted over interpretations of the Mexica, this paper poses several questions. To what extent can parallels be usefully drawn between incommensurate cultures, utilizing archaeological evidence to reveal state ideologies and social structures? What are the values and limitations of analogy?

Two recent exhibitions, *The Aztec Pantheon and the Art of Empire* and *Golden Kingdoms: Luxury Arts in the Ancient Americas*, offer points of departure for approaching these issues. *The Aztec Pantheon* invited explicit comparisons of the ways that monumental constructions, mythic imagery, ancestral traditions, and pageantry were harnessed by "theater states" to magnify imperial regimes. Adopting a Silk Road model, *Golden Kingdoms* traced the circulation of luxuries through the Andes and

Mesoamerica to highlight shifting notions of value. Focusing on large-scale visual programs and small-scale valuables suggests how analogy can be an effective tool. Both displays were premised on objects and beliefs that expose shared historical and economic patterns. Even when cross-cultural analogies throw differences into high relief, interpreting ancient cultures from outside disciplinary comfort zones inevitably generates new and unexpected insights.

Seeing Rome in the Andes: Inca Architectural History and Classical Antiquity
Stella Nair, UCLA

The first European impressions of the Inca Empire were shaped by knowledge of ancient Rome. Roman history, religion, and political structures provided ready and appealing models for the Spaniards as they sought to come to terms with the Incas' vast territories, traditions, and systems of social organization. But the legacy of Roman architecture and urban planning was no less powerful, informing or inspiring Spanish perceptions of the Inca built environment.

Inca architecture has a long history of being understood in terms of comparison. Spaniards based their descriptions of Inca architecture and space on their own experience or understanding of earlier European traditions of construction, architecture, and urban planning, not least those of the Romans. But Iberian notions of space were radically different from those which had been held in the Andes. Ignorance or indifference to Andean systems and practices led Spanish writers to create false categories for Inca building types. In addition, those writers who had also spent time in New Spain and Central America—by far the majority of European travelers to the Andes—adopted architectural terminology from other, quite alien localities and imported them to the Inca context, creating even greater confusion. While those cross-cultural exchanges within the Americas played a part in determining colonial interpretations of Inca architecture, the precedents of Roman architecture and urban design exerted the greatest influence. Classical Rome would cast a long shadow across the Andes (Miguel Gutiérrez Sencio, appointed architect of Cuzco's cathedral in 1615, was a devotee of Vitruvius) and Rome's renowned cityscape early on provided an indispensable set of references for accounts of imperial Inca architecture.

This paper identifies and examines a number of Roman structures that were used to characterize and even define Inca sites, and discusses some of the specific books and collections of drawings and prints of ancient Roman architecture that would have been accessible to colonial writers in the Andes. The reception of these materials is of great importance, not only for reconstructing a very particular repertoire of early modern images of classical Rome, but also for what they signified to indigenous authors in the Andes, notably Guaman Poma de Ayala, who used or appealed to Roman models in descriptions and depictions of Inca buildings.

Transformation of Roman Poetry in Colonial Latin America
Erika Valdivieso, Brown University

The *Guadalupe*, a Latin epic from colonial Mexico, contains a striking *ekphrasis* of a series of murals depicting the history of the Mexica, or Aztecs, clearly reminiscent

of Virgil's description of the Temple of Juno and the parade of Roman heroes (*Aen*. 1.441–493 and 6.679–683). The Spanish and Portuguese brought Roman literature as well as the Latin language to the New World, and that literature soon took on a new life of its own: a vast corpus of Latin poetry was produced in colonial Latin America. This paper will focus on the three well-known Roman genres employed and canonized by Virgil: pastoral, didactic, and epic.

In Spanish America and Brazil, Latin pastoral poetry was taught and imitated at school. Compositions for special occasions were performed, while students competed to win prizes for the most Virgilian eclogue. A manuscript of Latin eclogues produced in Mexico City during the later 1500s shows how the conventions of Virgilian pastoral were adapted to their new contexts, and crafted to celebrate viceregal visits and church councils, to provide panegyrics of eminent individuals and new martyrs of the Catholic faith. Poets in the New World excavated the genre's potential to address current affairs and articulate a sense of identity for a newly formed American or "creole" elite.

The energetic production of Latin didactic poetry, which enjoyed great popularity in early modern Europe took on new significance in the Americas, where it served as a primary vehicle for writing the natural history of the New World. Creole poets expanded Virgil's Latin to describe things beyond the ancient poet's imagination, from passion fruit to boa constrictors. The precision and scientific quality of this poetry demonstrated the importance and significance of the information it conveyed, especially to European readers.

Finally, Latin narrative epic was renovated to address contemporary political, social, and religious issues within the Americas as well as controversies that shaped the relationship between the Americas and Europe: the colonies were presented as a new version of Rome in the 1500s, but by the mid-eighteenth century Virgilian epic served as a vehicle to demonstrate that the Americas had surpassed both the greatness of Spain and Rome.

Roman genres were creatively appropriated to address colonial themes and contemporary contexts. In Spanish America, classical Latin poets were not merely the objects of passive study, but models for imitation and adaptation. Their innovations offer new perspectives on the role Roman poetry plays beyond classical antiquity.

American Philological Associations: Latin and Amerindian Languages
Andrew Laird, Brown University

"A language, your Majesty, so polished and rich, regulated and enclosed within the rules and precepts of Latin as this is, is not barbarous, that is to say (according to Quintilian and other Latin sources) it is not full of barbarisms, but it is clean and refined."

This is how the author of the first grammar of Quechua described the language of Peru and the Andes to Philip II of Spain. Colonial attitudes to Quechua and other American tongues raise many broader historical concerns, but the present paper aims to show how early European engagements with Amerindian languages in the 1500s can offer some refreshing perspectives on Latin grammar: as a theory

and model [Part 1], as a method and practice [Part 2], and, by way of conclusion, as a potentially dynamic field of historical study [Part 3].

Part 1 considers the extent to which initial impressions of unfamiliar languages in the New World were shaped by ancient conceptions of grammar, which was often identified with Latin itself (Quintilian *Inst*. 1.4–8; Isidore *Orig*. 1).

Part 2 will show how closer knowledge of American languages led to categories of Latin grammar and specific precepts of Roman grammarians and rhetoricians (Quintilian 1.4; Priscian, *Institutiones*) being questioned, developed, abandoned or sometimes ingeniously transformed. Examples of such advances in the understanding of language can be illustrated from early missionary artes, or manuals, of Mexican languages.

Part 3 looks at how the centrality of grammar in ancient Roman education endured into the medieval and early modern periods, and long remained the universal foundation for a classical training. The repetitive study of Latin declensions, which took its toll on generations of schoolchildren and students, had few palpable benefits in early modern Europe. But in the Americas, detailed knowledge of classical grammar enabled missionary linguists to systematize, and, very rapidly, to learn, and even to preserve a large number of native languages. The discipline of grammar, which had hitherto been useless (other than for learning Latin), now had a vital practical application.

The history of Latin grammar, though overlooked in studies of reception and the classical tradition, has many important ethnolinguistic and intercultural ramifications that remain to be explored in full.

SESSION 4I
Surface Survey in Southern and Central Europe

CHAIR: *Michael Galaty*, University of Michigan

Opening Up a New Field? Culture, Continuity, and the Emergence of Surface Survey in the Mid-20th Century

Anne Duray, Stanford University

"The idea started as a weekend jaunt to try to find Geometric Eretria and then developed into a more serious pastime of doing a somewhat haphazard … field survey…" wrote Mervyn Popham to Vincent Desborough in early 1962 about his recent excursion to Euboea. This survey was one of several regional surface surveys in Greece during the late 1950s and 1960s, and would ultimately result in the discovery and excavation of Xeropolis/Lefkandi, a turning point for the study of continuity between the Late Bronze Age (LBA) and Early Iron Age (EIA). The increase in field survey during these decades marked a significant development of an archaeological methodology that continues to be employed and refined into the present. While it has been acknowledged that topographic exploration in Greece has deep roots in previous centuries, the dynamics between mid-20th century survey and earlier research agendas and excavation methodologies are less frequently interrogated. To this end, this paper draws from a selection of publications and archival sources to illuminate relationships between the development

of stratigraphic excavation, the question of "The Coming of the Greeks," and increased surface exploration.

During the late 19th and early 20th centuries, "stratigraphy" was invoked by prehistorians both to emphasize the "continuous whole" of Greek culture from prehistoric to later times, as well as to show where, chronologically, certain cultures—at this time often equated to racial-linguistic groups—were identifiable. Influenced by contemporary biological anthropology and notions of cultural evolution, a narrative emerged that the "Hellenic race" was in fact constituted by a "mixture" of "racial elements." As a corollary, for some scholars, knowing where, when, and how new populations intermingled with local inhabitants became crucial to understanding periods of transition, especially that of the LBA–EIA. Blegen suggested in 1940 that surface survey could aid in speaking to the nature of the LBA–EIA transition, and he was echoed by Desborough and McDonald. This agenda, I argue, was consequently in the background of such projects as the Laconia, Euboea, and Messenia surveys (and resulting excavations: Xeropolis/Lefkandi and Nichoria). While mapping the evolution and transformations of "Hellenic" civilization was by no means the only impetus for the rise in surface survey during the mid-20th century, tracing this particular thread highlights the ways in which early 20th century intellectual frameworks and practices continued to influence Greek archaeology in the post-WWII period.

Western Messenia in the Early Bronze Age Period: Revisiting Evidence from the Pylos Regional Archaeological Project

Efthymia Tsiolaki, University of Cincinnati

Intensive surface surveys have revolutionized the way we examine human activity in the past by broadening our perspective to encompass the whole landscape and move beyond the narrow limits of individual sites. One of the most important surveys conducted in western Messenia, especially for understanding Early Bronze Age settlement patterns, is the Pylos Regional Archaeological Project (hereafter PRAP). Since the publication of Colin Renfrew's seminal book *The Emergence of Civilization* in 1972, the Early Bronze Age has been conceptualized as the period that bears the first indications of social complexity in the Aegean. Among changes witnessed over the course of the period are the fluctuations in site numbers, changes in economic and social practices, and increased movement of people, artifacts, and ideas.

Within this context, western Messenia was, until recently, little understood. The rather sparse evidence consisted of the excavated site of Voidokoilia and a number of sites identified by PRAP and dated predominantly to the Early Helladic II period. Recent rescue excavations in advance of the construction of the Costa Navarino resort and subsequent to its opening have unearthed remains of a large Early Helladic II settlement at Romanou, with evidence for workshop activities, large-scale storage, and contacts with areas outside of Messenia. The site had been previously located by PRAP, but the new evidence has implications for the interpretation of settlement patterns and social organization in Early Bronze Age Messenia.

In this paper I reexamine the evidence collected by PRAP in the light of these recent discoveries. Previous studies have emphasized the coastal preference of sites during this period, as well as the homogeneous nature of the Early Helladic pottery assemblages. This paper reassesses the interrelationships among the sites in the region by looking at pottery distribution and macroscopic fabric analysis. My analysis of the pottery fabrics from these sites indicates several different fabric types whose distribution varies among different sites. However, all fabrics that have been identified appear at the site of Romanou. These findings thus add important detail to the picture of western Messenia in the Early Helladic II period and further evidence of Romanou's dominant position in the region and it's important position in the broader Aegean world.

Geospatial Analyses of Settlement Patterns in Albania (1100 B.C.E.–395 C.E.)
Erina Baci, University of Michigan

The Illyrians were an Indo-European group of people who once inhabited a large expanse of the western Balkans. As interactions with the Greeks (and later the Romans) increased, the sociopolitical organization of the Illyrians was undoubtedly affected. In this presentation, I give the results of my thesis research, the goal of which is to understand how Greek colonization, followed by Roman incorporation, affected Illyrian settlement patterns in Albania. Due to its peripheral location in the Mediterranean, Albania provides a unique case study for the investigation of colonization, integration, and interactions between different cultures. The sites in this study, which range from 1100 B.C.E. to 395 C.E, fall into three periods (pre-contact, Greek colonization, and Roman incorporation). Key dates include 627 B.C.E., the foundation of the first Greek colony in what is today Albania; 167 B.C.E., the integration of Illyria into the Roman Empire; and 395 C.E., the fall of the Roman Empire in the west. Utilizing a World Systems approach, I present the colonies as semiperipheral "cores" that draw people to them similar to towns during the industrial revolution in Europe.

The data for the analysis were collected during 2017 via archival research and compiled into a gazetteer, which was imported into ArcGIS. This study uses a regional approach in combination with Geographic Information Systems (GIS) to analyze how site locations changed over time. I focus on the economic pull of Greek and Roman colonies and the importance of proximity to certain geographical features as the primary influences on site location and settlement pattern. However, the location of sites can be influenced by economic, social, and environmental factors. A combination of quantitative and qualitative methods are used in ArcGIS along with appropriate statistical tests to analyze the relationships between site location and proximity to colonies and other features through time. The geospatial analysis reveals certain patterns that suggest a statistically significant difference regarding the dispersal of sites through the time periods delineated above. Specifically, there was significant clustering of sites around "cores" in the Greek and Roman periods and this clustering was located predominately in coastal, southern Albania. Additionally, proximity to certain features such as rivers seems to have been a feature that was selected for in some periods (precontact) while not others.

Regional Archaeology in the Peja and Istog Districts of Kosova (RAPID-Kosova): Results of the 2018 Field Season

Michael Galaty, University of Michigan, *Haxhi Mehmetaj*, Kosova Institute of Archaeology, *Sylvia Deskaj*, University of Michigan, *Erina Baci*, University of Michigan, *Zhaneta Gjyshja*, Mississippi State University, and *Anisa Mara*, Mississippi State University

This paper reports the results of an initial season of intensive, regional archaeological survey in western Kosova, in the districts of Peja and Istog. RAPID-Kosova builds on a decade's worth of research in northern Albania, in Shala (the Shala Valley Project, 2005–2008), and Shkodra (the Projekti Arkeologjik i Shkodrës, 2010–2014), which documented the formation of complex, transegalitarian sociopolitical systems in the Albanian Alps as well as along the Adriatic coast. These systems appear to have had strong economic ties to interior regions, like Kosova, beginning in at least the Bronze Age, culminating with their incorporation into the Roman Empire. Our project is the first intensive, systematic survey ever conducted in Kosova, and aims to document settlement and settlement change in western Kosova through time, with a focus on explaining the origin and nature of the presumed late prehistoric connections between Kosova and northern Albania, as well as between Kosova and other parts of the Balkans, e.g., north via Serbia to the Carpathian Basin. In June of 2018, we ran three survey teams in three zones–Rakosh, Vrellë, and Banjë e Pejës—covering 15.4 km^2 total in 1,510 tracts. Fifteen new sites were identified and 3,521 pieces of pottery were collected and analyzed, indicating significant occupations in the region in all periods of the past. Perhaps the most important discovery was an extremely large (perhaps as large as 1 km^2) Bronze–Iron Age settlement located on the foot slopes below the Gradina hill fort near the village of Lubozhdë. New construction at the site, which we have named Pepaj, after the local toponym, exposed a ca. 3-m profile filled with pottery, bone, and charcoal, which was sampled for radiocarbon dating. (These samples have been submitted for analysis and dates will be reported at the annual meeting.) Such "flat" Bronze–Iron Age sites are extremely rare in the Balkans, e.g., in Albania. Most late prehistoric sites are located on highly eroded hill tops with little remaining stratigraphy. Pepaj thus presents the opportunity to investigate an intact late prehistoric village of the type that must certainly have been in contact with villages in Shala and Shkodra, in northern Albania. Ultimately we hope to gauge the importance of such contacts to the formation of complex societies in Kosova, including as a result of trade with Greece and, later, Rome.

The Cetina Valley Survey in Southern Croatia: Report on the 2015–2018 Seasons

Rebecca M. Seifried, Foundation for Research and Technology–Hellas, and *Helena Tomas*, University of Zagreb

The Cetina Valley Survey is a five-year intensive survey project in southern Croatia, directed by Dr. Helena Tomas of the University of Zagreb under the auspices of the Croatian Ministry of Culture. The survey began in 2015 and the fourth season took place in October 2018. The project's main goal is to explore the links between the Cetina Culture and the Aegean world in the Bronze Age through a

systematic survey of the fertile plain along the Cetina River, where a large number of tumuli were previously documented. The project intends to identify new settlement sites, map the location of extant tumuli, and clarify the nature of long-distance ceramic and metal trade.

In the 2015–2017 seasons, the project followed the standard methods of intensive survey: tracts were defined as groups of agricultural fields, and teams of four to five people walked each tract at a spacing of 15 m, counting all finds and collecting diagnostic material. By the end of the 2017 season, the survey team walked an area of 6.5 km^2 and identified six major sites dating from the Bronze Age through the medieval period. These include a prehistoric surface site, three Bronze Age tumuli, a multiperiod cave site, and a Roman villa rustica. The team also identified over 20 tumuli and stone cairns on a plateau overlooking the valley. No surface finds were recovered in the vicinity, hinting at a separation between the living and the dead consistent with other areas in the Aegean during the Bronze Age.

Preliminary results point to two methodological challenges that we attempted to mitigate in the 2018 season. First, although we expected to find Bronze Age sites along the course of the river, only sites dating to the Roman and later periods were identified. We suspect that alluviation is masking earlier sites, so we undertook a geological study to trace changes in alluvial formation and determine which survey areas to prioritize. Second, contemporary farming practices are making it difficult to implement a tract-based approach, as the land is divided into narrow fields that are cultivated according to different schedules. Rather than define units as multifield tracts, the survey targeted only plowed fields in the 2018 season. By discussing the project's methodology and attempts to mitigate unforeseen challenges, this paper contributes to a broader discussion of intensive survey methodology and adaptation to different survey environments.

Is There Anybody Out There? Copper Age Settlement Survey on the Great Hungarian Plain

William Patrick Ridge, University of Illinois at Chicago

The Copper Age (ca. 4500–2800 B.C.E.) of the Great Hungarian Plain was a period in which the widespread adoption of metallurgy and a series of large-scale population shifts substantially transformed the social landscape. The long-lasting tells and large horizontal settlements that had defined the Neolithic had been abandoned and the region became dotted with small and ephemeral sites, many in areas that had previously been uninhabited. Research on this period has focused primarily on the numerous and rich cemeteries (e.g., Tiszapolgár-Basatanya), with very little systematic research conducted on habitation sites. This disparity has resulted in a meticulous system of ceramic typologies, but a poor understanding of the social organization and cultural trajectory in the region. My research looks to remedy this situation by focusing on the regional settlement organization of the Middle Copper Age (ca. 4000–3600), a time when the number cemeteries and the amount of prestige goods deposited in them both reach an apex, but the remains of settlements are extremely scarce.

In this paper I present the results of preliminary fieldwork conducted in the summer of 2018. Utilizing the extensive survey work conducted by the Magyarország

Régészti Topográfiája (Archaeological Topography of Hungary), I visited 70 previously identified Middle Copper Age, Bodrogkeresztúr culture, sites in Békés County in the southeastern corner of Hungary. A primary goal of this survey season was to identify clear Bodrogkeresztúr components at sites, as they are usually obscured on the surface by more prominent and dense assemblages from earlier (i.e., Middle Neolithic) or later (i.e., Bronze Age; Sarmatian) periods. The results presented here will be used to inform the next, more intensive phase (i.e., geophysical prospection and excavation) of the project that aims to address three major research objectives. (1) What was the social and chronological relationship between the Bodrogkeresztúr culture group and the Tiszapolgár culture group (Early Copper Age)? (2) How did the demography of the Great Hungarian Plain change during the Copper Age? (3) How were the Middle Copper Age societies organized at the microregional (i.e., communities) and regional (i.e., trade networks and cultural complexes) scales?

SESSION 4J
Protecting the Past: Approaches to Cultural Heritage Preservation

CHAIR: To be announced.

Building Futures, Saving Pasts: Recent Work of the Sustainable Preservation Initiative in Jordan

Paul Burtenshaw, Sustainable Preservation Initiative

The Sustainable Preservation Initiative (SPI) builds futures and saves pasts, simultaneously protecting tangible cultural heritage and enhancing the lives of the people who live around it. We do this by developing sustainable local businesses that are connected to local archaeology and provide real and long-term incomes to communities. This presentation first summarizes our "SPI Business School and Capacity Building Program," which gives detailed guidance for archaeologists and community leaders wishing to develop sustainable community heritage businesses. The presentation will also review SPI's work in Jordan, including work with the Council for British Research in the Levant and American Center of Oriental Research, and lessons that can be learned from it. It will particularly focus on recent collaborations with SELA, a community organization for vocational training and protection of cultural heritage based near Petra, to develop heritage microenterprises and a sustainable archaeological services business.

Çatalhöyük Digital Preservation Project: Exploring Digital Methods in Archaeological Heritage Conservation

Nicola Lercari, University of California Merced, *Arianna Campiani*, University of California Merced, and *Ashley M. Lingle*, Cardiff University

Çatalhöyük, Turkey is a unique archaeological site in terms of physical and temporal scale in both prehistoric and modern contexts. This 9,000-year-old city

is constantly threatened by the fragile composition of its ancient mud brick and the harsh continental climate of its environs. While the site was inscribed on the UNESCO World Heritage List in 2012, there are still a number of challenges facing its long-term preservation. To understand the causes of these conservation issues and explore potential solutions, in 2016 the University of California Merced and Cardiff University received an AIA Site Preservation Grant and a UC President's Research Catalyst Award to implement the Çatalhöyük Digital Preservation Project (CDPP), now completed, under the excavation permit hold by the Stanford-based Çatalhöyük Research Project. CDPP aims at monitoring Çatalhöyük earthen structures by means of new conservation methods that draw from a historic series of laser scanning data collected in a preliminary phase of the project (2012–2015), and new digital survey data collected in 2016–2017. CDPP also strives to create a best practice methodology for monitoring Çatalhöyük and assessing the effectiveness of previous conservation interventions. Tools and field methods for this project include blending site monitoring data (qualitative wall vulnerability assessment) and digital documentation data from environmental data loggers, terrestrial laser scanning, unmanned aerial vehicles (drones), thermal infrared imaging, and geographic information systems. To assess the rate of decay of Çatalhöyük earthen architecture, our study focuses on eight buildings located in the North Area. We quantify their surface material loss through time, using the Multiscale Model to Model Cloud Comparison (M3C2) method, which detects point cloud surface change in building features recorded by laser scanner. Going beyond the customary microscale approach used in earthen architecture conservation, we have integrated such comparison results with environmental data and wall vulnerability information. This field report thus presents the final results of the CDPP, suggesting that site monitoring of mud-brick architecture can be improved by using several scales of spatial analyses (e.g., area-wide, building-level, feature-level) and demonstrating the importance of a constant assessment of environmental risk factors. Our analyses also prove it viable to compare laser scanning data to quantify the rate of mud-brick decay. We believe that the best practice methodology developed by the CDPP can be successfully employed for the conservation of other earthen architecture sites inside and outside Anatolia and the Near East.

Risk Management at the Museum of Islamic Art, Cairo

Mohamed Mohamed, The Museum of Islamic Art, The Ministry of Antiquities

The Museum of Islamic Art located in Bab al-Khalq in the heart of historic Cairo, is considered to be the largest Islamic art museum in the world, as it houses close to a hundred thousand artifacts of various types collected from India, China, Iran, all the way to the Arabian Peninsula, the Levant, Egypt, North Africa, and Andalousia. This collection is characterized by its breadth of coverage of all the branches of Islamic art throughout the ages, which makes it a beacon of Islamic art and civilization for all times. The importance of the Museum of Islamic Art also stems from its being the greatest institute of learning in the world, which caters to the fields of Islamic antiquities and Islamic art in general, due to the versatility of its collection which spans a broad gamut of raw materials such as metals, moldings,

wood carvings, as well as ivory, ceramic, stone, textile, glass and carpet artifacts, among others.

Unfortunately, on 24 January 2014, the Museum was the victim of a vicious terrorist attack that targeted the Cairo Police Headquarters, which stands across the street from it. The museum employees exerted heroic efforts in their attempts to save and rescue the artifacts; having to hand pick them sometimes, piece by piece, from the debris left by the explosion, and quickly confining them to safe storage spaces. The staff of the museum's restoration department had then to meticulously sift and sort out this massive amount of debris in order to put together the pieces associated with every single artifact, before proceeding with its successful restoration. It took a whole year, until the beginning of 2015, before serious steps were taken to bring the Museum to its original state before the explosion.

Finally, there are several patterns of museology such as: audience development, exhibitions and display, community programmes, education and children's programs, risk management, project management, international engagement and partnerships, museum strategy, planning and leadership, libraries and archives, and digital strategy.

Coins in the Classroom: A Case Study in Community Outreach and Heritage Management

Gwynaeth McIntyre, University of Otago

The two main objectives of this paper are (1) to outline how the incorporation of experiential learning opportunities into undergraduate teaching can encourage student involvement with heritage management, and (2) to show how student projects, when broadcast to a wider community beyond the confines of their classrooms, can increase community engagement with materials housed within museum storerooms. As a case study, I present the process for creating online exhibitions of a selection of the Julio-Claudian coins housed at the Otago Museum as part of the assessment for an upper-level undergraduate course on the Julio-Claudian emperors. I argue that through the creation of these exhibitions students develop a curiosity for learning and the confidence to apply their knowledge to different media while also teaching them about heritage management, as supported by interviews with the students and museum staff. The open-access nature of the exhibitions showcases student research to the wider community and increases access to museum collections. Finally, I suggest how this process might be replicated for other types of artifacts.

The Roman coin collection at the Otago Museum comprises over a thousand coins, making it the largest Roman coin collection in New Zealand. Mr. Harold Mattingly, the first William Evans Fellow at the University of Otago, coordinated the arrangement of the collection in 1954 and some preliminary cataloguing was undertaken by Dr. Christopher Ehrhardt in the 1970s. However, digitization of the collection, a complete catalogue, and a detailed analysis of the coins had not been undertaken. This paper presents the results from the experiential learning component of a larger research project on the promotion of imperial family members on Julio-Claudian coinage and a study of the history of the Otago Museum's coin

collection supported by a Teaching Development Grant and a University of Otago Research Grant.

This case study discusses one way to increase engagement with material culture even when the physical artifacts are not directly available to students or interested members of the public. The online-exhibition project encourages students to see their university coursework as contributing to greater understanding and preservation of our cultural heritage rather than just a grade on their transcripts. The connections forged between universities and museums through this work promote and facilitate access to the resources and collections housed in museums, thereby increasing community engagement and publicity for these valuable artifacts.

A Styrofoam Past: Foamhenge, New Ruins, and Popular Archaeology
Rebecca Worsham, Smith College

This paper discusses the ongoing phenomenon of creating artificial ruins as a case study for considering contemporary popular engagement with archaeology. In particular, I examine the creation of modern monuments alluding to prehistoric henges and stone circles originating in the United Kingdom, Stonehenge prominent among them. Such "follies" were created alongside other artificial ruins drawing from Greco-Roman and Gothic traditions to decorate formal gardens especially in the 18th century. While follies were features of wealthy estates throughout Europe, artificial stone circles at this time were largely confined to Britain. These monuments, like other artificial ruins, served as a locus of romantic contemplation and a marker of antiquarian curiosity and education. The local origin of authentic stone circles, however, lent these follies additional connotations specific to Britain, suggesting the antiquity of the land and the aristocratic families that built them. Because of the importance of this sort of autochthonous claim, it is perhaps surprising that artificial stone circles more recently began to be used outside of Britain. Indeed, their construction has flourished globally, and the number of such monuments has drastically increased since 1980.

I survey this recent trend of building in the United States, which has an especially large number of stone circle follies. While they continue to decorate gardens and provide a focal point for reflection, there is enormous variety in the approach to and justification for these new monuments. With significant exceptions, they are built by people of working-class backgrounds, commonly using relatively cheap materials or in abbreviated form. While the builders often approach their projects with a sense of humor, they are also generally informed about the prehistoric monuments they are emulating—in some cases, the replicas are detailed enough to mimic some of Stonehenge's astronomical functions. In many more cases, the artists comment on how their own experiences may have compared to the experiences of the prehistoric builders. Almost without exception, they are not archaeologists. Nevertheless, it is clear that these artists are participating in a dialogue that directly pertains to current archaeological thought, focusing on reflexive, embodied impressions of monuments, executed and documented by nonspecialists for nonspecialists. The construction of new stone circles, then, exists somewhere between meme and grassroots engagement with archaeological material. Study

of such a phenomenon has the potential to provide insight into public interest in cultural heritage, and to foster that interest.

Digitally Recording and Presenting the Inscriptions of Wadi el-Hudi, Egypt, a Geosemiotic Analysis

Bryan Kraemer, Robert and Frances Fullerton Museum of Art, California State University San Bernardino

Since 2014, the Wadi el-Hudi Expedition has been surveying archaeological sites in Egypt's Eastern Desert connected with ancient amethyst and gold mines that operated during Egypt's Middle Kingdom (ca. 2000–1700 B.C.E.), and the early Roman period (ca. 30 B.C.E. to 100 C.E.). The ancient miners, soldiers, and administrators of these mines left an abundant epigraphic record of their activities there. To date, 270 separate inscriptions have been recorded at Wadi el-Hudi. These show a wide range of engraving methods between carefully crafted monumental stelae with long hieroglyphic texts on one hand and rock-pecked petroglyphs on the other. In 1952 Ahmed Fakhry and Ahmed Sadek in 1980–1985 published many of the inscriptions of Wadi el-Hudi. Although these publications only cursorily mention their archaeological contexts, the inscriptions have nevertheless contributed significantly to our understanding of how ancient desert mining expeditions operated. The Wadi el-Hudi Expedition has for the first time recorded these inscriptions within their archaeological context using photogrammetry-based epigraphic methods. These data are moreover integrated into our three-dimensional survey data of all Wadi el-Hudi topography and archaeological remains. This allows us not only to record but also to present the inscriptions in a 3D digital representation of their original context.

In this talk, I will discuss a selection of results of the Wadi el-Hudi Expedition's epigraphic and archaeological survey. Taking from interpretive theories of Geosemiotics, I will examine how the locations of certain inscriptions, their medium, material, and engraving method, as well as the social and linguistic actions that surrounded them were constituent elements of their ancient meaning. Finally I will consider how the modern 3D recording and presentation technologies that we have been using succeed or fail to convey this richly embedded meaning of the original inscription. What is gained and what is lost with a 3D digital representation? A detailed 3D record is critical to our survey technique since modern gold mining constitutes a serious threat to the existence of archaeological remains in this part of the desert. It nevertheless cannot communicate all of the embedded meaning that the inscriptions had while in their original context.

The Wadi el-Hudi Expedition (www.wadielhudi.com) works under the auspices of California State University, San Bernardino and in compliance with the Ministry of Antiquities in Egypt. The expedition has conducted four seasons since 2014, during which time we photographed and mapped the inscriptions and other archaeological features presented in this talk.

SESSION 4K: Joint AIA/APA Colloquium
Systems of Knowledge and Strategic Planning in Ancient Industries

ORGANIZERS: *Caroline Cheung*, Princeton University, and *Jared Benton*, Old Dominion University

Colloquium Overview Statement

Although pottery sherds, stelae, and paintings in catacombs have traditionally been considered separate categories of material culture, they all share a common trait: they were produced in workshops or by people practicing a craft or trade. Much recent work has brought to light the intangible aspects of workshops, namely, that they were not just physical work spaces but places where communities met and expanded networks of knowledge and skill. Such work often faces a lack of evidence; the material remains in workshops lend themselves to the study of production, but institutions such as education, cooperation, or strategic planning leave a much lighter material footprint. The purpose of this panel is to offer scholars who work on such topics—particularly ones in the early phases of their careers—an opportunity to work through the paucity of evidence, to be bold with what evidence they have, and to speculate about the immaterial components of crafts and trades.

Each paper in the session focuses on the social needs, pressures, and strategies of people performing trades or working—and sometimes living—in workshops around the Mediterranean with a specific focus on how knowledge was transmitted, either as part of the education of future craftsmen, and in their communication with customers and society at large. Such communication can take the form of education via slavery or apprenticeship, but it can also take the form of advertisement or conspicuous consumption. Practitioners of crafts and trades navigated the complexities—and adversities—of ancient societies by making strategic decisions about how and when they practice their craft or by presenting their occupation in carefully curated ways.

The scholars on this panel represent the epistemological diversity of classical studies (philologists, historians, archaeologists, and art historians). The six presentations are divided into two groups of three. The papers of panelist #1, panelist #2, and panelists #3–4 (co-presenting) all concern education and transmission of knowledge, that is to say the way in which one generation trained the next. The papers of panelists #5–#7 all examine some aspect of the various social strategies employed by craftspeople to navigate the world in which they lived. Paper #1 combines evidence from fish-salting workshops with known mechanisms for transmitting knowledge to propose a model in intracraft workspace design. Paper #2 examines the practice of keeping archives and libraries among professional associations of actors and performers, arguing that such a practice was not only for record keeping, but also for collective risk management. Paper #3 categorize different mechanisms of knowledge transmission in Roman crafts and trades and use the resultant model as a framework to propose methods of teaching and training for poorly attested—or completely unnamed—crafts.

As part of the second group of papers, paper #4 employs ethnoarchaeological analogy to interpret the archaeobotanical remains from inside Roman kilns to model fuel consumption and hypothesize the relationships between potters and purveyors of other industries, such as olive-oil pressers. Paper #5 examines forms and compositions in a group of Roman wall paintings from the Catacomb of San Gennaro in Naples and identifies individual hands to explore the complexity and fluidity of membership in a late-antique painting workshop. Paper #6 isolates heterogeneity in the morphology of Egyptian stelae from Panopolis during the Ptolemaic and Roman periods and shows that the variation in stela form was a product of the complex relationships between craftsman, ritual specialist, and customer.

Each of the seven presenters—and two discussants—approach production and trades in different ways, from examining architecture and papyrological archives to modeling intercraft systems of production, but each remain focused on the intersections of social need, education, and craftsmanship. Such heterogeneity is intended to foster interdisciplinary discussion, build a broader base of evidence, and explore how different sorts of information relate to one another to help construct a clearer understanding of what life was like for producers, performers, and service people in the ancient world.

DISCUSSANTS: *Lynne Lancaster*, Ohio University, and *Thomas E. Levy*, University of California, San Diego

A Painting Workshop in the Catacomb of San Gennaro, Naples
Jenny R. Kreiger, University of Oregon

Recent scholarship on Roman painting tends to agree that painting workshops were flexible in their membership—that is, workshops were formed for a particular project, after which the workers were free to form new groupings for different projects. Although individual workers might participate in many such workshops over the course of their careers, they still managed to produce paintings that were internally consistent in terms of style and composition. The frequent formation, dissolution, and reformation of working groups forced painters to rely on shared training, common visual vocabularies, and clear communication to produce paintings that would meet patrons' expectations for style and decorum. Yet painters remained individuals, with personal quirks, habits, and preferences that could be reflected in their work. Through close examination of paintings attributed to a single workshop, this paper argues, it is possible to gain insight into the embodied practices of individual workers, divisions of labor, and negotiations with patrons.

This paper takes as its case study a suite of fresco paintings in the Catacomb of San Gennaro in Naples. The painted tombs in the so-called Zona Greca in this catacomb have long been attributed to a single workshop of the late third century C.E. on stylistic grounds. Adjacent to the Zona Greca lies another suite of painted tombs, attributed to a different workshop half a century earlier, and the two areas share a close architectural relationship. These two suites of paintings provide an unusual opportunity to study the works of a single workshop at the level of the

individual brushstroke, and at the same time to consider how that workshop received and reacted to the work of an earlier one.

Close examination of the Zona Greca paintings reveals that it is possible to discern some of the intimate details of an individual painter's practice, like hand dominance and body position while painting. It is also possible to isolate elements of paintings that could have resulted from negotiation with patrons or innovation on the part of an individual painter, rather than mere reliance on training and style. Finally, this study emphasizes the important roles played by architecture in the production of fresco painting, both as a constraint on painters' embodied experiences, and as a support for a discourse among generations of painters and patrons carried out over time. The approach presented here foregrounds the agency and experiences of individual, anonymous painters, who are otherwise difficult to access.

Invisible Trades: Apprenticeship and Systems of Knowledge in Poorly Attested Industries

Jared Benton, Old Dominion University, and *Caroline Cheung*, Princeton University

We know that apprenticeship existed in the ancient world, but our window into its scope and nature is limited largely to contracts discovered in Egypt. Moreover, the majority of those contracts concern the textile industry and come from the private library of a single family. But for most industries, we only infer their existence from the products they made or the material consequences of the services they offered, such as lead menders on dolia or homogeneity in the construction of masonry ovens. For such invisible trades, no name survives from antiquity let alone evidence of how one generation of craftspeople trained the next. In this paper, we attempt to create a general model of apprenticeship in the ancient world, grounded in the existing evidence and aided by comparanda from medieval and early modern apprenticeship. From this model, we infer systems of knowledge transmission for poorly attested or completely invisible industries.

At least for the medieval guild and journeyman system, the nature and length of the apprenticeship period differed from one trade to the next. Some trades, particularly those requiring a high level of skill, such as precious-metalworking, required long apprenticeships; other, lower-skill trades prescribed less time for their apprentices. We first establish that similar variation in apprenticeship existed among Roman crafts and we identify different sorts of apprenticeship systems, or lack of such systems. We then explore the typology as a possible way to hypothesize the possible system of education in place for the invisible trades, about which we know so little.

Augmenting our ability to explore the socioeconomic aspects of apprenticeship can, in turn, improve our understanding of the social strategies of different crafts or trades. In the case of the freeborn apprentices, the social benefits of apprenticing outside the family conveyed benefits beyond education in a craft. Given recent interest in workshops as institutions that extend beyond production or nonelite ideologies, how craftspeople navigated the complex relationships with peers, within their crafts and in wider society, and with those of higher social status reveals a great deal about how such people fit into Roman society.

Locating Energy in the Archaeological Record: A Ceramic Case Study from Pompeii, Italy

Gina Tibbott, Temple University

In the study of ancient ceramic production, the analysis of organic remains emerging from kiln contexts has long provided a crucial link between firing practices and the consumable materials that fuel the process. Through environmental, flotation, and charcoal analysis, researchers can identify the source of organic remains used in firings. At various kiln sites, this has revealed the wide variety of organic materials used as kiln fuel, which, in turn, can help to build a better picture of resource exploitation, environmental impact, and connection to related economies such as agriculture.

However, this material analysis does little to shed light on the quantities of fuel that this high-energy process required. This paper argues that a more comprehensive knowledge of the fuel quantities necessary to fire a kiln will help researchers better connect ancient ceramic production to fuel sources. Because determining likely fuel use requires a holistic analysis that includes consideration of kiln and wares, a multipronged methodology is presented here. By connecting kiln specifications and the material limits of associated fired wares, an estimated top firing range and scale can be determined; energy modeling within these paradigms then suggests a likely energetic input required for a complete firing. This model allows for organic remains recovered from a kiln to be translated into an energy contribution as well as a material quantity; in the event that excavation has not recovered deposits affiliated with kiln firing, this model also allows for hypothetical energy source projections.

Because ceramic production is pervasive in the archaeological record, this initial modeling effort focuses on evidence emerging from sites featuring cylindrical updraft kilns. Presenting a case study from a kiln site located in insula I.1 in Pompeii, Italy, this project seeks to clarify the energetic costs of one significant step of ceramic production, and the degree to which outside economic and ecologic exchange may have been enacted based on estimated fuel quantities. This allows for a deeper exploration of the ceramic industry's relationships with purveyors of agricultural refuse such as olive oil-pressing waste, grape seeds, and chaff, as well as fuel suppliers sourcing hard wood outside city limits. Executed in the pursuit of energy literacy, it is a goal of this project to develop stronger connections between durable archaeological elements and consumable materials that contributed to their manufacture.

Constructing *Cetariae*: The Role of Knowledge Networks in Building the Roman Fish-Salting Industry

Christopher F. Motz, University of Cincinnati

Previous scholarship on Roman craft production has centered on the sociocultural and economic implications of these industries' activities and output, shining light on the lives of ancient tradespeople and expanding exponentially our understanding of craft processes. The layout and construction of workshops, however, has seen limited study outside scattered examinations of *chaînes opératoires*. This

focus has obscured not only the physicality and novelty of their production contexts, but also the knowledge required to set up these facilities. Due to either the nature of the activities or their increasing scale, many industries employed specialized equipment, such as the tubs or stalls in which fullers trampled detergent-soaked clothes or the batteries of vats found at major fish-salting factories. Yet unlike other goods that were transported easily around the Roman world, many of the most important industrial fixtures, such as vats and cisterns, were fixed and normally subterranean; I thus argue that it was the technology of knowledge that moved, enabling the creation of these sub-elite workshop spaces.

In this paper, I use fish-salting workshops as a case study to demonstrate how knowledge networks shaped the construction of Roman industrial buildings. I explore mechanisms for transmitting construction knowledge in antiquity, such as apprenticeships and written manuals, and the networks and social structures in which these mechanisms were embedded, such as the organization of the building trade, the training of craftsmen, and the geographically informed operational context of fish processing. I argue that much of the knowledge required to build effective, specialized workshops was located with the fish-salting industry itself, rather than with construction professionals. In many cases, the knowledge networks of professional builders and workshop operators were isolated from one another. Thus, these workshops sat at the confluence of multiple related but independent knowledge networks that combined to produce their characteristic environments. By focusing on the transmission of knowledge as embedded within a range of social, trade, and other networks, I offer a new way of understanding how ideas and technologies moved throughout sub-elite populations of the Roman Empire.

Association and Archive: The *Technitai* of Dionysus as Keepers of Knowledge
Mali Skotheim, University of Wisconsin, Madison

The spread of drama in the Greek world in the late fifth and fourth centuries B.C.E. led to the creation of groups of professional, traveling actors. As early as 279–278 B.C.E., they began to form regional professional associations, calling themselves the *Technitai* of Dionysus. These actors' associations, which remained active into the third century C.E., secured rights and privileges for their members through frequent correspondence with festival organizers, civic authorities, and imperial administration. The *Technitai* regularly elected secretaries to handle their voluminous correspondence, and many of their inscribed letters survive, published in two important collections. Inscribed letters, such as the correspondence between Hadrian and the *Technitai* found at Alexandria Troas (Petzl 2006), reveal that actors faced a number of risks, such as festival organizers neglecting to follow through with payment of prize money, or the cancellation of contests without advance warning.

While the festivals relied on the labor of traveling performers, the performers relied on the labor of such secretaries, and other officials of the actors' associations, in order to ensure that their privileges would be respected in each city in which they competed, and that festival organizers respected the rules of their own competitions. In this paper, I argue that the central purpose of the Technitai of Dionysus was to mitigate risks posed to their members, who, as traveling professionals,

were legally and financially vulnerable, and that the maintenance of archives was a major part of the project of risk mitigation.

But the archives of the *Technitai* did not just include records of correspondence. The *Technitai* also maintained a centralized system of knowledge of another sort, namely, libraries, presumably of poetic and dramatic literature useful for the reproduction and composition of plays. In 141/2 C.E., the *Technitai* honored Titus Aelius Alcibiades of Nysa for his bequest of a books to their headquarters in Rome, where they maintained a temenos for Hadrian (SEG 4-418). Such libraries can also be considered part of the archival labor of the *Technitai*, a rare example of the provision of literature for a sub-elite population of professionals, comparable to the libraries maintained by other professional associations, such as the *collegium poetarum*, housed in the Temple of Hercules Musarum in Rome. The archives of the *Technitai*, then, provided not only practical knowledge, but also knowledge aimed at creative production.

No Two Are the Same: Stela Production in Ptolemaic and Roman Akhmim

Emily Cole, University of California, Berkeley

Egyptians produced funerary stelae as part of their mortuary assemblages for more than three millennia. This practice continued during the Ptolemaic and Roman periods (ca. fourth century B.C.E. to fourth century C.E.) even as the region's population diversified. While individuals retained certain elements as defining features of this corpus, such as the representation of the deceased and standard offering formulae, other material, stylistic, and textual elements were inherently customizable. By investigating the variations in this material, I show that the artisans involved in creating such outwardly similar stelae provided a degree of religious stability to local residents through the first and second centuries C.E. Nevertheless, the broader interactions taking place in the eastern Mediterranean at this time offered new opportunities for social expression, which visually manifest in this corpus.

In this paper, I explore the nature of the production and consumption of funerary artifacts drawing on the corpus of material from the Egyptian site of Panopolis, modern Akhmim. Over 130 stelae excavated in the 19th century from two cemeteries at Akhmim are now dispersed in various museum collections. To understand the driving factors that led to the production of a heterogeneous corpus, I compile the range of representations of, for example, deities, elements of iconography, ritual texts, and biographical information about the deceased, to determine which elements were required and which represented personal choice. Craftsmen producing and individuals commissioning these stelae had to reach a mutual consensus on the presentation of the final product for objects to have been deposited in the tombs of the Panopolite cemeteries.

Therefore, the innovations that can can be traced on these objects allow me to consider the social value of the various aspects of production. In particular, the appearance of the contemporary demotic Egyptian script to write texts that previously only appeared in traditional Egyptian Hieroglyphs suggests that the rules for the visual display of written language shifted in the Ptolemaic period. A group of literate individuals offered objects that conformed to tradition, but pushed the

boundaries of acceptable practices of display. I argue that the reason these adaptations appear is the necessary dialogue between stone carver, ritual specialist, and customer attested in this community of practice. With new avenues of communication opened in each case, no two stelae could be exactly alike.

SESSION 5A
Archaeometric Analyses in Italy and Sicily

CHAIR: *Robert H. Tykot*, University of South Florida

New Sourcing Analyses and Studies of Obsidian Trade in Northern Italy during the Neolithic

Robert H. Tykot, University of South Florida, and *Andrea Vianello*, University of South Florida

More than 1,100 obsidian artifacts from several prehistoric sites in northern Italy were analyzed to determine their geological source and address long-distance trade. The nearest obsidian source in the central Mediterranean is the tiny island of Palmarola, nearly 500 km to the south, while the island sources of Lipari and Monte Arci (Sardinia) are much further away. Previous studies of obsidian from three inland sites in this northernmost region of the Italian peninsula were limited to just 141 analyses in total, mostly from the site of Gaione. The sites tested in this study include Pescale (Prignano), just southwest of Modena, excavated by an early archaeologist and dating to the Middle–Late Neolithic (ca. 5000–4000 B.C.E.). The vast majority of the more than 900 artifacts tested are small blades. The sites of Case Catena, Pontetaro, and Guidorossi are all near Parma, and date to the early to middle Neolithic. Along with mostly small blades, obsidian cores have been found at the first two of these sites, confirming the local production of the final tools used.

Analyses were conducted using a portable X-ray fluorescence (pXRF) spectrometer, a now well-established nondestructive analytical method that provides calibrated major and trace element data sufficient to attribute artifacts not just to one of the Mediterranean islands, but also to specific subsources on Lipari (Gabellotto Gorge, Canneto Dentro) and Sardinia (Monte Arci SA, SB, SC) whose usage has been shown to vary over time. The portability of hand-held XRF models in particular, and the short length of analysis time necessary, have facilitated the analyses of complete archaeological assemblages rather than much smaller in number selections. The results obtained in this study show striking differences between the sites, with about 87% from Sardinia and 12% from Lipari at Pescale, vs. only 3% Sardinia, 71% Lipari, and 27% Palmarola at the Parma sites.

The results for these northern inland sites are compared with those previously available for the three other northern inland sites, some northern coastal sites, as well as with some sites further south on the Italian peninsula, to address whether the differences observed may be related to chronological change, and if so what that infers about socioeconomic and other changes between the earlier and later Neolithic. The obsidian distribution patterns will also be used to propose potential

transportation routes and how and why they may have changed over the course of the Neolithic.

Copper and Bronze Age Metals in Sicily and Calabria: pXRF Investigation of Early Alloys in Areas of Late Adoption of Metallurgy

Andrea Vianello, University of South Florida, and *Robert H. Tykot*, University of South Florida

Sicily and Calabria are in an area of the central Mediterranean where it appears that copper-based metallurgy was introduced relatively late, with widespread use only from the Middle Bronze Age. An analytical study utilizing a portable nondestructive X-ray fluorescence (pXRF) spectrometer has allowed the study of some of the earliest metals in the region to identify the alloys being used, and the exploration of whether metallurgy developed natively or was being introduced from another region. We tested a little over 100 metals from about 15 archaeological sites (mostly in Sicily, in the provinces of Syracuse, Agrigento and Palermo, and in the Crotone province of Calabria) dated between the Copper Age and the Middle Bronze Age (approx. 4000–1350 B.C.E.), focusing particularly on metals before their use became widespread. We also tested a small number of swords and daggers (some dating to the Late Bronze Age, 1350–1000 B.C.E.), the first weapons to be recognized in the region and without counterparts to be found in lithics. Their appearance in the archaeological record may represent the reason for embracing metallurgy in the region at that time.

The results show a presence of copper-only artifacts in the earliest period, immediately followed by tin-, arsenic-, and lead-based alloys. Using an analytical instrument nondestructively on metal objects poses some problems in identifying correctly the exact alloy percentages because of corrosion and the limit of XRF analyzing only the surface of the artifact. However, the results suggest that after copper-only artifacts reached the region in very tiny amounts, copper-based metals of different alloys were introduced in the region probably from multiple areas.

There are no significant copper mines known to have been in use in Sicily during this period, and only a few in Calabria, but not in the province so far explored. The Monaca and Tesauro Caves in Calabria seem to have been in use from the very beginning of the Copper Age (5000 B.C.E.), but intense frequentation has been dated to the Middle Bronze Age, at the time of several burials. We could conclude that it is likely that the region joined trade across some long-distance exchange, with Lipari (excluded from the present research, but with abundant evidence of metal trade) probably acting as a gateway to an exchange network.

Grape Wine and Olive Oil in Sicilian Prehistory: New Data from Archaeometric Analyses

Davide Tanasi, University of South Florida

In recent decades, chemical residue analysis has proven to be very important to answering archaeological questions. Very different disciplines have joined together to form new branches of research such as biomolecular archaeology. Many

aspects of daily life in the past that remain unknown can now be investigated using advanced analytical methods. Archaeological ceramics occupy a place of absolute importance in the artifacts that have come down to us since prehistoric times. The analysis of organic residue on ceramics employs analytical organic chemical techniques to identify nature and origins of remains, usually amorphous or invisible, that cannot be characterized using alternative techniques. This field is based upon the principle that the biomolecular or biochemical components of organic materials associated with human activity survives in a wide variety of locations and archaeological deposits. The archaeological information contained in organic residues is represented by the biomolecular components of natural products that contribute to the formation of a given residue. Such an analytical approach becomes extremely effective when applied to the archaeology of food in prehistoric times, where the lack of written sources makes extremely complicated the reconstruction of cultural practices and their impact on ancient societies. Food habits are constructed in accordance with a broad range of cultural, ideological, and interpersonal factors such as status, religion, gender, age, wealth, and more. In this perspective food is not just biologically necessary but also becomes a cognitively prominent material culture that plays an active role in constructing and negotiating social distinctions. Food practices construct and negotiate identity on numerous levels. At the broadest scale, specific foods and cuisines may be used as markers of particular cultures. This paper will present new data on the discovery of residues of pure grape wine from the Copper Age site of Monte Kronio (Sciacca) and of olive oil from the Early Bronze Age site of Castelluccio (Noto), both major Sicilian prehistoric sites. This evidence is the result of the application of new analytical protocols, including Nuclear Magnetic Resonance (NMR), Gas Chromatography - Mass Spectrometry (GC-MS), and Scanning electron microscopy with Energy Dispersive X-Ray Analyzer (SEM-EDX). Such new data, significantly predating the emergence of certain agricultural practices in prehistoric Europe and Sicily, have important cultural, economic, and social implications for the communities of Monte Kronio and Castelliuccio, which will be discussed in this contribution.

For Gold or Glory: Evaluating Historical Texts of the Battles of Himera, Sicily Using Isotopic Analysis

Katherine L. Reinberger, University of Georgia, *Laurie J. Reitsema*, University of Georgia, *Julianne R. Stamer*, Ohio State University, and *Britney Kyle*, University of Northern Colorado

The Battles of Himera (480 B.C.E. and 409 B.C.E.) between the Carthaginians and the Greeks have been well documented by several ancient historians. The early battle in 480 B.C.E. was victorious for the Greeks, in most part due to a large allied force from Akragas and Siracusa. The early battle in 480 B.C.E. is documented as being on the same day as the Battle of Salamis and in the same year as the Battle of Thermopylae, aligning three battles that show Greek perseverance and strength against foreigners. While these historical details are contested, the significance of ancient Sicilian historians writing history in a way to promote the importance of military prowess in Sicily is notable. The later battle in 409 B.C.E., on the other

hand, had a much different outcome. Fewer allied forces were available to come to the aid of the Himeran citizen-soldiers attempting to defend the city against the Carthaginians, resulting in the destruction of the city. Excavations at Himera have revealed several mass graves of soldiers who likely died in these two battles. This paper compares the strontium isotopes (87Sr/86Sr) for these soldiers to investigate military construction in ancient Greek Sicily. Strontium isotopes vary based on geology and so link people to their geographic place of origin. Additionally, data from the contemporaneous local population at Himera is compared to evaluate whether soldiers were recruited from a local force.

Tooth enamel was sampled for 87Sr/86Sr from human remains. The 87Sr/86Sr of tooth enamel reflects the local geology of the environment in which an individual lived when a child and so is useful in studying human movement patterns. Results show that individuals from the mass graves likely from the 480 B.C.E. battle were from several areas with a distinct geology. Alternatively, soldiers from the 409 B.C.E. battle and the local Himeran population were all from the same area. This research supports historical accounts that the army in the 480 B.C.E. battle was made up of individuals from other parts of Sicily and the Mediterranean, while those in the later battle were likely only from Himera. This research increases our knowledge of army formation and recruitment in 5th-century Sicily and allows us to consider how tyrants who controlled Sicily at the time adapted traditional military practices and how a sense of shared Greek identity could encourage the support of people and places distributed throughout the ancient Mediterranean.

SESSION 5B
Fieldwork in the West and East

CHAIR: *Derek B. Counts*, University of Wisconsin-Milwaukee

Surveying the *Chora* of a Greek City: Report from the Metaponto Archaeological Project (2018)

Spencer Popem, McMaster University, *Sveva Savelli*, Queen's University, *Santo Privitera*, Università degli Studi di Salerno

The *chora* of the ancient Greek colony of Metaponto is the focus of an archaeological surface survey project conducted by McMaster University (Hamilton, Ontario, Canada) and Queen's University (Kingston, Ontario, Canada) operating under the auspices of Soprintendenza Archeologia, Belle Arti e Paesaggio della Basilicata (MiBAC, Italy). The Greek city, founded near the end of the seventh century B.C.E., occupied a vast region on the Ionian coast between the Bradano and Cavone Rivers in a territory inhabited by the indigenous Oenotrian population.

The 2018 field season focused on an upland area adjacent to tributaries to the Basento River and identified 42 new sites. These results revealed occupation from the Archaic to the Byzantine periods and indicate permanent settlement extended as far as 14 km inland. The new sites identified include domestic settings or farmsteads and tomb sites located on a plateau.

The study of survey material collected in prior seasons revealed exceptional finds from the phases that precede the foundation of the *apoikia*. The region is already known for the presence of Mycenaean and Italo-Mycenaean pottery in multiple sites along the Ionian coast; these discoveries substantially contributed to the understanding of connectivity between the Aegean and Italy in the Late Bronze Age. One area of particular interest is San Vito di Pisticci, located on a high plateau dominating the inland, where a few examples of Mycenean-style pottery mixed with sub-Apennine Bronze Age material was found. The survey revealed new Mycenaean-style fragments (both open and closed forms) dated between LHIIIB and C. The preliminary analysis of the pottery, presently under chemical and petrographic analysis, seems to prove the coexistence of imported and locally manufactured Mycenaean pottery. The study of these fragments and their decorative patterns increase our understanding of a local production that used technique and decorative Mycenaean motifs and provides insights into the role of San Vito di Pisticci at the end of the Late Bronze Age in Basilicata.

Finds from the Basento-Cavone region continue to reveal organized settlement patterns with villages, farmsteads, sanctuaries, and necropoleis spread across the wide plateaus and the fertile valleys that stemmed from the principal waterways of the *chora* of Metaponto.

Athienou Archaeological Project, 2017–2018: Investigations at Athienou-Malloura, Cyprus

Derek B. Counts, University of Wisconsin-Milwaukee, *Michael K. Toumazou*, Davidson College, *P. Nick Kardulias*, College of Wooster, *Erin W. Averett*, Creighton University, *Clay M. Cofer*, The Barnes Foundation, *Jody M. Gordon*, Wentworth Institute of Technology, and *Kevin Garstki*, University at Buffalo (SUNY)

This paper presents the results of the 2017 and 2018 seasons of excavation and study at Athienou-Malloura (Cyprus) by the Athienou Archaeological Project, sponsored by Davidson College. The Late Geometric—Roman rural sanctuary remained the focus of our excavations; investigations sought to clarify the architecture, stratigraphy, and associated deposits in the northwestern quadrant of the sanctuary. Additionally, AAP is nearing the completion of an exciting, open-access, digital monograph that publishes a selection of 3D models of limestone and terracotta sculptures discovered in the sanctuary.

Excavations in the northwest section of the sanctuary continue to challenge many of our assumptions about the life and use of the sanctuary, especially in its latest phases during the Hellenistic, Roman and, perhaps, late Roman/early Christian phases. Notably, this area has yielded an impressive, monumental entrance marked by an upright limestone pillar. Likewise, an impressive array of distinct artifact assemblages has also been brought to light including local and imported Roman, late Roman, and early Christian lamps of the first to fifth centuries C.E., fragments from limestone statuettes displaying the iconography of the Greek goddess Artemis, and a cache of 20+ fragments of limestone statuettes of so-called Cypriot Pan type.

AAP is also excited to present details about an innovative publication project that merges the dynamic nature of 3D data with the accessibility and functionality of digital platforms. Our open-access, digital catalogue of 3D models of sculptures will be driven by two engines: (1) a downloadable Adobe 3D PDF, which is formatted in the mode of traditional print monographs, although the ability to move in and out of chapters, search and find, navigate hyperlinks, and manipulate the 3D models provides an enriched, digital experience; and (2) a web-based archive hosted by Open Context, which offers stable archiving of all data related to the publication, higher-resolution models, and the advantages of Linked Open Data (LOD). Significantly, the two platforms work together, providing the reader with different modes of organizing the same information and different entry points and tools to access and consume it. The PDF permits us to retain the unified narrative structure of a book, while the Open Context side allows our data to be destructured, open, linked, manipulated, and mined.

The Final Season of the Lycoming College Expedition to Idalion, Cyprus
Pamela Gaber, Lycoming Colleg

After 30 years in the field, the Idalion excavations have truly changed our understanding of the history of urbanization in Cyprus. Deep soundings in the Lower City North domestic and industrial area show a Late Bronze Age industrial presence also reflected in the pithos factory on the terrace of the West Acropolis. Reflecting a settled population, there are tombs that also date to this period. Surprisingly, the "Adonis Temenos" on the terrace of the East Acropolis shows evidence of twelfth century B.C.E. use right on bedrock. That sacred area remained in use until the Hellenistic period, when evidence of feasting was left on the final use-surface.

In contrast, the "City Sanctuary" found in 1998 in the Lower City South, appears now to have been founded in the twelfth century B.C.E., but continued in use at least until the seventh century C.E., when evidence exists of its being a place where Christians paid homage—albeit in a unique form, with a female figure appearing on a cross. This sanctuary, too, was in continuous use, apparently without a break, during that long span of time.

What is perhaps most surprising is the discovery—initially in 2004—of a Middle to Late Bronze Age settlement at Agios Sozomenos across the river to the north. It appears that this population site developed into an urban center, some thousand years before the site of Idalion, across the river, became more than just an industrial center. It now appears that Idalion's industry is most likely to have been carried out in conjunction with the Agios Sozomenos settlement—if not at its behest. Perhaps most interesting in the relationship between the two sites is the 200–300-year overlap in occupation of the two. Then, in the 11th century B.C.E., Agios Sozomenos appears to cease to exist, while Idalion grows exponentially until the Hellenistic period.

Mesopotamian and Egyptian texts and representations confirm that use of copper from Cyprus increased after 2000 B.C.E., and, after 1750 B.C.E, Cyprus appears to have been the only source of copper in use. Ithal appears in an Egyptian list of places in Cyprus dating near 1200 B.C.E.. This was undoubtedly the name of the

city that came to be known as "Idalion." Since copper mining and trading were the primary engines of urbanization at Idalion, these sources confirm the new picture of Idalion's urbanization from the Middle Bronze Age to the Hellenistic period.

Investigating Imperialism in the Early Hellenistic Eastern Mediterranean: Recent Excavations at Pyla-Vigla, Cyprus

Thomas Landvatter, Reed College, *Brandon R. Olson*, Metropolitan State University of Denver, and *R. Scott Moore*, Indiana University of Pennsylvania

Over the course of the past decade, the Pyla-Koutsopetria Archaeological Project (PKAP) with the permission of the Department of Antiquities, Cyprus has conducted four seasons (2008, 2009, 2012, and 2018) of small-scale excavation at the site of Pyla-Vigla, located on a small plateau near Larnaca in the Dhekelia cantonment. These excavations have revealed a site that appears to be a military fortification almost entirely early Hellenistic in date (350–250 B.C.E.), with little evidence of substantive later occupation. Fortifications are directly tied to imperial consolidation, and thus at Vigla it is possible to investigate imperial strategies at the crucial moment of political transition on Cyprus from independent city kingdoms to incorporation into the Ptolemaic state. This paper presents the results of these small-scale excavations and outlines a research program of larger-scale excavation to begin in summer 2019.

Though Vigla is yet to be extensively excavated, the finds so far have been very illuminating. Excavations in the central and southern portions of the site revealed two primary phases of occupation, while the military nature of the site is evident in the fortification works along the northern edge of the plateau and in the types of metal finds. Excavations yielded iron daggers, bronze projectile points, and lead sling bullets, as well as metal slag and lead sprues from sling bullet production. The ceramic finds from Vigla are perhaps the most significant: excavations in 2012 revealed a deposit with the most complete assemblage of Hellenistic pottery yet discovered on Cyprus. The analysis of this assemblage is ongoing, but the range of vessels indicates that this represents a complete early Hellenistic assemblage which will aid in the identification of other early Hellenistic sites.

With large-scale excavation to begin in 2019, the project will focus on (1) determining the occupation history of the site, including whether the site was planned, an ad hoc construction, or intended to be permanent; (2) determining the composition of the fort's population, namely, whether it was occupied by largely foreign mercenaries or local groups; and (3) the relative integration of the site with surrounding populations and settlements, both economically and culturally. By answering these questions, the site of Vigla will give us an unparalleled view of imperial incorporation strategies and their effects in the early Hellenistic, a period that is otherwise nearly archaeologically invisible on Cyprus and in the wider eastern Mediterranean.

Green Petra Revisited: The Brown University Petra Terraces Archaeological Project

Evan I. Levine, Brown University Joukowsky Institute for Archaeology and the Ancient World, *Daniel Plekhov*, Brown University Joukowsky Institute for Archaeology and the Ancient World, and *Luiza O. G. Silva*, University of Chicago

This paper presents the results of the first field season of the Brown University Petra Terraces Archaeological Project. BUPTAP examines the vast agricultural terracing systems that allowed the ancient city of Petra to thrive in the semi-arid environment of southern Jordan. Those terraces vary widely in size and function. Some occupy large open plains to the north and south of the city; smaller ones were built on the steep canyon walls around it. Together these structures not only provided food and water for the inhabitants of the city, but also constituted a massive anthropogenic artifact. The main aim of BUPTAP's first season was to refine scholarly understanding of the history and dynamics of the Petra terraces as a huge and complex landscape monument, one that was much grander and, at least in terms of expended effort and technical know-how, more sophisticated than the tomb facades for which the city is now famous. Due to the various challenges in studying terraces, which in many cases resist conventional dating approaches and have unclear purposes, our survey methodology aims to integrate a variety of multiscalar, remote, and intrusive approaches to assess their chronology, function, and construction from a variety of perspectives. Through satellite and UAV remote sensing, we contextualize the terraces within their broader spatial context and investigate how they functioned as hydrological and soil retentive systems. Individual terraces were studied through integrated photogrammetric and architectural recording to study construction techniques and to evaluate differences between terraced areas. Finally, targeted excavations provided us with stratigraphic contexts from which micromorphological and phytolithic samples were extracted and analyzed. Our findings will be of interest to archaeologists and other specialists working on terraces both in the Levant and beyond. In addition to providing insight into the long-term history of human–landscape interaction in southern Jordan, we aim also to add the evidence from ancient Petra to global archaeological and anthropological discussions about the monumentality of agricultural landscapes.

SESSION 5C
Undergraduate Paper Session

CHAIR: *Molly Swetnam-Burland*, The College of William and Mary

Social Clusters, GPS, and Social Networks at Ostia Antica

Jane Clark, University of Southern California

This paper presents the results of the USC undergraduate research team of the Ostia Connectivity Project (OCP), a collaborative digital initiative to study social history at Ostia Antica. The OCP works with published inscriptions from Rome's

port complex and mines them for information on ancient connectivity, from the local to the global. Our project looks at inscriptions as evidence for how people connected with one another in Ostia and for how Ostians saw themselves in the Mediterranean world. Based on our work with the OCP database, our paper focuses on a key question: How might digital tools help us grasp the deeper dimensionality of ancient social worlds, particularly in the local context of Ostia? For this paper, we make use of survey data from the OCP's 2018 field season, where team members plotted the findspots of 275 inscriptions at Ostia Antica using ESRI's Survey123 app for iPhones. Using field-survey data alongside the inscriptions from the OCP database, we combine this information in Gephi, a social network analysis program. By combining GPS location information with inscriptional evidence in Gephi, we experiment with how to identify social clusters at Ostia from our data. We then take these social clusters and connect them with archaeological find spots. This approach allows us to see where particular social groups acted in Ostia's civic space. By approaching the question of social groupings in the abstract and on the ground, our project gives a fuller picture of how individual Ostians fit themselves into the city's social groups and urban space.

Phrasikleia Kore: An Alternative Role for Female Viewership

Allison Schukis, University of Oregon

The funerary kore monument and inscription for the female aristocrat Phrasikleia (550–540 B.C.E.), sculpted by Aristion of Paros, have been reunited since the 1972 excavation of the sculpture in Merenda, Greece. The sculpture was found in a pit with an unnamed *kouros*, close to the church from which the inscriptional base had been removed from a spoliated column. The monument is composed of a life-size sculpture of a heavily adorned youthful female, or, a "kore," standing upon an inscriptional base which gives Phrasikleia's name, describes her "fate" of death prior to marriage, and gives the name of the artist. It can easily be deduced from the extant monument that Phrasikleia did not marry in her lifetime. This unmarried status makes both real person and representation rarities from archaic Athenian culture. Beyond this, the monument is noteworthy because it provides a rare opportunity for detailed study of a remarkably "complete" archaic fragment. Phrasikleia's monument touts a remarkable preservation of original polychromy, few breaks, and the rare pairing of inscription and sculpted image. However, while the sculpture and epigram have been used in many generalizing or comparative studies of *korai*, Phrasikleia's monument has rarely been examined as a whole. Additionally, previous scholarship has primarily focused on the experiences of male artists, patrons, and viewers. Therefore, this paper offers a full treatment of the monument, including analyses of iconography, epigraphy, experience, and female viewership. In particular, I explore the alterity that certain female viewers might have perceived as being represented in the monument, and the ways the monument could have privileged a female viewer.

Through reconstructions of the archaic reader's experience of epigram, I argue that Phrasikleia's role as a feminine "speaking" likeness in the public sphere invites a female-specific interpretation of probable experience of the monument. By evaluating the image/text of the monument against archaic *korai*, as well as

with archaeological scholarship on women, and archaic literature, I analyze possible understandings of Phrasikleia's connotations of the intrinsic relationship of marriage and death as going beyond typical archaic Greek cultural expectations. Additionally, I examine how viewers might have interpreted the monument as a (possibly tragic) refusal of the role of wife. Finally, I evaluate this role as an alternative to dominant ideological modes of Athenian womanhood.

Replacing Faces: The Transformation of Caligula into Augustus

Benjamin H. Mahony, Santa Clara University, and *Josephine Semaan*, Santa Clara University

There are few Roman emperors more vilified than Caligula. Historians such as Suetonius portray him as a paranoid, ruthless, and notoriously cruel man. Following Caligula's assassination, one of the ways Claudius cemented his newfound imperial authority involved the vilification of his predecessor's memory. The Senate, however, chose not to enact an official sanction of *damnatio memoriae* against Caligula. In cities across the empire, many statues of the despised emperor remained after his death. Lacking an official mandate from Rome, peoples across the empire had to decide how to proceed in this political matter.

In this paper we examine six portraits of Caligula with known find contexts that have been recarved into the emperor Augustus in order to determine how provincial populations engaged and responded to imperial politics, particularly the ways in which these choices manifested in the material record.

This work derives from a larger Digital Humanities project that seeks to aggregate all known portraits of Roman emperors and create a searchable database for future scholarly inquiry into the replication and distribution of the emperor's likeness. The paper models how the data made available through this project might be used to generate new questions and approaches to the study of the imperial portrait.

Through a visual and contextual analysis of these portraits, we attempt to explain how it came to be that geographically dispersed peoples arrived at the same visual solution. First we examine how the choice to rework portraits of Caligula into Augustus may have been motivated by the greater physical likeness between the two in contrast to the more unique physiognomy of Claudius. Second, we argue that early in the reign of Claudius, images of Augustus were likely much more commonplace than those of Claudius and could thus serve as ready models for local artists. Finally we consider each portrait in its local context in order to explore the variety of motivations and interests of local social groups that resulted in the same visual response to politics in Rome. This paper contributes to the study of interactions between the center and periphery and serves to document how provincial populations responded to and were affected by imperial politics.

Shoes as Visual Puns in Greek Art

Sara Beth Burch, Baylor University

The ancient Greeks had a sense of humor as well as a large vocabulary of euphemisms. In particular, they utilized a plethora of these euphemisms that relate

to body parts, and specifically the foot, which also functioned as puns in Greek art and literature. However, there is currently very little scholarship on the connection with shoe puns and art. My preliminary research finds that there are various contexts for the use of puns on ancient Greek painted pottery. The first setting is the symbolic use of shoes as sexual euphemisms and often as corporal punishment by an *erastes* against an *eromenos* in a symposium setting. Other areas for further study include iconography related to women and shoes, as well as the presence of shoes in settings such as the symposium and gymnasium. Analysis of the iconography on certain Greek painted vessels shows that shoes were used as visual puns and jokes in art, just as they were in contemporary Greek literature.

Gardens beneath the Ash: Contextualizing Natural Imagery within Pompeii's Urban Fabric

Rebecca Gaborek, College of William and Mary

Gardens proliferated in Pompeii, enveloping about one-fifth of the city. With their myriad artworks—paintings, sculpture in the round, mural landscapes, and reliefs—these landscaped spaces (*peristylia*) still boast a rustic charm that captivates modern audiences. Scholars have seldom disputed the significance of the environment to the agricultural region surrounding Pompeii, but the purpose of naturalistic artworks within *peristylia* remains clouded. I examine peristyle ornamentation and the formal gardens they framed to advance a hypothesis regarding their role in the Roman city.

To ascertain why Romans adorned their *peristylia* with bucolic imagery, I first conduct an archaeological survey of the typical pieces in Roman gardens based on previously published works and my own autopsy of material in major collections. Although I scrutinize the phenomenon broadly, I structure my arguments around two case studies due to their exceptional preservation and expensive adornment: the House of the Golden Bracelet (VI.17.42) and the Casa dell'Efebo (I.7.10–12). Each *peristylium* established a microcosm of the outside world by taming its creeping tendrils into a manmade landscape; each also showcased artworks evocative of nature and its fertility.

I then consider such remains through the lens of primary Latin texts to unravel the culture-specific connation of garden imagery in the Roman period. These include accounts of the region's agrarian tradition, graffiti, scientific works about flora, and literature promoting the benefits of lives spent amongst nature. The latter category romanticizes the natural world with sentiments of longing for farms nestled within scenic backdrops. They suggest that elite property owners savored natural fecundity as a therapeutic and submissive force. By dwelling in the countryside, one necessarily subjugated it to human consumption.

With my archaeological and literary conclusions as departure points, I argue against scholarship claiming that garden artworks crafted illusions that extended the perceived size of small city spaces to enhance the prestige of the homeowner. I instead forward a three-pronged explanation for realistic peristyle decorations, one that situates them within a wider literary discourse. I contend that the taste for such displays evolved out of a Roman adoration for nature, the peristylia provided a respite from urban life, and the artworks embodied the Roman ideal of

dominion over the environment. I incorporate theories of urbanism and aristocratic competition, marrying cultural models to extant data. These elements generate an investigative paper with a statistical review of domestic gardens in Pompeii, a refutation of present scholarship, and synthesizing case studies.

SESSION 5D
Roman Architecture and Urban Landscapes

CHAIR: *John N. Hopkins*, New York University

Urbanism and Roman Imperialism in Etruria: New Excavations on the Acropolis of Populonia

Seth Bernard, University of Toronto, *Andrea Camilli*, Soprintendenza Archeologia, Belle Arti, e Paesaggio delle province di Pisa e Livorno, *Stefano Camporeale*, Università di Siena, and *Cynthia Mascione*, Università di Siena

This paper presents the results of excavations in 2018 on the acropolis of Populonia (Italy) and argues for the importance of new findings for our understanding both of the city's development and of the broader pattern of urbanization in Etruria following Roman conquest. In antiquity, Populonia was famous for its production of iron, and massive slag deposits still covered much of the lower city in the early 20th century. The city's acropolis was at some date endowed with multiple monuments laid out on a series of artificial terraces; one enormous arcaded terrace was named "Le Logge" in the early modern period. Scholarship has assigned this architecture to the second–early first centuries B.C.E., well after Roman power was firmly entrenched in this region. Research conducted by the Soprintendenza Archeologia, Beni Arti, e Paesaggio per le province di Pisa e Livorno in collaboration with the Universities of Siena and Toronto suggest that significant urban development began earlier. Exploration at the base of "Le Logge" revealed an underlying structure whose building technique suggests a mid-third century date. This earlier structure followed the same orientation as "Le Logge" and can be related by orientation and technique to other structures across the site. Viewed together, such evidence points to an initial urbanization phase comprising multiple terraces, roads, and elite houses in the mid-third century, within the same general timeframe in which recent stratigraphic excavations would also place the upper city's circuit walls.

In sum, Populonia's acropolis was laid out as a complete and orthogonally planned urban system in the years immediately following Rome's conquest of Etruria. This conclusion revises previous interpretation of Populonia's development and holds important implications in a regional context. For example, we may compare Populonia's urban form to that of its neighbor to the south, the neatly designed Roman colony of Cosa; however, while these cities displayed formal and temporal parallels, their political trajectories were starkly different. No source reveals how or when Populonia fell into Roman hands, while epigraphic material from the acropolis confirms the persistence of an Etruscan-speaking elite into the mid-second century. Thus, Populonia's acropolis exhibits urban forms

traditionally associated in Etruria with colonization and the violent dislocation of population and settlement, but the city also presents possible signs of social continuity. This underscores the multifarious nature of Roman conquest in Etruria, while also complicating our understanding of the sociopolitical pressures that produced certain urban forms in Hellenistic central Italy.

Esquiline Cityscapes: Exploring a Multifunctional Landscape at the Borders of Rome

Francesca D'Andrea, Scuola Normale Superiore di Pisa

This paper focuses on the ancient topography of the southeastern sector of the Esquiline Hill. It aims at clarifying the urban development and it retraces the transformations occurred here between the Late Republican period and the construction of the Aurelian Wall.

Earlier scholarship barely used a comprehensive method to investigate this archaeological area as a whole, and several issues are still debated. In order to increase our understanding of this ancient landscape, my research applies a multidisciplinary approach, which combines archaeological, epigraphic, and literary sources, together with the interpretation of new unpublished archival notes and the application of the GIS (Geographic Information System).

This area was characterized by the coexistence of public and private buildings, such as Rome's major aqueducts, consular roads, monumental tombs, collective funerary chambers, gardens adorned with extravagant structures, and countless artworks. I investigate the use of these spaces, beautified by lavish residences, but also employed to provide water and goods for the city, and to arrange burials for the increasing number of low- and middle-class deceased. I therefore emphasize the economic, political, and ideological significance of this strategic area, where public infrastructures and tombs shared borders with extended estates, owned by emperors' trusted men and freedmen, and progressively absorbed into the imperial patrimony.

This paper offers updated synchronic and diachronic landscape reconstructions, in order to analyze together all the archaeological evidence detected here. The ultimate goal is to shed new light on the image and topographic relations between different monuments and multifunctional spaces, thus providing a broader picture of the exploitation of a landscape located at the periphery of Rome, that is so far poorly investigated.

Ancient City, Universal Growth? Urban Expansion and Land Use Succession on Rome's Eastern Periphery

Matthew J. Mandich, ISAR

As the city of Rome expanded physically and demographically from the middle Republican to the later Imperial period it also experienced periods of significant economic change. While such developments are often difficult to track and analyze archaeologically, observable changes in land use on the city's urban fringes and in its environs can be used to investigate broader economic oscillations over

the *longue durée*. Since Rome's "suburban" zone essentially began where the city's built-up area (or *continentia aedificia*) ended, any outward physical expansion would have had a wider ripple effect, causing the successive displacement of people and socioeconomic activities in its surroundings. To analyze the impacts of this process on a local and regional scale, this paper exploits models and theories from economic geography and urban morphology that allow for changes in extra-urban land use to be understood as a function of economic growth and decline. By reexamining the available archaeological evidence from Rome's eastern periphery (i.e., the Esquiline and Caelian Hills and the southeastern suburbs), new conclusions are drawn regarding the types of urban and economic development experienced over time, as well as how the patterns observed square with the principles and predictions of recently developed frameworks, including settlement scaling theory and the social reactor model.

A Century of Building: Local and Long-Term Perspectives on the Roman Monumentalization of Thuburbo Maius, Tunisia

J. Andrew Dufton, Institute for the Study of the Ancient World, New York University

The first centuries C.E. were a busy time in the cities of Roman North Africa, a period during which the rapid monumentalization of even the smallest towns created a lasting impression of an "urban boom." The impact of these changes is well understood at a regional scale, thanks primarily to the dedicated study of monumental inscriptions and the creation of specialized gazetteers focused on specific monument types. As a result of this macro-level knowledge, however, archaeologists often ascribe significance to individual building projects according to Mediterranean-wide trends or the growing regional wealth and importance of a handful of cities. The oftentimes contradictory views of local North Africans and the ways in which ad hoc choices made during the process of monumentalization changed the nature of a town's topography are far less-frequently addressed.

This paper explores a century of intensive monumental works at the site of Thuburbo Maius, Tunisia, from a hyper-local perspective. Following a visit from the emperor Hadrian in 128 C.E., the town saw the creation of the temples, baths, amphitheater, and forum we might normally expect in the Roman world. These monuments have been discussed at length individually—my work extends this scholarship to map the spatial relationships between interrelated developments and expose the long-term effects of case-by-case decision-making during building. A look at the workers, materials, and timeframes involved in the prolonged process of monumentalization suggests it is not the finished structures but perhaps the ongoing construction that was so important to Roman urban life.

Between Iconography and Ideology: Representations of Architectural Construction in Roman Art

Alyssa C. Garcia, University of Pennsylvania

In the ancient Mediterranean, representations of architectural construction are exclusive to the Roman oeuvre—at least fifteen exempla from diverse contexts

portray construction in its narrative form, as a process through time. Because of its inherent variety, this genre tends either to be separated into typological echo-chambers, or subsumed under broader studies of ancient technology, which mine for the accuracy of depicted tools and processes not extant in textual or archaeological sources.

This paper considers this compilation's holistic art-historical value. While no single or simple paradigm applies to this mélange, consistencies in composition and iconography reveal that Romans took pleasure in viewing construction, and in viewing themselves as a constructing force. I argue that, in such representations, the act of building—or rather, the peculiar impulse to depict building in artistic terms—inhabits and intentionally exploits the nexus between ideological and aesthetic value. In other words, such representations were often employed to exert iconological impact in the expression of Roman identities.

Grouping the fifteen representations—very loosely and somewhat unconventionally—by the temporal moment of the scene allows for comparisons prevented by previous methodologies, like those between public and domestic contexts. What I call "commemorative" scenes depict construction that occurred within recent memory, and are predominantly found in sepulchral or votive contexts. "Historical" scenes represent construction in the distant past, as a moment that exists within collective memory; these mostly refer to the origins of Rome. "Mythological" scenes do not represent any mortal or specific time or event.

Tracing the presence or absence of iconographic tropes—especially machinae—reveals that different methods of building are depicted in different types of representations, in accordance with context and desired connotation. Distinct iconographic formulae map onto distinct identities. Generally, those put up as commemorative monuments by nonimperial individuals, like the Haterii reliefs, emphasize building as an integral aspect of "being Roman": they highlight technology and manpower, underscore the procedural elements, and focus on the narrative sequence, presenting the process itself as the true achievement. Within the imperial visual apparatus, e.g., on Trajan's column, construction literally connotes "civilization" in the transitive sense, representing the transmission of Rome's civic and sociocultural footprint. The column depicts no building machinery; the emphasis lies instead in the haptic element of construction: the soldiers grab and place ashlar blocks by hand in an intentionally primitive, rusticated manner, which indicates that the presentation of symbolic meaning takes precedence over the veritas of the process.

SESSION 5E
Countryside and Territory in Roman Italy

CHAIR: *Rabun Taylor*, University of Texas at Austin

A Roman Villa in the Lower Val di Chiana: Report on the First Four Seasons of Fieldwork

Rebecca K. Schindler, DePauw University, *Pedar W. Foss*, DePauw University, *Giampiero Bevagna*, The Umbra Institute, and *Stefano Spiganti*, Intrageo

The Trasimeno Archaeological Field School is a regional archaeology program co-sponsored by the Umbra Institute (Perugia, Italy), DePauw University (Greencastle, Indiana, USA), and the Comune of Castiglione del Lago (Umbria, Italy). Since 2015, we have been investigating a Roman villa under the auspices of the Soprintendenza Archaeologia, Belle Arti e Paesaggio dell'Umbria. The site, which was first identified by local farmers, is located on a gentle hill to the north of Lago di Chiusi near the border between Tuscany and Umbria. To the east of the site is the ridge road that from the seventh century B.C.E. onward connected Chiusi to Cortona. Several Etruscan tombs have been excavated along that road. However, our project is the first systematic excavation of a Roman site in the territory. We have three primary research questions: (1) to understand the relationship between the environment and the site, particularly the role of the Clanis River (now dried up) in the economic, social, and political development of the territory; (2) to understand the cultural transformation that took place in this region as the Romans gradually took over the territory from the Etruscans; and (3) to identify the phases of the villa itself, which we believe was occupied from the second century B.C.E. to the late third century C.E. and which underwent several architectural modifications as buildings were repurposed for different functions.

A preliminary surface survey (2015) and topographical study of the site indicates that the Roman period villa was likely spread out over at least three terraces. Due to modern agricultural work, remains on the upper terrace have been heavily damaged and we are focusing our excavations on the central and lower terraces. This report presents the results of those excavations. This includes a bath house on the lower terrace, the first phase of which was constructed directly into and against the natural sand substratum, a curious practice that we are investigating. In the central area, we have identified a series of structures representing at least three architectural phases. Here the accumulated clay fill is almost 2 m deep. The nature of the construction in this area, including the use of cocciopesto for the walls and a tile pavement, indicate a production and storage area. From the fill in this area we recovered over 500 pieces of intonaco, an indication that some parts of the villa were elaborately decorated.

New Excavations of the Roman Villa and Late Roman Infant Cemetery at Poggio Gramignano (Lugnano in Teverina, Umbria)

David Pickel, Stanford University, *Roberto Montagnetti*, University of L'Aquila, and *David Soren*, University of Arizona

This paper reintroduces the Roman Villa at Poggio Gramignano (VRPG) and presents a preliminary report of new excavations conducted between the Summers of 2016 and 2018 by American and Italian archaeologists. These three seasons are the first in a multiyear research project, the "Villa Romana di Poggio Gramignano Archaeological Project," a partnership between the Soprintendenza Archeologia dell'Umbria, the University of Arizona, and the Comune di Lugnano in Teverina. The project aims better to understand the development of the villa and further contextualize it and the late Roman (mid-fifth century C.E.) infant cemetery discovered within its storage magazines with the larger history of Roman central Italy.

Located near the Umbrian town of Lugnano in Teverina (TR), this Augustan period villa was originally excavated in the 1980s and early 1990s under the scientific direction of Prof. David Soren. These first excavations not only uncovered significant sections of the villa's living quarters, but also an abnormal infant cemetery. Here the remains of 44 children were discovered, ranging in age from prenatal to three years. Taking into account much material, paleopathological, and textual evidence, including the positive results of aDNA extraction and malaria hemozoin analysis, it is currently hypothesized that this cemetery was the result of an acute malaria epidemic.

Recent excavations have focused on the area of the infant cemetery, specifically Rooms 11, 12, and 17, as well as Room 16, thought to have been an upper terraced room. Eight new burials of varying types have been discovered, including one older child (tentatively aged 8–10 years), whose mouth had been stuffed with a cement-laden marble stone, cut in the shape of a *cubilium*. In addition, many pre-Roman impasto ceramics were found within Room 16 and soundings in the upper villa area, suggesting a much earlier occupation of the site. Finally, soundings made on top of Gramignano hill confirm theories of productive activity in the vicinity, previously suggested by pedestrian survey, GPR, and aerial photography.

VRPG provides the rare opportunity to study not only late Roman child burial practice and the deadly history of malaria in its historical and environmental context, but also Roman villas in the Umbrian Tiber Valley. In addition to presenting the preliminary results of this project's recent work, this paper also discusses malaria hemozoin analysis: a novel protocol developed for identifying infections of P. falciparum, the most malignant strain of malaria, within ancient human remains.

Examining the Villa Rustica Model: The 2017–2018 Excavations at the Villa del Vergigno in Northern Etruria

C. McKenzie Lewis, University of Waterloo, and *William H. Ramundt,* University at Buffalo

The Villa del Vergigno (late second century B.C.E. to the fifth century C.E.; located 20 km west of Florence), occupies two hectares with a building of 16

rooms, a bath area, five kilns, a grape/olive press, and several adjacent subsidiary structures. Beginning in 2013, a collaborative project between the University of Wyoming, Sistema Museale di Montelupo Fiorentino, and Cooperativa ICHNOS reopened excavations and research at the site to study the scale of production and phases of activity. Specific focus has been on the villa's so-called agricultural sector and its relationship to the site's "residential" sector. The results of the 2017 and 2018 seasons reveal that (1) production was greater and more diverse than previously hypothesized, and (2) there is little adherence to the villa rustica model previously used to interpret the site.

In the "residential" sector and adjacent to the bath complex, excavations revealed a significant phase of iron production alongside ceramic. It is hypothesized that this production financed an upgrade to the villa with renovation and expansion of the bath complex, though this modification did not signal the end of production. Instead, leisure and manufacture operated concurrently in the same immediate residential space. In the same area, modifications to the manufacture space indicate several more phases of ceramic production that previously realized. Only rather late in the lifetime of the site did ceramic activity in the residential area move away from the main body of the villa to the subsidiary structures, attested by a waste pit and spoliation of the residential-area manufactory. Thus, there was not distinct separation of domestic and work space.

In the adjacent agricultural sector, production was not limited to kilns. Recent excavations have revealed a large area dedicated to clay mining and settling, indicating control of all phases of ceramic production. Datable objects reveal that the agricultural area was in use beginning in the Roman Republican period through the late second century C.E. before a repurposing event led to this area being leveled off for reuse. Activity in the agricultural area's second phase can be dated well into the fifth century C.E., with high-value, domestic objects appearing in stratigraphic units datable to each century of the imperial period. These items' typology in respect to location again illustrates a lack of adherence to the villa rustica model and demonstrates the villa's economic success during tumultuous periods of the empire.

Money on the Farm: Coinage and Survival

Elijah Fleming, University of Texas at Austin

There has never been any denial on the part of scholars and archaeologists that coins are commonly found in rural and agricultural areas in the Mediterranean world. However, to date there is no complete explanation for why and how these coins moved (or did not move) around the ancient countryside. This paper presents a view of coins in the Roman agricultural areas acting as a diversification and survival strategy for the poorest members of society. Scholars of the ancient world generally distinguish between the use of coins within the market economy of urban spaces and the subsistence and barter economy of rural spaces. If we maintain that the divide between the moneyed economy and the barter economy was stark and clear, why then do archaeologists continue to find coins in rural areas? In order to address this question, this paper attempts to confront the motivations of

those living and working in rural areas, and how coinage might have fit into the micro-economy of early Roman subsistence communities.

As in any ancient society, individuals survived in a variety of ways, sometimes through drastic measures, but also through small, everyday acts of perseverance. In support of accepting coinage as diversification, and an act of perseverance, this argument consults strategies of survival via ancient literature including the advice of Cato the Elder and Varro, our best sources on ancient agriculture. Next, an overview of the archaeological evidence of coins on farms in mainland Italy specifically, and special attention is given to the difficulties in using this interpretation of coins on farms across geographical boundaries. Finally, this study offers a comparison with two ethnographic parallels, 20th-century Ireland and 21st-century Kenya, both of which reflect the interaction of subsistence communities with the moneyed economy of the urban centers. Because of the prevalence of coins at even the smallest farms present in the archaeological record of early Rome, and the comparisons with other subsistence communities throughout history, this paper concludes that we can begin to see money on the farm in early Roman communities as part of a fight for survival. This discussion creates a space to see the motivations of using coinage and contributes another piece to the puzzle that is the ancient lower class.

SESSION 5F
Sanctuaries and Sacred Landscapes in Greece and Sicily

CHAIR: *Bonna D. Wescoat*, Emory University

The Lost Virgins of the Parthenon: New Light on the Location of the 'Virgin Room' on the Athenian Acropolis

Jan Zacharias van Rookhuijzen, Leiden University

The origin of the name Parthenōn "Virgin Room" for the Great Temple of Athena on the Athenian Acropolis (our "Parthenon") has never been satisfactorily explained. It was certainly used for the entire building in various literary texts of Hellenistic and Roman date. But this is not so in the inscriptions of the Classical period, in which Athena's *tamiai* made annual inventories of her treasures. Here, the term appears in opposition to the Hekatompedon, which certainly designates the cella in which the chryselephantine statue of Athena stood. Under the assumption that the Parthenon of the inscriptions must refer to something in the building that we today call Parthenon, scholars have almost invariably identified the original Parthenon with the west room of the Great Temple. However, there is no obvious explanation why this space should have been called "Virgin Room."

This paper is the first to challenge the assumption that the original Parthenon must be looked for in the Great Temple. It does so on the basis of a reanalysis of the nomenclature preserved in the inscriptions and the archaeological remains. I show that Parthenos was never a cult title of Athena and that there is therefore no special reason to connect the name Parthenōn with any part of the temple. I then argue that the Parthenon of the inscriptions cannot have referred to the Great Temple, because in the same inscriptions its cella was known as Hekatompedon, while

the West Room was first called Proneōs, and from 403/2 B.C.E. Opisthodomos: I identify Proneōs and Opisthodomos (which never appear together in inscriptions) because they both held the bullion of the Athenian state, and depending on the perspective, the West Room could be considered either a "fore-temple" or a "back room."

The paper then proposes that the term Parthenōn of the inscriptions is to be recognized in the west part of the temple, which is habitually known as the "Erechtheion," but was actually devoted to the cult of Athena Polias. After providing new evidence bolstering the theory that the cult of Erechtheus cannot have been housed in this building, I present various epigraphical and archaeological arguments for the idea that the Parthenon treasures were instead housed there, specifically in the west half of the building to which the Karyatid portico is attached. I conclude by identifying the Karyatids as the "lost virgins" of the Parthenon.

Naming the Sanctuary: A Thesmophorian Thought Experiment

Allaire B. Stallsmith, Towson University

The Thesmophorion, the sanctuary of the Two Thesmophoroi—Demeter Thesmophoros and her daughter Kore—is ubiquitous in the ancient Greek speaking world, from Sicily to Asia Minor, and North Africa to the Black Sea. Even when no physical, epigraphical, architectural, or figural remains point to the goddesses under this *epiclesis*, the excavator can be sure of the sanctuary's name and character because of evidence found "on the ground."

This evidence consists of ritual pits, which indicate the performance of what has been believed to be the secret womens' ritual that gives its name to the sanctuary. The ritual involves the deposition and retrieval of *thesmoi*—"that which is laid down": sacrificed piglets and other holy objects symbolizing fertility.

The only source for this rite is the well-known scholion on Lucian's Dialogues of Courtesans, which tells us of the activities of the "bailers" (*antletriai*), the female ritual personnel who toss into and then retrieve sacrificed piglets, pine branches and cakes like snakes and "male shapes" from underground spaces called *megara* (rooms), *chasmata* (chasms), and *adyta* (inner shrines).

Since its first publication in 1870, no interpretation of the Thesmophoria can be made without reference to this scholion. Every newly excavated anepigraphic sanctuary that reveals figurines of women carrying pigs, or ritual pits, even without any reference to Demeter, is assumed to have been the site of the performance of the festival and therefore a Thesmophorion.

I propose a thought experiment: What if the scholion to Lucian had never appeared (or had been proven a forgery)? What would we know with certainty about the Thesmophoria? How would we interpret the archaeological evidence without this scholion?

I assemble the evidence for the Thesmophoria ritual from literary and epigraphical sources, to determine whether they corroborate the scholion's description. I will also examine the archaeological evidence of figurines, terracotta piglets, and underground rooms. Perhaps we have come to rely too heavily on a document that received its final form in the 10th century C.E., and whose likely source can be traced back only as early as the second century C.E.

The mystic penumbra of the Lucian scholion may have exerted undue influence on our understanding of the Thesmophoria rite as well as the eponymous sanctuary. Many sanctuaries named as Thesmophorions may not even be Demeter's.

Visualscapes and Changing Space: Modeling the "Cult Stage" of the Argive Heraion

Natalie M. Susmann, Boston University

Few sanctuaries command their landscape as successfully as the Argive Heraion. Yet, no detailed study exists to help us understand precisely how the sanctuary's situation and components interacted visually with the wider territory, and especially vis-à-vis the various settlements within its viewing range. In this paper, I present a series of digital investigations of the Heraion's landscape, from its initial establishment in the eighth century B.C.E. through the end of the Hellenistic period. I consider the potentially divergent experiences of visitors to the sanctuary and also those passing through the Argive plain. I integrate time-phased 3D structural models into a GIS environment in order to consider the distinctive visualscapes that existed over the course of the sanctuary's development.

Since its initial excavation in the 19th century, scholars have noted the Heraion's situation and view, whether for those inside it, or those in the Argive Plain, for whom the sanctuary seems to sit on a "cult stage." Yet we lack data to determine if specific viewing features had particular significance. Using GIS and 3D modeling, I offer a robust analysis of the sanctuary's topography and recreate its visualscape to better understand how these functioned as elements of religious space. Seeing how its vistas changed over time, if at all, allows us to consider its evolving significance as a landmark for the inhabitants of the Argive plain.

By comparing the Heraion's visualscape with those of other Peloponnesian sanctuaries, I seek to elaborate on the differential experiences of the place itself—and more specifically, whether and how these so-called significant views from and towards the sanctuary contributed to its functioning as a cultic space. On a larger scale, this approach offers a framework by which the visualscapes of other Mediterranean sanctuaries can be assessed, by creating tools that allow considerations beyond ritual activities within sanctuary spaces themselves—such as facilitating communication, asserting prominence, or otherwise defining interactions between disparate settlements.

Sacred Landscape, Collective Memory, and the Refoundation of Morgantina

Leigh Anne Lieberman, The Claremont Colleges

Morgantina, a largely Sikel settlement in central Sicily, was decisively razed in the mid-fifth century. Its destruction has been associated with the aggressive campaign of the Sikel general Duketios against the settlement in 459, an event which brought Morgantina into the preserved historical narrative for the first time (Diod. Sic. 11.78.5); although Diodorus does not record why Duketios specifically targeted Morgantina, it is likely that the settlement posed a formidable ideological threat to Sikel independence and unity on account of its growing prosperity and

philhellenic tendencies. Shortly after its destruction, Morgantina was refounded. Although the date of and agents responsible for settlement's refoundation have for a long time been the subject of debate, scholars have paid less formal attention to the immediate concerns of the colonists that came to occupy the refounded settlement.

I argue that a close consideration of the community's religious priorities can illustrate how, in the face of destruction and demographic change, the Morgantinoi defined membership to their collective. In this paper, I examine two complementary practices concerning the delineation and use of sacred space in the classical and hellenistic settlement. First, despite relocating immediately after the destruction of the archaic settlement, the community of classical Morgantina frequented select cult sites associated with the former settlement; regular ritual processions to these inveterate sanctuaries encouraged the Morgantinoi to regularly engage with the remnants their past. Second, several so-called courtyard sanctuaries were constructed throughout the Hellenistic period; although novel in form, these sacred spaces were undeniably archaizing, often marking long-remembered sacred sites. Here, in addition to considering several previously identified courtyard sanctuaries, I turn to an examination of the sacred elements of a domestic space uncovered by the ongoing efforts of the American Excavations at Morgantina: Contrada Agnese Project (AEM:CAP). I conclude that through the careful manipulation of their sacred landscape, the Morgantinoi of the Classical and Hellenistic periods not only demonstrated a keen awareness of their past but also empowered both new members of the community and subsequent generations to preserve the collective memory of their shared history.

SESSION 5G
Mycenaean Greece

CHAIR: *Aleydis Van de Moortel*, University of Tennessee

Redefining Social Boundaries on the Greek Mainland from the Neolithic to the Early Bronze Age: A Long-Term Comparative Approach

Carolin Garcia Fine, Florida State University, and *Katerina Psimogiannou*, University of Illinois Chicago

The study of the long-term settlement patterns throughout the Neolithic period and into the Early Bronze Age on the Greek mainland has been dominated by site-specific and regional studies, and there have been few attempts to compare the data across broader geographic zones. This paper addresses this gap in the research by comparing the northeast Peloponnese and central Greece, focusing specifically on the Corinthia and eastern Lokris.

Our work dwells on previous research by Aegean prehistorians that has pointed out the divergent trajectories of the southern and northern part of Greece, as well as the variability within the northeast Peloponnese itself. Corinthia's prehistoric settlement patterns and ceramic material display more similarities with central Greece, such as with Boeotia and Lokris, than its southern neighbors. East Lokris,

in turn, seems to be more-closely linked to the northeast Peloponnese than to Thessaly, which contradicts previous research and thus makes it difficult to attribute a strict "north–south divide" in the evolutionary processes. By combining the results of surface surveys in the above areas with more fine-grained evidence, such as the ceramic record from specific sites (Corinth, Zygouries, Elateia, Halai), we compare long-term settlement patterns and individual site-histories.

In this paper, our aim is to show that within central Greece and the Peloponnese interaction spheres had created more complex systems of boundaries which are not adequately explained by previous studies. We seek to redefine the social and cultural boundaries which were in place on the Greek mainland from the Neolithic to the Early Bronze Age, and how these might have contributed to divergent pathways in the above region.

The Rise of a Political Elite at Mitrou, Central Greece, in the Late Helladic I Phase: An Architectural Perspective

Aleydis Van de Moortel, University of Tennessee

Mitrou, eastern Lokris, is one of a few sites in mainland Greece where the initial rise of a hierarchical society at the transition from the Middle to Late Helladic period can be studied in a settlement context, and not just on the basis of funerary remains. The 2004–2008 excavations carried out at the site by the Greek Archaeological Service and the University of Tennessee, under the auspices of the American School of Classical Studies at Athens, uncovered a prehistoric settlement with an unusually long, uninterrupted stratigraphic sequence ranging from Early Helladic IIB to the Late Protogeometric phase (ca. 2500/2400–900 B.C.E.). Excavations focused mostly on Late Helladic and Protogeometric levels, but occasionally reached Middle and Early Helladic remains.

Parts of two large complexes—Buildings D and H—were uncovered and identified as elite centers on the basis of their architectural features and finds, including a large, built, chamber tomb in Building D. They were associated with a network of large, paved roads. Both centers were constructed in Late Helladic I and continued throughout the prepalatial period until they were destroyed in Late Helladic IIIA2 Early. The presence of not one but two elite complexes raised the question of whether the settlement was dominated by one or two elite groups. Studies of the pottery revealed a significant difference in the initial construction dates of the two complexes: Building H was built in Late Helladic I phase 1, whereas Building D was constructed as late as Late Helladic I phase 3. This difference in date raised the possibility that a single elite group was responsible for the construction of both complexes, and that Building D represented an expansion of its presence in the settlement.

However, recent detailed stratigraphic and architectural studies have shown that underneath Building D there are two earlier Late Helladic I buildings: Building T, which was first constructed in Late Helladic I phase 2, and Building U, which dates to Late Helladic I phase 1 or 2. Underneath Building U is a final Middle Helladic structure. Buildings U and T have multiple architectural phases, allowing us to trace the development of elite architecture at Mitrou in greater detail than before. Our study shows that the development of elite centers and the network

of large, paved roads in Late Helladic I Mitrou was a much more gradual process than previously thought.

Excavation and Research at the Sanctuary of Zeus at Mt. Lykaion, Summers of 2017 and 2018

David Gilman Romano, University of Arizona, *Mary E. Voyatzis*, University of Arizona, and *Anna Karapanagiotou*, Arcadian Ephorate of Antiquities

During the summers of 2017 and 2018 work continued at the Sanctuary of Zeus at Mt. Lykaion in Arcadia. This five year, collaborative project is under the direction of the Arcadian Ephorate of Antiquities, Tripolis, together with the University of Arizona, and under the auspices of the American School of Classical Studies at Athens. The extensive site includes the ash altar of Zeus on the southern peak of the mountain at 1,382 m and the nearby temenos, and the lower sanctuary in a mountain meadow at 1,182 m. The most important discovery of these seasons was the additional ceramic evidence in the form of LH kylikes, bowls, *askoi*, animal and human terracotta figurines, as well as burnt animal bones from a Mycenaean shrine on the mountaintop, and indications of continued activity at the altar into the Early Iron Age. Deposits of Mycenaean pottery (primarily LH *kylikes*) were also found associated with and inside of large Neolithic vessels immediately adjacent to a man-made stone foundation at the very summit of the mountain. This central region of the altar must have been the focus of ritual activity from at least the Mycenaean period and continuing into the Early Iron Age. FN, EH, and MH ceramics were also uncovered in associated areas at the altar. Sherds were collected for petrographic and chemical analysis and for chemical residue analysis, and animal bones for radiocarbon dating and strontium analysis. Further down the mountain, the Agno Fountain was cleaned and test trenches dug. Work in the lower sanctuary included continued excavation in the administrative building (*xenona*), the 31 m-long stone corridor and arch, the stoa, and a nearby area in which we are searching for the Sanctuary of Pan. A prostyle Ionic building, originally excavated by Kourouniotis, was rediscovered in 2018. A limited pedestrian survey was initiated in 2018 examining an area of interest between the village of Ano Karyes and the Sancturary of Zeus.

A New Mycenaean Occupation Phase at Koukounaries, Paros

Jason W. Earle, Institute for Aegean Prehistory

In the LH IIIC period, the rocky Koukounaries hill overlooking the Bay of Naoussa in northwestern Paros was home to a small Mycenaean community. The most prominent structure in this settlement was a large house (dubbed the "Mansion" by the site's excavator, Demetrius Schilardi) built on the hill's summit in LH IIIC Middle (Developed). This structure and surrounding settlement, however, were not long lived, suffering a fiery destruction at the hands of attackers within the same period. Until now, it was believed that Koukounaries was subsequently abandoned during LH IIIC Middle (Advanced) until briefly reoccupied by "squatters" in LH IIIC Late and then again deserted until Protogeometric times. My study

of previously unexamined ceramic material from the acropolis, however, shows that there was yet another phase in the Mycenaean occupation of Koukounaries—a brief period of habitation following the destruction of the Mansion in LH IIIC Middle (Developed) but before the "squatter reoccupation" of LH IIIC Late. Evidence for this newly recognized phase comes from excavation square D4, where, atop the meter-thick Mansion destruction deposit, a paved stone floor was found adjacent to the still-standing eastern wall of the Mansion's north–south ground-floor corridor. The pottery from this floor and associated strata differs from that of the LH IIIC Late reoccupation contexts identified elsewhere on the acropolis. In terms of fabrics, the White Ware typical of LH IIIC Late at Koukounaries is absent in D4. With respect to shapes, the D4 range is wider than that found in LH IIIC Late contexts, and certain forms absent in LH IIIC Late, such as the kylix and pithos, are well documented. Concerning decoration, distinctive motifs found on the LH IIIC Late material, such as the tassel pattern, are missing in D4, and a wider array of motifs is known than on the LH IIIC Late vessels. These differences suggest a chronological distinction between the D4 and LH IIIC Late reoccupation deposits, with the D4 ceramics appearing much closer in character to the LH IIIC Middle (Developed) pottery of the Mansion than to that of LH IIIC Late. Consequently, we may suppose that not long after the site's destruction, some individuals took shelter within the ruins of the Mansion. For unknown reasons these people soon departed, leaving the site abandoned for the LH IIIC Middle (Advanced) period, after which a more widespread reoccupation of the hilltop occurred in LH IIIC Late.

Continuity and Change in Religious Practice from the Late Bronze Age to the Iron Age

Susan Lupack, Macquarie University

The collapse of the Greek Bronze Age is characterized by marked decreases in population density, a severe curtailment of trade, and the loss of monumental architecture, the finer arts and crafts, and the skill of writing. The traditions surrounding the worship of deities, though, are likely to have been maintained as an essential and integral part of people's daily lives in the succeeding Iron Age, and it seems likely that aspects of that worship constituted the foundation for the religion of the Archaic period. I address the question of what aspects of Mycenaean cult practice were taken through the Iron Age by considering both the textual evidence provided by the Linear B tablets and in light of recent discoveries substantiating continuity in religious practice at sites such as Mt Lykaion in Arcadia.

Mycenaean religion exhibits several features that are also seen in later historical periods. The most obvious is that many of the deities' names found on the Linear B tablets are also prominent in the Olympian pantheon, including Zeus, Hera, Poseidon, and Athena. But beyond the simple retention of deities' names, other characteristics are indicative of structural similarities. For instance, both cultures had a religious calendar with month names that reflect the religious festivals that took place within them. The performance of ritual had a similar form as well; for instance, the centrality of offerings such as libations, vegetal offerings, and animal sacrifices is demonstrated for both time periods by both textual and archaeological

evidence. The possibility that there was continuity even in some religious belief can also be demonstrated, for instance in that both cultures practiced hero worship.

It is true that our Mycenaean textual evidence attests to the cult as practiced by the palatial elite, but I argue that this was not simply an elite cult, but also the religion of the people. In the collapse, the *wanax* was lost, but at a time of stress and change, the continued enactment of traditional rituals likely functioned as a sustaining force for the people. Religious sites of the Iron Age are not many, and at the sites we do have, religious continuity has been hard to establish. Nonetheless, I discuss the evidence from sites such as Mt. Lykaion and the sanctuary at Syme, which do exhibit continuity in ritual practice from the Bronze Age through the historical periods, to support these propositions.

SESSION 5H
Networks and Connectivity in the Roman World

CHAIR: *John J. Dobbins*, University of Virginia

Rethinking the Roman Tuffs: Introducing the QUADRATA Project

Daniel P. Diffendale, University of Missouri, and *Fabrizio Marra*, Istituto Nazionale di Geofisica e Vulcanologia, Rome

Ancient Roman architecture has a global legacy, but its early development was shaped by highly specific, local factors. One crucial feature in this development was the exploitation of the various volcanic stones ("tuffs") found within a 25 km radius of the center of Rome. Already in the Archaic period (sixth century B.C.E.), the tuff bedrock of Rome's seven hills was being quarried for architectural use; by the Late Republic (first century B.C.E.) at the latest, Roman architects were building with a variety of tuffs quarried well beyond the city's limits, some from the territories of bested former rivals. Roman architecture of the Archaic and Republican periods developed in dialogue with its Etruscan and Latin neighbors, many of whom similarly employed locally quarried tuffs. None of Rome's neighbors, however, came to employ such a wide variety of tuffs, nor did they generally import nonlocal materials. The differing physical properties of the various tuffs allowed Roman builders to experiment, and by the late third century B.C.E. at the latest, they were strategically employing different tuffs to meet specific constructional and decorative needs. Despite decades of archaeological and historiographic work in Rome and its tufaceous catchment area, however, contemporary understanding of tuff use still relies on century-old studies: Tenney Frank's groundbreaking "Notes on the Servian Wall," which established the basic tuff typology used by archaeologists today, was published in 1918 (*AJA* 22: 175–88). Frank's classification was based largely on macroscopic identification of tuffs; as the results of recent geochemical studies have proven, however, visual inspection alone is insufficient to provenance tuff reliably. Nor is extraction of mineral resources simply a material correlate of the expansion of Roman state power, contrary to Frank's hypotheses.

Given recent advances in archaeological science and decades of historiographic reflection, the time is ripe for a comprehensive restudy of the Roman

tuffs. Accordingly, we have undertaken a new project, "QUarry provenance and Archaeological Dating of the Roman-Area Tuffs in Antiquity." QUADRATA combines a campaign of trace-element analysis, in order to pinpoint provenience of various tuffs from known ancient quarries in the hinterland of Rome, with a consideration of the Republican architectural contexts employing tuff and a historiographic study of early Roman construction and resource extraction. A pilot study involving geochemical and petrographic analysis of tuffs from the temples of Fortuna and Mater Matuta at Sant'Omobono has already been completed. We will discuss some of the implications of the results of this study, along with challenges and prospects for future work.

Conceptualizing Connectivity in Ostia Antica: The 2018 Field Season of the Ostia Connectivity Project

Lindsey A. Mazurek, University of Oregon, *Cavan W. Concannon*, University of Southern California, *Kathryn Langenfeld*, Clemson University, *R. Benjamin Gorham*, Case Western Reserve University, and *Alexander Meyer*, University of Western Ontario

This paper presents the results of the 2018 field season of the Ostia Connectivity Project (OCP), a collaborative digital initiative at Ostia Antica. Over the last two years, OCP has brought together ancient inscriptions, data visualization, and GIS to consider ancient connectivity and networks more expansively than more traditional text-based methodologies. We treat inscriptions as markers of connectivity that can be mined for data on the networks of people, institutions, and things that connected Ostia(ns) within the city and the broader Mediterranean. OCP focuses on several key questions: How might digital tools help us grasp the deeper dimensionality of ancient social worlds? How can we consider the ways in which different social ties connected and oriented people in a local context? How do local ties help people locate themselves in local, regional, and Mediterranean-wide social networks?

Our project consists of two parts: an abstract analysis of potential social networks through a textual study of Ostia's inscriptions, and mapping the findspots and reconstructed use locations of these inscriptions. In May and June 2018, members of OCP plotted the findspots of 275 inscriptions at Ostia Antica. During this season, we implemented a new recording methodology. Our 2017 pilot season employed a more traditional GIS system that made it difficult to connect with the satellites needed to produce accurate readings. In 2018 we switched to ESRI's Survey123 app for iPhones, which improved the quality and accuracy of data recording in the field. When paired with a GPS booster device and Wifi, this cloud-based program allowed us to connect each mapped point with the same types of metadata recorded in our database, which will allow for a more seamless integration of our project's two parts. This cloud-based system also syncs in real time and permits us to check accuracy in real time and reconcile our points with GoogleEarth satellite imagery while recording.

By paying attention to the many weak and strong ties that bound Ostians to each other, to Latium, and to the broader Mediterranean, we can ask new questions of our evidence that give us a fuller picture of who individual Ostians were

and how they interacted in local and global cultic networks. This kind of approach also opens up the possibility of reconstructing the lived shape of the Mediterranean, the work that went into forging connections across the landscape and the networks that came together and fell apart to make that happen.

Coarse and Cooking Ware Pottery from the DAI/AAR Excavations at Ostia Antica: Preliminary Thoughts on Trade and Regionality

Andrew Donnelly, Loyola University Chicago, and *Joey Williams*, University of Central Oklahoma

The joint project between the American Academy in Rome and the Deutsches Archäologisches Institut Rom in the late 1990s and early 2000s was conducted in several previously unexcavated parts of the city of Ostia Antica. One of the goals of this project was to reveal more information about urban life in late antiquity. Late Antique Ostia has been an area of scholarly interest in recent years, including its transformation during a period of imperial decline and nascent Christian identity. The DAI/AAR excavations, meanwhile, provide a glimpse of the more quotidian and lesser-explored aspects of life, including trade, cooking and dining habits, and regional connectivity across several centuries.

The focus of the DAI/AAR excavation was a Constantinian-era basilica in Regio V. The pottery from these excavations, especially the utilitarian wares, has previously only been published piecemeal. Our long-term goals are the analysis and publication of the common and cooking wares from the entirety of the excavation, including this basilica and the late-antique Grubenhaus found alongside it. But the DAI/AAR project did not only pay attention to this basilica: indeed, 37 sondages were carried out in Regiones II, IV, and V of the city. Our focus in this paper is on some of these lesser-known sondages, which including the city wall and extramural street (Sondage 10), late-antique horrea (Sondage 22), and bath complex and two insulas (Sondage 29). This paper examines the common and cooking wares from several of these contexts, arguing that these most common of vessels reveal significant information about Ostian economic activity from the second through the sixth centuries C.E., such as patterns of trade (including a description of the various regional fabrics found at the site), networks of Mediterranean-wide connectivity, and transforming patterns of cooking and the consumption of food.

Regionalism and Autonomy in the Economic Networks of North-Central Anatolia

Erin Pitt, Sweet Briar College

This paper is part of a broader project that creates the first comprehensive synthesis of the urban history of north-central Anatolia in the Roman period. Modern scholarship has ignored dramatic increases in the number of new settlements in north-central Anatolia, both urban and rural, as well as consistent vitality and even growth during the turbulent third-century C.E. Roman intervention and traditional urban ideals were early stimuli. As I argue, however, regional preferences, a geographical position on the Mediterranean periphery, and heightened imperial interests in the third century were the most prominent influences on urban

development and stability in north-central Anatolia. The region occupied a unique geographical, political, and economic position within the Roman Empire and it represents a compelling contrast to the urban character of other Roman provinces.

This paper underscores the importance of understanding the precise nature and "position" of north-central Anatolia within the Roman Empire. The position itself was multifaceted and was shaped by geographic, economic, political, military, and ideological elements. The investigation, just like the region's position, pursues multiple threads. I focus on two models of networks that have proven fruitful in World Systems studies as well as the Roman Empire. These networks are (1) bulk goods and (2) prestige goods. Each of these networks is best examined on three levels that constituted important units in the region of north-central Anatolia in antiquity: the polis-hinterland of cities (local), north-central Anatolia and the Black Sea (regional), and the Mediterranean Basin (imperial).

The conclusions highlight the significance of the geographical and economic position of north-central Anatolia in the Roman Empire and its impact on the region's urban history. This area was remarkably well integrated and even self-sufficient at the local and regional levels. Moreover, the peripheral location of Bithynia, Pontus, and Paphlagonia tempered the intensity of Roman imperial intervention. This is most apparent regarding the integration of the region into the economic networks of the Roman Mediterranean. From the sale and circulation of staple goods, such as grain, grapes, and olives, to more-specialized products, such as fish sauces, timber, and ceramics, local and regional Black Sea networks dominated. Strong regional connections and local self-sufficiency allowed the region to prosper and provided a buffer against negative forces that impacted Rome's Mediterranean core.

SESSION 5I
Materiality, Power, and Identity in the Hellenistic World

CHAIR: *Susan I. Rotroff*, Washington University in Saint Louis

Matrilineal Lineage in Cult for Hellenistic Queens

Cai Thorman, University of California, Davis

Cult of royal women is well-attested among the Hellenistic dynasties, but the reason for their existence has not been satisfactorily explained. Many have assumed that royal women achieved this status because of their relationship to a powerful male ruler, yet outside of the Ptolemaic Empire, only a few consorts of Hellenistic kings received cultic honors. Likewise, the title "basilissa," the counterpart of "basileus," was not held by every consort. To complicate matters, a daughter or other female relative of a Hellenistic king might hold the title of "basilissa" from birth, even though she was not a queen. Archaeological evidence offers interesting insight. Numismatic portraits of Seleukid Laodike IV (early second century B.C.E.), Ptolemaic/Seleukid Kleopatra Thea (mid-late second century B.C.E.), and epigraphic evidence for Laodike VII Thea of Kommagene (mid- to late second century B.C.E.) indicate a coincidence of high status, the title "basilissa," and cultic honors. When the three cases are compared, a pattern emerges. Previously glossed

over as supporting consorts or mothers, these females prove not only to have been recipients of cult, as attested by coins, statue bases, reliefs, and public decrees, but were related to one another across dynasties upon a single matriline, a descent through mothers from a common female ancestor. Until now scholars have focused upon patrilineal lineage, but by using an inversion of traditional patrilineal assumptions, we can see that cults of female rulers by the end of the third century B.C.E. were closely connected with matrilineal descent, which appears to have both determined the right to use the title "basilissa" and conferred legitimacy among the Hellenistic dynasties.

Chryselephantine Couches from Hellenistic Macedonia and the Materiality of Power

Rachel Kousser, Brooklyn College and the Graduate Center, City University of New York

Among the most striking finds from the royal tombs at Vergina are the chryselephantine couches depicting images of Dionysiac revelry, hunting, and war. Constructed of wood ornamented with gold, glass, and ivory, the couches were originally the largest objects placed within the tombs; they also featured some of the most elaborate adornment, with complex multifigure scenes in low and high relief as well as ornamental patterns. Heads from a couch in Tomb II have been identified by the excavators as portraits of Philip II and Alexander the Great, and used to bolster the identification of the tomb as that of Philip; in this way, they have been seen as precedents for the great charismatic ruler portraits of the Hellenistic era. This paper considers them instead within a different context, that of ivory-working in late fourth-century B.C.E. Macedonia.

The late fourth century witnessed an explosion of ivory-working in Macedonia. Chryselephantine couches have been found at over 40 Macedonian funerary sites; they generally date to the last quarter of the fourth century B.C.E., and are most often found, as at Vergina, in conjunction with chamber tombs, sympotic equipment, and implements of war. Given their high cost as well as their association with weapons and militaristic imagery, the couches have been associated by scholars with the Macedonian warrior elite, newly wealthy and politically powerful in the aftermath of their return from Alexander's conquests. The couches deployed an up-to-date visual language of Macedonian imperial hegemony, with images of hunting, Dionysiac revelry, and battles with Persians very similar to those of major monuments of Alexander and the Successors. Likewise significant was the couches' materiality: their construction out of a medium—ivory—that was closely associated with Alexander's conquests.

With Alexander's campaigns on the Indian subcontinent, ivory, and its source, namely, elephants, became increasingly important to royal and elite self-representation. Ivory statues of Hephaistion were dedicated after his death by the king and his officers, and elephants were prominently featured on Alexander's own funeral carriage and the coins of the Successors. The chryselephantine couches in Macedonian tombs thus, through their medium as well as their iconography, fostered positive associations with the east, conquest, and Alexander. Their study

is significant for our identification of Tomb II and its owner. It also enhances our appreciation of the global interconnections of Hellenistic art.

The Construction of Asian-Greek Identity on the Telephos Frieze
Kristen Seaman, University of Oregon

Now on display in Berlin, the Telephos Frieze originally encircled the inner courtyard of the Great Altar at Pergamon, which was constructed during the reign of Attalid King Eumenes II (r. 197–158 B.C.E.) to commemorate his military victories. The frieze illustrates the life of the mythical hero Telephos from his conception through his apotheosis, depicting his Arkadian origins in mainland Greece, military exploits in Asia Minor, and death in bed. The frieze is renowned because of its so-called continuous narrative technique, which uses a recurring protagonist. But previous scholarship has not explained the political significance of its focus on the local hero Telephos instead of the more obvious Pergamene hero Pergamos. Therefore, in this paper, I use archaeological, literary, epigraphical, and papyrological evidence to explain his significance on the sculpted marble frieze. I find that the frieze uses rhetorical techniques to construct a *synkrisis*, or comparison, between the lives of Telephos and Eumenes II in order to encourage viewers to see a connection between the two figures. Both have military accomplishments: Telephos fought with Idas and the Achaians during the Trojan War and Eumenes II was victorious over the Gauls and the Makedonians. More importantly, both Telephos and Eumenes II have a complex Asian-Greek cultural identity. Telephos is a popular focal point for discussions of identity in Greek literature. For example, in Euripides's play *Telephos*, Telephos clearly identifies himself as a Greek in opposition to the Mysians whom he finds in Asia Minor. This concern was acknowledged in the Hellenistic period. A Ptolemaic era papyrus from Egypt even bears an excerpt of the play's prologue with the transcriber's assertion that he is a Makedonian—in other words, he quotes the play as a way to emphasize his complex Makedonian-Greekness in a multicultural Graeco-Makedonian-Egyptian context. In the frieze, Telephos's complex Asian-Greek identity is highlighted through Arkadian landscape elements as well as distinctions between Greek and Mysian dress. The frieze, then, presents Telephos as a model king who has the positive coexistence of Greek and Asian identities. Inscriptions indicate that Eumenes II constructed himself as a Greek benefactor who fights barbarians, despite his being part of a Mysian barbarian dynasty. Therefore, I ultimately propose that the rhetorically informed frieze affirms that Eumenes II could keep company with, indeed surpass, mythical model kings such as Telephos, amplifying the virtues of his complex Asian-Greek identity.

The Artistic Legacy of Luxury from Fourth-Century B.C.E. Macedonia to the Roman Republic
Beryl Barr-Sharrar, Institute of Fine Arts, New York University

We know from ancient writers that the consumerism sustaining the production of the high-end luxury metalwork associated with excavated finds from the

mid-fourth-century B.C.E. Macedonia of Philip II increased substantially in the kingdoms established after the conquests of Alexander the Great. The earliest public display in Rome of the plunder of Greek silver and bronze goods along with costly fabrics and significant statues during the Roman military conquests may have been the one following the sack of Syracuse in 211 B.C.E. (Livy 26.21.6–10). Later, as both Livy (37.59.4–5) and Pliny (*HN* 33.148) report, Lucius Scipio displayed thousands of pounds of gold and silver vessels in his triumph of 189 B.C.E. celebrating the conquest of Asia.

In Macedonia itself, the continuation of consumption was no less impressive. According to Plutarch, the procession in 167 B.C.E. honoring Aemilius Paullus after his triumph at Pydna lasted three days. After a day focused on confiscated statues, paintings, and colossal images, "freshly polished" Macedonian bronze armor was followed by "silver mixing bowls, horn-shaped goblets, offering bowls, and drinking cups," each "outstanding in size and in the density of its engraving." On the third day, more metalwork was exhibited, including "all the gold utensils used at the table of Perseus." (Plut. *Aem.*, 32–33).

From surviving examples, we know that during the third century B.C.E., a development towards greater elegance of form was accompanied on almost all silver shapes by an increase in surface elaboration executed in repoussé relief of a very high level of technical achievement. Plaster and clay positives of molds taken by Roman craftsmen from Hellenistic silver or gold vessels, or made from wax models used in the artists' workshops, survive from Alexandria, Memphis, and sites in Afghanistan. These are invaluable in reconstructions of ornate vessels now lost.

Metal prototypes from the fourth and third centuries B.C.E., recognized through familiarity with finds from ancient Macedonia, lie behind some surprisingly similar, elaborated adaptations designed during the Roman Republic. This phenomenon suggests the retention of Greek artistic formal concepts and the possible survival of Greek heirlooms late into the Hellenistic period. The sustained availability of these ideas to craftsmen is a recognized phenomenon that has not been analyzed sufficiently, and is considered here.

SESSION 5J: Workshop
Current Events and Heritage Protection: Efforts to Protect Cultural Heritage at Risk

MODERATORS: *Brian I. Daniels*, University of Pennsylvania Museum, and *Sarah Lepinski*, National Endowment for the Humanities

Workshop Overview Statement

Current events have amply demonstrated that archaeological sites and historic structures that compose the cultural landscape of the Mediterranean and beyond are at risk from violence, disasters, and neglect. Site looting and cultural destruction in Syria, Iraq, Yemen, Libya, and Afghanistan continues, and there is a need for grounded discussions about these events among the academic community. Tragically, the present situation threatens to overtake even the most conscientious efforts of archaeologists, museum curators, and conservators to be responsible

stewards of global heritage. This forum will provide an opportunity to update colleagues about issues related to cultural heritage loss and protection measures in crisis areas. Brief reports will include such topics as the implementation of the Protect and Preserve International Cultural Property Act; recent developments in the implementation of the 1954 Hague Convention for the Protection of Cultural Property in the Event of Armed Conflict; the protection of cultural heritage in conflict zones; enhanced coordination among Federal agencies to support law enforcement efforts to protect cultural property more fully; and Federal support for the preservation of collections and institutions under threat. The final speaker list will reflect events as they unfold by November 2018, in order to provide forum workshop attendees with the most up-to-date information.

PANELISTS: *Jake Archer,* Federal Bureau of Investigations, *Nancy Wilkie,* U.S. Committee of the Blue Shield, *Laurie Rush,* U.S. Army, *Katharyn Hanson,* Smithsonian Institute, and *Sarah Parcak,* University of Alabama

SESSION 6A
The Archaeology and Architecture of Cult in the Roman Empire

CHAIR: *Steven L. Tuck*, Miami University

Powerful Pups: Dog Sacrifice in Early Rome, a Case Study from the Area Sacra di Sant'Omobono

Victoria C. Moses, University of Arizona

Dog sacrifice was a common ritual in ancient Rome. Dogs were interred in ritual deposits since at least the Iron Age, and the practice continued on throughout the Rome Empire. While dog sacrifices are often part of ritual deposits containing animal remains, dogs fulfill a different ritual purpose than the sacrifice of typically consumed meat, such as sheep, goat, pig, and cattle. Instead of returning a share of bounty to the gods, sacrificing dogs tapped into the protective powers of canines and their connection to malevolence; dog sacrifice helped avoid disease for crops and for humans as well as aid humans through risky transitions like childbirth or death.

This paper examines the literary and iconographical representations of dogs in ritual settings, discussing the surface disparities between the perception of puppies as pure vessels to absorb pollution (such as through ritual consumption of dog meat) versus the perception of dogs as polluted (such as the inauspicious roll of the dice in divination called "the dog," or their association with gods of the underworld), concluding that age of the dog is the determining factor in how dogs in ritual were perceived for sacrifice outside burials, and that dogs were part of a range of somewhat common sacrifices that served distinct purposes beyond food offerings of typical animal sacrifice. The archaeological evidence from foundation deposits, burials, wells, and temples supports these conclusions.

The paper then explores dog sacrifice in early Rome through the case study of the zooarchaeological analysis of the Archaic period temple at the Area Sacra di Sant'Omobono in Rome. This early sixth-century temple has several deposits with the remains of animal sacrifice, including mostly very young sheep/goat, pig, and cattle, but consistent presence of dog, especially puppy crania. Here, we see an example of dog sacrifice during Rome's foundational period, cementing the practice into the range of animal sacrifices in Roman religion. The puppy sacrifice at the Area Sacra di Sant'Omobono is evidence that while the most frequent animal sacrifice in early Rome was related to routine offerings to show gratitude, the dog sacrifices occurred somewhat regularly as a response to dangerous situations or to stymie problems such as disease.

Cult, Colony, and Community: Latin Colonization in the Central Apennines
Catherine K. Baker, Bowdoin College

In certain parts of Italy, the foundation of Latin colonies by Rome in the middle Republic offered the first opportunity for sustained interaction between Romans and indigenous populations. The sanctuaries of Latin colonies of the middle Republic, once regarded primarily as spaces which reinforced a Roman identity, connecting colonists with their homeland through shared practices and cults, have more recently been recast as locales in which colonial and indigenous populations could interact and form close ties despite ethnic and political differences. Colonial cults, therefore, are now often regarded as a means by which various populations could negotiate and navigate the inherent challenges of Roman colonialism. I argue, however, that colonial cults were not all created equal in terms of their ability to facilitate interaction or integration between colonial and indigenous populations. Rather, in order to understand better how Latin colonial cult spaces shaped interaction and exchange between colonists and indigenous populations, the integrative capacity of Latin colonial sanctuaries must be assessed on a case-by-case basis with a consideration of spatial context and the specific cults and practices of each sanctuary.

In this paper, I focus on two central Apennine Latin colonies, Alba Fucens and Carseoli, and their respective sanctuary sites. Through an analysis of the spatial locations, architectural character, votive deposits, and practices of sanctuary sites at these two colonies, I demonstrate that certain cult spaces within the colonies were better positioned to facilitate interaction between colonists and indigenous populations, while others were far more limited in terms of their audience and impact on local, non-Roman peoples. Within a single colony, two sacred spaces could exhibit vastly different levels of engagement with indigenous populations; the evidence from these two central Apennine colonies suggest that processes of negotiation, interaction, and integration were intimately tied to a sanctuary's location within or near a colony, and with the accessibility and openness of a particular cult site and cult to noncolonist visitors. A close reading of specific colonial cult spaces, and especially those of two colonial communities within a single region, thus demonstrates that the role of religious spaces and practices in creating ties between colonial and indigenous communities could be highly variable in the middle Republic, and the degree of interaction taking place between colonial and

noncolonial communities was determined by the specific character of the cult spaces, cults themselves, and the degree to which existing commonalities and connections existed between colonial populations and local communities.

Mimesis and Memory in the Tiber Island Sanctuary of Asclepius
Julia Judge, Harvard University

The foundation of the cult of Asclepius at Rome in the early third century B.C.E. was a sensationalized event that quickly crystallized into a renowned and lasting legend. The tale of the god's miraculous arrival in the city by boat became the aetiological explanation for the establishment of the main sanctuary on the Tiber Island, but the concrete reasons why the Romans expended the effort to build the new cult on the island, as opposed to the more accessible and spacious banks, are more difficult to understand. This paper aims to provide a new and more complete answer to an old question: why was the first cult center of Asclepius at Rome founded on Tiber Island? Several scholars have searched for a historical answer beyond the legend of the god himself selecting the island, but reached either unsubstantiated or utilitarian explanations which pointed to the island's healthful or isolated nature, qualities which a number of alternative locations in the surrounding land could provide. The unusual choice of this small and not readily accessible space may instead be understood within the broader Roman interest in the conservative imitation of transferred cults. I argue that in the third century B.C.E., the Roman awareness and desire to replicate the experience of pilgrimage to Greek Asklepieia, particularly those of Epidaurus and Kos, was the primary motivation behind the selection of Tiber Island as the cult center of Asclepius at Rome. Through reconstructing the lived experience of these sanctuaries' visitors and their interactions with the built environment of the sanctuary and its surroundings, we learn that framing the performance of pilgrimage and ritual was of nearly equal importance to Asclepius worship as any utilitarian healing elements of the space. Tiber Island was an ideal site for creating this kind of powerful pilgrimage experience, which visually alluded both to the expected ritual landscape of Greek Asklepieia and to the legend of Asclepius' own original voyage from Epidaurus to Rome.

Exploring the Sanctuary of Venus in Pompeii: New Data on the Pre-Roman Phase
Ilaria Battiloro, Mount Allison University, *Marcello Mogetta*, University of Missouri, and *Laura D'Esposito*, Archaeological Park of Pompeii

The Venus Pompeiana Project is an archaeological research program launched in 2017 as a collaboration between Mount Allison University and University of Missouri under the auspices of the Archaeological Park of Pompeii. Its main goal is to determine chronology, development, and nature of the occupation of the Sanctuary of Venus by taking into consideration the remains from old and new excavations conducted in key areas of the site.

To assess the impact of the first monumentalization of the site, special attention is paid to the topography of the area prior to the construction of the temple with

surrounding triporticus, whose remains, belonging to two major phases, are visible today. In particular, sidewalk features exposed underneath the sanctuary's eastern courtyard suggest the existence of a street branching off from Via Marina and continuing in a southerly direction. This alley, which, according to ceramic and coin data, was in use during the second century B.C.E., originally demarcated two city blocks that were radically modified with the construction of the sanctuary.

This paper presents the results of the 2018 excavation season, which focused on the architecture and stratigraphy of the building that developed to the west of the street, thus complementing the data collected in 2017 from its eastern side. Of the former structure, at least two adjacent rooms have been identified, both featuring *opus incertum* walls and cocciopesto floors. The same horizon is documented in the east block. Layout and archaeological finds from the associated layers suggest the building in question may have had a utilitarian function, though it remains to be seen whether domestic in nature as hypothesized for the east sector.

At a later phase, the west building was partially modified by the creation of a simple structure made with tiles and a reused *louterion*. The dating indicators place the construction of this structure to the mid-first century B.C.E. This suggests that it was made during the phase of destruction and subsequent obliteration of the buildings that stood in the area to make room for the monumental sanctuary dedicated to Venus. Thus, the tile structure can be interpreted as a temporary cooking facility used by workers at the construction site.

The overall material has important implications for the phasing of the site, clarifying the function and spatial organization of the structures below the sanctuary of Venus and the scale of activities with the transition in the Roman period. Further investigation of the west building and under the temple podium in 2019 will help us tackle the larger question regarding the possible existence of a pre-Roman cult place in that city block.

Augusta Emerita, Mérida, and the Cult of Augustus: An Archaeological Perspective

Daniel K. Osland, University of Otago

In this paper I offer a new perspective on the excavation history and modern study of the Roman colony of Augusta Emerita (Mérida, Spain), drawing from my own recent excavation work and a reevaluation of the published remains. Emerita was an *ex novo* Roman colony established in the western Iberian Peninsula around the year 25 B.C.E., with settlers drawn from Augustus' 5th and 10th legions (Cassius Dio 53.26.1). Since the advent of excavation work in the late 19th century, nearly every monument in Mérida has been seen, at some point, as an expression of the propaganda and ideology of Augustus, and modern discussions of the Roman city frequently cast the entire city as a shrine to the first emperor. This perspective is summarized succinctly by Walter Trillmich: "Emerita ist unter allen Städten Hispaniens zweifellos die "augusteischste'" ("Emerita is undoubtedly the most 'Augustan' of all the cities of Hispania").

Augustan stylistic influences on the art and monuments of the city are unmistakable: an aqueduct called *aqua augusta*, a "Marble Forum" with a sculptural program modeled on the Forum of Augustus, a temple whose plan is almost identical

to that of Concordia in Rome, several inscriptions linking the theater to Agrippa and the amphitheater to Augustus himself, etc. But excavation work over the past decade has raised serious questions about the supposed Augustan date for several of the city's more evocative monuments, including the circuit wall, the aqueducts, the (three) forum complexes, and even the entertainment precinct. So how much of this "most Augustan city" is actually Augustan in date, i.e., built during the roughly 40-year period from the city's foundation in 25 B.C.E. down through Augustus' death in 14 C.E.?

In this paper, I discuss some of the ways in which recent archaeological advances, including the results of an excavation that I directed on the city wall in 2016, help to refine our understanding of the Augustan, Julio-Claudian, and Flavian phases of Augusta Emerita. This analysis highlights the profound and enduring influence of Augustan iconography—both in the ancient city's self-presentation and in modern analysis of the city's archaeological heritage—while at the same time advocating for a more nuanced approach to the complex set of circumstances and motivations that led to the development of this "most Augustan city."

From Foundation Deposit to Religion in Roman Mithraism: The Archaeology of Apulum Mithraeum III

Matthew M. McCarty, University of British Columbia, *Mariana Egri*, Institute of Archaeology, Romanian Academy, and *Aurel Rustoiu*, Institute of Archaeology, Romanian Academy

Using material from the excavation of a late second-century C.E. *mithraeum* at Apulum (modern Alba Iulia, Romania) that the authors directed from 2013 to 2016, we will argue that understanding Roman Mithraism requires a greater focus on how the technical knowledge of performing cult acts was learned and transferred. Such a focus offers new ways of thinking about ancient religion as a network of craft knowledge, rather than propositional beliefs.

Recent work has focused on developing a distinct "archaeology of religion" that focuses on reconstructing the thought-content of ancient cult through its material correlates. Such approaches, though, depend on models of religion that are largely alien to the Roman world and continue to bracket "religion" as a distinct sphere of human experience rather than embedded within a range of sociocultural milieux. If we take seriously John Scheid's arguments that "*faire*, *c'est croire*," and that Roman religion was about ritual know-how (*savoir faire*) rather than thought-content (*savoir penser*), then we have long had the interpretive tools necessary to study the material remains of Roman religion through the *chaîne opératoire* of ritualized practices.

Close reading of the micro-archaeology of a foundational deposit excavated in Apulum Mithraeum III offers a case study of how such an approach can provide new insights on the Roman cult of Mithras. Remains of a multidish feast shared between god (burned portions) and worshippers (unburned portions) were curated and collected in a tile box set beneath the floor of the sanctuary. In its location and function commemorating a one-time event, this deposit finds its only parallels within a series of late second-century *mithraea* founded from Carrawburgh (Britain) to Dura-Europos (Syria).

Because foundational deposits are, by nature, one-time events rather than occasions that an individual would experience multiple times, the ritual practices that created this type of deposit cannot have been learned through repetition (the way most practices for dealing with the gods were learned in the Roman world). These deposits thus imply a high level of ritual training, and, given their spread within a generation, offer the first concrete evidence for a network of traveling experts present at the moment of a mithraeum's foundation. A focus on archaeologically detectable, technical knowledge thus offers a more robust understanding of the social dynamics of Roman Mithraism.

Contending Vitruvius: A New Study of the Geometric Framework and Design Methodology of Roman Temples

Wladek Fuchs, University of Detroit Mercy

The paper presents results of a new study of the geometric framework of Roman temples. The study is subsequent to a similar analysis of Roman theaters, which showed that the layout of the scaenae building was always planned relative to a reference grid and the radius of the *cavea* was secondary to the rectangular framework. The current probe confirms use of geometric grid as a principal design method in Roman architecture. It illustrates also the utility of the systematic geometric analysis of Roman structures in historical research.

The investigation advances beyond the knowledge of the design principles in Roman architecture related by Vitruvius. It identifies the most fundamental methodology of the temple layout design.

A systematic geometric analysis of the extant Roman temples showed that in all cases the structures were designed rigorously on a square grid. Additional geometric constructions relative to the grid were used to locate architectural features, based on the topographic, compositional, and structural needs. Hence the adjustments to the intercolumniation observed frequently in extant buildings.

This paper presents the methodology of the investigation and the rationalization of the conclusions. It features geometric analysis of selected temples and discusses the subject from the perspective of the application of the design practice and its historical development.

Similarly to the findings of the analysis of the geometry of Roman theaters, the geometric language identified through the present study is founded on universal, common properties, but it includes also features shared within groups of structures, or unique to particular projects. The paper shows examples of all three constituents. The makeup of various geometric characteristics of the buildings is a unique "geometric fingerprint" of a structure and becomes a powerful tool in the study of the historical development of Roman architecture and the design profession.

SESSION 6B: Colloquium
No Rest in the West: Local Industries in the Western Provinces

Sponsored by the AIA Roman Provincial Archaeology Interest Group

ORGANIZER: *David A. Wallace-Hare*, University of Toronto

Colloquium Overview Statement

Scholarship on local industries in antiquity is a rapidly developing field in classical studies (Verboven and Laes 2017, Wilson and Flohr 2016), but one that has, until recent years, in terms of edited volumes and conferences, tended to overrepresent Greece and Rome to the detriment of other regions. This is especially the case in North America, where unlike Europe, the Roman provinces are not as well represented in Classics' departments, dissertation topics, or academic conferences. This panel, therefore, focuses specifically on the Roman provinces, looking closely at local industries in the West and the transition away from Iron Age practices after incorporation into the Roman Empire.

Investigating change in the provinces is a fruitful case study because in many ways these areas were the greatest agents of change in the Empire. Yet, change in these areas was always complex and bidirectional, arising from cross-cultural interactions between Romans and indigenous populations. Industrial modifications, for instance, the widespread use of the Gallic auger (Pliny *HN* 17.38), plough (18.69), and scythe (18.97) in "Roman" agriculture, became ubiquitous across the Empire. Their use was also a sign of "Romanization," ironically, as they became embedded in the cultural apparatus of *Romanitas*. As the engines of change, we must also understand that the change they engendered was borne of their own unique sociocultural backdrop. The common thread of this panel's papers is the bidirectionality of change and how pre-Roman cultural traditions continued to persist and shape just as Roman traditions did.

The panel consists of four papers representing important new research by both continental and European scholars that contributes to a more holistic understanding of the industrial changes in the empire at the local level. Alexander Smith discusses the persistence of pre-Roman pottery styles in the Balearic Islands during the late Republic and early Empire, arguing that cultural continuity had a large hand in shaping new pottery forms in the West. Likewise, in paper 2 Rui Morais examines how certain pottery styles of the hill-fort culture in the area of Bracara Augusta influenced the industrialized pottery workshops of the Roman city. Moving inland, in paper 3, Linda Gosner examines Carthago Nova's mining industry in the late Republic and early Empire, showing how pre-Roman mining practices paved the way for the success of the Roman mining industry that later developed there. Finally, in paper 4, Lisa Venables and Mary Harlow investigate how the textile-provisioning system of the Roman army in Britain led to an expansion of the local textile sector.

Roman Conquest and Balearic Persistence: Ibizan Ceramic Production and Distribution into the Imperial Period

Alexander Smith, College at Brockport, State University of New York

During the Second Punic War, the Republic of Rome entered into a *foedus*, or nominal treaty, with the islands of Ibiza and Formentera, the southern two islands of the Balearic Island group. At this time, Ibiza exhibited a culturally Punic settlement with an active ceramic production industry. In casting off their allegiance with Carthage, the islands inhabited a liminal position as both part of Rome's holdings and allies, but nevertheless economically and politically independent. The production of local Ibizan-style ceramics that were stylistically part of the Punic cultural umbrella persisted well into the first centuries C.E., despite the dismantling of the Carthaginian Empire with the Second and Third Punic Wars and the final infamous destruction of the city of Carthage in 146 B.C.E.

In a somewhat similar tale of independence, the northern two Balearic Islands of Mallorca and Menorca remained essentially autonomous until their Roman conquest in 123 B.C.E. Although some scholars argue that these islands were Carthaginian or Barcid holdings before Roman conquest, they were undoubtedly independent from the end of the Second Punic War until their conquest by Rome, and arguably beforehand. Nevertheless, 123 B.C.E. was not the end date of the indigenous, Talayotic cultures that lived on Mallorca and Menorca, as archaeological evidence points to the persistence of indigenous traditions and consumptive practices into the first centuries C.E.

All four of the Balearic Islands thus retained a degree of autonomy that may be understood archaeologically via patterns relating to Ibizan amphora production and use. This paper will attempt to analyze the presence of Ibizan products on the Balearic Islands, particularly of Mallorca and Menorca, as a metric of Ibizan production capabilities and cultural independence, while considering the role of Roman influence and colonialism throughout the island group. The paper will also discuss evidence of Ibizan amphorae trade outside of the Balearic Islands into and after the second century B.C.E. Ultimately, this study will attempt to highlight the continuation of cultural independence in the Balearic Islands, and the influence such local persistence had on the creation of Rome's empire in the West.

Transition from the Pre-Roman World to the Roman World in the Northwest of the Iberian Peninsula: The Example of Bracara Augusta

Rui Morais, Universidade do Porto

The foundation of Bracara Augusta, in the heart of the Bracari's region, is connected to a strategy of economic, political, and administrative control of the emperor Augustus of a vast area that stretched out from Douro up to the estuary of Vigo, and from the Atlantic up to the Gerês mountains. The foundation was not an independent and lonely deed. We cannot speak of her correctly without inserting her in a wide and comprehensive historical context. This historical context is precisely Augustus' policy in Hispania and the development of the campaigns that the Emperor and his generals carried out against the peoples of the North of the Peninsula in the last years of the first century B.C.E.

The foundation of the city, between the years 16/15 B.C.E., at the time of Augustus' presence in the Hispania, can be corroborated by the group of exhumed materials, which are the result of a large number of excavations undertaken in several places of the city. The older levels and the turned over contexts of those excavations provided varied materials that unquestionably prove that date. In this study, we will present the ceramic remains dated from the late first century B.C.E. to the mid-first century C.E. Some of this ware have some affinities with ceramic found in fortified settlements ("Castros"), revealing a continuity in the indigenous pottery designed to supply the new nuclei that the Roman world brought about.

The Lure of the Mines: Mining, Labor, and Local Industries in Carthago Nova (Cartagena,Spain)

Linda Gosner, University of Michigan

In recent years, scholarship on labor in the Roman world has begun to emphasize collaboration across industries as well as the interactions of craft producers, traders, and consumers in urban environments. Discussion of these issues in the context of rural environments, however, has lagged behind, as scholars often discuss rural activities such as agricultural production, mining, and quarrying in isolation from one another. In this paper, I explore the ways that the exploitation of resources in rural, provincial landscapes of the Roman world encouraged cooperation across industries and served to link urban and rural economic and social networks.

I take as a case study the rural landscapes surrounding Carthago Nova (mod. Cartagena) in the Roman province of Hispania. This corner of southeastern Spain was famously rich in argentiferous galena—mined for silver and lead in antiquity, and it also boasted fertile agricultural land and a multitude of marine resources. These natural resources were exploited by indigenous communities from early on and they drew Phoenician and Carthaginian merchants to trade and eventually settle on the Mediterranean coast over the course of the first millennium B.C.E. When the Romans conquered Carthago Nova in 209 B.C.E., they inherited not only this important port city of Carthaginian foundation but also its surrounding rural territory. Mining intensified across the rural landscape, as silver was extracted for Roman coinage and lead ingots were shipped for use in Roman urban infrastructure across the western Mediterranean.

In this paper, I discuss the archaeological and epigraphic evidence for labor in mining and related industries during the period of intensive exploitation of the region from the second century B.C.E. through the mid-first century C.E. This evidence suggests that a mixed labor force of indigenous communities and new immigrants to the region contributed skills that enabled the industry to be successful under Roman rule. In particular, I discuss aspects of pre-Roman mining practice that were adapted to large-scale Roman mining, as well as the contributions of laborers in other local industries (especially agriculture for food and esparto grass) in the rural landscape that served to feed, clothe, and equip miners with appropriate tools. Finally, I discuss how these activities cemented economic and social ties between the rural landscapes and urban center at Carthago Nova and the wider Roman world.

Spinning the Evidence: Textile Production in Roman Britain

Lisa Venables, University of Leicester, and *Mary Harlow*, University of Leicester

The Roman wardrobe required miles of spun thread (perhaps up to 40 km to make an imperial toga) but spinning is a craft that is rarely commemorated in Roman inscriptions or literature. Working women appear as a minority. Studies of archaeological textiles suggest that the production of miles of standardized thread suggest highly skilled craftswomen who, if not defined as a profession, were required to work in a professional manner in terms of rates of production and quality control.

For Roman Britain, the mechanisms that influenced the Roman army's textile provisioning strategies are unclear but it has been argued that the sudden influx of "consumers" must have had a strong impact in an area that, up until that point, would have produced only for its own consumption and, that to produce those "branded goods," it would have been necessary to set up a complex chain of processes to ensure consistency of quality and level of supply. In respect of the increased demand for clothing for its armies, Wild hypothesized that half the households of rural Roman Britain contributed to the army's annual textile requirements.

While the textiles themselves rarely survive, the tools used to create them are recovered in large quantities from excavations across the country and from all categories of site and may represent, through their variability, both technological change and product variation. A study of spindle whorls can help us to determine what was being spun at a site. Collectively they may represent evidence of craft specialization and, based on context, case studies may help us to distinguish between formal/command economies and informal/domestic production.

This paper will show how a study of the context, concentration, scale, and intensity of archaeological data contributes to our understanding of how the production of textiles might have been organized in Roman Britain.

SESSION 6C: Colloquium
Three-Dimensional Archaeology Comes of Age

ORGANIZER: *Matthew F. Notarian*, Hiram College

Colloquium Overview Statement

As technology has advanced over the last decade, 3D approaches to archaeological recording, analysis, reconstruction, and publishing have shifted from specialist niches to mainstream methodology. Concurrently, experts have continued to push the boundaries with innovative forms of documentation and inquiry. User-friendly and cost-effective software, based on increasingly reliable algorithms, now allow virtually any project, regardless of budget and expertise, to record 3D data using Structure from Motion (SfM) photogrammetry. Similar advances in unmanned aerial vehicle (UAV) technology have made aerial photography commonplace. Open-source and economically priced 3D modeling software enable even nonspecialists the ability to produce sophisticated 3D reconstructions of ancient

architecture, artifacts, and art. Digital 3D modeling is opening new avenues of both qualitative and quantitative data analysis. Gaming interfaces provide new ways to visualize and interact with spatial data, raising questions of "objective" reconstructions based solely on the data versus interpretation driven by game-like interactive systems. Free online platforms (e.g., Sketchfab) allow three-dimensional data to be shared with the public, and low-priced 3D printers can now reproduce artifacts thousands of miles from storage.

This colloquium explores the current state of the 3D revolution in archaeology by bringing together a diverse range of papers from both Greek and Roman specialists whose interests extend from the Bronze Age to late antiquity. The session opens with discussions of recording practices, transitions to studies on 3D data visualization and analysis, and closes with considerations on distributing digital data. The first two papers examine the benefits and costs of implementing photogrammetry as the principal recording tool in excavations in Italy. The third presents a novel analytical approach to examine the standardization of late antique transport amphoras from Aegean shipwrecks using photogrammetry and structured light scanning. With the fourth paper, the emphasis shifts to the use of virtual reality (VR) as a tool for both researchers and the public to interact with stratigraphy in an immersive environment far from the field. The fifth and sixth papers discuss quantitative data gathered from human "players" in gaming environments to probe the use of architectural space in 3D reconstructions of Roman and Minoan structures, respectively. Finally, the seventh paper addresses the inherent challenges of disseminating resource-intensive data from a highly accurate photogrammetric recording of the Heraion at Olympia. Together, these papers take stock of a veritable paradigm shift in archaeological methodology, illustrating new standard practices and pointing the way to future analytical trends.

Structure from Motion and Archaeological Excavation: Experiences of the Via Consolare Project in Pompeii

Michael A. Anderson, San Francisco State University

Recent advances in structure from motion (SfM) 3D data acquisition have made it possible as never before to record excavated archaeological deposits, historical architectural remains, artifacts, and geographical surroundings in the field. Armed only with digital cameras and low-cost or open-source software (Photoscan, VisualSFM, etc.), excavators can now produce accurate point clouds of millions of points, capturing archaeological information in high-resolution detail, without the need for expensive, bulky, or sensitive laser scanners. The enormous potential of such technology for recording, documenting, and presenting the results of stratigraphic excavation may be witnessed by the widespread implementation of 3D data capture initiatives in excavation projects during the past five years. But how will such technologies alter the practice of stratigraphic excavation in the field? How will they transform the standards, requirements, and expectations of modern archaeological excavation?

Since 2010, the Via Consolare Project has employed structure from motion technologies to record every recovered stratigraphic context and architectural feature produced by excavation in Insula VII 6 and the Villa delle Colonne a mosaico in

Pompeii, from well-preserved opus signinum pavements and rubble, fill layers to the interiors of inaccessible cisterns, drains, and even root cavities. The ultimate goal was to coordinate these results into a complete three-dimensional digital model that will permit the continued interrogation and reinterpretation of contexts, both during the process of publication and in future research. The early implementation of this technology was also intended to explore and assess the capabilities of such a digital tool for analysis, publication, documentation, and public presentation of excavation results.

This paper presents the observations and conclusions reached from the past eight years of experience employing this type of technology in archaeological excavation, including the practicalities of integrating a comprehensive 3D recording methodology into an ongoing field-research programme, the challenges of time-intensive postprocessing and coordination, data storage and manipulation, and the opportunities and advantages it offers for presentation, publication, and preservation of data. The results of the Via Consolare Project's experiments with 3D structure from motion data capture in the field suggest that the method is not only capable of producing a highly detailed and robust record of excavation that far exceeds traditional standards of recording, but also provides a valuable new tool for the exploration and documentation of features in the field that would otherwise be impossible.

Digital Vacone: The Upper Sabina Tiberina Project's Transition from 2B Pencils to 3D Mesh

Matthew F. Notarian, Hiram College, and *Alessandro Pintucci*, Universitá di Roma–La Sapienza

Since 2016, excavations at the Roman villa of Vacone, carried out by the Upper Sabina Tiberina Project in association with Rutgers University, the University of Alberta, and the Soprintendenza Archeologia del Lazio e dell'Etruria Meridionale, have transitioned to completely digital recording practices. A new documentation protocol employs close-range photogrammetry to model the three-dimensional spatial characteristics of every archaeological context. We have also been able to model most of the project's excavations since 2012, allowing for the production of a 3D reconstruction of the site. A secondary goal of the digital initiative is to model select artifacts for long-distance study and public outreach. The excavation's experiences with this methodological conversion offer valuable lessons for other long-term archaeological projects contemplating a similar shift in the midst of active fieldwork.

The unexpected discovery of a previously unknown 22 m-long cryptoporticus belonging to the villa's substructure in the initial digital season demonstrated the advantages of the new methodology. The structural stability of the vault was uncertain, so priority was placed on rapid and detailed documentation. A photogrammetric survey produced a high-quality 3D model, from which we recorded the cryptoporticus' dimensions, georeferenced location, structural cracks, orthomosaic wall imagery, and the precise distribution of surface artifacts at the time of discovery.

Since then, the project has developed a methodology for layer-by-layer modeling that ensures perfect alignment between contexts using fixed markers. From

these we produce standard 2D products (orthomosaic plans and digital elevation models [DEM]). Comparison of scale pencil drawings from earlier excavations with newer digital records underscores the latter's improvements in accuracy and efficiency. We also established a method for producing 2D orthomosaics of vertical features (such as walls and stratigraphic sections) without the need for a prismless total station. Similarly, the generated data can create 2D sections along any arbitrary line long after the strata have been excavated. The 3D data have also proven essential for contextualizing the interrelation of above and below ground spaces, and for analyzing a terraced structure built on several levels. Finally, the models are an effective tool for public outreach with the local community and abroad. To this end the project has produced video flythroughs, time-lapsed "excavation" of individual trenches, and didactic 3D walkthroughs hosted on the project's webpage.

3D Approaches to High-Tech Ceramics: Evaluating Precision and Standardization in Transport Amphoras

Justin Leidwanger, Stanford University, *Leopoldo Repola*, Suor Orsola Benincasa University, Naples, *Jenny Vo-Phamhi*, Stanford University, *James C. Gross*, University of Pennsylvania, *Nicola Scotto di Carlo*, Suor Orsola Benincasa University, Naples, and *Francesco Trimarco*, Suor Orsola Benincasa University, Naples

Recent research on the premodern Mediterranean economy has stressed the role of institutions in facilitating exchange. For the processed agricultural staples that formed the backbone of this activity, the development of standardized containers would represent a remarkable institutional advance, facilitating product recognition, transfer of goods to market, bulk commercial transactions, tax payments, and military and urban provisioning. Yet, despite potential insights into economic growth and development, what brief discussion amphora standardization has garnered has focused primarily on its role in signaling mass production. The emergence of tightly controlled volumes and the spread of standard forms across larger areas, by comparison, have rarely been evaluated with an eye toward their practical economic role and the processes behind their implementation. Papyrological and epigraphic evidence offers occasional clues to standards at work, but the common ceramic containers that should provide direct archaeological testimony generally lack good preservation, statistically meaningful datasets, and even a clear approach to identifying the phenomenon. For achieveing a more systematic economic analysis, we need improved methodological clarity and rigor as well as access to bulk assemblages.

This paper explores the development of standardized amphoras within the context of maritime exchange in the late-antique southeast Aegean, drawing on shipwreck assemblages that provide contemporaneous and well-preserved jars. Previous attempts to understand standardized production here have focused on volumetric consistency within (modern) types, but the manufacture of common forms in numerous morphological variants across large areas highlights the complexity of a situation that likely involved multiple trajectories of bottom-up and top-down implementation. Ongoing collaboration between archaeologists,

computer scientists, and engineers allows us here to offer a new analytical approach to this phenomenon, one that integrates direct 3D modeling of jars both inside and out. Photogrammetric modeling of vessel interiors improves precision, accuracy, and versatility over earlier studies based on mathematical formulas, direct measurements with water or polystyrene beads, or 3D models produced from drawn 2D sections. Complete 3D (structured light scanning) documentation of vessel exteriors allows systematic digital comparison to locate and then statistically quantify points of similarity. Already this multifaceted approach is revealing the demands placed on the system by imposed standards and the ground-level processes by which potters implemented them with remarkable success.

Virtual Reality and Photogrammetric Techniques at Cosa

Matthew Brennan, Indiana University, *Nicholas Plank,* Indiana University, and *Jarod Saxberg*, Indiana University

The Cosa Excavations, under the auspices of Florida State University and Bryn Mawr College, have been excavating an imperial Roman bath complex in central Italy since 2013. Digital recording has been an integral part of the excavation since the initial season and we continue to expand our use of digital, particularly 3D, recording techniques. While we have several avenues through which we currently apply these recording methods, two distinct future applications are explored in this paper.

The use of image-based modelling (IBM) as a worthwhile tool in archaeology has been debated for many years. Professional-grade photogrammetry software is easily accessible and has been used to successfully represent stratigraphy, create orthographic projections, and document artifacts at Cosa. To further our use of 3D recording techniques, we hope to create a more immersive environment for those involved in the project and the public at large, through the use of virtual reality (VR) environments. Using a head-mounted display and hand controllers, researchers can revisit the archaeological site in the off-season, and nonarchaeologists can immerse themselves in the realities of the field experience without having to travel to the site of Cosa. The use of virtual reality transforms the experience of the 3D models from one of viewing an "object" to one of "presence" within a photorealistic environment where the user can remotely interact with and study the archaeological site. We are currently developing a suite of archaeological VR tools and exploring the opportunities offered by emerging immersive technologies for the study of archaeological trenches.

In conjunction with our virtual reality efforts, we also hope to expand our use of 3D techniques during the 2018 season in the digital recording of smaller artifacts. Traditional photogrammetry and reflectance transformation imaging (RTI) will be used to model the impressions as effectively as possible, which allows these artifacts to be compared with similar materials found at other sites.

While these two implementations of 3D recording may seem disparate, their applications aim for a similar effect: to produce databases and tools through which remote study is not only feasible, but accurate. Moreover, these tools can also be employed in the classroom, illustrating to students the processes involved in

archaeological excavation without the costs traditionally associated with this level of interaction and immersion.

This Is Your Brain on Space: Leveraging Neurocartography to Understand Spatial Cognition in Pompeian Houses

David Fredrick, University of Arkansas, *Rhodora G. Vennarucci*, University of Arkansas, *Yao-Chin Wang*, University of Arkansas, *Xinya Liang*, University of Arkansas, and *Dale Zigelsky*, University of Arkansas

The ability to understand and predict human spatial behavior—where people are likely to move, where they are likely to gather, linger, and look, and their aesthetic and affective responses to different environments—has fundamental value for a more nuanced and embodied understanding of urban space in ancient Rome. Recent scholarship has produced significant insights into how the built environment of Pompeii shaped movement patterns and human interactions, and how movement through the city impacted urban development and society. However, the dominant methodologies—network topology and viewshed analysis—use an abstracted 2D perspective to reconstruct lived behavior in 3D space. While the cognitive world of ancient Romans can never be tested directly, by integrating the predictive methodologies of space syntax with player data (including EEG responses) gathered from the exploration of an interactive 3D visualization, the Virtual Pompeii Project (VRP) aims to construct innovative, indirect ways in to Roman spatial cognition that are data-driven, refined, and powerful.

In spring 2018, VRP began testing human "players" moving through virtual 3D environments constructed in the Unity 3D game engine. The population for this initial study consists of 42 university students, who will explored four houses (IV.15.7–8 Prince of Naples; IV.16.15–17 Ara Massima; II.2.2 Octavius Quartio; I.7.1 Paquius Proculus). Subjects completed an entrance survey collecting demographic data, familiarity with Roman culture, and gaming experience, and then navigated 3D models of these spaces on a desktop computer, while wearing the Emotiv Epoc+ EEG headset. Verbal reactions during exploration were also recorded. Users then completed an exit survey assessing accuracy of spatial learning, and qualitative reactions to the environments. Player location and rotation in 3D space during navigation were recorded at subsecond intervals, allowing the comparison of aggregate player data (where they went, where they looked) against the behavior predicted in the visual-spatial analytic models. Further, EEG data has been aligned precisely with the player location and rotation data, providing a window into the relation between brainwave pattern and space. The data collected from the study will be analyzed and interpreted in fall 2018. What emerges from this study is a preliminary picture of which kind of space, or what kind of navigational task, generated which range of brain responses—a neurocartographic map of Pompeii.

3D Modeling for Architectural Research: The House of the Rhyta at Pseira

Miriam G. Clinton, Rhodes College

While 3D modeling has only come into widespread archaeological use in recent years, it is hardly a new or untested approach in the study of architecture. Even so,

archaeological 3D modeling has largely been limited to use in illustrations, rather than treated as a part of the scientific method. Using the case study of the Minoan House of the Rhyta at Pseira, this paper discusses the results of applying 3D modeling as not only a visualization, but also a hypothesis testing tool.

A cult and domestic structure dating to Late Minoan IB (ca. 1450–1400 B.C.E.), the House of the Rhyta is an important building on Pseira. As reconstructed 20 years ago, however, the structure does not appear to be a cohesive architectural unit. It has two contemporaneous terrace levels, with no suggested access between them. Both terraces consisted of ground floor rooms below a unified upper story, but no staircases were identified. In short, the access and circulation patterns within the structure are not easily comprehensible. In the summer of 2014, the Minoan Modeling Project undertook a new intensive architectural examination of the House of the Rhyta. The goal was to reinterpret its remains using digital methodologies, including photogrammetry, 3D reconstruction, and videogaming. The project produced detailed 3D models, which solve many of the apparent architectural problems, especially providing clarity on the access between the various rooms, terraces, and floors.

The 3D reconstruction became the basis of an educational video game designed not just for outreach, but also as a scientific tool to test architectural theories about the use of space. As gamers interact with and circulate through the various rooms in the House of the Rhyta, their movements are tracked and statistically compared with the results of more traditional methods of access and circulation pattern analysis. This paper presents the results of this crowdsourced video game study, in addition to discussing strengths and weaknesses of the technique as learned through the process of building the model and game. The results provide quantitative checks in an area of research that has previously relied primarily on qualitative and subjective analysis. The model leads to new conclusions on the Minoan use of the House of the Rhyta as both a domestic and cult structure. Thus, the paper highlights the power of 3D modeling as a research tool to provide crucial new information and enable a fuller understanding of archaeological architecture.

The 3D Olympia Monument Explorer: Exploring Large 3D Data Sets, Texts, and Images of an Early Monumental Temple

Philip Sapirstein, University of Nebraska-Lincoln

I have recently created high-resolution 3D models of the oldest well-preserved Greek temple in the Doric style, the Heraion at Olympia (ca. 600 B.C.E.). Although well known since its excavation in the 1870s, the Heraion lacks a comprehensive architectural study meeting modern standards of publication. My reexamination of the temple has included a photogrammetric recording implemented with survey controls for high accuracy, equivalent to 1 mm error throughout the 25 × 55 m site. Although the digital models have already proven indispensable to my investigation of the architectural history of the monument, I am now encountering a common problem among humanities projects employing 3D recording: disseminating the data.

Despite the popularity of 3D scanning in archaeology, comparatively few scans of sites and monuments have been fully published due to several technical

obstacles. Commercial and open source packages such as Unity, Sketchfab, or 3DHOP adopt different approaches for web display, but each imposes different kinds of restrictions on 3D geometry and data types. File size is a fundamental problem that becomes particularly acute with building- and site-level scans of moderately high resolution. For example, the Olympia photogrammetric models are about 50 Gb of uncompressed meshes. Moreover, models with more than a few million points will overwhelm browser software, whereas the Heraion recording comprises billions of points—which even offline cannot be displayed simultaneously due to limitations in current graphics hardware. Finally, the existing software for 3D browser display has not been designed with architectural and archaeological analysis in mind, and the available interfaces omit many essential research tools.

Acknowledging that the full 3D dissemination of architectural data is likely to remain an intractable problem for quite some time, I adopt a different approach. In my talk, I will describe the project website for the Heraion currently under development (2018–2019) with the support of an NEH/Mellon Fellowship for Digital Publication. First, I have "flattened" the monument into raster imagery embedding depth information, thus retaining the 3D data while compressing the files to about 100th their original size. Second, the temple is represented in a series of orthographic plan and elevation views, which has been the norm for architectural study and publication. The goal is not to develop an experiential, game-like environment—that through simplification deletes the vast majority of the original 3D scans—but rather a comprehensive research platform for understanding the architecture of the Heraion in detail. An interactive environment built on mapping technologies will enable visitors to pan and zoom around visualizations of the remains, even with limited bandwidth. During the talk, I will present a preview of the site, comment on the underlying technologies, and consider the advantages and disadvantages of this new method for architectural presentation and study.

SESSION 6D
Coping with Change in Late Antiquity

CHAIR: *Kimberly Cassibry*, Wellesley College

Last Suppers at Sardis

Marcus Rautman, University of Missouri-Columbia

The occasion and setting of formal dining are among the enduring features of classical urban life, regularly mentioned by written authors and widely documented by houses and furnishings. The growing popularity of elaborate residential spaces, often of apsidal plan and with decorated floors and walls, attests the spread of Roman traditions of reception and dining to all parts of the late empire. Equally distinctive are the large marble tables of rectangular, circular, and lunate (*sigma*) shape that once stood at the center of formal dining, surrounded by benches, a semicircular couch (*stibadium*), or similar seating. These portable but cumbersome objects are known mainly by fragments and rarely are found intact

or in their original location. The discovery at Sardis of three substantially complete tables in very different domestic contexts provides insight into the circumstances of both their intended purpose and reuse in the early seventh century.

The three *sigma* tables were found while excavating floor levels in the House of Bronzes (room 5/13, 1959), the residence at sector MMS/S (room D, 1995), and a street-side room at Field 55 (room A, 2015), together with lamps, pottery, and coins dating to the late sixth or early seventh century. The large, decorated rooms at HoB and MMS/S served as self-conscious theaters for elite socializing in western Sardis; the modest room at F55, located in the central city, lacks architectural pretense but preserves much of the bronze, glass, and ceramic table service from its final use. The foreseeable irony is that none of these spaces has an apse, and equally that no table was found in any of the four apsidal rooms known elsewhere at Sardis. Comparison of associated objects suggests that the three rooms with tables were closed by the same earthquake or similar destructive event in the early 600s, and were left undisturbed by subsequent salvaging and opportunistic reoccupation of neighboring spaces during the decades that followed. Lamps and pottery establish a consistent chronological horizon separating the occupation of these rooms from lingering activity at Sardis, but the clearest indication of these last domestic meals is the intact nature of the assemblages left behind, which include serviceable bronze vessels along with the tables that shattered where they fell. It is outside of these three abandoned residential spaces, in wider areas of dumped household debris and isolated pockets of continued habitation, that one can recognize the leftovers.

Shedding Light on the Galilee: Architectural Transfer from Ancient Roman Text to Medieval Christian Monument

Edmund V. Thomas, Durham University

This paper presents interim results of an interdisciplinary project concerning the legacy of Roman architecture. Under the auspices of the Institute of Advanced Study at Durham University and the Durham Centre for Classical Reception, it reassesses the Galilee Chapel of Durham Cathedral in northeastern England, added at the building's west end in the 1170s, whose form and function have been obscured by 18th- and 19th-century rebuilding, notably the insertion of large windows on three sides replacing the original lighting scheme. The project combines new analysis of the textual reception of Vitruvius in the 12th century with architectural evidence for the construction of the chapel and its lighting based on a laser-scan structural survey of the chapel undertaken in 2018. (No previous architectural survey of the cathedral has been undertaken since Billings 1843, reprinted in Coldstream and Draper 1980.) Digital imaging provided by the Center for Vitruvian Studies in Fano offers comparative reconstructions of the chapel and of Vitruvius' basilica at Fanum (described at *De arch.* 5.1.6–10) to illuminate relations between ancient Roman design and medieval architecture. The paper argues that the Galilee Chapel should be seen as a response to Vitruvius' description of his basilica, familiar to the canons of Durham in the 12th century, and thus exemplifies the processes of transfer and interpretation from written text to built artifact during the High Middle Ages. The unusual disposition of five aisles divided by

arcades with cluster columns of imported marble and lit from above by a clerestory with small windows, as clarified by the new structural survey, can be seen as resulting from a reinterpretation of Vitruvius' basilica with similar proportions. Digital imaging provides a visual comparison of how these two "lost" buildings were originally experienced and thus clarifies the adaptation of classical architectural design in the Middle Ages as part of the broader transition from the pagan heritage of civic architecture to the Christian religious tradition.

Late Antique Labraunda: Spolia, "Unspolia," and the Sanctuary of Zeus Labraundos

Anna M. Sitz, Universität Heidelberg

In the fourth century B.C.E., the Hekatomnid Dynasty of Caria (Turkey) monumentalized the sanctuary of Zeus Labraundos by constructing a new temple and surrounding structures. Mausolos and his brother Idrieus left their mark on Labraunda epigraphically as well as architecturally: this was the first temple in the Greek sphere to bear an architrave inscription, and several other Hekatomnid buildings at the site likewise had inscribed dedications. In late antiquity, the Christian God replaced Zeus, and two churches were constructed at the site. Yet the older inscriptions continued to stand in place, broadcasting the pagan dedications to Zeus of the labrys. Whereas previous research on the Christianization of sanctuaries has focused on newly built structures and spolia, this paper argues that the preservation in place of older epigraphic material on buildings, stelai, and bases represents a critical connection between pagan past and early Christian viewers.

Excavations carried out intermittently by Swedish researchers from the 1940s through the 2000s focused in the early years on the impressive classical architecture. The current excavation led by O. Henry has expanded to consider later phases of the site and its surrounding territory. J. Blid has recently published the churches and a tetraconch bath likely attached to a late Roman villa. These features indicate that people began living at the former sanctuary.

This paper documents the continued visibility of older, pagan inscriptions at Labraunda in the early Christian period from the published excavation volumes, unpublished archival notebooks, and on-site observations. These inscribed texts have been thoroughly studied for their original, fourth-century B.C.E. importance, but their *Nachleben* in the early Christian period has not been considered. I argue that the tendency of late-antique scholarship to focus on spolia has caused older pagan material left standing in situ to be overlooked, and that we need a new conceptual category, "unspolia," to refocus our attention on this large body of epigraphic material that was not spoliated but still visible in late antiquity. By gathering data on the findspots and conditions of the monumental inscriptions from the sanctuary, I present the total assemblage of inscriptions visible to the inhabitants of late-antique Labraunda and argue that in some cases, there was an intentional attempt to preserve, display, and frame these texts. This epigraphic research is supplemented by my own archaeological fieldwork focused on late antiquity at the site in the 2017 and 2018 seasons.

By combining archaeological findings with a new theoretical framework, this paper adds a new facet to discussions of the Christianization of pagan sanctuaries.

Reaction and Renovation: The Moderation of Architectural Change in Roman Theater-Arenas

John H. Sigmier, University of Pennsylvania

This paper explores the social ramifications of converting theater orchestras into arenas in the late second and early third-century Roman East, focusing especially on how the renovations reflect the mediation between disruptive and conservative forces in Roman cities. Theaters in Greece and Asia Minor whose orchestras were reconstituted as arenas in the Antonine and Severan periods are discussed, and some theaters that underwent similar renovations in different regions and periods are also considered. Three architectural strategies used to create arenas for staging munera and venationes are identified—the lowering of orchestra floor levels, the construction of parapet walls, and the removal of rows of seating—and these strategies are evaluated in terms of their practical effectiveness and the social disruption they may have caused. As these measures appear to have been insufficient for ensuring the safety of audiences and would have eliminated opportunities for elite personal display, an alternative model of gradual, spectacle-specific architectural development is proposed to explain the motivations behind them. The model holds that conditions for staging munera and venationes, though similar, were not identical, and that these conditions were produced by separate architectural changes designed to facilitate new theatrical activities without precluding old ones. This paper concludes that incremental changes in theater-arena architecture would have been less disruptive to prevailing social structures than a dramatic shift in entertainment preferences, and that such changes better describe the archaeological evidence presented by the buildings themselves.

Everything Old Is New Again: The Reuse of Theater Ruins in Late Antique Macedonia

Matthew D. Schueller, University of North Carolina at Chapel Hill

Like past scholars who labeled the late third to late sixth centuries C.E. "late antiquity," it can be tempting to adopt a narrative of decline when discussing the widespread, significant changes that occurred during these centuries at urban landscapes across an increasingly politically fragmented Roman Empire. Indeed, extant literary and archaeological evidence at times supports such a negative assessment by attesting to how external military threats, political instability, and economic hardship often caused urban change. As many recent studies have shown, however, the same evidence also indicates that amidst the changes wrought by these factors, others such as imperial administrative reforms, the increased public presence of the Christian Church's leaders, and elite patronage of church construction and of the urban poor reinvigorated urban landscapes.

Mediating these developments were the ideas and material forms that had driven Roman urbanism from the first through mid-third century C.E. Public entertainment venues such as theaters were one material form that had promoted the importance of ideas such as social hierarchy and local community engagement to Roman urbanism through the multifunctional interactions they once accommodated. Despite experiencing disuse and disrepair, old material forms like public

entertainment venues endured and so continued to inform new understandings of city life through urban populations' collective memories of the past, prosperous cityscapes they had represented and shaped. It is this struggle among the desire to preserve and emulate the past, the need to adapt to new financial and safety constraints, and an eagerness to embrace new models of community organization that broadly characterizes late-antique Roman urbanism.

This paper addresses this phenomenon through the example of the reuse of public entertainment buildings' ruins in the urban landscapes of the late-antique province of Macedonia. Specifically, it covers how the theaters at Heraclea Lyncestis and Stobi in upper Macedonia were reused as sources of building material and as space for new public buildings, particularly churches, as well as foundations for homes and domestic workshops. While this reuse was in part practically motivated, this paper argues that it was also driven by a collective recognition of these theaters' pasts as drivers of urban vitality. Thus, this reuse represents the intent to use highly visible and symbolic remains to promote present and future prosperity. This paper is meant to contribute to the ongoing effort of viewing late antiquity as a time of creative adaptation and revitalization in the ancient Mediterranean's urban landscapes.

The Cost of the Late-Antique Inscribed Sarcophagi: The Evidence from Salona

Dora Ivanisevic, Brown University

While it has been recognized that the Roman practice of putting up inscribed funerary monuments was socially and culturally contingent, the cost as a first and foremost restrictive factor that would leave them beyond the means of a good number of people has not received due attention in scholarly literature. As regards funerary commemoration in Late Antiquity B. D. Shaw and C. Galvão-Sobrinho seem to think that it went further down the social scale; on the contrary, M. A. Handley has challenged their view and concluded that to erect stone monument remained the preserve of elite in Gaul and Spain, as well as in other places such as Carthage.

The evidence for the cost of an inscribed funerary monument in late antiquity is generally scarce. Yet, Salona, the principal city of the Roman province of Dalmatia, has alone yielded ca. six epitaphs with a price of a sarcophagus recorded (CIL III, 8742l; CIL III 9668 et 12841; CIL III, 14924; CIL III, 14314 et add., p. 2328; ILC 3791 C; ILC 3792 A). While I take them all into consideration, I focus on the two well-preserved inscribed monuments: CIL III, 8742 (ca. 350–450 C.E.) and ILC 3791 C (425 C.E.). The former is said to have cost 15 solidi and the latter three solidi; both are sarcophagi made out of the local limestone, and are of the approximately same dimensions. I address the question of the economics of production by applying methodologies most recently discussed by B. Russell; I put the sarcophagi prices into the perspective of other approximately contemporaneous costs in order to get a sense of an order of magnitude of tombs' expense. The paper, furthermore, analyzes social status and occupations of the deceased and/or commemorator of the given two and other late-antique Salonitan sarcophagi, which were the dominant funerary monument type in the city, so as to assess to what extent the prices may have been prohibitive.

SESSION 6E: Workshop
Navigating the Job Market: Life beyond Your Degree

Sponsored by the AIA Student Affairs Interest Group

MODERATORS: *Rachel Dewan*, University of Toronto, and *Amanda K. Chen*, University of Maryland

Workshop Overview Statement

At the end of post-secondary education, the prospect of securing a job looms large for many students. From an academic professorship to a museum position, a teaching post to an "alt-ac" (alternative academic) job outside of the field, the possibilities for the application of a degree in the arts and humanities are broader and more varied today than ever before. Broaching this wide world of unknown processes, applications, and interviews can be daunting, especially when the transition from student to young professional presents new challenges.

This workshop will enable those in the fields of archaeology, classics, anthropology, and art history to gain a greater understanding of what to expect when they enter the job market. A panel of experienced professors, professionals, and researchers from diverse backgrounds will offer their insights into the state of the current job market. While academic positions remain some of the most common career paths for recent graduates, alternative options are becoming increasingly common. This workshop seeks to explore the many opportunities available in today's job market, and to discuss the possibilities and intricacies of each. Drawing on their own experiences, the panelists will engage in a dialogue surrounding various aspects of the employment process, including what to expect when beginning a job search, what employers may be looking for, and how best to market yourself with the education and skills you have acquired.

Regardless of discipline or career path, all graduate students will enter the job market at one time or another. An honest discussion of how best to navigate life as a young professional will be invaluable not only for those just entering the field, but also for scholars and professionals looking to hone their skills and grow in their career development.

PANELISTS: *Maryl B. Gensheimer*, University of Maryland, *Lisa C. Pieraccini*, University of California Berkeley, *Jacquelyn H. Clements*, Getty Research Institute, and *C. McKenzie Lewis*, University of Waterloo

SESSION 6F: Colloquium
Musical and Choral Performance Spaces in the Ancient World

Sponsored by the AIA Archaeomusicology Interest Group

ORGANIZERS: *Angela Bellia*, National Research Council, Institute for Archaeological, and Monumental Heritage, and *Daniele Malfitana*, National Research Council, Institute for Archaeological and Monumental Heritage

Colloquium Overview Statement

Among the main aims of archaeomusicology is the study of visual and archaeological evidence, as well as literary and epigraphic written sources, which inform us that musical and choral performances were an important part of many cults and rituals performed in spaces and architectural buildings of the ancient world. However, it is difficult to understand through archaeological records whether specific spaces were meant for these performances, and also whether a particular architectural feature might have facilitated musical and dancing performances. For this reason, we can look at sanctuaries and their immediate surroundings, and make the assumption that any open-air areas that are relatively level and free of obstacles may have functioned as musical settings and dance floors in a sacred context.

This colloquium aims to enhance our knowledge of spaces for musical and choral performance strictly connected to the ritual activities. Accordingly, the four papers of the present colloquium explore how cult spaces and buildings give us information concerning the spatial organization of musical and dance performances in sacred contexts.

By combining diverse data, the first paper of this section analizes not only musical performances at the Mesopotamian temples, involving ensembles of performers, but also their social status and tasks within the temple households. The second paper examines the archaeological contexts of Cycladic marble statuettes, some of which were found in cemeteries of early Minoan Crete. Special attention will be given to the cemeteries as places for musical and choral performances related to ritual activities. The third paper examines how ritual dance may have shaped sacred space in archaic and classical Greek culture, and addresses the archaeological record from the Artemis' sanctuary at Brauron to provide a spatial context for the performances. The fourth contribution will analize written sources related to physical buildings and choral performances, and to choreography to mark out and construct the actual dance floors and larger spaces where the songs were staged.

Together the papers cover different regions and a broad chronological span. Furthermore, most papers present archaeological materials that have been recently discovered or that have not been published before.

DISCUSSANT: *Clemente Marconi*, Institute of Fine Arts, New York University

e_2 nam-nar-ra: A Space for Royal Musical Performances in Ancient Mesopotamia
Daniel Sánchez Muñoz, Universidad de Granada

The aim of this paper is to analyze the Sumerian expression e_2 nam-nar-ra ("house of Music") present in the Old Babylonian hymn in Sumerian language *Ur-Nammu A* (Nippur Version), lines 187–188: tigi a-ʼdaʼ-ab gi-gid_2 za-am-za-am-$ŋu_{10}$ a-ʼnirʔʼ-ra mu-da-an-kur_9 | ŋeš-gu_3-di e_2 ʼnam-narʼ-ra-ka zag e_2-$ŋar_8$-e i-ni-in-us_2 (textual edition from ETCSL 2.4.1.1: 187–188), "My tigi, a-da-ab, gi-gid_2, and za-am-za-am hymns have become into an a-nir lament for me. Someone has bordered the ŋeš-gu_3-di musical instrument from the 'House of Music' on the wall."

For that purpose, we will use a philological methodology based on the analysis of (1) the musical terms of this text (to be presented in a new edition): tigi, a-da-ab, gi-gid_2, za-am-za-am, a-nir, and ŋeš-gu_3-di; (2) the Sumerian expressions of the type e_2 nam-… ("house" + the Sumerian prefix for abstract nouns) as e_2 nam-lugal ("house of the kingship"); and (3) other texts about musical spaces as the Sumerian terms a-ga balaŋ ("the balaŋ-lyre rear") or the e_2 nar ("house of the nar musician"), or the Akkadian ones *mummum/bīt mummim* ("conservatory of Music") and *bīt tegêtim* ("house of *tigû(m)*-percussion female players").

In my opinion, e_2 nam-nar-ra would not be a "conservatory of Music" (as it has been previously understood) in the sense of an independent structure as the *mummum/bīt mummim* from Mari. On the contrary, I think that it would be a palatial space for the musical performances of royal daily life (as the suggested performance in *Ur-Nammu A*, Nippur Version, 187–188), apart from being available for the storage and making of the musical instruments for those activities. That idea would be connected to the fact that archaeological examples of Mesopotamian palaces (as the E-ḫursaŋ from Ur of the kings Ur-Nammu and Šulgi) had rooms for craft and cultic activities in addition to the political ones.

Sounds from the Sea: Reconsidering Cycladic Marble Musicians in Their Archaeological Context
Massimo Cultraro, National Research Council, Institute for Archaeological and Monumental Heritage of Catania (Italy)

The Early Bronze Age in Cyclades provides a significant and intriguing iconographical documentation on the presence of musicians in the Aegean during the third millennium B.C.E. Known since the antiquarian markets in the late 19th century, this really famous category of marble statuettes, including aulos and harp players, has been largely studied in relation to the typology of instruments, as well as in a typological way. However, scarce attention has been paid on the archaeological context where these statuettes were recovered.

This paper aims at investigating these musician representations in a different perspective, focusing on some aspects of their original provenance. The main content is that the majority of these marble statuettes come from extra-settlement cemeteries. A detailed analysis on the oldest archaeological excavations by Ch. Tsountas on Syros provides elements of interest in order to identify a close relationship between determined gender classes (in some cases of specific age

too) and the offerings of marble statuettes of musicians. Indeed, a further focus will be on the presence of wooden furniture, related to members of high-class of Early Bronze Age Cyclades, and some seated harpist player. A final investigation regards the presence of stone-paved areas into the cemeteries, which, according to similar evidence proposed in early Minoan Crete, could be interpreted as place for music and choral performances strictly connected to ritual activities.

Dancing for Artemis at Brauron: Choreia and the Shaping of Sacred Space
Caleb Patrick Simone, Columbia University

This paper examines how ritual dance—*choreia*—may have shaped sacred space in archaic and classical Greek culture. As a case study, it takes up Artemis' sanctuary at Brauron in the marshy countryside on the eastern coast of Attica, where the goddess's Brauronian cult was especially active from the seventh to the end of fourth century B.C.E. With its fragmentary but nevertheless rich body of evidence, Brauron has become associated with a ritual practice known as "playing the bear" or "being a bear" for Artemis. Drawing upon the textual, iconographic, and archaeological sources, I read "playing the bear" at Brauron as a form of ritual *choreia*, showing how this central cult ceremony physically shaped and continually inflected its spatially significant marshy site through performance.

Proceeding in three parts, I begin with a synopsis of recent scholarship on the textual sources for ritual activity at Brauron associated with "playing the bear," which suggests that this was primarily a sacrificial propitiatory ritual. Turning to the archaic and classical iconographic evidence, I offer a fresh interpretative framework drawn from choral poetry: Bacchylides 11 preserves an *aition* for Artemis' Arcadian cult at Lousoi that provides a striking parallel for the goddess's cult at Brauron. The paper's final section addresses the site's archaeological record to provide a spatial context for this performance. I show how the cult's choral activity shaped the sanctuary's development in a diachronic trajectory, focusing on the structural features of the *pi*-shaped stoa added during the classical period.

As chorai interact with this marshy, marginal site in privileged ways appropriate to such a place—as they perform ritual wildness for Artemis—sacred space takes shape in a gestalt of culturally and ritually marked accretions. Over time, the structure of the physical place changed to reflect the ritualized environment of its sacred space.

Choro-Architecture: Archaic Choral Poetry and the Temple Column
Deborah Tarn Steiner, Columbia University

In one of Pindar's several innovatory and rococo mythical narratives, Delos, a previously free-floating island, becomes a firm, fixed site ready to host the birth of Apollo, whose sanctuary this nymph-turned-landmass will lastingly accommodate. In the work that includes the story, the poet's Hymn to Zeus, probably designed for performance by a maiden chorus at the Theban Ismenion on the occasion of the Daphnephoria, the narrative recalls how, when Leto, about to give birth, first set foot on the island, "four upright columns with adamantine sandals

rose from their foundations in the earth and on their capitals supported the rock" (fr, 33d.3–9 S-M). As commentators observe, the structure visualized here would call to mind a peristyle temple, with Delos as the entablature supported by the column capitals. That the pillars number four makes this match-up exact: four columns form the corners of the tetragonal colonnade.

But, as my close reading of this composition alongside two other Pindaric passages that similarly introduce fantastical columns—the proem of Olympian 6 and the best-preserved portion of Paean 8—the temple column is not the only analogy informing Pindar's language here: these supports also display properties that align them with choral dancers (their sandals no less than their "upright" character and synchronized motions), thereby creating an amalgam between the physical building and the chorus performing the piece. In the argument this paper advances, which also examines the sites hosting these several works, Pindar's choruses use their bodies, steps, voices, accessories, and choreography to mark out and construct the actual dancing floors and larger spaces where the songs are staged. Central to the discussion are the marble columns of the archaic Ionic temples at Ephesus, Cyzicus and Didyma, whose drums stone-cutters decorate with choral dancers in relief, and caryatids, whose name derives from the parthenaic chorus that performed at the shrine of Artemis Caryatis in Sparta; these architectural and ritual practices are among the several pieces of evidence explored in the paper and that attest to a preexisting link between the temple column and the chorus on which Pindar draws.

SESSION 6G: Colloquium
Death in the Polis: Social Context and Identities in Greek Mortuary Practice

ORGANIZERS: *Elina M. Salminen*, University of Michigan, Ann Arbor, and *Cicek Tascioglu Beeby*, University of North Carolina, Chapel Hill

Colloquium Overview Statement

Recent years have seen a lively scholarly discussion on the structure, institutions, and development of the Greek polis, resulting in the revision of linear models and the reexamination of the inner dynamics and the social fabric of the polis. Yet, the polis is still often discussed as a monolithic structure from the viewpoint of elite males because of the visibility of this social group in the literary, archaeological, and historical record. This bias masks the real complexity of Greek communities. The mortuary record invites us to correct this skewed view by bringing us face-to-face with the individuals and subgroups that exemplify the diversity of the polis.

Our panel focuses on the formative stages of the polis and addresses issues pertaining to the various identities nested within the larger community through a mortuary lens. "The Social Groups of Early Iron Age Knossos" (James Whitley) deploys a statistical analysis of interments and grave goods from the communal tombs at Knossos to revise the chronology for the emergence of political communities in Crete. "Glimpses of the Invisible Dead" (Nathan T. Arrington, Georgios

Spyropoulos, and Demetrios J. Brellas) presents new evidence from Protoattic Palaia Kokkinia to nuance our view of hierarchy and social differentiation in Attic demes. "Intersectional Personhood at Phaleron" (Aliya R. Hoff, Jessica Rothwell, Eleanna Prevedorou, Jane E. Buikstra, Dawnie Wolfe Steadman, and Stella Chryssoulaki) offers a bioarchaeological analysis of graves from the recent excavations at Phaleron and sheds light on systems of power at the state-level by addressing issues like violence, captivity, and unorthodox burial treatment. "The Topography of Metics in Archaic Athens" (Tim Shea) applies geospatial analysis to archaic tombstones and argues that a shared ethnos or foreign citizenship served as a surrogate form of communal identity for metics in lieu of one based on kinship. "The Space and Place of Death in the Early Polis" (Cicek Tascioglu Beeby) presents a GIS-based spatial analysis of burials from Geometric–Archaic Argos and offers insight into how heterarchical identities were maintained or realigned in mortuary spaces during state formation. "Premature Death Within and Without the Polis" (Vivi Saripanidi) compares child burials from the Greek colony of Akanthos with the nearby Macedonian cemetery of Sindos and argues that the two political forms play out as decidedly different patterns of social differentiation through the commemoration of children.

Drawing on both legacy data and new excavations from various regions of the Greek world, this panel contributes to archaeological and historical narratives as well as mortuary theory through a broad range of methodologies such as geospatial analysis, bioarchaeology, epigraphy, and statistical analysis. The ultimate goal of the panel is to weave individuals and social groups—including marginalized ones—tightly into the polis and improve our understanding of the social dynamics of these polities.

DISCUSSANT: *Carla M. Antonaccio*, Duke University

The Social Groups of Early Iron Age Knossos
James Whitley, Cardiff University

Knossos, one of the most important sites of the Early Iron Age Aegean, is important both historically and archaeologically—that is both as a political community and as a rich source of material evidence. It has one of the largest and most thoroughly investigated cemeteries of all Iron Age communities we know of whose relative chronology (from sub-Minoan to late orientalizing) is well defined. A reappraisal of Cretan political communities on the part of historians has emphasized the peculiarities of the Cretan polis vis-à-vis those of other Greek-speaking communities in the wider Mediterranean. At the same time, the volume and quality of the Knossos cemetery data provide an opportunity to examine these diverging patterns on the micro- as well as the macro-scale. While various kinds of statistical analyses of these cemeteries have been undertaken, usually involving approaches that derive ultimately from the framework developed by Binford and Saxe in the 1970s, Knossos still presents several challenges to the social archaeologist. Chief amongst these is the relative dearth of osteological data (the best is for one tomb)

and the difficulty of assigning grave goods to specific persons within collective tombs.

This paper represents a reappraisal of the tombs using some fairly straightforward statistics. It takes as its unit of analysis the tomb as a whole rather than the individual interment. It employs four simple measures (the number of tombs, the number of interments per tomb, the proportion of interments per tomb, and the "wealth" of the tomb as measured by the number of bronze and iron objects) to analyze all tombs from sub-Minoan times down the end of the late orientalizing period (i.e., just before the "archaic gap" after 630 B.C.E.). It argues that after the mid-ninth century B.C.E., two major trends can be seen: first, tombs established around 850 B.C.E. are in use for longer than the majority of sub-Minoan and proto-Geometric tombs; second, in this later period, the number of interments per tomb increases just as the number of tombs declines. These phenomena provide indirect support for hypotheses put forward to the effect that identifiable political communities emerged far earlier in Crete (ca. 900 B.C.E.) than they did in mainland Greece.

Glimpses of the Invisible Dead: A Seventh-Century B.C.E. Cemetery in Northern Piraeus

Nathan T. Arrington, Princeton University, *Georgios Spyropoulos*, Ephorate of Corinth-La Sapienza, and *Demetrios J. Brellas*, Framingham State University

The seventh-century B.C.E. Attic mortuary record has long been considered an archaeological puzzle, with high variability and visibility of late eighth-century graves replaced by an overall dearth of mortuary evidence. Many commentators have interpreted the change in light of developments in social structure, seeing seventh-century burial restricted to a narrow elite. The Kerameikos cemetery, with its opulent funeral trenches placed outside of graves and its magnificent ceramic repertoire, has played a significant role in the formation of these interpretations. The results of a 2011 rescue excavation in northern Piraeus ("Palaia Kokkinia"), combined with the published evidence from other rescue excavations in the vicinity, offer a different perspective. The 2011 excavation, presented in detail here, reveals continuity from the from the seventh century into the fifth century B.C.E. at a cemetery possibly associated with the deme Xypete. Corinthian imports and stylistic analysis provide dates. Inhumations in vessels and primary cremations dominate the cemetery. Some pyres may be related to ritual activity rather than the cremation of bodies, and a built feature appears to have been used for repeated ritual use. Two seventh-century inhumations in vessels and faint traces of a third received particularly rich grave offerings. One of these inhumations, belonging to a 30- to 42-month-old, was accompanied by a startling variety of unusual proto-Attic images redolent of elite interests (sea-faring, music, and tripods), which cannot be linked in a straightforward manner with the biography of the deceased. The proto-Attic vases have parallels in the Kerameikos, the Agora, Phaleron, and rural cemeteries, and they offer insights into the production and consumption of proto-Attic pottery. This cemetery illustrates the important role for burying groups outside of the Kerameikos in forming the Attic mortuary record and may indicate how communities south of Athens, particularly the members of the *tetrakomoi* (Phaleron,

Piraeus, Thymaitadai, and Xypete), developed distinctive burying practices. The paper concludes by "excavating" three layers of archaeological invisibility, exploring how the seventh-century material record presented and presents challenges in identification for ancient viewers, contemporary excavators, and scholars working with material from rescue excavations.

Life and Death in Archaic Athens: Intersectional Personhood at Phaleron

Aliya R. Hoff, Arizona State University, *Jessica Rothwell*, Arizona State University, *Eleanna Prevedorou*, Arizona State University, *Jane E. Buikstra*, Arizona State University, *Dawnie Wolfe Steadman*, The University of Tennessee Knoxville, and *Stella Chryssoulaki*, Ephorate of Antiquities of Piraeus and Islands

Recent excavations at Phaleron (western coastal Attica) have revealed an exceptional cemetery in terms of chronology, size, density, preservation, and mortuary variation. The Phaleron cemetery dates between the eighth and fourth century B.C.E., with its main use phase dated to the Archaic period, thus coinciding with the formative period of the Athenian polis. Phaleron is one of the largest cemeteries excavated in mainland Greece including well over 1,000 burials, mainly pit graves, infant jar burials, and cremations, generally lacking funerary architecture and inscribed monuments. Current evidence and preliminary observations suggest that the cemetery population represents a wide range of social classes, including nonelite strata that are commonly missing from the bioarchaeological record. The great significance of Phaleron also stems from the high percentage of burials showing evidence for captivity (e.g., shackling), violent deaths (*viaiothanatoi*), and unorthodox burial treatments, either buried as single inhumations or in mass graves, raising questions regarding their social roles. Thus, the systematic bioarchaeological study of the people of the Phaleron cemetery offers us with an unparalleled opportunity for a holistic reconstruction of life and death in archaic Athens.

Personhood provides a useful heuristic for investigating lived experience structured by multiple dimensions of social identity. These studies, however, often lack an explicit framework for conceptualizing how social identities mutually constitute each other and reinforce broader systems of power. Theoretical frameworks developed in intersectionality studies can enrich bioarchaeological analyses of personhood by modeling how multiple systems of power affect social position and produce diverse lived experiences, while retaining an emphasis on structural analyses of social change and inequality.

Here, we explore the constitution, maintenance, and negotiation of personhood in archaic Athens from an intersectional standpoint, using the Phaleron skeletal assemblage. We present preliminary results focusing on comparisons between individuals interred in mass graves and those in single inhumations. Data on age-at-death, gender (inferred from biological sex), biological relatedness via dental phenotypic variation, and mortuary treatment are integrated with archaeological and historic lines of evidence. The implications of diverse and changing conceptions of personhood and their potential relation to violence (institutional or not) and execution are discussed in the context of polis formation. This study demonstrates the potential and limitations of an intersectional personhood approach,

whereby the lived experiences of past people provide a prism through which to view broader processes of sociopolitical change, while contributing critical data to understandings of lifeways in archaic Athens.

The Funerary Topography of Metics in Archaic Athens
Timothy Shea, Duke University

"It was in this manner that the Athenians got their wall built in so short a time, and even today the structure shows that it was put together in haste. For the lower courses consist of all sorts of stones, in some cases not even hewn to fit but just as they were when the several workers brought them, and many columns from grave monuments and stones wrought for other purposes were built in" (Thuc. 1.93, Trans. C. F. Smith).

The excavated portions of the stone socle of the Themistoklean wall have been shown to have been built as hastily as Thucydides suggests. The fragments of funerary monuments from roadside burial plots were carried, likely on carts, to the nearest stretch of wall being constructed. For this reason, funerary monuments are found in greater concentrations in the gates of the Themistoklean wall.

With this in mind, I use the findspots of the 83 inscribed archaic tombstone bases from Athens and Attica to reconstruct the demographics of cemeteries. Since these bases often bear information about the deceased such as *ethnika*, they offer a particularly useful lens for analyzing the location of immigrants in the urban cemeteries of Athens. Through my analysis, I am able to show that tombstones of metics are found built into the Dipylon and Peiraic Gates. Moreover, tombstones of immigrants from the same poleis are found in close proximity to one another. This is a trend that continues into the Classical period, and may indicate that connections between residents based on a shared ethnos or citizenship in the same foreign polis served as a surrogate form of communal identity for foreign populations living abroad in lieu of one based on kinship. The spatial distribution of tombstones also suggests that immigrants buried and commemorated their dead in specific areas of the city.

The Space and Place of Death in the Early Polis: Perspectives from Argos
Cicek Tascioglu Beeby, University of North Carolina, Chapel Hill

Studies on the distribution of burials in the Greek polis commonly note that dispersed spatial patterns of the Early Iron Age were gradually replaced by marginalized burial locations in the late Geometric and early Archaic periods. This spatial shift is generally taken as a change from intramural to extramural burial practices in well-known poleis like Athens and Argos during the rise of city-states and nucleated urban settlements. The move from intramural to extramural patterns has been variously interpreted as the marginalization of cemeteries during urbanization or the creation of formal (or reserved) burial spaces to serve an upper class.

This paper uses GIS-based spatial analysis to reexamine burial data from Argos and challenges the long-standing arguments on the marginalization of burials

in the early polis. A comprehensive database (which incorporates various burial types, osteological data, and grave goods where applicable) provides a detailed and high-resolution view of mortuary variability in Geometric and Archaic Argos. The paper concludes that, while the nucleation and marginalization of cemetery spaces may be observable during the formative decades of the Athenian polis and may indeed point to the creation of communal mortuary spaces as a new venue for identity politics, this is not necessarily the case for Argos. The continued practice of multiple burials and the reuse of graves for later interments at Argos represent a different approach to the dynamic relationship between individuals, social units at family and household levels, and the larger community at a more collective scale. In addition, the sustained dispersed spatial pattern of burial locations throughout the Geometric period suggests that commemorative practices in the funerary realm may have stayed closer to home (both spatially and conceptually) and continued to highlight personal memories of the deceased. By providing a contrast to funerary commemoration in the early Athenian polis, the evidence from Argos highlights an alternative pathway and response to increased social complexity.

Premature Death within and without the Polis: Child Burials in the Northern Greek Colonies and the Macedonian Kingdom in the Archaic Period

Vasiliki Saripanidi, Université libre de Bruxelles

Drawing on recent scholarship on the cultural and social underpinnings of ritual responses to child death, this paper investigates such responses within two different types of polities that were developed side by side in the northern Aegean during the Archaic period. These are the Greek colonies of the region, and the Macedonian kingdom as it was geographically and politically shaped after a significant territorial expansion in the early sixth century B.C.E. For this purpose, the paper carries out a comparative study of child burials from two particular sites, namely, the Andrian colony of Akanthos, which was established in Chalkidike in the mid-seventh century B.C.E., and the site of ancient Sindos, near Thessaloniki, which was annexed to the Macedonian kingdom sometime in the decade 570/60 B.C.E. With regard to each site, this study examines: (1) the formal features of child burials and their equipment; (2) synchronic variation with regard to these aspects; and (3) the quantitative, spatial, and formal relationship between child and adult burials, as well as the relationship between their offerings. By defining the categories of identity that were highlighted during the ritual treatment of a dead child (e.g., age group, gender, economic or warrior status), this analysis aims to explore the dynamic between different concepts of children (such as those of the "vulnerable," the "cherished," the "potential," and the "political child") as these would have played out in the funerary rites of the respective communities. By juxtaposing the evidence from a Greek polis in the margins of the Greek world to that from a contemporary kingdom in its formative period, the paper aims to show how the set of emotional and ideological factors that conditioned the funeral of a child could have varied between different sociopolitical systems.

SESSION 6H
Space and Decoration in the Roman House

CHAIR: *John R. Clarke*, University of Texas at Austin

Painted Decoration on Roman House Facades

Taylor Lauritsen, Christian-Albrechts-Universität zu Kiel

Over the course of the last decade, studies of streets and their associated material features have offered important new insights into Roman urbanism. Various aspects of the streetscape—from *tabernae* to traffic systems—have been explored in detail, transforming our interpretation of the street from a passive liminal zone into a space of action and activity. The decorative elements that once adorned the facades and footpaths of Roman cities, however, remain largely absent from these discussions. When decorative or design features have been examined, this has occurred largely in isolation, without consideration for the ways that different types of decoration interacted with one another, or how (and why) decorative preferences changed over time.

Domestic facade painting, in particular, has suffered from a dearth of scholarly interest. When compared with the lavish frescoes discovered inside houses, paintings applied to the exterior have been described as "staid" and "austere." This perception, in combination with a poor standard of preservation, perhaps explains why external decorative programs have been so consistently overlooked. In truth, facade painting was anything but boring. While the decorative repertoire employed was more limited than that utilized on domestic interiors, colors, ornamental motifs, and figural images were combined in new and interesting ways. These combinations played a crucial role in communicating information about the household to the community at large.

This paper presents the results of a new study focusing on facade painting and its relationship to other forms of decorative media visible in the Roman streetscape. Drawing primarily on material from Pompeii and Herculaneum, it provides an overview of the main types of decoration employed on house facades, as well as the diachronic character of particular decorative techniques. In doing so, the aim is explore the ways in which certain artistic developments can be linked to the shifting social and political landscapes of the two Campanian towns.

This study is part of the ERC-funded research project DECOR, based in the Department of Classical Archaeology at Christian-Albrechts-Universität zu Kiel. DECOR examines the decorative principles employed in Roman Italy between the late Republic and early Imperial period. It is the first project of its kind to move away from analyses of individual decorative elements, focusing instead upon how media correlate and interact within a single spatial context.

Aesthetics in Pompeian Houses

Christian Beck, Christian-Albrechts-Universität zu Kiel

In classical archaeology, research on decoration often seeks to link wall paintings and pavements with one with one the so-called Four Pompeian Styles, which

were introduced by A. Mau at the turn of the last century. Contrary to this tendency, many houses in Pompeii display quite a different state of decoration: wall paintings and pavements hailing from different styles and periods were often brought together to form a single decorative ensemble.

This paper will consider how these varied elements of decoration were brought together in a particular architectural context: the Casa di Giasone (IX.5.18). This house is best known for its well-preserved third-style decorations located in and around the atrium. When the house was excavated, the images discovered here were considered to be particularly valuable and were thus removed and sent to the National Archaeology Museum in Naples. Meanwhile, the majority of the fourth-style decorative elements, located away from the primary circulation areas, were ignored by excavators and are now poorly preserved. The aim of this paper is to analyze how these two sets of paintings relate to one other in aesthetic and semantic ways.

The wall paintings of the fourth style with small medallions in the middle of the panels are of special interest. Are they creating an aesthetic ensemble on their own or were they part of a carefully planned and executed programme connected to the third-style decor? Furthermore, which motifs were displayed in these fourth-style images? Do they have a semantic connection to the larger third-style panel paintings? In contrary to the wall paintings, the floors display no figural motifs. Therefore it is only possible to ask questions about the overall aesthetics of the floors. Are the older pavements creating a decorative ensemble with the new wall paintings? How do older and younger pavements refer to each other? By answering these questions, this paper will expand our knowledge of decorative ensembles in Pompeian houses.

Theorizing Image and Abstraction in the Roman Villa Farnesina

Nicola Barham, University of Michigan

This paper explores how effects of color and shape such as those employed in the Roman Villa Farnesina were conceptualized and valued in ancient Roman thought. Key surviving passages in ancient writers like Pliny have long been employed to emphasize the primacy of representation in classical art. The bold interlocking planes of rich saturated color that dominate the frescos of the Villa Farnesina's Cubiculum B (and many works in mosaic and wall painting besides) have thus gone undertreated and been overlooked as merely ornamental devices.

This paper provides an alternative approach. First using visual analysis to demonstrate the primacy of abstract coloristic effects in the construction of the fresco scheme, the paper then situates this aesthetic cacophony against an overlooked corpus of textual data. Instead of focusing in on selected lines from those few extended ancient texts on the visual arts that do survive, and which have often been highlighted since the Renaissance, the paper begins from references to the visual dynamics of artistic works that are made in passing across a wide range of written sources, in both Latin and Greek. By searching for patterns of emphasis in terminology across this gamut of ancient texts (as this current digital moment so facilitates), the paper reveals how classical impulses towards what one might call abstract aesthetics, are in fact referenced in the surviving ancient literature,

in diffuse brief mentions, yet with intriguing consistency. I focus in particular on the use of the Greek term *poikilia*, and the Latin *variatio*, as they are applied to visual works from the final days of the Hellenistic period, down to the late Roman Empire.

What emerges is a model of aesthetic value that consistently foregrounds terpnopoietic planar effects of color and shape over and above those of mimetic representation that were so long revered as the only artistic practice to be explicitly theorized in the classical world. Moreover, it transpires that this alternative, arguably almost formalist, paradigm of visual value is fascinatingly employed in relation to both figural and nonfigural works alike. The absence of these surface effects in the standard narrative of classical art becomes testimony to that narrative's limitations.

Ultimately, I propose that understanding the interest in effects of color and repeating arrangements of shape evidenced in the Villa Farnesina frescos, and so emphasized in these texts, is crucial for our reading of the impact intended in Rome's coloristic visual works at large.

Living Objects (?)–Vitruvius' *monstra* and a Reevaluation of the Small Finds from the Insula del Menandro (I.10) at Pompeii

Adrian Hielscher, University of Kiel (CAU)

Studies on the decoration of domestic spaces in Pompeii mainly focused on architecture, wall paintings and mosaics. Decorative elements, however, were not exclusively used within built spaces but also adorned domestic objects. The decorative potential of portable objects like furniture, braziers, tableware, or candelabra is mostly unrecognised in recent research. This paper presents a part of my PhD project ("Portable Worlds of Decoration: The Small Finds of the Insula di Menandro (I.10) at Pompeii") analyzing the decorative potential of small finds, thus, taking a closer look at furnishing and decoration of living spaces.

The Insula of the Menander (I.10) provides the material basis for my study. It is one of the most famous, best-documented, and most extensively published city blocks in Pompeii. Despite the plentiful publications, research on the small finds mainly concentrated on their distribution and significance for investigating the room's functions. P. Allison recorded and evaluated all objects regarding the social organization of the ancient household. Detailed information about their decor (i.e., ornaments, figures, or images) are missing.

Thus, for a new contextual approach focusing on the decor of the objects, I analyzed them once more in the magazines of Pompeii in spring 2017. My main research questions are: Which kind of objects are decorated with ornaments, figures or images? Do stereotypical relations exist between certain decorative elements and categories of objects? Which motifs and thematic spectra adorned the small finds?

As one of the results of this reevaluation, I can demonstrate the existence of decorative principles for different categories of objects. Remarkably, there is a correlation between the decor of objects and Pompeian wall paintings. It is possible to trace what Vitruvius criticized in *De arch.* 7.5.3–4 as tasteless "*monstra*" within the wall decorations of his time on objects of everyday life. For example, furniture

supports or vessel handles were designed as stalks, leaves and tendrils of plants, everywhere growing (half-)figures and heads of animals or humans as well as zoomorphic and anthropomorphic feet.

The Dionysian Theater Garden: Situating Omphale and Hercules at Pompeii
Lisa A. Hughes, University of Calgary

Select Pompeian homes displayed Dionysian-themed visual representations linked to gender reversal in or near garden settings. For the purposes of this discussion, I focus on two key mythological characters, the foreign Lydian Queen, Omphale, and, the hero, Hercules, who offer a glimpse into how this gender reversal can potentially reinforce or break down perceived social and cultural barriers for ancient Roman diners. Ancient visual culture was, but not intended to be, a precise reproduction of literary accounts. I suggest that an adaptation of Ovid's *Fasti* 2.313–31 is pertinent to our understanding of the visual representations of the pair in or near garden settings, which I call "Dionysian Theater Gardens." When Omphale and Hercules appear with visual representations of Dionysus and his retinue, I maintain that the pair serves as props in the backdrops of small-scale Julio-Claudian performances (for example, pantomime and poetic recitations) that were part and parcel of the convivial experience. The inclusion of the cross-dressed pair in a theatrical context, I argue, made gender reversal an intrinsic part of both domestic and public life.

The visual representations of Omphale and Hercules derive from a Pompeian sample that includes three fresco paintings and one full-length sculpture-in-the-round, all dating roughly to the Julio-Claudian period (the first half of the first century C.E.). I call for a diachronic reading of the pair that fits within the lenses of theatrical performance and Roman dining in the Julio-Claudian period. By incorporating visual representations of the pair (both fresco and sculpture) in addition to the features of what I term the Dionysian theater garden, I further build on Lorenz's assertions that mythological wall paintings "can lead to a better understanding of the foundations of cultural norms and ideas." In essence, the staged presence of Omphale and Hercules served to honor the foreign deity, Dionysus, in a setting where viniculture, dining, and theater were closely associated. It is within this convivial context that these select representations of Omphale and Hercules served to set the stage to break down perceived social and cultural barriers. Gender reversal during the Julio-Claudian period subsequently must be seen as an intrinsic part of domestic life at Pompeii.

Pompeian Residential Architecture: Environmental, Digital, Interdisciplinary Archive (PRAEDIA): New Research in the Regio II
Anna Anguissola, University of Pisa, and *Riccardo Olivito*, IMT-School for Advanced Studies, Lucca

This paper introduces the aims, methods, and preliminary results of the PRAEDIA project, which examines the residential architecture of Pompeii with a focus on Regio II, a neighborhood close to the city gate and the amphitheater.

PRAEDIA began in 2016 as a cooperation between the Parco Archeologico di Pompei, the University of Pisa, the Scuola Normale Superiore, and the Italian National Institute of Geophysics and Vulcanology (INGV).

Research concentrates on the so-called Praedia of Iulia Felix, a vast complex that occupies an entire insula of Regio II, as well as on a number of smaller buildings in that area. Since its discovery in the mid-18th century, the Praedia complex has puzzled scholars with its combination of features typical of a conventional townhouse (living spaces organized around an atrium), a villa (a garden with water-plays, open-air dining facilities, and park), and a commercial establishment (rented apartments, baths open to the public, an inn). Most other buildings on the northern and western edges of the Regio, along two of the city's busiest streets (i.e., Via dell'Abbondanza and Via di Nocera), were designed to include both housing spaces and commercial facilities. We expect close examination of the Praedia of Iulia Felix and neighboring buildings to provide not only a more-nuanced image of the urban development of that area of Pompeii, but also fresh arguments to challenge the notion of a "prototypical Roman house" and expose the ductile nature of its features and models.

PRAEDIA relies on a multidisciplinary approach including geophysical surveys, stratigraphic excavations, and digital and virtual reconstructions, as well as the study of building techniques, wall and floor decoration, and the economy of ancient Pompeii. The paper presents the first two years of work conducted within the framework of the project. In 2016 and 2018, we conducted extensive, noninvasive geophysical surveys by means of terrestrial magnetometry and the GPR (Ground Probing Radar) technology across the entire garden of the Praedia. Thanks to a campaign of archival research, our team has been able to gather a more detailed knowledge of the excavation history of this area of Pompeii, as well as of the household items and the sculptural display found in these buildings and eventually dispersed. The 2018 summer season will be devoted to the survey of the building techniques and wall decoration of selected houses along the northern and western edges of the Regio (insulae 1, 2, 3, 8, 9).

SESSION 6I: Colloquium
The Medieval Countryside: An Archaeological Perspective

ORGANIZER: *Effie Athanassopoulos*, University of Nebraska–Lincoln

Colloquium Overview Statement

This colloquium examines the contribution of archaeology to our broader understanding of the medieval period in the Aegean region and Anatolia, especially rural settlements. Since the early 1980s, when large-scale, intensive surveys were undertaken in this region, a rich and diverse database of sites and off-site material pertaining to the medieval period has been generated. Thus, for the first time we can approach the rural landscape, habitation, and land use from the perspective of archaeology. Prior to this development, we were constrained by the lack of textual sources, such as tax registers or monastic archives, which are available only for a

few areas. Archaeological surveys, along with excavations, have expanded our options and provided a more-even geographical coverage.

However, the rich databases that have been generated by regional projects have not had a significant impact on related fields, such as history, or existing narratives of Byzantium. Prominent publications in the field of Byzantine studies that include archaeological results tend to focus on excavations, with survey contributions rarely mentioned. So why haven't survey data been incorporated into broader historical themes involving settlement, land use, social history, or cultural identity? Why hasn't the promise of a broader impact of landscape archaeology projects materialized? What are the obstacles that discourage the engagement of a wider group of scholars with survey data? Is it simply a matter of time, because most survey projects have been slow to disseminate their results? What other issues need to be addressed?

The purpose of this session is to identify obstacles that have limited the impact of this body of archaeological work and propose solutions. The goal is to bring together past and ongoing archaeological projects that focus on the medieval landscape, initiate collaboration, facilitate comparative research, and take steps toward enhancing data sharing and dissemination.

DISCUSSANT: *John Bintliff*, University of Edinburgh

Archaeological Approaches and Settlement Systems in Medieval Central Greece
Athanasios K. Vionis, University of Cyprus, and *John L. Bintliff*, University of Edinburgh

Although there is a tendency on behalf of historians to overlook material culture as an additional means through which one can build up the "cultural history" of a specific region, historical geography in the past and landscape research in recent years have finally been incorporated in the field of Byzantine studies. Ever since landscape studies and spatial analysis (of both artifacts and sites) entered the field of New Archaeology more than 40 years ago, archaeologists, historians, anthropologists, and geographers have been trying to explain through surface survey how and why complex settlement systems developed in the Greek landscape.

The ability of archaeological survey to identify, date, and interpret concentrations of surface sherds in the Byzantine landscape has occasionally been challenged. It is true that many previous interpretations of post-antique settlement continuity and transformation are now unreliable as a result of the revision of ceramic chronologies. Others have been critical of conclusions resulting from surveys of Byzantine and medieval landscapes designed and undertaken by "prehistorians" and "classical" archaeologists, for whom the distribution of Byzantine material was a peripheral concern. On the other side of this ongoing debate, theorists in Byzantine studies often turn their back on material culture or pay it little attention, leaving part of the story untold.

The topic of settled landscapes is complex. Crisis, abandonment, colonization, prosperity, and relocation, but also *mentalités*, anthropogenic forces, cultural values, and memory, were important factors that led to crucial changes and transformations within the Byzantine settlement system. These changes have been poorly

understood by Byzantinists; the main reason for our inability to draw a more accurate picture has been our reliance on the patchy documentary record, on the mapping of standing or ruined churches on a vast regional scale, and, at best, on "extensive archaeological surveys" over vast territories. Thus, this paper considers and evaluates all the aforementioned issues and parameters and offers alternative ways for undertaking landscape research and examining archaeological evidence for settlement systems and land use in medieval Greece. Archaeological examples and case studies will be drawn from long-term survey projects in Boeotia, central Greece.

Archaeological Survey and Understanding the Rural Landscape in Byzantine Greece: Some Specific Examples

Timothy E. Gregory, Ohio State University, and *Lita Tzortzopoulou-Gregory*, Australian Archaeological Institute in Athens

This colloquium is based on the issue of why the development of Byzantine-period survey archaeology seems not to have assisted more in our understanding of the rural landscape in the Middle Ages. On the one hand, this conclusion can be counted as correct since there have been very few large archaeological surveys (in Greece at least) that have focused primarily on Byzantium; rather, such research has normally focused on larger, multiperiod surveys.

On the other hand, we would like to mention several survey projects that we have helped to realize over the past 25 years or so. These might begin with the Ohio Boeotia Expedition, a very small survey project between 1972 and 1982, with a focus on the Roman and Byzantine periods, on the mainland and two of the islands just off the coast. Beyond this, in 1996–1997 we worked with the Sydney Cyprus Survey Project, in central Cyprus, where we developed what has come to be called the Chronotype System, but with concern for all periods of the past.

Surveys carried out beginning in 1997 were similar in many ways but also very different in scale and focus. Thus, the eastern Korinthia Archaeological Survey (EKAS) investigated specific areas of this region, with particular emphasis on prehistory and the Classical to Roman periods, while the Australian Paliochora-Kythera Archaeological Survey (APKAS) investigated many parts of the northern part of the island, with specific interest in the medieval period. It is true that none of these surveys has been fully published, but the records—and large sets of the artifacts—are still preserved in safe storage. Further, there is a significant difference between the two in the sense that EKAS has had an important "spin-off" survey (SHARP: Saronic Harbors Archaeological Research Project, which has focused primarily on prehistory), while APKAS has begun a new period of detailed survey (2016–2018) in the original area, with continued primary interest in the medieval period.

In the broader concern for the present colloquium, this paper discusses the way that these particular surveys have had both negative and positive results for our understanding of the medieval landscape in Greece. The paper makes suggestions about how both the conception and implementation of the latter two surveys affected their success and "less success" in the understanding of the medieval period

and how they are likely to play a greater or lesser role in this understanding in the years to come.

Aegean Landscapes of the Early Middle Ages: New Perspectives from Naxos
Sam Turner, Newcastle University, and *Jim Crow*, University of Edinburgh

The heritage of Naxos is best known to Byzantinists for its dense scatter of small rural churches dating to the Middle Ages, which has long been recognized as exceptional not only in the Aegean but also in the wider context of the eastern Mediterranean. Interdisciplinary research on the island is beginning to reshape our understanding of the Byzantine response to the major challenges in the period from the seventh century onward.

The possibility of researching a relatively unexplored historic landscape with many surviving Byzantine churches led us to initiate a research program with Naxos as a case study. Our initial work took the form of a desk-based assessment using GIS to analyze the historic landscape using aerial photography and satellite remote sensing data. Since 2009, a team led by Knut Odegard (University of Oslo) has documented the houses, streets, churches, and other structures of the mountain-top fortification at Kastro Apalirou. Meanwhile, the authors' team has collaborated with the Ephorate of the Cyclades to develop a field survey of the wider region in the form of the Apalirou Environs Project. Our fieldwork began in 2015 using a combination of techniques including intensive ceramic survey, three-dimensional recording and analysis of standing buildings (including early medieval churches), and the use of new scientific approaches to dating agricultural terraces.

The rural Mediterranean societies of the early Middle Ages have often been absent from discussions based on survey archaeology, which have depended on poorly understood ceramic evidence. That picture is changing fast. Our research on Naxos is revealing a thriving landscape of villages, churches, and intensive farming. The evidence suggests that in parts of the Aegean the seventh, eighth, and ninth centuries witnessed the growth of new settlements and extensive investment in landscape infrastructure.

The Domestic and Built Environment of a Byzantine Village
Mark Pawlowski, UCLA

Recent research on the Byzantine countryside has emphasized the synthetic study of people and landscape through the use of archaeological survey, ethnography, history, and other scientific methods. Through a broad and cross-disciplinary approach, the lives of medieval villagers can be reconstructed in a more tangible way than through a more traditional reliance on ground plans and collection data. Following broad approaches to the medieval past, this paper presents current research on the domestic architecture and built village landscape of the Byzantine Mani. Based on the close study and mapping of an abandoned village in the southeast portion of the peninsula, I present the domestic architecture of the village and discuss a methodology for its interpretation focused on the locations of houses

and other structures within the landscape. My fieldwork includes architectural and nonintrusive survey as well as the use of aerial and satellite imaging to gain a greater understanding of the shape of the village. The physical form of domestic architecture is examined along with its use of space. How does the way that buildings were accessed affect their potential use or function? What importance does location within a settlement have for a building? Domestic architecture, which existed in a diverse and complex village environment, accommodated the needs of not just human residents but also livestock. An examination of the built landscape of a village as well as its topography provides the context necessary to decode the functions of buildings and to understand their relationship to one another. The village was a rich social environment, an environment that can be understood through the remains that exist today.

The Medieval Countryside at a Regional Scale in the Western Argolid and Northeastern Peloponnesus

Dimitri Nakassis, University of Colorado, *Sarah James*, University of Colorado, *Scott Gallimore*, Wilfrid Laurier University, and *William Caraher*, University of North Dakota

The study of the medieval Mediterranean is paradoxical. On the one hand, scholars have continued to define the master narrative for the medieval and Byzantine periods in the Mediterranean through politics and church history. On the other hand, few periods have seen as concerted an effort to understand the life and experiences of nonpolitical classes from villagers to monks, mystics, and merchants. At the risk of simplifying a complex historiography, historians of the Annales School pioneered the study of everyday life in medieval and early modern Europe. At the same time, Byzantine historians have drawn influence from concepts of cultural materialism to critique the co-development of particular economic and political systems and to recognize the fourth to 14th centuries as a period of rural transformation. This work has found common ground with landscape archaeologists who since the 1970s have sought to emphasize long-term, quantitative methods within tightly defined regional contexts to understand the tension between local and regional developments in the medieval countryside.

Recent work in the Peloponnesus and central Greece by the Nemea Valley Archaeological Project, the Argolid Exploration Project, the Boeotia survey, and the Methana Survey Project, among others, provides a methodologically sophisticated, regional perspective on the medieval countryside that is almost unprecedented in the Mediterranean. This paper adds to this existing body of regional evidence based on three seasons of the western Argolid Regional Project. From 2014–2016, this project documented 30 km² of the Inachos River Valley through highly intensive pedestrian survey. This work has revealed significant postclassical activity ranging from late-antique habitation to 13th-century settlements and Venetian towers. These sites derive greater significance from both the impressive body of recently published fieldwork on the countryside of the northeastern Peloponnesus and the well-documented histories of the urban centers of Argos, Nafplion, and Corinth. The existence of both rural and urban contexts in this region offers a unique opportunity to consider the tensions between town and country and rural

life and urban politics in the postclassical centuries. The result is a study of the medieval countryside that probes the limits of the long-standing and largely urban and political master narrative while also demonstrating significant regional variation.

Remarks on Surface Survey Research in the Eastern Peloponnese
Anastasia G. Yangaki, National Hellenic Research Foundation, Greece

During the past four decades, several studies have presented the preliminary or final results of intensive surface surveys from various areas of mainland and insular Greece. Among this ample material, a significant part of the research concerns the period from the fourth until the 15th century. C.E. This paper examines the evidence for the regions of Corinthia and Argolid, in the eastern Peloponnese, which have been the focus of investigations since the late 1970s, beginning with the seminal Argolid Exploration Project.

Even though a thorough study of the results offers important information on land use and settled landscapes during the aforementioned period, nevertheless, when one attempts to combine the information deriving from the various surveys with an aim to acquire a comprehensive view of habitation and land use of these two regions, several obstacles arise as to the comparative use of the evidence. Some of the issues that will be addressed here touch upon (1) the lack of a clear focus on the Byzantine settlement history and its material culture; (2) the variation in the methodologies applied to the collection of the material and the variable degree of its presentation in the published reports; (3) the rather slow dissemination of the fieldwork results, particularly in what concerns earlier projects; and (4) the rather low scale of interpretation of the evidence that accompanies the archaeological data. After presenting a summary of the current state of survey research in the eastern Peloponnese, this paper will suggest a model that can compensate for existing shortcomings and assist in the development of a better understanding of the rural landscape of this area and its changes across time.

What Happens When Historians and Archaeologists Talk to Each Other: The Avkat Archaeological Project
Hugh Elton, Trent University, *John Haldon*, Princeton University, and *James Newhard*, College of Charleston

Far too often, there has been a disconnect between the development of regional survey data applicable to Byzantine studies and its use in informing our understanding of Byzantine history. Some of this comes from structural conditions within the discipline. Until recently, Byzantine studies have suffered from a lack of critical mass of landscape archaeologists with significant interests in the period, while the majority of historians, largely trained to pore over textual sources, have had little understanding of how to incorporate the complex data emanating from such studies effectively.

Bridging this divide requires engagement between historian and archaeologist via the formulation of research projects informed by the perspectives of both.

The Avkat Archaeological Project, a collaboration of Byzantine historians and landscape archaeologists, serves as a starting point for discussion as to how such arrangements can be instituted. Focused on the exploration of a central Anatolian medieval landscape, the project chose as its focal point the site of Avkat—a candidate for the ancient city of Euchaita, known from historical sources as a military outpost and pilgrimage center for the cult of St. Theodore the Recruit. Thus, the project *ab initio* addressed questions of interest to both archaeologists and historians, such as medieval geography, military strategy, land-use patterns, and changing social structures. The demands to address these questions and the synergy created by archaeologists and historians made us challenge the validity of our individual approaches and the advantages of the perspectives pulled from the expertise of our collaborators. This process led to innovations in analytical and methodological approaches to the archaeological data and a heightened appreciation for how to balance textual/historical data with the archaeological.

In addition, the inclusion of three PIs with different disciplinary backgrounds allowed for dissemination to occur in a wide variety of venues, such as historical commentaries on the *Lives* of St. Theodore, reports on survey results, articles on geospatial applications, and broader assessments of the integration of climatological, historical, and archaeological data. While variability in dissemination is common to archaeological projects, the breadth of the Avkat outputs suggests the potential for research on the Byzantine countryside to reach significant audiences including, but not limited to, Byzantine historians.

SESSION 7A: Workshop
Archaeology and Conspiracy Theories

MODERATOR: *Darby Vickers*, University of California, Irvine

Workshop Overview Statement

In order to engage the public, journalists and bloggers often distort the nature of archaeological discoveries, frequently claiming there is some great mystery where none exists. Beyond this, there is a large audience that is receptive to conspiracy theories that distort the evidence to a much greater degree. An entire show called *Ancient Aliens* is devoted to interpreting archaeological evidence to show that there were aliens that came to earth in ancient times and built things with their technology (and there are interpretations of all sorts of ancient art to show depictions of these aliens). A new show, hosted by Megan Fox but along the same lines as *Ancient Aliens*, will appear on the Travel Channel.

Archaeology conspiracy theories have been around for centuries (e.g., before he investigated, Thomas Jefferson believed that the Native American mounds that he found were too advanced to have been built by Native Americans so he hypothesized a mysterious race of "mound builders" who he believed had preceded the Native Americans.), but with the advent of social media, today's archaeologists have a direct avenue of communication with the public. However, social media swarms with people who believe in conspiracy theories and often prove incredibly difficult or impossible to persuade.

New tools are now available for this task since academics in a variety of disciplines have begun to analyze conspiracy theories. This workshop will unite research from archaeology, history, epistemology, and psychology to discuss how best to debunk conspiracy theories. It aims to gather information from those in archaeology about their experiences dealing with conspiracy theories and their proponents in academic and social settings. Ultimately, we hope to put together an interdisciplinary collaboration to produce a pamphlet along the lines of John Cook and Stephan Lewandowsky's "The Debunking Handbook." In the age of social media, academics are faced with unprecedented ability to shape the narrative about their field in the public consciousness but also the difficulty of facing a public who hold erroneous opinions. Our aim is to discover what archaeologists need to make the best use of their social-media presence.

PANELISTS: *John Albertson*, AIA Member at Large, *David Anderson*, Radford University, *Carly Maris*, University of California, Riverside, *Elizabeth Parker*, University of California, Irvine, and *Ryan Stitt*, AIA Member at Large

SESSION 7B: Colloquium
Craft Production in the Medieval and Post-Medieval Mediterranean

Sponsored by the AIA Medieval and Post Medieval Archaeology Interest Group

ORGANIZERS: *Fotini Kondyli*, University of Virginia, and *Lucie Stylianopoulos*, Independent Scholar

Colloquium Overview Statement

Research on craft and production in the medieval and post-medieval world often focuses on the identification of production sites and on the examination of consumption and distribution patterns of finished products. Discussion on production methods and craft organization is still entrenched in specialized works pertaining to a specific type of commodities, such as pottery or textiles. Far less work has been done on the social and political consequences of crafting activities. Furthermore, comparative approaches to craft specialization, organization of production, multicrafting, and knowledge sharing are still missing.

This panel aims at stimulating scholarly interest in the social, political, and environmental consequences of crafting activities, particularly related to textiles, pottery, metallurgy, and glassworks. We seek papers dealing with the topography of such activities in an urban, rural, or domestic setting and also consider environmental factors related to the availability and extraction of resources and raw material. Of interest are also contributions that focus on the archaeological signature of production, especially on industrial installations, tools, debris, unfinished products, and working and housing conditions of crafting communities. We ask all participants to consider the social and political implications of the activities they present. Topics might include questions on workshop organization, craft and socioeconomic status, gendered division of labor, as well as on the relation between

production and state economy, and craft and political authority. Finally, papers that address issues of skill and knowledge transfer among crafting communities as well as evidence of multicrafting are particularly encouraged.

Age-Old Traditions Coming of Age: Metal Production, Communities, and Landscape in the Medieval Balkans

Georgios Makris, Princeton University

Studies of various products of metalwork in the Byzantine East have predominantly addressed questions of iconographic repertoire and style, geographic diffusion on the basis of archaeological finds, and, more recently, function and human agency. The latter theme in particular, has been examined from the viewpoint of major consumption and production centers including Constantinople, and often in relation to well-attested religious and social practices such as pilgrimage or fashion. This paper's departure point is a select group of Middle and Late Byzantine devotional objects, now preserved at the Metropolitan Museum of Art, which consists of a number of enamel medallions, pectoral crosses in bronze, and a pair of silver earrings. Taken in tandem with material evidence from excavations and the results of recent archaeological analysis of smelting technology and study of metalworking activities in the late-medieval southern Balkans, the MET objects can offer the means by which to investigate patterns and sites of production of high-and-low-quality metalwork in Middle and Late Byzantium. An understanding of this subject can be refined by bringing into the discussion the landscape of metalworking. Looking into the site-specific environment of the southern Balkans that allowed different, yet parallel, modes and scales of metal production and keeping in mind the well-documented high value of mineral resources in Byzantium, this paper questions the natural and cultural isolation and invisibility of crafting communities in order to see them as significant members of medieval society, and not merely as the necessary middle step between raw material and a wealthy patron. Tackling the issue of landscape involves the examination of metallurgists in a seemingly loosely controlled provincial context away from the imperial capital, which then begs the question of the role of political or religious authorities in craft production. Indeed, the relation between manufacturing communities and significant societal groups, including the church and monastics, is an overarching theme. Although the archaeological context of the MET items cannot be fully reconstructed, this paper intends to explain the phenomenon of the widespread distribution of such metal objects across the political borders of the empire, by bringing together the available evidence for metalworking practices in a Balkan landscape with, perhaps more importantly, the wider physical and historical setting of production and the producers. Ultimately, the aim is to reconsider the notion of craftsmen's low position within Byzantine society, as perhaps deduced from textual sources, and highlight their network of operation and integration into the social world of Byzantium.

Embroidery Workshops in the Ottoman Empire

Michalis Lychounas, Hellenic Ministry of Culture, Ephorate of Antiquities of Kavala

Byzantine and post-Byzantine church embroidery of has often been approached as a secondary art of lesser importance, mainly due to the limited surviving material and its documentation. More recently, a renewed interest on church embroidery has encouraged new research on the identification of workshops and the dissemination of their products as well as on the socioeconomic dimensions and repercussions of these workshops activities, including the role of women and of different ethnicities in the production and consumption of such products. Scholars have also focused on the study of the iconographic evolution of the genre, considering the impact of Byzantine artistic traditions, western influences, and new aesthetics developed within the Ottoman political realities. Instead of simply underscoring the relation between embroidery and genres of greater art, especially mural painting and icon painting, new approaches to the iconography of embroidered pieces argue now for them as a fertile ground for iconographic innovation.

Inspired by these new scholarly trends, I discuss two *epitaphioi* that belong to treasures of refugees (forced to relocate in 1923 in the framework of exchange of populations between Greece and Turkey) from the Bishopric of Metres and Athyra, near Constantinople. The first one, most likely from Demokraneia, has been attributed on stylistic evidence to one of the most famous embroiderers/entrepreneurs (*kentistres*) of the first half of the 18th century in Constantinople, Mariora. She was part of a very active workshop and her works are found all over the Greek Orthodox world (from Jerusalem and Asia minor to mainland Greece and Cyprus). The development of the iconography of the epitaphioi she created, indicate efforts to follow the intricate issues of the inner patriarchate struggles, and the relation among the various Christian communities in the region. Both her work and the output of her workshop should also be considered within broader political and economic phenomena during the Ottoman period that transformed the Mediterranean metropolis to a center of luxury items production and consumption and thus also allowed more freedoms and economic strength in the Orthodox millet involved in such activities. The other *epitaphios* comes from the town of Metres (today Çatalca in Turkey) and displays an exquisite level of craftsmanship, literacy and iconographic innovation which points to a very sophisticated workshop, most probably in Istanbul.

With these two examples I hope to trace the activities of important embroidery workshops in the Ottoman period and consider how they could inform and reflect notions of religious coexistence and rivalry, ethnicity, and gender.

The "Stone of Athienou": An Ethnoarchaeological Study of Stone Workers in Central Cyprus

P. Nick Kardulias, College of Wooster

The town of Athienou in central Cyprus lies at the southern edge of the fertile Mesaoria Plain that has served as the breadbasket of the island for millennia. In addition to this agricultural focus, the region has been home to a number of

traditional crafts, such as the making of lace, and services, including transport of bulk goods by mule. In addition, artisans have fashioned a variety of objects from the local limestone whose qualities earned it the rubric of "the stone of Athienou" and in some quarters, "Cypriot marble." Ancient sculptors made extensive use of this material to fashion a wide range of statues, many of which were found by Luigi Palma di Cesnola at the major site of Golgoi north of Athienou and that formed the foundational assemblage of the fledgling Metropolitan Museum in New York. A French mission in the 1860s retrieved a number of statues from a rural sanctuary at Malloura, the focus of current excavation by the Athienou Archaeological Project (AAP), which in turn has recovered over a thousand sculptural pieces made of the local material. While the production of sculptures largely ceased by the early Byzantine period, the manufacture of mundane objects continued until the recent past. The present study focuses on the latter, among which are vessels (bowls and various types of basins), millstones, and construction materials. Archaeological survey by the AAP has revealed the sources of bedded limestone and gypsum. Interviews with local craftsmen and ethnographic material provide details about quarrying procedures and the structure of the labor force. These investigations offer insights into an important local industry that thrived throughout the medieval and early modern period. The results of the study are examined within the context of world-systems analysis to demonstrate the status of the region as an extraction zone the resources of which provided the local population both a degree of self-sufficiency and material to exchange at the interregional level.

Craft Production in an "Open-Trade Zone": Metalwork in the Late Medieval/Early Modern Aegean

Nikos Kontogiannis, Koç University, Istanbul-Turkey

This paper examines the metal objects of three hoards, dated to the late medieval and early modern periods, whose one common factor is their findspot in an Aegean island city, Chalcis in Euboea. The most impressing assemblage is a large treasure of jewelry with some 630 objects dating from the 14th and early 15th centuries. The second is a group of body-armor pieces, part of the state armory, which was concealed before or after the Ottoman conquest of 1470. Finally, the third hoard includes the metal equipment of a pharmacy that was concealed on the eve of the Venetian siege of the city, in 1688.

A common denominator of these hoards is that they contain both objects made locally and ones coming from western or eastern production centers. The fact that their objects span a large time period and bear evidence of continuous use and reworking speaks in favor of local workmanship adjusting to wider trends and technological advances. Most importantly, each hoard has its own "profile," with each set of artifacts addressing a different group of makers and users, and therefore implementing a diverse network of production, commerce, and consumer pattern. Studying them side by side, I hope to offer an insight into different, yet coexisting sets of socioeconomic and technological interrelations that persisted over centuries. At the same time, these objects help us detect the connections between the various ethnic and political actors within the city, and their counterparts in the wider Mediterranean world.

Connections among Craft Communities in the Late Medieval Mediterranean: New Considerations on Patterns of Use of the Naples Yellow Pigment

F. Kondyli, University of Virginia, *G. Sanders*, American School of Classical Studies at Athens, *A. Ben Amara*, Université Bordeaux-Montaigne, *R. Chapoulie*, Université Bordeaux-Montaigne, *B. Gratuze*, IRAMAT Centre Ernest Babelon, *A. Sodo*, Università di Roma, *G. Della Ventura*, Università di Roma, *E. Kiriatzi*, Fitch Laboratory, British School at Athens, *N. Muller*, Fitch Laboratory, British School at Athens, and *P. Koutsovitis*, Centre for Research and Technology, Hellas

This paper examines the diffusion of craft traditions in the late medieval Mediterranean, focusing on shared techniques in the production, surface treatment, and decoration of ceramic vessels across political borders. Lead antimonate (Pb2Sb2O7), or Naples Yellow, is one of the most common yellow pigments found in majolica wares and European paintings. The knowledge for its recipe is considered to have been transferred to Venice via the migration of eastern Mediterranean glass artists in the early 1500s. Naples Yellow is also the most ancient synthetic pigment used for coloring and opacifying glass, as evidenced by findings from Egypt (ca. 1450 B.C.E.) and Mesopotamia (1300–1000 B.C.E.). It was also used by Roman glassmakers at least until the fourth century C.E., and also occurs later on in some late Byzantine sgraffito wares from Macedonia and western Anatolia.

With this background in mind, we present results obtained from the integrative analysis of 35 samples of 14th-century sgraffito wares found at the cities of Corinth and Thebes, mainland Greece. Aside from the local production of yellow-glazed sgraffito wares in both cities, a significant number of yellow-glazed wares were imported from northern Italy (Liguria, Veneto, Po Valley) and from the Marche. Yellow-glazed pottery in late Byzantine styles was imported from Thessaloniki, as well as from the Venetian colony of Negroponte/Chalkida. The use of iron oxides was systematic among these productions, in concentrations varying from workshop to workshop. In addition, antimonate-based yellow pigments are detected in several Greek productions of Byzantine tradition (Chalkida, Corinth, Thessaloniki) and in Venetian ceramics, whereas lead-tin yellow pigments were used in Greek workshops under Frankish (Thebes) and Catalan (Thebes, Corinth) rules.

Our results suggest that Greek workshops might have played an important role in production and diffusion processes of Naples Yellow pigments in the Byzantine world, either through primary ore extraction, trade of processed materials (glass), or transmission of pigment recipes. Moreover, they provide new insights into the way Naples Yellow recipes may have reached Venice during, or even before, the late medieval period. We also explore the possibility of a Latin origin for the use of tin-based yellow pigments, thereby exploring political changes as a potential catalyst for the diffusion of craft traditions.

On the Transfer of Knowledge in Ivories of the Medieval Mediterranean

Anthony Cutler, Penn State University

If we were to depend on the written sources we would know almost nothing about the crafting of ivory in Byzantium, the Islamic world and the West in the medieval Mediterranean. After Paul the Silentiary's remark about the ambo of the

Hagia Sophia in Constantinople, ca. 563, rare allusions to this material in Arab gift books (11th and 12th centuries), and passing mentions in accounts of the sack of the Fatimid treasuries in Cairo, the number of references can be counted on the fingers of one mutilated hand. Yet, according to Leo of Ostia, Desiderius, abbot of Montecassino (ca. 1070) saw fit to have young monks trained in the arts of ivory working, inter alia, and, earlier in the same century, al-Hayyan recorded a huge present of elephant dentine, along with the animal(s) that yielded it, to the Umayyad emir of Córdoba. This offering directly preceded the explosion of ivory carving at Madinat al-Zahra, a body of production that often provides the inscriptions that identify the names of the recipients and/or the official in charge of the workshop responsible.

Of these movements of crafters and materials there are no immediate archaeological traces in the narrow sense of the term. Nonetheless, the evidence is there in plenty, even if heretofore unread. Forensic examination of the objects in question enables us to identify resemblances and differences between the methods employed, thereby permitting us to recognize the variables beyond the constants that the material imposes on those who work it. The same sort of evidence allows the recognition of carving techniques shared by ivory carving and woodworking, a datum that is not insignificant given the contemporaneity, for example, of the carved ceiling of the Cappella Palatina in Palermo and the host of ivory-clad reliquary boxes preserved in the treasury of this royal establishment (and elsewhere). The iconography of these boxes points to objects produced for Latin and Muslim clients alike, whereas that of the datable ivories created in Constantinople presents an orthodox and unsurprising emphasis on the emperor (Constantine VII Porphyrogennetos [945–959] and Nikephoros II Phokas [963–969]), and possibly one or two court officials. This "patronage" has been widely studied. Not so the physical testimony to both local bodies of production and their intercourse, an otherwise tacit transfer of knowledge. This is available in the other sort of archaeology undertaken in this paper.

SESSION 7C
Prehistoric Crete

CHAIR: To be announced

Firing Diversity? A Later Neolithic Pottery Production Area at Knossos and the Development of Pottery Production on Crete

Peter Tomkins, University of Catania

There is a perception, widely held, that the transition to the Early Bronze Age on Crete was marked by a revolutionary shift in the production and consumption of pottery, manifest most obviously in a series of technological changes or improvements, such as a greater use of Neogene calcareous clays to achieve finer, paler grounds suitable for the application of iron-rich painted motifs and improvements to firing (higher temperatures, longer soaking time, greater control over firing atmosphere) that resulted in higher fired, more-durable fabrics and larger- or

thinner-walled vessels. It has been proposed that these changes were facilitated by a straightforward change in firing environment and practices, from Neolithic pit-firing to the up-draught kiln in EB I. In this unitary evolutionary view of the development of ceramic technology on the island, the pottery of the Neolithic period is glossed as lacking technological sophistication (low or unevenly fired, variable firing atmosphere, absence/scarcity of painting).

Less well known, and running at a counter angle to this, are the results of analytically supported technological studies of Cretan Neolithic pottery from Knossos (EN–LN), Phaistos, and Kephala Petras (FN) which suggest greater quality and diversity in Neolithic ceramic technologies, including firing sequences. In the case of Knossos, this work indicates that the use of calcareous Neogene clays together with noncalcareous slips is attested from the beginning of the ceramic Neolithic, while experimentation with painting and a significant increase in control over firing atmosphere, sufficient possibly to indicate a change in firing environment, is apparent in the local pottery already from the late sixth millennium B.C.E. (LN I). On the one hand, these results are hard to square with the orthodoxy of a single unitary, evolutionary development, but, on the other, the inference of a much earlier shift to a kiln-like firing environment, at least at Knossos, lacked the corroboration that only the discovery of a production area could provide.

Further light has unexpectedly been thrown on this by the recognition at Knossos of a pottery production area, of LN II–FN date, comprising several superimposed kilns together with open-air and possibly indoor working areas. This paper will present this pottery production area and outline an earlier, more complex evolution of the kiln, from horizontal to up-draught, already during the late fifth millennium B.C.E. (FN).

Time for Plain Speaking: Thinking through Plain Handleless Cups in Minoan Crete
Ilaria Caloi, Ca' University of Venice, and *Simona Todaro*, University of Catania

The first plain handleless cups appear in south-central Crete in the EM IIB period, and by EM III they are produced in such large quantities at Phaistos, Ayia Triada, and other sites of the region, as to be the closest thing to a mass-produced vessel in Minoan times. Usually named *skoutelia* by the Italian excavators of the ceremonial/palatial center of Phaistos, these plain handleless cups vary through time in manufacturing technique, dimension and profile, and as such have served as a valuable chronological indicator for the different phases of creation and subsequent development of the palace. Most researchers have focused on the more ubiquitous Neopalatial (17th century B.C.E.) version of this category of vessels, labelled conical cups, sometimes to the extent that the earlier types known from south-central Crete, are excluded from consideration. From a southern Crete perspective, however, the conical cups of the 17th century B.C.E. cannot be regarded as a separate phenomenon from the plain handleless cups attested in the mid-third millennium B.C.E.

In this paper, the data provided by the ceremonial center of Phaistos will be used to argue that plain handleless cups were introduced in the south of the island in the mid-third millennium to be used in the context of work-feasts, in a way that recall very closely the bevelled-rim bowl of the Uruk culture in the Near

East, and in the course of the second millennium were progressively adopted to satisfy multiple aspects of the social life of Minoan communities. At Phaistos, the mass-production of plain handleless cups may be connected with major building projects that culminated in the construction of the "palace." More specifically, in EM III (23rd century B.C.E.) plain handleless cups were produced en masse with molds, to be used as ration bowls during a major building project that substantially changed the look of the hill through the creation of the massive terraces upon which the first palace was erected in MM IB. In MM IIA (18th century B.C.E.), plain handleless conical cups were manufactured en masse through the use of the potter's wheel to be used as ration bowls during the renovation of the main palatial building and the monumentalization of the entire site.

Rise of the Individual or Continuation of the Communal: Minoan Pre- and Protopalatial *Larnakes* on Crete

Laura Ursprung-Nerling, University of Missouri-Columbia

This paper expounds upon initial research pertaining to pre- and protopalatial *larnakes* on Crete. While our understanding of Minoan mortuary tradition has increased over the last several decades, particularly with the systematic excavations and publications of tombs, cemeteries, and rock shelters on Crete (including Archanes, Petras, and Hagios Charalambos), only brief observations have been applied to the overwhelming number of *larnakes* unearthed within these contexts. Yet, the presence of so many vehicles for personal and communal funerary consumption over such an extensive chronological period suggests a level of importance that requires attention.

The current project seeks to fill this lacuna by undertaking a regional, diachronic, and typological study of all pre- and protopalatial Minoan *larnakes*. Moreover, because this study examines the earliest examples of *larnakes* (a tradition that continues into the neo- and postpalatial periods), it also investigates their introduction on Crete at such a crucial period in the development of the Minoan sociopolitical structure. How did these containers come to be introduced into the funerary record? How do they operate within the funerary context of pre- and protopalatial Crete? Was there actually a "rise of the individual"? Or were these vessels indicative of "collective individualization"? What can their association with built and unbuilt tombs tells us about their value to the collective or the individual? These questions, and others, form the basis for this study.

Such a study on funerary vessels has already proven beneficial for other periods throughout history (Roman, Mycenaean, and Etruscan should all come to mind). In this case, the results will engage with the broader debate concerning Minoan sociopolitical development. Should a typological study indicate geographical variation and display "collective-individualization" then perhaps the logical conclusion would point to the operation of multilateral communication between communities on Crete in the EM III–MMII period. This runs in opposition to the suggested development of a Minoan hierarchical, top-down, and centrally organized state structure proposed during the EM III and early MM periods. Instead, the widespread use of *larnakes* (often containing multiple burials) suggests a heterarchical dynamic that includes mutual and multifaceted communication and exchange. We

should look at the advent of these vessels not as an indication of the rise of the individual and therefore indicative of a centralized authority organized around a single leader, but as a continuation of communally based social organization.

New Research on Minoan Gold: First Results and Implications for Understanding Off-Island Interaction

Borja Legarra Herrero, UCL Institute of Archaeology, and *Marcos Martinon-Torres*, McDonald Institute for Archaeological Research, University of Cambridge

Gold was a key material shaping the relation between the island of Crete and the wider prehistoric world. This metal had a high cultural value and it was used in important social practices, but it is not native to the island, thus impelling Cretan communities to engage with the wider world in search of this prized material. This relation between off-island exchange and internal power dynamics takes a particularly interesting turn around 2000 B.C.E. when new contacts with the eastern Mediterranean coincide with the appearance of palaces on the island. This paper presents the first results of a project focused on the analysis of gold items from pre- and protopalatial Cretan tombs aiming to identify changes in the production and consumption of gold that shed light on this relation between internal and external dynamics. Combining chemical and microscopic analyses, we identify a range of production choices and technological variability within and between assemblages that make it possible to identify the work of individual artisans, as well as a diversity of use-wear patterns that denote distinct artifact life-histories. Our analyses are contrasted with published information of gold from the Aegean and Egypt in order to contextualize better the gold composition of the Cretan goldwork and the characterization of the funerary assemblages. Finally, all information is combined with contextual evidence of consumption patterns from the burial record where the items were recovered. The combination of all these strands of information provides new insight into the way in which the provision and use of gold relates to the major changes in the sociopolitical organization of the island at the beginning of the second millennium B.C.E., and their relation to similar dynamics in other parts of the eastern Mediterranean.

Death and Divinity at Kommos: Reinterpreting a Prothesis Scene on an Incised Cup from the Iron Age Sanctuary

Megan Daniels, University of New England, Australia

The Iron Age sanctuary at Kommos on the south-central coast of Crete, dating from the tenth to sixth centuries B.C.E., has yielded a number of religious peculiarities, beyond the oft-cited Phoenician Tripillar Shrine that features prominently in Joseph and Maria Shaw's fourth volume on the excavations. One piece of imagery in particular, on an incised cup, displays a very rare scene within the artistic repertoire of Iron Age Crete. This cup, dated by Maria Shaw (*AJA* 87.4 [1983]) to the third quarter of the seventh century B.C.E., shows the laying out (prothesis) of a warrior. The deceased individual is watched over by two others: a man in full warrior garb with his spear lowered, and another person in a short dress, possibly

a priest. Included on the cup are scenes of birds, including a rooster, vegetal motifs, and other individuals engaged in athletics or dances.

In her article, Maria Shaw situated the artistic style of this cup within seventh-century Cretan art, but left the broader religious interpretations of its iconography open. Here I propose tackling the socio-religious meanings of prothesis imagery by highlighting its context within a sanctuary at the cultural crossroads of numerous groups: Greek, Phoenician, and Egyptian. After outlining the major iconographic components of this cup, I use cross-comparisons from three sources to elucidate its significance at Kommos: the first source is scenes of lament in the *Iliad*, which position Homeric heroes as quasi-divine at their moment of death. The second source is another comparatively rare prothesis scene in ivory, carved using Cretan-inspired motifs, from the Sanctuary of Orthia at Sparta of the same date as the Kommos cup, which includes a number of elements that point towards a divine or semidivine death. The third source is imagery from the Levant surrounding the goddess Astarte, which includes vegetal and avian symbolism, and the overall association of Astarte with the death of kings and gods. Finally, I return to the more immediate ritual context of Kommos, which includes warrior-themed dedications (spears and arrowheads) alongside figurines of the Egyptian deities Nefertum and Sekhmet, the latter identified with Astarte from the Late Bronze Age onwards. I conclude that this prothesis scene demonstrates that Kommos elites, via their commercial and cultural interconnections, were tapping into long-standing royal ideologies of heroic deaths and quasi-immortality circulating between Greece and the Near East in the Iron Age.

Minoans in Punt: An Interpretation of the Akrotiri Frescoes

Elizabeth A. Fisher, Randolph-Macon College

Several frescoes in the houses of Akrotiri depict an expedition to Punt. Punt is known from Egyptian texts as a far-off land to the south or east of Egypt which was the source of many wonderful and exotic products, including most importantly, incense. The most famous Egyptian expedition to Punt was made by Hatshepsut in the 15th century B.C.E., and was depicted on a painted relief on her mortuary temple at Deir el-Bahri.

The frescoes of Akrotiri have received more attention than just about any ancient paintings. Animals and plants, ships and buildings, costumes and hairstyles, and landscapes and seascapes have been analyzed and studied for the information they give about the lifestyles, belief systems, economy, and environment of the Bronze Age people who painted these remarkable works of art. Still, the topographical elements confound, and many of the animals and plants are distinctly out of place on the Aegean island of Santorini.

An examination of the animals, plants, landscapes, and ethnographic pictorial elements of the frescoes places the locale in eastern Ethiopia, Eritrea, or southeastern Sudan. The depiction of East African animals and landscapes suggests that the artists had seen the places and animals for themselves. There is no reasonable explanation for the exact rendering of Grivet monkeys and Grant's gazelles except that the artists had seen the animals in their natural environment—which is not

and never was the Aegean. Nor is it likely the animals were imported alive over such a long distance to Santorini.

In addition, numerous exotic materials are available in the Horn of Africa, including hippo and elephant ivory, rock crystal and amethyst, ostrich eggs and feathers, and gold. The most important import from Punt was frankincense, which along with myrrh, grows in a very limited geographical area including East Africa. While "resinous materials" have been reported in various Aegean Bronze Age excavations in the past, future excavators should be diligent to test for frankincense residues, which would confirm that Aegean traders traveled to and traded with the magical land of Punt, in the eastern Horn of Africa. There is no other location where all of these products, animals, and landscapes are found in one place. This paper discusses the nexus of evidence for at least one celebrated Minoan trade expedition to the Land of Punt.

Mochlos, Uninterrupted: Material Evidence from the Settlement during Middle Minoan IIB–IIIA

Georgios Doudalis, Ruprecht-Karls-Universitat Heidelberg

Ten years have passed since the publication of *Intermezzo: Intermediacy and Regeneration in Middle Minoan III Palatial Crete* (London, 2013), which discusses transformations and transitions between the protopalatial and neopalatial periods among several sites. New evidence from Mochlos suggests that its own society transformed, rather than collapsed, and the continuation between these periods is evidenced in material culture production and consumption. This paper considers the continuation by way of comparison of the ceramic material and architectural and stratigraphic data.

During the end of the protopalatial period, Mochlos seems to be part of the Malia-Lasithi state, centered around Malia. Mochlos provides evidence for this relationship insofar as the potters there were imitating the formal and stylistic trends of the center, especially with reference to the drinking wares in Middle Minoan (MM) II. In most instances, the MM II deposits appear just below Late Minoan I levels, and the interim MM III period saw the complete modification of the site, a result of the collapse of the center of Malia.

Excavated material underneath the Ceremonial Complex B.2 reveals information about the Middle Minoan IIIA and IIIB occupation on the settlement. Clear stratigraphic deposits show a new tendency in the production and consumption of shapes. New shapes come to dominate the deposits, while older shapes continue but are rarefied. Interestingly, potters' marks from the protopalatial continue to some degree into the neopalatial, demonstrating a lack of interruption in workshop practices.

Finally, a single Middle Minoan IIB free-standing house stood contemporaneously with the neopalatial buildings, and its deliberate preservation from MM III–LM I period reinforces the idea of continuation and attachment of people with their past even in periods of dramatic political change. Taken together with the ceramic evidence this study reveals that, even if the social and cultural landscape transforms, with Knossos taking the lead in the neopalatial period, Mochlos' society likewise evolves with a look to the past in a process of continuation instead of total change.

SESSION 7D: Colloquium
The Potters' Quarter of Corinth: New Approaches to Old Data

ORGANIZERS: *Katherine B. Harrington*, Florida State University, and *Andrew F. Ward*, College of William and Mary

Colloquium Overview Statement

In 1929, Rhys Carpenter, then director of the American School of Classical Studies at Athens, asked Agnes Newhall (later Stillwell) to direct the excavation of a ridge 1.5 km from the center of Corinth, where a farmer had uncovered a concentration of miniature vessels and figurines. Stillwell, who was then just 23 years old and a recent graduate of Bryn Mawr College, soon realized that the site was home to a series of seventh- and sixth-century B.C.E. ceramic workshops, based on the abundance of misfired vessels, kiln furniture, clay deposits, and water channels. The Potters' Quarter, as the site became known, also produced evidence ranging from Geometric graves to the city's archaic wall, and a later domestic coroplastic workshop. Stillwell's notebooks were remarkably detailed for their time, recording many finds on a series of 1-m grids. Yet, much of this spatial information, as well as many of the finds, were excluded from the final authoritative publications, which instead focused on general issues of style and chronology.

This session aims to draw together a new generation of scholars whose work reexamines the legacy data from Stillwell's excavation, including her notebooks, cataloged finds, and lotted pottery. New methodologies and interpretive frameworks drawn from other disciplines and areas ask fresh questions of the Potters' Quarters data, related to ceramic technology, the organization of production, the daily lives of craftspeople, the ancient economy, and ritual practices. These methods include stylistic and spatial analysis, experimental archaeology, and archaeometric techniques such as pXRF. The process of excavating the archive has highlighted not only the height of ceramic production in the Potters' Quarter in the seventh and sixth centuries B.C.E., when Corinth was a leading engine of Mediterranean trade, but also continued craft production and ritual activity in the neighborhood into the fifth and fourth centuries. Beyond activities in the quarter itself, the material from Stillwell's excavation can also shed light on connections between Corinth and the larger Corinthia, as well as the wider Mediterranean world. Together, the papers of the session will outline the wide range of uses for legacy data, while also demonstrating their limits.

DISCUSSANT: *Angela Ziskowski*, Coe College

Middle Corinthian Workshops in the Potters' Quarter at Corinth

Ann Blair Brownlee, University of Pennsylvania Museum of Archaeology and Anthropology

A very large deposit, Well I (Corinth Well 1929-1) in the Potters' Quarter at Corinth, excavated by Agnes Newhall Stillwell in late May and early June of 1929,

is a unique body of material that provides important information about pottery production and workshop practice at Corinth in the late seventh and early sixth centuries B.C.E., when Corinthian pottery was in high demand throughout much of the Mediterranean world.

Well I, probably originally dug in the mid-seventh century B.C.E., lies just to the west of the later so-called Terracotta Factory, and the fill contained pottery of the Early and Middle Corinthian periods, dating roughly from 620 to 570 B.C. E. I am studying the complete contents of the well, much of which was published by Stillwell and Benson in *Corinth* XV:3, although my presentation will focus on the very large quantity of uninventoried pottery.

Well I yielded an abundance of Middle Corinthian *kotylai*, and in my work on the context pottery, I have substantially enlarged the oeuvre of a number of artists and distinguished additional individual hands. In my presentation, I will discuss several groups of *kotylai* that show such stylistic uniformity that they must have been produced at the same time, and this has helped to establish firm criteria for the identification of these painters. This has, in turn, enabled me to attribute works to particular painters who might otherwise have simply been called part of a larger group. This more complete understanding of individual style has also made it possible to gather artists into stylistic groups that we might consider workshops. The Well I *kotylai* present an unusually rich corpus for this kind of analysis.

I will also briefly discuss the *oinochoai* from Well I since they present a different set of issues and possibilities. Here too I have attributed many more fragments to known artists as well as isolated fragments that are by newly identified painters. The workshop connections are even clearer in the *oinochoai*, for many are connected with the work of the Geladakis Painter, a Middle Corinthian artist who is well represented at Corinth.

Experiment, Innovation, and Standardization: Archaic Pottery Production at Corinth

Bice Peruzzi, Rutgers University, and *Amanda Reiterman*, College of the Holy Cross

The potters of Corinth were known as great innovators already in antiquity. Pliny the Elder (*HN* 35.43.151–152) reports that it was Butades—a potter from Sicyon working in Corinth—who invented a technique for coloring terracotta sculptures by adding red clay (*rubricam*). Archaeological evidence from the Potters' Quarter sheds further light on the potters' ingenuity, by confirming that they were aware of the unique properties of local raw materials and that experimentation was an important part of their manufacturing process.

While Athenian pottery production has received much attention in recent decades, technological aspects of archaic Corinthian pottery remain rather understudied. This paper presents findings from our ongoing project of reexamining the legacy data from Stillwell's excavation through an approach that integrates macroscopic inspection with archaeometric analysis. The vestiges of pottery production, such as try-pieces, wasters, and misfires, afford glimpses into both workshop procedures and the potters' decision-making processes. Such insights include the order of painting a vessel's faces, repairs, and repurposing within workshop contexts, the potters' experimentation with raw materials, and their

careful monitoring of firing conditions to maximize output. Our investigation of production debris from the Archaic period in the Potters' Quarter highlights the role of the potters-inventors and nuances the current understanding of this prolific industry.

Archaic Corinthian pottery manufacturing frequently is characterized as an "industry," a term that carries modern connotations of high-volume production, efficiency, and standardization. Yet, our study brings into focus both the imperfect nature of the craft and the potters' almost scientific responses to challenges they faced. The Potters' Quarter debris exposes the potters' ability to learn through trial and error, as they processed raw materials, adapted to fluctuating kiln conditions, and reacted to inevitable accidents. The unique characteristics of the local clays and the volatility of kilns necessitated creative responses that gave rise to innovation. Capitalizing on happy accidents and on the favorable location of the site, Corinthian potters were able to create products that dominated the Mediterranean markets for decades.

Potters at Work and Potters in Distress on the Penteskouphia *Pinakes* from Archaic Corinth

Eleni Hasaki, University of Arizona

Ceramic production in archaic Corinth is mainly represented by the final products, which traveled to Greek and foreign ports. But the actual workshops of the Corinthian potters are elusive. The Potters' Quarter, the focus of this session, did not reveal any actual kiln remains, and even when we combine all the known ceramic production sites at ancient Corinth (both for pottery and for tiles) we have a mere dozen sites spanning from the Archaic to the Byzantine periods. What is interesting is that Corinthian potters often incorporated their ritual spheres within their industrial contexts, as evidenced by the Potters' Quarter and the Penteskouphia *pinakes*.

The Penteskouphia *pinakes* from archaic Corinth constitute an odd assemblage in the Greek world. With over 1,200 fragments, they include unusual iconographical choices for the pottery-production scenes, numerous depictions and invocation of Poseidon and the use of two-sided *pinakes*. Their ancient dedication site is not known, as the *pinakes* were looted in the 19th century C.E., but it is clear that the main recipient was Poseidon. About 100 terracotta *pinakes* show potters at work, collecting of raw materials, throwing at the wheel, and attending the kilns, with the kiln-firing scenes being the most numerous. The visual evidence from the *pinakes* fills the gap from the sparse excavated workshops regarding the technology and organization of pottery production in archaic Corinth. It also provides interesting points of divergence from the Athenian iconography of potters at work.

The unparalleled zeal on scenes from pottery workshops suggests that the Penteskouphia *pinakes* were not all ordinary dedications, but most likely anxious pleas to Poseidon as the protector of seafaring, by troubled potters at Corinth who were witnessing their own industry, once flourishing, rapidly declining and giving way to the Athenian ceramics, which would ultimately overtake the Mediterranean markets. Thus, the Penteskouphia *pinakes* do not merely represent potters at work during times of affluence, but also potters in distress in the first half of the sixth

century B.C.E. Those potters used *pinakes*, a familiar practice surface in their daily operations, and decorated them with snapshots of their surrounding working environment to express growing concerns over the well-being of their businesses. The Corinthian potters effectively transformed their practice pieces to powerful prayers.

Making It Work: Life and Labor at the Terracotta Factory

Katherine B. Harrington, Florida State University

Corinthian fineware was widely exported in the seventh and sixth centuries B.C.E., and Stillwell's excavations in the Potters' Quarter produced extensive evidence of production in this period, including misfired pottery, kiln supports, water channels, and workshop buildings. Yet, demand for Corinthian pottery declined over time, and the quarter underwent a drastic transformation in the mid-fifth century B.C.E. when the rerouting of the city wall destroyed several buildings. This paper focuses on this later period of transformation, and in particular, on a house and workshop of the fifth to fourth centuries B.C.E.—the Terracotta Factory—which produced figurines and miniature vessels long after most ceramic production in the quarter had ceased.

Stillwell recovered hundreds of objects from this building, including items related to household daily life (loomweights, cooking pottery, storage vessels, and small personal items) and craft production (molds, tools, workshop debris, and repeated figurine types). She identified nine particularly dense concentrations of artifacts both inside and immediately outside the building. In this paper, I reconstruct those deposits and consider their utility in answering questions about household activities and the organization of production within this domestic workshop, as well as the process of abandonment of the building. The Terracotta Factory can be understood in the context of other domestic coroplastic workshops from mainland Greece, such as those from Olynthos, Nea Halos, and Abdera. Typically, figurines were formed in the house and fired elsewhere, as seems to have been the case here.

The figurines and miniature vessels produced in the building were of types commonly dedicated at local shrines. I argue that this workshop survived into the fourth century B.C.E. by intentionally targeting their range of products to meet a local, rather than long-distance, market, while still drawing on traditional technical knowledge and the established infrastructure of the Potters' Quarter. Thus, the Terracotta Factory attests to the ability of crafting households to respond actively to changing social and economic circumstances.

… and Some Figurines: Recovering Terracotta Assemblages from the Potters' Quarter

Theodora Kopestonsky, University of Tennessee

When Agnes Newhall Stillwell was sent to excavate on a hill in the western part of ancient Corinth in 1929, no one knew she would uncover a production center which would forge the basis for understanding the Corinthian coroplastic craft. Her work documenting, analyzing, and publishing the terracotta figurines

from the Potters' Quarter remains a fundamental resource in the study of Greek coroplastics. Unlike many of her contemporary scholars who would make only passing references to terracotta objects, Stillwell recorded, inventoried or placed in lots many of the figurines from across the Potters' Quarter. Due to Stillwell's diligence, it is possible to return to her excavation notebooks, the figurines in the museum storerooms, and, consequently, to reevaluate the material.

Although Stillwell's publication (Corinth XV.2) provides a valuable discussion on stylistic issues, production techniques, and typologies of the terracotta figurines, she ignores the composition of different assemblages from the Potters' Quarter, focusing instead on representative selections of the whole corpus. However, examinations on specific contexts, especially shrines, can reveal Corinthian dedicatory practices. Ongoing research at Corinth has shown that each shrine has a different profile, even if similar types of terracottas are consistently offered. As a result, a reassessment of the terracotta assemblages from the sanctuaries of the Potters' Quarter is necessary in order to fully appreciate the variations in ritual activity throughout Corinth. In doing so, one must delve into the archives. While Stillwell diligently recorded her excavation, the techniques were different. Contexts were more general, dug by depth rather than stratigraphy, and material was saved together or combined with others. As a result, separating material for phases is difficult. A case in point is the Shrine of the Double Stele, which has at least two phases, but the material was kept together as one. Even with these difficulties, it is still worthwhile to sort, count, and reexamine the material, both catalogued and not. This paper presents the process of recovering one terracotta assemblage from the Potters' Quarter—the Shrine of the Double Stele—and shows how this relatively complete dataset can be used in an analysis of the dedicatory practices at Corinth. Returning to the Potters' Quarter requires fortitude and patience, however, the information garnered revitalizes an old excavation and provides fresh insights into the ritual lives of the ancient Corinthians.

The Stelai Shrines of the Potters' Quarter: Reappraisals of Ritual Furniture in Context

Andrew F. Ward, New York University

The so-called Stelai Shrines of the Potters' Quarter, discovered by Stillwell in excavations beginning in 1929, encompass at least six small enclosures along the quarter's ridge, each characterized by complex votive deposits centering around one or two upright articulated stone slabs. The shrines have made a reappearance in recent scholarship, with the "stelai" themselves discussed in terms of Greek and non-Greek aniconic cult. Over a two-year study, the application of modern assemblage theory to Stillwell's original excavations notes, archaeometric analysis of the "stelai" themselves, and comparison to the assemblages found within similar shrines discovered throughout Corinthia, challenge this identification. Instead, this paper argues that the "stelai" themselves are small-scale imitations of the stone offering tables used in the domestic cults of contemporary households.

The reappraisal of these objects' cultic functionality falls in line with a more general preference for small-scale and miniaturized ritual material in a variety of contexts in archaic and classical Corinthia. While miniature ritual vessels have

received the lion's share of attention in recent years, the offering tables of the "stelai shrines" follow a similar trend to that evidenced in the popularity of the small terracotta altar type—or *arula*—that may have originated in Corinth. Indeed, we may consider the role of Corinth—and its Potters' Quarters—in the popularization of a trend in small-scale ritual furniture evident both within the Greek diaspora and the wider Mediterranean.

SESSION 7E
People in Movement and Landscapes

CHAIR: To be announced

The Political Ecology of Roads and Movement: Yalburt Archaeological Landscape Research Project 2018 Season

Peri Johnson, University of Illinois at Chicago, and *Ömür Harmanşah*, University of Illinois at Chicago

There have always been many ways to move through a landscape. The shifts in the configuration of these routes and roads throughout history are shaped by cultural, ecological, and political processes in the landscape. From the Hittites to the Ottomans, empires in Anatolia have been defined by connectivity, and particularly the construction of east–west running roads traversing the peninsula. The Hittite Great King Tudhaliya IV's expedition to the west and the Achaemenid usurper Cyrus the Younger's march against Artaxerxes II chronicled by Xenophon are two of many military expeditions that seem to follow the same stretch of road running through the Ilgın Plain between Konya and the highlands around Afyon. Fieldwork in 2018 along an east–west route running though the site of Halimli, which is located 15 km north of the Ilgın Plain road brings to the forefront the multiplicity of alternative routes and the interplay between imperial military roads, trading and local routes, and settlement patterns. First appearing during the Assyrian trading colony period and active through the Ottoman period as a camel caravan route, the Halimli route was abandoned after the radical lowering of the groundwater level in the 20th century, which dried its springs. The 2018 fieldwork of the Yalburt Yaylası Archaeological Landscape Research Project focused on the Ilgın Plain road and both the Halimli route and comparable routes along the southern foothills of the Ilgın Plain. Whereas imperial policies, trading networks, and settlement patterns are part of this network of roads and routes, the political ecology of water plays an equally important role in the loss of diversity of movement. This paper discusses the persistence of alternative routes to the Ilgın Plain road from the Middle Bronze Age through the Late Iron Age (ca. 2000–330 B.C.E.). These alternative routes persist despite a shift from Middle and Late Bronze Age settlements in the middle of the plains to fortified outcrops in the Phrygian Middle and Achaemenid Late Iron Ages. Indeed these routes are transhistorical, although adjusted in response to geomorphological changes such as medieval and early modern marsh expansion. What restricts movement are the 20th-century canals draining the marshes, irrigation canals in the plains, and the desiccation of the springs and wells watering the lowlands in the 1990s.

Grounded: A MB Settlement on the Sharur Valley Floor, 2015–2016 Excavations of the Naxcivan Archaeological Project

Hilary Gopnik, Monash University, *Selin Nugent*, Oxford University, *Hannah Lau*, Koc University, and *Lucas Proctor*, University of Connecticut

The Naxçivan archaeological project (Emory University and University of Pennsylvania) has undertaken three years of research in the Sharur Valley, Naxçivan , Azerbaijan, funded by two US National Science Foundation research grants (1430403 and 1430404). In the last two years, valley floor excavations revealed an unexpected series of Middle Bronze Age elite structures that challenged the previously well-accepted hypothesis that complex village life had been largely abandoned in the MB period. We propose that in certain well-watered valleys such as the Sharur Valley, populations may have moved from settlements on mounds and hills to the valley floor, perhaps because of a lessening of tensions that required a defensive elevation. These valley floor settlements are very difficult to recover archaeologically because 3,000 years of agricultural activity has tended to destroy them, leaving only the well-known burial mounds on higher noncultivable ridges. What was thought to be a cultural pattern may be a matter of archaeological preservation.

In this paper we present the results of the excavations of MB settlement on the valley floor as well as of a select group of kurgan burials on the higher ridges surrounding the valley. In addition to settlement data we present a coordinated analysis of bioarchaeological data zooarchaeology and paleobotany in order fully to understand the agro-pastoral patterns that may have created this regionally specific settlement system.

Evidence for Transhumance among the Early Roman Towers of the Central Alentejo, Portugal

Karilyn Sheldon, Western Iberia Archaeology, *Joey Williams*, University of Central Oklahoma, and *Rui Mataloto*, Camara Municipal de Redondo

Although transhumance has been integral to both Italian and Portuguese agriculture since antiquity, the materiality of ancient transhumance can be elusive in part because of its migratory and cyclic practice and in part because of the decomposition of organic materials. The 2018 excavations at Caladinho, a first-century B.C.E. small fortified structure on a hilltop north of Redondo, Portugal, continued to uncover assemblages that contribute to the cultural landscape and materiality of ancient transhumance practices in the central Alentejo. The tower and associated domestic structures, embedded in the culturally dynamic borderland of the Roman Empire's western frontier, is one of 24 similar structures surveyed in the region. Previous field seasons between 2010 and 2013 allowed our team to ascertain the function of the watchtower as a structure for surveillance of the valley, thereby allowing Romans to claim the territory and monitor natural resources, routes of transport, and centers of potential indigenous resistance.

Although prior analysis of the structure, its assemblage, and its regional context asserted that the tower was part of a regional surveillance apparatus, open area excavation in the 2017 and 2018 field seasons led to the discovery of a large

domestic space north of the watchtower. The northern room contained varied ceramic wares, in both local and Italic fabrics, with several loomweights. These artifacts reinforce the notion that Caladinho's occupants engaged in multiple activities and that the site possessed functions beyond surveillance. While elevation was previously interpreted as advantageous through a political lens, archaeological evidence suggests that the altitude also benefited seasonal grazing under transhumant pastoralism. This paper analyzes the ceramic artifact assemblage (particularly the loomweights), faunal remains, and the newly discovered large domestic space to locate Caladinho within a landscape of transhumance. More broadly, this paper examines how the finds at the 2017 and 2018 field season could suggest a regional shift in colonization patterns and intercultural cooperation culminating in hybridization by way of husbandry, evidenced through adoption of local agricultural processes among Romans in the central Alentejo during the late first century B.C.E.

A Stranger in All Lands: The Origins of Mercenary Warfare in Egypt
Hannah Ringheim, University of Oxford

Perpetual military campaigns between Near Eastern empires dominated historical activity during the Bronze Age. Various conflicts, including war between the Egyptians and the Hittites, combating invading outsider groups, and the military campaigns for control over the Levant, reveal that manpower was undoubtedly a necessity. The foundations for the employment of foreigners began in this tumultuous atmosphere, when Near Eastern empires sought to hire contingents from the outside peripheries of organized society. In particular, the Egyptian pharaohs were well known for incorporating foreign groups, such as the Shardana, Medjay, and the Nubians into their armies.

Past scholarship has assumed that many of these foreign groups worked as mercenaries in most historical contexts in which they appeared. This paper confronts these generalizations and traces how a mercenary should ultimately be defined in antiquity. The essential research questions include identifying the specific roles foreigners had within the structure of the Egyptian army and when they were considered enemies and when they were allies. The methodologies include contextualizing two case studies that indicate nonlocals fighting for the Egyptian pharaohs. First, the textual and archaeological evidence for Nubian archers fighting at Egyptian fortresses, such as Hierakonpolis, are discussed. From centuries of cultural entanglement between the Egyptians and the Nubians, it is proven that the Nubians should not be considered mercenaries. In comparison, this discourse reassesses the textual and iconographic evidence for the Shardana contingent of the so-called Sea Peoples, which do show that the Shardana evince characteristics of foreign solders hired in return for remuneration.

By addressing one of the fundamental ways in which foreigners and organized society interacted during the Bronze Age, this research posits a new outlook on the early beginnings of hiring nonlocals within armies. It illuminates how foreigners were perceived, as well as how they were used for military gains. The records of conflict exemplify the first instances of when armies relied on foreign hires and ultimately bridge the continuity of this profession that then resonated throughout antiquity.

Blueprints for Bureaucracy: How the Egyptian Government Designed Settlements in the Desert to Oversee Amethyst Mining

Kate Liszka, California State University San Bernardino

The design of a space is an essential element to the organization of productive work generated by the people using that space. Deep in the Egypt's Eastern Desert, we see this principal in action at the fortified settlement of Site 9 at Wadi el-Hudi. Site 9 is a rectangular settlement, often confused with a fortress because of elements of its design, such as arrow loops, but fortification was not its main purpose. In it, administrators oversaw the quarrying and refining of amethyst in one of ancient Egypt's largest and most productive mines, next to Site 9. Hundreds of workers, soldiers, scribes, and administrators used this structure for a variety of purposes, from basic living and storage needs to the administration of work and the dedication of monuments.

This talk will present results from ongoing archaeological survey and excavation of the Wadi el-Hudi Expedition in Egypt's Eastern Desert. Focusing on the little known, but important Site 9, I will examine various architectural and archaeological nuances to elicit how Egyptian officials designed their spaces to maximize amethyst production through the organization their workforces and work spaces. For example, the talk will look at how the administrators protected their valuables in enclosed spaces that no one could see into. It will discuss how mining was done on the landscape, where the workers acquired and stored their tools, and how the mine expanded over time. It will investigate where the scribes oversaw the acquisition of materials, and how they kept appropriate records for the Egyptian central administration. It will reflect on how the Egyptians changed the space over time as their operations expanded and contracted. And it will look at the identity of the workers to demonstrate that the Egyptian administrators were incorporating both Egyptians and Nubians into their workforces. Through the examination of Site 9 as a case study, these principals of organization of administration can speak to the greater importance of architecture and design as means of control and productivity.

The Wadi el-Hudi Expedition works under the auspices of California State University, San Bernardino and in compliance with the Ministry of Antiquities in Egypt. The expedition has conducted four seasons since 2014, and results of this presentation are based on findings from the 2016 excavation and survey.

SESSION 7F: Colloquium
Understanding the Archaeological Record of Roman Iberia: Exploring the Creation of Knowledge and Communication across Boundaries of Nationality, Language, and Academic Tradition

Sponsored by the AIA Roman Provincial Archaeology Interest Group

ORGANIZER: *Paul S. Johnson*, University of Sheffield

Colloquium Overview Statement

This colloquium session will explore and problematize the interaction between Anglophone academic practice and national archaeological research traditions studying of impact of the Roman Empire on the Iberian Peninsula by creating discourse between Anglophone and Iberian scholars. The specific histories of Spain and Portugal, and their relative isolation during their years of dictatorship compared to near neighbors such as France, offer unique insight into how particular academic traditions and networks are, or are not, adopted and connected to wider transnational scholarship.

The first three papers in this session; "Where Anglophone scholars fear to tread?," "Exploring Iberian pasts," and "Mining Matters," detail the historiography of international scholarship in Iberia and frame the scope of the session through personal experiences of working in Iberia over ca. 40-, 20-, and 10-year periods respectively. The peninsula is considered as a series of contested but connected landscapes with regionally distinct historical trajectories and cultures. This fragmented geography is understood both as a product of historical processes with their genesis in antiquity, and as a result of the influence of modern sociopolitical identities upon readings of the past. All three papers draw upon syntheses of current research from across the Iberian Peninsula to demonstrate the broader relevance of archaeological research on the Iberian Peninsula.

The final two presentations demonstrate both the scholarly rigor of archaeological activity within the Iberian Peninsula and the challenges faced in disseminating the knowledge gained among wider academic networks. "The Can Modolell Archaeological Project" reassesses preconceptions in the interpretation of rural life in northeastern Iberia and addresses questions about the creation of archaeological knowledge in the past, and of the difficulty of transmitting new knowledge to the wider academic community. "Social interactions in the countryside of western Iberia during the Late Iron Age," uses a study of competitive elite-driven social strategies to address the way that northern European archaeological survey methodologies have been co-opted and employed in the Iberian context.

Overall, these papers address broad issues about the creation of knowledge and potential barriers to its dissemination. By gathering a group of scholars of diverse nationalities, with varying disciplinary interests and histories of working in the Iberian Peninsula, this colloquium session focusses deserved attention upon the richness of the archaeological record of Roman and late Iron Age Iberia, as well as grappling with the fundamental questions about how our discipline functions across the boundaries of nationality, language, and academic tradition.

DISCUSSANT: *Susan Alcock*, University of Michigan

Where Anglophone Scholars Fear to Tread? Trends in International Collaboration in the Archaeology and Epigraphy of Roman Hispania since World War II
Jonathan Edmondson, York University, Toronto

This paper critically examines the reasons why anglophone scholars (chiefly from Britain and North America) failed to become involved to any significant degree in archaeological and epigraphic research on Rome's Hispanic provinces in the years following the Spanish Civil War and World War II. French and German scholars were relatively quick to reestablish contact with their Spanish and Portuguese colleagues and either resumed or initiated new archaeological and epigraphic collaborations (e.g., the resumption of French excavations at Baelo Claudia; the inauguration of German excavations at Munigua in 1956; the start of French collaboration in the excavations of Conimbriga in Portugal in 1964; and, on the epigraphic side, the launch in 1953 of the German-led project to produce a new edition of CIL II). With a few notable exceptions, anglophone scholars were almost completely absent in the peninsula until the late 1980s, and even then their participation in international collaborations in Spain and Portugal was very limited in comparison with the number of collaborative projects undertaken in countries such as Italy, France, Greece, or Turkey, or in various parts of North Africa. This absence may in part be explained by the lack of an institutional British or American research center in the Iberian Peninsula along the lines of the French Casa de Velázquez, which was founded in Madrid in 1909 as the Escuela de Altos Estudios Hispánicos, or the German Archaeological Institute, which after initial attempts in 1943 formally established its Madrid Department in 1954, to be followed by the opening of a Lisbon office between 1971 and 1999. But other factors need to be explored, including British and American political opposition to the Franco and Salazar regimes, the absence of a tradition of Anglophone scholarly projects focused on the Iberian peninsula and the limited amount of dialogue between Anglophone archaeologists and epigraphers and their Spanish and Portuguese counterparts. Since the 1990s, the situation has improved to some degree, not least because Iberian scholars have begun to publish the results of their work outside the Iberian peninsula and are becoming more integrated into international scholarly networks. The paper closes with some reflections, based on my personal experience of working in Spain and Portugal since 1980, on how anglophone scholars might fruitfully become more engaged in archaeological and epigraphic work in the Iberian peninsula in the future.

Exploring Iberian Pasts: Transnational Academic Mobility in a European Context
Paul S. Johnson, University of Sheffield

The Iberian Peninsula in Antiquity consisted of a series of contested landscapes defined by regional cultural differences and access to wider networks of social and economic interaction. From the founding of early Greek colonies on the Mediterranean coast to the development of Roman-period urban centers in the interior and on the Atlantic coast, the historical trajectory of the peninsula has rarely been one of unity. These differences persist into the present day, the political settlement in Spain after the end of the Franco dictatorship vested significant authority in the

Autonomous Regions and their governments, a state of affairs recently brought to the forefront of international news by the Catalan Independence referendum. Alongside the regional differences, there are interesting national parallels between Spain and Portugal (both of which were ruled by dictatorships for much of the 20th century), while there remains also the legacy of a remarkable lack of integration/cooperation between their national academic traditions. These national academic traditions are themselves not widely engaged with in anglophone scholarship, perhaps partly as a result of the relative difficulty of working in Spain/Portugal during the mid-20th century. While this state of affairs may be an historical reality, it is perhaps unfortunate that a part of the empire that produced the emperors Trajan and Hadrian should be seen as peripheral in modern scholarship.

This paper uses the ways in which Roman urban sites have been studied within the Iberian peninsula to frame a discourse about broad issues of the creation of social identity and the articulation of connections/separations within the Iberian peninsula. The Iberian Peninsula is seen as a series of contested landscapes with regionally distinct identities that are the product of specific historical trajectories and cultures, in turn influencing the way that scholars in Iberia have studied and understood the past. In particular, the differences and similarities in approach between the Mediterranean coastal region of Catalonia and inland/Atlantic-focussed uplands of central Portugal will be explored in detail through personal experiences of working in Spain/Portugal and with Spanish/Portuguese colleagues over the past two decades.

Mining Matters: Cross-Regional Research and Ancient Connectivity in the Mining Landscapes of Roman Iberia

Linda Gosner, University of Michigan

The Iberian Peninsula was a famously rich source of metals in antiquity. Following the Roman conquest of Iberia beginning in the late third century B.C.E., the scale of mining increased dramatically to accommodate the growing needs of the Roman Empire from the minting of coins to the creation of lead urban water infrastructure. This paper uses the rich archaeological evidence of mining in both Spain and Portugal to show how the expansion of the mining industry under Roman rule catalyzed episodes of migration of people and movement of materials in ways that stimulated both regional and empire-wide economic and social connections. I argue that the migration of Italians into Iberia soon after the Roman conquest contributed to the diversification of communities in mining landscapes, and the development of lasting connections between these areas and other parts of the empire. By contrast, in later centuries, increased movement of people and goods within the peninsula stimulated regional connectivity, cementing intraprovincial ties and connections between mining districts

While mining in Iberia is often cited among the primary reasons for the Roman conquest of Iberia in the first place, any detailed examination of the rich archaeological record of mining is largely absent from anglophone scholarship. My primary aim in this paper, then, is to show how the rich archaeological record of mining in Spain and Portugal can contribute to wider debates in Roman archaeology about the local impacts of Roman imperialism, the development of the Roman

economy, and—most specifically—mobility and connectivity in the provinces. In short, if mining was so central to the conquest of Iberia, then understanding the social and economic impacts it had provides an important window into provincial life in this territory.

In keeping with the wider aims of the session, this paper also conveys the challenges and rewards of research and collaboration in Spain and Portugal from a personal perspective, first as an American student and now as a professor in the US. I emphasize how this particular project has benefitted from the use of legacy data and gray literature as well as active time in the field. I also stress the ways that theoretically informed research that crosses modern (and ancient) political boundaries can address both global and local questions in Roman archaeology.

Rural Religion, Settlement and Cultural Identity: The Can Modolell Archaeological Project

Alejandro Sinner, University of Victoria, and *Victor Revilla*, Universitat de Barcelona

The role of beliefs and rituals in the organization of life of the western Roman rural communities is known only in a limited way. This lacuna in our understanding is further problematized by a lack of direct documentation (archaeological or epigraphic), as well as being viewed through a hegemonic theoretical paradigm that defined preindustrial rural communities as marginal phenomena. In this context, the identification and archaeological analysis of cult sites and sanctuaries is of fundamental importance to revising this situation. One of these sites, the Roman settlement of Can Modolell, 20 km northeast of Barcelona (Spain), is a unique case study with enormous potential. Although the site has been excavated in the past, producing rich decorative and epigraphic materials these interventions were generally lacking in comparison to modern archaeological methodology. For this reason, in 2017 a research project was begun, coordinated by the Universities of Barcelona (Spain) and Victoria (Canada), with the goal of conducting an archaeologically rigorous and comprehensive study of the site.

Located in a territory densely occupied during the Imperial period and within the spheres of influence of several *oppida civium Romanorum* (Plin. *HN*, 3.22), the site has been defined as a rural sanctuary. The excavations undertaken since its discovery have identified a large archaeological complex constructed around the beginning of the first century C.E. and occupied until the third century C.E. This first monumental complex has provided an important epigraphic corpus related to the cult of Mithras and other divinities. Among the dedicators appear *ingenui* of different conditions, magistrates of an unknown *municipium* and members of the imperial administration (free and slaves). This dedicatory coexistence strongly signifies a sanctuary that was important to the population inhabiting the territory. It has been suggested that by the first century C.E., the site had been incorporated into an Imperial *fundus*. After a hiatus (third–fourth centuries), during which there is little evidence for activity at the site, Can Modolell was reoccupied during the fifth and sixth centuries C.E. The results of the 2017 and 2018 archaeological campaigns will define the spatial organization of this later settlement and identify some of its main structures, including a large domestic kiln. The new occupation

seems to be humble, perhaps occupied by peasants, although a continuity of the cult function cannot be excluded, now as a Christian church.

Social Interactions in the Countryside of Late Iron Age Iberia

Jesus Garcia-Sanchez, University of Leiden

In this paper I will explore social interaction in the countryside during the Late Iron Age to Roman period transition across several different geographical and cultural landscapes within the Iberian Peninsula, which have formed part of my research during the last 10 years. The main objective of this paper is to highlight inequality within communities in rural landscapes through an exploration of settlement patterns from the perspective of landscape archaeology, using noninvasive, remote-sensing methodologies as applied to fieldwork undertaken in the Iberian peninsula. This paper draws on three complimentary and contrasting case-study areas. First, the foothills of the Cantabrian mountains (Spain) where isolated communities dwelt in a rough landscape characterized by the largest Iron Age hillforts in the Peninsula. Secondly the North Plateau societies who inhabited an almost empty landscape characterized by the sparse presence of fortified hill-top sites to the north of the river Duero. And finally, the rural countryside in Alentejo (Portugal), to the south of the previous two areas of interest, which provides compelling evidence for a zone of interaction between preconquest populations inhabiting and using hillforts, and new Roman settlers who constructed their landscapes in very different ways from the second century B.C.E. onwards.

Through an holistic appraisal of the evidence relating to settlement patterns from the three case studies, this presentation will demonstrate the impact that competitive elite-driven social and economic strategies, often manifest through interstate warfare, had upon the everyday lives of people living in Iron Age societies on the Iberian Peninsula.

SESSION 7G: Colloquium
New Research at Oplontis B, Torre Annunziata

ORGANIZER: *Michael L. Thomas*, University of Texas at Austin

Colloquium Overview Statement

Although known to many as either "Villa B" or the "Villa of Lucius Crassius Tertius," the site of Oplontis B is neither a typical seaside pleasure villa nor a working farm (*villa rustica*). Instead, it is a collection of buildings that encompass a broad range of activities particularly associated with the commerce of wine. The site of Oplontis B came to light in 1974 after workers discovered it during construction of a gymnasium at a local middle school. Though excavations began shortly thereafter and continued into the eighties, a comprehensive examination of the remains of the site was not undertaken until the Oplontis Project began work in 2012. Sponsored by the Center for the Study of Ancient Italy at the University of

Texas at Austin, the project and its international team of collaborators utilize a full array of interdisciplinary methods to carry out a systematic study of this complex.

The participants in this session present important aspects of the ongoing research at Oplontis B. The first paper chronicles the history of the site's discovery, excavation, and reconstruction from 1974 to 1983. The second paper explores the context of commercial sites on the Bay of Naples. The next two papers examine heretofore overlooked aspects of Oplontis B: a street with town houses at the north end of the site that may have housed workers, and the second floor of the main building which may have used as offices for merchants. The fifth paper looks at remnants of the site's decorative ensembles, including wall painting and marble in domestic areas. The final paper presents important research on the vast collection of amphorae discovered at the site.

Collectively, these papers represent a variety approaches that both evaluate and add context to this important and fragile site. The findings of these authors open our eyes to the unparalleled array of material preserved at Oplontis B and its importance in the research of multiple aspects of the Roman world.

Oplontis B: History of the Excavations, 1974–2017
John R. Clarke, University of Texas at Austin

Discovery of the complex known as Oplontis B, or the Villa of P. Crassius Tertius, was the result of coring carried out in 1973 to pour piers to support a gymnasium for the Parini Scuola Media in Torre Annunziata, Italy. What began as a rescue operation soon became a large excavation that succeeded in uncovering four buildings. The greatest activity under the aegis of the Soprintendenza Archeologica di Pompei occurred between 1978 and 1983, with the aim of reconstructing the buildings to serve as a tourist site, using the same techniques of reconstruction applied to Villa A "of Poppaea"), located 300 m to the east. These excavations, at the time of their conclusion, had brought to light over 55 human skeletons, 1,377 amphorae, and a wealth of organic remains. In 2010, the Oplontis Project began a study of the already-excavated materials, combined with new excavations beneath the 79 C.E. levels. This report will highlight the current and future interpretations of the architecture and the finds, providing a context for the other papers presented.

Topography and Connectivity at Oplontis B
Nayla K. Muntasser, University of Texas at Austin

Within the web of land and sea routes in ancient Italy, each harbor site was ideally suited to take advantage of its hinterland and foreland, serving as a regional hub. Oplontis B can be considered such a hub, strategically located to serve its primary function as a distribution center with its wide entrance connecting to a major roadway on the east, and its porticoed storerooms facing the sea to the south. Archaeogeological research undertaken by the Oplontis Project in the form of a series of cores added to our knowledge of the topographical context of the site, showing that it stood but 2 m above sea level and within a few meters of the shore. The presence of fill using debris from collapsed buildings suggest that there

were attempts at Oplontis B to reclaim part of the shore after the tsunami effects of the 62 C.E. earthquake, thereby increasing the probability that the complex had its own harbor.

This paper will present a comparative approach to the topography of Oplontis B within the Bay of Naples in order to shed more light on its position within the connective network of ports in the region.

The Row Houses of Oplontis B

Ivo van der Graaff, University of New Hampshire

Between the 1970s and 1990s, Italian authorities excavated a number of structures at Oplontis B in Torre Annunziata on the Bay of Naples. Dominating the center of the site are the ruins of large two-story courtyard building that in antiquity functioned as a wine distribution center. At the northern edge of the site of Oplontis B stand a number of partially excavated and since abandoned buildings. Among these structures are the remains of four small two-story houses that have remained unpublished and almost entirely unstudied. As part of the ongoing research of the Oplontis Project, this paper is a preliminary assessment of the domestic spaces at Oplontis B, their long-term development, and relationship to the wider site.

The four domestic buildings shared a wall with their neighbor to form a row of small houses. They lined an ancient street that connected to a main road linking the coast with the Pompeian hinterland. Each building had a ground floor with a broad entrance that in origin must have functioned as a retail/workshop space. Water pipes and reused roof tiles point to private latrines in each dwelling. The houses had a staircase leading to the living quarters on the second floor. Evidence of extensive remodeling on both the upper and lower floors indicates the long-term use of the spaces including the transformation of the ground level into extra living space.

The row houses at Oplontis B present a unique window into the life of the non-elite population that lived and died in the shadow of Vesuvius. They stand in stark contrast to the luxurious spaces enjoyed by elites who occupied the nearby majestic Villa A. The presence of the houses, along with the traces of further partially uncovered buildings at Oplontis B, suggest that site may have been part of a small settlement of sorts—perhaps the elusive Oplontis itself.

Upstairs at Oplontis B: Design and Function of the Upper Level of a Roman Distribution Center

Michael L. Thomas, University of Texas at Austin

The uniqueness of Oplontis B lies in what it preserves: a substantial two-story structure with a history that spanned well over two centuries before the eruption, a large set of skeletal remains, and a massive sample of amphorae. The complex consists of a central core with subsidiary structures to the north and west. More than 70 rooms have been restored on both ground- and second-story levels, an estimated one-third of the building remains to be explored. The apparent center

of activity is the courtyard that has a two-story colonnade made up of a soft volcanic stone from nearby Nocera, a type of construction material that indicates it was built in the second century B.C.E. The primary entrance to the courtyard, on the east side, was large enough for wheeled traffic that left ruts in the pavement suggesting the commercial function of the building. A second set of storerooms on the exterior, facing south, opened onto a large portico. The design of the building, coupled with the material remains, point to a function as a distribution center which, at least at the time of the eruption, focused on the wine trade.

Scholarly attention on Oplontis B has centered on what excavators discovered on the ground floor. What has been largely left out of the discussion is the expansive upper floor of the courtyard building. As is usually the case for upper floors destroyed by Vesuvius, what we see today is heavily restored. Nonetheless, the remains suggest a significant upstairs area consisting of two distinct parts and the footprint of at least 30 rooms. This paper examines the design and possible functions of these unique second-level spaces.

Fragments and Reconstructions: Decorative Surfaces at Oplontis B
Regina Gee, Montana State University

This paper presents examples of painted and marble surface decoration at Oplontis B, including recent and previously unpublished evidence unearthed by the Oplontis Project. The examination is intended to complement the study of fresco, marble, and stucco already completed for Villa A ("of Poppaea"). Villa A has been the subject of extensive documentation due to the quality and quantity of the frescoes and stone decorating the sprawling maritime residence, with more than 60 painted and veneered spaces and three period styles preserved. Villa B, to contrast, has few surviving examples of decoration. The small sections of paintings on the walls recovered by the Italian excavators (1974–1983) are mostly simple versions of fourth-style tapestry and marble patterns. Instead, Villa B is valued for its extensive material record as a trade depot and presented as a pendant by some scholars, used to illustrate the value of commerce on the Bay of Naples, while Villa A exemplifies the exploitation of natural resources in pursuit of the refined delights of leisure.

In the course of the 2015 and 2016 excavation seasons, the Oplontis Project recovered significant number of fresco fragments underneath the 79 C.E. floors at Oplontis B . While we cannot be sure that these fragments belonged to decorative ensembles in the Oplontis B building, their presence suggests the possibility that there were decorated rooms in early phases. Some fragments show finely ground pigments that include some of the more expensive colors like cinnabar red and Egyptian blue, deeply saturated hues, and, in one case, the rare original wax coat that protected the color and made the surface gleam like polished stone. More evidence for the types of surface decoration found at Villa B comes from fragments of marble recovered during the initial Italian excavations, pieces that are now in storage after being drawn and cataloged by the Oplontis Project.

Between Farm and Table: Oplontis B and the Dynamics of Amphora Packaging and Distribution

Jennifer L. Muslin, University of Texas at Austin

Between 1974 and1991, excavations by the Archaeological Superintendency of Pompeii at Oplontis B uncovered material evidence for the first large-scale amphora processing and packaging center known in the Pompeian *suburbium*. Finds included 1,377 amphorae, pitch and pitching equipment, marble weights, and inkpots with red pigment for labeling. This assemblage remained largely unstudied until the Oplontis Project undertook the first comprehensive analysis of it in 2014, a process that we completed in 2018. Detailed examination of these finds demonstrates that the site served as an intermediary between agricultural production and the processing of raw materials in *villae rusticae* and the consumption of these commodities in local, regional, and overseas markets. At the time of its destruction in 79 C.E., the peristyle building at Oplontis B housed a thriving *negotium* where workers were engaged in washing and re-pitching amphorae in preparation for filling them with wine arriving from the countryside. This paper explores the dynamics of the process and the pathways through which the containers and their contents arrived at and departed from the site.

The amphora types represented at Oplontis B are overwhelmingly Central Italian Dressel 2–4s from Pompeii, Sorrento, and the Ager Falernus, followed by smaller percentages of eastern Mediterranean amphorae (Dressel 5, Cretoise 1, 2 and 4, Pompeii 13) and a few specimens from Iberia, Gaul, and North Africa. The absence of on-site kilns, the presence of tap holes and visible use marks on many vessels, and residue analysis of selected samples all indicate that these amphorae were being reused as part of the packaging operations at Oplontis B.

Recent scholarship on the Roman economy has noted the importance of reused amphorae for the distribution of agricultural goods. Papyrological evidence shows that new and used amphorae could be bought and sold at cost to farms and packaging facilities in need of containers, forming an important part of the commodities trade that often goes untreated in scholarly discussions. The Oplontis B packaging center offers a significant case study for illustrating how such containers were acquired and utilized. Moreover, it allows us to consider the trade and distribution patterns of the pots themselves as important commodities on the Bay of Naples.

SESSION 7H: Joint AIA/SCS Colloquium
Prospective Memory in Ancient Rome: Constructing the Future Through Material and Textual Culture

ORGANIZER: *Maggie L. Popkin*, Case Western Reserve University

Colloquium Overview Statement

The boom in memory studies of the ancient world has resulted in numerous recent publications. Such scholarship has emphasized how people remembered the past and how they deployed commemorations of the past in response to present

contingencies. Yet, memory is just as vital to the future, of both individuals and societies. The cognitive theory of prospective remembering—how people remember to perform actions in the future—provides a stimulating framework for understanding how objects, monuments, and texts enable people to envision future actions, events, performances, and relationships—and thus how they can shape the future. This colloquium aims to bring prospective memory and the social construction of the future into the robust discourse on memory in republican and imperial Rome. Roman society, which some have argued was defined by memory, offers rich evidence for theorizing the impact of memory on the future. Moving from literature to epigraphy to objects, the papers demonstrate how powerfully conceptions of ritual—once codified in ink, stone, metal, or glass—could prescribe future observances, and how representations in a range of media shaped individual's future actions and engagements with their worlds.

The first two papers examine the impact of literary texts on the performance of future rituals. Panelist #1 argues that Fabius Pictor's late third-century B.C.E. description of the *pompa circensis* may have invented a vision of the circus procession that actually became how the procession was subsequently performed and remembered, as in Dionysios of Halicarnassos' late first-century B.C.E. description of the *pompa circensis*. Panelist #2 argues that Tacitus's treatment of the death of Germanicus shaped how not only the *Annals*' characters but also how Tacitus's readers commemorated imperial deaths in the future.

The next two papers consider how inscriptions affected individual and social constructions of the future. Panelist #3 argues that the monumental inscription recording Augustus's *Ludi Saeculares* preserved a template of how to celebrate the *Ludi Saeculares* that reached as far into the future as the Severan era. Using the cognitive theory of predictive processing, Panelist #4 argues that the physical intervention of reinscribing statue bases—a practice described by Dio Chrysostom and exemplified by statue bases from Roman Athens—forced viewers to alter their future interactions with their new political realities.

The final two papers bring art and architecture to bear on the question of prospective memory in Rome. Panelist #5 examines the uses of votive objects before they were dedicated in sanctuaries, arguing that this prior use shaped how Romans remembered to perform future ritual actions at sanctuaries and collectively imagined religious experiences and sites. Panelist #6 argues that the use of repurposed gold-glass vessels in Rome's Early Christian catacombs was intended to ensure future reflection on the connection between a person's pious lifetime and the ritual actions with which their family subsequently commemorated them.

Drawing together philologists, archaeologists, historians, and art historians, the panel presents a range of approaches to prospective memory and its impact in the Roman world, from the cognitive to the social. The papers are linked by their shared investigation of the differing but complementary roles that texts, images, and material objects played in mediating Romans' conceptions of the future, whether through the juxtaposition of artistic and literary representations of Roman processions, the materiality of inscriptions, or the interplay of word and image on votives and gold glasses. The papers highlight the enormous scope of the Roman memory environment and the many ways in which it could shape both future action and people's perception of the future. Limiting each paper to 15 minutes, the session preserves ample time for discussion among panelists and audience

members, to be moderated by the organizer after all papers are presented. This cross-disciplinary joint colloquium highlights recent research and signals directions of future research on the important topic of how Romans constructed and performed their future through art, text, and ritual.

The Future of the Past: Fabius Pictor and Dionysios of Halicarnassos on the *Pompa Circensis* (Dion. Hal. *Ant. Rom.* 7.70–72)

Jacob A. Latham, University of Tennessee

In *The Roman Triumph*, Mary Beard takes to task "modern historians of the triumph (and of other ancient parades and processions) [who] have erred on the side of credulity," when assessing the reliability of ancient sources (Mary Beard, *The Roman Triumph*, Cambridge, MA: Harvard University Press, 2007). In particular, Beard (365 n. 57) scolds E. E. Rice for her supposedly gullible defense of Callixeinos of Rhodes' second-century B.C.E. description of an over-the-top procession of Ptolemy Philadelphos (early third century B.C.E.)—now a "fragment" in Atheneaus' *Deipnosophistae* (late second century C.E.; Ath. 5.197C–203B). Dionysios of Halicarnassos' digression on the *pompa circensis* (the religious parade before the chariot races) poses a very similar problem. At the end of the first century B.C.E., Dionysios of Halicarnassos penned a long description of the *pompa circensis*, which was drawn from the late third-century B.C.E. work of Fabius Pictor. Fabius Pictor, in turn, seems to have offered a detailed account of an early republican procession (ca. 490 B.C.E.) (on the *pompa circensis*, see Jacob Latham, *Performance, Memory and Processions: The Pompa Circensis from the Late Republic to Late Antiquity,* New York: Cambridge University Press, 2016). Unlike Callixeinos, Fabius Pictor did not claim, and likely could not have claimed, the authority of some ritual record—and so, in the words of one commentator, Fabius Pictor penned a "bogus protocol."

An archaic Roman temple relief (late sixth century B.C.E.) suggests that Fabius Pictor's production values were in line with early republican imagery, if not performance. Regardless of historical accuracy, Fabius Pictor's primordialist account of the *pompa circensis* may have had an impact on subsequent performances and also subsequent interpretation and remembrance of those performances. Whether or not Fabius Pictor fabricated his depiction from thin air, or rather developed it "not only from what he heard, but also from what he himself knew," the description from the father of Roman historical writing seems to have a become an authoritative cultural memory resource (Dion. Hal. *Ant. Rom.* 7.71.1). Indeed, Dionysios of Halicarnassos explicitly traded upon that authority, insisting that he needed "no other proof at all," but Fabius Pictor, whom Dionysios quoted "almost word for word" (*Ant. Rom*. 7.71.1). In the end, Fabius Pictor almost certainly did not describe an early *pompa circensis*, probably drawing instead a portrait based on contemporary performances and the collective remembrance of past performances. Even so, his narrative could have effected subsequent performances and memories—at least it impacted Dionysios' historical memory.

In other words, Fabius Pictor, and later Dionysios of Halicarnassos, may have created a kind of Baudrillardian simulacrum, an ostensible copy, but one without an original, that very possibly came to serve as an authorizing archetype. This simulacrum may have, in turn, impacted subsequent processions, even (other) textual

ones, perhaps inspiring Vergil and Ovid, both near contemporaries of Dionysios, as well as Statius in the late first century C.E. (*Georg*. 1.1–42; *Am*. 3.2; *Theb*. 255–295). That is, Fabius Pictor-Dionysios of Halicarnassos' description could have become a nonconscious or un-thought influence on later processional performance or, at least, later literary depictions of processional performance—in a manner akin to Bourdieu's *habitus* ("principles which generate and organize practices … without presupposing a conscious aiming at ends"; Pierre Bourdieu, *The Logic of Practice*, trans. Richard Nice, Stanford: Stanford University Press, 1990). One generation's "bogus protocol" may become the next generation's ritual tradition, subtly shaping both the organizational protocols of the aediles and the expectations, imaginations, and memories of (literate) spectators. Once Fabius Pictor's history became authoritative, his evocation of the *pompa circensis* could have shaped the experience, interpretation, and remembrance of any given performance and affected future performances. In short, Fabius Pictor's invented memory, if that is what it was, seems to have had a lasting future.

Remembering to Mourn in Tacitus' *Annals*: Germanicus' Death and the Shape of Grief

Aaron M. Seider, College of the Holy Cross

In Tacitus' *Annals*, Germanicus' death and the Romans' reactions cast his loss as an event to be interpreted based on past memories as well as a template for future commemorations. The idea of prospective memory, described by Schacter as "remembering to do things in the future" (*The Seven Sins of Memory*, Boston 2001, 51), shows how Tacitus' narrative emphasizes the struggle to remember not just what to do, but how to do it. My paper argues that in *Annals* 2.41, 3.5, and 3.6 ordinary Romans and the emperor look to earlier examples to remember how to react to Germanicus' death, a characterization that creates a template for prospective memory both within Tacitus' text and for his history's readers. Within the *Annals*, the Romans select the commemorations of Augustus in 1.9–10 as a paradigm for their imminent actions, and the tensions of this earlier imperial commemoration manifest themselves as a series of shifting and conflicted memorials in Books 2 and 3. On a second level, my paper concludes that the responses to Germanicus' death serve as a literary monument for Tacitus' readers, with the potential to shape how they figure out how to commemorate loss in the future.

In the events surrounding Germanicus' death, characters treat the past as a guide for remembering proper behavior. Even as Germanicus triumphs at Rome, hidden alarm grows as the Romans, "reflecting on" (*reputantibus*, 2.41.3) earlier deaths of similar elites, surmise that their own love affairs with such leaders are brief and ill-starred. Internal contemplation gives way to explicit judgement after Germanicus' passing. As his remains are brought through Rome, some compare Tiberius' restraint with Augustus' attention toward the corpse of Germanicus' father and wonder "Where are those customs of our ancestors?" (*ubi illa veterum instituta*, 3.5.2). Learning of such sentiments, Tiberius responds with recent instances that prescribe restraint in mourning. When he remarks that "there is no need for more ancient examples (*nil opus est vetustioribus exemplis*, 3.6.3), the emperor

demonstrates his recognition of the advantages offered by the rhetoric of prospective memory.

In Tacitus' rendition, the Romans explicitly use memory to figure out how to proceed in the near future in 2.41, 3.5, and 3.6, and this treatment implies that the *Annals*' characters may likewise turn to memory in less marked ways. Indeed, their reactions to Germanicus' death cast the memorials of Augustus as a blueprint for their own imminent actions. In Tacitus' treatment of Augustus' death, some extol the emperor's life and justify his actions (1.9.3–5), while others portray his deeds as self-interested and his justifications as disingenuous (1.10.1–7). Germanicus' death amplifies this bifurcation. One person speaks of those who mask great joy with ostentatious mourning (2.77.3), while Tacitus notes how the silence and grief at Rome "were not at all fabricated for display" (*nihil compositum in ostentationem*, 2.82.3). Meanwhile, the crowd wonders whether they should greet Germanicus' ashes "with silence or some call" (*silentione an voce aliqua*, 3.1.3); and Piso imagines that Drusus, Germanicus' adopted brother, might be "not at all pitiless but rather favorable with his rival removed" (*haud … trucem quam remoto aemulo aequiorem*, 3.8.1). These reactions' uncertainty and conflict imply that, in the *Annals*, the Romans turned to the commemorations of Augustus as a guide in figuring out how to proceed with mourning Germanicus.

In these sections of the *Annals*, Tacitus' characters craft their future behavior based on memories, a paradigm that sets up his literary text as a mnemonic guide for its readers. These readers likewise inhabit the new, turbulent world of imperial Rome, and Tacitus' narrative of the reactions to Germanicus' death may stand as a template for their future behavior. As such, this portrait of mourning and prospective memory offers a typically Tacitean paradox: the natural response to a death in Rome has now become something that is remembered and constructed rather than instinctual and unmediated.

Ad futuram memoriam*: The Augustan *Ludi Saeculares

Eric Orlin, University of Puget Sound

The *Ludi Saeculares* have long been viewed as a key symbolic moment in the reign of Augustus. Following the significant experimentation in many areas of political, social, and cultural life in Rome, in particular the passage of the *lex Julia de maritandis ordinibus* in 18 B.C.E., the Games have often been considered to mark a transition to a period of consolidation. Scholarship on the Games is particularly rich because scholars have access both to Horace's hymn composed for the occasion and a huge inscription (ILS 5050) found in the Campus Martius that records both provisions for the festival as well as elements of the ritual itself. While the inscription has been plumbed for insights both into Roman religious practice and the relationship of the imperial family to the Senate and the state, the nature of the inscription itself has seldom been directly explored. This paper explores the inscription from the perspective of prospective memory, arguing that the inscription served to shape future celebrations of the *Ludi Saeculares*, rather than merely commemorating the Augustan games.

To some extent, the inscription itself announces this purpose: it records that when Gaius Silanus raised the question of a permanent record of the festival *ad*

conservandam memoriam, the Senate responded by decreeing a bronze and a marble column *ad futuram memoriam tantae religionis*. The prospective nature of the Augustan decree may be best revealed by comparision with the *acta* (ILS 5050a) for the Severan celebration of the *Ludi Saeculares*, held "on schedule" 220 years after the Augustan, in 203 C.E. Unlike the Augustan inscription, these *acta* seem determined to be commemorative; they give lists of names of people present in meetings and ceremonies and a host of minor details such as the purple fringes on the emperor's toga that aim to preserve a record of what happened; it also includes a copy of the *carmen saeculare* composed for the occasion. By contrast, the surviving portion of the Augustan inscription mentions far fewer individuals and focuses attention on dates and time of sacrifices, the honorand of each ceremony and the items sacrificed, and the exact words of the prayer for each sacrifice of the *Ludi Saeculares*. Regarding the Secular Hymn, the inscription says only "*carmen composuit Q. Hor*[*at*]*ius Flaccus*"; we possess the text only through the corpus of Horace's poetry. The sparse detail of the inscription suggests that it was not intended to create a visual image of the ceremony for those who did not live in Rome or whose lifespans did not coincide with the performance of the games. Rather, it projected an image of the ceremony into the future for subsequent generations, and the success of this enterprise can be read in the details of the Severan ceremony.

Indeed, the Augustan inscription may have played an especially critical role in shaping memory for the future. It is well-known that Augustus made significant innovations to the previously existing *Ludi Tarentini*. For example, the earlier celebrations had been held in honor of the underworld deities Dis and Proserpina, while Apollo and Diana are the most prominent divinities in the Augustan celebration. While the Augustan celebration purports to inaugurate a new *saeculum* of 100 or 110 years, the dates of the earlier celebration do not line up with this cycle, suggesting that the Augustan celebration was either held out of cycle or, more likely, may have marked the first time that this celebration was used to mark a refounding. The inscription, by offering an authoritative version of how the ceremony should proceed on future occasions, reshaped the memory of the past by consigning the rituals of the previous celebrations to oblivion. This case study of the Augustan reshaping of Roman rituals thus suggests that prospective memory may involve both the erasure of old memories as well as the creation of new ones to guide future behavior.

Statuary Alteration as Prediction Error: A Cognitive Theoretical Approach to Reuse

Diana Y. Ng, University of Michigan-Dearborn

This paper investigates the phenomenon and implications of secondary intervention, such as recarving and reinscribing, to Roman-period public sculpture by applying the concept of predictive processing to ancient evidence of reworking. Whether it is characterized as recycling or *damnatio memoriae*, reworking was a common occurrence throughout the entire Roman imperial period. The historiography of alteration often highlights that the practice engenders comparative evaluations based on preexisting associations. This paper argues that changes to

a statue monument are also capable of cognitively shaping beliefs and behavior going forward.

The prevalent underlying premise of reworking statues—that the sight of a disrupted artifact provokes new evaluations of the artwork—has not received enough attention, perhaps because it is taken for granted. It is worth deeper exploration, because it can lead to a fuller understanding of the basic rationale for altering an existing work, rather than creating *ex novo*. By treating secondary intervention as the impetus for new ways of thinking rather than simply as a way to reconcile with the past, we can restore a prospective emphasis to reworking that likely factored into ancient creation and interpretation.

This paper probes this crucial idea through predictive processing, a framework originating in cognitive and computational neuroscience. Predictive processing posits that human mental activity is guided by prior internal models, such that sensory inputs conforming to these preexisting models are quickly processed without drawing much on cognitive resources. The mind anticipates, or predicts, its engagement with the world based on its earlier interactions. Cognitive resources such as attention are directed towards "prediction errors," that is, sensory inputs that deviate from prior models. The errors must be resolved through cognitive tasks that can include the revision of prior internal models. The resulting adjusted model then guides future behaviors. This is, in essence, prospective memory.

From this perspective, this paper maintains that ancient viewing and interpretation of public sculptural displays were based on prior internal models—not just of formal characteristics and spatial relationships, but also of social and political conventions giving rise to these monuments. It argues that, as visual perceptions of physical changes presented prediction errors to ancient viewers, they were forced to revise their prior models of social relationships, political power, or ideologies. Reworked statues and bases from Roman Athens documented and analyzed elsewhere are useful hypothetical examples. The prediction error signals of new names on obviously old works require the viewer to revise prior models of what a public statue communicates and of how prestige is denoted. These revised models, that foreigners can occupy exalted positions in a city and that the antique can be valued just as the new, go beyond reckoning with the past towards guiding future honorific patterns.

As a result of these cognitive processes instigated by prediction errors, uncomfortable realizations or acknowledgment of certain realities could occur. To illustrate this, I analyze Dio's Rhodian oration (*Or*. 31) as a verbal explication of the mental work associated with altered objects, such as the reworked statue bases from Athens, in the first century C.E. Dio attributes to these objects the capacity to shape future behaviors, not just in the viewing of public portraits, but in the understanding of obligations and social validation. While this text's rhetorical articulation of anxiety associated with metagraphe, or reinscription of bases, has been examined, Dio's claims, including that Rhodians are violating longstanding, implicit social contracts and that elites would limit their civic participation based on the rededication of honorific statues, describe the new ways of thinking spurred by deliberate and visible alteration to a public monument.

What is described in this oration, combined with the evidence of metagraphe in practice, serves as a powerful argument for physically disrupting an existing

monument to effect prospective memory, thus highlighting the motivations for reworking rather than creating anew.

The Beforelives of Votives: Prospective Memory and Religious Experience in the Roman Empire

Maggie L. Popkin, Case Western Reserve University

The afterlives of ancient objects have fascinated scholars, promising to offer a view into how later generations interacted with the past by manipulating statues and monuments after their initial dedication. Although statues and monuments have drawn the most attention, scholars are increasingly exploring the afterlives of votive offerings in antiquity, such as objects' complex impacts on people's experiences in sanctuaries after the objects have been deposited. Yet, many Roman votive objects served various functions before their dedication in sanctuaries, and these "beforelives" and their impact on memory and imagination in the Roman world merit deeper consideration.

Starting from the cognitive theory of prospective memory—that human memory directs how people remember to do things in the future and how they imagine the future—I argue that votives that served other functions prior to being dedicated in a sanctuary shaped how Romans individually remembered to perform appropriate ritual actions in sanctuaries and how they collectively imagined religious experiences and religious sites. I support this claim through case studies of several metal vessels from Roman Italy and Britain, all eventually deposited in sacred springs: four silver beakers in the shape of Roman milestones, from Aquae Apollinares (modern Vicarello); the so-called Cleveland goblet, a silver drinking vessel with scenes of a rural sanctuary, also deposited at Vicarello; and the so-called Bath Pan, a bronze pan with a motif representing Hadrian's Wall, dedicated at Aquae Sulis (modern Bath). Although these objects have often been treated as souvenirs, they were not objects taken home to commemorate a place visited. Instead, their primary impact on individual and social memory took place before their owners arrived at the destinations and cast the objects into the springs, whereupon they remained invisible to human eyes.

All these objects adumbrated future actions of their owners and thus aided prospective memory—that is, a recollection of actions to be performed in the future—as well the social construction of the future. The milestone beakers are each inscribed with an itinerary leading from Gades in Spain to Rome and were likely used for social drinking along the route they depict, where they would have embodied not only travelers' past progress but also their future movements. The use of the milestone beakers and the Cleveland goblet as drinking vessels foretold the consumption of healing waters at the heart of ritual activity in the spring sanctuary of Aquae Apollinares. The Cleveland goblet's iconography, which actually depicts ritual consumption of water and votive offerings, operates proleptically, representing the owner's future actions at Vicarello as though they had already occurred. The Bath pan, for its part, demonstrates a complex enmeshing of retrospective and prospective memory. Purchased originally as a souvenir of Hadrian's Wall in Britain, its subsequent functional use, for ladling and consuming water, foreshadowed its subsequent dedication at Bath. It thus commemorated a place

visited in the past while generating a conception of ritual activity to take place in the future.

These vessels impacted individuals' prospective memory, recalling through their iconography and/or function actions to be performed in the future at sanctuaries. Yet, the lives of these objects before their deposit as votives also shaped collective memories of religious sites and rituals, enabling people who might never visit Vicarello or Bath to imagine nonetheless the sanctuaries and the actions that took place within them. If the future is socially and culturally constructed, it is objects such as these votives that enabled Romans to construct religious experience as something not only remembered in the past and perceived in the present, but also imagined in the future. The "beforelives" of these votives are critical to understanding how Romans materialized, remembered, and therefore imagined religious experiences and religious sites beyond the geographic and temporal bounds of visits to sanctuaries.

Fusing of Ancestor Worship and the Cult of Martyrs in Late Fourth Century Gold Glass

Susan Ludi Blevins, AIA Member at Large

This paper focuses on the materiality and iconography of late fourth-century cut and incised gold glass to explore how the strategic recontextualization of these objects impacted their function as carriers of meaning by prompting contemplation of the future and bringing the past into the present. More than 500 examples of gold glass survive, with approximately 85% bearing biblical scenes, portraits of individuals, or portraits of saints within an image field delineated by a decorative round or polygonal border. Constituted of images in incised gold leaf fused between layers of glass, these vessel bottoms may have originally belonged to objects that their owners used and displayed on special occasions. Most examples, however, have been found with vessel walls broken and the remaining gold-glass disc embedded in corridors of fourth-century Roman catacombs above *loculi*, the recesses that provided final resting places for the Christian dead.

While scholars have proposed theories about uses of gold-glass vessels by patrons during life (commemoration of people or events; objects of personal devotion; use during Christian feast days; function as liturgical vessels; pontifical promotion of the cult of saints) and their functions in the catacombs (as tomb markers and protective amulets for the dead), less easily explained is the sustained practice by hundreds of individuals over approximately a half century of repurposing gold glass in the catacombs rather than adorning their final resting places solely with purpose-made objects. In other words, how might we begin to explain the connection between the object during life and its use after death? An approach drawing on the theory of metaintentions suggests that patrons may have chosen, used, and displayed gold-glass vessels during life with the intention of deploying them as mnemonic cues in the catacombs after death. The theory of metaintentions underscores the connection between the past (earlier or original use of the object) and the future (later, but not necessarily secondary, use of the object) by holding that prospective memory requires reflecting on our intentions. While objects may simply serve as memory cues that something needs to be done, such as a string tied

around a finger, they may simultaneously serve as reminders of what and how something needs to be done by conveying the substance of the original intention.

I argue that in the fourth century, a time of blurred boundaries between ancestor worship for the ordinary dead and veneration of martyr's relics and tombs, Rome's Christian population repurposed gold-glass vessels in the catacombs with the intention of ensuring in the minds of future family and community members a material link between the pious life of the deceased and retrospective remembrance. I argue further that the visual elements of gold-glass vessels such as luminous materials, sacred iconography, architectural imagery, and close proximity to mortal remains, must have encapsulated to a striking degree the developing visual environment of nearby martyr cults. This visual evocation of martyr cults, especially when combined with ritual practices such as the refrigerium, or offering of funeral feasts suitable for dead relatives and martyrs, suggests that while alive owners of gold-glass vessels reflected on the implications of their choices and intended to set the stage for ancestor worship in the future conditioned by the veneration of martyrs. Such vessels bearing images of individuals, saints such as Peter and Paul, and biblical scenes not only reminded viewers of the deceased, but as at saints' shrines they conditioned a mode of veneration that generated in family and community members a feeling of pilgrimage and a desire to commune with the sacred.

SESSION 7I: Joint AIA/APA Colloquium
Graphic Display: Form and Meaning in Greek and Latin Writing

ORGANIZERS: *Cristina Carusi*, The University of Texas at Austin, and *Paula Perlman*, The University of Texas at Austin

Colloquium Overview Statement

A growing number of digitized photographs and squeezes of inscribed and painted Greek and Latin texts are available online, providing readers today easy access to significantly more information about the format of the texts and the layout of the texts on the objects that bear them than was possible prior to the digital revolution. At the same time, today's presentation software (e.g., PowerPoint, Prezi, Haiku Deck) sensitizes producers and consumers of texts to the impact of text formatting (layout, letter size and font, color, etc.) on meaning and reader response.

Ancient writers of Greek and Latin texts that were inscribed and painted on stone and other materials appear to have employed strategies similarly, with the intent thereby (at least in part) of affecting (and effecting) the meaning of their texts and the response of their audience (reader and nonreader) to them.

In this panel we bring together a group of papers that look into various aspects of the format and layout of Greek and Latin texts inscribed or painted on stone and other materials, and investigate the relationship of "graphic display," content, and audience response. In particular, we discuss what the purpose of specific strategies of graphic display was; how and why these strategies were used to direct the audience's attention to the inscription/object or specific parts of it; what they reveal

about the audience's interests and expectations; and what changes in graphic display may signal in terms of function and reception of inscriptions/objects.

Document Titles in Greek Inscriptions

Randall Souza, Seattle University

Titles are so fundamental to modern documents that a piece of writing without an identifier is considered incomplete, and yet little systematic attention has been paid to the evolution of document titles in Greek epigraphy. While scholars have made great strides toward an understanding of how archives and their users functioned in the Greek Mediterranean, the mechanics of consulting an archive consisting of nonportable documents remains relatively unexplored. From the mid-fifth century B.C.E. at the latest, however, poleis were adding titles to important documents. This paper traces the development of these labels from the Classical to the Hellenistic periods and argues that titles made it easier for nonexperts to consult archives; they may also have offered some information to the semiliterate.

"Title" is defined here as a word or phrase that appears at the very beginning or at the very end of a document, and which describes the document but does not form a complete sentence. Titles are often though not always inscribed in larger letters than the body of the document and outside the block of text or centered rather than left-justified.

These features set titles apart from other forms of document identification which ancient Greeks doubtlessly also employed. An expert could become familiar with the prescripts, letterforms, stele shapes, and decorative scenes and use these characteristics to identify a particular public document. While experts could thus have navigated the "forest of dedications and inscribed stelai on the Acropolis" (per Shapiro, Mediterranean Archaeology 17 [2004] 91), this paper suggests that explicit written titles made it possible for someone without a connoisseur's eye to locate the document desired.

Titles appear to have originated in Athens in the middle of the fifth century B.C.E. The first clear example comes from an Athenian agreement with Chalkis of 446/5, IG I^3 40, which carries the simple title ὅρκος at the very bottom in letter roughly twice the size of those in the body of the text, spaced out to fill the entire width of the stele. Less ambiguous was the title of Thoudippos' decrees relating to the reassessment of tribute in 425/4: τά[ξσι]ς [φ]ό[ρο], this time placed at the top of the stele in slightly oversize letters. In 410/9, Athenian decrees honoring Thracian Neapolis included, above the text, the title [Ν]εο[π]ολιτο[ν] | [τ]ομ παρὰ Θάσ[ον]. From the early fourth century on, the practice became much more common on Athenian stelai, e.g., IG II^2 20, 107, 110. IG II^2 212, dating to 347/6, has a title that does not fully match the decree below (Rhodes, *Greece & Rome* 48.1 [2001] 39).

Titles can be found outside of Athens from the fourth century as well, and on bronze tablets that were likely fixed in place. At Entella in Sicily, three of the city's third-century decrees, destined for the temple of Hestia, preserved titles naming other cities involved (SEG 30.1117–8, 1122). At Corcyra, proxeny decrees included titles naming the honorand (IG IX 12 4.786, late fourth century; IG IX 1 685–688, third–second centuries). The practice continued into later Hellenistic times as well.

It is well established that the creation of official records is fundamental to a functioning state. However, unless the user can navigate the archive easily, access to documents may not allow effective research. Document titles were a navigation tool that made it not just possible but practicable to scan multiple documents in search of those required.

"Game-Used Equipment": Reading Inscribed Athletic Objects

Peter J. Miller, University of Winnipeg

Some of the earliest inscribed objects in athletic sanctuaries are pieces of athletic equipment. These early dedications come from the "field sports" of the pentathlon: specifically, the discus and the halma (i.e., the *haltēres*, or jumping weights). These sports were suitable for providing dedications since their equipment was of a semipermanent nature. Examples of inscribed *haltēres* and discuses have come to light (e.g., SEG 59-388; SEG 49-346; SEG 40-357; Olympia IV no. 241) and even when not inscribed, discuses might feature illustrations that would have held meaning to ancient viewers (e.g., Attic vase paintings show discuses decorated with owls; a discus in Berlin etched with illustrations of the halma and javelin).

In literary sources, athletic dedications are mentioned, though inconsistently. Pausanias describes the Disc of Iphitos, which recorded the Olympic Truce (5.20). Although he does not report the text verbatim, he seems to have handled the disc since he says the inscription runs "in the shape of a circle" (ἐς κύκλου σχῆμα, 5.20.1). Pausanias only mentions *haltēres* in concert with three statues that hold jumping-weights (5.26.3, 5.27.12, 6.3.10). In other words, Pausanias does not report any dedication of an object by a victorious athlete. Other authors, however, regard dedication of athletic objects as desirable: in Pyth. 5.30–42, for example, Pindar sings of Karrhotos' dedication of his reins at Delphi; he even specifies the location of the reins—near an apparently famous statue of a Cretan archer (39–42). In this poem, therefore, athletic equipment transforms from mundane accessory to perfect dedication, paralleling Pindar's own verse, which is often characterized as an ornate offering produced by skill (e.g., Ol. 6.87, *Nem*. 5.42).

Starting from the premise, therefore, that dedications of athletic equipment were not unusual, although perhaps problematic in terms of display and competition for audience, this paper examines the strategies necessary to read inscribed athletic objects and the techniques of "graphic display" used by the authors of inscriptions. In the case of some inscribed objects, we may imagine readers who monopolized the reading of the inscription by holding the object; alternatively, the small size of *haltēres* and discuses meant that they could be passed from person to person to permit partial readings by semiliterate visitors. CEG 391, an inscribed discus from Kephallenia and now in the British Museum, requires a reader to hold the discus and turn it, following the direction of the text, in order to read the whole epigram. CEG 355, a sixth-century B.C.E. *haltēr* from Isthmia, is inscribed on two sides and requires a reader to finish one side and turn the *haltēr* over to complete the epigram.

Other *haltēres* were inscribed with vantage points in mind: CEG 299 is one of a pair of *haltēres* that were dedicated and the inscription probably continued onto the second *haltēr*; three key words, the name of the victor and the phrase "on account

of these" (ὁνεκα τόδε), are surrounded by three horizontal lines, suggesting that they were to be emphasized. A *haltēr* in Switzerland, missing its complement, has an inscription that would have continued on the other *haltēr* and also adds a visual element for emphasis; in this case, the *haltēr* is etched with an impressive drawing of a cock. Drilled holes reveal that the *haltēres* were likely hung and that this hanging position facilitated the reading of the inscription.

These objects, therefore, act, like Pindar's imagined reins, as powerful displays of athletic excellence imbued with extra meaning from the objects' participation in the very act of victory. The inscriptions obviate the need for a poet, however, and these objects relate their own story.

***Tesserae Nummulariae*: Creating a Typology of Graphic Display on Portable Latin Labels**

Lindsay Holman, University of North Carolina at Chapel Hill

This paper aims to explore the changes in graphic design on a distinct but largely overlooked category of inscription, so-called *tesserae nummulariae*. Previous study has subordinated their presentation to analysis of the texts. However, the form and orientation of the inscriptions have the potential to shed light on the production, reception, and perhaps even the function of these tesserae. Moreover, a variant type has emerged from ongoing excavations at Magdalensberg (Austria), which provides a rare opportunity to examine how cultural preferences dictated changes in graphic design.

Tesserae nummulariae are rectangular labels made of ivory or bone, with inscriptions on all four sides. Rudolf Herzog formulated the term in 1919, arguing that these tesserae were used by financial officials, such as *nummularii*, to certify either the amount or quality of coinage in a bag of money; his theory has since been favored by others. The tesserae bear two names, one in the nominative of a slave or freedman (seemingly) on the first side, and the other of an elite Roman family on the second side. Unlike many portable inscriptions, these tesserae have an exact date, with a day and month recorded on the third side and the names of both consuls on the fourth side. For the entire span attested to date (96 B.C.E. to 88 C.E.) there is a standard formula for the inscriptions. Thus, it is possible to create an absolute chronology for the changes in graphic display over time, since eighty percent of these tesserae bear an exact date.

Out of the over 180 examples so far known, I have examined and photographed 110. There can be no doubt that, whatever their function, the tesserae were produced with a clear intent to display one side. On one end of the body they have a head, where there is a hole drilled through. Its precise placement is dependent upon the period in which the tessera was made. Typically, the hole is drilled from the second through to the fourth side, so that either the first or third side would be visible when attaching the tessera to the object concerned. Moreover, there is an intentionality to the orientation of the inscriptions, the spacing and pigmentation of the letters, and any additional incised decoration. The graphic display and physical shape of the tesserae evolve over time, with three successive stages identifiable.

The provenance of the tesserae is primarily Italian; other examples come from western European provinces, with a few notable outliers (AE 1967.486 from

Ephesus and AE 1968.619 from Hadrumentum). However, a distinct subtype, with text on only two sides and additional decoration on the other two, has emerged at Magdalensberg, a Celtic settlement within the later province of Noricum. These examples do not bear a date, but have all been recovered from occupation levels dated from the mid-first century B.C.E. to the mid-first century C.E.

This paper not only considers the ways in which the graphic design of *tesserae nummulariae* developed in three distinct stages, but also puts forward the social and functional explanations for these shifts. Despite its exceptional character in some respects, the Magdalensberg type provides an instructive test case for the adaptations by local production outside of the Roman Empire. The Magdalensberg type further assists evaluation of how cultural norms dictate changes in decoration and content while the form is adapted. Cultural adaptations are again evident when making comparisons with other groups of rectangular tesserae made for different purposes, such as tribal and gaming tesserae. My examination of the changes in layout of the text of *tesserae nummulariae* and additional decoration seeks to illuminate how regional differences attest to consideration for the intended users' reception.

Circular by Design: Graphic Clues in Magical and Cultic Graffiti

Irene Polinskaya, King's College London

The issue of graphic display has particular relevance to the category of ancient magical inscriptions, although it is typically not seriously studied or theorized. For some categories of magical inscriptions, graphic display is not significant: in binding curses inscribed on rectangular strips of lead, linear arrangement of text bears little connection to the purpose of the spell, rather mundanely mirroring rectangular confines of the epigraphic field. At the same time, effectiveness of other spells is intrinsically linked to graphic display: spells designed to stop the bleeding are inscribed in the shape of an inverted triangle, with each line of text losing one letter at the start and end of the line, making each line shorter than the one above until the bottom of the triangle is formed by a single letter. In this case, graphic display reinforces the intent of the spell—gradually to reduce and stop the bleeding.

For this paper, I focus on the circular form of graphic display as used in graffiti on pottery. I present a brief survey of categories of ancient Greek inscriptions attested in circular form on pottery, including votive dedications, owners' inscriptions, and magical texts, but quickly zero in on magical graffiti and some disputed cases, in which circular graphic display serves as a diagnostic feature informing the identification of texts as magical.

Ostraka, made from bases of open ceramic shapes, kylikes and skyphoi, are particularly common as the writing medium, on which circular display of graffiti is attested. It can be argued that the shape of the ostrakon itself suggests circular display as the most convenient for the inscriber; conversely, it can be argued, that the bases of pots were chosen for specific types of inscriptions because circular display was sought after, and the shape facilitated it. It is often clear from the way such ostraka are shaped that they were prepared deliberately, with jagged edges of broken walls of the pot chipped off or filed away. The purposeful choice of shape is also supported by the fashioning of circular ostraka from walls rather

than bases of ceramic vessels, however, such ostraka sometimes, contrary to expectation, carry linear texts.

The main part of the paper explores the relationship of graphic display to the function of text (and object as a whole) in the famous Pharnabazos graffito from Olbia Pontike, dated to the early fifth century B.C.E. (SEG 30.976, 46.954, 51: 979). The text, in the edition of Vinogradov and Rusyaeva 1998, reads Φαρνάβαζος φιλόκαλος· πρόοιδα τέθνηκας· ἠρεμέω θεοπρόπος Ἑρμοῦ. Δα(σκυλείου) (τῆς) Μυ(σίης) ἐπί(τροπος). Inscribed on the underside of an Attic kylix base, the graffito consists of writing and images, with a head in profile surrounded by a circle of writing, and additional shapes and lines.

The graffito has been mainly interpreted as a magical inscription, and more specifically as a curse, *defixio*. Only Dubois has so far denied the magical function of the graffito and proposed instead that it relates to a cult association of Ἑρμαϊσταί. While agreeing with the view of graffito as a curse, Belousov has recently taken the discussion forward by addressing its circular graphic display and drawing comparisons with other graffiti from the Northern Black Sea region. In this paper, I propose a new reading of Pharnabazos graffito on the basis of my recent autopsy, dispute its identification as a curse, and challenge the interpretation of its circular graphic display as indicative of magical function. In conclusion, I suggest that writing in circle would have signified a variety of potential meanings to both writers and readers of graffiti, and we lack and therefore need a comprehensive functional analysis of the corpus of graffiti so displayed.

Graphic Order from Alpha to Omega: Alphabetization in Hellenistic Inscriptions
Alexandra Schultz, Harvard University

The Hellenistic period was a time of radical experimentation for the Greek alphabet. One of the most striking new uses of the alphabet was the technology of alphabetization, the process of arranging items in lists according to alphabetical order. Yet, outside of a preliminary study and brief discussions of individual examples, the history of this technology and of its uses across different types of objects has received little attention. In this paper I propose to study the use of alphabetization in texts inscribed or painted on objects as a strategy of graphic display. After briefly surveying the earliest examples of Greek alphabetization, which are found in papyri from Ptolemaic Egypt, I will examine the use of alphabetization in the mid-third to late-second centuries B.C.E. in three different classes of inscriptions: subscription lists, lists of cult participants, and catalogues of authors and books.

First, by examining a subscription list from Cos in which each subscriber is typically listed on a new line (SGDI 3626 = IG XII (4, 1) 70), I argue that alphabetization in combination with other layout techniques could function as a primarily visual tool for conveying an ideology of unified collective activity. Second, by examining how subscribers were divided into groups by ethnicity and other criteria in many subscription lists, indicated by, e.g., an ethnic designation centered on its own line, I refine Ellis-Evans' view that alphabetized subscription lists represent collectivity: I suggest rather that alphabetization—in combination with other visual

strategies—could equally emphasize the disunity of a community divided into distinct, internally unified groups.

Next, I turn to an alphabetized list of participants in the cult of Apollo and Heracles, from the deme of Halasarna on Cos (SGDI 3705–3706 = IG XII (4, 1) 103–104). The use of alphabetization in this inscription is remarkable, in large part because the inscription was a revised version of an earlier, unalphabetized inscription. Here I explore some possible motivations for the conscious decision to list participant names "inscribed according to letter in order beginning with alpha" (col. 6, κατὰ γράμμα ἀναγεγραμμένος [= Attic -ους] ἔξαν ἀπὸ τοῦ ἄλφα), as the decree at the top of the stele states. In addition to the practical benefit of being able to find people in the list more quickly, and beyond the visual strategy of communicating a collective identity, I consider a political motivation, namely, an attempt to emulate what was perceived as an Alexandrian practice at a time when Cos was still allied to the Ptolemies.

Finally, I consider a catalogue of authors painted on stucco from the gymnasium at Tauromenion and a book list from Rhodes that was inscribed in stone (NSER 11). The Tauromenion catalogue contains the names of five different authors grouped by genre and listed in alphabetical order; each author's name is followed by a brief bio-bibliographical entry with details about his life and works. The Rhodes inscription lists author names in alphabetical order, with books by each author listed under his name. In both inscriptions, the author names are in "reverse" or "hanging indentation": relative to the rest of the column, they protrude slightly to the left by one or two letters. The use of slight hanging indentation not only highlights the author's name, but also draws special attention to the fact that the first letter of each name is in alphabetical order. I conclude that beyond important practical considerations, alphabetization was an evolving visual strategy that drew on the prestige of alphabetically ordered encyclopedic works, such as Callimachus' *Pinakes*, to convey a sense of ordered knowledge.

SESSION 7J: Joint AIA/APA Colloquium
New Directions in Isiac Studies

ORGANIZER: *Gil H. Renberg*, University of Nebraska-Lincoln

Colloquium Overview Statement

The so-called Isiac cults—primarily Isis and Sarapis, but also Horus/Harpocrates, Anubis, and certain other divinities—in the Greco-Roman world have been among the most active areas of study for scholars of ancient religion over the past half century, with the last two decades having been especially productive. This subfield, however, has been dominated by European scholars, especially from France, Belgium and Germany, and the major conferences have all been held in Europe. This panel's main purpose, therefore, is to bring together scholars from both sides of the Atlantic in order to acquaint a greater number of North American scholars with the completed, ongoing, and planned projects devoted to Isiac cults. This is achieved by exploring the full spectrum of Isiac scholarship as well as its history, striking a balance between textual sources and material culture, with

attention being given to literature, inscriptions and papyri, paintings, sculpted objects, and other forms of evidence. Thus the audience will be informed about a broad range of subjects, sources, and scholarly approaches, which collectively will enhance their understanding of the distant past, recent past, and future of Isiac studies, and—ideally—inspire similar work to be undertaken for other cults of the ancient Mediterranean world.

The panel begins with "The Cult of Isis…," presenting a detailed historical overview of Isis scholarship dating back to the 19th century and thus contextualizing the current approaches to her cult, especially the scholarly breakthroughs leading to her current recognition as a multifaceted goddess whose functions, characteristics, and modes of worship varied widely from place to place and era to era. "In the Guise of Isis…" primarily employs material culture, investigating the worshippers who would self-identify as "Isiacs." After delving into the recent scholarly reassessment of this term that has led to the recognition of Isiacs as quite heterogeneous, rather than a monolithic group as previously thought, the focus turns to their use of iconographic formulas in representations of themselves and other Isiacs, most notably the group of Attic funerary reliefs that represented the deceased as Isis as a way of declaring her devotion. In "Where Art Meets Text…," another paper primarily concerning material culture, the two co-authors first survey the most important projects, both catalogs and synthetic studies, devoted to types of Isiac artifacts, before turning to a demonstration of how the "art and text" methodology pioneered by J. Elsner, V. Platt and M. Squire can be applied to Isiac imagery. This is achieved by means of two case studies: one showing how paintings from Isiac shrines can be contextualized by graffiti, and the other interpreting the aforementioned Attic funerary reliefs in light of Apuleius's *Metamorphoses* Book XI. "The Afterlife of Egypt…," devoted to literary sources, first highlights the vital work done on Greek and Latin authors' treatments of the Isiac cults, especially in this decade, and then goes beyond these studies, which stop with the Second Sophistic, by analyzing the use of Isiac cults in the writings of three prominent Christian apologists whose careers were contemporary to this literary phenomenon. As this paper shows, the rhetorical use of Egypt by these Christian writers was inspired by the approaches employed by Plutarch and other Greek authors of the Imperial period, and thus belongs to an ancient literary tradition of noting some aspect of Egyptian civilization in order to comment upon the Greco-Roman world. Representing the crucial fields of epigraphy and papyrology, "Origins, dialogues, and identities…" explores questions surrounding the Greek Isis hymns, especially the interrelationships among these as well as with Demotic hymns, and the evidence they present for interrelationships among worshippers. These five papers will be followed by a response given by Françoise Van Haeperen who primarily works on religion in Italy and the rest of the Latin West, including various cults from the Greek East.

DISCUSSANT: *Françoise Van Haeperen*, Université catholique de Louvain

The Cult of Isis, from "Oriental" to Global

Laurent Bricault, Université Toulouse - Jean Jaurès, Institut Universitaire de France

This paper traces the development of scholarship devoted to Isis for more than a century, culminating in the present-day collective effort among numerous scholars to recognize the complex and varied nature of this goddess. The publication of the thesis of G. Lafaye, *Histoire du culte des divinités d'Alexandrie hors de l'Égypte*, in Paris in 1884 gave birth to a new field of research, one devoted to the interaction between Egyptian civilization and the classical Greco-Roman world, particularly the diffusion of the worship of several divine figures (Isis, Sarapis, Harpocrates, and Anubis). This concept of diffusion was "sacralized" in a certain manner by the extraordinary synthesis published in 1906 (and reprinted multiple times) by F. Cumont, *Les Religions orientales dans le paganisme romain* (Paris 1906, 4th ed. 1929). Cumont's notion of "Oriental cults" was an immense success, even giving birth, half a century later, to the now classic collection of *Études préliminaires aux religions orientales dans l'empire romain*, founded in 1961 in Leiden by a former student of Cumont, M.J. Vermaseren, and greatly augmented by the French Egyptologist J. Leclant, who at Paris's École Pratique des Hautes Études held a chair bearing the title "Histoire de la diffusion des cultes égyptiens." For more than 25 years, the concepts of "religions orientales" and "diffusion des cultes" gave rise to many important publications, mainly corpora of inscriptions or other objects from a particular territory or divinity's cult, and these enormously rich and precious collections rarely, if ever, questioned Cumont's brilliant work. R. Turcan's fine book entitled *Les cultes orientaux dans le monde romain* (Paris 1989, 3rd ed. 2004), was proof of Cumont's continued influence, even if the title of the English edition (*The Cults of the Roman Empire* [London, 1996]) already showed some evolution away from his categorization.

Even as, under the influence of Leclant, there still appeared in 2001 an *Atlas de la diffusion des cultes isiaques* (Paris, 2001), the simplistic and monolithic vision of a religious outflow coming from the East and breaking upon Rome began to crack. A new generation of scholars, trained in interdisciplinarity and relying on both the exceptional documentation gathered for the past century and new approaches in an effervescing area of scholarship, would radically revitalize this research field, challenging old concepts while presenting new ones. Furthermore, an ongoing reconsideration of the nature of the Isiac cults as well as relations between Egypt and the rest of the Greco-Roman world based on the sources continues to be greatly facilitated by the establishment of several rigorously produced projects: the epigraphical corpus *Recueil des Inscriptions concernant les cultes isiaques* (2005); the numismatic corpus *Sylloge Nummorum Religionis Isiacae et Sarapiacae* (2008); the archaeological catalog *Iseion* (2009), devoted to all known Isis sanctuaries; the creation of a regularly published collection of studies, the *Bibliotheca Isiaca* (2008–), directed by L. Bricault and R. Veymiers; and, soon, the iconographical series *Thesaurus Iconographicus Cultuum Isiacorum* (*ThICIs*), a work in progress directed by R. Veymiers. Complementing such tools are the conference volumes produced as the result of international conferences (e.g., L. Bricault and M.J. Versluys, eds., *Power and Politics in the Cults of Isis* [Leiden, 2011]).

It thus appeared that the cults were not the only vector of these relations—far from it—but that they were interwoven into a network of connections: cultic, cultural, economic and human. If the concept of cultic dissemination remained fundamental, it was only one stage of the process. For the relationship between divinity and worshippers to be established sustainably, reception, implantation, and finally appropriation were equally essential. As this paper shows, it is this kaleidoscope of *interpretationes variae*—graeca, romana, judaica, christiana, and even aegyptiana, since Isis returned to Egyptian soil after her peregrinations around the Mediterranean, subsequently coexisting with her ancestral forms—that current research endeavors to analyze and place in the global context of the Greco-Roman Mediterranean koine.

In the Guise of Isis: Visual Symbols and Constructing Identity

Richard Veymiers, Wallonia-Brussels Federation - The Royal Museum of Mariemont

During the Hellenistic and Imperial periods, from one end of the Mediterranean to the other, individuals from very different backgrounds defined themselves as "Isiacs" and, by doing so, expressed their religious adhesion to the Greco-Roman cults of Isis. These cultic communities, whose members seem to share the same sentiments of belonging and being able to claim a shared religious identity, for a long time have been studied in a quite monolithic way and distorted through the prism of the isolated category of "Oriental religions" (inherited from F. Cumont and his synthesizing essay on *Les religions orientales dans le paganisme romain* [Paris 1906, 4th ed. 1929]).

In recent decades, an evolution in scholarly representations of the world of ancient religion (as is to be seen, for instance, in L. Bricault and C. Bonnet, eds., *Panthée: Religious Transformations in the Graeco-Roman Empire* [Leiden, 2013]), and a new momentum in research devoted to the Greco-Roman cults of Isis (exemplified by the work of L. Bricault, especially his establishment of the Bibliotheca Isiaca series), have paved the way for a reassessment of these cultic groups that reveal them to have been much more heterogeneous and colorful, offering varied configurations in accordance with their local contexts. Emblematic of this is the pair of international conferences on the "Isiacs" held at Erfurt and Liège in 2013, soon to appear in an important two-volume book edited by V. Gasparini and R. Veymiers (*Individuals and Materials in the Greco-Roman Cults of Isis: Agents, Images and Practices*, 2 vols., forthcoming in RGRW series, Leiden).

This paper continues the exploration of the Isiac phenomenon, seeking to understand in context these cultic communities, beyond any received ideas, and to debate a religious identity that was by no means uniform and exclusive, but was sometimes expressed, or even displayed, in singular ways. The Isiac communities left their traces in the material culture of antiquity in multiple ways, notably in the form of images, including explicit visual symbols, that would later grab the attention of Renaissance antiquarians. Some of these iconographic formulas to which these groups resorted in order to proclaim their identity were successful and spread around the Mediterranean. Such was the case with the numerous artifacts

depicting women in the guise of Isis, wearing the knotted and fringed clothing, holding the sistrum and situla, or even crowned by the so-called basileion.

As a case study, this paper aims to shed new light on this theomorphic mode of representation and self-representation, mainly documented by some 110 Attic funerary steles of the Imperial period showing the deceased as Isis, which were studied during the 1980s and 1990s by E.J. Walters (*Attic Grave reliefs that represent women in the dress of Isis* [Princeton, 1988]) and J. Eingartner (*Isis und ihre Dienerinnen in der Kunst der römischen Kaiserzeit* [Leiden, 1991]). The central question with which these scholars were concerned was the identification of the religious function of these women: were they priestesses, initiates, musicians, etc.? It must be asked, however, if it is relevant to seek to define the religious status of these women under a single label. Was this really the *raison d'être* of these images? Rather, by means of this mimetic set that could take various forms, in a context that was often but not exclusively funerary, these women in fact implemented a much wider iconographic practice—described as *consecratio in formam deorum* by H. Wrede (*Vergöttlichte Privatpersonen in der römischen Kaiserzeit* [Mainz, 1981]), but overlooked by Walters and Eingartner—which seems to have particularly interested the Isiacs. As this paper argues, while intended to celebrate some virtues of women, whose social promotion they commemorated, these images were also an efficient way for the commissioners to affirm publicly an adherence to a very prosperous cult.

Where Art Meets Text: Potent Words and Vivid Images in the Isiac Cults

Molly Swetnam-Burland, The College of William and Mary, and *Lindsey A. Mazurek*, University of Oregon

We begin this paper by surveying new work on Isiac material culture, including studies of gems, lamps, landscapes, and Egyptian imports. We then explore new directions by considering the application of the "art and text" methodology pioneered by J. Elsner, M. Squire and V. Platt to Isiac material. Proposing a dynamic relationship between reading and looking, these scholars integrate textual and material evidence to reveal how objects and their display informed viewers' lived experiences. We present two case studies that demonstrate the potential of these approaches to vivify our understanding of the Isiac cults' beliefs and practices.

First, we examine shrines, whose iconography provides evidence for Isis in the private sphere. The shrine at the Casa degli Amorini Dorati in Pompeii, for example, included depictions of Egyptian deities and cultic paraphernalia. Other shrines, too, stand as witness to the many incarnations of Isis and other Egyptian deities venerated in private spaces. Yet, shrines were also places of ritual action. In the case of the shrine in the Casa degli Amorini Dorati, a hole bored into the wall allowed participants to place offerings on the painted altar, breaching real and fictive space. When we examine graffiti associated with other Isiac shrines in Italy, we can better understand how such paintings invited interaction. Graffiti document gifts and prayers, provide evidence of cultic roles, but also express jokes and greetings—a reminder of the diversity of religious experience and its integration into daily life. Next, we consider the corpus of funerary monuments from Roman Athens that depict devotees dressed as Isis, collected by E.J. Walters (*Attic Grave*

Reliefs that Represent Women in the Dress of Isis [Princeton, 1988]). Previous studies have focused on typological and social questions and have not considered these reliefs' implications for the cult's theology. Reading these images with descriptions of Lucius' initiation from Book XI of Apuleius' *Metamorphoses*, these cultic costumes take on a new dimension. Alongside their roles as cultic identifiers in the civic and funerary landscape, these images also suggest that devotees saw transcendence as a key feature of cultic sculpture: just as Lucius could take on the role of the cult image in his initiation, these portraits assimilated the deceased devotee to the goddess for eternity.

Our case studies demonstrate the utility of looking beyond the image, turning to formal, literary texts (Apuleius) and informal, hand-written ones (graffiti). In both instances, texts provide vital context for iconography. Taken together, however, text and image underscore the penetration of devotion in the lives of those who commissioned monuments intended to express their beliefs and deepen personal ritual experience.

The Afterlife of Egypt in Early Christian Apologetics

Eleni H. Manolaraki, University of South Florida

Egypt in classical literature uncannily resembles and yet shockingly diverges from the Greco-Roman world. From the Hellenist perspective, and most recently, I. Moyer (*Egypt and the Limits of Hellenism* [Cambridge, 2013]) and P. Vasunia (*The Gift of the Nile: Hellenizing Egypt from Aeschylus to Alexander* [Berkeley, 2001]) have addressed questions of culture, identity, and agency in the interactions of Greeks and Egyptians. Likewise, critics have illustrated Greek and Latin authors' adaptation of Egypt to the expanding self-identity of Rome, and highlighted the Isiac gods as catalyst to this process. After surveying these recent developments in the scholarship, the present paper extends the conversation chronologically by discussing the use of Egypt by three Christian thinkers of the second and third centuries: Clement of Alexandria, Minucius Felix, and Tertullian. These apologists utilize classical conceits of Egyptian religion to establish their own belief system as distinct from, and superior to, the pagan rivals of the new faith.

The Christian appropriation of Egypt takes its inspiration from the Second Sophistic. Urged by the increasing visibility of Isiac gods in the multiethnic Empire, authors such as Lucian, Pausanias, Philostratus, and Plutarch seek to ascertain the priority of Greek over Egyptian spirituality in the hierarchy of cultures under Rome. For them, since Greek philosophy resembles but surpasses Egyptian wisdom, the proper Roman attainment of things Egyptian should pass through paideia. Clement, Minucius, and Tertullian emulate their contemporaries' Hellenization of Egypt, but they subsume and subvert it under the Christian paradigm.

To establish Christian theology as superior to Greco-Roman paganism, these writers emphasize the putatively reprehensible similarities of the latter to Egyptian religion. In his Exhortation to the Greeks (4.2), Clement scolds his addressees for hypocritically mocking Egyptian zoolatry while themselves worshiping animal tokens of the Olympians; elsewhere, he criticizes Hadrian's cult of Antinous for combining Egyptian superstition with Greek veneration of beauty. Minucius Felix in his Octavius (28.1–9) assimilates the cults of Isis and Demeter as equally

nonsensical. Minucius also responds to the slur of onolatry by objecting that those slanderers project on Christians their own worship of Apis and Epona, the Gallo-Roman patroness of horses, donkeys, and mules. Tertullian chastises Romans for rescinding their earlier prohibition of the Isiac gods (*Apol.* 6.7) and for reintroducing them into (Imperial) Rome in place of (Republican) ancestor worship.

In assimilating Egyptian theriomorphism and Greco-Roman anthropomorphism, all three authors imitate the approaches to Hellenization of Egyptian religion found in the writings of the Second Sophistic, but they manipulate these for their polemic goals. Illustrating this function of Egypt in early Christian apologetics provides a logical end point to the discussion of its ideological malleability in Greco-Roman literature, and one that has not been sufficiently explored.

Origins, Dialogues, and Identities: Shifting Perspectives on Greek Hymns to Egyptian Gods

Ian Moyer, University of Michigan

This presentation reviews recent developments in the study of Greek hymns to Egyptian gods, more than a dozen of which survive on papyrus and stone. Particularly important is a shift from earlier debates over origin and identity to a more nuanced analysis of the cross-cultural dialogues and networks of circulation in which the hymns emerged, and the significance of the hymns in their social and ritual contexts. Such recent approaches provide a productive way to think about the hymns and their interrelationships with one another as evidence for the construction of identity in the communities that used and preserved them.

The origin and cultural identity of the so-called Memphite hymns (I.Kyme 41 and related texts) have been debated for over 80 years. Views that they were predominantly Greek have often harmonized with the argument that the "Hellenization" of Egyptian divinities was necessary for their migration beyond Egypt. Such debates remain unresolved, but they have revealed in these hymns an array of motifs, ideas, and formal characteristics of both Greek and Egyptian origin that fit the multicultural contexts of both Ptolemaic Egypt and the Hellenistic Mediterranean. Recent studies have complicated assumptions about the unidirectional diffusion of Egyptian gods and cults into the Mediterranean and about the relationship between their homeland and diasporic forms. M. Stadler has made a compelling case that the Greek hymnic tradition represented by the "Oxyrhynchus Aretalogy" (P.Oxy. XI 1380), in which "many-named" (*polyonymos*) Isis is equated with divinities from around the Mediterranean, not only had demotic Egyptian antecedents, but those antecedents, in turn, incorporated material from Greek sources. The hymns of Isidorus erected at Medinet Madi, moreover, dramatize the return of a universalizing Mediterranean Isis to confront epichoric forms and local syncretisms of the goddess in Egypt, as shown by I. Moyer . And finally, studies of the Sarapis aretalogy from Delos (IG XI.4, 1299), have shown that Greek language, content, and formal features did not preclude continuing connections with the Egyptian homeland.

A number of studies have also devoted attention to the social and ritual contexts of the hymns. J. Quack has proposed that the Egyptian precursor to the Memphite hymns was a dramatic performance of Isis's self-predications in an epiphanic

ritual. A. Jördens has stressed the mediating agency of *aretalogoi* at Greek sanctuaries, and others, most recently I. Moyer, have explored the physical performative context of the hymns. Other scholars, including P. Martzavou, have reconstructed the affective dimensions of these texts, and how they contributed to the formation of a ritual and emotional community. Combining these new perspectives with the previously described shifts from models of diffusion to dialogue and from migration to circulation, a revived study of the interrelations between the so-called Memphite hymns and closely related texts reveals insights into constructions of identity and community among worshippers of Egyptian gods at sanctuaries in the eastern Mediterranean.

SESSION 8A: Colloquium
Living as an Etruscan: Cities vs. Communities in Etruria

ORGANIZERS: *Nancy T. de Grummond*, Florida State University, *Lisa C. Pieraccini*, University of California, Berkeley, and *Gregory Warden*, Franklin University Switzerland

Colloquium Overview Statement

Ancient texts tell us that the Etruscans had an alliance of Twelve Peoples or city-states. Such sites, identifiable through a combination of literary and archaeological evidence, raise questions about the formation and development of urban environments and the accommodation of large populations within cities that played a highly significant part in historical events. Abundant evidence helps to establish the identity of these towns and their inhabitants, and to address a wide range of topics related to society, religion, economy, trade, art, and government.

There is also, however, significance and value in studying Etruscan communities not necessarily defined as a city proper. There are numerous smaller specialized habitation sites, serving a function mainly as (for example) a fortress, sanctuary, trade center, harbor, or production zone (or sometimes combining two or three such functions), varying in size and population. These communities may be close to urban areas or found in the remote countryside. Regardless of their location, they greatly expand our concept of Etruscan settled life. They fill in an important gap, revealing significant data about communities outside of city walls.

The aim of this colloquium is to study selected Etruscan settlements in pairs, in which we compare and contrast a recognized major city with a smaller community nearby: Orvieto vs. Poggio Civitate (Murlo); Fiesole vs. Poggio Colla; Arezzo vs. Cetamura del Chianti. Presenters are asked to approach their sites, whether urban or not, by asking questions about the principal features. For example, are there fortifications, and if so, of what type? How was water provided? What kind of installations show religious activities, what kind of rituals are evident, and who are the gods? What kind of inscriptions occur? Was there extensive production? What evidence is there for roads leading in and out of the settlements and what kinds of connections do they establish?

We thus hope to provide a spectrum of sites, not so much to contrast city and countryside (though this is of course important) as to try to understand the

relationship between sites of different sizes, functions, social systems, and environments and how they may have been drawn together in networks of exchange of goods and ideas. The picture we have of Etruscan civilization at present is very rich, but is also notoriously still riddled with gaps that limit our understanding. Incorporating the smaller communities, often fascinating in themselves, into the larger study of Etruscan habitation can provide an account at once more detailed and more comprehensive of life in ancient Etruria.

DISCUSSANT: *Jacopo Tabolli*, Soprintendenza Archeologia, Belle Arti e Paesaggio per le province di Siena, Grosseto e Arezzo

Arezzo

Ingrid Edlund Berry, The University of Texas at Austin

According to Livy, Arezzo was a "most powerful city," and represented the "leaders" of Etruria (10.37). At the same time, the importance of the city is often acknowledged through isolated references to individual achievements, rather than by a synthetic view of Arezzo as a major urban center, comparable to other cities in the Etruscan League. By assembling the many already-known threads of evidence, it is, however, possible to evaluate Arezzo with a new approach, one that focuses on the interaction between the city and the surrounding communities such as Cetamura and the active network that facilitated trade and communication.

Thanks to its location at the confluence of surrounding river valleys, Arezzo had easy access to trade routes across the Apennines and towards the Arno and Tiber Rivers and Lake Trasimene. It is therefore possible to link the bronze statuettes from the city (Fonte Veneziana) to finds at Brolio and other sites (Castiglion Fiorentino) located along the roads to and from Arezzo. Located on elevated hills, with an abundance of springs and wells, the city excelled as an urban center defined by walls, a civic center, streets, houses, and many sanctuaries. A number of bronzes from votive deposits, such as the famous Chimera from Porta S. Lorentino and the minting of coins, attest to the artistic production and the wealth of the citizens benefitting from fertile farm land in the territory. Architectural terracottas decorated the temples, and production of pottery, the so-called Arretine ware, came to dominate the industry in the city. The large-scale production of this ware is linked to the names of individual artisans and workshop managers preserved on stamps in relief on the vessels. Sanctuary sites such as Castelsecco reinforced the cult practices within the territory, whereas communities such as Cetamura complemented the industrial activities of Arezzo proper.

An overview of Arezzo and its territory suggests that this city, an economic and artistic center in the hinterland of Etruria, was probably one of the wealthiest cities in Etruria in terms of production of metals and pottery and agricultural resources. In addition to her location, the presence of smaller communities provided a safety net and economic support that allowed Arezzo to act independently in relation to her neighbors and to Rome, but as in other areas of Italy, internal power politics eventually led to a stronger Roman involvement.

Cetamura del Chianti
Nancy T. de Grummond, Florida State University

Cetamura is a hilltop settlement located at the crossroads filling the gap between four major north Etruscan cities: Fiesole, Chiusi, Volterra and Arezzo. It shows especially strong ties with the latter two cities in the third to first centuries B.C.E. This paper presents some of the principal installations at Cetamura with the goal of making comparisons and contrasts with Arezzo, located some 30 km from Cetamura, surely a constant and important factor in the economic development of this rural center. Black-gloss and red-gloss pottery imported from both Arezzo and Volterra has been found in abundance at Cetamura. Literary sources refer to a period of political unrest at Arezzo ca. 300 B.C.E., which corresponds to a period of expansion of population at Cetamura, perhaps indicating the transfer of Arretine folk.

So far Cetamura takes its identity from a zone of production in which two ceramic kilns have been discovered, a larger one for making brick, tile, and weights for the loom, and a smaller one that may have fired local unpainted wares. Only meters away an iron forge and an establishment for spinning and weaving operated. This kind of clustering of artisanal activity shows a different pattern of organization from the numerous workshops of Arezzo dedicated solely to fine painted pottery.

In terms of sacred activity, the sanctuary adjacent to the artisans' zone is of great interest. The unusual trapezoidal plan of the sandstone foundations of the main building, the rustic rock altars and the cults of the relatively obscure gods Lur and Leinth, make for a dramatic contrast with Etruscan urban and extra-urban architecture and ritual. The sanctuary of Castelsecco, ca. 3 km outside of the city of Arezzo, makes an interesting comparison for its monumental architecture featuring two temples and a theater, and possible worship of two major Etruscan deities, Tinia and Uni. At Cetamura there is scant evidence for the kind of architectural terracottas that graced the temples of Arezzo, and a single bronze votive of a female figure from Cetamura contrasts dramatically to the Chimera of Arezzo dedicated to Tinia and the numerous bronze statuettes from Fonte Veneziana of Arezzo. The metal offering of choice at Cetamura was iron, with objects probably made and even offered by local workers. In sum, the comparison between Cetamura and Arezzo brings out differences in production, religious ritual, and class status and points to significant connections of trade and population.

Etruscan Fiesole and the "Agro Fiorentino"
Gregory Warden, Franklin University Switzerland

The city of Fiesole (Etruscan Vipsul, Roman Faesulae) flourished from the fifth to the second centuries B.C.E., became an important Roman center, and continued to exert religious influence as a Bishopric throughout the medieval period. The importance of the city in the later Etruscan period is unquestioned given the extensive evidence of material culture: a fourth-century temple, massive city walls, votive deposits, and a third-century necropolis. Evidence for earlier occupation exists, but that evidence is scant: ceramics that may date as early as the seventh

century B.C.E., and a carved stone relief that Stefano Bruni identified as part of an archaic altar. Also important are the Pietre Fiesolane (funerary stelai and cippi) that date to the sixth and fifth centuries B.C.E. and that are distributed over a broad area, almost always at sites on the northern bank of the Arno River. The Pietre Fiesolane are evidence of a noncentralized urbanistic and demographic pattern that is characteristic of northern Etruria.

The development of Fiesole as a major urban center is thus connected to the social changes that only took place in the "Agro Fiorentino" in the fifth century B.C.E. In the seventh and sixth centuries Fiesole is one of many smaller settlements in the Mugello and Val d'Arno, seemingly of no greater importance than Quinto, Artimino, San Piero a Sieve, Londa, Gonfienti, and even Poggio Colla. It is only at the end of the fifth century, with destruction or abandonment of Gonfienti and the eclipse of other regional centers that Fiesole becomes a dominant urban entity. These events may be connected to Gaulish and Ligurian incursions that privileged the central, dominant, and highly defensible site of Fiesole. Recent archaeological evidence also supports the conclusion that this northernmost part of Etruria proper always had strong connections with sites father to the north and was in fact continually influenced by both economic and political trans-Apennine events. The comparison with the site of Poggio Colla is here given emphasis as a way of clarifying the identity of both sites in this northern Etruscan area.

Poggio Colla

Gretchen Meyers, Franklin and Marshall College

The Etruscan hilltop site of Poggio Colla, located in the Mugello Valley approximately 22 mi. north east of Florence, provides unique evidence for a community within an important sanctuary setting. Excavation from 1995 to 2015 revealed this major sacred space in northern Etruria with a sequence of monumental buildings stretching from the seventh to the second centuries B.C.E. A number of votive depositions indicate varied acts of religious devotion at the sanctuary throughout its history. The recent discovery of a stele dating to the sixth century B.C.E., inscribed multiple times with texts that have been interpreted as sacred in nature, further confirms a long history of cult continuity at the site. In addition, a coring survey conducted in 2007–2008 suggests an expansive habitation area outside the sanctuary itself. Excavated evidence for habitation and a significant ceramic and roof-tile production center on the hillside in a region known as the Podere Funghi serves as an example of such a satellite community.

An examination of the archaeological remains from Poggio Colla thus provides an example of community shaped by belief system rather than geographic proximity. The acropolis and its monumental structures served as a centralized meeting point for regional and, as some evidence suggests, even transalpine peoples. Study of ceramic material suggests that despite its relatively small size, Poggio Colla exercised large economic agency. In particular, recent results of geochemical analyses of ceramics, textile tools, and roof elements point to a self-sustaining ceramic production enterprise where local materials were utilized to supply the sanctuary with commensal wares, textile production tools, and building materials. This local communal structure appears to become even more important at the end of the fifth

century B.C.E. when evidence suggests that Poggio Colla's monumental religious structures were destroyed and the hilltop restructured. At a time that aligns with the growing influence of the nearby urban center of Fiesole, the community of Poggio Colla continues to thrive by relying on its established economic autonomy. This paper explores a comparison and contrast with Fiesole, long considered a major Etruscan city, in an effort to define the place of each within a spectrum of Etruscan settlements.

Topography Is Destiny: Poggio Civitate and the Community Form of the Crete Senese

Anthony Tuck, University of Massachusetts, Amherst

Poggio Civitate is located in the Comune of Murlo at the juncture of the mineralogical wealth of Tuscany's Colline Metallifere and the agricultural abundance of the Crete Senese. The site flourished between the late eighth and late sixth centuries B.C.E. Excavation has revealed an abundance of data concerning the daily life of the community, including evidence of three major phases of monumental architectural development consisting a series of elite households and supported by an adjacent nonelite community. Manufacturing capacity at the site is reflected in materials associated with all three phases of development but best illustrated by the discovery of a multifunctional workshop associated with Poggio Civitate's middle phase of development (675/650–600 B.C.E.). This 54 m-long structure produced food stuffs, roofing materials, objects of worked bone and antler, textiles, metals, and a number of other goods in a distinctive local style. However, in spite of this considerable scale of manufacturing, goods appear to have been produced almost exclusively for internal consumption.

The resulting picture of Poggio Civitate's social and political economy suggests a dominant nucleus community surrounded by a number of subordinate settlements. Raw materials aggregated atop Poggio Civitate and were converted into finished products, primarily benefiting the site's elites, although evidence suggests a number of social and ritual mechanisms that would have redistributed portions of this production capacity back into the broader community.

For the sake of dialogue in this session, the major city of Etruscan Orvieto, only about 100 km to the south, which flourished in the Archaic period as well as later, will be used as a comparison to bring out the variety of Etruscan settlements. The physical form of Orvieto's topography allowed for the accumulation of a well-defended population atop the city's plateau. Alternatively, the topography around Poggio Civitate—a hilly terrain without broad, elevated plateaus upon which to aggregate population—compelled the community to create mechanisms of social, economic, and symbolic engagement with multiple population centers, resulting in a nonnucleated demographic structure marshalling population and resources from numerous surrounding communities, utilizing economic, political, and religious structures to create a cohesive community in spite of the physical separation of the various constituents of the community. This idea is echoed in the medieval comune of Murlo itself, with a social, religious, and architecturally monumental center surrounded by subordinate clusters of habitation

Orvieto
Claudio Bizzarri, Parco Archeologico e Ambientale dell'Orvietano, Orvieto (Italy)

Orvieto, located on a plateau in the Paglia River Valley not far from the Tiber, has been identified with the Etruscan Velzna (Latin Volsinii), the city described as Etruriae caput by ancient sources. The vast tufa crag was the naturally fortified area of the settlement that flourished from the sixth century B.C.E., ending with the Roman conquest in 264 B.C.E. The long-suspected role of the city as the periodic meeting site of a "league" of Etruscan cities has found corroboration in the installations recently brought to light at the Campo della Fiera, in the plain outside the plateau of the city. The name of the meeting place given by Latin sources, Fanum Voltumnae, implying the worship of the chief deity of the Etruscans, and the literary evidence of what transpired at the gatherings, are congruent with the discovery at Campo della Fiera of monumental temples, an altar and deposits of offerings that show not only wide Etruscan connections but also international relations.

Architectural terracottas from the various religious buildings testify to the quality of the local workshops, which were probably also connected with bronze production ranging from small ex-voto figurines to the more monumental statue of the "Mars" from Todi. New architectural decorations dating to the middle of the fifth century B.C.E. suggest a period of reorganization of the city at that time.

From the point of view of material culture, Orvieto had strong ties with the northern city of Chiusi, especially for the production of "heavy bucchero," bucchero pesante. Recent archaeological excavations in the Crocifisso del Tufo necropolis have further confirmed such ties. For the purposes of this colloquium on Etruscan settlements, a meaningful comparison and contrast may also be made with bucchero production at Poggio Civitate (Murlo), a community often regarded as within the sphere of Chiusi. The remarkable development of architectural terracottas at Poggio Civitate is another point of comparison that may relate to the theme of city vs. community. It is interesting that Poggio Civitate seems to have been a center in its own territory and has even been hypothesized to be a place of meeting like Orvieto, but for cities of northern Etruria. As Poggio Civitate waned and was abandoned in the later sixth century (and a similar fate befell the community of Acquarossa, near Orvieto) Orvieto continued to expand to take its place as the leading city of Etruria.

SESSION 8B
Greek Sculpture in Clay and Stone

CHAIR: *Andrew Stewart*, University of California, Berkeley

Motionless Statues? Inscriptions and Movement in Archaic Greek Sculpture
Johannes Fouquet, University of Heidelberg

In the well known opening of the epinican ode in honor of Pytheas of Aegina Pindar emphatically affirms that he is „not a sculptor, to make statues that stand

motionless (ἐλινύσοντα) on the same pedestal" (N. 5, 1–2). This polemic self-definition *ex negativo* is aimed at a constitutive memorial feature of monuments, their fixed position in time and space, which Pindar contrasts with the unlimited reach of his own poetry, i.e., its ability to move in space from ship to ship to spread the news about Pytheas' victory (N. 5, 2–5). Statues, in contrast, remain by their very nature in a standstill.

From the perspective of material culture, this is an impression that closely chimes with sculpture of the Archaic period, which the poet on the brink of the Classical period perceived, at best, with the eyes of the later-born: Movement finds, in general, only moderate expression in the statuary poses. In contrast to Pindar's perceived dichotomy between visual and verbal media, however, images and texts in the form of inscriptions placed on the statue bases or on the statues themselves stimulate a complex dialectic context of reception.

This paper looks at a small group of Archaic statue bases from Olympia, Athens and Delphi whose inscriptions, contrary to the common practice of attaching them to the front face, were placed on the topside of the bases. Running along two or more edges, these inscriptions created, in the first place, an ornamental frame for the statue, but also motivated and guided the spatial movement of the recipient around the monument and, thus, "unwinded" the rigid frontality that determined contemporary sculpture. A similar case can be made for the positioning of inscriptions on archaic votive capitals that, due to the round shape of their carrier medium, cannot be read from one angle. In analogy with the facture of certain vase inscriptions of the Archaic period that serve to visualize and reinforce the depiction of figures in motion, I argue that by moving along the statue its potential for movement was, in turn, articulated.

Figurines in Context: An Overview on Clay Statuettes from the Sanctuary of Despotiko

Erica Angliker, School of Advanced Study, University of London, and *Yannos Kourayos*, Director, Excavations at Despotiko

A large sanctuary dedicated to Apollo and Artemis has been discovered on Despotiko, a small Cycladic island, located in the jurisdiction of Paros, which is not mentioned in any written sources. The structure is of paramount archaeological importance because of its tremendous size and the complexity of its organization; in this regard, (in the context of the Cycladic archipelago), it is surpassed only by the sanctuary of Delos. Excavations have brought forth twenty buildings and numerous marbles statues, jewelry, common artifacts (seated female statues, a few protomes), and fine coroplastic items (vases in the shape of animals and genitalia). This paper sheds light on the cultic uses of these coroplastic items by analyzing, in detail, the entire archaeological context in which these objects were found. In the first part of this paper, we briefly present the importance of the sanctuary and its principal cultic spaces. Then, we systematically present the figurines uncovered at different spaces at the sanctuary. And finally, we discuss the role played by clay items in the sanctuary's cultic practices, by considering the entire votive deposit. The clay items are also used to discuss aspects of the divinity worshipped at Despotiko (Apollo and Artemis). Moreover, the paper presents some comparisons

with figurines found at the Delion on Paros, where similar items were also dedicated to Apollo and Artemis.

The Origins of Terracotta Figurine Use at Corinth: The View from the Sanctuary of Demeter and Kore

Susan Langdon, University of Missouri

This paper investigates the earliest production of terracotta figurines at Corinth based on current study of the archaic material from the Sanctuary of Demeter and Kore on Acrocorinth. The appearance in the seventh century of a new type of votive offering, primarily female figurines, marks a clear departure from the male-focused bronze figurines of the Geometric tradition. Material and conceptual reasons have prevented this from being recognized for the revolution it was (e.g., G. S. Merker in *Corinth* 20). The relatively few seventh-century molds and figurines published in the Corinth Potters' Quarter volumes lacked use contexts. Certain terracotta figurines excavated at the Corinthian sanctuary at Perachora were inaccurately published as Geometric, while its corpus of archaic figurines has been viewed largely through the lens of Hera cult and the long shadow of the Argive Heraion. The new material from the Demeter and Kore sanctuary now provides the organizing principle of a coherent cultic assemblage and a theoretically informed opportunity to ask how Corinthian terracotta figurine use began.

The process of innovation within a community's needs and resources can be tracked through the inherent physical properties of the figurines as well as through the decision-making of their makers and users. Since innovations progressed through stages of invention to adoption and acceptance, more complex archaeological evidence is required than the mere presence of visual models. The Corinthian evidence includes imported figural pieces, locally made molds based on imports, and numerous experiments in shaping bodies and finishing heads. The key lies in the invention of mold-made heads, used interchangeably for perfume vases, pyxides, figurines, and ritual *kalathoi*. Head molds offered a consistent standard of quality akin to Corinthian "branding," providing a blank slate for iconographic transformation through paint and clay, and a continuous representational system of cult material mediated through the attachment of heads to varied objects and bodies. Both real and figurine-borne apparel, jewelry, offerings, and gestures allowed for the elaboration of divine identity and votary participation. The Corinthian story may be local, but I argue that the rise of terracotta figurine use as a critical part of fundamental shifts in Archaic religious behavior is best approached through regional experiences of adoption and development.

Plotting the Herms of the Athenian Agora: A New Approach to Sculptural Scatter and Legacy Data

Laura Hutchison, Johns Hopkins University

The ubiquity of statues in the Athenian Agora is attested to primarily by signs of their absence: empty bases, excavated fragments, and textual sources. This paper offers a reconsideration of previously excavated sculptural fragments through

GIS-based mapping, taking up the herms of the Agora as a case study. More broadly, the model presented here outlines the potential for new approaches to legacy data.

Scholars have tended to approach the tasks of reconstructing statues and locating original sites of display through long-standing methods, such as *Kopienkritik*. However, such methods grow less effective when we study statues and monuments that were short-lived in their display or less well known in antiquity. The quantity of sculptural finds at the Agora has allowed for a culling of potential "matches" specific to monument-focused studies. In contrast, the method presented here gives primacy to the findspots of sculptural fragments.

Relying on GIS-based mapping distilled from archival material, I studied the diachronic scatter patterns of some 250 herm fragments. Even before large numbers of herms were discovered in the northwestern corner of the market square, ancient testimonia drove modern speculation of the location of the "Stoa of the Herms" (or "Area") to this same corner. To test the hypothesized location, this paper steps back from the monument itself and first plots and evaluates the herm fragments and relevant inscriptions. Scale and carving methods are then used to isolate fragments appropriate to the monument in date and function. The isolation of examples of the appropriate date and/or style associated with the "Area of the Herms" allows us to confirm the location of this monument in the northwest corner and trace the scatter over time. The GIS-based plotting of scatter shows the material moving out and away from the northwestern corner of the market square, as one might expect. Additionally, the scatter moves up through the datable contexts with a concentration over the same northwest area. Phases of reuse of the herms and related material occur at key intervals within this cluster. Though the exact location of the "Stoa" or "Area" remains elusive, reevaluation of legacy data and spatial analysis through GIS-based mapping brings nuance to our understanding to the life and afterlife of the monument.

New Insights on the Pasquino Group through the "Minor Arts"

Rebecca Levitan, University of California at Berkeley

For the ancient Greek warrior fortunate enough to emerge from combat alive, little was more important than recovering the body of his fallen comrade. The classical motif of the living warrior carrying the dead is perhaps most evocatively captured by the Hellenistic "Pasquino Group," a sculpture that depicts an older, mature warrior striding forward in three-quarter view, burdened by the limp body of a younger, dead warrior, whom he carries by the torso. Although clearly inspired by epic poetry, the composition is inherently mutable and enigmatic.

A set of 14 Roman marble copies scattered across the Mediterranean provide a window onto the lost Greek original of the Pasquino Group—but the view is limited. Every Roman copy is highly fragmentary, and many display variations on key attributes, which has rendered *Kopienkritik* or *Meisterforschung* difficult and made the identification of the sculpture's two warriors a source of contention for nearly two centuries.

Yet, questions surrounding the identification of the Pasquino Group warriors may be illuminated by examining another category of ancient evidence: the

"minor arts." Hitherto largely ignored representations of the group on Hellenistic and early Roman mosaics and engraved gems, can provide insights that are absent in the statue's corpus of Roman copies.

By presenting several informative examples of representations of the Pasquino group in the "glyptic arts" and mosaic, some of them unpublished or poorly published, this paper seeks to demonstrate that the debates surrounding over-lifesize Hellenistic groups may be resolved by evidence that is much smaller in scale.

The Hellenistic Honorific Statue Habit in Ptolemaic Egypt

Sara E. Cole, J. Paul Getty Museum

Throughout the Hellenistic world, elite identity was closely tied to euergetism (benefaction) toward one's community. Such benefactions were proclaimed in dedicatory inscriptions, and communities or individual families honored benefactors (including rulers) by setting up portrait statues of them in public locations. This paper explores the use of Hellenistic honorific statuary in Ptolemaic Egypt. A comprehensive study of this Hellenistic practice in Egypt has never been undertaken, in part because the phenomenon acquired different characteristics in Ptolemaic Egypt from those elsewhere in the Hellenistic world, and in part because limited evidence for the statues survives. Nevertheless, in Hellenistic Egypt the honorific statue habit developed in ways that resulted in hybridizing displays of civic honor that drew upon Greek and Egyptian influences.

Stone statue bases inscribed in Greek and Demotic Egyptian attest to the presence of honorific statues in Hellenistic style in Egyptian temples and other public spaces, as do lengthy inscriptions on stelae that record dedications of honorific statues in bronze and stone. The honorific statue habit mapped on to a longstanding Egyptian tradition in which statues of priests that bore inscriptions detailing the subject's service to his community were set up in temples. The incorporation of Hellenistic honorific statuary into Egypt's social and artistic landscape was no doubt facilitated by the similarities it shared with existing Egyptian conventions.

The honorific statue habit thus took on unique forms in Egypt that in some instances combined elements drawn from both Greek and Egyptian traditions and, in others, paired Greek and Egyptian statuary together in the same physical spaces. Through honorific statuary, elites in Ptolemaic Egypt took part in a broader Hellenistic trend and adapted it to Egyptian contexts in order to appeal to multiple audiences. In the middle ground of Ptolemaic Egypt, the patrons and subjects of such sculpture—whether Greek or Egyptian—all belonged to similarly privileged groups and occupied the same social space(s). These individuals chose to use the same type of object, in varying forms, to express a priority common to all Hellenistic elites: euergetism. Expressions of euergetism reinforced group identity and set elites apart by demonstrating their close connections to influential civic groups, temples, and deities, and even to members of the royal family. Honorific statues and inscriptions helped establish systems of value and prestige within Hellenistic society. In Ptolemaic Egypt, expressions of these values took on particular manifestations that were in communication with local traditions.

SESSION 8C
Burial, Identity, and Social Organization

CHAIR: *Joanne Spurza*, Hunter College of the City University of New York

Sweet Child of Mine: Archaic Child Burials at the Stavros Archaeological Project

Kristen Millions, University of Oxford, *Sofia Karapanou*, Ephorate of Antiquities at Larisa, and *Katherine Bishop*, University of Alberta

My paper seeks to analyze further funerary culture manifested in child burials from an unpublished Archaic cemetery in order to contribute to our knowledge of subadult burials in Thessaly in the Archaic period. The Stavros Cemetery consists of more than 40 tombs near the modern village of Stavros, which is surmised to have potentially belonged to a settlement on either of the surrounding two *magoulas* in the areas between the modern towns of Stavros and Farsala. The focus of this paper will be on the Dimakopoulous plot, which consists of 31 cist graves and one pit grave on a single plot of farmland excavated in 1997. Of these 32 graves, six architecturally delineated cist graves contain either the osteological remains of children or infants, or ceramics indicating connection to the burial of a child. We have abundant archaeological evidence from Attica and other regions in southern Greece for the Archaic period which can attest to the mortuary treatment of children, however we know far less from more understudied regions such as Thessaly. Archaic literary and epigraphic sources referring to Thessaly are limited, and archaeological evidence for the Archaic period is scarce. The published Archaic grave sites that are available were recovered as rescue excavations, are poorly documented, and rarely discuss funerary culture in great detail. My paper will discuss the ceramic and metal grave goods from a systematically excavated, well-documented, unlooted grouping of Archaic cist graves, which provides us with a unique opportunity to study treatment of children after death in a context other than Attic. With the osteoarchaeological information afforded to me by Katherine G. Bishop (PhD candidate, University of Alberta), and the meticulous excavation and curation of the material by archaeologist Sofia Karapanou (15th Ephorate of Antiquities in Larisa and director for this project), I hope further to analyze the mortuary variability in Thessaly by presenting case studies of the child graves from our cemetery.

Disinterring Collective Identity in a Hellenistic Port City: The Burials from Hellenistic Demetrias

Adam Wiznura, University of Alberta

In 294/3 B.C.E. Demetrios Poliorketes, the son of Antigonos Monopthalmos, a general of Alexander, ascended the Macedonian throne and synoecized many of the settlements in the northern Pagasetic Gulf to create an economically and militarily strategic port city called Demetrias. Macedonian patronage of the city allowed it to flourish as a cosmopolis, attracting inhabitants from all over the

Mediterranean, making it an interesting case study for the formation and negotiation of identities.

The excavations of Demetrias started in the early 20th century and continue to the present day in the form of rescue excavations. In addition to uncovering the city's private and public sectors, excavations have also revealed abundant funerary material, including over a thousand graves, and a large collection of painted grave stelae that were built into the city's fortifications. This paper presents the modes through which the inhabitants of Demetrias expressed affiliation to group identities through their burials.

The case of the burials at Demetrias demonstrates observable identity formation processes resulting from the integration of numerous group identities into a single population. In this paper, I demonstrate that the inhabitants of the city both maintained older identities, and formed new group identities. I first examine the changes in burial practices from the area of Demetrias pre- and post-*synoikismos* through changes in the grave goods and architecture, as well as shifts in the locations of cemeteries. Areas such as Soros were abandoned, whereas some burials continued despite the abandonment of the settlement. I also examine the grave stelae with respect to the iconography of the paintings and the inscriptions, as they allow us to determine the group identities with which the deceased individuals were affiliated. Many stelae mention areas from around the Mediterranean such as Egypt, Asia Minor, and Phoenicia. Some stelae even exhibit people maintaining old city identities generations after that city had been destroyed, such as in the case of Histiaia. Despite the diversity of identifications present in the burials, however, we also see the beginnings of a "Demetrian" way of burying the dead.

My analysis of Demetrian burials demonstrates the clear complexity of identity-formation processes. Although many chose to identify with a particular location, many more omitted any indication other than with the current polis. These identities with which inhabitants of Demetrias affiliated themselves were multilayered, contradictory, and constantly changing.

Cremation Practices on the Roman Military Frontier: Scientific Studies of Burials from a Cemetery Site on Hadrian's Wall

Simon Mays, Historic England, *Emily Carroll*, University of Reading, and *Tony Wilmott*, Historic England

This presentation discusses the scientific study of second–third-century C.E. cremation burials from a mixed-rite cemetery at Birdoswald, a military site on Hadrian's Wall, England. At Birdoswald, cremation burial types include urned and unurned burials, and interments where remains were deposited in stone cists and wooden containers. Some were accompanied by grave goods.

For the laboratory study of the burnt human remains, we apply Fourier Transformed Infra-Red Attenuated Total Reflectance Spectroscopy (FTIR). FTIR is a means of assessing the intensity of firing of the remains. The work illustrates the value of FTIR, in combination with traditional osteological methods (identification and quantification of remains, recording of bone color), to shed light upon key aspects of cremation ritual, including position of the corpse on the pyre and the thoroughness of the cremation process.

Results are reported from a total of five burials (one female adult, one male adult, two adults of unknown sex and a child ca. five years old). In all cases, the quantity of remains in the grave was less than one-third of that expected from cremation of the corpse. There was a diversity of cremation practices.

In three burials there was a uniformly high intensity of burning, with prolonged exposure of remains to temperatures in excess of 600C. There was a lack of differential firing of remains from anterior and posterior parts of the body, consistent with placement of corpses on top of the pyre.

The other two burials (the adult female and the child) showed more varied firing with some elements exposed to lower temperatures (ca. 300–500C). There was a tendency for the internal surfaces of bones to be less well fired than exterior surfaces, consistent with a shorter duration of firing. In the adult female, upper parts of the body were poorly fired suggesting insufficient fuel for uniform combustion or that the pyre may have been poorly managed.

These results are discussed in the light of existing knowledge about cremation practices on the military frontiers of the Roman Empire.

A Tale of Two Hills: Beaker Period Burials on Knockloon and Roughan Hills, Co. Clare, Ireland

Ros Ó Maoldúin, National University of Ireland, Galway, and *Carleton Jones*, National University of Ireland, Galway

The Knockloon and Roughan hill projects aim to increase our understanding of social organization and change in the west of Ireland during the Beaker period in Ireland (Chalcolithic: ca. 2500–2200 B.C.E.). This paper presents results from four recent seasons of fieldwork on two neighboring hills: Knockloon and Roughan and builds on earlier work on Roughan that began in the 1990s. It includes details from the excavation of four megalithic tombs (a court tomb and three wedge tombs) on Roughan (1998–2001 and 2015–2017) and a barrow on Knockloon (2018). It also includes data gathered through remote sensing (magnetometry and electrical resistivity) and UAV survey. While remains of several periods were encountered, this paper focuses only on the Beaker period burials. We consider why people were contemporaneously buried in such different monuments, barrows and wedge tombs, within the same region and ask whether these reflect different belief systems or cultural backgrounds. This is approached through analysis of the cultural material associated with the burials, and osteological, aDNA and isotope analyses. Postexcavation and excavation works are ongoing, but our findings are already adding substantially to our understanding of social organization in the west of Ireland during the Chalcolithic. The burial practices encountered on Knockloon and Roughan hills, two adjacent hills at the western edge of Europe, have a relevance to the wider understanding of the Beaker phenomenon in northwestern Europe, the period of the first metal use in that region, and to the question of whether it was the movement of people or ideas that were the prime drivers of social change during this formative stage of human society.

The project was helped through grants from The Irish Quaternary Society, The Royal Irish Academy and the fees of students attending the fieldschool. The aDNA work is being carried out Dan Bradley and Lara Cassidy at The Smurfit Institute

of Genetics, Trinity College Dublin and the isotopes work by Rick Schulting at Oxford University.

Between Eleusis and Apulia: Revisiting the Underworld Krater from Altamura
David Saunders, J. Paul Getty Museum

In the latest in a series of collaborations with Museo Archeologico Nazionale di Napoli, the J. Paul Getty Museum undertook the conservation of a monumental Apulian krater from Altamura with an underworld scene (360–340 B.C.E., attributed to the circle of the Lycurgus Painter; MANN 81666). Following the conclusion of this two-year project, the vase is now on display in *Underworld: Imagining the Afterlife*, at the Getty Villa (October 31, 2018–March 18, 2019). For the first time, we have been able to clarify the extent of the vase's 19th-century restorations, and can discuss its complex iconography more securely. This is especially important for the scene on the reverse, which has long confounded attempts at interpretation. We propose that the assemblage of figures should be associated with the Eleusinian Mysteries, which in turn prompts new perspectives on the underworld scene on the front, and Apulian attitudes to the afterlife in general.

Discovered in 1847, the Altamura krater was restored in the workshop of the famous Neapolitan restorer, Raffaele Gargiulo (1785–post-1870). While the distinctive mythical figures and inscriptions make it easy to identify the underworld scene on the front, the reverse has long caused puzzlement; at most, there have been tentative suggestions that the three tiers of figures might be initiates, perhaps in the afterlife. We are able now to confirm that much of the scene has been restored, but, crucially, the cross-torches held by some of the figures are ancient. In Apulian iconography, such cross-torches are distinctive to the Eleusinian goddesses Demeter and Persephone. In turn, the numerous male figures wearing patterned tunics and high-laced boots in this scene find parallels with the male followers of Demeter that are seen in a number of Apulian depictions of the abduction of Persephone. Although other individuals—notably the pipe player and sword-wielding male at the bottom—continue to elude identification, an Eleusinian theme is clearly apparent and, referencing other contemporary vases, I highlight how familiar Apulians could have been with Eleusinian myth. Further, while the frequent depictions of Orpheus in Underworld scenes have led many to propose that such images manifest aspects of "Orphic" belief, I suggest that the scenes are best viewed as part of a broader initiatory experience that was rooted in the Eleusinian Mysteries. This in turn provides a fascinating context in which to consider native Apulian engagement with—and adaptation of—Greek culture and practice.

SESSION 8D: Colloquium
Archaeology in Germany and the U.S. in the 20th and 21st Centuries: Collaboration, Crisis, and Continuity

ORGANIZERS: *C. Brian Rose*, University of Pennsylvania, *Philipp von Rummel*, German Archaeological Institute, and *Ortwin Dally*, German Archaeological Institute, Rome

Colloquium Overview Statement

The AIA and the German Archaeological Institute (DAI) have been connected since the AIA's foundation in 1879. By that time, the DAI had already been in existence for fifty years, and it served as a model for the AIA's administrative organization, research institutes in Europe, and public outreach. These two organizations have usually enjoyed a mutually beneficial relationship throughout the 20th and early 21st centuries, with the discipline of archaeology serving as an important link between German and American academics.

An analysis of the archaeological relationship between Germany and America, however, has never been presented, and that is what we propose to do in this colloquium. We envision a session with four talks delivered by both German and American academics that will focus on collaboration, crisis, and continuity.

The first talk will explore the impact of German archaeology on the development of classical archaeology in America, especially during the 1930s and 1940s, when so many German archaeologists emigrated to the U.S. An entire generation of American archaeologists began to be trained in the kind of classical archaeology that had been practiced in Germany.

The second paper will investigate the origin and development of the Alexander von Humboldt Foundation, a research institution that was intended to bring foreign scholars, especially those from the U.S., to Germany. Although the foundation was created in the 1860s, it underwent a transformation following the Second World War, and has been periodically influenced by shifts in diplomacy between the U.S. and Germany.

The third paper will treat new collaborative initiatives intended to accomplish the same goals. The "Big Digs Go Digital project" was a joint undertaking between the German Archaeological Institute in Athens and the American School for Classical Studies in Athens. The goal of the project is to explore shared opportunities and challenges for large-scale German and American excavations in the Mediterranean in the digital age. Digital reconstructions of archaeological sites have advanced dramatically as a result.

The last paper will deal with the history of the interaction between the AIA and DAI, with a focus on the nature of the collaboration between the two institutes during the last 15 years. A recent DAI–AIA scholarly exchange program originated in the context of the recent wars in Iraq and Afghanistan, when both archaeological institutes recognized that international cooperation was essential in order to safeguard cultural property in conflict zones.

Transplanting German Archaeology to New York
Hans Peter Obermayer, University of Munich

After Hitler's seizure of power, mass redundancies of "non-Aryan" professors at German universities took place due to the "Law for the Restoration of the Professional Civil Service" in 1933. A second wave of dismissals followed in 1935 after the "Nuremberg Laws" were passed.

The focus of this paper is on three archaeologists who were able to establish themselves in New York, Margarete Bieber, Karl Lehmann-Hartleben, and Otto Brendel, and on their "acculturation" to a new academic environment.

Bieber owed her appointment at Barnard College to a Women's Academic Network: she was the first German academic to receive a research scholarship from the American Association of University Women. William S. Dinsmoor, Chair of the Department of Fine Arts at Columbia, strategically used Bieber's appointment to redefine his department to "Fine Arts and Archaeology," removing from the classical philologists the possibility of teaching archaeology. Shortly after Bieber's retirement, Otto Brendel was appointed, so the department remained under the influence of German art history and archaeology.

Walter W.S. Cook, founding Director of the Institute of Fine Arts at NYU, developed the Institute by appointing outstanding German art historians like Panofsky, Friedländer and Lehmann-Hartleben. Extensively trained in archaeology, classics, ancient history, and philosophy he brought the German scholarly tradition of "*Altertumswissenschaft*" to NYU. Scholarly interaction between Columbia and NYU quickly transformed how the discipline of archaeology was viewed and practiced in New York, and would lay the foundations for future interaction between the AIA and DAI.

The German Alexander von Humboldt-Stiftung after 1945 as a Promoter of Science and International Exchange of Scholars, with Special Regard to Classics and Archeology
Christian Jansen, University of Trier

This paper presents a historiographic analysis of the Alexander von Humboldt Foundation, which was created in the second half of the 19th century as a promoter of science and a mechanism for the international exchange of scholars, with an emphasis on classics and archeology. I focus on the history of the foundation following its reconstitution in 1953 by the West German government, with the aim of restoring a positive image to Germany following two World Wars and the Holocaust. In the first decades of its existence, the foundation was exclusively engaged in international exchange by bringing excellent, younger scholars to Germany. The program was oriented toward scientifically advanced western countries, especially the U.S. The paper provides an analysis of the history of Alexander von Humboldt-Stiftung, the political, cultural, and scientific aims of the organizers, and their principles of choice. I then consider the roles that classical studies, prehistory, and archeology have played in the foundation's work and exchange programs during the course of the last 60 years, with an eye toward the influence of changing politics.

The Big Digs Go Digital Project: A Joint Undertaking of the German Archaeological Institute and the American School in Athens

Bruce Hartzler, American School of Classical Studies in Athens, and *Reinhard Förtsch*, German Archaeological Institute, Athens

Nearly 10 years ago, in the autumn of 2009 and January of 2010, two "Big Digs Go Digital" workshops in Athens and Anaheim were held by the American School of Classical Studies at Athens and the German Archaeological Institute in Berlin. They were funded by the Deutsche Forschungsgemeinschaft and the NEH, and the intention was to exchange ideas about the different states of digitization between the long-term excavations of both institutions in Greece. Due to the fact that the DAI is not institutionally restricted to Greece, the outcomes of these two workshops were a starting point for more general discussions of its digitization strategies in the area of excavations. While on the American side two impressive digital made-to-measure paradigms were demonstrated in Corinth and the Athenian Agora, the DAI had to find more generic ways to cover around 70 excavations, most of which run simultaneously in a variety of countries.

A steady contact between Bruce Hartzler and Reinhard Foertsch addressed the dialectical contradictions between the local perfection achieved at the Athenian Agora Excavation and the generic approaches which that the basic condition of the DAI's digital strategy. Bruce Hartzler developed "iDig" as a data-capturing tool from which data can be moved into SOLR indices; the DAI developed "iDAI.field2" as a digital excavation framework. The DAI tried to catch as much of the Zen perfection of "iDig" with Bruce Hartzler's help, while Bruce Hartzler himself worked hard to generalize "iDig" for other excavation sites, moving into the DAI's broader-based program.

Interaction between the AIA and DAI during the Wars in Iraq, Syria, and Afghanistan

C. Brian Rose, University of Pennsylvania, and *Ortwin Dally*, German Archaeological Institute, Rome

This talk will deal with the history of interaction between the AIA and DAI, focusing on collaborative ventures during the last 15 years. The DAI served as a model for the AIA and its research centers when they were originally formulated. The two institutes largely ceased communication during World War II, even as German archaeologists emigrating to the U.S. fundamentally transformed how the discipline was practiced in this country. During the 1980s, archaeology in Germany began to be increasingly influenced by new developments in archaeology in the U.S. and England, as anthropological approaches to the analysis of sites moved the discipline further from its origins in philology and art history.

The most significant collaborations between the AIA and DAI have occurred in the last fifteen years, largely prompted by the wars in Iraq and Afghanistan. Both institutes launched cultural heritage protection training for U.S. and German soldiers at roughly the same time following a series of strategy meetings. The Russian Academy of Sciences and the Chinese Institute of Archaeology were added to the discussions, resulting in the formulation of a declaration of unity among these

institutes in 2006. An AIA-DAI scholarly exchange program, inaugurated shortly thereafter, provides an opportunity for U.S. archaeologists to conduct research at the DAI, and vice versa, so that the interchange of ideas between the two countries will be constant. The SHOSI program (Safeguarding the Heritage of Syria and Iraq) is another joint German-American initiative that has been moved from the U.S. to Berlin.

SESSION 8E: Workshop
Teaching Ancient Sites in the *longue durée*: The Example of Corinth

MODERATORS: *Annetta Alexandridis*, Cornell University, and *Benjamin Anderson*, Cornell University

Workshop Overview Statement

Corinth and the surrounding region count among the most thoroughly documented archaeological landscapes in the eastern Mediterranean. The excavations of the urban area by the American School of Classical Studies in Athens (1896–); the excavations of Ohio State University at Isthmia (1952–); and the Eastern Korinthia Archaeological Survey (1997–2003)—to name just three of the most prominent investigations—have generated a wealth of data, which is available both in traditional publications and innovative online databases (e.g., ascsa.net). These resources permit scholars and students to trace the site's histories in a broadly diachronic fashion, permitting access to a kind of "multiple time" as it is fashioned both with and through space.

Thus everything old is new again: the biggest of "big digs" allows access to richly documented modern histories, local interpreters, and multiple chronologies. A site (such as Corinth) need not be studied (or not only) in chronological sequence, but also offers "reverse" and "transverse" vistas that reveal constellations and strands hidden by the site's master narrative. This includes an understanding of space as historical agent rather than just a backdrop of events. We see here a pedagogical opportunity: the traditional "site seminar" becomes a laboratory for new methodologies and new histories.

The proposed workshop emerged from a graduate seminar on Corinth held at Cornell University in spring 2018 that put this premise to the test. The seminar was team-taught by a classical archaeologist and a Byzantinist. It contained both a week-long visit to Corinth and the Corinthia by the seminar, and visits to the seminar by specialists on Corinth in the Roman and modern periods. Participants included PhD students in anthropology, art history, classics, history, and medieval studies; with specializations in the ancient, Byzantine and Ottoman periods. Their papers dealt with key elements of the site's spatial setting (e.g., Acrocorinth, the sea).

A set of questions for scholarship and the classroom emerge: How can we productively implement the perspective of "multiple time"? How can we do so if respective data sets are not available? How should we document and present excavations and research in the future?

Presentations of 5 min. each on specific topics by six participants will open first into a response, and then into an open discussion of the resulting methodological and pedagogical issues.

PANELISTS: *Mary Danisi*, Cornell University, *Kathleen Garland*, Cornell University, *Jessica Plant*, Cornell University, *Tyler Wolford,* Cornell University, *Craig Lyons*, Cornell University, *Laura Leddy*, Cornell University, and *Kathleen Slane*, University of Missouri

SESSION 8F: Colloquium
North Aegean Architectural Networks: Thasos and Samothrace in the Formation of Hellenistic and Roman Design

ORGANIZERS: *William Aylward*, University of Wisconsin-Madison, *Jacques des Courtils*, University of Bordeaux-Montaigne, and *Bonna D. Wescoat*, Emory University

Colloquium Overview Statement

The goal of this colloquium is to investigate the dynamic architectural interactions between Thasos and Samothrace, key ancient Greek sites in the northern Aegean. Their innovative marble buildings challenged the paradigms of conventional Greek architecture, thus forging new directions that shaped the Hellenistic built environment and laid the foundations for Roman architectural design. Connections between these sites—including fundamental principles of design, technological developments, and the deployment of materials—are strongly apparent; there are also differences that draw Samothrace into the Anatolian orbit and Thasos into the Macedonian. Opportunities to deepen our understanding of their interactions have been constrained by the traditional practice of granting control of particular sites to national research teams (Thasos to the French; Samothrace to the Americans). A three-year French-American partnership, sponsored by the Partner University Fund / FACE Foundation, has aimed to eliminate this barrier by approaching research questions from a collaborative rather than site-specific perspective. A primary goal has been to build student expertise in ancient architectural studies. Four of the seven papers include original research presented by students.

The papers in this colloquium explore several overlapping threads within networks of builders in the northern Aegean and how they shaped trends in Hellenistic architecture. These threads include building materials, technical aspects of construction, architectural ornament, and the dynamics behind the dissemination of ideas. All papers address the impact of building stone, primarily Thasian and Proconnesian marble, on the monuments that used them, including matters of quarrying, transport, combinations of different stone, hoisting, setting, finishing, and final appearance. Papers on the Northwest Stoa on Thasos and the stoa in the Sanctuary of the Great Gods on Samothrace use extant stone blocks to reconstruct roof designs of buildings that differed in type of building stone (limestone vs.

marble) and use of interior supports. Papers on architectural decoration, the Lesbian kyma, and bucrania, explore the exchange of ideas between Thasos, Samothrace, Macedonia, and Asia Minor at the time of booming construction by royal patrons in the northern Aegean in early Hellenistic times. Together, the papers demonstrate how the strong connections and equally powerful disjunctions between the well-preserved Hellenistic buildings on Thasos and Samothrace offer a unique opportunity to pose historical, technological, and methodological questions about the architectural process, the transmission of materials and ideas, and the nature of architectural innovation in the ancient world.

Building the Propylon of Ptolemy II between Thasos and Samothrace
Samuel Holzman, University of Pennsylvania

The central goal of my paper is to investigate how networks of builders in the northern Aegean, particularly between Thasos and Samothrace, shaped trends in Hellenistic architecture. The Propylon to the Sanctuary of the Great Gods on Samothrace (built ca. 285–281 B.C.E.) is an ideal case study for how architecture in the northern Aegean depended upon large-scale interconnectedness. The building's patron, Ptolemy II, was a second-generation Egyptian king from Macedon, the building's limestone and marble were quarried on three different islands 200 km apart by sea (Samothrace, Thasos, and Proconnesus), and the building pioneered trends in Hellenistic design around the northern Aegean and the Black Sea, notably for Ionic capitals with rinceaux.

This paper examines the human endeavor of building the Samothracian propylon from commission to completion in order to reveal how one architectural project on one island rippled around the northern Aegean. With quantities estimation and architectural energetics analysis, I calculate the labor and materials required. With 3D computer modeling I visualize both the appearance of the finished gatehouse on Samothrace and the impact of extracting the necessary 1,000 tons of marble on the landscape of Thasos. Finally, new observations about the building's sculptural details suggest the presence of marble workers from Thasos and explain the choice of materials, especially the use of marble from Proconnesus for the most sculpturally detailed elements (making up ca. 3% of the building's marble). Broken down into building blocks (e.g., an estimated 30 shipments of marble from Thasos) the Propylon of Ptolemy II seems a very manageable project. But it is exactly the fact that this building was not a unique, herculean feat of engineering like the lighthouse underway at the same time in Alexandria that makes the Propylon of Ptolemy II a useful case study for understanding architectural networks. The exchange of designs and craftspeople seen in this one building also existed for the six other comparably sized buildings of Thasian marble in the Sanctuary of the Great Gods on Samothrace.

Architectural Decoration in the North Aegean: Specificities, Connections, Interactions

Laurence Cavalier, Ausonius, Université Bordeaux Montaigne

Favored by the kings of Macedon since Philip II, the Sanctuary of the Great Gods of Samothrace enjoyed booming construction at the beginning of the third century B.C.E. As no marble was available on the island, several prestigious edifices were built in imported marble. Three of these, the Rotunda of Arsinoe II, the Propylon of Ptolemy II, and the "Milesian Dedication," used Corinthian capitals, an uncommon feature at the time.

The superstructure of the Rotunda of Arsinoe II, including its engaged Corinthian capitals, was built of Thasian marble. Yet, the Doric style reigned supreme on Thasos and no example of a Corinthian capital is known there prior to the Roman Imperial period. In contrast, the Corinthian capitals of the propylon of Ptolemy II are carved in Proconnesian marble, and other peculiarities of this building also indicate connections with Asia Minor. The very name of the "Milesian Dedication" also points to the same direction.

Though it has been commonly thought that the Corinthian style was scarcely used in Macedon, a Corinthian capital found in the palace at Pella and the recent discovery of the Xerokambo Corinthian tomb, surely dated to the beginning of the third century B.C.E., force reconsideration of this old idea. Further to the north, Corinthian capitals also decorate the funerary chamber of a royal Thracian tomb dated to the third century B.C.E. at Sveshtari in modern Bulgaria.

My presentation aims to study the appearance and dissemination of the Corinthian capital and associate ornament in the north Aegean. In this context, I will address the issue of the potential role of Lysimachus who ruled over Thrace, Asia Minor, and ultimately Macedon, between the end of the fourth and the beginning of the third century B.C.E.

The Lesbian *Kyma* in Northern Greece: Thasos and Samothrace

Vincent Baillet, Ausonius, Université Bordeaux Montaigne

The Lesbian *kyma* pattern is one of the most important and persistent decorative motifs in Greek architecture. It has a rich morphological development from the Greek archaic through Roman Imperial periods, with both regional and chronological formations. The aim of this presentation is to explore connections between the architecture of Thasos and Samothrace through this seminal molding, using photogrammetry by dense correlation. This digital tool allows us to measure and evaluate plastic connections between several moldings by comparing their profile, pattern, and morphology in three dimensions and at uniform scale. This 3D technique has the capacity to expand and render more precise our stylistic analyses in defining architectural centers of excellence.

In the case of northern Greece, the rich variety and excellent quality of the Lesbian moldings found on Thasos attest to an important archaic workshop. They underscore the vitality and diversity of architecture on the island in this period. However, it is difficult to trace this workshop into the late Classical and

Hellenistic periods when an austere form of Doric design dominates the architectural production.

On Samothrace, by contrast, the carved Lesbian *kyma* first appears in the mid-fourth century, on the Ionic capital of the earliest marble building, the Hall of Choral Dancers, where the design follows the canonic form developed and highly diffused in Asia Minor. However, in the next generation of marble buildings (Hieron, Propylon of Ptolemy II, Rotunda of Arsinoe, and Milesian Dedication) the molding exhibits such highly consistent and distinctive features that it is clear the masons are either from the same workshop or using the same template. Certain features of the design are unique to the island.

Because Samothrace lacks its own source of marble, we must ask: Who were the masons carving these moldings and where did they come from? Material alone does not offer an answer, because most of the Samothracian buildings are constructed in Thasian marble, where the molding was not prevalent in the late Classical and Hellenistic periods. In fact, the canonic shape of the molding does not appear locally in northern Greece prior to its use on Samothrace. Certain elements of several Samothracian buildings (but not all those that have Lesbian *kymatia*) are constructed in Proconnesian marble, which offers another point of contact. The intersection of materials and design on Samothrace thus suggest a more complex network of architectural ideas circulating in the northern Aegean, in which Samothrace likely had a greater agency than previously acknowledged. The innovations we witness on the small scale of this molding mirror the grander design innovations in plan, order, and ornament that contribute to an unprecedented architectural dynamic in the northern Aegean as Samothrace rapidly became a center of architectural excellence in the late Classical and Hellenistic periods.

New Observations on the Origins of Bucrania in the Monumental Architecture of the Hellenistic Period in the Sanctuary of the Great Gods on Samothrace

Cassandre Mbonyo-Kiefer, Ausonius, Université Bordeaux Montaigne

I present new observations on the emergence of bucrania (ox skulls) as ornament in the monumental marble architecture of the northern Aegean in the Hellenistic period. Scholars credit the Sanctuary of the Great Gods on Samothrace with the first appearance of bucrania as architectural ornament alongside rosettes on the parapet of the Rotunda of Arsinoe II (288–270 B.C.E.). The second occurrence of bucrania as architectural ornament also belongs to Samothrace, where they alternate with rosettes in the frieze of the Propylon of Ptolemy II (285–281 B.C.E.). My presentation examines and accounts for the initial appearance of bucrania in these royal monuments.

The bucrania on the Rotunda have influenced scholarly interpretations of the building's function. Roux and Seiler called attention to the bucrania as symbols of ritual sacrifice in advancing the idea that the Rotunda was a *Versammlungsbau*, or place of religious assembly. My presentation further implicates the bucrania on the Rotunda and Propylon in the visual language of cult practice and rites of initiation in the Sanctuary of the Great Gods on Samothrace by connecting literary sources and actual buildings. For example, scholars have suggested that bucrania in architecture were inspired by the display of actual heads of bulls, or boukephalia,

in rites of ritual sacrifice by Macedonian royalty. The *Chronicle of Lindos* mentions boukephalia as gifts of Alexander the Great in 334 B.C.E., and *The Palatine Anthology* describes Philip V of Macedon (r. 221–179 B.C.E.) hanging the head of a bull on the propylon of a sanctuary of Heracles.

The Rotunda and Propylon are also notable for their use of bucrania decoration alongside early use of Corinthian capitals and strikingly similar Lesbian *kyma* patterns carved on their moldings. This kind of innovative Samothracian agency over the use of bucrania in architecture diffused among established architectural networks in the northern Aegean, and bucrania soon began to appear on Thasos and at Pella as ex votos. Pergamon appears to mark the motif's entry into Asia Minor, where one finds the greatest experimentation with bucrania as architectural ornament in Hellenistic times. In the following century and with Roman builders, the motif's Samothracian origins persist in bucrania on the Rotunda of Vesta at Tivoli, where the bucrania decorating the marble frieze recall their ancestral prototypes on Samothrace.

The *Lewis* in the Monumental Architecture of Samothrace and Thasos in the Hellenistic Period

William Aylward, University of Wisconsin-Madison

A *lewis* with one slanted side is widely observed as a tool that was fundamental for hoisting and setting blocks in the architecture of ancient Greece, but its origin and development have never been explained with satisfaction. The northern Aegean is the first place we find widespread, systematic use of the *lewis* with one slanted side, frequently in Hellenistic monuments sponsored by Macedonian royalty. The agora of Thasos and the Sanctuary of the Great Gods on Samothrace each have concentrations of monuments with abundant evidence for the exclusive use of this type of *lewis* between the fourth and second centuries B.C.E. On Thasos, builders used it systematically for two major monuments in the agora: the Monument of the Parascenia and the Northwest Stoa. On Samothrace, builders used it in no fewer than nine monuments in the sanctuary, including the Hall of Choral Dancers, the Altar Court, the Dedication of Philip III and Alexander IV and its Ionic porch, the Propylon of Ptolemy II, the Rotunda of Arsinoe II, the Hieron, the Milesian Dedication, the Stoa, and the Column of Philip V. These sites and their monuments cannot be ignored when considering the origin, development, and diffusion of this type of *lewis* in ancient Greek architecture. My presentation includes the results of my autopsy of monuments with evidence for this type of *lewis* on Thasos and Samothrace. I explore the proliferation of this type of *lewis* within the dynamic architectural interactions of the northern Aegean at this time, especially in terms of trade in Pentelic, Proconnesian, and Thasian marble, as well as innovative building design and ornament that shaped trends in Hellenistic architecture.

Raising the Roof: The Woodwork of the Stoa and Its Relation to Design on Samothrace and in the North Aegean

Zachary Forstrom, Emory University

In the second quarter of the third century B.C.E., the Samothracians transformed the western ridge of the Sanctuary of the Great Gods by constructing a large stoa that overlooked the main sacred structures in the central valley. It was the only major building in the sanctuary to be constructed entirely of local dolomitic limestone. As the largest structure in the sanctuary, with a total footprint of ca. 104 × 13.4 m, the stoa required an extensive system of roof timbers. The roofing solution chosen is yet another creative design indicative of the northern Aegean generally and Samothrace specifically. Previously, the stoa's rooftree has been briefly examined in preliminary reports by J.R. McCredie, and in J.J. Coulton's *The Architectural Development of the Greek Stoa* (Oxford, 1976). In this paper, I present a revised reconstruction of the roof timbers based on a further inspection of the evidence and set the design of the woodwork in relation to rooftrees on Samothrace and other northern Aegean sites, particularly Thasos.

Working with findspots of surviving geison blocks, excavation drawings, a revised inventory of over 120 geison blocks belonging to the lateral east, lateral west, horizontal and raking geison, and 3D modeling tools that allow us to experiment with the roof construction in a way previously unavailable, I suggest a new reconstruction of the woodwork of the roof. Cuttings in the geison and frieze backers indicate the cross beams ran horizontally to the internal Ionic colonnade. Rafter cuttings in reconstructed sequences indicate at least three variations in construction, suggesting multiple crews worked on different areas. Additionally, the rafters were supported by eight purlins, four to a side. There was no ridge beam as in the other large timber roofs of the sanctuary.

Because the stoa had an internal Ionic colonnade, its roof span was considerably less than that of the Hall of Choral Dancers, Hieron, or Rotunda of Arsinoe II. However, the cuttings for the cross beams indicate that they were among the largest beams used in the sanctuary. This solution of using massive beams (0.60 m wide), like certain other features of the building, does not appear elsewhere in the sanctuary and demonstrates that the architects of the stoa responded creatively to the design of the building and their local materials. Architects in the northern Aegean region had access to more substantial timber resources and experimented with wider spans in roofs than in other regions of the ancient world. The stoa thus stands as a key example linking Samothrace to a larger network of experimental architectural woodwork in the northern Aegean as is also seen in the Northwest Stoa on Thasos, discussed by Manuela Wurch-Koselj.

The Particularities of the Northwest Stoa in the Agora of Thasos

Manuela Wurch Kozelj, Ecole française d'Athènes

During our study of the Northwest Stoa in the agora of Thasos, we measured and drew more than 1,000 architectural blocks. This allowed us to reconstruct each course of the building, from its foundations up to its roof tiles, and to discover many details and particularities of the building's construction.

The Northwest Stoa is a rectangular building measuring 97.59 × 13.98 m. A covered channel built within its foundations and repurposed pithoi set under the foundations of the rear wall make evident the skill and knowledge of the builders, who clearly took the stoa's location near the city wall into account and planned to avert potential problems of water in this area.

Traces on surviving marble blocks allow us to recognize techniques used to extract blocks from the quarries on Thasos, as well as many other techniques of construction that are particular to the Northwest Stoa, such as changes from course to course in the progression of construction, ingenious solutions to joining blocks, and the overall high precision of the work. However, the true wonder of the monument is in the conception of its woodwork. The Northwest Stoa has no interior colonnade, and the span over the clear space between the front colonnade and the rear wall is 12.67 m, over which existed a roof of marble tiles.

Our analysis of cavities, notches, and hollows, mostly on the backs of blocks, as well as their shapes, dimensions, orientations, and precise placement with certain courses, allow us to propose a design for the original system of woodwork. Thanks to details left behind on the many surviving marble blocks, each piece of wood used in the stoa can be identified and its precise measurements and function reconstructed.

Most stoai built during the fourth century B.C.E. have an interior colonnade that helped to support the roof and limit the requirement for specialized construction techniques to accommodate a broad span between the front colonnade and the rear wall. The Northwest Stoa on Thasos now provides a potential model for the reconstruction of the woodwork in the roofs of all other stoai without interior colonnades, as well as those suspected of such design. Indeed, the innovative design of the woodwork in the roof of the Northwest Stoa was probably emulated and improved upon by later builders of stoai without interior colonnades.

SESSION 8G: Colloquium
Mobility, Acculturation and Hybridity: Pottery and Diversity in the Late Bronze Age

ORGANIZER: *Peter M. Day*, University of Sheffield

Colloquium Overview Statement

Overturning the deep-seated fear of simplistic correlations of pots and people, of the dangers of diffusion, recent years have seen a reexamination of the mobility of both people and material culture, influenced by globalization and the displacement of groups and individuals in the modern world. Such approaches provide both potential insights and pitfalls, as the agencies of both human actors and, perhaps, of material culture itself, show that such culture contact and transformation of practice is deeply political and often has substantial social consequences.

This session contemplates culture contact in the Bronze Age of the Aegean and central Mediterranean, presenting recent research that integrates macroscopic, chemical, and petrographic analysis of ceramics, focusing on evidence for mobility of both technological practice and populations. Our aim is to examine issues of

acculturation, transmission, and hybridity, through a consideration of five key assemblages that show strong evidence of culture contact across sites in the Argolid, Laconia, Lemnos, Achaia, and Sardinia.

In the Mycenaean heartland, the case of stylistically and technologically "Cretan" production of Transport Stirrup Jars in the Argolid is examined, offering new insights into the movement not only of goods but perhaps of craft workers and their practices. The time-depth of such contact between the "Minoan" and "Mycenaean" worlds, is investigated at the newly excavated site of Ayios Vasileios, Laconia, offering insight into the continuation of well-documented earlier potting practices that combine various pottery traditions including those of Crete.

At the edge of the Mycenaean world, Koukonisi on Lemnos is shown to have hosted the production of what might be deemed "canonical" Mycenaean and earlier Minoan pottery, alongside its long-lived burnished pottery tradition, reflecting the nonlocal source not only of style, but of technological practice.

The Mycenaean citadel of Teichos Dymaion, Achaia, by a major harbor and landfall for ships arriving from the Adriatic, has a substantial assemblage of handmade burnished ware, which stands in stark contrast to the Mycenaean pottery of the area. This timely view offers to balance the intense interest in Aegean and Aegean-style pottery in the Italian Peninsula and islands. Representing the latter area, work at Selargius on the Bay of Cagliari examines imported Aegean pottery, locally produced Aegean-style pottery and characteristic Nuragic vessels, which appear as imports in Kommos, Crete, and beyond.

It is hoped that the presentation of these detailed, integrated projects will generate discussion of the examination of acculturation and mobility during the LBA.

DISCUSSANT: *Jeremy B. Rutter*, Dartmouth College

Pottery Traditions at Ayios Vasileios, Laconia

Eleftheria Kardamaki, OREA Institut für Orientalische und Europäische Archäologie, and *Peter M. Day*, University of Sheffield

The late MBA and Early LBA was a crucial time in the southern Greek mainland, with the transformation of political and social life, as well as of material culture. After a period of relative isolation, there is increasing evidence for active exchange networks across the Aegean, with the participation of many sites on the Greek mainland.

Pottery and goods were exchanged over long distances and this led to the introduction of new fabrics and wares. This variety of styles, and indeed origins of the pottery consumed, would later be replaced by more standardized production during the process often called Mycenaeanization. Due to its geographical location and its natural resources, Laconia seems to have been important in the introduction of pottery technology from Crete and Kythera. Distinct wares, such as the so-called Minoanizing pottery classes, locally produced imitation of Cretan styles and manufacturing templates, make their appearance in coastal Laconia, such as Ayios Stephanos, from the Early MBA onwards.

During the late MBA and early LBA, Minoanizing wares coexist at Ayios Stephanos together with Minoan imports, as well as local fabrics and wares, some of which have been argued to reflect pottery traditions of the NE Peloponnese and the Saronic Gulf. One of these local wares is the so-called gritty ware represented by plain and matt painted vessels. The plain and matt-painted gritty ware was a common handmade fabric, which has been argued to become more common towards the end of the MBA, perhaps under the influence of the NE Peloponnese and central Greece..

Macroscopic, chemical, and petrographic studies of ceramics from the palace at Ayios Vasileios provide new information regarding pottery production during the LBA. One important conclusion is that handmade, gritty and fine gritty wares were common up to the 14th century B.C.E. (LH IIIA1 and LH IIIA2) alongside standard Mycenaean wares. Handmade wares as late as the 14th century are present elsewhere in Laconia, at the Menelaion.

However, the study at Ayios Vasileios shows that most of these different pottery traditions do not represent rare, short-lived phenomena of the 14th century. On the contrary, they continue a local line of development that goes back to the late MBA. We suggest that it is not always easy to single out a single source of influence (e.g., Aegina or the northeastern Peloponnese) for these technological traditions and that their production combines features from more than one region, including Crete and Kythera.

Making Cretan Transport Stirrup Jars in the Argolid

Peter M. Day, University of Sheffield, *Marta Tenconi*, University of Sheffield, *Eleftheria Kardamaki*, OREA Institut für Orientalische und Europäische Archäologie, Vienna, *Anno Hein*, NCSR Demokritos, Greece, *A. Papadimitriou*, Hellenic Ministry of Culture and Sport, *Joseph Maran*, University of Heidelberg., and *K. Demakopoulou*, Hellenic Ministry of Culture and Sport

The role of Transport Stirrup Jars (TSJs) as maritime transport containers has been well documented, joining Canaanite jars and other vessels as indicators of the extensive exchange of pottery vessels and their contents towards the end of the Bronze Age in the Aegean and eastern Mediterranean. However, it is the part they play in the reconstruction of political organization, both within Crete and the Aegean more broadly, which has brought most attention. The prefiring painted inscriptions in Linear B offer insight into a world of obligations, whether that is between settlements, individuals, or perhaps tribute payments between regions, offering insights into the relationship between the Minoan and Mycenaean worlds.

A major analytical study has been carried out on transport jars from Tiryns and Midea, two Mycenaean citadels in the Argolid, taking its lead from an earlier similar study on slightly earlier contexts at Kommos, Crete. The Tiryns-Midea study has focused on vessels from late LH IIIB contexts, from destruction deposits of the coastal Palace at Tiryns, along with material of similar date from the Mycenaean citadel of Midea, a few kilometers inland. The largest groups of vessels come from two centers in Crete, Chania, and the Minoan triangle of Kommos-Ayia Triada-Phaistos. Others were imported from two centers on Kythera, from Kos and from a center probably in Lakonia. One of the large groups at both sites, however,

comprises dark-on-light painted jars of "canonical," rather ovoid Cretan shape. They are decorated with the well-known deep wavy line motif, while two appear to have possible prefiring painted inscriptions. The forming technique of these vessels seems to comply with a method of coil-section joins on the lower body, which is common on Crete, but seems not to have been practiced on other vessels in the Mycenaean Argolid. Yet, analysis indicates a local Argolid provenance for these TSJs.

We consider the presence at Tiryns and Midea of these outwardly "Cretan" jars, produced with forming techniques that originate in Crete. They are compared to other TSJs that have specific painted motifs that link them to vessels made in the Korinthia and elsewhere. Examining the new evidence from the technology of production to the new epigraphical evidence, we contemplate the implications of ostensibly "Minoan" practices being carried out in late LHIIIB in the Argolid, examining the mobility of both technologies and people, in the light of concepts of hybridity.

The Mycenaean and Local Pottery Traditions at Koukonissi, Lemnos

Che-Hsien Tsai, University of Sheffield, *Eleftheria Kardamaki*, OREA Institut für Orientalische und Europäische Archäologie, Vienna, *Christos Boulotis*, Academy of Athens, Greece, *Anno Hein*, NCSR Demokritos, Greece, and *Peter M. Day*, University of Sheffield.

Though the northern Aegean often maintained close contacts with the south during the Bronze Age, it is generally considered to have displayed more limited southern and eastern Aegean traits during the second half of the 14th century B.C.E. In general, Mountjoy's Upper Interface in the northern Aegean is represented by only a few sites during this period. Until recently, the best evidence came from Troy (phase VI late), whereas Mycenaean pottery from most other northern Aegean islands and the Anatolian coast was dated later, to the 12th century B.C.E.

In Troy during LH IIIA2, the bulk of the Mycenaean pottery seems to have been imported, mainly from the Argolid/northeastern Peloponnese, but local production of pattern painted wares has also been identified. The latter comprised a very small part of the total assemblage and locally produced standard Mycenaean wares (fine plain) are rare. In contrast, typical Mycenaean shapes were commonly imitated at Troy in local fabrics (gray wares).

Offshore from Troy, the ongoing investigation and analysis of pottery from the Bronze Age settlement on the islet of Koukonissi on Lemnos offers new evidence for the local production and consumption of Mycenaean pottery during the 14th century B.C.E., in addition to the identification of imports from the heartland of the northeastern Peloponnese. On Lemnos, the local Mycenaean pottery reproduces shapes and motifs of the Mycenaean mainland sites and at the same time belongs to a northern Aegean koine.

However, in contrast to Troy, other standard Mycenaean pottery, such as the fine plain wares, also locally produced, are well represented at Koukonisi. Most importantly, the common local ware (Red Slipped pottery) seems relatively unaffected by the Mycenaean repertoire. This lies in contrast to other parts of the eastern Aegean and Troy, where hybrid shapes and decorations have been noted.

This new identification of previously undocumented, substantial production of Mycenaean pottery on Lemnos is of importance, as at least some of the eastern Aegean Mycenaean compositional groups may come from the island, a possibility not previously considered. The evidence from Koukonisi, therefore, offers the potential to alter our view of the interface between Mycenaean and other cultures. It also suggests the existence of different processes of acculturation at Troy and Koukonissi, and a diversity of interaction with the southern Aegean and Mycenaean Greece between regions of the northern Aegean.

Material and Human Mobility: The Diverse Ceramic Worlds of Teichos Dymaion, Achaea, Greece

Michalis Gkazis, Hellenic Ministry of Culture and Sport, *Benoit Proulx*, University of Sheffield, and *Peter M. Day*, University of Sheffield.

The Late Bronze Age of the central and eastern Mediterranean shows rich evidence for contacts between different regions and emerging trade relationships, peaking in the Mycenaean palaces and the immediate aftermath of their collapse. A key focus of this phenomenon has been the appearance of Aegean-style pottery in the Italian Peninsula, Sicily, and Sardinia, including imports and locally produced imitations, alongside gray ware which blur the boundaries between Aegean and indigenous traditions, essentially hybrid ceramic forms.

The Aegean side of the relationship is less well understood and relies on the appearance of handmade burnished pottery (HBW) in mainland Greece and Crete, as well as Cyprus in LH IIIB2 (late 13th century B.C.E.). Debate has centered on whether this represents a mode of production reflecting social and economic collapse, the influx of foreign workers, or indeed a slave class. Whatever the case, one matter is clear, that however we view the nature of contacts between these cultures, the process of acculturation examined through material culture requires local contextualization.

Teichos Dymaion, an acropolis harbor at the entrance of the Gulf of Patras, appears vital to our understanding of this relationship. Indeed, as the first landfall for ships coming from Italy, Teichos Dymaion was pivotal to trade and exchange between the Peloponnese and central Mediterranean. The site contains very rich deposits of HBW and gray-ware imports alongside canonical Mycenaean style pottery. The coarse, low-fired HBW stands in stark contrast to the high-fired calcareous clays of the local Mycenaean repertoire.

The implications of these contrasting ceramic worlds coexisting at the site of Teichos Dymaion are explored through an integrated macroscopic, petrographic, and microstructural study, leading to the determination of the nature and source of raw materials along with the technological practices that characterise their production. A comparison of contrasting techniques of pottery production with communities of practice in both the Aegean and Italy is used to discuss population diversity at this key harbor settlement.

Aegean, Aegean-style, and Local Pottery Traditions in Nuragic Sardinia: New Evidence from Selargius on the Bay of Cagliari

Benoit Proulx, University of Sheffield, *Peter M. Day*, University of Sheffield, *Richard E. Jones*, University of Glasgow, *Fulvia Lo Schiavo*, Independent Scholar, *Maria Rosaria Manunza*, Ministry of Cultural Heritage and Activities, Soprintendenza per l'archeologia Sardegna, and *Lucia Vagnetti*, Consiglio Nazionale delle Ricerche (CNR), ICEVO-Istituto di Studi sulle Civiltà dell'Egeo e del Vicino Oriente.

A small part of the Nuragic settlement of Selargius was uncovered in 2015, in excavations of the Soprintendenza in Cagliari, under the direction of Maria Rosaria Manunza. This coastal site has revealed hut structures situated along a roadway, whose surface is rutted by wheeled vehicles. The structures contain evidence for metalworking, currently under study, and a diverse pottery assemblage, including Aegean and possibly Cypriot imports, apparently locally produced Aegean-style pottery and local burnished gray wares. The site is dated to the Recent/Final Bronze Age, which correlates to LB IIIB in Aegean terms. A key advantage of the site of Selargius is that it remained unoccupied after the Bronze Age, hence its stratigraphy is less disturbed.

The Nuragic pottery in the settlement contains distinctive forms which correlate with those from Kommos, the harbor in southern Crete, published as imports from Sardinia by Watrous, Jones, and Day. A more recent find of a similar vessel at Pyla-Kokkinokremos in Cyprus is also compatible with the Selargius material. The nearby site of Nuraghe Antigori, whose ceramics were the subject of a study and publication in the 1980s, provides excellent comparative material, both in terms of its imports and diverse locally produced ceramic traditions.

Selargius provides a unique opportunity to examine pottery from well-stratified, carefully excavated contexts, especially notable due to the metallurgical activity in the area. Its wheelmade gray wares, painted Aegean-style pottery, and handmade impasto vessels provide not only a rich assemblage to investigate acculturation and hybridity in the Cagliari region, whose maritime connectivity is clear, but also excellent comparisons with other case studies in the Aegean to be presented at this colloquium. Analysis by thin section petrography, chemical analysis by NAA, has been integrated with macroscopic analysis in order to investigate aspects production technology and provenance. The project aims to provide insights into exchange, cultural transmission, and identity at the end of the Bronze Age, and perhaps to provide commentary on the motivations for, as well as the extent and regularity of contact between the Aegean and Nuragic Sardinia at this time.

SESSION 8H
Archaeological Research at Notion

CHAIR: *Andrea Berlin*, Boston University

Past and Present Research at Notion, Turkey: Using Museum and Archival Material to Contextualize New Results

Christina DiFabio, University of Michigan

Study of materials recovered by prior researchers at Notion, an ancient port-city in western Turkey, has helped to put the results of the current archaeological survey of the site in context, and provided valuable insight into the history of the archaeology of Notion and the surrounding region. Although Notion remained largely unexplored before the beginning of the Notion Archaeological Survey in 2014, limited investigations had in fact been undertaken by a number of earlier teams. Work sponsored by the French School at Athens in the early 20th century focused on the Temple of Athena. Turkish teams in the late 20th century carried out targeted excavations of other monuments, including the "heroon" and the bouleuterion. While preliminary results of these excavations have been published, there have been no detailed artifact studies. In connection with ongoing research at the site, we are conducting a full study of the finds from these earlier projects.

This paper presents the initial results of this study in two parts. First, it aims to show how the material from past excavations enriches current survey results by providing data collected from different contexts and with different methods, focusing on material gathered by the French expedition in 1921 (published in the *Bulletin de Correspondance Hellénique*) and the Turkish excavation led by Mustafa Büyükkolancı in 1994 (the objects from which are now in the Efes Museum in Selçuk, Turkey). These finds are consistent with the material recovered during the current survey, but they are both better preserved and more closely contextualized. Second, this paper examines the relevance of these collections to the historiography of Notion. To date, it has not been possible to locate the material from the French excavations. Archival work carried out to try to find the objects sheds light on the story of French research in 1921 during the Greek occupation in the Greco-Turkish War. Subsequent research projects at Notion illustrate the evolving relationship between Turkish and foreign institutions involved in archaeology in the 20th and 21st centuries.

Surface Collection at Notion

Angela Commito, Union College

Collection of surface finds has illuminated the history of occupation at Notion and the economic connectivity of a strategically located harbor town in western Anatolia. Fieldwork undertaken by the Notion Archaeological Survey under the sponsorship of the University of Michigan and Brown University has included photogrammetric mapping, geophysical prospection, architectural documentation, and an extensive program of collection of surface finds. Notion's topography

has ensured that the city is only lightly buried, but its status as a protected archaeological site means that there is no cultivation and therefore no conventional plow zone. To address the challenges posed by the lack of agricultural disturbance and by limited and disparate visibility on the site, we experimented with three collection methods over four seasons of fieldwork (2015–2018). This paper describes our collection methods, discusses the results, and explores the advantages and drawbacks of each approach. One of the most important results has been the surprisingly restricted date range of the collected material. Although textual sources attest the existence of Notion as early as ca. 500 B.C.E., the overwhelming majority of identifiable pottery dates to between the third century B.C.E. and the first century C.E. This material includes typical Hellenistic and early Roman table wares commonly found in Asia Minor, such as Hellenistic mold-made bowls, Eastern Sigillata A, Eastern Sigillata B, and Italian Sigillata, along with regionally and locally produced table wares from western Asia Minor, and transport amphorae, primarily from Rhodes, Kos, and the Black Sea and Adriatic. More striking is the almost total absence of recognizable later Roman fine wares such as African Red Slip ware, or of late Roman amphora types. That the site identified as Notion was largely occupied during this narrow window only is also suggested by the results of architectural analysis and by materials excavated at the site in the early and late 20th century. Also of interest are observed differences in the character of surface materials from inside and outside the fortification wall on the north side of the city, as well as the richness of finds collected from survey units located west and downslope of the Temple of Athena.

The Hellenistic Fortifications of Notion and Their Regional Context
Felipe Rojas, Brown University, and *Alex Marko*, Brown University

The Hellenistic fortifications of ancient Notion in Ionia have been exposed since antiquity and schematically illustrated in all modern maps of the city. And yet, virtually no systematic work has been done on the fortifications apart from a late 19th-century illustrated report by C. Schuchhardt's and M. Büyükkolanci's targeted excavation of one of its gates. Since 2014, the walls of Notion have been a major focus of the Notion Archaeological Survey's investigations. This paper presents a detailed architectural analysis of the walls and places them in their regional context by comparing them to the Hellenistic fortifications of other Ionian cities, including Colophon, Ephesus, Priene, and Samos.

The walls of Notion are the port city's best preserved monument. The walls extend for ca. 3.5 km and enclose an area of about 35 ha. Dozens of towers and several gates are partially extant, while curtain walls along the enclosure often rise to more than 4 m over ground level. Historical and archaeological evidence strongly suggest that they were built in the third century B.C.E.

Due to their degree of preservation, they are a document of importance for the military and social history of Notion and Ionia during the Hellenistic and Roman period. The late fourth and early third centuries B.C.E. were a time of great political instability and enormous investment in fortifications in the Aegean. As an important military harbor commanding unobstructed views of the bay of Ephesus, it is not surprising that Notion (like other cities in the region) was heavily fortified.

The strategic importance of the city is underscored by Antiochus the Great's siege of Notion in 190 B.C.E. during the Roman-Seleucid war (Livy 37.26). In addition to the walls' relevance as a piece of military infrastructure, the fortifications of Notion preserve valuable evidence regarding the history of the city: the walls evidence several instances of repair, often involving carved marble architectural blocks from no longer extant buildings in the city.

The Sacred Architecture of Notion

Christopher Ratté, University of Michigan

The sacred architecture of Notion illuminates the history of a Greek community in western Anatolia, and provides valuable information about late Hellenistic architecture. The most important sanctuary in the vicinity of Notion was the oracular temple of Apollo at Claros, a peripteral building in the Doric order, begun in ca. 300 B.C.E. Thanks in part to the prominence of this extramural sanctuary, neither Colophon, 10 km north of Claros, nor Notion, the port of Colophon, 2 km south of the sanctuary, invested in a large urban temple similar to those found at other Ionian cities redeveloped in the late Classical and Hellenistic periods, such as Priene, Magnesia, or Teos. Instead, the principal sanctuaries within the walls of Notion are two small temples, both surrounded by colonnaded precincts. Documentation of these buildings has been an important focus of the Notion Archaeological Survey, begun by the University of Michigan and Brown University in 2014.

The temple of Athena occupies one of the highest and most prominent points in the city. It is a small (9.4 × 16 m) marble building, *distyle in antis*, of the Corinthian order. The identity of the dedicand is secured by an inscription carved on one of the walls of the building; the local cult of Athena may be related to the establishment of an Athenian cleruchy at Notion during the Peloponnesian War. Many of the blocks of the temple were built into a medieval tower, accounting for its relatively good preservation. The temple was excavated by the French archaeologists P. Demangel and A. Laumonier in 1921 and dated by them to the Hadrianic era. Reexamination of the building and comparative analysis of similar temples at Pergamon and other sites suggest an earlier date, in the late Hellenistic or Augustan periods.

The second substantial temple at Notion lies 160 m NE of the temple of Athena. It is comparable in size, but only its foundations are preserved. The temple was excavated by the Turkish archaeologist M. Büyükkolancı in 1994. Its most unusual feature is a sunken chamber on its west side. On this evidence, Büyükkolancı identified it as a heroon, but another possibility is that it was a small urban sanctuary of Apollo, whose temple at Claros also possesses a subterranean chamber beneath its cella. Fragments of very fine architectural ornament found in the excavation of the sunken chamber suggest a date in the late Hellenistic period.

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